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APPLICATION OF PEDAGOGICAL TECHNOLOGIES IN TEACHING THE SUBJECT "USEFUL MINERALS OF UZBEKISTAN" IN GEOGRAPHY LESSONS

Annotation. The article is devoted to the use of pedagogical educational technologies in geography classes. In particular, the methods of using pedagogical technologies in inculcating the topic "Uzbekistan's minerals" into the minds of students were studied.

Key words: pedagogical technology, technology of didactic games, natural resources, minerals, types of minerals, natural resources of Uzbekistan.

Enter. In recent years, the rapid development of science, technology, and technology imposes huge tasks on pedagogues, such as educating the growing young generation into high-minded, broad-minded, highly educated, qualified personnel. In this regard, it is not for nothing that President Sh. M. Mirziyoyev declared 2023 as "The year of attention to People and quality education" **[**1]. It can be understood from this that every Uzbek teacher - pedagogues requires constant work and research, and at the same time it is considered one of the current issues in the educational process.

It is known that it is advisable to regularly apply pedagogical technologies in geography lessons, taking into account the complexity of the subject, the age, preparation and mastery of the student. Because the continuous selection of one or another type of educational technologies in accordance with the subject of geography taught in preschool, general secondary (primary), professional and higher educational institutions increase the activity of students in the course of the lesson. At the same time, he increases his personal relationship to the science of geography, his desire and interest in learning. Ultimately, it leads to the formation of the ability to express one's thoughts freely and independently. This is also known from the experience of world education.

The main part. The technology of didactic games has a special place in the pedagogical technology system. At present, many scientific and research works have been carried out and are being carried out in the theory and practice of pedagogy, which shed light on games and their essence. These include the works carried out by L.S. Vgotsky, S.A. Shmakov, A.N. Montev, G.K. Selevko, A.A. Verbitsky, A.S. Arbenev, P.Ya. Galperin, A. Tyukov. In the process of natural

geography education, didactic game technologies are used in the form of a didactic game lesson [2, 3, 4]. In these lessons, students' learning process is combined with game activities. For this reason, lessons in which students' learning activities are combined with game activities are called didactic game lessons.

Many foreign, CIS and Uzbek scientists have conducted research on the use of games in the educational process, and they have expressed their views on the role and importance of didactic games. For example, L.M. Pancheshnikova, S.N. Praslova, G.A. Ponurova, L.V. Belyaeva, G.Ya. Lisenkova, V.V. Pyatunin - as a form of problem-based education, a part of the lesson, a form of thought development, V.P. Korneev, Ye.G. Kolovskiy, V.M. Lyansevich, L.P. Simenova, A.V. Prokofiev - a form of education intended for a whole lesson, a form of developing interest in knowledge, V.I. Sereda, M.G. Zakharov, K.S. Momentova - a form of work outside the classroom or a condition for expanding the knowledge level of the lesson, P. Musayev, R. Kurbaniyozov, V.V. Nikolina, G.S. Kulinch, O. Safarov, A. Khaitov, O. Mominov - from reading and reading that help to educate, impart knowledge and develop students in all aspects considered it as an external form, while M. Abdurakhmonov and B. Abdurakhmonov expressed the opinion that it is a form of increasing the effectiveness of geography education [2, 3, 4].

They have developed a methodology for organizing and holding didactic games in geography classes and extracurriculars. The following functions are implemented through didactic game lessons, i.e.:

✓ providing education, personal development, directing students to creative activities;

✓ control and analysis of knowledge; introduction to professions and career guidance;

✓ such as development of students' communication and speech culture.

Based on the above considerations, in the Natural Geography classes, which are an important part of geography, in teaching the topic “Uzbekistan's minerals” such as “Who is quick?”, “Can you find minerals correctly?”, “Minerals’ lotto” game technologies can be applied. We recommend geography teachers to try these games at the stage of asking the learned topic or after giving students new knowledge, that is, in the reinforcement parts of the lesson. As an example, below we cite the game “Who's the fastest” and its technology (Table 1).

Table 1

The game "Who's the fastest" and its technology

Manganese	Petroleum	Gold	Gypsum	Quartz	Marble	Mineral waters	Copper	Gas
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Coal	Kaolin	Table salt	Potassium salt	Phosphorite	Iron	Sulfur	Tungsten	Lignite
10	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**

This technology can be used to study the geographical distribution of Uzbekistan's minerals in depth. After that, the following table is prepared depending on the number of students in the class (Table 2). In this case, students will have to show the minerals using the numbers in Table 1. The student who completes this task quickly and accurately is the winner. Continuous and effective use of such technologies in the lessons will increase students' interest in geography, as well as increase their diligence, intelligence, and agility.

Table 2

№	**A place where a mineral is mined**	**Answer no**		**A place where a mineral is mined**	**Answer no**
1.	Polvontosh		**.**	Shargun	
2.	Muborak		**0.**	Xojakol (Mount Sultan Uwais)	
3.	Jarkok		**1.**	Dengizkol	
4.	Muruntov		**2.**	Shorsuv	
5.	Kogon		**3.**	Chiachan	
6.	Nurota		**4.**	Olmalik	
7.	Chortok		**5.**	Xojaikon	
8.	Angren		**6.**	Ingichka	

Summary. As it can be seen from the above considered and studied points, it is now possible to increase the quality and effectiveness of education by regular use of modern pedagogical technologies by geography teachers in the educational process. We think that in the next years, the development of pedagogical technologies and testing them in the course of the lesson will be one of the most important and urgent issues facing teachers like us in further improving the education system of Uzbekistan.

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THE IMPORTANCE OF TEACHING VOCABULARY

Annotation: This article discusses the value of teaching vocabulary, vocabulary selection, the challenges students have when assimilating new vocabulary, what students need to know, vocabulary teaching strategies, and the use of dictionaries.

Key words: Presentation strategies, assimilation, acquisition, context, vocabulary item, productive (active) vocabulary, receptive (passive) vocabulary.

Language vocabulary must be learned by language learners. Students must be taught the definitions and applications of words. Giving the names of things to the students is part of this (e.g. a table, a chair). Also, it includes demonstrating to them how words are bent and distorted (to table a motion, to chair a meeting). It is obvious that some terms are taught at lower levels than others. Certain terms could be more complex than others and hence better suited for advanced pupils. Some educators believe that children might be given lists of 30, 40, or even 50 brand-new words to memorize. Of fact, such a method could be advantageous, but it bypasses one of the fundamental aspects of word use. Words happen in context, specifically. Students need to see how words are used in context with other words if we're going to teach them what they imply. Words live beside one another and are dependent on one another; they do not just exist in isolation. Our students must understand this.

In the past, grammar was the primary focus of language instruction. Drills, exercises, and attempts at memorizing were centered on vocabulary. Today, we see that vocabulary serves as the language's vital organs and its flesh, while grammar forms its skeleton. Therefore, learning a new vocabulary is just as crucial as learning a new grammar. And as we all know, in real life, it's even conceivable that when vocabulary is employed properly, it can make up for structural errors we make. For instance, a pupil using the phrase "Yesterday I have seen him" makes a terrible English error. The phrase "yesterday" ensures that he or she will be understood anyway. What terms and idioms pupils should learn constitutes a portion of the vocabulary teaching challenge. Given that students only have two, three, or four courses per week and that the size of the class is frequently too large to allow for enough practice for each student, it is obvious that the quantity of words should be restricted. The amount of vocabulary that kids should learn at school depends on the requirements of the

syllabus. They are influenced by the kinds of schools, the educational environments, and the instructional strategies. Approximately 1200 lexical items (the vocabulary minimum) are the number of words and phraseological units that the curriculum of a typical secondary school sets for a pupil to assimilate. [3]

The teacher needs to keep in mind that a term is considered learned when it is recognized naturally while reading and listening and is utilized appropriately in speech, i.e., the right word in the right place.

Vocabulary Selection - The Academy of Pedagogical Sciences in numerous nations has already conducted extensive research on the issue of word choice. As a result, a "Vocabulary minimum" list of terms and a "Dictionary of the most common words" list both appeared. The words chosen were:

- Frequently used in the language;
- Easily combined;
- Unlimited from the point of view of style (oral, written);
- Included in the topics the syllabus sets.
- Valuable from the point of view of word-building.

Due to its perfect objectivity, the first premise is thought to be the most sound. The other concepts have didactic relevance because they support educational objectives. The teacher is not particularly concerned about vocabulary selection. Typically, the curriculum's recommended textbooks are used by the teacher. Yet rather frequently, the instructor will wish to create their own materials (texts, dialogues, exercises, etc.), and when they do, they should keep in mind that the vocabulary needs to be carefully chosen in accordance with the aforementioned guidelines.

Difficulties students' experience with vocabulary assimilation - While each word has its own form, meaning, and usage – any of which may present its own challenges – learning the vocabulary of a foreign language is not an easy task. Some words are complex to form (like daughter), yet simple to use. Some words are tricky to use but easy to create (obtain, happen). As a result, words can be categorized based on the assimilation challenges that pupils encounter.

We can differentiate the groups of words that are concrete, abstract, and structural thanks to word analysis in a foreign language. Words that describe actual objects (like table, window, and sky), verbs (like walk, read), and character traits (like long, short) are simpler to learn than words that describe concepts (challenge, belief, honesty). The hardest terms for Uzbek and Russian speakers to learn are structural words. When planning the vocabulary exercises for the class, the instructor should keep this in mind. Also, educators should keep in mind that they must differentiate between vocabulary used for "productive" purposes (speaking and writing) and vocabulary recognized for "receptive" purposes (hearing and reading) and modify their lesson plans accordingly. Also, teachers need to be aware that lexical items (LI) and

vocabulary items (VI) are words or groups of words that are frequently used together, such as a table, a CD, or The House of Commons.

What students should understand meaning? First of all, it's important to understand that vocabulary words frequently have multiple meanings. For instance, the word "look" describes something you use to read. The same dictionary goes on to offer nine further definitions for "look" as a noun, two definitions for "look" as a verb, and three definitions for "look" combined with a preposition to form phrasal verbs. As a result, we must consider the context in which a term is used when attempting to define it. If we observe a lady in the theatre fighting at the ticket office saying "But I booked my tickets 3 weeks ago," we will obviously comprehend a meaning of the verb "book". Let's say you come across a police officer and a man who seems disgruntled at a police station. We booked him for speeding," the policeman says to his colleague. Also, you will comprehend what the verb "book" means. Students must so comprehend the significance of context for meaning.

There are further details regarding meaning. Words occasionally have meanings that are related to other words. As a result, students must understand what a "vegetable" means when used to describe any of a wide range of different objects, such as carrots, cabbage, potatoes, etc. Whereas "carrot" is more specific, "vegetable" is more general. When a term like "bad" is used, we can grasp what a word like "good" means. Words have opposites (antonyms) as well as synonyms, which are words that have a similar meaning to the term in question. One thing is obvious even from that example: words rarely have exact synonyms, even though context may render them synonymous in certain **sense relations**. **[**2]

Word Use – A word's meaning can be altered, expanded upon, or constrained depending on how it is used. Students should be aware of this. Metaphor and idiom are commonly used to amplify word meaning. For instance, we are aware that the word "hiss" characterizes the sound that snakes make. Yet, we interpret it broadly to refer to interpersonal communication. *She snarled, "Don't move or you're dead. That is the usage of metaphor. He is a genuine snake in the grass. We can also compare dishonest people to snakes.* It's an idiom to say "snake in the grass," which is a fixed expression. Word meaning is also governed by collocations – that is which words go with each other. We can have a headache, stomachache or earache, but we cannot have a “throatache”, or a “legache”. Words are frequently only used in specific social and current events situations. The tone and register we use when speaking influence what we say. We understand that a doctor talking to a patient (who has not studied medical science) will speak in a different register than a doctor talking about the same ailment with two other doctors.

Words are frequently only used in specific social and current events situations. The tone and register we use when speaking influence what we say. We understand that a doctor talking to a patient (who has not studied medical

science) will speak in a different register than a doctor talking about the same ailment with two other doctors. [3]

Word Formation - We are aware that words can have different meanings depending on the context. We also know that some grammatical patterns are triggered by the use of particular words. For instance, we can tell a noun is countable or uncountable. The first can be used in both singular and plural forms. The latter is exclusively singular. Unlike "furniture," "chair" can collocate with plural verbs. Some nouns, like the news and money, have a fixed form but are neither countable nor uncountable. As a result, they only conjugate with singular or plural verbs.

Techniques in teaching vocabulary – Providing sets of vocabulary that kids can acquire at the beginner and elementary levels seem like a wonderful idea. As a result, the majority of these first words can be regarded as "active" because they will be used frequently. The situation is rather more complicated at intermediate levels and higher. Although it would be challenging to distinguish between active and passive words, we may presume that pupils have a large vocabulary. [4]

It sounds like a nice idea to offer groups of vocabulary that kids can acquire at the beginner and elementary levels. The majority of these first words will be often used, therefore they can be categorized as "active" terms. Yet, the situation becomes considerably more convoluted at middle and higher levels. We can presume that pupils have a large vocabulary, but it would be challenging to categorize it into active and passive. If a word that has been "active" through frequent use does not get used, it could revert to its passive storage. If the circumstance or context necessitates its use, a term that children have in their passive vocabulary may at any time turn active. In other words, it doesn't appear like the status of a vocabulary term is a constant condition of affairs.

Vocabulary experiments tend to indicate that pupils retain new words better when they have used them in practice. Getting kids to do more than just repeat them has unquestionable benefits. The words are fixed in the learners' thoughts by tasks like converting them to signify their opposites, turning a noun into adjective, fitting words together, etc. Thus we should encourage students to use words to communicate. We ought to encourage children to use terms that they find appealing. In order for them to get to know them correctly, we need make them do things with words. [5]

Discovery Techniques - With discovery tactics, students must figure out norms and meanings on their own rather than receiving them from the teacher. At the intermediate level and higher, discovery strategies are a suitable replacement for conventional presentation methods. Even at elementary levels, though, we might want to encourage children to attempt to deduce the meaning of terms rather than simply giving them the definition. We may conclude from this discussion that any activity that is to have a high learning yield must engage the learner.

Four rules were created for the teacher by renowned methodologist Rogova, author of the book Methods of Teaching English. [1]

1. While teaching vocabulary to students, use several contexts to introduce words in sentence patterns. Deliver the words in accordance with the instructional structures.

2. Introduce the term as an element first, such as in a phrase pattern. Then, using various sentence and phrase pattern exercises, reinforce it in the students' memories.

3. When introducing a word, say it aloud in context while also having the class say it separately and collectively.

4. When teaching words, it's important to create a memory connection between a new term and others that have already been discussed.

D. Brown, an American methodologist, also developed certain guidelines for the teacher. In the book “Teaching by Principles”, they are mentioned. These guidelines are as follows:

- ✓ Set aside time in class specifically for studying vocabulary.
- ✓ Assist children in acquiring vocabulary through context.
- ✓ Downplay the significance of multilingual dictionaries.
- ✓ Urge pupils to create word-meaning elucidation techniques.
- ✓ Teach vocabulary in "unplanned" ways.

Examples of teaching vocabulary - We will look at Presentation and Practice: Presentation - Not all language can be picked up through conversation and other methods of discovery. Although they are a possibility, such methods are not necessarily the most efficient. The easiest way to introduce new vocabulary into a classroom is frequently through some sort of presentation and/or explanation. We will look a few examples. [6]

1. Realia - Bringing the things that words stand for into the classroom is one approach to introduce words. It is evident that words like "spoon," "ruler," "pen," and "ball" can be portrayed in this fashion. The learner is asked to repeat the term after the teacher speaks it while holding up the object (or pointing to it).

2. Pictures - It is acceptable to bring a pen to class. But bringing a car in is. The use of images is one remedy. Board drawings, wall art, charts, flashcards, and magazine images are all examples of pictures.

3. Mime - gestures and movement. Often, it is impossible to convey a word's meaning through real-world examples or visuals. Mime is probably better in explaining actions in particular. This method makes concepts like smoking or jogging simple to explain.

4. Contrast - We learned how sense relations, which give words their existence, might be employed to impart meaning to students. By juxtaposing the words "empty" and "full," as well as "cold" and "hot," we can illustrate what each word means. We could use mime or images to demonstrate these ideas.

5. Explanation - Particularly at the starting and elementary levels, it can be particularly challenging to explain the meaning of vocabulary words. But,

such a technique can be employed with students who are more advanced. We must keep in mind that when defining a word, we must also describe any usage details that are pertinent.

You can use any one of these presentation approaches alone or in combination. These are effective strategies for teaching new words. It's important to keep in mind that pronunciation is crucial while presenting terminology. The sounds of words can be presented in a variety of ways:

1. By way of modeling. The teacher repeats a word two or three times in a natural manner and clear voice.

2. By the use of images. Teachers should always mark the location of the word's stress when writing new words on the board. Instructors can accomplish this by underlining the words, using a stress square, stress mark, or by writing the words' stress pattern next to or above them.

photograph photographerphotographic photography

3. Through phonetic symbols (transcription).

Practice - Whatever method or approach is used to introduce a new word, pupils need to be able to pronounce it correctly, hear it in sentences, and repeat it back to the teacher both individually and in unison, both as a group and in sentences. But this is just the beginning of how to approach the word. The next step is absorption or practice, which is acquired by doing different activities. Here, there are three issues that the teacher must address: the quantity of exercises to be performed, the kind of exercises to be employed, and the order – or level of difficulty – in which the exercises should be completed. **[**7]

The teacher should consider the following when addressing these issues: the purpose of teaching a word and the nature of the word (students need to do a lot of exercises to master difficult terms).

There are numerous distinct sorts of exercises, making it nearly difficult to provide the teacher with every potential variety. We'll provide a few vocabulary exercise examples. They consist of:

Exercises come in a variety of forms, making it nearly difficult to provide the teacher with every imaginable exercise. We'll provide some illustrations for vocabulary practice exercises. They comprise:

- ❖ Words and images are matched.
- ❖ Relating word starts and endings to other word beginnings and endings.
- ❖ Pairing words with other words, such as collocations, synonyms, opposites, groups of related terms, etc.
- ❖ Creating new words by adding prefixes and suffixes to existing words.
- ❖ Classifying objects for classification.
- ❖ Employing predetermined phrases to carry out a particular activity.
- ❖ Completing crossword puzzles, grids, or schematics.
- ❖ Completing blank sentences.
- ❖ Memory game. **[**8]

In summary, this article explains the importance of teaching vocabulary in context. It also describes difficulties that Uzbek and Russian-speaking students may have in assimilating the vocabulary of English, distinguishes between vocabulary for “productive” use and for “receptive” recognition, explains what facts about new words students need to know, names and give examples of vocabulary teaching at the stage of presentation and the stage of practice and gives examples of exercises on vocabulary teaching.

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EFFECT OF SEEDLINGS AND FERTILIZER AMOUNT ON PHOTOSYNTHETIC PRODUCTIVITY OF WHEAT

Abstract. Water is a huge factor in photosynthesis. Because water is the main oxidative substrate - the source of hydrogen for the absorption of molecular oxygen and SO_2 released into the air.

Key words: Chloroplast pigments, Chlorophylls, carotenoids; phycobilins.

Introduction. The reactions of the first stage of photosynthesis take place only with the participation of light. This process begins with the absorption and assimilation of another auxiliary light, chlorophyll a. As a result, water breaks down under the influence of light energy, molecular oxygen is released, NADF.N2 (dihydronicotinamide-adenine-dinucleotide phosphate) and ATF (adenosine triphosphate) are formed.

Light energy. Light energy has the character of electromagnetic vibration. It separates and propagates only as quanta or photons. Each quantum of light has a certain energy source. This amount of energy mainly depends on the wavelength of light and is determined by the following formula.

E=hc

where E-quantum energy, in joules (kDJ), h-constant of light, constant number 6.2619 x10-34 Dj/s,-wavelength, s-speed of light 3. 1010 cm/s.

Chloroplasts. The reason why photosynthesis takes place mainly in leaves and partly in young branches is the presence of chloroplasts in them. The photosynthetic system of plants is embodied in chloroplasts. Chloroplasts prepare organic substances, a source of chemical energy for all living organisms.

Chloroplasts contain a lot of water, on average it is 75%. The rest consists of dry matter. Proteins account for 35-55% of total dry matter, lipids for 20-30%, and the rest for mineral substances and nucleic acids. Chloroplasts contain many enzymes and all pigments involved in photosynthesis.

The number, shape, and size of chloroplasts of different plants differ from each other. Chloroplasts can be formed in the leaves of green plants in three different ways:

1) by simple division;

2) by budding as a result of disruption of the normal conditions of some cells;

3) reproduction through the cell nucleus.

This road is considered the main one. First, a very small bump appears on the membrane of the cell nucleus. It gradually enlarges, separates from the nuclear membrane, moves to the cytoplasm of the cell, and is fully formed there. In the dark, the stroma of chloroplasts and its size are formed. But the internal structure - lamellae, plates, granules, thylakoids and chlorophyll pigments are formed only in light.

Pigments found in chloroplasts are mainly divided into three classes:

1) chlorophylls;

2) carotenoids;

3) phycobilins.

Chlorophylls. For the first time, in 1817, French chemists P. J. Pelt'e and J. Quantular isolated a green pigment from a plant leaf and called it chlorophyll. It is derived from the Greek words "chloros" for green and "phyllon" for leaf.

In 1906-1914, the German chemist R. Wilstetter, as a result of a comprehensive study of the chemical composition of chlorophyll, determined the elemental composition: chlorophyll "a" - C55N72O5I4Mg and chlorophyll "b" C55H70O6N4Mg. German biochemist G. Fischer determined the structural formula of chlorophyll in 1930-1940.

Higher plants and algae have been found to contain chlorophylls such as "a", "b", "c". Of these, chlorophyll "a" and "b" are synthesized in most plants. They also differ in color. Chlorophyll "a" is dark green, and chlorophyll "b" is more yellow-green. Chlorophyll "a" in normally developed leaves is about 1.2-1.41.

Photosynthetic rate is defined as the amount of SO2 or organic matter produced per square meter or dm2 of leaf surface per hour.

Light. Light is the main driving force of photosynthesis, and its intensity and spectral composition are of great importance. 80-85% of active (400-700 nm) rays in the light spectrum are absorbed by leaves. But only 1.5-2% of it is used for photosynthesis. 45% of the remaining energy is used for transpiration and 35% as heat energy.

In 1880, A.S. Faminsin showed that photosynthesis can take place in the lowest light, even in the light of a kerosene lamp. According to some scientists, photosynthesis continues even when the light is weak in the evening and in some regions at night (white night).

The light-saturated (maximum) state of photosynthesis depends on the plant species. This level is much higher in light-loving plants, and lower in shade-tolerant plants. For example, in some shade-tolerant plants (marchansia moss), the light-saturated state of photosynthesis occurs when the light is 1000 lk, and in light-loving plants, it occurs at 10,000-40,000 lk.

The spectral composition of light rays also plays an important role in photosynthesis. Under the influence of the red rays of the spectrum, the rate of photosynthesis takes place at the highest level. Because the energy of one quantum of these rays is equal to 42 kcal mol, it moves the chlorophyll molecule to an excited state, and its energy is fully used for photochemical reactions.

Concentration of carbon dioxide. One of the most necessary compounds for photosynthesis is SO_2. Its amount in air is 0.03%. 550 kg of SO_2 is contained in 100 m of air layer above one hectare of land. During one day, plants absorb 120 kg of SO_2. But the amount of SO_2 in the atmosphere keeps the constant amount of carbon dioxide present in nature. Even the gradual increase of SO_2 in the atmosphere is noticeable.

Increasing the amount of SO_2 in the air from 0.03% to 0.3% also increases the rate of photosynthesis. Feeding plants with supplemental SO_2 is particularly beneficial for agricultural crops grown in greenhouses. It has been found that increasing the amount of SO_2 in the air in greenhouses to 0.2-0.3% has a good effect on vegetable plants, and their productivity can increase by 20-50% and even up to 100%.

In plants that spend most of their ontogeny in extremely dry conditions, photosynthesis goes by the S_4 pathway, and they absorb SO_2 and accumulate malic acid (malate) mainly at night (when the stomata are open). Because their mouths are closed during the day. Closed mouths prevent the water in their body from being used for transpiration.

At night, when the stomata are open, SO_2 and SO_2 released during respiration combine with phosphoenolpyruvate to form oxaloacetate (osc) with the help of enzymes (FEP-carboxylase). Oxaloacetic acid is converted into malate with the help of NADF and accumulates in cell vacuoles. During the day, when the air is very hot and the stomata are closed, malate moves into the cytoplasm, where it is broken down into SO_2 and pyruvate by the enzyme malate dehydrogenase. The formed SO_2 moves to chloroplasts and participates in the formation of sugars according to the Calvin cycle. The resulting pyruvic acid (FGK) is also used for the formation of starch.

This way of photosynthesis mainly occurs in representatives of the family of succulents (Crassulaceae) (cacti, agave, aloe, etc.) that are resistant to severe drought. It is called the SAM way, based on the English concept of Crassulaceae oeid metalolism.

The level of temperature points depends on the plant species. The minimum temperature is -15°C for plants growing in northern latitudes (pine, spruce, etc.), and 4-8°C for tropical plants. For most plants, the most intensive photosynthesis occurs when the temperature is 25-35°C. The increase in temperature also slows down photosynthesis and stops when it reaches 40°C.

When the temperature reaches 45°C, some plants begin to die. In some plants living in deserts and hills, photosynthesis does not stop even at 58°C.

Water is a source of hydrogen for the absorption of molecular oxygen and SO_2 released into the air, the main oxidative substrate.

Too much or too little water in the leaf tissues (especially in drought conditions) affects the closing of the stomata and, as a result, the rate of photosynthesis. The long-term continuation of water scarcity or deficiency negatively affects the processes of cyclic and non-cyclic transport of electrons, phosphorescence in light, formation of ATFs.

Root nutrition. Many elements (N, R, K, Sa, S, Mg, Fe, Mn, Si, Zn, AI, etc.) are absorbed from the soil through the roots of plants. These elements are part of chloroplasts, pigments, enzymes, proteins, fats, carbohydrates and others. In conditions where nitrogen and phosphorus are lacking, the structural structure of chloroplasts begins to decay. The synthesis process of pigments slows down and even stops.

As a result of a lack of phosphorus in food, the reactions of photosynthesis in light and darkness may be disturbed. The degree of supply of plants with mineral elements determines the productivity of photosynthesis. Providing them with enough mineral elements increases absorption and assimilation of light energy, effective use of SO_2.

In all plants, the process of photosynthesis takes place under aerobic conditions. That's why anaerobic conditions and the amount of oxygen in the air more than 21% have a negative effect on photosynthesis. In plants with a strong respiration process in the light (Sz plants), a decrease in the amount of oxygen from 21% to 3% accelerated photosynthesis, in plants with a weak respiration process in the light (S» plants**)** - it was found that photosynthesis did not change.

An increase in the concentration of oxygen in the atmosphere by 25-30% reduces photosynthesis and causes the acceleration of light respiration.

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MODERN METHODS OF TEACHING FOREIGN LANGUAGES

Abstract: This article is about different methods in teaching foreign languages. For the last 20 years' connections have been becoming inevitable among nations, states, organizations and countries which create a huge need for knowing another language or more multilingualism. People need to use international languages in areas such as trade, tourism, international relations between governments, technology, science and media. Here we show how to use methods of teaching from different countries. Some countries such as China and Japan prefer to teach at least one foreign language at primary and secondary school level. Teachers of all countries try to use different methods in teaching language they proper.

Keywords: Method, foreign language, skill, multilingualism, teaching, level, principles, techniques, learning styles, education technology, science and media. technology, science and media.

People need to learn a second language because of globalization. For the last 20 years connections have been becoming inevitable among nations, states, organizations and countries which create a huge need for knowing another language or more multilingualism. People need to use international languages in areas such as trade, tourism, international relations between governments, technology, science and media. Therefore, many countries such as Japan, and China frame education policies to teach at least one foreign language at primary and secondary school level.

Language education may take place as a general school subject or in a specialized school. There are many methods of teaching languages. Some have fallen into relative obscurity and others are widely used: still others have a small following but offer useful insights.

A teaching method comprises the principles and methods used for instruction. Commonly used teaching methods may include class participation, demonstration, recitation, or combinations of these. The choice of an appropriate teaching method depends largely on the information or skill that is being taught, it may also be influenced by the aptitude and enthusiasm of the students. For effective teaching to take place, a good method must be adopted by a teacher. A teacher has many options when choosing a style by which to teach. The teacher may write lesson plans of their own, borrow plans from other teachers, search online or within books for lesson plans. When deciding what teaching method to use a teacher needs to consider students" background knowledge, environment, and learning goals. Teachers are aware that students learn in different ways, but

almost all children will respond well to praise. Students have different ways of absorbing information and demonstrating their knowledge. Teachers often use techniques which cater to multiple learning styles to help students retain information and strengthen understanding. A variety of strategies and methods are used to ensure that all students have equal opportunities to learn.

The effectiveness of teaching method varies from person to person and also from activity to activity. Teaching by making students do, read, listen all have the transfer of information as their goal, but the information is transferred in very different ways in each ease. Each has its benefits. In my own opinion, teaching by letting students do is the method that works best for me. Teaching b\ making students do works because it gives a learner first-hand experience. Other methods are more passive; you are either listening to a conversation or trying to pay attention to words on a page. However, teaching by making students do means actually participating in the activity. Can you imagine teaching how to play a musical instrument from a book? As the saying goes, practice makes perfect. Frankly, I can't think of a way that better ensures one has truly learned than by seeing and doing.

In contrast, reading makes learning less easy to visualize. Not only has that, learning b\ reading often required extra research, such as looking up unfamiliar words. Also, you might not be a good reader, or you might be teaching in a second language. If so, you might find it hard to concentrate or become frustrated by the slow pace. So while reading is fun and useful for many people, for others it may not be the best way.

Teaching by listening can be enjoyable. Lively debate is interesting, and interesting things are usually easier to learn about.

Plus, unlike reading, you can ask questions to check whether students understand or not what you mean. However, as with reading, it is all too easy to become a passive listener and not truly learn anything. If students get bored, they might even fall asleep while they are listening. When students are actively participating in something, they are more likely to stay alert.

Having students work in groups is another way a teacher can direct a lesson. Collaborating allows students to talk with each other and listen to all points of view in the discussion. It helps students to think in a less personally based way. When this lesson plan is carried out the teacher may be trying to asses the lesson by looking at the students" ability to work as team, leadership skills, or presentation abilities. It is one of the direct instructional methods. A different kind of group work is the discussion. After some preparation and with clearly defined roles as well as interesting topics, discussions may well take up most of the lesson, with the teacher only giving short feedback at the end or even in the following lesson. Discussions can take a variety of forms, e.g. fish bowl discussions.

Collaborating is great in that it allows to actively participating in the learning process. These students who learn best this way by being able to relate

to the lesson in that they are physically taking part of it in some way. Group projects and discussions are a great way to welcome this type of learning.

Learning by teaching (German: LDL) is a widespread method in German), developing by Jean-Pol Martin. The students take the teacher's role and teach their pairs.

This method is very effective when done correctly. Having students teach sections of the class as a group or as individuals is a great way to get the students to really study out the topic and understand it so as to leach it to their pairs. By having them participate in the teaching process it also builds self confidence, self- efficacy, and strengthens students speaking and communication skills. Students will not only learn their given topic, but also they will gain experience that could be very valuable for life.

A lesson plan may be carried out in several ways: questioning, explaining, modeling, collaborating, and demonstrating.

Explaining, this form is similar to lecturing. Lecturing is teaching by giving a discourse on a specific subject that is open to the public, usually given in the classroom. This can also be associated with modeling. Modeling is used as a visual aid to learning. Students can visualize an object or problem, then use reasoning and hypothesizing to determine an answer.

In your lecture you have the opportunity to tackle two types of learning. Not only can explaining (lecture) help the auditory learner through the speech of the teacher, but if the teacher is to include visuals in the form of overheads or slide shows, his/her lecture can have duality. Although a student might only profit substantially from one form of teaching, all students profit some from the different types of learning.

Demonstrations are done to provide an opportunity to learn new exploration and visual learning tasks from a different perspective. A teacher may use experimentations to demonstrate ideas in a science class. A demonstration may be used in the circumstances of proving conclusively a fact, as by reasoning or showing evidence. The uses of storytelling and examples have long since become standard practice in the realm of textual explanation. But while a more narrative style of information presentation is clearly a preferred practice in writing, judging by its prolificacy, this practice sometimes becomes one of the more ignored aspects of lecture. Lectures, especially in a collegiate environment, often become a setting more geared towards factorial presentation than a setting for narrative or cognitive learning. The use ol' examples and storytelling likely allows for better understanding but also greater individual ability to relate to the information presented.

Furthermore, storytelling in information presentation may also reinforce memory retention because it provides connections between factorial presentation and real-world examples, personable experience, thus, putting things into a clearer perspective and allowing for increased neural representation in the brain. Visuals that are bright in color offer a way to students to put into perspective the

numbers or stats that are being used. If the student cannot only hear but see what's being taught, it is more likely they will believe and fully grasp what is being taught. It allows another way for the student to relate to the material.

Code switching, that is changing between languages at some point in a sentence or utterance, is a commonly used communication strategy among language learners and bilinguals. While traditional methods of formal instruction often discourage code switching, students, especially those placed in a language immersion situation, often use. If viewed as a learning strategy wherein the student uses the target language as much as possible but reverts to their native language for any element of an utterance that they are unable to produce in the target language. Then it has the advantages that it encourages fluency development and motivation and a sense of accomplishment by enabling the student to discuss topics of interest to him or her early in the learning process - before requisite vocabulary has been memorized. It is particularly effective for students whose native language is English, due to the high probability of a simple English word or short phrase being understood by the conversational partner.

Blended learning combines face-to-face teaching with distance education, frequently electronic, either computer-based or web-based. It has been a major growth point in the ELT (English Language Teaching) industry over the last ten years.

Some people, though, use the phrase "Blended learning"" to refer to learning taking place while the focus is on other activities. For example,playing a card game that requires calling for cards may allow blended learning of numbers(1-10).

When talking about language skills, the four basic ones are: listening, speaking, reading, and writing. However, other, more socially-based skills have been identified more recently such as summarizing, describing, narrating etc. In addition, more general learning skills such as study skills and learning how one learns have been applied to language classrooms.

In the 1970s and 1980s the four basic learning skills were generally taught in isolation in a very rigid order, such as listening before speaking. However, since then, it has been recognized that we generally use more than one skill at a time, leading to more integrated exercises. Speaking is a skill that often is underrepresented in the traditional classroom. This could be due to the tact that it is considered a lessacademic skill than writing, is transient and improvised (this harder to assess and teach through role imitation).

More recent textbooks stress the importance of students working with other students in pairs and groups, sometimes the entire class. Pair and group work give opportunities for more students to participate more actively. However, supervision of pairs and groups is important to make sure everyone participates as equally as possible. Such activities also provide opportunities for peer teaching where weaker learners can lid support from stronger classmates.

Bilingual education has become a trend. No matter we like it or not future educational undertakings will become more international, and exchanges between schools throughout the world will increase. Given this, speaking a common language is important and. To this purpose, bilingual teaching is an inevitable way. In a short, giving an effective lesson teacher must be sure to include all skills: listening, reading, writing, speaking and grammar in her lesson when he/she chooses teaching method. Consequently, it gives its result.

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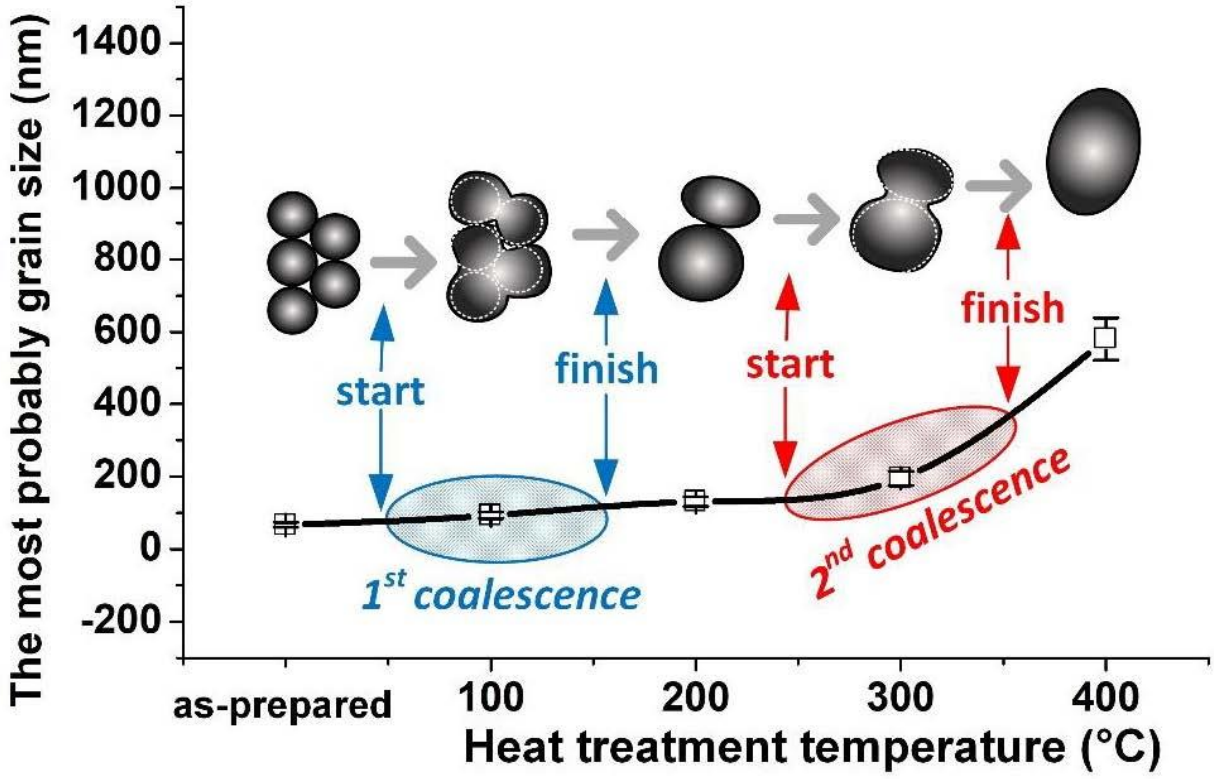
STUDY OF THE EFFECT OF SUN AND LIQUID ON THE HARDNESS OF CHEMICALLY HEATED NICKEL COATING

Annotation: These studies aim to investigate and analyze the effect of heat treatment on the phase transformation of a thin nickel layer on a steel sheet substrate.

Key words: heat, chemical elements, nickel, steel, solution, substrate, electroless coating, hardness.

The equipment components used in almost all industrial companies are usually steel materials. Many components experience surface friction during use, leading to component corrosion Material corrosion, especially steel, shortens the service life of a component. In addition, steel components are prone to corrosion. Therefore, we need anti-corrosion and corrosion protection for steel parts. Surface engineering technology, or surface engineering, is commonly used in industry to optimize the performance of equipment. Surface engineering aims to increase the hardness and corrosion resistance of components that rub against each other and to produce durable components for industrial test instruments and equipment.

One of the methods used is electroplating, however, the electroplating method is prone to hydrogen porosity, and it is difficult to produce uniform layers, especially at the edge of the sample. Electroless nickel plating (ENP) is an electroless nickel plating process on the surface of a substrate. Electroless nickel is an alternative method for preventing hydrogen hypophosphite. In addition, it forms a layer of uniform thickness and good corrosion resistance. The application of electroless nickel is limited by the size of the component to be coated. In order to obtain the maximum hardness value, studies were conducted on the effect of parameters on electroless nickel. These parameters include solution composition, solution temperature, pH, and time.



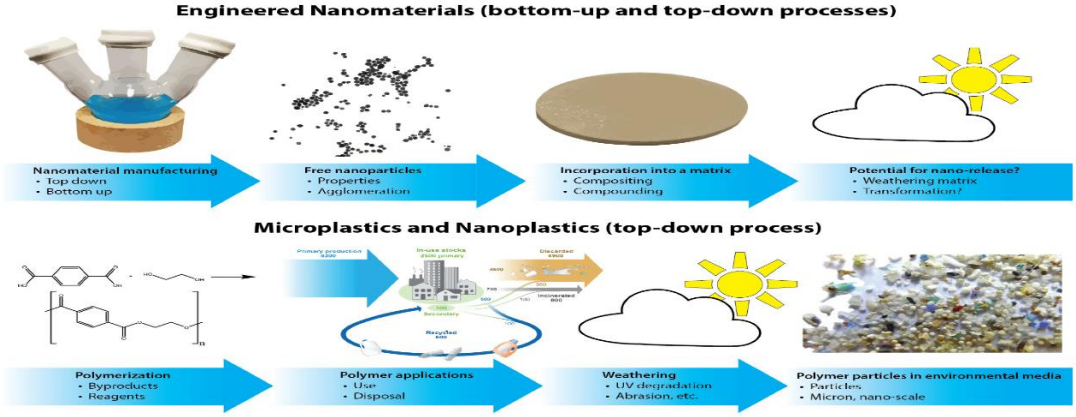
After performing electroless nickel, heat treatment is also performed to increase the hardness of the coating. During heat treatment, temperature and time affect the final hardness of the layer.

XRD characterization of electroless nickel deposits did not show the presence of Ni and Ni-P compounds. After heat treatment, crystalline Ni and Ni3P appear in the XRD results. NisP compounds appear after heating at a temperature of 400 ° C. Therefore, it is necessary to study some parameters affecting the mechanism of hardness increase.

In this study, the phase formed in the layer was analyzed to determine the cause of the hardness increase in the ENP layer after heat treatment. In general, a surface layer is coated before the workpiece is used in various ways to obtain the desired properties. A coating is a surface layer that originates from a material different from the material being coated (the substrate). The present study used an electroless plating method to deposit nickel on a steel plate. Electroless plating is a coating method through chemical reactions without the need for electricity. Electroless Nickel Plating (ENP) is one of the commonly used plating methods, which uses nickel as the plating material.

The phenomenon of nickel precipitation from the reflux of a salt solution was discovered by Waltz in 1844. Electroless nickel plating is widely used because it has several advantages. The nickel layer produced by ENP is generally the same on the entire substrate surface, both external and internal, and can be used to cover a workpiece with complex shapes. In addition, ENP is a good choice for coating because of the corrosion resistance resulting from the

uniform coating layer, resulting in a good coating for the substrate surface. The electroless nickel method is more efficient because it does not require complex equipment and the final result is better without the finishing process.



Samples are made of low-carbon steel plates with a length of 30 mm, a width of 15 mm and a thickness of 0.5 mm. The surface to be covered is first polished and polished until smooth. Then, the surface is washed and washed with an acetone solution. After mixing the solution bath 1 used for coating, the active ingredients are mixed with the composition as in table 1. The chemical solution is a mixture of several chemical compounds that have their own functions in electroless nickel. The used solution contains nickel source, reducing agent, complexing agent, inhibitor and buffering agents.

The coating process and testing were carried out by soaking the steel plate for 100 minutes per day. With the addition of sodium hydroxide, the process is kept constant at pH 7.5 as well as temperature. Layers are formed due to autocatalytic reactions. Implementation of nickel ion incorporation through hypophos phite compounds. The initial precipitate becomes a catalyst for the reduction reaction. A chemical reaction will have occurred.

1-After coating, the sample is heat treated in a furnace with a temperature of 320 °C and a holding time of 340 °C for 30 minutes. The hardness test was performed using the micro Vickers method with a load of 0.05 kg. In order to determine the effect of heat treatment on the structure of the formed nickel layer, X-ray diffraction (XRD) characterization was conducted. Coating layer quality monitoring and thickness measurements are performed by metallographic method. The table below contains the compounds mentioned in the process of sample preparation.

1- Table

Compounds	**Chemical formulas**	Qty. (g / L**)**	Phase
Nickel chloride	$NiCl_2$ 6 H_2O	45	Hard
Sodium hypophosphite	NaH_2PO_2. H_2O	11	Hard
Ammonium chloride	NH4Cl	50	Hard
Sodium citrate	$C_6H_5Na_3O_7 \cdot 2H_2O$	=100	Hard
Sodium hydroxide	NaOH	= pH 7,5	Liquid

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O'TLOQI BO'Z TUPROQ SHAROITIDA ENTOMEKUR 22.5% K.E KIMYOVIY MODDASINING KUZGI BUG'DOYNING QO'NG'IR ZANG KASALLIGIGA QARSHI FUNGITSIDLI QOBILIYATI

Annotatsiya: Bizning xalqning barcha taomlari bilan suyub iste'mol qilinadigan nondir. Mana shu non esa bilamizki bug'doydan tayyorlanadi. Demak bug'doy sifatli va mo'l bo'lsa xonadonlarimizni dasturxonlarini bug'doydan tayyorlangan nonlarimiz to'ldirib turadi. Biz bilamizki bug'doyni qo'ng'ir zang kasalligi ko'p uchrab turadi. Ushbu maqolada qo'ng'ir zang kasalligiga kurashda foydali hisoblangan entomekur kimyoviy moddasini qobiliyatini tajriba asosida ko'rib chiqamiz.

Kalit so'zlar: tuproq, nav, mineral o'g'itlar, kimyoviy modda, kasallik, o'sish va rivojlanish, xosildorlik.

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FUNGICIDE ABILITY OF CHEMICAL ENTOMECUR 22.5% AGAINST TO THE DISEASE OF BROWN RUST OF WINTER WHEAT IN THE CONDITION OF MEADOW SOIL

Annotation. It is a bread that is eaten with all the dishes of our people. We know that this bread is made from wheat. So, if wheat is of good quality and abundant, our homes and tables will be filled with bread made from wheat. We know that wheat is often diseased by brown rust. In this article, we will consider the ability of the chemical entomecur, which is considered useful in the fight against brown rust disease, based on experience.

Key words: soil, variety, mineral fertilizers, chemical substance, disease, growth and development, productivity.

Bugungi kunga kelib Respublikada g'alladan shu jumladan kuzgi bug'doydan mo'l va sifatli hosil olish shu kunning dolzarb vazifalaridan biri bo'lib xisoblanadi.

Shunga ko'ra qishloq xo'jaligida qattiy tejamkorlik tizimini joriy etish ishlab chiqarish xarajatlari va mahsulot tannarxini kamaytirishni kamida 20 % ga tushirishga qaratilgan chora tadbirlarni amalga oshirish, ishlab chiqarishni modernizatsiya qilish, qishloq xo'jaligi mahsulotlarini jaxon bozoriga raqobatbordoshliligini ta'minlaydigan zamonaviy innovatsiya agrotexnikalarini joriy etish muhim vazifalardan bo'lib hisoblanadi.

Bu vazifalarni amalda qo'llanilishi xisobiga 2020- 2021 yillarda davomida dehqon fermer xo'jaliklar tomonidan kuzgi bug'doydan yuqori hosil olishiga erishmoqdalar. Lekin shunday ekan olinayotgan xosilning bir qismi zararkunanda va kasalliklarning tarqalishi hisobiga nobud bo'lishiga olib kelmoqda. Modomiki shunday ekan zararkunanda va kasalliklarga qarshi zamonaviy kurash choralarini olib borishni taqazo etmoqda.

Kuzgi bug'doyning eng xavfli kasalligi qo'ng'ir zang bo'lib, ayrim olingan yillarda bu zamburug' 60-70 % gacha o'simlikni kasallantirish xususiyatiga ega. Shunday bo'lsada keyingi yillarda izlanishlar shuni ko'rsatdiki, zamonaviy kimyoviy moddalarni bu patogenga qarshi qo'llanilishi natijasida kuzgi bug'doyning bu zamburug'ga bo'lgan chidamlilik qobiliyati oshishiga olib kelgan. Misol uchun kuzgi bug'doylarning yaxshi o'sishi va rivojlanishi va yuqori don xosili yetishtirishda o'simlikning mavsum hosilida ozuqa elementlar bilan muntazam rivojlanishida ta'minlash zarur. Ko'pchilik tajribalardan keyin, shunday xulosaga kelgan, kuzgi bug'doy tanasidagi kasallikni rivojlanishiga tashqi faktorning ta'siri yuqori bo'ladi. Dexqonchilikda o'simliklarni o'sishi va rivojlanishiga tashqi kosmik faktorlarning ta'siri yuqori bo'ladi. Lekin, oziqlanishi uchun mineral va organik o'gitlarning o'rni beqiyosdir. Bu masalada olib borilgan kuzatishlarga asosan, quyidagi xulosalarga kelganlar. go'zadan keyin ekilgan maydonlardagi kuzgi bug'doylar uchun berilgan azotning yillik me'yorini ortib borishi bilan o'simliklarni zang kasalligiga bo'lgan chidamliligi ortishi va xosildorligi esa nazoratga qaraganda yuqori bo'lganligi kuzatildi. Ammo iqtisodiy samaradorligi esa kamayib ketganligi aniqlandi.

Keltirilgan ma'lumotlardan kelib chiqqan holda. Biz 2021 va 2022 yillarda kuzgi bug'doyning sariq va qo'ng'ir zang kasalliklari bo'yicha xisoblarni alohida olib bordik. Tajribani Andijon qishloq xo'jaligi va agrotexnologiyalar institutining o'quv tajriba xo'jaligi sharoitida tabiiy zararlangan maydonda "turli me'yordagi entilikur 22% e.k kimyoviy moddaning kuzgi bug'doyning qo'ng'ir zang kasalligiga qarshi fungitsidli qobiliyati mavzusidagi dala tajribasini olib borildi.

Tajriba quyidagi sxema asosida tashkil etilgan
Tajriba sxemasi

1-jadval

№	Variantlar	Ishlov berish me'yorlari l/ga	Ajratilgan maydon kengligi ga/ hisobida
1	Nazorat	Ishlov berilmagan	2.0
2	Duplet 22.5 %k.e (etalon)	0.5 l/ga	2.0
3	Entolikur 22.5 %k.e	0.3 l/ ga	2.0
4	Entolikur 22.5 k.e	0.5 l/ga	2.0

Tajriba maydoniga 25-oktabrda Krasnodar ilmiy tekshirish institutida yaratilgan "groln" navi ekilgan. Ekish me'yori gektariga 200 kg/ga xisobida, 3-4 sm chuqurligida urug'lar ekilgan. Urug'lar ekilgan kunning 2-kunida, urug'lik suvi berildi. Tajriba maydonida olib borilgan kuzatuvlardan ma'lum bo'lishicha 8-10 noyabr sanasida ekilgan urug'larning 85.5-92 % maydonida unib chiqqan, turlanish davrida o'simliklarni oziqlantirish maqsadida azotli mineral o'g'itining 25% bilan oziqlantirildi (yillik me'yori kg/ga da**)**, naychalash davrida 50% ini qolgan 25% ni donlar qotishi davrida o'simliklar oziqlantirilgan. Kuzgi bug'doy ko'chatlarini qo'ng'ir rang kasalligiga qarshi 5-may kuni entalikur 22.5% k.e. bilan ishlov berilgan. Tajriba maydonidan xar oyning 1 va 15 nchi sanalarida fenologik kuzatuvlar olib borildi.

Turli me'yordagi entalikur 22.5 % e.k. kimyoviy moddasining kuzgi bug'doyni o'sishiga ta'siri

2-jadval

№	Tajriba variantlari	1 m^2 dan olingan O'simliklar soni	O'suv poyasining balandligi sm				O'suv poyasining balandligi sm
			1 IV	15IV	1V	15V	15V
1	Nazorat	410	8.4	14.7	67.4	77.8	2.8
2	Duplet 22.5%/e.k etalon	407	7.9	15.9	75.9	83.5	3.6
3	Entilikur 22.5% /e.k 0.3 l/ga	401	7.9	16.1	79.6	90.4	4.0
4	Entilikur 22.5% e.k 0.5 l/ga	405	7.6	16.0	86.3	95.3	4.5

Keltirilgan jadvaldan ma'lum bo'lishicha 15- may sanasidagi xisoblardan ko'rinib turibdiki, eng yuqori ko'rsatkich 4-variantda qayd etildi. Bu variantdagi ko'chatlarning o'suv poyasining balandligi 95.3sm gacha bo'lgan bo'lsa, shu muddatda nazorat variantidagi ko'chatlarni o'suv poyasining balandligi 77.8sm. gacha bo'lgan. Ular o'rtasidagi farq 17.5sm o'simlikdan orqada qolgan. Yoki etalon variantiga qaraganda 11.8sm o'sishdan orqada qolgan. Bundan ko'rinib

turibdiki, entilikur kimyoviy moddasi kuzgi bug'doy poyalariningo'sishi va rivojlanishiga ta'sir etmasada, ammo o'simliklarning butun vegetatsiya davomida qo'ng'ir zang kasalligiga bo'lgan chidamlilik qobiliyatini oshirishga olib kelgan. Shunday bo'lsada olib borilgan tajribada fuzarioz vilti bilan kasallangan o'simliklar bo'lmadi. Ob -havoning o'zgarishi qo'ng'ir zang kasalligini rivojlanishiga olib kelgan. Keltirilgan jadvaldan ma'lum bo'lishicha entilikur 22.5 % e.k. tining o'simlik uchun ta'sir etmasada, ammo kasallik qo'zg'atuvchisiga ta'sir eta olgan.

Xulosa

Biz xisoblaymizki, kuchli zararlangan maydonlarda qo'ng'ir zang kasalligini keltirib chiqaruvchi zamburug'ning patogeni qobiliyatini pasaytirish maqsadida bu maydonda qisqa ratatsiyali almashlab ekishni tashkil etish maqsadida muvofiq deb hisoblaymiz. O'tloqi bo'z tuproq sharoitida kuzgi bug'doyni zang kasalligidan himoya qilishda o'simliklarni entolikur 22.5 % e.k kimyoviy moddasi bilan kuzgi bug'doyni naychalash davrida 0.5 l/ga xisobida qo'llanilganda, faqat patogenni o'simlik uchun zararli tomoni pasaytiribgina qolmay, o'simlikni yashash davrini 8-10 kunga uzaytirishiga olib keladi.

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2. Aliyev Sh.K tabiiy zararlangan maydonda kuzgi bug'doyni " tanya" navini fuzarioz viltli xosildorligiga sug'orish sonini ta'siri.
3. Yaxyoqulova M va boshqalar. O'tloqi bo'z tuproq sharoitida azotli o'g'it me'yorlarining bug'doy navlarining xosildorligiga ta'siri. "O'zbekiston respublikasida boshoqli dukkakli don ekinlari yangi navlarining istiqbollari, chetdan keltirilgan yangi navlar introduksiyasi va zamonaviy resurs tejamkor yetishtirish agrotexnologiyalari" mavzusidagi xalqaro ilmiy – amaliy konfirensiya maqolalar to'plami. Andijon 21-22 may 2019 yil 269-271 betlar.

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QISHLOQ XO'JALIGIDA KULTIVATORLARNING O'RNI

Annotasiya: Ushbu maqolada qishloq xo'jaligida kultivatorlarning tutgan o'rni muhokama qilinadi. Tuproqni qayta ishlash uchun moslashuvchan ishchi organlarni yaratish va ularning zichligi koeffitsientlari ko'rsatilgan.

Kalit so'zlar: kombinatsiyalangan kultivator, ishchi, zichlik koeffitsienti, urug ' to'shak.

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THE ROLE OF CULTIVATORS IN AGRICULTURE

Annotation: This article discusses the role of cultivators in agriculture. The relevance of creating adaptable working bodies for soil cultivation is shown and their density coefficients are given.

Keywords: combined cultivator, working body, density coefficient, seedbed.

Unumdorligini oshirish va qishloq xo'jaligi mahsulotlari tannarxini kamaytirish salohiyati yo'nalishlaridan biri optimal parametrlar bilan o'simliklar yaratish hisoblanadi. Tuproq sharoitlari qurilmaning ishlashiga ta'sir qilganligi sababli uning parametrlari tuproqning jismoniy va mexanik xususiyatlarini hisobga olgan holda optimallashtirilishi kerak. Odatda, ekishdan oldin ishlov berish tuproqning "jismoniy pishishi" davrida amalga oshiriladi. Ekishdan oldin namlikning sezilarli yo'qotilishiga yo'l qo'ymaslik uchun barcha ishlar imkon qadar tezroq bajarilishi kerak. Ekish to'shagini tayyorlashning mohiyati shundan iboratki, ular urug'ning rivojlanishi va traktor agregatining ishlashi uchun bunday shart-sharoitlarni ta'minlashdan iborat bo'lib, unda ular ortiqcha namliksiz, traktor quvvatidan maksimal foydalanish bilan o'zaro maqbul bo'ladi. Bu turli xil tuproqni qayta ishlash funktsiyalarini birlashtiradigan estrodiol mashinalarni joriy etishga olib keldi. Ushbu mashinalardan foydalanish, ayniqsa, past tuproq namligi sharoitida va shamol va suv eroziyasiga moyil bo'lgan joylarda juda muhimdir. Ushbu turdagi mashinalar keng ko'lamda mavjud va yuqori ishlashi bilan ajralib turadi. Hosildorlikni oshirish va qishloq xo'jaligi mahsulotlarini tannarxini kamaytirishning mumkin bo'lgan yo'nalishlaridan biri optimal parametrlarga ega bo'lgan mashina agregatlarini yaratishdir. Sharoitlar agrotexnik jarayonning ko'rsatkichlariga va kultivatorning ishlashiga ta'sir

qilganligi sababli uning parametrlari tuproqning fizik-mexanik xususiyatlarini hisobga olgan holda optimallashtirilishi kerak. Passiv ishchi organlari bilan ishlatiladigan tuproqni qayta ishlash asboblari ish sharoitlari va tuproq holatidagi o'zgarishlarni hisobga olgan holda texnologik parametrlarni sozlash uchun cheklangan imkoniyatlarga ega. Qurolni ishlatish jarayonida faqat ish tezligi va ishlov berish chuqurligini o'zgartirish orqali tuproqni qayta ishlash ko'rsatkichlariga biroz ta'sir ko'rsatish mumkin. Tuproqning asl holatiga qarab kerakli sifatga erishish uchun texnologik va geometrik parametrlarini o'zgartirish qobiliyatiga ega bo'lgan ishchi organlar ishlab chiqilishi kerak, ya'ni ular moslashuvchan bo'lishi kerak, bu esa Real vaqtda tuproqni qayta ishlash jarayonini tezda boshqarishga imkon beradi. Buning uchun ishchi organlar texnologik va geometrik parametrlarini o'zgartirishga imkon beruvchi qo'shimcha qurilmalar bilan jihozlangan. Ular tuproqning boshlang'ich holatini (namlik, zichlik, zadernennosti va boshqalar) hisobga olgan holda, ekin qatlamining optimal qo'shilishi uchun asosiy holatga nisbatan o'z pozitsiyasini o'zgartirishlari kerak. Bunday ishchi organlari bilan vositalari tez shakllantirish, deformatsiyalar tabiati yoki zarralar harakati traektoriyalari o'z ta'sir darajasini o'zgartirib, tuproq davolash sifatini nazorat qilish imkonini beradi. Tuproqning fizik-mexanik xususiyatlari to'g'ridan-to'g'ri maydonning bir qismida o'zgarishi mumkinligi ma'lum, shuning uchun urug'larni ekish va urug'lantirish uchun optimal parametrlarga mos kelmaydigan joylarni qayta ishlash mumkin. Bularning barchasi hosildorlikka juda yomon ta'sir ko'rsatishi mumkin, bu esa o'z navbatida moliyaviy yo'qotishlarga olib keladi. Ushbu muammoni hal qilishning bir usuli ishchi organlarning parametrlarini optimallashtirishdir.

Kultivatorning ishini agrotexnik baholash uchun muhim jihat ishchi organlarning to'g'ri joylashishi hisoblanadi. Odatda, piyonlar tuproqning qayta ishlanadigan qatlamida kichik bir-biriga bog'lab turadigan tarzda joylashtiriladi. Tuproqni qayta ishlash jarayonining davomiyligini baholash uchun biz quyidagi ifodada yozilishi mumkin bo'lgan ishchi organlarning zichligi koeffitsientini joriy qilamiz,

$$k = \frac{n*b}{Bp} \quad \textbf{(1)}$$

bu erda Bp – kultivatorni ushlashning ishchi kengligi, b – ishchi organni ushlashning kengligi, n – ishchi organlarning soni. Kultivatorning optimal ishlashi uchun ishchi organlarning zichligi koeffitsienti ifodada ifodalanishi mumkin.

$$k \geq 1 \quad (2)$$

tuproqdan oldingi ishlov berish uchun mavjud bo'lgan kultivatorlarni tahlil qilgandan so'ng, barcha mashinalar ish organlarining eng yaxshi qoplama koeffitsientining parametrlariga bardosh bera olmaydi, shuning uchun o'simliklarning o'sishi uchun maqbul sharoit yaratmaydi. Shu bilan birga, shuni ta'kidlash kerakki, ushbu koeffitsientning oshishi bilan qayta ishlangan tuproq qatlami qatlamlar tufayli yanada jadal ishlov berishga moyil bo'ladi, biroq ayni

paytda yonilg'i sarfini oshirishga olib keladigan mashina-traktor birligiga yuk ko'tariladi. Ushbu parametrning tuproq sharoitiga qarab o'zgarishi ma'lum bir agrotexnik ko'rsatkichlarning to'g'ridan-to'g'ri maydonning har bir qismida bajarilishini ta'minlashga yordam beradi.

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MAIN FEATURES OF ECONOMIC GROWTH INDICATORS

Abstract: This article discusses the main features of economic growth indicators. The author explained the nature of economic growth indicators with the help of valid arguments.

Key words: economic growth, economy, market laws, gross domestic product, gross domestic income, resources.

Economic growth is the quantitative increase and qualitative improvement of the social product and its factors of production. It is expressed in an increase in the volume of output of goods and services and an increase in their quality in the considered economic system (in the country, region, world). A measure of economic growth is the increase in real GDP as a whole or GDP per capita.

The foundations of the theory of economic growth and development were created by Joseph Schumpeter at the beginning of the 20th century **[**4]. He was the first to introduce the differences between economic growth and development, defined the essence of innovation as the main driving force of economic growth. In his basic scientific work - the monograph “The Theory of Economic Development”, first published in 1911, Joseph Schumpeter defined economic growth as quantitative changes - an increase in the production and consumption of the same goods and services over time. Joseph Schumpeter defined economic development as positive qualitative changes, innovations in production, in products and services, in the field of management, in other spheres of life and types of economic activity in the state. Joseph Schumpeter identified innovation as the main driver of development and progress, as well as an entrepreneurial resource that creates demand for innovation and its excess supply, where growth is quantitative changes, and development is qualitative positive changes aimed at growth and improving the quality of life. Schumpeter's ideas were used by Philippe Haghion, who formulated the Schumpetirian growth model. Robert Solow, Hirofumi Uzawa, Frank Ramsay, Tjalling Koopmans, David Kass, Paul Samuelson, Peter Diamond, Gary Bakker, Paul Romer, William Nordhaus, Oded Galore, Daron Acemoglu also contributed to the modern theory of growth and development. and many others.

The basis for modern theory is the Solow model. It is a model of exogenous growth, since the increase in labor productivity in it is set from the outside. This is one of the shortcomings of the model. The second drawback is the exogenous savings rate. The first drawback is overcome in models of endogenous growth. In the first generation models, economic growth is associated with the accumulation of human capital. The second generation

models consider innovation and subsequent productivity growth as the result of the choice of economic agents. For example, in Romer's model, firms innovate through monopolistic competition, and workers choose a sector of employment (production of goods and services or production of knowledge) by comparing the return on each of them. The second shortcoming, the exogenous nature of the savings rate, is solved by including the problem of intertemporal choice. The basic models with an endogenous norm are the Ramsey and Diamond models (a model with intersecting generations).

A unified view of the history of economic growth was offered by Oded Galor. He considered three modes of growth: Malthusian, post-Malthusian and modern. The transition to the modern regime is associated with an increase in labor productivity and a demographic transition, which leads to a decrease in the population growth rate. Unlike the Malthusian regime, this leads to a steady increase in per capita income.

What is economic growth? The answer is obvious - it is the development of the economy. But how do they measure this indicator and determine whether there is growth or not?

For example, to assess whether a person is rich, we first look at their income. The more he earns, the more he can afford: a big house, a prestigious car, holidays in an expensive resort, private schools for children, treatment in the best clinics and other benefits of civilization that are available for money.

It is the same with the country's economy: the greater the total income of the country, the more its inhabitants can afford. Another thing is that the income of an entire country is more difficult to measure than the income of one person, for this there is GDP - gross domestic product. If the GDP is growing, then the country is experiencing economic growth.

Gross domestic product is the total value of goods and services that were produced in a country in a given period of time, such as a year. It is not easy to calculate GDP, because you have to sum up everything that is produced in the country: both goods and services. The corn grown in the fields and the concert of a punk band also count towards GDP. All these various goods can be added up and the volume of GDP can be determined only if each of them is converted into money - into their market value. That is, in the amount of money that people are willing to pay for each of the goods, whether it be a vegetable or a ticket to a punk concert.

Not only the level of GDP is important, but also the size of GDP per capita. Here, too, you can draw an analogy with a family: if a family of two people earns, say, 100,000 rubles a month, then they can afford a lot. And if 100,000 is the total income of a family with six children, besides, three aunts and two grandfathers are dependent? Of course, their standard of living will be lower than that of a family of two with the same income.

By itself, GDP does not take into account such indicators as, for example, the environment or the level of personal happiness of each inhabitant. So it’s

impossible to call it an ideal measure of well-being - after all, the quality of life is not always directly related to the amount of money in your wallet.

Thus, economic growth is an increase in the quantity of goods and services. Is it worth chasing consumption? After all, they say money doesn't buy happiness. Yes, economic growth is not always synonymous with happiness and well-being, but still, GDP growth has a positive effect on living standards. The wealthier the society, the higher the life expectancy, the better medicine, the lower the crime rate. Caring for the environment is also characteristic of rich countries. Therefore, economic growth is one of the main objectives of the economic policy of any country.

What is economic growth like? Extensive is growth by increasing the amount of resources. Suppose the state has a lot of minerals, it lives only at their expense: it extracts and exports; due to this, the economy grows. At the same time, no one develops production, does not invest in technology - the country simply intensively uses the resource until it runs out.

Intensive economic growth occurs due to the fact that the state improves technologies, masters the achievements of science and technology, and invests in innovative business. Roughly speaking, robots are replacing the hoe and plow - production is improving, GDP and living standards are growing.

Economic growth depends on various factors: for example, how many able-bodied people are in the country, how many qualified specialists, how many natural resources, how technologically production is, whether the socio-political situation is stable, whether investments are developing, etc.

Why low inflation is important for economic growth. How do ordinary people, entrepreneurs, enterprises act in conditions of high and unpredictable inflation? They spend what they earn as quickly as possible, refuse savings and long-term investments, invest not in development, but in valuable goods, real estate or foreign currency.

It becomes impossible to plan anything for a long time ahead, and this is the most important condition for the growth of investments and the economy as a whole.

Without long-term planning and investment, it is impossible to develop science, technology and innovative industries, without which the modern economy is unthinkable. Economic growth with high inflation is possible if it is promoted by external factors, such as high prices for exported natural resources. But the effect of such factors may end, and along with this, economic growth will inevitably end.

Today, nearly two-thirds of global GDP—that is, all the goods and services that the entire world has produced in a given time—accounts for countries where central banks control inflation in one form or another. After all, the lower the price growth rate, the easier it is to plan in advance - this applies to businesses, banks, and ordinary people. Stable prices are the basis for economic development.

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THE NECESSITY AND MAIN FACTORS OF FORMATION OF LEGAL CONSCIOUSNESS AND CULTURE

Abstract: This article discusses the necessity and main factors of forming legal consciousness and culture. In the article, the author argued that legal consciousness and culture are an indispensable sign of a developed state.

Key words: legal consciousness, legal culture, democracy, social development, progress.

We know what the ecological environment is; we know that the slightest violation of this system, which is very intricately connected in its elements, leads to illness and death of the entire biocenosis as a whole. And our body is extremely complex, but part of this single world whole - biological and physical. Moreover, if we tear our being even for a moment from this whole to which we belong, we perish in the same fraction of a second: we are so closely and firmly inscribed in visible nature; we not only come from it bodily, but we are an inseparable part of it.

But at the same time, our specificity is human, our spirituality - it is not part of this material, visible system at all. Because all visible systems can be weighed, measured, seen, tangible. And only that which in us is invisible, intangible, has neither form nor color - only this makes a person a thinking being. A being who, according to Vernadsky, is capable of transforming the world. A being that, as we now know, can both corrupt the world and lead it to destruction. Therefore, a responsible being, the only one of all living beings; We are, we are responsible for our actions. Because we are the only ones who can choose. Neither the elephant, nor the octopus, nor the boa constrictor, nor any other creature, in essence, chooses. It is hard-coded. In the end, almost all of his behavior is almost an exact reflection... of all those processes that occur in his body. But look at human life, truly human.

Very often, much and important in it not only goes against this, but, as it were, challenges the needs of the body. A person is able to refuse this, to rise above material needs. In the name of some ideas, he is able to endure hardships, inconveniences, and sometimes even go to extreme trials, up to death. Thus, not the life instinct, but something else is present here in the phenomenon of man.

Legal consciousness is one of the forms of social consciousness. The latter is a specifically human form of ideal reflection and spiritual assimilation of reality. Legal awareness, for its part, involves understanding, evaluating the law, legislation, the need for the need for the current law, its change or

cancellation, understanding the process of law enforcement, comparing law with other social norms.

The peculiarity of legal consciousness lies in the fact that it initially perceives and then reproduces legal relations. Gives them an assessment, outlining the boundaries of reasonable and fair, laid down in the rules of law.

Structurally, legal consciousness consists of two main components:

legal ideology is a systematized scientific expression of views (theories, concepts, doctrines, programs) about law and its role in regulating social relations (for example, natural law, liberal legal ideology, etc.);

legal psychology is a concentrated expression of feelings, emotional experiences, habits, stereotypes, value relations that arise in connection with the assessment and implementation of legal norms and express the estimated psychological attitude of people to legal phenomena.

In the development of the first component of legal consciousness - legal ideology, scientists and politicians take part, who, when creating appropriate theories, concepts of law, must objectively assess reality, take into account the political alignment of forces, the level of public consciousness, the interests of both the majority and the minority of the population. With this in mind, legal ideology can substantiate and evaluate existing, existing and newly emerging legal relations and other legal phenomena.

Legal psychology is a direct reflection of the culture, customs, traditions of nations, nationalities, various social strata of society. Through legal psychology, self-esteem of the individual is realized, that is, the ability to critically evaluate one's behavior from the point of view of its compliance with the norms of law.

In the theory of state and law, the following functions of legal consciousness are distinguished:

regulatory function. Under certain conditions, legal consciousness acts as a regulator of social relations through value-legal orientation. The result of this regulation can manifest itself in the form of rightful or wrongful behavior;

Legal norms, other elements of the legal system are the objects of evaluation. The evaluative function causes a certain attitude of the individual to various phenomena of legal life. With its help, the attitude to law and legislation, law enforcement agencies, the legal behavior of others, one's own legal behavior is assessed;

Cognitive function (epistemological) - consists in the accumulation of knowledge about law and the possibility of further understanding of legal reality;

Prognostic function - consists in the possibility of foresight, prediction of the future state of the legal system;

Legal awareness indirectly affects the process itself and the results of lawmaking, finds its expression in regulations. In a sense, legal consciousness is even a source of law.

However, feedback should also be noted here. The existing positive law has an impact on the legal consciousness of citizens, the formation of ideas about the rights, duties, and responsibilities.

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HUMAN PAPILLOMA VIRUS IN HIV-INFECTED WOMEN

Abstract: In Eastern Europe and Central Asia, there is an increase in the proportion of women of reproductive age among patients with HIV infection. The gynecological health of an HIV-infected woman and the preservation of her ability to give birth to a healthy child is a priority in WHO activities. HIV-infected women have a higher risk of human papillomavirus infection than HIV-negative women, as well as a higher risk of persistence and malignancy. In our work, we tried to analyze the effect of age on the frequency of detection of human papillomavirus in HIV-infected women. During the study, we found that the human papilloma virus high carcinogenic risk in HIV-infected women occurs in a wide age range. The obtained data should be taken into account when conducting cervical screening in this category of patients, for example, to conduct an HPV test when registering with an AIDS center for all HIV-infected women, regardless of age.

Key words: HIV infection, women, age, HPV.

The HIV epidemic in Eastern Europe and Central Asia continues to grow rapidly. Over the past decade, the epidemic has been characterized by an increase in the number of cases of transmission of the virus during heterosexual physical contacts, which leads to an increase in the proportion of women among patients with HIV infection. This is a serious problem not only for medicine, but is of great socio-economic importance.

The expansion of the spectrum of antiretroviral drugs and the use of combined pharmacotherapy has led to a significant increase in the duration and quality of life of HIV-infected patients. Against the background of a significant decrease in the frequency of a number of opportunistic infections, the role of cervical cancer (CC) has increased, which can affect the long-term course of HIV infection in women.

HIV-infected women have a higher risk of papillomavirus infection than HIV-negative women, as well as a higher risk of persistence and malignancy **[**1, 2, 4, 5, 8, 9, 10].

Thus, the data available in the literature indicate the mutual influence of HIV infection and HPV, worsening the prognosis and development of the disease.

To study the prevalence of human papillomavirus of high carcinogenic risk (HPV HCV) and depending on the age of HIV-infected women in the countries of Eastern Europe and Central Asia.

The collection of biomaterial from 647 HIV-infected women was carried out from September to December 2017 as part of the project "Studying the impact of HPV and STIs on the reproductive health of HIV-infected women in recipient countries in order to improve prevention measures" (Decree of the Government of the Russian Federation dated 14 November 2015 No. 2314-r). All women underwent an HPV test to identify 14 types of HPV HRC (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68). The analysis of laboratory parameters was carried out at the Central Research Institute of Epidemiology of Rospotrebnadzor using test systems: AmpliSens® HPV HRC screen-titer-FL, AmpliSens® HPV 16/18 -FL, AmpliSens® HPV HRC genotype-FL, kit DNA-sorb-D for DNA extraction.

In preparing the work, indicators of descriptive statistics (mean, median, standard deviation, minimum, maximum) were used. To compare the quantitative indicator, Student's t-test was used.

Among the 647 examined patients, young patients under 40 years of age predominated, which emphasizes the significance of the socio-economic damage caused by this disease.

HCV HPV in the analysis of 647 samples was detected in 265 HIV-positive infected women (41%). Similar results on HPV prevalence among HIV-infected women were obtained by Eun Kyoung Park et al. HIV-positive women are more likely to be infected with highly oncogenic HPV types than HIV-negative women (30% vs 4.9%, $P<0.001$) based on the analysis of biosamples from 60 HIV-positive women and 1938 HIV-negative ones [6]. In another study of 178 HIV-infected women, 32% were diagnosed with high oncogenic risk papillomavirus.

Figure 1 shows the age distribution of all HIV-infected women who participated in the study and the age distribution of HIV-infected women diagnosed with HCV HPV. Differences between groups are not statistically significant (Student's t-test = 1.972, $f=910$, $\alpha=0.05$). The data obtained confirm that screening for cervical cancer in HIV-infected women should be continued throughout the woman's life [7].

It is noteworthy that 49.4% of 265 HIV-infected women had several HRC HPV genotypes at once (from two to seven genotypes). The distribution by the number of HPV genotypes encountered across the republics is shown in Figure 2. In the Republics of Uzbekistan, Kyrgyzstan, Tajikistan and the Russian Federation (Samara), a combination of several HPV genotypes was registered in more than 50% of cases. According to foreign literature, mixed HPV infection is less common in HIV-infected women. So Broccolo F. et al., having analyzed 597 biosamples from the cervical canal of the cervix, registered a mixed HPV infection in 22% of pathological samples [3]. Mixed infection with highly

oncogenic HPV types according to Eun Kyoung Park et al. detected in 10% of HIV-infected women and 0.6% of HIV-negative women (P<0.001) [6]. At the moment, it is not possible to explain such a high percentage of mixed HPV infection in HIV-infected women within the framework of the project. But thanks to the study, we explained the need for using an HPV test in this region to determine as many HPV genotypes as possible.

HIV-infected women in this region have a high incidence of HPV infection. We did not find any differences in the frequency of HPV detection and the age of the surveyed HIV-infected women. Given the data obtained, it is necessary to pay special attention to the group of HIV-infected women, for example, to conduct an HPV test when registering with an AIDS center for all HIV-infected women, regardless of age. When performing cervical screening, be sure to use test systems that allow determining at least 14 HRC HPV genotypes.

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RHEUMATISM IN CHILDREN

Abstract. Rheumatism is a systemic inflammation of all tissues in the body, mainly localized in the pericardium. Especially the heart, joint and subcutaneous connective tissue in the body are prone to disease. Rheumatism can be caused by simple angina, which is common among people. Tonsillitis itself is acute, accompanied by fever, headache, and inflammation in rheumatic fever leads to chronic heart valve damage, which can lead to disability or death many years after the acute illness. can bring.

Usually, rheumatism affects children between the ages of 5 and 15, but adults can also get sick. The first symptoms of rheumatism often begin to appear 1-5 weeks after angina. Rheumatic attacks usually last three months, rarely more than six months.

Key words: Types of the disease: classification of rheumatism, symptoms of rheumatism: how the disease manifests, actions of the patient in rheumatism, diagnosis of rheumatism, treatment of rheumatism, complications of rheumatism, prevention of rheumatism.

INTRODUCTION

RHEUMATISM: CAUSES AND FACTORS OF DEVELOPMENT

Currently, three main reasons for the development of rheumatism are distinguished:

Past illnesses. Group A streptococci affect the development of the disease. If a person has been sick several times with infectious diseases of group A streptococci, there is a possibility of developing a pathological process, and as a result, rheumatism can occur. However, the serological subgroup of streptococcus in the patient is important. In some cases, rheumatism can develop even after a single infection with hemolytic group A streptococcus. Especially if the patient, for example, is infected with ARVI and does not take appropriate treatment measures, the risk of developing rheumatic lesions increases.

Allergy. Allergic reaction can be caused both directly by the streptococcus itself and due to the substances it secretes (toxins and enzyme proteins). As toxins enter the bloodstream and spread throughout the body, the immune response must also be systemic. However, this immune response results in more damage to the heart and joints. It should be noted that the chronic form of rheumatism is not associated with streptococcal infection. Antibodies against streptococci are not detected in chronic rheumatism.

Hereditary predisposition. It should be mentioned at once that rheumatism is not transmitted from generation to generation. However, when

infected with streptococcus, a high tendency to the development of rheumatism can be inherited.

METHOD AND METHODOLOGY

Acute rheumatism. This form of rheumatism occurs in people under 20 years of age. The causative agent of the acute form of rheumatism is streptococcus. When rheumatism is combined with an upper respiratory tract infection, a delay in symptoms (usually 14-21 days) is noted. A characteristic feature of acute rheumatism is the speed of its development. At first, patients are bothered by symptoms of general intoxication, such as in colds and flu. The similarity of these symptoms does not allow to immediately identify this disease. After some time, specific symptoms such as carditis, polyarthritis, rashes on the skin, and sometimes skin nodules begin to be felt. The acute period of the disease lasts up to three months. In some cases, acute rheumatism lasts up to 6 months. Chronic rheumatism. As for the chronic form of rheumatism, it is characterized by frequent relapses, even if the patient receives appropriate treatment in time. In particular, exacerbation of chronic rheumatism often occurs in the autumn-winter season, because cold is a serious provoking factor. In addition, staying (or living) for a long time in places with high humidity contributes to the exacerbation of the disease. As a rule, attacks of chronic rheumatism occur several times a year. Joint form of rheumatism. In the articular (articular) form of rheumatism, only the joints or joints with the heart can be damaged. Usually, the articular form of rheumatism affects large joints, and in the last stages, the pathological process covers small joints as well. Gradually, damage to the joint bag and ankles occurs. Due to severe pain, it becomes difficult for the patient to move the damaged joint. In the acute form of joint rheumatism or during an attack, the body temperature can rise up to 39 °C.

Neurological form of rheumatism. Rheumatic damage to the nervous system is less common than joint and heart damage. In the neurological form of rheumatism, the cells of the cerebral cortex responsible for movement are damaged. Therefore, involuntary movements of the patient's limbs or facial muscles are recorded.

Pulmonary form of rheumatism. It is observed very rarely, accounting for about 1-3% of all cases of rheumatism. Usually, the pulmonary form of rheumatism manifests itself in the form of bronchitis or pleurisy.

Cutaneous form of rheumatism. This form of the disease manifests itself in the form of skin rashes or specific rheumatic nodules. The skin form of the disease does not exceed 5% of the total number of patients with rheumatism.

Ophthalmological form of rheumatism. This form of the disease is determined only in combination with the classic symptoms of rheumatism. Usually, the ophthalmological form affects the retina. The ophthalmological form of rheumatism can lead to partial or complete blindness.

RESEARCH RESULTS

SYMPTOMS OF RHEUMATISM: HOW THE DISEASE APPEARS

Rheumatism is not a single disease. Often it "neighbors" with other pathologies, because harmful substances secreted by streptococci and immune antibodies damage many organs and systems, and all such manifestations can be considered forms of rheumatism.

The first symptoms of rheumatism do not allow to identify the disease. They appear 2-3 weeks after an upper respiratory tract infection (pharyngitis, laryngitis, tonsillitis) transferred from a streptococcal head injury. The picture looks like a recurrence of a cold. Symptoms of acute rheumatism are manifested as an increase in body temperature, sometimes up to 40 degrees, rapid pulse, fever, profuse sweating, weakness, swelling and pain in the joints. First, the largest and most actively used joints are damaged.

Then the inflammation often spreads symmetrically to other joints. Joints are strongly swollen, reddened, hot to the touch, painful when pressed or moved. Usually, the inflammatory process does not lead to permanent changes in the joints. The pulse is accelerated, arrhythmic, pain in the chest is noted, dilatation (enlargement) of the heart, sometimes the sound of frictionof the pericardium is heard - this indicates heart damage.

General symptoms of rheumatism:

Hyperthermia. Body temperature rises to dangerous levels (38.0-40.0 °C). This symptom is associated with the development of an acute immune reaction against pathogens;

Weakness. According to the description of the patients, the body remains "cotton" empty, always sleepy;

Headache. It is localized on the forehead. Specific symptoms of rheumatism:

Pain in the joints. First, large joints (knees, elbows) are damaged, the pain is persistent and lasts a long time. Rheumatism is characterized by the rapid development of the process, as wellas the rapid disappearance of inflammation and pain in the joints and the restoration of their function;

Pain behind the stone. Persistent or throbbing pains in the heart area. This symptom does not appear immediately, but occurs after one or several days;

Vascular disorders. Fragility of blood vessels, nosebleeds, etc.;

Annular rashes. It is manifested in less than 4-10 percent of all cases. They look like a pinkrash, forming a circle with uneven edges. Does not disturb the patient in any way;

Rheumatic nodes. It is formed in damaged joints. They appear as subcutaneous formations with a diameter of 5 mm to 2-3 centimeters, dense and motionless, painless. They are very rare and last for about two months after the onset of the disease.

Specific symptoms appear only after 1-3 days. Sometimes there are signs of damage to the abdominal organs (pain under the right rib, etc.). This indicates that the disease is serious and requires immediate hospitalization.

In children, rheumatism is much milder or chronic, without special symptoms. General weakness, pulse rate and pain in the joints are noted, pain is not felt when moving. If there are no signs of heart damage, the disease rarely ends in death, but with the development of carditis, the average life expectancy of patients in the future is significantly reduced.

ACTIONS OF THE PATIENT IN RHEUMATISM

Consult a doctor to prevent possible complications. If the disease is confirmed to be of streptococcal etiology, antibiotics are prescribed. Try to complete antibiotic therapy.

DIAGNOSIS OF RHEUMATISM

Diagnosis of rheumatism includes a number of laboratory and instrumental studies, including:

Ultrasound examination (UTT); Electrocardiogram (ECG);

Laboratory blood test for specific antibodies and factors.

DISCUSSION

TREATMENT OF RHEUMATISM BICILLIN

Rheumatism is a pathology of mixed immune-bacteriological nature. Therefore, it is difficult to treat rheumatism and it cannot be completely cured. Since the main source of the disease is streptococcal bacteria (and the immune reaction is a response to the "attack" of a secondary and foreign organism), the main goal of treatment is to eliminate the bacteria and quickly remove the substances released as a result of their life activity and decomposition.

The main (and main) drug to fight this pathogen is bicillin. Bicillin is an antibiotic of the penicillin family and has a longer duration of action than regular penicillin.

The first (active) stage of antibiotic treatment lasts from 10 to 14 days. Studies have shown that a shorter period is not appropriate, because the infection persists, and a longer period is useless, because the streptococcus begins to produce substances that break down the antibiotic, and the antibiotic itself harms the patient.

After that, the second (passive) stage begins. Three weeks after the end of taking Bicillin orally, the same drug is injected into the patient. Such treatment should be continued for 5-6 years (1 injection every 3 weeks), which is necessary to reduce the likelihood of relapse and prevent the development of heart complications.

ASPIRIN

Acetylsalicylic acid has proven itself well in medical practice. Aspirin has many contraindications (pregnancy and breastfeeding, vascular fragility, problems with digestive organs), but this therapy of rheumatism is useful in articular and neurological forms of the disease. Aspirin relieves pain and reduces inflammation in the joints. The first two weeks are taken in the maximum permissible doses.

After the main period of therapy, aspirin is taken at a dose of 2 g/day for another 30 days.

Attention: Aspirin affects the mucous membrane of the stomach and duodenum. Such a side effect is often observed, especially if the recommendations for taking the drug are violated.

This leads to erosion, peptic ulcer, gastroduodenitis and ulcerative bleeding. HORMONAL PREPARATIONS

In the treatment of severe forms of rheumatism, the maximum permissible dose of prednisolone is used.

CONCLUSION

GENERAL RECOMMENDATIONS

If the disease is mild, half-bed rest for up to 10 days is prescribed. If the disease is serious, it is necessary to exclude any movement activity, because it aggravates the process. A bed arrangement is set for a period of up to one month.

Laboratory analyzes are conducted to evaluate the effectiveness of treatment. When the indicators approach normal levels, the bed regimen can be canceled. If the disease is very serious, with significant heart rhythm disturbances, pain in the joints, inpatient treatment for up to two months is required.

COMPLICATIONS OF RHEUMATISM

Brain damage. Rheumatic heart diseases, for example, may develop complications such as myocarditis (inflammation of the heart muscle), endocarditis (inflammation of the inner lining of the heart) and pericarditis (inflammation of the outer lining of the heart). In severe cases, death occurs.

PREVENTION OF RHEUMATISM

If you have a sore throat for more than a week, see your doctor because your throat may be infected with group A streptococcus. It is recommended to maintain good sanitary conditions in your place of residence and avoid crowded places. Stimulate the body's natural defenses. Wash your hands thoroughly before starting to prepare food, especially if you cough or sneeze. In this way, you prevent the spread of bacteria that cause angina.

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THE NECESSITY AND MAIN FACTORS OF FORMATION OF LEGAL CONSCIOUSNESS AND CULTURE

Abstract: This article discusses the necessity and main factors of forming legal consciousness and culture. In the article, the author argued that legal consciousness and culture are an indispensable sign of a developed state.

Key words: legal consciousness, legal culture, democracy, social development, progress.

We know what the ecological environment is; we know that the slightest violation of this system, which is very intricately connected in its elements, leads to illness and death of the entire biocenosis as a whole. And our body is extremely complex, but part of this single world whole - biological and physical. Moreover, if we tear our being even for a moment from this whole to which we belong, we perish in the same fraction of a second: we are so closely and firmly inscribed in visible nature; we not only come from it bodily, but we are an inseparable part of it.

But at the same time, our specificity is human, our spirituality - it is not part of this material, visible system at all. Because all visible systems can be weighed, measured, seen, tangible. And only that which in us is invisible, intangible, has neither form nor color - only this makes a person a thinking being. A being who, according to Vernadsky, is capable of transforming the world. A being that, as we now know, can both corrupt the world and lead it to destruction. Therefore, a responsible being, the only one of all living beings; We are, we are responsible for our actions. Because we are the only ones who can choose. Neither the elephant, nor the octopus, nor the boa constrictor, nor any other creature, in essence, chooses. It is hard-coded. In the end, almost all of his behavior is almost an exact reflection... of all those processes that occur in his body. But look at human life, truly human.

Very often, much and important in it not only goes against this, but, as it were, challenges the needs of the body. A person is able to refuse this, to rise above material needs. In the name of some ideas, he is able to endure hardships, inconveniences, and sometimes even go to extreme trials, up to death. Thus, not the life instinct, but something else is present here in the phenomenon of man.

Legal consciousness is one of the forms of social consciousness. The latter is a specifically human form of ideal reflection and spiritual assimilation of reality. Legal awareness, for its part, involves understanding, evaluating the law, legislation, the need for the need for the current law, its change or

cancellation, understanding the process of law enforcement, comparing law with other social norms.

The peculiarity of legal consciousness lies in the fact that it initially perceives and then reproduces legal relations. Gives them an assessment, outlining the boundaries of reasonable and fair, laid down in the rules of law.

Structurally, legal consciousness consists of two main components:

legal ideology is a systematized scientific expression of views (theories, concepts, doctrines, programs) about law and its role in regulating social relations (for example, natural law, liberal legal ideology, etc.);

legal psychology is a concentrated expression of feelings, emotional experiences, habits, stereotypes, value relations that arise in connection with the assessment and implementation of legal norms and express the estimated psychological attitude of people to legal phenomena.

In the development of the first component of legal consciousness - legal ideology, scientists and politicians take part, who, when creating appropriate theories, concepts of law, must objectively assess reality, take into account the political alignment of forces, the level of public consciousness, the interests of both the majority and the minority of the population. With this in mind, legal ideology can substantiate and evaluate existing, existing and newly emerging legal relations and other legal phenomena.

Legal psychology is a direct reflection of the culture, customs, traditions of nations, nationalities, various social strata of society. Through legal psychology, self-esteem of the individual is realized, that is, the ability to critically evaluate one's behavior from the point of view of its compliance with the norms of law.

In the theory of state and law, the following functions of legal consciousness are distinguished:

regulatory function. Under certain conditions, legal consciousness acts as a regulator of social relations through value-legal orientation. The result of this regulation can manifest itself in the form of rightful or wrongful behavior;

Legal norms, other elements of the legal system are the objects of evaluation. The evaluative function causes a certain attitude of the individual to various phenomena of legal life. With its help, the attitude to law and legislation, law enforcement agencies, the legal behavior of others, one's own legal behavior is assessed;

Cognitive function (epistemological) - consists in the accumulation of knowledge about law and the possibility of further understanding of legal reality;

Prognostic function - consists in the possibility of foresight, prediction of the future state of the legal system;

Legal awareness indirectly affects the process itself and the results of lawmaking, finds its expression in regulations. In a sense, legal consciousness is even a source of law.

However, feedback should also be noted here. The existing positive law has an impact on the legal consciousness of citizens, the formation of ideas about the rights, duties, and responsibilities.

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REHABILITATION APPROACHES TO PHONATION PROBLEMS AND SWALLOWING IN PATIENTS WITH PARKINSON'S DISEASE

Introduction. Parkinson's disease (PD) is a chronic progressive neurodegenerative disease, manifested by a wide range of motor and non—motor symptoms, combined leading to disability of the patient. Despite complex dopaminergic therapy, which can compensate for timely appointment, most of the clinical manifestations, dysphonia and dysphagia belong to the group treatment-resistant symptoms [1]. The frequency of phonation and swallowing disorders in PD patients reaches 80% [2] and their occurrence is a predictor of a more rapid and severe development of the disease. The influence of dysphonia and dysphagia on the patient's quality of life becomes evident at the advanced stages of the disease and the indicators of both parameters correlate with each other [3]. Clinically, dysphonia is a more obvious symptom, while from 15 to 33% of cases of dysphagia remain undiagnosed until the development of aspiration complications [4]. However, only 3-4% of patients in need of correction seek help from a speech therapist or a phoniatrist [5]. The data of the conducted studies indicate the effectiveness of targeted prevention of phonation and swallowing disorders, such as: Lee Silverman training (LVST), control of exhalation and voice pitch, music therapy with voice training, choral singing and breathing exercises. At the same time, a positive effect of improving phonation on swallowing function was noted.

Keywords: Parkinson's disease, dysphonia, dysphagia, neurorehabilitation, breathing exercises.

Materials and methods. The study included 40 patients with Parkinson's disease (18 women /22 men), severity according to HenYar stage 2 (n=10), stage 3 (n=26), stage 4 (n=4) on stable drug therapy. The severity of manifestations of Parkinson's disease was assessed by Unified Rating Scale of Parkinson's disease, MDS version. All patients were screened for cognitive functions — a brief mental status Assessment Scale (MMSE), affective functions — a Hospital Anxiety and Depression Scale (HADS), a clinical examination of a speech therapist with the determination of the dysphonia degree coefficient (DSI) and

dysphagia. When identifying pseudobulbar disorders in the form of dysphonia and dysphagia patients were included in the rehabilitation program, including physical therapy, music therapy, speech therapy correction with control of exhalation and voice pitch, correctional psychotherapy. The duration of the program is 8 days. The evaluation of the final result was evaluated by a speech therapist using analog scales.

Results. According to the results of the examination, dysphonia was detected in 31 (77.5%) patients with PD. The severity of dysphonia is from 1 to 3 points according to DSI. Of these, a combination of dysphonia and dysphagia was detected in 22 (55%) patients. The severity of dysphagia is from 1 to 2 points on an analog scale. At the same time, the presence of dysphonia was determined by self—assessment in 15 patients, the presence of mild and moderate dysphagia in 7 patients. Patients with pseudobulbar disorders were characterized by more severe symptoms of the disease according to UPDRSMDS ($p<0.05$) and according to the stage of pain (HenYar scale), but were comparable in severity of anxiety, depression and cognitive status. There were also no statistically significant differences in the duration of the disease. After undergoing rehabilitation measures, the patients were divided into 2 groups according to the effect achieved. Group 1 — 18 patients — positive effect (+mean 1.0 points on DSI (dysphonia), + mean 0.5 on dysphagia scale). Group 2 — 13 patients — no effect. There were no significant differences in motor, affective, cognitive statuses in the groups. In group 2 patients, as a result of rehabilitation and psychocorrective classes, low motivational potential, tendencies to devaluation of methods were noted. The presence of behavioral dysphonia was determined in both groups.

Conclusion. Correction of pseudobulbar disorders in patients with Parkinson's disease is a complex medical and social task, since it affects not only the quality of life and survival of the patient, but also increases the burden on the caregiver. The study confirms the latent course of pseudobulbar symptoms, the low percentage of self—determination of the defect by the patient - 48.3% and the lack of awareness of patients about correction techniques. Considering the combined development of dysphonia and dysphagia in 71% of cases, the data obtained suggest that the possibility of excluding dysphagia in all PD patients with phonation disorders. The development of pseudobulbar disorders is based on sensorimotor deficiency due to reduced activation of the facial, pharyngeal and respiratory muscles, which is resistant to standard dopaminergic therapy. Based on this, only targeted training of these muscles can have a significant effect on the correction of phonation and swallowing disorders. The lack of a clear relationship between pseudobulbar disorders and motor, affective, cognitive statuses is more obvious presents the motivational and personal aspect as a predictor of the effectiveness of rehabilitation measures at any stage of the disease. Prevention of dysphonia,

including behavioral dysphonia, is a strategic task to reduce the frequency and severity of swallowing disorders in PD patients.

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RESULTS OF TREATMENT OF CHILDREN WITH LONG-TERM VIOLATION OF CONSCIOUSNESS

Introduction. Currently, the number of papers devoted to the results of the treatment of patients in a vegetative state (VS) and a state of minimal consciousness (SMC) of childhood (under 18 years) is small. Long-term results of VS outcome in patients aged 0 to 25 years have been published in several large studies. Outcomes are mainly considered in the period from 2-5 years from the moment of brain damage, only in two studies — in a period of more than 5 years. The most representative samples of patients in VS and SMC aged 0 to 25 years are presented in the proceedings groups of rehabilitologist's working in a large rehabilitation center for patients with long-term impairment of consciousness. The authors analyzed the results of work with patients who were admitted to the rehabilitation center in the period from 2020 to 2023.

Keywords: impaired consciousness, rehabilitation, childhood, hypoxia, traumatic brain injury.

Materials and methods. In the intensive care unit from 2010 to 2020, 33 patients aged from 1 g to 18 years with long-term impairment of consciousness were treated. Upon admission to the institute, 31 patients were in the SUN, two patients in SMS. The average age of 99 NEUROREHABILITATION - 2022 was 8.5 years. The etiology of long—term impaired consciousness in these patients was as follows: 12 patients with a consequence of TBI, 14 patients suffered various variants of hypoxic brain damage, 3 - cerebrosubarachnoid hemorrhage, 3 — meningoencephalitis, 1 patient — ischemic stroke. The outcome of treatment and rehabilitation is estimated after 12 months and is presented in the table. The neurological status was assessed at least 5 times during hospitalization using the "Coma Recovery Scale (CRS)" (Coma Recovery Scale).

Evaluation of the outcomes of VS in pediatric patients 12 months after various variants of brain damage

Patients (n=33)	SMC minus	SMC plus	The level of consciousness exceeds SMC	Chronicles some VS
TBI (n=12)	2 (6%)	2 (6%)	4 (12%)	6 (18%)
Hypoxia (n=14)	2 (6%)	2 (6%)	0	10 (30%)
Another option is nontrauma tic etiology (n=7)	0	2 (6%)	0	5 (15%)

Conclusion. Outcomes in patients with long—term impairment of consciousness in the age group up to 18 years are comparable with the results of older patients - in our group of patients, we did not find better outcome indicators compared to the older age group. For a more detailed assessment of the neurological status and the detection of early signs of consciousness, it is recommended to evaluate the neurological status of the patient in VS and SMC using the "Coma Recovery Scale (CRS)" scale (Coma Recovery Scale). The conducted studies have shown that this scale, in comparison with with other scales, it allows you to identify signs of consciousness as accurately as possible and make a differential diagnosis between VS and SMC. According to the results of our work, the CRS assessment should be carried out at least 5 times during the period of hospitalization of the patient, which will provide more reliable results in assessing the neurological status.

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TIKUV BUYUMLARINI ISHLAB CHIQARISHDAGI CHIQINDILARNING TURINI O‘RGANISH

Annotasiya: Maqolada turli assortimentdagi tikuv buyumlarini tayyorlashda ishlab chiqarishdagi chiqindilarning turini taxlili yoritilgan
Kalit so‘zlar: Tikuvchilik sanoati, mahsulot sifati, assortiment, gazlama, xom-ashyo.

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STUDY OF THE TYPE OF WASTE IN THE MANUFACTURING OF SEWING ITEMS

Abstract. The article analyzes the type of production waste in the preparation of various types of sewing products
Key words: Garment industry, product quality, assortment, gasification, raw materials.

Kirish. Respublikamiz taraqqiyotining hozirgi bosqichi har qaysi soha oldida murakkab yangi vazifalarni qo‘ydi. Jumladan yengil sanoat sohasi xodimlari oldiga korxonalarni qayta qurish, uskunalarni zamonaviylashtirish, ishlab chiqarishni kompleks mexanizasiyalashtirish va avtomatlashtirish, yuqori sifatli, chiroyli kiyimlarning ommaviy turlarini tikadigan yuksak unum, tezda qayta moslashuvchi yangi texnologik oqimlarni qurish yo‘li bilangina tubdan yaxshilash vazifasi qo‘yilgan.

Loyihalangan mahsulot turini ishlab chiqarishda joylashmalar orasidan chiqadigan material qoldiqlari-chiqindi deb ataladi. Bunday qoldiqlar ratsional yoki noratsional turlarga bo’linadi. Agar gazlamani bichishda iloji bo’lsa faqat ratsional qoldiq qoldirib bichish tavsiya etiladi. Ushbu chiqindilardan xuddi shu korxonaning o’zida boshqa turdagi mahsulot ishlab chiqarishda dastlabki xom-ashyo sifatida foydalaniladi yoki ikkilamchi tur tikuv maxsulotlarini tayorlash uchun xom-ashyo sifatida boshqa bir korxonalarga yuboriladi.

Yechiladigan muammo va masalaning qo‘yilishi. Turli tashkilotlarda o’tkazilgan tadqiqotlar natijasi shuni ko’rsatdiki, bunda matodan oqilona foydalinilsa, ko’pgina miqdorda rezervlarni tejash mumkin. Birgina bartaraf etilishi mumkin bo’lgan chiqindilar (tushamadagi andozalar orasidagi chiqindilar, to’shama uzunligi va kengligi bo’yicha chiqindilar) kamaytirilganda mato sarfini 3—4% ga kamaytirish mumkin.

Bevosita bichish jarayonidagi chiqindilarni kamaytirishga sezilarli darajada ta’sir etuvchi omillar qatoriga quyidagilarni: to’plarning chiziqiy o’lchamlarini, ulardagi nuqsonlarning topografik ta’sirini, nazorat usullarini tashkil etish va uni parametrlarini aniqlash, shuningdek foydalanilgan materiallarni hisoblashda qo’llaniluvchi usul vavositalarni kiritish mumkin.

To’quvchilik korxonalarida ishlab chiqarilayotgan ko’pgina mato turlarigaxos bo’lgan mato kengligining o’zgarishi, yetkazib berilayotgan partiya ichida ham, mato to’plari ichida ham nomoyon bo’lishi mumkin. Bugungi kunda amaliyjihatdan turli kenglikdagi matoni ishonchli qayd qilinishi ta’minlovchi,mato to’pi kengligini aniqlash bo’yicha ob’ektiv metodika mavjud emas. Bu bilan bog’liq bo’lgan holda, hozirgi paytda amaliyotda matoning to’liq kengligidan foydalanilmaydi. Material to’pini tanlashda va hisoblashda ularning kengligi turlicha bo’lishi yetarlicha hisobga olinmayapti, natijada ko’pincha to’shamalar turli kenglikdagi to’plardan shakllantiriladi, bu esamaterialning qo’shimcha yo’qotilishiga olib keladi.

Bundan tashqari hisoblash uchun material to’plarini taxminiy konfektsion tanlash tasodifiy xarakterga ega, qoidaga binoan, mazkur kenglikdagi resursni taqsimlash optimalligini ta’minlamaydi, ma’lum modeldagi buyumni bichishda xar doim ham ratsional kenglikdagi materialdan foydalanilmaydi. Bundan tashqari, asosan matoning fizik-mexanik xususityati bilan aniqlanuvchi, vaqt bo’yicha uzunlik o’lchovidagi mavjud nostabillik o’lchov natijalariga ta’sir etadi va material to’pini ratsional hisoblashda, ularni to’shashda va bichishda bir qator qiyinchiliklar tug’iladi. Umuman olganda, matoning chiziqli o’lchamlari haqida ishonchli ma’lumot olish juda muhim bo’lishiga qaramay, ularni to’g’ri aniqlash muammosi, shuningdek materiallardan tejamkor foydalanishga ularning ta’sir etishi yetarlicha o’rganilmagan.

Bunda xar bir mato to’pi bir marta ko’zdan kechirilgan holda, faqatgina bitta bichish kartasi uchun hisoblash amalga oshiriladi, bu esa mazkur jarayon samaradorligini kamaytiradi, chunki partiyadagi materialni bir vaqtning o’zida hisoblashda buyumining barcha seriyasi uchun olinadigan afzalliklardan foydalanilmaydi. Xususan, bu barcha mavjud mato massivi bir necha marta ko’rib chiqqqan holda, xar bir to’pni hisoblash variantlari sonini va eng yaxshi variantni tanlash imkoniyatini sezilarli darajada oshiradi, berilgan assortimentga qo’yilgan talablarni kafolatlaydi. Bularning barchasi sezilarli darajada mato chiqindilarini kamaytirishga va bir qator opretsiyalarda mehnat unumdorligi kamayib ketishiga olib keladi.

Tikuv korxonalarida materiallarni qoldiqsiz bichish samaradorligi ko’pincha yetkazib berilayotgan mato to’plarining ratsional uzunligiga, ulardagi haqiqiy va

shartli rezervlar miqdoriga, nuqsonlar turiga va joylashuviga bog'liq bo'ladi. Texnik va tashkiliy xarakterga ega bo'lgan sabablarga ko'ra katta uzunlikda ishlab chiqarilayotgan matolar, hozirgi paytda to'qimachilik korxonalarida chiziqli o'lchamlari va biror sortga mansubligi yakuniy nazoratdan o'tkazilayotganda uncha katta bo'lmagan uzunlikka nisbatanbo'laklarga (otrezlarga) qirqiladi

Bunda sortining baland-pastlik ko'rsatgichi va ayniqsa mato bo'laklarining bichish bo'yicha tavsifi ma'lum miqdorda katta uzunlikdagi mato to'plarini bo'laklarga ajratishda qo'llanilgan usulga bog'liq bo'ladi. To'qimachilik korxonalarida katta uzunlikdagi mato to'plarini bo'laklarga ajratish amaliy jihatdan nuqsonlar topografiyasini hisobga olmagan holda, ketma-ket amalga oshiriladi, chunki nazoratchi kerakli ma'lumotga ega emas.

Modomiki, sub'ektiv baholash asosida matoni tartiblash optimaldan yiroq ekan, bu jarayonni o'tkazish metodikasi xalq xo'jaligida tejamkorlikni hisobga oladigan yakuniy samaradorlikni olish imkoniyatini ta'minlamaydi, tikuv korxonasi iste'molida uning yo'qotilishini minimallashtirgan holda, tayyor matoni qayta ishlash bosqischida unga erishish mumkin.

Yuqorida qayd qilingan muammolarni yechish matodan unumli foydalanish, tikuv korxonalari mahsulotlariga gazlama sarf hajmini kamaytirish, material rezervlari o'lchovini kamaytirish va ishlab chiqarish rentabilligini oshirish imkonini beradi.

Xalq xo'jaligida va tikuvchilik korxonalarida chiqindilarni va material sarfini reja asosida qisqartirish dolzarb vazifa hisoblanadi. Bunda mahsulot tannarxini kamaytirishda matodan ratsional foydalanish muhim ahamiyatga ega bo'lgan omil hisoblanadi va korxona rentabellik darajasiga sezilarli darajada ta'sir ko'rsatadi.

Tikuv korxonalarini tashkillashtirish, matoni qayta ishlash bo'yicha takomillashtirilgan texnika va texnologiyadan foydalanishga, shuningdek, xom-ashyo chiqindilarini kamaytirish bo'yicha qabul qilingan chora-tadbirlarga qaramay, hozirgi paytgacha materiallarning sarflanish hajmi yuqori bo'lib qolmoqda. Joylashmalar orasidan chiqqan chiqindilardan esa yetarli darajada sanoatda keng foydalansa bo'ladigan mahsulotlar ishlab chiqarilmayapti.

Tikuv korxnalarida matoning solishtirma ulgurji bahosi mahsulot tannarxida 80—90% ni tashkil etsa, matodan foydalanish koeffitsienti 0,86dan oshmaydi.

Korxona rentabellik darajasini oshirish uchun birinchi navbatda, foydalanishga yaroqsiz chiqindilarni kamaytirish evaziga, matoning solishtirma sarfini kamaytirishga yo'naltirilgan chora-tadbirlarni uzluksiz amalga oshirish kerak.

Bir vaqtning o'zida bitta polotnoda ikkita va undan ortiq andoza komplektini va to'shamada matoni "o'ngini-o'ngiga" qaratib joylashtirish evaziga, barcha yo'qotilishga nisbatan 72% ni tashkil etuvchi andozalar orasidagi mato rezervlari tashlanishini sezilarli darajada kamaytirishga erishiladi.

Andozalar konfiguratsiyasi turlicha va taqsimlanish nisbati variantlari ko’p bo’lsa, qayd qilingan yuzada lekalalar taqsimlanish nisbatining optimal variantini tanlash juda qiyin kechadi. Hozirgi paytda bu maqsadni amalga oshirish uchun matematik apparat ishlab chiqilgan. Amaliy jihatdan erishilgan lekalalar orasidagi yo’qotilishni kamaytirishning yagona usuli taqsimlanish nisbati uzunligini oshirish hisoblanadi, bu ikkita va undan ortiq lekalalar komplektini taqsimlagan holda,va mato polotnolaridan xar biriga ikkinchi xuddi shunday polotnoni to’shab amalga oshiriladi. Kattalar uchun ustki kiyim bichishda, bunday bichish usuli buyum detallari ikkita lekala komplektini “yuzini yuziga” qo’yib, bir vaqtning o’zida umumiy uzunligi 7,5 dan to 10mgacha bo’lgan ikkita bir xil matoni to’shashni talabqiladi. Bitta buyumda xar xil rangdagi detallar bo’lmasligi uchun buyum detallarini alohida turli matolarda bichish texnologik jihatdan mumkin emas. SHunday ekan, faqatgina yaxlit sonli qiymatda buyum taqsimlanish nisbatini to’liq komplektda kengaytirish maqsadga muvofiq bo’ladi. Polotnolarni qoldiqsiz bichish uchun uzunligi 7,5÷10*m li*to’plaridan foydalanish kerak.

Tikuv korxonalariga turli uzunlikdagi va kenglikdagi mato to’plari kelib tushadi. Uzunliklari turlicha bo’lgan gazlamalar qanday alohida bichilsa, xuddi shunday turli rangdagi polotnolar ham alohida bichiladi. Bunda bir vaqtning o’zida alohida bichiladigan va birga qo’shib bichiladigan gazlamalar turli variantlarda ishlanadi. Bu bichishning cheksiz qaytarilmas mavjud miqdoriga ta’sir qiladi, buning natijasidabichishning xar bir alohida variantida bichishning optimal variantini izlash maqsadga muvofiq bo’ladi degan xulosa kelish mumkin.

Bichish uchun mo’ljallangan gazlamalar asosan “o’ngini pastga qaratib yalang qavat yoki o’ngini-o’ngiga qaratib yalang qavat” to’shaladi. Gazlama to’plaridan ratsional foydalanish maqsadida avval ular to’shamaga mo’ljallab xisoblanadi. Agar xisob natijasida qoldiqlar chiqadigan bo’lsa, faqat ratsional qoldiqlar chiqarish tavsiya etiladi. Bunday qoldiqlardan erkaklar, ayollar va bolalar ustki kiyimlarida bezak detallar, qo’shimcha buyumlarni yaratishda foydalaniladi. Qoldiqlardan foydalanish buyum tannarxini oshib ketishiga ta’sir qilmasligi kerak.

Xulosa. Tikuvchilik sanoatida chiqadigan chiqindilarning turlarini o’rganishda, avvalo, tikuv buyum turi uchun tanlangan gazlama turi o’rganib chiqiladi. Joylashma tayyorlashda ushbu gazlama turi qanday enlarda mavjud ekanligi ham tadqiq qilinadi. Masalan, ayollar koplektlari uchun mo’ljallangan trikotaj va kostyumbop gazlamalar orasidan chiqadigan chiqindilar shakli o’xshashdir. Ular asosan romb, ovalsimon, to’g’ri to’rtburchak va yarim aylana shakllariga ega. Bunday shakldagi chiqindilardan “quroq maxsulotlari” yaratishda foydalansa

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RELIGIOUS FANATICISM IS A FACTOR THAT NEGATIVELY AFFECTS THE SOCIAL DEVELOPMENT OF SOCIETY

Abstract: This article analyzes religious fanaticism as a factor that negatively affects the social development of society.

Key words: terrorism, religious fanaticism, religious values, individualization, development.

The first and main reason for the origin of religious extremism is the emergence of fanatical ideas and views. People who have poisoned their minds and become fanatics do not refuse to do any inappropriate things, considering what they are doing to be right. However, the real goal of the “leaders” who started them on this path is essentially inhuman. Their main intention is to establish the ancient Arab caliphate in the whole of Asia. However, their main intention is not limited to this, they seize power under the guise of religion, and in this way, they cannot resist killing the great creature called “man"'. They are doing their evil and disgusting deeds in different countries at this very moment.

It has been known for a long time that Islam spread to the territory of Uzbekistan from 643-644 years, but several works related to Islam were created in this region. state in the 8th-14th centuries) through Movarounnahr (the lands occupied by the Arabs - "the other side of the river" in Arabic at that time referred to the area between the Amudarya and Syrdarya rivers), then from the 9th century these sciences became part of the region developed in zida. By this time, six collections of authentic hadiths recognized in the Islamic world (assihah as-sita), then three collections were added to form nine books (alkutub at-tis'a). Three of them It was compiled by the scholars of Movarounnahr - Imam Bukhari, Imam Termizi, Imam Dorimi. Since then, Islam has been recognized as our national religion in our region. Freedom of religious values with the honor of independence made it possible for Islam to take its place in society. But at the same time, the views that developed in secret and formed under the influence of various ideologies under the guise of religion also created favorable conditions.

Now the question arises, who can be called people who use such a pure religion as a mask for their malicious intentions. They intended to establish a caliphate. If they don't know what our prophet Muhammad Mustafa, may God bless him and grant him peace, said, "The caliphate will be 30 years after me, countries will appear."

According to information, about 500 terrorist organizations are operating in the world today. During 1968-1980, they committed about 6700 terrorist operations. As a result, 3,668 people died and 7,474 people were injured. This statistic can be a proof of my above thoughts. For 22 years, 3,668 people became victims of subversive acts, and I told you that more than 3,000 people were killed in the events of September 11 alone, due to the growing desire of terrorist organizations for globalization and society.

Extremism and terrorism not only undermine people's faith in the future, but also overshadow problems in the international arena, including mutual trust between peoples of different faiths, and hinder the development of international economic and cultural cooperation. is dying. According to experts, more than a hundred terrorist organizations in the world are armed with the most modern weapons, and these organizations share information with each other, become partners when carrying out subversive activities, and provide each other with financial assistance when necessary. and provide assistance in other forms. Among the largest such organizations are Al-Qaeda, Al-Jihad al-Islami, Hizbut-Tahrir, Taliban, ISIS, Wahhabis and we can mention other terrorist organizations as an example. Currently, Islamic extremism and related terrorism pose a particular threat to more than 15 countries of the world. These countries include Sudan, Egypt, Syria, India, Saudi Arabia, Algeria, Libya, Senegal, Pakistan, Malaysia, Indonesia, Palestine, Iraq and other countries where terrorism has taken root. Currently, the most terrible acts of sabotage are taking place in the territories of Syria, Iraq and Afghanistan. The events that took place in Uzbekistan on February 16, 1999 (Tashkent), March-April and July 2004, and May 2005 (Andijan) are one of the next "atrocities" of the large-scale international terrorist structure. there is no doubt. Our country is not the first country to face religious extremism and terrorism and suffer from its complications. It is a disease that threatens the security of many countries of the world today.

We know that when a child is born, it does not run away, or immediately say the words "mother" or "father". But how did this new terrorist organization gain such power in such a short time? The answer is one!! Behind them, so to speak, there are black-handed organizations whose breadwinners are as dangerous to the world as black thigh disease. They encourage such subversive groups to start wars by providing them with weapons and finances. Immediately, putting on their second mask, they sell weapons and lend money to the attacked country for its self-defense, history can testify to this.

Who are filling the ranks of terrorists? Who are joining knowingly or unknowingly?

One of the factors that feed this brutality is the poor population, and one of the main factors is ignorance, lack of education and, of course, social strata with an ideological gap in their minds entering this path. That is why the extremists use our holy religion as a mask for their hateful ideas, influence

people's minds with non-existent religious laws, gather around them, and in this way do not even spare lives. In fact, religion is not for them to believe, but it serves as a weapon or a mask for their vile deeds, hateful, malicious, disgusting intentions - to seize political power by force.

According to the briefing held at the Ministry of Foreign Affairs of the Republic of Uzbekistan for local and foreign media representatives, with the help of such organizations as "Hizbut Harakati Jihad", "Da'wat Ul Irshad" and "Society of Islamic Scholars of Pakistan" (Most of them are from Ferghana Valley) young people are being "educated" in religious educational institutions located in Peshawar district.

One of the things that worries and makes us all think and requires us to pay more attention to the problems related to the peace of our country is that in these secret centers in Pakistan, about 400 people from Central Asia, mainly from Tajikistan and Uzbekistan, are living in our country. is that he is preparing to carry out various subversive activities. In such a complicated situation, it is the need of the hour for every citizen of our country to collect all their thoughts and opinions and think deeply about the future and peace of their country, about the prospects of our people, about their duties, their duties to the family and the country.

Our first President rightfully believes in the great potential of religion in educating the citizens of Uzbekistan and states that "we are supporters of religion to enjoy the most family moral and spiritual values, historical and cultural heritage." "But we," continues I.A. Karimov, "will never allow religious appeals to become a flag for meddling in the struggle for power, politics, economics, and jurisprudence."

The concept of religious extremism is often used in our press at present. Extremist priests call such people apostates, i.e. blasphemers, and punish them mercilessly. Although the extremists in the Islamic religion are working under the guise of reviving the old Islamic ideas in order not to fall under the influence of the developed powerful countries in the west and to fight against the danger of losing independence in the life of the society and government policy of the Muslim countries, in fact their religious and political views striving for power is aimed at taking control of the country.

Today, it is necessary to create a healthy environment in the minds of young people, make them owners of a healthy ideology, and keep them under control until they reach the level where they can choose the right path independently.

Today, the issue of improving the socio-spiritual environment and living conditions of the population, protecting young people from the influence of various religious extremist currents is the most important issue for all of us.

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PROBIOTICS IN PRIMARY PREVENTION OF ATOPIC DISEASE: A RANDOMISED PLACEBO-CONTROLLED TRIAL

Abstract: This article provides information on probiotics in primary prevention of atopic disease: a randomized placebo-controlled trial

Keywords: breast feeding; cow's milk allergy; food allergy; eczema; atopy; prevention; review; statements of evidence.

Reversal of the progressive increase in frequency of atopic disease would be an important breakthrough for health care and wellbeing in Western societies. In the hygiene hypothesis this increase is attributed to reduced microbial exposure in early life. Probiotics are cultures of potentially beneficial bacteria of the healthy gut microflora. We assessed the effect on atopic disease of Lactobacillus GG (which is safe at an early age and effective in treatment of allergic inflammation and food allergy). Methods In a double-blind, randomised placebo-controlled trial we gave Lactobacillus GG prenatally to mothers who had at least one first-degree relative (or partner) with atopic eczema, allergic rhinitis, or asthma, and postnatally for 6 months to their infants. Chronic recurring atopic eczema, which is the main sign of atopic disease in the first years of life, was the primary endpoint. Findings Atopic eczema was diagnosed in 46 of 132 (35%) children aged 2 years. Asthma was diagnosed in six of these children and allergic rhinitis in one. The frequency of atopic eczema in the probiotic group was half that of the placebo group (15/64 **[**23%] vs 31/68 **[**46%]; relative risk 0·51 **[**95% CI 0·32–0·84]). The number needed to treat was 4·5 (95% CI 2·6–15·6). Interpretations Lactobacillus GG was effective in prevention of early atopic disease in children at high risk. Thus, gut microflora might be a hitherto unexplored source of natural immunomodulators and probiotics, for prevention of atopic disease.

Introduction Allergy, in the form of atopic diseases such as atopic eczema, allergic rhinitis, and asthma, is a chronic disorder of increasing importance in economically more-developed countries.1 The International Study of Asthma and Allergies in Childhood2,3 included 11607 Finnish children aged 13–14 years; 10–20% of the children had symptoms of asthma, 15–23% allergic rhinitis, and 15–19% atopic eczema. Proof of an inverse association between infections early in life and atopy has led to renewed interest in the hygiene

hypothesis devised by Strachan4 a decade ago. The recent rapid rise in atopy might be a result of improved hygiene and reduced family size. Recent epidemiological studies have yielded results both for,5–7 and against,8 such a hypothesis. We propose that specific microbes in the commensal gut microflora are more important than sporadic infections in atopic disease prevention. Gastrointestinal microflora promote potentially antiallergenic processes: (1) T-helper1-type immunity;9 (2) generation of transforming growth factor, 10,11 which has an essential role in suppression of T-helper-2-induced allergic inflammation12 and induction of oral tolerance;13 and (3) IgA production,14 an essential component of mucosal immune defence. The gut microflora might therefore be a major postnatal counterregulator of the universal T-helper-2-skewed immune system in fetuses and neonates. Confrontation between microbes and their antigens in the gastrointestinal tract begins instantly after birth, and the viable cells of fully established gut microflora outnumber those of the human host by a factor of ten.15 Consequently, commensal gastrointestinal microbes are the earliest and biggest stimulus for development of gut-associated lymphoid tissue. Probiotics are cultures of potentially beneficial bacteria of healthy gut microflora15 and one such strain, Lactobacillus rhamnosus (Lactobacillus GG, American Type Culture Collection 53103), has proved safe at an early age and effective in treatment of allergic inflammation11 and food allergy.16 In a double-blind randomised placebo-controlled trial of prevention of atopic disease, we gave Lactobacillus GG prenatally to mothers and postnatally for 6 months to their infants at high risk of these diseases. Methods Participants and study design The only inclusion criterion was a family history of atopic disease—ie, one or more family members (mother, father, or older sibling) with atopic eczema, allergic rhinitis, or asthma. Families were recruited in antenatal clinics in Turku, Finland (population 170 000) between February, 1997, and January, 1998, to avoid the effect of birth month on atopic sensitisation. On the basis of our sample-size calculation before the study, 159 mothers were randomly assigned by computer to receive two capsules of placebo (microcrystalline cellulose) or 1 1010 colony-forming units of Lactobacillus GG (Valio Ltd; Helsinki, Finland) daily for 2–4 weeks before expected delivery. After delivery, breastfeeding mothers could take the capsules, otherwise children received the agents; in the latter case, capsule contents were mixed with water then given by spoon. Both these modes of administration have resulted in similar amounts of Lactobacillus GG in infant faeces.16 Lactobacillus GG and placebo capsules and contents looked, smelled, and tasted identical. Capsules were taken postnatally for 6 months. Treatment codes were kept by the supplier until data had been collected and analysed—ie, until March, 2000. Children were examined during the neonatal period and on study visits to a department of paediatrics at ages 3, 6, 12, 18, and 24 months. The outcome measure was atopic disease at 2 years. Since chronic recurring atopic eczema is the main sign of atopic disease in the first years of life,17 it was the primary study endpoint.

Children were grouped as having this disorder (children with atopic eczema) or not (healthy children). The study was approved by the Committees on Ethical Practice in Turku University Hospital and the Health Office of Turku. Written informed consent was obtained from children's parents. Procedures The physician (MK) who did the physical examinations, diagnoses of atopic disease, and antiasthma treatments was unaware of the contents of the capsules until March, 2000, when all data had been obtained and analysed. Physical examination included inspection of eyes, ears, nose, and skin, auscultation of heart and lungs, palpation of abdomen, and assessment of growth and neurological development. Parents were asked about their child's signs and symptoms that were possibly related to atopic disease: redness, dryness, oozing, and scratching (itch) of skin; redness, discharge, sneezing, and rubbing (itch) of eyes and nose; and cough, wheeze, and shortness of breath. Sensitisation to common dietary and respiratory antigens was measured by: skin-prick tests at ages 6, 12, and 24 months; and by total and antigen-specific IgE assays in umbilical cord blood and at ages 3, 12, and 24 months. Atopic eczema was confirmed by pruritis, facial or extensor involvement, or both, and chronic relapsing course.17 This last criterion was fulfilled if the child had had eczema for 1 month or longer at the 24-month study visit and on at least one previous visit. The SCORAD index18 was used to assess eczema severity. Allergic rhinitis was diagnosed if the baby had on most days two or more of: nasal discharge, blockage, sneezing, and itching. For diagnosis, temporal relations had to be established between these symptoms of allergic rhinitis, symptoms with allergen exposure, relief of symptoms by antihistamine treatment, and evidence of atopic sensitisation (ie, positive skin-prick test or positive radioallergosorbent assay, or both). Asthma diagnosis was based on an algorithm created by an international paediatric asthma concensus group.19 Asthma was diagnosed if an infant had chronic or recurrent cough, wheeze or shortness of breath, or both, suggestive of asthma, and if other diagnoses were excluded and trial antiasthma treatment was effective. Assays for serum total IgE and specific IgE antibodies to milk, egg, cat, and house-dust mite were done with the Pharmacia CAP FEIA immunoassay on a UniCAP 100 automatic analyser (Pharmacia and Upjohn; Uppsala, Sweden) in accordance with manufacturer's instructions. An antigen-specific IgE value of more than 0·35 kU/L was classed as increased. Skin-prick tests were done as previously described,20 and antigens tested included: milk; wheat and rye flours, both diluted 1/10 (weight/volume) with 0·9% (weight/volume) sodium chloride; gliadin diluted 1/1000 (weight/volume) with 0·9% (weight/volume) sodium chloride; banana, potato, and carrot (all three by prick-prick technique), egg white, cod, soya bean, birch, six local grasses, cat, dog, and Dermatophagoides pteronyssimus allergen Der p1 (ALK; Abellò, Denmark); and latex (Stallergens; Marseille, France). Statistical analysis The anticipated frequency of atopic disease in the placebo group was 50%. With at least 56 individuals in each group, a reduction of 25% in the frequency of atopic

disease could be detected at a 5% level of significance with 80% power. Normally distributed data are expressed as means with 95% CI, and skewed data as geometric means with 95% CI after logarithmic transformation. Values were compared between the groups by unpaired t test. 2 test was used to compare proportions between the groups. Relative risk and the number needed to treat, both with 95% CI, were used to describe the treatment effect of Lactobacillus GG.21 The proportion (and 95% CI) of children with atopic disease in both groups was calculated with the formulas devised by Gardner and Altman.22 Total IgE concentration was rated as high if it were greater than the geometric mean concentration of total IgE plus 1 SD in children without atopic disease.23 A p value less than 0·05 was regarded as statistically significant.

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TREATMENT OF PATIENTS WITH TERMINAL RENAL FAILURE RECEIVING CHRONIC HEMODIALYSIS

Abstract: A growing number of publications in the literature show that chronic pain is also characteristic of patients with terminal renal failure (TRF). The disease tends to be moderate or severe and affects virtually all aspects of health and quality of life. Unfortunately, there is a lack of clinical and research focus in nephrology, and TAPN pain is poorly understood. The article reflects the main aspects of the problem of pain medication therapy for patients with terminal renal insufficiency receiving chronic hemodialysis. The main pathophysiological mechanisms of medication influence on kidney structures are described.

Keywords: renal insufficiency, pain, hemodialysis, non-steroidal anti-inflammatory drugs, antidepressants, anticonvulsants in pain treatment.

Dialysis is a successful life-supporting therapy for patients with end-stage renal failure (ESRF), its effectiveness is largely judged by the survival of patients. However, the dialysis patient population is aging and suffering from various concomitant diseases, and in the future it will become increasingly difficult to maintain a reasonable level of health-related quality of life (HRQL) for these patients. A growing body of literature has shown that pain is the most common symptom for patients with ESRF, affecting almost every aspect of HRQL, and is also the first symptom of greatest anxiety towards the end of patients' lives. The range of chronic pain varies from moderate to severe, as well as insufficiently stopped. For these reasons, it is very important for nephrologists and family doctors to master the principles of pain assessment and management. Despite this, clinical and research directions in this area are absent or insufficiently studied. This article will examine the epidemiology of chronic pain in ESRF, as well as discuss the basic principles for assessing and treating pain, and highlight some problems in the treatment of pain in ESRF, with the hope of further recommendations by medical professionals in the effective management of pain in patients with ESRF.

Pain of various localization and intensity is one of the main complaints of patients with end-stage renal failure in conditions of dialysis centers. The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage." **[**1] The epidemiological evidence of pain in ESRF is extremely limited, but nevertheless, recent studies have shown that moderate to severe chronic pain is often found in ESRF. The literature suggests that between 37% and 50% of hemodialysis patients

experience chronic pain and that for 82% of these patients, pain in intensity is moderate to severe. [2-4] Even in the last days of life, pain is present in 42% of patients leaving dialysis. It is unambiguous that it represents an important sensation that allows one to appropriately perceive the damaging effects and avoid factors causing danger to the body as a whole, but very often in this category of patients the pain syndrome is chronic and becomes an independent disease, reducing not only the quality of life of patients, but and worsens their condition for the next dialysis sessions. In addition, any pain always has an emotional aspect, which leaves its mark on the affective status of the patient and on his attitude not only to the disease, but also to the treatment as a whole. Adequate analgesic therapy is one of the most important tasks of everyday clinical practice, as it is important from an ethical and economic point of view andis an indispensable component of successful treatment and rehabilitation of such patients. Currently, for the choice of methods of drug therapy for pain, the most important is the understanding of the pathogenetic mechanisms underlying it, the so-called mechanism-based therapy. Allocate acute and chronic pain. It must be remembered that pain can be nociceptive, neuropathic, dysfunctional and mixed, therefore, approaches to drug therapy will differ. With nociceptive pain, the use of non-steroidal anti-inflammatory drugs (NSAID), analgesics is indicated, in some cases with severe nociceptive pain and opioid analgesics. With neuropathic pain, antidepressants, anticonvulsants, opioids, local anesthetics, or a combination of the listed groups of drugs are indicated [1]. Patients with end-stage renal failure receiving therapy with programmed hemodialysis are a special cohort of patients whose approaches to the treatment of pain should also be special. In this article, we consider the characteristics of each group of drugs used for analgesic therapy in patients with the studied pathology. In 1986, WHO recommended a research-based three-step approach to painpharmacotherapy (Fig. 1).

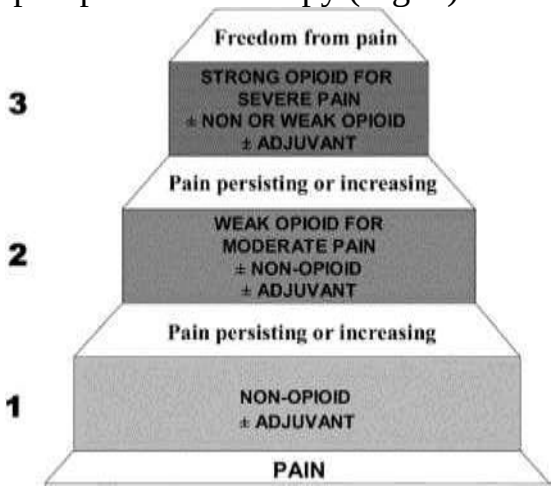


Figure 1. World Health Organization staircase.

However, this concept is not always applicable in dialysis patients. Let us dwell on some important points. The functional unit of the kidney is

nephron. In its structure there is not a single component in which there would be no cyclooxygenase receptors (COX) -1 or COX-2. COX-1 receptors are responsible for controlling intrarenal hemodynamics and glomerular filtration rate, COX-2 receptors for salt and water excretion. It is COX-2 that is a protector from renoprivalent arterial hypertension [11]. The negative effect of NSAID on the kidneys is manifested by damage to interstitium, decreased glomerular filtration, increased blood pressure (BP) and decreased effectiveness of most antihypertensive drugs (beta- blockers, diuretics, angiotensin converting enzyme antagonists).

The etiology of pain can be caused by numerous causes. Pain can be caused by comorbidity despite the fact that dialysis supports life, systemic diseases and pain syndromes, such as limb ischemia and various neuropathies persist. Given the physiological aging of dialysis patients and the increasing prevalence of comorbidity, including diabetes and hypertension, it is not surprising that chronic pain is a particular problem for patients with ESRF. However, pain can also be caused by ESRF itself. There are numerous pain syndromes unique to ESRF, such as calciphylaxis and renal osteodystrophy, which can develop during dialysis. Pain may be the result of a primary kidney disease (for example, polycystic kidney disease) or the result of treatment with ESRF. Painful chronic infections such as osteomyelitis and discitis are complications from central catheters, and arteriovenous fistulas can lead to painful ischemic neuropathies. Periodic pain caused by the introduction of a needle, muscle cramps and headaches during dialysis is perceived by some patients as chronic pain. [2]

Despite limited data, it seems that pain in the musculoskeletal system is the most common of chronic pain syndromes in both ESRF and the general population. [2] However, unlike the general population, musculoskeletal pain in ESRF is on average in severity equal to neuropathic and ischemic pain. The synergistic effect of hyperparathyroidism and osteoarthritis in the development of bone pain can contribute to the high prevalence and severity of musculoskeletal pain in this population.

However, the relative roles of osteoarthritis and renal osteodystrophy in these chronic pains in patients with ESRF are unclear. Given the various causes of pain in this population, it is not surprising that pain during dialysis in patients is often multifactorial. The ability to distinguish between potential causes of pain is necessary in determining the optimal pain management strategy. For example, neuropathic pain is often difficult to control because it is less sensitive to strong opioids and usually requires adjuvants such as antidepressants and anticonvulsants. the synergistic interaction of these drugs with opioids is usually required for adequate pain control. Chronic pain is associated with a psychological disorder; as well as the problem of interpersonal relationships; excessive use of medical care; a significant limitation of activity at work, in the family and social life; and most

importantly, the adoption of the role of the chronic patient. [6,7] Recent studies in the field of ESRF suggest that the patient's perception of physical symptoms, especially pain associated with depression and insomnia, may be more important than objective assessments in the determination of HRQL of patients with ESRF. [2,8,9] The term ‒total‖ pain [10] refers to any unmet needs of the patient that can aggravate the pain and capture the importance of all of the following interactions: physical, emotional (anxiety and depression), social (isolation and abandonment), spiritual (search for meaning and purpose), and financial (fear of burdening the family). [11] The pain threshold and response to pain therapy is largely dependent on these patient-related factors, rather than the effectiveness of the analgesics. These psychosocial and spiritual problems enter into a vicious circle of interaction and prolong the manifestation of the patient's physical symptoms and suffering. This emphasizes the need to solve psychosocial and spiritual problems, as well as the physical management of pain.

Pain in ESRF is not amenable to adequate treatment, and despite the fact that there is an increasing prevalence of chronic pain, the use of analgesics has decreased over the pastfew years.

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GEOGRAPHICAL CHARACTERISTICS AGRO LANDSCAPES OF KUYIMOZOR TUDAKUL OASIS

Annotation: In this article, the geographical features of oasis agrolandscapes of the Kuyimazar and Tudakul massiv Bukhor region

Key words: forestry, wind erosion, harmsail winds, forest groves, oasis landscapes, agricultural landscapes, soil erosion, Tudakul reservoir, glacial, landscape, erosion, desert zone.

It is known that natural resources are the main foundation of the economic development of our country. Effective use of natural resources, their increase and protection are among the most important tasks of the government. For searching a scientific solution to these issues, geography, especially the landscape science has a great potential. That is, every landscape that is reflected in natural landscapes is a source of natural resources. Natural resources are not found separately in landscapes, they are found interdependently, requiring each other. The use of natural resources of landscapes and their rational organization is very complicated that brings to a problem. It is very difficult to study the landscapes located in the lower part of the Zarafshan River and develop scientific recommendations for their effective use, especially in the desert. One of the most urgent issues in landscape science is their classification, that is, classification, in other words, arrangement and grouping. This is primarily of practical importance, because through classification, quality indicators and ecological features of landscapes are determined, which, in turn, it is necessary for their development. In other words, it is difficult to implement practical measures. Many researchers have expressed their opinions on the classification of landscapes and proposed different taxonomic units. The main factor determining the class of landscapes is the morphotectonic (geomorphological structure) of the region and related processes.

A small class of landscapes is related to the hypsometric height of the place. This factor determines the direction of surface and underground water flows of landscapes, water regime and geochemical processes of landscapes.

The type of landscapes is typological in the original sense. It is the largest and main of the landscapes. In its formation, the lithogenic factor (relief -

lithology, fragmented rocks) plays an important role. Among the factors that form these landscapes, they are stable and are the foundation of landscapes and determine the bioecological conditions. "Landscape type" in soil science, "soil type" in geobotany, "plant type" and "desert type" in desertology complement each other. Most importantly, it fills one of them and the approach is close to everyday practice development. A.G. In Isachenkov's language, the "operating" unit is the territory.

We have limited this study to distinguishing the types of landscapes in the region of Kuyimozor Tudakul region. The study of the subtype and finally the type of landscapes will be referred to future with more detailed studies.

Due to the study of landscapes of Kuyimozor Tudakul region, the type of landscapes was distinguished. It should be noted that the role of the anthropogenic factor, which has been continuously increasing since 1957, that is particularly important in the formation of this landscape type.

Well-known landscape scientist, St. Petersburg scientist A. G. Isachenkov (1991) landscape type (zone) - subtype of landscape - (subzone - southern taiga) - landscape class (mountain plain) - subclass of landscape high mountain, low mountain - landscape type (folded fractured shale) suggests a system of units.

The well-known natural geographer and landscape scientist from Uzbekistan N.A. Kogay (1982) recommends the following taxonomic units: Landscape classes - (mountain and plain) - groups of landscapes (automorph - hydromorph - semi-hydromorph) - landscape types (desert, desert - steppe - dry steppe, forest-meadow - steppe - meadow - steppe, finally glacial - nival) - generation of landscapes (low mountain desert landscapes) - landscape types (mixed “saksovul” fields on barren soils).

The study of oasis agro-landscapes was based on the principles and units of classification mentioned above.

These landscapes can be found fragmentarily in Kuyimozor region. The oldest are the lands belonging to the Kyziltepa district of the Bukhara oasis. It is one of the ancient farming settlements around Ayronchi village. Crops such as cotton and wheat are grown here. However, land reclamation is difficult, they are usually saline, seepage water reaches a depth of 2-3 meters. In the south of the village of Ayronchi, there are places where they have reached the surface of the earth. Among the oasis landscapes, Urtachul is the youngest newly developed place. Urtachul is a pre-mountain plain, sloping towards the Tudakul lowland, located between the Tudakul reservoir and Kuktogh (the westernmost edge of the Ziyovuddin mountains). The absolute height is 220 - 300 m in the upper part, and it decreases to 220 m in the surroundings of the Tudakul reservoirs. In ancient times, Urtachul (located between the Malik and Karnab deserts) was the home of cattle herders. The pastures are fertile, especially well-grown kangirbash, yaltirbash, karabash, shuvok, partak, singren, chakhich (sugarcane). According to historical sources, more than 60 wells were used in Urtachul, where the area is fully supplied with water from wells. Among them:

Koriz, Choykozak, Gujumlik, Choyidaroz, Yangikuduq, Tandircha, Choikhatib, Tanikli, Beshtepa, Tashkuton, Kirkkuloch, Akkuton, Jarkuton, Sultan Kara, Darvoza, Kumkora, Bormana, Shurkudu, Shopulot, Shurcha, Shahimardan, Bitkana, Tukimtepa, Hafizak, Karayotok, Tudakul, Dongakli, Khurasan, Yulduz Qoq, Rakhinkuduk, Egricha, Chalakuduk, Chaytovok, Okrigoq, Iskandar Tetalon, Yunuskuduq, Achilkora were famous. There is information about the existence of Sardoba in Urtakul. It is located south-east of Tudakul near Buermana (Bormana) mountain.

There is information that the establishment of agriculture began in 1973. The beginning of agriculture is connected with the construction of Urtachul channel. In 1998, 39,485 hectares were owned by "Urtachul Yulduzi", "Zarbdor", "Sardoba", "Hyderabad". Collective farms and forestry farms named after L. Akhmedov, of which 8287 hectares were cultivated and there were 355 hectares of orchards. "Yangi Hayot" is a collective of citizens, with 2,581 inhabitants in 530 families, living in seven neighborhoods (1996). In 1989, 10,000 hectares of land were cultivated in the Urtachul oasis. 4.5 thousand tons of cotton, 930 tons of grain, 12 thousand tons of rice, 750 tons of vegetables, 2740 tons of alfalfa and 4000 tons of rough hay were produced. Productivity was 15.5 centners of cotton and 15.7 centners of grain. A school with 420 seats was completed in the village of "Yangi Hayot" on March 16, 1996. Based on the decision №K-700 "On measures for social and economic development of the district", promising measures for the economic and social development of this area have been developed. In this decision, measures are defined in 17 areas. Development of complex agrotechnical measures in cooperation with republican scientific inspection institutes, specialist scientists, provision of clean drinking water to the population, establishment of agricultural protection department within the agro firm "Khuroson" (founded in 1996), to reduce the impact of wind erosion and garmicel winds with the help of forestry, measures have been established to establish tree groves and improve the melorative condition of the land. Among them, improving the reclamation conditions of irrigated soils (about 10,000 hectares) is one of the leading tasks. According to the slope of the irrigated lands, it decreases towards the Tudakul reservoir. The difference between the absolute heights reaches 80 metres. Therefore, water erosion is stronger longitudinal (deepening) erosion than latitudinal. The lands adjacent to the Tudakul reservoir are becoming increasingly swampy and saline. In 1978, the level of groundwater in these areas rose by 1-2 meters. In addition, gypsum-sur brown soils (77.8%) occupy the main areas in the region. In these places, suffusion processes are widely developed, that is, due to the dissolution of water-soluble salts, the processes of subsidence on the land are accelerated. Desert sandy soils (12.3%) are also susceptible to water erosion. In addition, there are many saline soils (2.9%) and the remaining 7% are other soils (partly barren).

In conclusion, most of the oasis landscapes are located in Urtachul oasis. Farming is done on an area of around 8000 hectars in this area. However, the income from the irrigation water brought at great expense is very low (the yield of cotton and grain is about 20 centners).

In addition, land reclamation condition is getting worse every year. It is necessary to strictly prevent the drainage of ditch water from Ortachol to Todakol. Creation of necessary conditions for living and working of the population in the middle desert is the need of the hour, especially the establishment of infrastructure such as provision of clean drinking water and gas.

When the above measures are implemented, the effectiveness of the landscapes of the Kuyimozor Tudakul region will increase and our country and homeland will be prosperous.

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ZATVORLARNI DISPETCHIRLIK PUNKTI ORQALI BOHQARISH JARAYONINI AVTOMATLASHTIRISH

Annatatsiya.Maqolada zatvorni local tarmoqlardan foydalangan holda masofadan boshqarish uchun mo'ljallangan. Qishloq xo'jaligida sug'orishda hamda suv yetqazib berish jarayonlarida optimal usuldan foydalanish muhimdir. Bu usuldan foydalanishning afzalligi shundaki, inson faktorini kamaytiradi va samarali boshqaruvni ta'minlaydi. Loyihada atmega 328 seriyali mikrokontroler ishlatiladi ijrochi mexanizm sifatida reduktorli motordan foydalaniladi. Ijrochi mexanizmning harakati esa mikrokontrollerda dastur orqali yoziladi va boshqariladi

Kalit so'zlar: Zatvor, ijrochi mexanizm, mikrokontroller, turg'unlik mezoni.

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AUTOMATION OF THE PROCESS OF CONTROL THROUGH THE DISPLAY REMOTE

Abstract.The article is intended for remote control of the gateway via local networks. In agriculture, it is important to use the optimal method of irrigation and water supply. The advantage of using this method is that it reduces the human factor and ensures efficient management. The project uses an atmega 328 series microcontroller and a geared motor as a drive. The movement of the drive is registered and controlled by the program on the microcontroller.

Key words: Gate, drive, microcontroller, stagnation criterion.

Tez rivojlanayotgan dunyoda inson har qanday jarayonni avtomatlashtirilishini talab qiladi. Suv olish va suvni taqsimlash yuqori ish kuchi va xarajatlar bilan bog'liq. Bu, ayniqsa, tog 'oldi tizimlariga tegishli bo'lib, ular katta qiyaliklar, turbulent rejimlar, yuqori oqim tezligi, oqim tezligining katta tebranish amplitudalari, toshqinlarning borligi va boshqalar bilan tavsiflanadi. Shuning uchun doimo yo'llarni izlash tabiiy sug'orish va drenaj tizimlarining

ishlashini yaxshilashdur. Ushbu usullardan biri bu suv olish va suv taqsimlash inshootlarini avtomatlashtirish bo'lib, ularni ob'ektning ishlash dasturini saqlashga imkon beradigan avtomatik ijrochi mexanizmlar bilan jihozlash orqali amalga oshiriladi.

Energiya manbasiga qarab avtomatizatsiya quyidagicha:

1) Suv bilan boshqariladigan zatvorlar;

2) Gidravlik ko’tarma zatvorlar.

avtomatizatsiya asosan gidroelektr stantsiyalarida qo'llaniladi. Bu sizga gidravlik ko’targichlar ishini boshqarish va ularning harakatlarini masofadan boshqarish imkonini beradi. Biroq, bu sug'orish tizimi bo'ylab katta masofalarga tarqalgan avtomatizatsiya ob'ektlarini elektr energiyasi bilan ta'minlash uchun katta kapital xarajatlarni talab qiladi va boshqarish va nazorat qilish mexanizmlari haydovchisining nisbatan murakkab konstruktsiyalari mavjud.

Avtomatlashtirishning gidravlik usulida asosan gidravlik avtomatik ijrochi mexanizmlar qo'llaniladi. Avtomatik zatvorlarni hisoblashning soddalashtirilgan usuli. Y. V. Bochkarev tadqiqot natijalariga ko'ra analitik, grafik-analitik va soddalashtirilgan hisoblash usullarini ishlab chiqdi. Soddalashtirilgan usul bilan eshiklarning parametrlari laboratoriya tadqiqotlari jarayonida olingan bog'liqliklar bilan aniqlanadi. Hisoblash quyidagi ketma-ketlikda amalga oshiriladi.

Dastlabki ma'lumotlar:

1) Mashinaning ishlash sohasidagi kanaldagi oqim tezligi;

2) undagi maxaliy sharoitlari;

3) mashinaning ishlash sohasidagi suv oqimining bo’yi va eni profillari(o’lchamlari).

Panjur plitasi metall yoki temir betondan yasalgan. Tayoqchalar yordamida darvoza buqalar yoki yonbosh tayanchlarga ulanadi. Zarvor paneliga ma'lum bir pozitsiyani berish uchun qo'llarni to'g'rilash vositalaridan foydalaniladi, bu zatvorning har qanday pozitsiyasida aylanishning har qanday nuqtasiga nisbatan barcha kuchlarning momentlari tengligini ta'minlaydi.

Asoslar (podshipniklar) o’qlarning balandligi o'rtasida yelka barchagiga ulaydi.

Obyekt parametrlari

- Tekis zonadagi ochiq kanallarning ko'pchiligining kanallari 0.0001-0.0008 qiyaliklari bilan yotqizilgan;
- Ish maydoni 72 m^2 va undan ortiq bo'lgan balandlik 1.5 dan 4.5 m gacha bo'lgan oqimlarda suv oqimining tezligi (1,5 m / s gacha);
- Kanallar asosan trapetsiya kesimidan iborat bo'lib, yon bag'irlari t = 1,5-2,0;
- sug'oriladigan maydoniga asosan bir tomonlama bo'ladi;
- Yil davomida ko'rib chiqilayotgan sug'orish kanallarini ekspluatatsiya qilish texnologiyasi ishning uchta davrini o'z ichiga oladi: birinchisi, ta'minlanmagan buyruq bilan tavsiflangan kanalni to'ldirish, ikkinchisi normal

ishlash, uchinchisi esa kanalni bo'shatish xavfsiz bo'lmagan buyruq bilan. Davrlarning davomiyligi yildan-yilga farq qiladi, ko'pgina omillarga bog'liq va o'rtacha: birinchi - 40 kungacha; ikkinchisi - kamida 150 kun; uchinchisi - 20 kungacha.

Qabul qilingan parametrlar	Talab etiladigan hisoblar	
	КСПТ3-1	КСПТ3-2
1	2	3
Suv bosimmining minimum tasiri H_{min}	0,7-1,0	0,7-1,0
Zatvorning maksimol ochilishi Q_{max}	$(0,2\text{-}0,38)\,H_{d_{min}}$	
yuqori befga beriladigan maksimal bosim kuchi talab qilinadigan barqarorlashtirish sifati (xato ± 5% dan ko'p bo'lmagan)	$H_{d_{max}} = \frac{H_{d_{min}}[\mu_1^2(1-K)+\mu_2^2 \epsilon_2 K]}{\mu_2}$	

1-rasm Zatvorlarni boshqarish uchun kerakli parametrlar va hisoblar jadvali

kanallar inertial ob'ektlarga ishora qilinadi, ulardagi jarayonlar stoxastik xarakterga ega.

Ko'rib chiqilayotgan kanallarning o'ziga xos xususiyatlarini inobatga olgan holda, magistral kanallarni to'ldirish va bo'shatish davrida ularning normal ishlashi paytida oqimlarni to'g'ridan-to'g'ri tanlash bilan bosh suvi bo'ylab suv taqsimotini avtomatlashtirishning birlashtirilgan sxemasi taklif etiladi. Sug'orish tizimlari kanallarida suvni taqsimlashning avtomatlashtirish sxemasi 1-rasmda keltirilgan.

Kanallar avtomatlashtirish ob'ektlar bilan bog'liq bo'lib, ulardagi jarayonlar har xil stoxastik xususiyatga ega. Ko'rib chiqilayotgan kanallarning o'ziga xos xususiyatlarini hisobga olgan holda, bosh suvi bo'ylab suv taqsimotini avtomatlashtirishning sxemasi to'g'ridan-to'g'ri asosiy kanallarni to'ldirish va bo'shatish davrida ularning normal ishlashi davrida xarajatlarni hisobga olish kerak. Asosiy maqsad sug'orish tizimlari kanallarida suv taqsimotini avtomatlashtirish Bunday boshqarish sxemasi bilan avtomatik ishlash tartibi yuk ko'taruvchi tizim ushlab turuvchi tuzilmalar, uskunalar bilan ta'minlanadi vannani ta'minlash uchun gidravlik avtomatik zatvorlar

Oddiy ish paytida MK gidravlik avtomatik zatvorlarni to'liq ochiq bo'ladi. Yuqorida ta'kidlab o'tilganidek, zarvorlar suv o'lchash funktsiyasiga ega bo'lgan sarf datchiklari bilan jixozlanadi.

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LEGAL BASIS OF POPULATION CENSUS QUESTIONNAIRE FORMS OF THE REPUBLIC OF UZBEKISTAN

Abstract: This article examined the regulatory documents for the development and approval of the pilot population census program and the forms of questionnaires used in the pilot population census in accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated November 11, 2020 No. 710 "On measures to organize and conduct the census Population of the Republic of Uzbekistan in 2023" in Khojaabad district of Andijan region, Yukorichirchik district of Tashkent region, Khiva city of Khorezm region and Yashnabad district of Tashkent city in November 2021.

Keywords: Pilot census, census program, forms of census, personal questionnaires, the law on the census.

Introduction

The census is an indicator that plays a large role in the system of official statistics. This process provides an opportunity to obtain accurate and reliable information about the population. In addition, it creates conditions for the population to receive full information and describe in detail the changes that took place in the next period of the last census event, such as gender, age, marital status, educational level, standard of living, employment, nationality, citizenship.

Analysis of literature on the topic

Scientists from foreign countries N.N. Kachanova, N.A. Smirnova, Ye.A. Gataulina, G.S. Solodova, S.A. Smirnov, B. Edmonston, Ch. Shults, Konstanz F. Sitro and others conducted scientific works regarding problems of census population, its program and the development of questionnaire forms.

The scientific-methodological and practical aspects of population census, the history of population census are partially reflected in the scientific works of local scientists I.K. Gulyamov, N.B. Tula and others.

Main part

Guided by the United Nations resolution "Principles and recommendations for the 2020 Population and housing Census" of June 10, 2015, Member States should decide to conduct at least one population and housing census, taking into account international and territorial recommendations regarding the population and housing census within the framework of the World Population Census program and housing in 2020 year urges to conduct population and housing census[1].

Accordingly, many countries in the world, including all CIS member states, have decided to conduct a national census event in the 2020 round. Thus, the Commonwealth region was fully included in the 2020 World census program.

Relevant documents have been adopted by the CIS member states that provide for the organization of the implementation of the necessary measures at the stages of preparation and conduct of general census work and serve as a legal basis.

In particular, the normative legal basis for the conduct of the census is the law "On state statistics" in the republics of Kazakhstan and Armenia, the law "On Population Census" in the republics of Uzbekistan, Kyrgyz, Tajikistan, Belarus, the Russian Federation, as well as the relevant decisions/decrees of the president in the republics of Azerbaijan, Belarus, Tajikistan, Turkmenistan and Uzbekistan, the relevant government decisions in the republics of Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyz, Tajikistan, Moldova and the Russian Federation serve as the basis.

In all countries, commissions or working groups on population census issues were formed, which included representatives of interested ministries and agencies.

The statistical services of the countries of the Commonwealth of Independent States, together with state bodies and expert communities, have mainly developed programs for the national population census in 2020, which were tested during the pilot and main censuses. The programs were formed taking into account the continuity with the previous population census activities, ensuring the needs of the states for current information and compliance of the developed programs with international recommendations.

A distinctive feature of the 2020 round of the census in the CIS region is the harmonization of the methodology for obtaining the main socio-demographic characteristics of the population. The Statistics Committee of the CIS, together with the national statistical agencies, prepared the following list of indicators of a recommendatory nature for inclusion in the population census program:

permanent residence;

[1] Decree of the president of the Republic of Uzbekistan №5655 of February 5, 2019

location at the time of the census;
country of birth (place of birth);
country of citizenship (citizenship);
length of staying in this place (year and month of arrival at the current place of residence);
former place of residence;
labor force participation status;
employment status;
main source of livelihood.

During the agreed list, the topics of migration and the labor market are the most urgent problems for the territory of the CIS countries, which is connected with the existing problems of their comparative measurement with current statistical data.

In order to ensure the maximum comparability of the results, the CIS Statistical Committee, with the participation of the statistical services, prepared a set of questions for obtaining answers on the list of agreed indicators with methodological comments on their filling, as well as the procedure for filling them. developed. Based on the recommendations developed by the CIS Statistical Committee, the CIS member countries have approved their population census programs with relevant regulatory legal documents.

In particular, the population census program was approved by Article 17 of the Law “On Census” of the Republic of Belarus adopted on July 13, 2006, amended on June 13, 2016.

Figure 1

Number regulatory documents related to the population census process in the countries of the Commonwealth of Independent States [2]

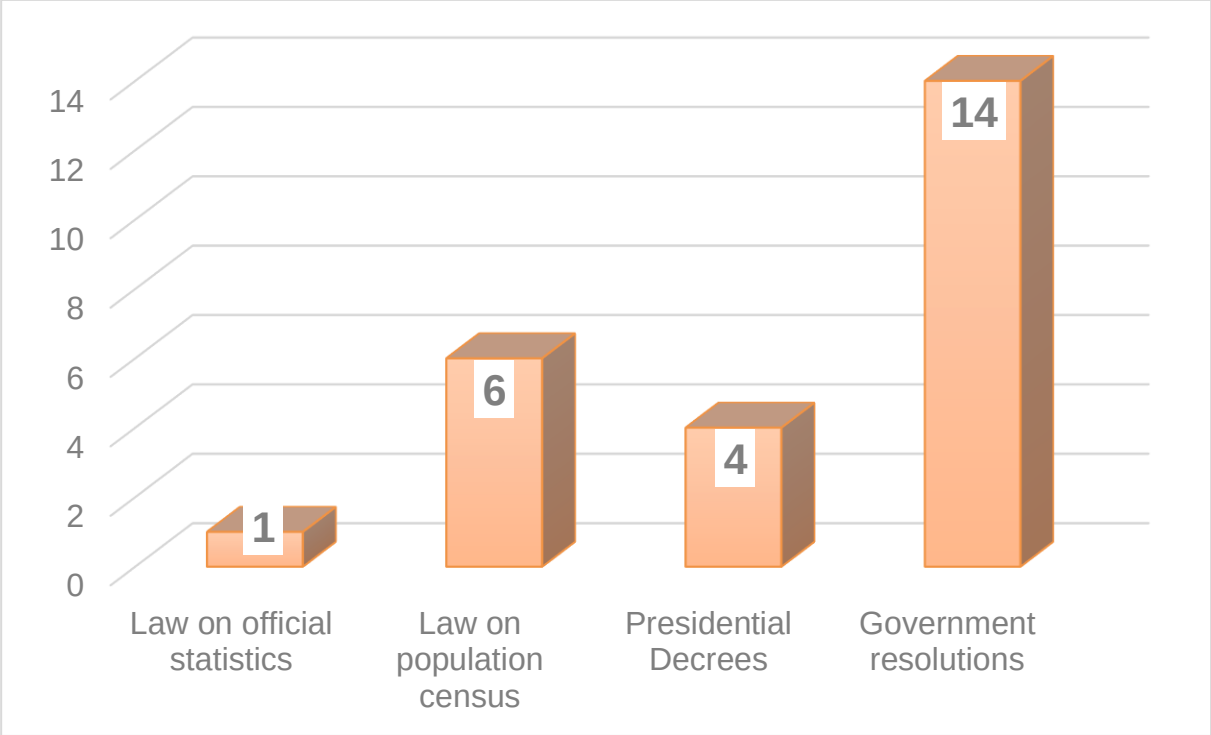


Figure 2

Regulatory documents related to the population census process by CIS countries[2]

Law on official statistics	Law on population census	Presidential Decrees	Government resolutions
Kazakhstan	Armenia Belarus Kyrgyzstan Moldova Russia Tajikistan Uzbekistan	Azerbaijan Belarus Tajikistan Turkmenistan Uzbekistan	Azerbaijan Armenia Belarus Kazakhstan Kyrgyzstan Moldova Russia Tajikistan Uzbekistan

Reliable information about the population and its well-being of the Republic of Uzbekistan is an important basis for long-term forecasts and the development of state targeted programs for socio-economic development,

[2] Devoloped by author based on note on item 2 of the agenda developed by the Statistics Committee of the CIS at the 60th meeting of the Council of Heads of Statistics of the Commonwealth of Independent States

programs for creating new jobs and ensuring employment for the population, forming indicators of national sustainable development goals, studying the processes of placement and use of labor resources, conducting scientific research.

It should be noted that the last census on the territory of our country was carried out in 1989, during the years of independence there were significant positive changes in the development of the Republic. The reforms carried out dramatically changed the country's population, their location and other socio-demographic indicators.

These changes limit the application of existing data on the current account of the population.

In order to address these pressing issues and taking into account international requirements, it was approved by Decree of the President of the Republic of Uzbekistan №PF-5308 dated January 22, 2018 “Action strategy for five priority areas of development of the Republic of Uzbekistan in 2017-2021” in paragraph 38 of the State Implementation Program in the Year of “Support active entrepreneurship, innovative ideas and technologies” the task was set the task to develop the Concept for conducting a population census in the Republic of Uzbekistan (hereinafter referred to as the Concept).

By decree of the President of the Republic of Uzbekistan dated February 5, 2019 PF-5655 approved the concept, structure of the republican commission and the program of comprehensive measures for conducting a population census in the Republic of Uzbekistan.

The concept consists of a total of 8 chapters, including the general rules, purpose and main tasks of the population census, stages of preparation and conducting it, participants, categories of employees involved in the population census, determines the financial provision of expenses and the strategy of actions on the results of the population census.

Program of measures to conduct the population census in the Republic of Uzbekistan consists of 27 items, according to which the tasks to be performed by the responsible executives in 2019-2024 and their specific terms were determined.

According to this Decree, the State Committee of the Republic of Uzbekistan on Statistics was designated as the competent agency for conducting the population census - the working agency of the Republican Commission.

In addition, the structure of regional commissions to assist in conducting the population census in the Republic of Uzbekistan was formed under the Council of Ministers of the Republic of Karakalpakstan, regional and Tashkent city and district (city) hokimities.

In accordance with the Comprehensive program of measures to conduct the population census in the Republic of Uzbekistan which approved by the decree, the State Committee on statistics, together with the Ministry of Economy and industry, the Ministry of finance, the Ministry of Internal Affairs, the

Ministry of Justice and other ministries and departments, was tasked with developing the draft Law of the Republic of Uzbekistan "On Population Census" and submitting it to the Cabinet of Ministers of the Republic of Uzbekistan by July 1, 2019.

As a result, together with interested ministries and agencies, the draft Law of the Republic of Uzbekistan "On Population Census" was developed, and after extensive discussion and legal expertise, it was adopted on March 16, 2020.

The law consists of 5 chapters, 31 articles, which highlight the purpose of the law, basic concepts, tasks and principles of the census. As one of the main principles, the principle of periodicity, that is, the decision on the conduct of the census at least once every ten years and the conduct of the census, is determined by the president of the Republic of Uzbekistan.

Another important principle is the confidentiality of personal information, which stipulates that personal information collected during the population census is considered confidential and cannot be disclosed or distributed without the consent of the respondent.

The law also clarifies the concept of respondent, that is, respondents are citizens of the Republic of Uzbekistan, foreign citizens and stateless persons who are in the territory of the Republic of Uzbekistan on the date of the population census. It is also clarified that citizens of the Republic of Uzbekistan, who are permanent residents of the Republic of Uzbekistan, but are outside its territory on the date of the population census, are also considered respondents.

Also, the law defines the rights and obligations of respondents and registered persons participating in the census, the procedure for conducting the census, a specially authorized state body, the Republican commission for facilitating the conduct of the census, the authorities of local government bodies, the principles of financial support for events[3].

The law is important for the systematic and comprehensive control of the relations that arise during the preparation and conduct of the census, the collection and storage of personal data, and the distribution of the data in the census.

The purpose of the legislative regulation of the census is determined by the formation of demographic, socio - economic statistics and their future use at the national, regional and international levels.

The first main goal and task in the legal regulation of this law is the regulation of relations in the field of preparation and conduct of the census (creation of legal grounds), the protection of citizens rights to privacy and housing, also regulation of the principles of the census – independent solution, periodicity, generality and timeliness, centralization of census management, individualization of registration (by name), confidentiality of personal data,

[3]"Independent Uzbekistan is conducting the population census the first time. Why?", Begalov B.A., "Khalq suzi", 21 april 2020

openness of census data, the census program and the uniqueness of the method of processing personal data for all regions of the Republic of Uzbekistan.

In order to effectively organize the implementation of the plan and the tasks specified in the Law of the Republic of Uzbekistan "On Population Census", the action plan for the implementation of the law of the Republic of Uzbekistan "On census population"of the Senate of the Oliy Majlis of the Republic of Uzbekistan and in the Decree of the President of the Republic of Uzbekistan dated February 5, 2019 year №PF-5655 was adopted The Decision of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to prepare and conduct the 2023 census in the Republic of Uzbekistan" on November 11, 2020.

In this resolution, preparation for the pilot population census in 2021 the time and terms of its conduct, the population census program and questionnaires, the selection of employees who will be temporarily involved in the registration processes, o It is envisaged to determine the procedure for training and payment for their work, the procedure for collecting and storing personal data and issuing the final data of the population census. This resolution provides for the establishment of deadlines for the preparation and conduct of a pilot population census in 2021, the program and questionnaire of the population census, the procedure for selecting, training and remunerating workers temporarily involved in the census processes, collecting, storing personal data and issuing the final population census data.

This resolution confirms the following:

- Organizational and methodological regulation on the procedure for preparing and conducting the population census in the Republic of Uzbekistan;
- Population census program in the Republic of Uzbekistan;
- List of forms of population census in the Republic of Uzbekistan;
- Regulation on the procedure for involving individuals and legal entities in the population census process and paying them;
- "Roadmap" for preparing and conducting the population census in the Republic of Uzbekistan and announcing the results.

The decision also defines the tasks of participants in the census processes, Republican and territorial commissions to facilitate the conduct of the census, the State Statistics Committee and its territorial bodies, official ministries and departments, as well as local governments.

The decision was made based on the main principles and recommendations of the Conference of European Statisticians on conducting the 2020 population and housing census of the UN Economic Commission for Europe.

The experience of the CIS, Asian and European countries, including the Russian Federation, Belarus, Moldova, Azerbaijan, Kazakhstan, Kyrgyzstan, Armenia, Tajikistan, Georgia, Lithuania, Latvia and other countries, was studied in the development of this decision.

The decision allows for full, high-quality and timely fulfillment of the tasks of preparing for the population census in the Republic of Uzbekistan, conducting it, analyzing its primary data and announcing its final results.

As a result of the population census:

- the population of the republic and regions is accurately calculated;
- a single information base will be created on the gender, age, marital status, education, standard of living, living conditions, employment, nationality, citizenship and other demographic, socio-economic characteristics of the population;
- the information base will be expanded to develop measures to strengthen demographic policy, population health, improve the condition of women and children, and provide assistance to families;
- a reliable basis will be created for calculating the forecast indicators of the next 10-30 years of development in terms of the development of the infrastructure of settlements and cities, the use of labor resources and their placement;
- allows obtaining the necessary information for making political and management decisions on the development of regions and providing assistance to the social sectors in need of social protection;
- will be improvement of the statistical potential index of our republic in international rankings.

Article 21 of the law of the Republic of Uzbekistan “On population census” which adopted on March 16, 2020 defines the program of the census event in the Republic of Uzbekistan. In the census, data such like the main demographic indicators of the population, indicators of the mechanical movement of the population, the state of marriage of the population, the national composition are collected according to program of the census. Also, in Appendix 2 to the resolution of the Cabinet of Ministers of the Republic of Uzbekistan №710 which adopted on November 11, 2020, the census program of pilot census in the Republic of Uzbekistan in 2021 was approved.

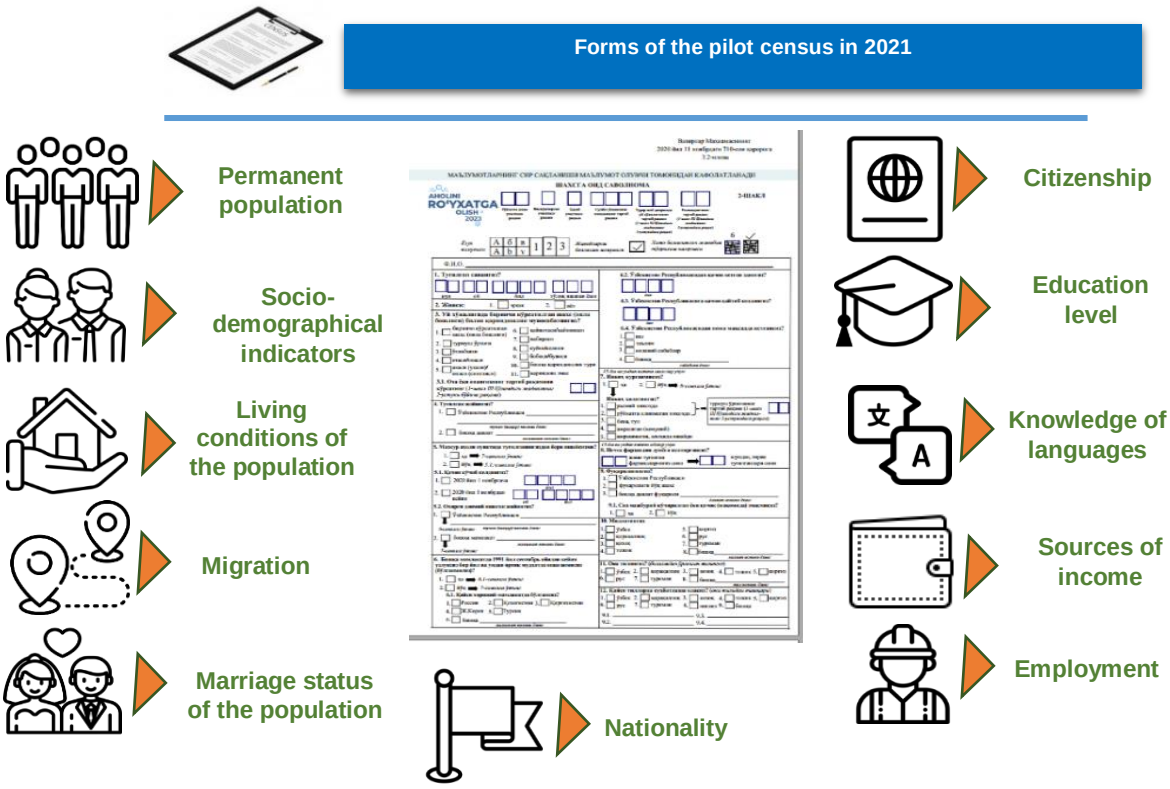
In addition, Annex 3 to the Decree approved the forms of a pilot population census in the Republic of Uzbekistan in 2021. It should be especially noted that this program and forms of census questionnaires were developed on the basis of international recommendations and advanced foreign experience.

The program of the pilot population census in the Republic of Uzbekistan in 2021 is divided into 11 points according to their belonging, each of which is devoted to certain “topics”. In particular, information about the main demographic indicators, the mechanical movement of the population, migration, national characteristics of the population, citizenship, the level of education of the population, the economic situation of household members, employment of the population, the number of children, living habits, maintaining a healthy lifestyle of household members, citizens of foreign countries and stateless

persons who temporarily arrived in the Republic of Uzbekistan questions on data collection, as well as on certain categories of the population.

Figure 3

The structure of the forms of the census sheet as a test of the population of the Republic of Uzbekistan 2021



It can be seen from this that the census program allows you to collect complete information about the population, covering all segments of the population. This, in turn, is the basis for the formation of accurate information about the number of unemployed people in which region of the country, the level of provision of pre-school education organizations, schools, sports facilities, the living conditions of the population, the state of internal and external migration of the regions. creates.

The 2021 pilot population census form consists of 5 forms:

Form 1 **“Characteristics of the dwelling and the list of people living in it”:** This form consists of 3 sections; each section is designed to receive certain types of information. In particular, section 1 of the questionnaire is called “Features of the residence”, in which the respondents are asked about the type of ownership of the residence, its type, the total living area of the residence, the time it was built, the materials of the outer walls, the amenities available in the residence, including sanitary and hygienic facilities. they answer questions about conditions. Section 2 reflects whether household members are provided with tools that they use for a long time. In Section 3, all household members living directly in the dwelling are included in the list of the number of households living in this place and members of the household. In this case, the relationship

of the inhabitants to each other is recorded, where each of them lives at the time of the census, whether they live permanently or temporarily, in case of temporary absence, the reason and period of absence are indicated.

Form 2 "**Personal Questionnaire**": This questionnaire is filled out for each person and everyone listed as household members in section 3 of the questionnaire of Form 1. In this questionnaire, respondents answer 23 main questions. It should be noted that these questions are divided into logical blocks. In particular, questions are asked within the framework of topics such as basic demographic indicators, migration indicators, respondents' marital status, education level, health of the population and mothers, children, employment and unemployment rate, economic situation. It should be noted that there are age-gender limits for the questions.

Form 3 "**Questionnaire for foreign citizens who have temporarily arrived in the Republic of Uzbekistan**": It is filled out for persons who live abroad permanently, but come to the territory of the Republic of Uzbekistan during the census and temporarily live or stay there and cause inconvenience to them. This questionnaire consists of 6 questions in order not to bother and take up a lot of their time.

Form 4 "**Questionnaire on the collection of personal data for certain categories of the population**": This questionnaire form is used in special institutions specified in Article 24 of the Law of the Republic of Uzbekistan "On population census" formed for the purpose of registration of permanent residents, the name of the institution, type and total number of respondents in this institution are filled. Form 2 "Personal Questionnaire" is also filled out for each respondent.

Form 5 "**Checklist for citizens of the Republic of Uzbekistan and stateless persons at the place of temporary residence**": citizens of the Republic of Uzbekistan during temporary stay in a place other than their place of permanent residence, while the checklist was developed to prevent an artificial increase in the population, i.e. e. adding one person to the population twice. This checklist consists of 3 sections. In section 1, the respondent's temporary residence address is filled in completely, in section 2, the respondent's permanent residence address is filled in completely. Section 3 is filled in by the staff of the census department. The checklist and the completed Form 2 for this respondent will be sent to the census department at the permanent address of the respondent. In this process, the checklist and Form 2 will be checked by the officer in charge of the census department from which the Form 2 was received and the completed Form 2 will be left based on the respondent's own words. and the second copy will be destroyed in the prescribed manner.

At the same time, the confidentiality of personal data of the population is guaranteed by the registrar and official organizations, and all personal data is

used only for statistical purposes and is published in the form of aggregated data.

Conclusions and suggestions

An important role in studying the state of demographic processes in the republic is played by the data of population censuses conducted on the territory of the country.

Such important information is necessary for forecasting socio-economic processes, determining employment policy, creating social and medical programs, as well as for the performance of functional duties by public authorities and the provision of this valuable information for science and society.

In this regard, in order to improve the forms of the pilot census questionnaire, which serve as the basis for the collection of census data:

- it is proposed to conduct special observations or other types of surveys within the framework of these topics, excluding questions that are not the subject of the census;

- in order to ensure the quality of the information received, it is suggested to improve the text of the questions and simplify the forms of asking questions to ensure that the questions in the questionnaire are understandable to the population during the survey.

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DIAGNOSIS AND TREATMENT OF ATYPICAL COMMUNITY-ACQUIRED PNEUMONIA IN CHILDREN

Abstract: Diagnosis and treatment of atypical community-acquired pneumonia in children is a topical issue in pediatric practice. Pneumonia today is one of the most common diseases of childhood, which occupies one of the main places of morbidity and mortality. Among the primary causes of poor outcome of pneumonia in children is late diagnosis and inadequate therapy. To optimize treatment, in order to differentiate typical or atypical etiology of community- acquired pneumonia, we performed polymerase chain reaction(PCR), express methods for determining the level of procalcitonin and C-reactive protein in blood plasma in children. And thanks to the responses, they were treated with antibacterial and antiviral drugs. We have treated 80 patients aged 2 to 14 years who were divided into 2 groups. The patients were hospitalized in the departments of emergency pediatrics and the pediatric intensive care unit of the Samarkand branch of the Republican Scientific Center for Emergency Medical Care. 40 patients underwent complex therapy, which included an antibacterial drug, antiviral drugs at an age dosage for 10 days. Clinical manifestations of group I stopped almost 1.5 times faster than in patients from group II. The complex treatment of community-acquired pneumonia with atypical etiology with an antibiotic and an antiviral drug showed that they are the most effective, preventing and reducing the severity of the disease.

Keywords: In children, atypical society, acquired pneumonia, diagnosis, treatment.

Relevance. Infectious diseases of the respiratory system occupy a dominant place in the structure of pathology in children, and the highest incidence of community-acquired pneumonia with atypical etiology is observed among young children, which annually claims the lives of millions of children **[**2,6]. There are also risk factors for death from pneumonia, which include: an unfavorable premorbid background, age under 5 years, late seeking help and admission to a hospital. Pneumonia is an infectious and inflammatory disease of the lung tissue associated with the penetration of microorganisms into the respiratory tract, in which the inflammatory response depends on the virulence of microorganisms, the state of the body's defense mechanisms and the respiratory tract **[**3,7]. In the etiology of the disease, various microorganisms play a role (these are bacteria, mainly cocci), fungi, viruses, and protozoa. Among the “atypical” pathogens are Mycoplasma pneumoniae and Chlamydophila pneumoniae. Clinically, pneumoniais manifested by fever,

cough, malaise, respiratory failure. The auscultatory picture of typical pneumonia is manifested by a local change in percussion sound and breathing, the presence of fine bubbling rales. For atypical pneumonia, the presence of a bronchitis auscultatory picture is characteristic. In this case, the diagnosis helps to make a persistent febrile temperature characteristic of this infection without a pronounced manifestation of toxicosis, scanty catarrhal manifestations with conjunctival hyperemia, as well as asymmetry of wheezing. Radiologically, the shadow of the infiltrate is weak and indistinct **[**6]. There is also an increase in the concentration of serum cytokines -IL-1, IL-4, IL-6. The severity of inflammation depends on their level. They determine the production of acute phase proteins -C-reactive protein, the level of leukocytosis, fibrinogen and sedimentation rate of erythrocytes. All these immunological indicators are pathogenetically significant in pneumonia, which determine the severel course of the disease and higher mortality. Given the diversity of clinical signs at different stages of the disease, the inability to etiologically differentiate between typical and atypical pneumonia, even if there is a picture, the right choice of treatment, laboratory indicators are of great help in diagnosis. In recent years, for the purpose of differential diagnosis of pneumonia and determining the severity of the condition, the determination of the serum level of C-reactive protein and procalcitonin has become increasingly important. Combined treatment with an antibiotic and an antiviral drug form the basis of the etiotropic treatment of pneumonia with atypical etiology. The course and outcome of community-acquired pneumonia depends on the definition of the microorganism and the correct choice of antibacterial drug at the onset of the disease. In pediatric practice, oral antibiotics are preferred. When conducting antibiotic therapy for atypical pneumonia in children, mainly macrolides are used **[**9,10].

Antimicrobials of this group have been used in clinical practice for more than 50 years and during this time have proven to be highly effective and safest antibiotics.

The purpose of the work: To improve diagnostic and therapeutic methods for community- acquired pneumonia with atypical etiology in children.

Materials and research methods. To achieve this goal, we also conducted research in the departments of emergency pediatrics and the pediatric intensive care unit of the Samarkand branch of the Republican Scientific Center for Emergency Medical Care. The study groups included 80 patients with community-acquired pneumonia aged 1 to 14 years. Of these: group I -

40 patients with community-acquired pneumonia with identified atypical microflora (M. pneumoniae, C. pneumoniae), who received combined treatment. Group II -40 patients with community-acquired pneumonia with identified typical microflora, who received traditional treatment. The control group consisted of 20 practically healthy children. Patients from both groups will be collected anamnestic data, examination by conventional clinical, laboratory and instrumental, as well as special methods. To clarify the atypical etiology of

community-acquired pneumonia, PCR methods were used to determine the level of procalcitonin and C-reactive protein, which is characterized by high diagnostic accuracy for the detection of atypical bacteria (M. pneumoniae, C. pneumoniae) and respiratory viruses. Swabs from mucous membranes, sputum, and blood were taken for analysis. Simultaneous determination of mycoplasmal and chlamydial infections based on a positive PCR result, as well as determination of the level of procalcitonin and C-reactive protein, increases the reliability of the diagnosis of atypical infectious agents. Clarithromycin was administered to children 7.5 mg/kg 2 times a day, the duration of treatment was 7-10 days. The antiviral drug Galovit was prescribed one suppository daily for 5 days, then 1 suppository every other day for 10 days. Course 15 suppositories. Evaluation of the effectiveness of therapy was carried out on the basis of a study of the dynamics of the general conditionof the child, clinical symptoms, such as cough, shortness of breath, physical changes in the lungs, radiological data.

Results of work: Pneumonia in 45% of patients developed at 3.1-1.1 days from the onset of symptoms of acute respiratory infection. The results of the studies before treatment showed that 32 (80%) patients of the 1st group and 35 (87.5%) patients of the second group showed signs of intoxication. Wet cough was observed in 36 (90%) and 33 (75%) patients of the 1st and 2nd groups. In 10 (25%) and 12 (30%) patients, symptoms of respiratory failure were observed.

By 3-4 days from the start of treatment, 28 (70%) children of the 1st group and 23 (57.5%) of the 2nd group showed a positive clinical dynamics of the disease: the body temperature decreased. In 26 (65%) children of the 1st group and in 22 (55%) children of the 2nd group, cough decreased, appetite increased, antibiotic therapy was continued.

On the 5-6th day of treatment, 35 (87.5%) children of the 1st group and 31 (77.5%) of the 2nd group had the disappearance of cough, wheezing in the lungs.

On the 10-12th day of therapy, normalization was noted on the x-ray in 37 (92.5%) sick children of the 1st group and in 33 (82.5%) of the 2nd group. Ultimately, the use of drugs led to a significant decrease in the duration of inpatient treatment, so patients of group I were in the clinic on average 1.1 bed-days less compared to patients of group II ($P<0.01$).

The study showed that in 92% of cases of typical pneumonia, the level of Procalcitonin (PCT) was 0.5 ng / ml, C reactive protein up to 30 mg / l. In atypical pneumonia, the concentration of C-reactive proteindid not exceeds 30 mg/l in 78% of cases, and in the remaining 22%, the indicator ranged from 31 to 90 mg/l.

The PCT level in these patients did not exceed 0.5 ng/ml in 100% of cases. Thus, a low level of markers helps in the diagnosis of atypical pneumonia at the initial stages of the disease, even before the appearance of specific antibodies in the blood serum.

As can be seen from the resultsof the examination and treatment of pneumonia with atypical etiology in children, the combined treatment of an antibacterial and antiviral drug was accompanied by rapid positive dynamics. The children tolerated the combined treatment well, no adverse reactions were noted.

Conclusions. The use of a test to determine the content of procalcitonin and C-reactive protein helps to etiologically differentiate between typical and atypical pneumonia and the choice of the correct treatment.

Thus, the use of an antibacterial and antiviral drug is effective in the treatment of pneumonia with atypical etiology in children. Convenient to use, the presence of drinking and rectal forms of preparations, higher efficiency, and the absence of adverse events allow us to recommend this treatment for its widespread use in pediatric practice.

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DEVELOPING SPEAKING SKILLS THROUGH FAIRYTALES IN ELEMENTARY SCHOOL

Abstract. As the objective of EFL teaching is to help students to communicate fluently in the target language, teachers should provide authentic models of language use for every level and age. To hit the target we should focus not only on linguistic, but also on literary and cultural elements. Since fairy tales offer these elements, they are highly beneficial to use in EFL teaching programs, especially for young learners. It should be taken into consideration that the selection of fairy tales should be done in reference to the course objective, the learners' age and the story content. Since every teaching situation is unique, the use of every single piece of fairy tale varies from class to class and from teacher to teacher. But, anyhow, using fairy tales in Elementary English courses as literary works tends to improve communicative competence and provide a springboard for the development of critical thinking and aesthetic appreciation. It is advantageous for many benefits, like cultural enrichment, language advancement, higher-order thinking, and many more. To accomplish the following purpose, there is a great significance given to the methodology and strategies to teaching English through Fairy Tales.

Keywords: Speaking skill, EFL teaching, Fairy Tales, Elementary school, lesson activities.

Introduction. When children start learning a foreign language they receive more input than they produce output. Moreover, as the pupils are young teachers must use something appealing to them. Hence, using fairy tales in the Elementary English curriculum is a good idea. Teaching English through Fairy Tales in Elementary School has a paramount value. Fairy Tales are an ideal and a unique introduction for teaching a foreign language as they present learning in a motivating and catchy context.

Children's starting consciousness of their first steps in another foreign context should have rudimentary basis during their first schooling period. Hence, the teaching process should embrace a measuring input and consequently it should be a complex of various materials and resources that should be involved in the world of a new foreign language. This specified inclination should be an outcome of a pure, coherent and worthwhile teaching.

Children pursue to comprehend the awareness they are given which motivates them to broaden their knowledge frames in their learning period.

The aim of the study is to explore and investigate the principal specific features and properties of teaching English language through Fairy Tales at elementary school as a practical viewpoint.

The character and principal features of the scrutinizing study can be found in the works by Collie J, Slater S. **[**1987, p. 9-14]. The fairy tales spark children's curiosity, increase interest and create wonder and in addition to that they may elicit a powerful emotional response and personal involvement of students. According to Cameron stories offer the whole imaginary world, created by language that children can enter and enjoy, learning language as they read. Good stories provide a study of universal values and needs and capture students' interest and challenges them to explore new roads of meaning **[**2001, p.28-39]. They develop their literary competence- a combination of linguistic, socio-cultural, historical and semiotic awareness **[**Brumfit & Carter 1986, p. 18]. Fairy tales are stories that illustrate our impulse toward a greater level of consciousness. They are fun, interesting, and appeal to the imagination of virtually all readers **[**Bagg, 1991].

Method. With the help of the methodology of developing speaking skills through Fairy Tales learners get opportunity to initiate their communicative skills and knowledge in another context and with different ways, which is more captivating and handy for the pupils of this age. Besides, it makes the lesson more tempting, congenial and prompting.

Children are always interested in Fairy Tales and it helps them not only to be more acknowledged but also learn English language effectively. Using Fairy Tales in teaching process is one of the best and most omnipresent structures for running through such skills as listening, reading, writing and speaking. Fairy Tales are an overriding and forceful source of knowledge for upgrading the four skills to all levels of language proficiency in the frameworks of teaching process. They are to be a mysterious and glorious world for the children of this age.

The methodology of developing speaking skills through Fairy Tales should be focused on children's foreign language skills and on the development of their communicative skills that will enable them to combine meanings and texts, words in real social contexts. This frame references comprises such activities as puzzles, crosswords, picture telling, letter scrambles, word bingos, lexical threads, etc.

Activities to Develop Speaking Skills through Fairy Tales.

In this paper we define each type of chosen activities, highlight the relative strengths and weaknesses of each, and discuss how teachers can choose among many options with two primary considerations: the importance of the effect and the crucial need to use multiple sources of information in making decisions. The chapter ends with suggestions to help teachers choose among the various options.

Discussions. After a content-based lesson, a discussion can be held for various reasons. The students may aim to arrive at a conclusion, share ideas about an event, or find solutions in their discussion groups. Before the discussion, it is essential that the purpose of the discussion activity is set by the teacher. In this way, the discussion points are relevant to this purpose, so that students do not spend their time chatting with each other about irrelevant things. For example, students can become involved in agree/disagree discussions. In this type of discussions, the teacher can form groups of students, preferably 4 or 5 in each group, and provide controversial sentences. Then each group works on their topic for a given time period, and presents their opinions to the class. It is essential that the speaking should be equally divided among group members. At the end, the class decides on the winning group who defended the idea in the best way. This activity fosters critical thinking and quick decision making, and students learn how to express and justify themselves in polite ways while disagreeing with the others. For efficient group discussions, it is always better not to form large groups, because quiet students may avoid contributing in large groups. The group members can be either assigned by the teacher or the students may determine it by themselves, but groups should be rearranged in every discussion activity so that students can work with various people and learn to be open to different ideas. Lastly, in class or group discussions, whatever the aim is, the students should always be encouraged to ask questions, paraphrase ideas, express support, check for clarification, and so on.

Brainstorming. On a given topic the pupils express different ideas and thoughts in a limited time. Depending on the context, either the individual or group brainstorming is effective and learners generate ideas quickly and freely. The good feature of brainstorming is that the pupils aren't criticized for their ideas so pupils have an opportunity to share their new ideas.

Picture Narrating. This activity is based on several sequential pictures. Pupils are asked to tell the story taking place in the sequential pictures by paying attention to the criteria provided by the teacher as a rubric. Rubrics can include the vocabulary or structures they need to use while narrating.

Picture Describing. Another way to make use of pictures in a speaking activity is to give students just one picture and having them describe what it is in the picture. For this activity students can form groups and each group is given a different picture. Students discuss the picture with their groups, then a spokesperson for each group describes the picture to the whole class. This activity fosters the creativity and imagination of the learners as well as their public speaking skills.

Find the Differences. For this activity students can work in pairs and each couple is given two different pictures, for example, picture of boys playing football and another picture of girls playing tennis. Students in pairs discuss the similarities and/or differences in the pictures.

Story Completion. This is a very enjoyable, whole-class, free-speaking activity for which students sit in a circle. For this activity, a teacher starts to tell a story, but after a few sentences he or she stops narrating. Then, each student starts to narrate from the point where the previous one stopped. Each student is supposed to add from four to ten sentences. Students can add new characters, events, descriptions and so on.

Storytelling. Students can briefly summarize a tale or story they heard from somebody beforehand, or they may create their own stories to tell their classmates. Story telling fosters creative thinking. It also helps students express ideas in the format of beginning, development, and ending, including the characters and setting a story has to have. Students also can tell riddles or jokes. For instance, at the very beginning of each class session, the teacher may call a few students to tell short riddles or jokes as an opening. In this way, not only will the teacher address students' speaking ability, but also get the attention of the class.

Stimulation. Simulations are very similar to role-plays but what makes simulations different than role plays is that they are more elaborate. In simulations, students can bring items to the class to create a realistic environment. For instance, if a student is acting as a singer, she brings a microphone to sing and so on. Role plays and simulations have many advantages. First, since they are entertaining, they motivate the students. Second, as Harmer (1984) suggests, they increase the self-confidence of hesitant students, because in role play and simulation activities, they will have a different role and do not have to speak for themselves, which means they do not have to take the same responsibility.

Role play. One other way of getting students to speak is role-playing. Students pretend they are in various social contexts and have a variety of social roles. In role-play activities, the teacher gives information to the learners such as who they are and what they think or feel. Thus, the teacher can tell the student that "You are David, you go to the doctor and tell him what happened last night, and…"

Results of the investigation. In order to give the answer to the research: Alternative Developing Speaking Skills through Fairy Tales in Elementary school, two types of data (quantitative and qualitative) were collected in this study. In terms of qualitative section, we opted for a phenomenological approach to investigate pupils' experiences and their perceptions of speaking skills in the classroom. We have chosen this approach, because we were interested in developing speaking skills during English lessons through fairy Tales.

Furthermore, as we divided our survey into two parts: activities for developing speaking skills with pupils and questionnaires for teachers. So we realized our survey at two schools in the Republic of Armenia at the same time: school #11 after William Saroyan and school# 5 in Hrazdan region from April

to May 2018 as this theme is taught in that period of time by state educational curriculum. We have chosen two schools in order to realize two types of lesson plans. The first one was formed according to state school program of teaching English at school. The second plan was formed and realized by ourselves according to our research aim and hypothesis. Our aim was to manifest the differences and the effectiveness of our activities in speaking skills.

To conduct the research, we chose the fairy tale "Cinderella", as it is popular worldwide. We illustrate some examples of activities and games which proved to be motivating and practical techniques used in Elementary School for Teaching English. The aim of the research was to make the learning process cheerful, motivating and rewarding.

The aim of the activities chosen by us are the following:

- To develop reading comprehension, to increase pupils' confidence in reading,
- To check the pronunciation of the words, and listening comprehension,
- To expand the learners' vocabulary (both spoken and written form),
- To develop the students' intellectual skills while they search and discover,
- To build up the learners' self-assurance in performance before the class and to help themcontrol their timidity,
- To boost their physical development,
- To developing students' critical thinking and creativity.

Conclusions. The activities designed by us proved to be really productive: we could use effective strategies and techniques to further the pupils' proficiency and skills of English.

Thereafter we assembled a range of experimental lessons, did surveys with questionnaires for teachers and successfully proved that the set of activities chosen by us enriches and reinforces the students' speaking skills as well as stimulates the usage of English.

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RUHIY RIVOJLANISHI SUSTLASHGAN BOLALARNI TAFAKKUR VA NUTQ XUSUSIYATLARI

Annotatsiya: Ruhiy rivojlanishi sustlashgan bolalar tafakkurini xususiyatlari, o'zi xosligi, turlari bu tafakkur orqali ularni aqli zaiflikdan ajrata olishga yordam berishi. Ruhiy rivojlanishi sustlashgan bollarni turlari haqida fikrlar yuritilgan.

Kalit so'zlar: Tafakkur, obraz, diagnostika, aqli zaiflik, bilish, sezgi, intellektual, talaffuz, grammatika, ruhiy rivojlanish sustlashgan, hissiy, muvaffaqiyat, differensiatsiya, xarekter.

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CHARACTERISTICS OF THINKING AND SPEECH OF MENTALLY RETARDED CHILDREN

Annotatsiya: The characteristics and characteristics of mentally retarded children's thinking help to distinguish them from mental retarded children's thinking help to distinguish them from mental retardation. The types of mentally retarded children are discussed.

Keywords: Thinking, image, diagnosis, mental retardation, cognition, intuition, intellectual, pronunciation, grammar, mental retardation, emotional achievement, differentiation, character.

Ulgurmovchi o‘quvchilar orasida ruhiy rivojlanishi sustlashgan bolalar ham uchrab turadi. Ularning bilish faoliyati- intellekti mantiqiy tafakkuri, idroki, xotirasi, ixtiyoriy diqqati, ish qobiliyati va boshqa xislatlariga birinchi o‘rinda markaziy nerv sistemasining kasalliklari natijasida ruhiy rivojlanishi sustlashadi. Bunday bolalarda hissiyot, iroda sferasidagi kamchiliklar birlamchi, aqliy rivojlanishni orqada qolishi esa ikkilamchi hodisa boiib hisoblanadi.

Ruhiy rivojlanishida sezilarli darajada orqada qolgan bolalar bular maktabni bitirguniga qadar maxsus sharoitda o‘qitilishi kerak. Bunday bolalar maktab dasturini sog'lom tengdoshlari qatori o‘zlashtira olmaydi. Ruhiy rivojlanishi sustlashgan bolalarni ommaviy maktabda hamma qatori o‘qitish talim jarayoniga ham salbiy ta'sir ko‘rsatadi, ya'ni o‘rtacha o‘quvchining saviyasini orqaga

tortadi, yaxshi va alo o‘zlashtiruvchi o'quvchilarni yetarli darajada o‘stirishga to‘sqinlik qiladi. Olimlardan K.S.Lebedinskaya, G.P.Berto‘n, E.M.Dunayeva va boshqalar ruhan sust rivojlanganlikni klinik-psixologik jihatdan quyidagi xillarga bo’lishni tavsiya etadilar:

1) konstitutsional; 2) somatogen; 3) psixogen; 4)serebral shakli. Ruhan sust rivojlanganlikning **konstitutsional** shaklini xarakterlovchi belgilarga quyidagilar kiradi: bolaning gavda tuzilishi sogiom tengdoshlarinikiga nisbatan. 1-2 yosh kichik ko‘rinadi. U o‘zini bog‘cha yoshidagilarga osxshab tutadi va taiim olish uchun hali “yetilmagan” bo’ladi. Bunday bola o‘quv faoliyatiga yaxshi kirishib ketmaydi, chunki unda o‘qishga qiziqish yo‘q, ish qobiliyati past. Mas’uliyatsizlik, motivlaring sustligi, ruhiy jarayonlardan analiz, sintez qobiliyatlarining yaxshi rivojlanmaganligi tufayli o‘qish va yozishni, matematikani katta qiyinchiliklar bilan o‘zlashtiradi. Dars vaqtida tez charchab qolish hollari, bosh og‘rib turishi konstitutsion shakldagi bunday bolada ish qobiliyati, faollik yanada pasayib ketishiga sabab boiadi. Rivojlanishdagi bu kamchilikka bola onasining homiladorligi davrida qalqonsimon bezlari faoliyatining buzilganligi, yurak-tomir kasalliklari sabab bo’lishi mumkin.

Ilk yoshda har xil surunkali kasalliklar bilan tez-tez kasallanib turish natijasida bola yaxshi o‘sib-unmay qolishi mumkin, bu esa o‘z navbatida ruhiy jihatdan rivojlanishida orqada qolishga, kechikishga olib keladi, sust rivojlanganlikning somatik shakli deb shunga aytiladi. Bolada surunkali infeksiyalar, allergik holat tug‘ma porok va shu kabi kasalliklar ayniqsa tez uchrab turadi. Ruhiy rivojlanishning somatogen sabablarga aloqador sustligi bolada asteniya holatini vujudga keltiradi. Ayrim bolalarda **somatogen** infantilizm kuzatiladi, ya’ni bola o‘sib-unmagan, go‘dak taxlit bo‘lib qolaveradi. Bunda bola psixikasida nevrozga o‘xshash holatlardan o‘z kuchiga ishonmaslik, qo’rqoqlik, injiqlik, erkalik, qiziqishning pastligi va boshqalar kuzatiladi. Ruhan sust rivojlanganlikning psixogen shaklida bola erta yoshligidan noqulay, noto‘g‘ri sharoitda tarbiyalanadi va shu tarbiyaning salbiy tomonlari ruhan rivojlanishiga ta’sir o‘tkazgan boiadi. Shu xildagi kamchiliklaming kelib chiqish sabablarini 3 guruhga bo’lish mumkin:

Bola tarbiyasi bilan mutlaqo shug‘ullanmaslik, uni butunlay o‘z holiga tashlab qoyish, bunda bolalarda burch va mas’uliyat hissi shakllanmaydi. Aql-idrokning rivojlanishi, qiziqishlari, bilish faoliyati, his-tuyg‘u va iroda yetishmasligi ustiga o‘quv fanlarini

o'zlashtirish uchun zarur bilim va taassurotlaming yetishmasligi ham qo‘shiladi.

Ruhan sust rivojlanganlikning psixogen shaklida aql-idrok bilish faoliyatiga aloqador kamchiliklarga aksari noto‘g‘ri tarbiya natijasida paydo boigan xislatlar ham qo‘shilib pirovard natijasida shaxsning rivojlanishi izdan chiqadi, unda patologik xislatlar yuzaga keladi. Ana shunday bolalami pedagogik qarovsiz bolalardan ajrata olish lozim. Pedagogik qarovsiz bolalarning psixikasi normal boiib, ular noto‘g‘ri tarbiyalanganligi natijasida ulgurmovchi o‘quvchilar qatoriga o‘tib qoladilar.

Ruhiy sust rivojlanishning serebral shakli miya shikastlari, meningit, meningoensefalit, gidrotsefaliya va boshqa kasalliklar natijasi bo’lib hisoblanadi.

Ruhiy rivojlanishi sustlashgan bolalarni o‘qishi pasayib ketadi, biroq bu holat o‘z vaqtida va to‘g‘ri aniqlansa, bolalarga tegishli yordam tashkil etilsa, ular ommaviy maktab dasturini o‘zlashtira oladilar. Ruhan rivojlanish kamchiliklarining ba’zi bir shakllarida bolalarni vaqti-vaqti bilan maxsus psixonevrologik sanatoriylarda davolash foydalidir. Sanatoriyada bola kollektiv ishiga asta-sekinlik bilan jalb etiladi. Unda charchash alomatiari paydo boiganda, u o‘quv mashg'ulotlaridan vaqtincha ozod etiladi yoki unga soddaroq boshqa vazifalar beriladi. Sanatoriyda davolanib kelgandan so‘ng bola o‘qishni o‘z maktabida davom ettiraveradi.

Ruhiy rivojlanishi sustlashgan bolalar uchun taiim umumtaiim bog‘cha yoki maktab dasturi va darsliklari asosida olib boriladi, himoyalaydigan davolovchi maxsus tartib tashkil etiladi. Talim tarbiyaviy ishlar bolalarning fikrlash qobiliyati, diqqati, ish qobiliyati, xotirasi, nutqi va tafakkuridagi kamchiliklarni bartaraf etishga qaratilgan bo’lib, bunday bolaga bilim berishda o‘qituvchi uning o‘ziga xos individual xususiyatlarini e’tiborga olgan holda maxsus sharoitda, maxsus usullar bilan ishlaydi, tegishli yordam tashkil etadi. Sogiiqni saqlash vazirligi qoshidagi bolalar va o‘smirlar gigienasi instituti xodimlari, jumladan N.P.Vayzman va boshqa olimlarning o‘tkazgan ilmiy tekshirishlari shuni ko‘rsatadiki, ruhiy rivojlanishi sustlashgan bolalar o‘zlashtirish jihatidan olganda sogiom va yengil darajadagi aqli zaif bolalar o'rtasida oraliq o‘rinda turadi. Bu olimlar tekshirish vaqtida yengil darajadagi aqli zaif va ruhiy rivojlanishi sustlashgan bolalarga bir xildagi topshiriqlami berib ko‘radilar, shunda normal sogiom bolalar berilgan vazifani to‘g‘ri tushunib, uni kerakli tartibda bajargan boisalar, yengil darajadagi aqli zaif bolalar vazifani tushunmay, bajara olmaydilar, ruhiy rivojlanishi sustlashgan bolalar esa xuddi shunday vazifani, bajara oladilar.

L.S.Vigotskiy, S.L.Rubinshteyn, A.N.Leontev, A.V.Zaporojes, G.S.Kostyuk, A.A.Lyublinskaya va boshqa olimlar tomonidan ishlab chiqilgan taiimotga binoan, inson tafakkurining uch xil turi: ko‘rgazma - harakat, ko‘rgazma - obraz, so‘z-mantiq shakllari mavjud. Katta yoshdagi normal kishilarda tafakkuming bu turlari yetarli darajada rivojiangan bo’lib, bir-birlari bilan dialektik birlikni tashkil qiladi. Tafakkur turlari, mazmuniga oid barcha yoshiarga tegishli umumiy materiallar T.V.Rozanova tomonidan batafsil berilgan (1978 y.). Nuqsonli bolalar tafakkur xususiyatlarini o‘zlashtirmovchi o‘quvchilarda tekshirgan N.A.Menchinskaya juda qimmatli materiailar bayon qiladi. A.A.Simbalyuk (1974 y.) materiali mhiy rivojlanishi sustlashgan bolalardagi bilish aktivligi haqida, Z.I.Kalmikova (1975 y.) esa, ruhiy rivojlanishi sustlashgan bolalarning muammoli mazmunli masalalami yechishdagi qiyinchiliklari to‘g‘risida, T.D.Puskayeva (1980 y.) bu bolalar tafakkurida bo‘shliq, inertlilik holatlarining ko‘zga tashlanishi haqida ilmiy-eksperimental materiallar beradi.

Ruhiy rivojlanishi sustlashgan bolalar tafakkurning o‘ziga xos bo‘lgan va uni aqli zaiflardan oson ajratishga imkon beradigan xususiyatlari dan biri, so‘z-mantiq tafakkur bilan ko‘rgazma-obrazli tafakkur turlarining o‘zaro munosabati va rivojlanish darajalaridir (G‘.B.Shoumarov).

Ruhiy rivojlanishi sustlashgan o‘quvchilaming so‘z-mantiq tafakkuri yetarli rivojlanmagan boiib, ba’zi holatlarda ulami yengil darajadagi aqli zaiflardan farqlay olmaslik mumkin. Ammo, ularning ko‘rgazma-harakat va ko‘rgazma-obrazli tafakkur turlari aqli zaiflardan keskin farq qilib, normal tengdoshlariga yaqinlashib boradi. Bu esa ularning bilish faolyatlarida katta rivojlanish imkoniyatlari mavjudligi va ularning bir qismi ma’lum ta’lim-yillaridan keyin, maxsus ta’lim-tarbiya va davolash ishlari natijasida o‘z normal tengdoshlariga yetib olishi mumkinligini ko‘rsatadi. Tafakkur turlarining bunday munosabati va notekisligi katta differensial diagnostik ahamiyatga egadir. Ma’lum obyektlami tahlil qilganda ruhiy rivojlanishi sustlashgan o‘quvchilar normal tenqurlariga nisbatan kamroq, lekin aqli zaif bolalarga nisbatan ko‘proq belgilami aniqlaydilar. Lekin, shu bilan birga ularning tahlil jarayoni rejasiz ravishda bajarilganligi sababli obyektning ko‘pgina qismlari tushirib qoldiriladi. Ammo, ularga o‘qituvchi tomonidan ma’lum yordam berilganda, tahlil natijalarida keskin o‘zgarish bo‘lib, normal tengdoshlariga yaqinlashadi. O‘qituvchi tomonidan yordam berilganda, tahlil natijalarida keskin o'zgarish bo‘lib, normal tengdoshlariga yaqinlashadi. O‘qituvchi tomonidan yordam berilganda aqli zaif bolalarda ham ijobiy o‘zgarishlar bo’lishi mumkin, ammo, bu

o‘zgarish ruhiy rivojlanishi sustlashgan o'quvchilardagidek katta bo‘lmaydi.

Ruhiy rivojlanishi sustlashgan o‘quvchilarda tafakkur jarayonlari: tahlil - tavsifdan tashqari umumlashtirish, tasniflash, sistemalashtirish, taqqoslash darajalari jihatdan normal va aqli zaif o'quvchilar tafakkur jarayonlari orasida bo‘ladi, Berilayotgan vazifa murakkablashgan sari ruhiy rivojlanishi sustlashgan o‘quvchilaming tafakkur qilish saviyasi aqli zaif bolalarnikiga yaqinlashib boradi. Tafakkurning boshlang'ich sinflardagi taraqqiyot dinamikasini o‘rgangan, kuzatgan T.V.Egorova boshlang‘ich sinf oxiriga kelib, aksariyat holda ruhiy rivojlanishi sustlashgan o‘quvchilar tafakkuri normal bolalar tafakkuri saviyasiga yaqinlashganligini ko‘rsatadi. Bu yaqinlashish ayniqsa, ruhiy rivojlanishi sustlashgan o‘quvchilar tomonidan umumlashtirish va tasniflash jarayonlarida o‘z ifodasini topadi.

Ruhiy rivojlanishi sustlashgan bolalar nutqi normal bolalarga nisbatan rivojlanish, shakllanish nuqtayi - nazaridan birmuncha orqada qoladi. Ularda turli talaffuz kamchiliklari uchrab turadi. Tovushlar talaffuzining buzilishi, tovush obrazlarining yetarli shakllanmaganligi yozish va o‘qishda xatolarga yo‘l qo‘yishga olib keladi. Ruhiy rivojlanishi sustlashgan bolalar lug‘at boyligi birmuncha cheklangan bo‘lib, aktiv lug‘ati yetarli rivojlamagan bo‘ladi. Ular nutqidagi mavjud tushunchalar tor, noaniq ba’zan esa noto‘g‘ri bo‘ladi. Grammatik umumlashtirishlar yetarli bo‘lmaganligi sababli, yozuvda turli xil xatoliklarga yo’l qo‘yadilar. Maktabgacha yoshdagi bolalar nutqida deyarli so‘z turkumlaridan ot va sifat uchramaydi. Bolalardagi nutqning shakllanish muddati bog‘cha yoshida tugamasdan, boshlang‘ich sinflar davrida ham davom etadi. Bolalar nutqida grammatik qoidalar deyarli ishlatilmaydi. Grammatik tushunchalar differensiatsiya qilinmaydi. Ko‘p hollarda ular “harf-tovush”, “bo‘g‘in so‘zlari chalkashtirib yuboradilar ruhiy rivojlanishi sustlashgan o‘quvchilarning shaxsiy sifatlari maxsus psixologiyada yetarli o‘rganilmagan. Ruhiy rivojlanishi sustlashgan o‘quvchilarning qiziqishlari bog‘cha yoshidagi bolalar qiziqishga o‘xshab ketadi. Shuning uchun o‘yin ular uchun asosiy faoliyat rolini o'ynaydi.

Xulosa qilib shuni aytish mumkunki: Ularning aksariyat 7 yoshda ham maktabga bormasdan bog‘chada qolishni xohlaydi. O‘qishga bo‘lgan qiziqishlarga nisbatan, o‘yinga bo’lgan qiziqishlari ustunlik qiladi. O‘yinga bo’lgan qiziqishining ustunlik qilganligi va o‘qishda doimo, muntazam muvaffaqiyatsizlikka uchrab turishi natijasida bu bolalarda o‘qishga nisbatan salbiy munosabat shakllana boradi. O‘z-o‘ziga ishonmaslik hislari shakllanadi. O‘zlarining qobiliyatlarini baholashda haddan

tashqari past baholash hollari kuzatiladi. Bu esa, ular shaxsining shakllanib yetishmasligi, hissiyot - iroda faoliyatlarida o‘quv faoliyati uchun zarur bo’lgan bilish ehtiyojlarining shakllanmaganligida o‘z ifodasini topadi. Aksariyat hollarda, ruhiy rivojlanishi sustlashgan o‘quvchilarda intellektual faollik, qiziqishlar yetarli bo’lmaydi. ruhiy rivojlanishi sustlashgan o‘quvchilar faoliyati o‘rganilganda; ularning o‘z faoliyatlarini yetarli rejalashtira olmasligi, xatti- harakatlarning normal bolalarga nisbatan qo‘zg‘aluvchanigi, o‘z-o‘zini nazorat qilish saviyasining pastligi, o‘z imkoniyatlarini yetarli baholay olmasligi va faoliyatlarini maqsad sari yo'naltirishning yetarli emasligi ma’lum bo’ldi.

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READING THE WORKS OF THE CONTENT

Abstract: As soon as we talk about reading the works of poetry, it becomes necessary for us to first of all have basic information about the works of poetry and ways of reading them. More precisely, one should be aware of different types of reading.

Keywords: verse, pause, speed, rate, quality, aesthetics, rhyme, rhyme, beat, recitation, pronunciation.

In our educational literature, the types and types of reading are explained in different ways. As a matter of fact, no complete work has been written about it yet. Only Nasirjan Masumi focused on the reading lesson and its types - silent and vocal reading (with a louder voice) and discussed their commonality and difference in a proper way. He considers silent reading as conscious analytical reading and talks about some of its features. In particular, according to the literary expert, silent reading is faster in terms of speed, it is less related to physical movements, it is favorable for understanding the content of the text, it is possible to see the entire paragraph, it is convenient to find the necessary words, phrases and sentences. It is appropriate to remind here that silent reading is also considered a type of expressive reading. Therefore, in the course of it, the reader should pay attention to the quality, speed, pauses and pronunciation of the reading, the volume and tone of the expression, the pitch and the volume of the voice, the rhythm of the speech, and its order, system, relationship and standards, and understand the content of the content and the meaning and purpose of the text, to take pleasure from it. In the voice study, there are separate features that we are now pause about a few of them. Nosiri's literacy, Nosirjon is the teaching and educational tool for literature, along with the purpose and objectives, along with its customs and responsibilities, should include the following features:

a) Words, phrases, interpretations and sentences should be read in a favorable tone according to their content and meaning;

b) Speed reading exercises are organized for students to acquire skills and abilities, attention should be paid to the accuracy of the speed and quality of pronunciation and pauses in expression:

c) Reading quickly is the basis of quick understanding. Students should be able to understand the material they read quickly and explain it in detail.

d) In the process of reading, all features of the content, meaning and structure of the text should be taken into account.

In general, there are one-sided and different opinions about the ways of reading among literary critics, knowing them is of great importance for reading the written texts. For example, Tajik literary critic M. Qazijonov divides literary reading into two periods - introductory activities and work with the text. He suggests that these types of reading help students work on the text. The same opinion was expressed by K.S. Stanivlavsky also suggested in his writings...So we have briefly learned about reading styles. Now it is necessary to briefly dwell on poetry and poetic works. Poems are a special type of artistic literature and are the most important means of aesthetic education of schoolchildren. Due to its weight and melodiousness, it has a strong impact on the senses of the listener and stirs up understanding. That is why the authors of scientific-methodical works paid special attention to the features of expressive reading of poetry.

In our educational literature, Nasirjan Masumi paid the most attention to the way of reading literary works. In his work "Methods of Teaching Literature in Grades 5-8", he considers the expressiveness of reading poetic works to be dependent on a mature and complete knowledge of poetic weight, rhyme and rhyming, syllable spacing and composition, and pronunciation of stressed words, pauses and pauses. In fact, all means of expression should be used during the recitation of the poem. Otherwise, neither the reader nor the audience will be able to benefit from the reading material. In this context, it is necessary that the reader himself should be very careful with the low and high voice depending on the reading position.

According to the author's opinion, in the expressive reading of the poem, not the length or brevity of the stanzas, but the weight is important. In classical and Soviet Tajik poetry, as well as in folklore poetry, there are many weights, and each one is sung with a special tone. In the example of the works of S. Aini - "March of Freedom", P. Suleimani - "Pioneer March", M. Tursunzoda - "Indian Traveler" and "Hasan the Cartwright", M. Mirshakar - "Neemat" and others give examples of short poems and emphasizes that they are read in a special tone due to their different weights and measures.

As we can see, in reading the works of poetry, the teacher mainly considers poetry as a criterion for choosing the melody, and explains the examples given in terms of this consideration. For example, he wrote: Sayyid's poem "Description of Winter" is compatible with the passages from Firdawsi (class 5), because this poem of Sayyid was written in Firdawsi's "Shahnama". Let's read the following verses and compare them in terms of weight and tone:

He who is strong, who is wise,
The heart of the old man should be devoted to knowledge. (Firdavsi)
At night, the army of the day came out,
The world became as cold as camphor.

While reciting the verses of faq, first of all, we recite following the art of reading. Without changing our pronunciation, we pay attention to its tone and notice that both are read the same because they are written in the same weight. A

reader who is aware of weight and rhythm will quickly understand this generality while reading the above verses.

If we think carefully, we soon realize that, in addition to weight, topic, content, meanings of words and compositions, the structure and arrangement of vowels and consonants should also be taken into account when choosing a reading tone. Because the parts of the text take part in the formation of the tone of the poem, and it gives a special tone and freshness in the speed and quality, pronunciation, pauses and pitch of the voice.

Here it is worth emphasizing one more point. Due to the fact that literary forms are different and each of them requires a separate art to read, it is therefore necessary for the teacher to create a favorable situation for his students when choosing a topic. Thus, expressive reading requires that, in order to choose the tone of reading, the teacher must also have the ability to study texts along with complete knowledge.

During the reading of the works of poetry, the teacher should read the educational material freely in front of the students, observing the norms and rules of reading. Then, in imitation of his reading, make the students read the educational material. That is, he can establish the cooperation of the teacher, student and educational materials. From this point of view, prominent Russian Methodist L. V. Todorov considers three things very important in the field of expressive reading of poetry - the expressive reading of the teacher, the student's ability to read expressively, and the study of the rules and laws of expressive reading.

One of the successful ways to this method is joint analysis. At every appropriate moment of the lesson, the teacher interprets the poetic means of meaning and content, reads it effectively and emotionally, and the students also read it. And it is necessary to evaluate the class members by listening to the way their classmates speak. Such ways and approaches make the course of education interesting and create a certain system of knowledge and skills, skills and habits, taste and ability in students. In schoolchildren, the interest in reciting poetry does not arise by itself. It is the effective efforts of the teacher, his successive searches, that make the student interested in learning and reading.

It goes without saying that the way of reading literary works is strongly related to the age and level of ability and talent of students. That is, this process should be taken into account in the development of methodological guidelines and training programs by methodologists and specialists in the field. Because depending on the classes, the amount of poetry or prose material should be chosen correctly.

The same should be said that school students should follow the speech and reading of artists and constantly improve their skills and abilities. Memorize as many verses and ghazals and small and large pieces of poetry as possible, both from the works of representatives of classical literature and from examples

of modern literature. Try to understand the content and meaning of what they learn. Because reading is an art that is achieved through a lot of hard work...

In conclusion, it can be said that the correct way and based on the rules and norms of reading the works of the text, provides an opportunity for entering the speech of speakers and readers, as well as every speaker. Also, the methods of studying and reading poetic and prose works of various forms and genres help to improve the speech culture of people of speech.

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TEACHING TECHNOLOGY OF THE COURSE OF ECONOMIC AND SOCIAL GEOGRAPHY OF THE WORLD USING INTERACTIVE METHODS (TECHNOLOGY OF TEACHING THE SUBJECT OF WORLD POPULATION NUMBER, GROWTH AND LOCATION USING INTERACTIVE METHODS OF THE WORLD ECONOMIC AND SOCIAL GEOGRAPHY COURSE)

Abstract: Currently, the school education system is developing radically. This development encourages the teacher to work on himself, and the student to aspiration, initiative, and express his attitude to events. Through this article, it is written about the teaching of the economic and social geography of the world course on the topic of the number, growth and location of the world population using interactive methods.

Key words: interactive methods, Pedagogical technology, BKM elements, Match the line method, "T-scheme" method, Cluster method, Pisa method.

INTRODUCTION

Today, great practical measures are being taken to make our educational system one of the developing countries.

Interactive methods are one of the methods of providing high-quality education to students based on today's demands, teaching them to be active, initiative, and in-depth study of subjects with a modern approach.

Pedagogical technology is a methodology that sets before itself a qualitative form of education in the process of teaching students and learning knowledge, and taking into account the wealth of the individual and their mutual cooperation, creating, applying and defining knowledge. is an array style.

In the Republic of Uzbekistan, special attention is paid to the education of young people. Paragraph 4 of the project "Development Strategy of New Uzbekistan for 2022-2026" by the President of the Republic of Uzbekistan Sh.M. Mirziyoyev is "Conducting a fair social policy, developing human capital". The 44th goal given in this item "Increasing the quality of education in schools, raising the level of knowledge of pedagogues-staff to the international level" and the 46th goal "Raising the level of coverage of higher education to 50% and improving the quality of education as a separate task" 'shown. Based on these goals, the main task of public education workers is the President's "New Uzbekistan begins with the school!" under the noble motto, to raise children worthy of New Uzbekistan, or rather, to raise an educated, potential, strong, patriotic, competitive young generation that can freely operate in the

conditions of market relations, where the feelings of national pride are vibrant. That is the relevance of teaching using interactive methods for school education.

LITERATURE ANALYSIS AND METHODOLOGY

At the beginning of the 20th century, the works of D.N. Anuchin, N. Revsky, A. Sokolev, E. Petri, Ya. Rudnev, V. Budanov, S. Arzhanov and others were of great importance in the development of geography teaching methodology. The Oberlander methodology was further improved and developed by these scientists.

In the 25-30s of the 20th century, attention to geography education decreased again. In 1924, schools switched to a new program, according to which no separate subjects were taught, but a complex of basic natural and social sciences was taught. From 1927-28, geography was again taught as a separate subject. On May 15, 1934, a state decision was issued on the teaching of geography. In it, the extremely low quality of geography teaching was severely criticized. In accordance with this decision, geography was taught in three sections: natural geography of one's place of residence in the 3rd grade, natural zones in the 4th grade, general natural geography in the 5th grade, continent in the 6th grade. natural geography, economic geography of the country in the 7th grade, the number of hours has been increased. "Geography and school" magazine was published. started In December 1958, the state decided about the school. accepted. Great attention was paid to studying the geography of his country.

The authors of the 10th grade World Economic and Social Geography course are V. N. Fedorko, N. I. Safarova, J. A. Ismatov, E. Y. Nazaraliyeva.

The following geographers contributed to the creation of this textbook. They are: M. Egamberdiyeva - associate professor of the Department of Economic and Social Geography, Faculty of Geography and Natural Resources, UzMU named after Mirzo Ulugbek; Z. Abdalova - associate professor of the Department of Geography and its Teaching Methodology, Tashkent State Pedagogical University named after Nizomiy; F.Rajabov - Head of the Department of Geography, Chirchik State Pedagogical Institute, Tashkent region, PhD. (PhD), associate professor; R. Abdiyev is a geography teacher of the 11th school of Navoi city, Navoi region; L. Boltayeva is a teacher of geography at school 273, Yunusabad district, Tashkent city; M. Rashidova is a teacher of geography at school 198, Yashnaabad district, Tashkent city;

Kh.B.Nikadambayeva, D.I.Roziyeva, Z.A.Karabazov in the methodical manual of possibilities of teaching "Natural geography of Central Asia" using interactive methods, according to the studies of American psychologists R. Karnikau and F. McElroy, the natural physiological psychological capabilities allow to preserve knowledge acquired in certain forms at different levels. That is, 10% when the student studied the topic of geography of mineral resources of the course of economic and social geography of the world by himself, 20% when he heard information about the topic from the teacher, 30% when he

watched various videos, reports, etc. %, 50% when watching videos, reports and explained by the teacher, 80% when he/she transmits this information to his/her peers, preparing the acquired knowledge for his/her mineral resources geography topic it has the ability to remember 90% of the data when using it in the process.

DISCUSSION AND RESULTS

I. Fit to line method.

II. II. In this method, the teacher corrects the data in the "Dynamics of the World Population" table.

World population Year Range of years	**World population Year Range of years**	**World population Year Range of years**
1 billion 2055 UN forecast 18	1 billion 2055 UN forecast 18	1 billion 2055 UN forecast 18
2 billion 2037 UN forecast 14	2 billion 2037 UN forecast 14	2 billion 2037 UN forecast 14
3 billion 2023 UN forecast 12	3 billion 2023 UN forecast 12	3 billion 2023 UN forecast 12
4 billion 2011 12	4 billion 2011 12	4 billion 2011 12
5 billion 1999 12	5 billion 1999 12	5 billion 1999 12
6 billion 1987 13	6 billion 1987 13	6 billion 1987 13
7 billion 1974 14	7 billion 1974 14	7 billion 1974 14
8 billion 1960 33	8 billion 1960 33	8 billion 1960 33
9 billion 1927 123	9 billion 1927 123	9 billion 1927 123
10 billion 1804...	10 billion 1804...	10 billion 1804...

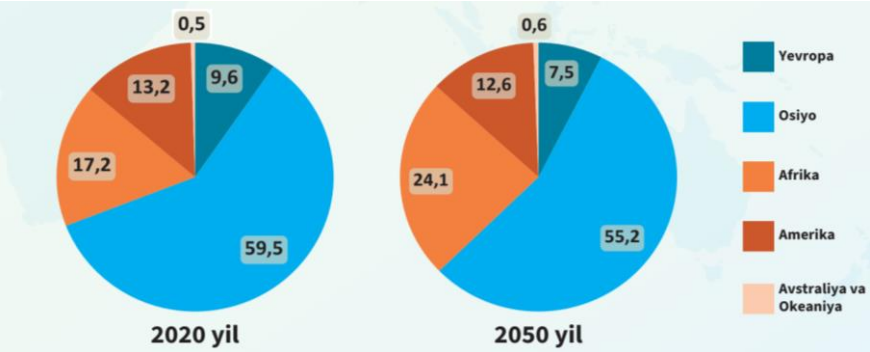
II "T-scheme" method.

In this method, students divide the "World population increase" given by the teacher into schemes and write examples for them.

Ijobiy holatlar	**Salbiy holatlar**
1.Insoniyatning ko’payib borishi bilan shahar va qishloqlar bunyod etilmoqda	2.Antropogen ta’sir tufayli yer yuzidagi ayrim hayvonot va o’simlik dunyosi kamayib ketmoqda

II. Cluster method.

This method greatly helps students master the subject. They develop skills such as creativity and memorization. For example, distinguish the top five countries that are well-endowed with many types of mineral resources.

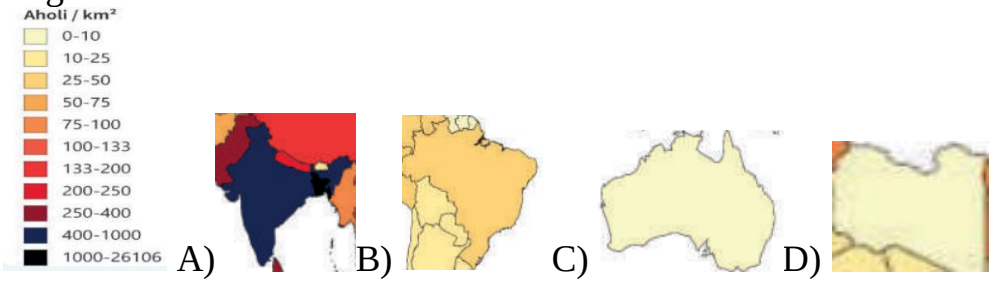


12-rasm. **Jahon aholisining qit'alar bo'yicha taqsimlanishi (2020- va 2050-yil (prognoz) holatlariga ko'ra,%)**

IV. Pisa method.

With the help of this method, students distinguish between "the most densely populated and the most sparsely populated" countries in the world.

For example, 1. Select the country with the densest population from the countries given below**.**



2. What factors affect the territorial location of the world's population? Pay close attention to the places depicted in these pictures and choose the most suitable areas for living and explain why.



CONCLUSION.

The use of interactive methods in the teaching of the economic and social geography of the world on the topic of the number, growth and location of the world's population creates a foundation for students to become perfect people who can express love for the Motherland, self-confidence, and reactions to the events around them.

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OPTIMIZATION OF EARLY DIAGNOSTICS AND TREATMENT OF PAPILLOMAVIRUS-ASSOCIATED PRECANCER DISEASES OF THE CERVICAL DISEASES

Relevance. Cervical cancer (CC) is a major public health problem in Uzbekistan. According to the estimates of the International Agency for Research on Cancer IARC (IARC) for 2018 [1,2,5], cervical cancer is the second most common type of cancer among women in Uzbekistan after breast cancer and the third most common cause of death of women from cancer in Uzbekistan. According to estimates for 2021, the age-standardized incidence and mortality rates are 5.3 and 2.9 per 100,000 women per year, respectively.

Key words: Cervical cancer (CC), CIN-DIAG, the human papillomavirus.

Cervical cancer is the fourth most common cancer in women worldwide with human papillomavirus (HPV) being the main cause of the disease. Currently available treatment methods are limited and emphasize the need for discovery of new therapies that improve patient outcome. Chromosomal amplifications have been identified as a source of upregulation for cervical cancer driver genes but cannot fully explain the increased expression of immune genes in invasive carcinoma. Insight into additional factors that cause a shift from immune tolerance of HPV to the elimination of the virus, such as local microbiota, may improve diagnostic markers. Furthermore, identification of strategies for selection in combinatorial targeted therapies will allow development of efficient methods to combat the disease. In this work we shed the light on both issues. In our first chapter we examined the currently known roles of microbiota in cancers triggered by viral infections. We provide a model of microbiome contribution to the development of oncogenic viral infections and virus associated cancers, give examples of this process in human tumors, and describe the challenges that prevent progress in the field as well as their potential solutions. According to the national cancer registry, in 2021 in Uzbekistan, the number of initially diagnosed cases of cervical cancer in the republic was 1827, 997 cases of death from cervical cancer were registered with the following distribution of cases by stages: stage I: 12%, stage II: 54.1%, stage III: 23.6%, stage IV: 5.3%. The main etiological factor in the development of cervical cancer is the human papillomavirus (HPV). HPV infection is the most common sexually transmitted disease (STD). Cervical cancer is caused by oncogenic types of HPV.The two oncogenic HPV types that most commonly cause cervical cancer are types 16 and 18. Together, they cause approximately 70% of cervical cancer cases worldwide, unfortunately, the proportion of cervical cancer cases prevails in developing countries. [3,4]. CC is one of the

few cancers that can be prevented. Solutions exist. CC, when diagnosed at an early stage, is more amenable to effective treatment, which increases overall and relapse-free survival, improves the quality of life of patients, and reduces the cost of treatment. **[**4,6]. **The main** task of preventing cervical cancer is the early detection of pathological changes in the neck and timely justified treatment, which is the main goal of our study.**Target**. To evaluate the practical significance of the effectiveness of the modified CIN-DIAG staining solution in the diagnosis of pathological changes in the cervix. **Materials and methods**. The study included 120 patients with pathological changes in the cervix of varying degrees associated with HPV, such as cervical intraepithelial neoplasia (CIN) and underlying cervical disease. The age of women ranged from 35 to 60 years, the average age was 40+1.5 years. To detect pathologies of the epithelial tissue of the cervix, a modified type of staining solution for “CIN-DIAG” was used, which is a cotton swab on a plastic stick in a plastic tube, the staining solution is in the cap of the tube.

Appearance of the coloring solution: transparent brown liquid; Cotton swab on a plastic stick. The volume of the coloring solution - 2 ml ± 5%; The pH of the coloring solution is within 4 - 7 units. The solution enters the cell with the help of folic acid through a specific effect on cell surface receptors. As a result of a specific reaction of the dye solution with the chemical substance of the histiocyte, the tampon is stained. In normal cells, there is a low content of active oxygen, so there is little expression of folic acid receptors on the cell surface and there is no staining of the tampon after the reaction. **Results and its discussion.** All the studied patients underwent staining of the cervix with the CIN-DIAG staining solution, the results of which were evaluated according to the criteria **Analysis of test results** showed the following results: CIN1 - 40 (33.3%), CIN 2-15 (12.5%), CIN 3-10 (8.3%), cervical cancer - 5 (4.1%), underlying diseases of the cervix 35 (29.1%) and 15 (12.5%) women without pathological changes, i.e. negative result. **Conclusion.** Thus, the modified coloring solution "CIN-DIAG" has the advantages of availability, economy, low technical requirements, safety and non-invasiveness, as a result of which it can be successfully applied in the practice of primary care and in remote regions of the country.

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THE SOCIO-ETHICAL NECESSITY OF NOSPHERE FORMATION

Abstract: In this article, the socio-ethical necessity of the formation of the nosphere is based on a philosophical point of view.

Key words: biosphere, noosphere, V.I. Vernadsky, civilization.

The noosphere is a philosophical concept that suggests that the earth is enveloped in a sphere of thought. The word comes from the Greek noos (mind) and sphaira (sphere). The noosphere is the third stage in the development of the Earth after the geosphere (rocks, water and air) and the biosphere (all living beings). Three spheres are built on each other: for example, life in the biosphere needs the geosphere to survive (matter, water and air), and for the triumph of thought, the biosphere is needed, because the bearer of the mind - man - is part of it.

The noosphere is a hypothetical sphere of interaction between society and nature, within which reasonable human activity becomes the determining factor in development (this sphere is also referred to as the “anthroposphere”.

The noosphere is supposedly a new, higher stage in the evolution of the biosphere, the formation of which is associated with the development of society, which has a profound impact on natural processes.

According to V. I. Vernadsky, “in the biosphere there is a great geological, perhaps cosmic force, the planetary action of which is usually not taken into account in ideas about the cosmos... This force is the mind of man, his striving and organized will as a social being”

In short, the noosphere is the sphere of interaction between society and nature, within which reasonable human activity becomes the determining factor in development. Sometimes the noosphere is also called the “anthroposphere” or “biotechnosphere”.

The concept of the noosphere has three authors at once, who knew each other and acted under the influence of each other. These are French paleontologist Teilhard de Chardin and mathematician Eduard Leroy (he coined the term) and Ukrainian geochemist Vladimir Vernadsky. The time of origin and development of the idea is from the 1920s to the 1950s.

There is no single concept of the noosphere. Thus, the founding authors Vernadsky and de Chardin developed two interrelated, but completely different directions, the first of which was based on the geological sciences, and the second on theology. However, in the case of de Chardin, this does not mean that

the noosphere is a religious idea. The scientist argued that the noosphere would eventually develop towards the "omega point", a kind of god-like state. That is, the main task of the human species is to unite into a single superorganism. But this distant idea does not make his work any less scientific. The proof of the rational approach of the scientist can be called the fact that Teilhard de Chardin predicted the emergence of the Internet. More precisely, he foresaw a radical global transformation of the Earth with two components: the emergence of communication networks and computers. This was an extremely unusual approach to the development of technology, given that in the last century all futurists thought exclusively about humanoid robots and their impact on our lives.

As for the materialistic concept of the noosphere of academician Vernadsky, he defined the noosphere as a natural stage in the evolution of the biosphere, characterized by the appearance of the most powerful geological force - the human mind.

The beginning of the era of the noosphere is considered the appearance of Homo Sapiens and the invention of the first tools by him. At the same time, both Vernadsky, and de Chardin, and Leroy believed that the final formation of the noosphere would come only with the global unity of mankind. And this can happen when the spiritual and material needs of each individual person are fully satisfied, for which the following conditions must be met:

– Development of most territories of the globe.

- The invention and creation of highly effective means of communication, both between individuals and between states, which will lead to a sharp convergence of “everything and everything.”

- The emergence of human activity as the most powerful geological factor, against which other natural phenomena (volcanic eruptions, floods, global warming, etc.) become insignificant.

- Exploration of near space as a living space for man.

– General social equality. Absence from racial and religious prejudice.

- The formation of real democracy, as the people's will.

– Getting rid of scientific knowledge from the influence of political, religious and other worldviews that are not directly related to science.

– The disappearance of such social phenomena as poverty, hunger, social inequality. Almost complete destruction of all diseases.

- An end to all wars.

– A reasonable change in the biosphere that does not harm humanity.

Mankind has already begun to implement some of the points, but the main ones, alas, are very far from being fulfilled.

The future often seems uncertain and unpredictable at best, scary and hopeless at worst. Most visions of the future are truly frightening. We are predicted to be controlled by artificial intelligence, robots taking over the Earth, death in a nuclear war or due to abrupt climate change. On the contrary, the

noospheric vision gives hope for solving global problems, whether social, economic, environmental, technological or climatic.

Most importantly, the noosphere is a holistic idea that makes us think of these global issues together as closely interrelated. Thus, the vision of the noosphere may be the best choice for a meaningful solution to the global problems of today.

For example, Professor Francis Heiligen of the Free University of Brussels (VUB) argued that despite the many dangers along the way, the noosphere has great potential for developing pragmatic versions of divine attributes: omniscience (knowing everything that is necessary to solve our problems), omnipresence (accessibility anywhere, anytime), omnipotence (the ability to provide any product or service in the most efficient way possible), and all-roundness (the pursuit of the greatest happiness for the greatest number of people). Thus, from this optimistic perspective, the noosphere can offer meaning and purpose, guiding and inspiring humanity towards an amazing planetary transition.

The noosphere implies a new ethics, new values. In human evolution, each time groups have grown from gatherers and hunters into villages, cities, nations, they have had to move to new ethical and governing structures in order to maintain a high level of cooperation.

The fundamental challenge of ethics today is to find ways to understand and align the actions of the nearly 8 billion people, as well as the many billions of technologies that we are constantly creating and on which we are increasingly dependent.

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ETHNOGRAPHIC STUDIES OF NAVRUZ

Abstract: The article expresses celebrations of Navruz based on historical ethnological sources.

Keywords: Navruz, sumalak, ecological-religions notion.

In the process of historical development, rituals and holidays were formed among all peoples on the basis of natural and climatic conditions, peculiarities of work, life, culture. Especially deep roots and strong traditions had the so-called calendar holidays in ethnology, which were held taking into account the seasons, i.e. in early spring - before the season of field work, in summer - before harvesting, in autumn - after harvesting and in winter - in free from field work. work time.

Among them, a special place was occupied by spring holidays, which exist in various forms among all peoples of the world. Studying and analyzing special literature, one can come to the conclusion that spring holidays appeared with the emergence of human society. As a result of migration processes, people along with them spread in different directions, acquiring different forms and names. For example, in Japan, a similar holiday is called Rison, in China - Chun-dze (Ja, La), among the Slavs - Maslenitsa, among the peoples of Central Asia - Navruz.

In its origin, Navruz is a holiday that has been common among the peoples of the East since ancient times. One of the greatest thinkers of the 11th century, Abu Raykhan Beruni, called it "the holiday of the awakening of nature."

Navruz is considered one of the most ancient and most revered holidays in Uzbekistan. It, unlike historical, international or religious holidays, has its own characteristics and features. Narvuz is a calendar and agricultural holiday. The date of its celebration is the day of the spring equinox. This is the beginning of a new year according to the solar chronology, which in Central Asia was also popularly called “dehkon hisobi”, that is, the peasant chronology, in contrast to the lunar calendar. Today, in the conditions of renewal, Navruz has become a truly national and international holiday. "Navruz" means "new day", and its meaning is expressed as "yil boshi" - "beginning of the year". It has its roots in the distant past and, during a long historical development, has covered vast regions of our planet. This spring holiday is celebrated in Iran and Afghanistan, in Transcaucasia, in the countries of the Central Asian region, in East Turkestan, in the northern regions of India and Pakistan, in Tatarstan and in many other parts of the world. It's just called differently. Therefore, at the 64th session of

the UN General Assembly, under agenda item 49 "Culture of Peace", a resolution entitled "International Day of Navruz" was adopted by consensus.

Its draft was prepared and submitted to the General Assembly by the delegations of Azerbaijan, Uzbekistan, Afghanistan, Kazakhstan, Kyrgyzstan, Iran, Turkmenistan, Tajikistan and Turkey. In accordance with the text of the resolution, the UN General Assembly recognizes March 21 as the International Day of Navruz, welcomes the efforts of member states that celebrate Navruz to preserve and develop the culture and traditions associated with Navruz. Last year, on September 30, 2009, Navruz was inscribed by UNESCO on the Representative List of the Intangible Cultural Heritage of Humanity along with 76 other intangible heritage elements from around the world.

Historical information about the origin of the holiday of spring and labor has undergone various changes and has come down to our days in the form of all kinds of legends and traditions. Scientists claim that Navruz is more than 4 thousand years old. In most legends, the Navruz holiday, its occurrence is associated with the estate of the legendary Shah Jamshid. Abu Raykhan Beruni, Omar Khayyam, Firdowsi, at-Termezi and others write about this. And in Turkish legends about Navruz, its appearance is associated with the attitude of our ancestors to spring, to spring field work. The legends tell about the unity of Navruz with the sun, fire, spring.

On the last day of the holiday, wrestling competitions were organized, tightrope walkers showed their skills, songs were sung and people went to visit each other. There were 7 dishes on the table. It is believed that all family members should be at home on the night of the holiday so that they do not have to wander around the world all year. On the same day, the first furrow was laid in the field. Children ran across the arable land and whistled into whistles, driving away evil spirits so that they would not spoil the harvest.

There were other mythological representations of the people.

Many legends and tales are connected with Navruz. For example, there was a belief that at the moment when the new year comes and the old year leaves, the flow of waters stops, and those who manage to see this moment can count on the fulfillment of all their most secret desires. In addition, it was believed that nature revealed its secrets to the lucky man, inaccessible to the rest, that in life he would always be lucky from that moment on.

The ritual food of ancient Navruz is this so-called “haft sin”, when seven items are served on a tray, the names of which begin with the letter “s”: seb - apple, sinjid - wild olive, sirka - vinegar, sir - garlic, siyah-dan - black bones, sabzi - carrots, saman - sumalak. In addition, curdled milk, milk, cheese, colored eggs, bread, a cup of water with a leaf floating on its surface, a vessel with rose water, fruits, nuts, almonds, pistachios, etc. are served on the table. Candles lit for health should burn to the end.

Another feature of Navruz is the preparation of sumalak - wheat dishes. With the origin of the rite associated with sumalak, there is such a legend. One

woman miraculously escaped herself and saved her children. But in the ruined city came a severe famine. For a long time, the mother could not find anything to eat and, helpless, fell to the ground. Suddenly her eyes fell on the wheat sprouts scattered on the ground.

Sumalak is prepared mainly by women. By the way, a dish prepared also in the spring, but by the hands of men, is called halim. Its basis is still sprouted, wheat, well, and since the stronger sex cannot do without meat, fresh calf meat is also added to the dish.

When preparing sumalak, it's not like sleeping, you can't leave for a minute - it will burn, and all the many days of work will go to waste. So several neighbors conspire to cook sumalak together. This is a very old tradition from our grandmothers and great-grandmothers. In order not to fall asleep, not to oversleep sumalak, women have fun as they can, sing songs, quietly play their favorite melodies on dutar and doira, girls dance. In a word, something like a bachelorette party or gatherings, a long tradition considered this holiday a youth holiday, or rather, a day of love games, when young men threw apples and pomegranates, colored eggs, sweets to girls, sent them raisins and halva through children. By the way, an apple and a pomegranate in the folklore of many peoples of the world are a symbol of love and marriage...

Navruz holiday can be conditionally divided into two parts. The first is labor, when dehkans were preparing for the start of spring work in the field, putting things in order in their homes and yards, and improving villages. It was then that the Day of Remembrance passed, people put in order the graves of their loved ones, commemorated the dead with a kind word. In a single labor impulse, the people sought to improve their lives. People felt each other's elbow, support and mutual understanding. Not a single family without men and not a single patient was left without the support of fellow villagers. These were deeds that brought people together, united souls, purified them and spiritualized them.

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FACTORS ENSURING THE ACTIVITY OF ENTREPRENEURIAL ACTIVITIES

Annotation. The article describes the development of entrepreneurship using motivational sources of scientific and methodological foundations, entrepreneurial activity factors that ensure activity analyzed and selected the grouping of supply factors, methods of effective management organization.

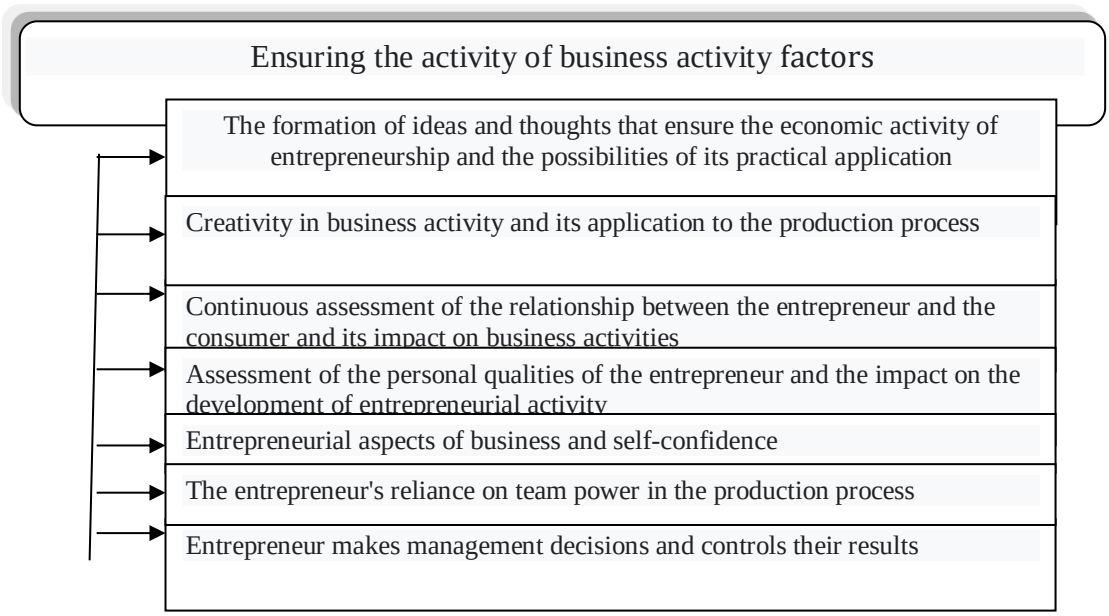
Key words: entrepreneurship, business, motivation, consumer, market, competition.

It is carried out based on long-term experience in the organization and management of business activities in each country. However, the organization and management of business activities is complicated, and the regulation and development of this will not depend only on the entrepreneur. Various influencing factors and developmental factors are also involved.

The correct organization of business activity requires the elimination of any unexpected obstacles and problems encountered in the course of its management, as well as the entrepreneur's ability to use all his resources to make a profit. Taking this into account, entrepreneurial activity is a unique type of economic activity in this society, which is based on the entrepreneur's independent initiative, responsibility, creativity, idea-based and profit-oriented motivational factors.

Any entrepreneurial activity is considered a separate element of its own economic activity, and its initial link is inextricably linked with a certain idea and thinking activity or its result, only then it appears as a material form.

The transformation of the results of the entrepreneur's thinking into a material form means that by introducing innovations into the production process, fundamental changes in the production structure of the enterprise by changing the production activity of the entrepreneur require creativity from the entrepreneur (Figure 1).



Drawing 1. Grouping of factors that ensure the activity of entrepreneurial activity

Creative aspects of entrepreneurial activity bear fruit in new methods of rational organization of production or new modern and compact technologies in a new management system.

Business management is not only about managing the work process or employees, but it is also difficult to manage new born ideas and creativity.

Therefore, in any process, the entrepreneur is the main subject of his activity. However, in all spheres, the entrepreneur is not a single subject, but in any case, he appears as a consumer of produced goods or services, a competitor in various situations, and in some cases he is forced to interact with the state. At the same time, both the consumer, the state, and the hired (employee) employee are recognized as subjects of business activity.

The relationship between the entrepreneur and the consumer is a constant and ongoing process, which requires constant assessment of the impact of this process on business activity. In such conditions, the entrepreneur is embodied as an active subject category and in the analysis of mutual relations with the consumer, the consumer performs the role of an indicator of the entrepreneurial process. Business activities can be carried out in a more organic way only with a positive assessment of the consumer, otherwise the entrepreneur can break in the competition or end his activity.

The product created by the entrepreneur is evaluated by the consumer, after which it is known that he is ready to buy this or that product. Entrepreneurs are required to plan and organize their future activities taking into account the consumer's mood, wishes, and interests.

In the conditions of market relations, any entrepreneur should act taking into account the interests of the consumer, otherwise there is no other way to influence the consumer.

This does not mean that the entrepreneur must always act in accordance with the consumer's interests, but if the entrepreneur creates a new product that matches the consumer's taste and income, the consumer's demand for this product will inevitably begin to form. It can be concluded from this that the following methods of organizing business activities can be cited:

- The method of determining consumer interests of the entrepreneur;
- Method of "forcibly instilling new goods or services into the mind of the consumer" based on the entrepreneur's activities;
- A method of studying consumer requirements and creating goods that the consumer did not expect by conducting entrepreneurial marketing research.

Taking into account the above, the main goal of the entrepreneur's activity is to constantly determine the need for his goods in order to have his customers in the market. In this case, the entrepreneur should take into account the following factors when acquiring his customers: the novelty of the product and its compatibility with the customer's interests, quality, price, the degree of universality of the product, its appearance, compliance with the customer's demand, after-sales service, compliance of the product with state and international standards, advertising and attracting customer attention.

When an entrepreneur is formed as an active subject from the point of view of social production, the consumer plays an active role in the entrepreneurial process itself, in the effectiveness of its work, and the entrepreneur can never deny it.

After the factors that ensure the activity of entrepreneurial activity, the entrepreneur's personal characteristics, abilities, capabilities and work qualities are the power of forming entrepreneurial actions. Right now, the qualities of an entrepreneur should be based on the following principles:

- finding its place in the economic system by analyzing the level of supply of goods and services of the market;
- readiness to create a personal production structure;
- based on the results of marketing research, make preliminary business calculations;
- the ability to direct the leadership in the implementation of the business project;
- the entrepreneur makes management decisions based on his idea and controls it in practice;
- to be the first to implement a new technical, technological idea and use this idea in practice, to imagine what final result, products or services can be obtained from it. These mentioned principles are based on the entrepreneur's business nature and require creativity from him.

Based on Y. Schumpeter's opinion about the presence of creativity in an entrepreneur and its improvement, he emphasized that "the entrepreneur allows to work by paying attention to things that others do not pay attention to and do not know."

In fact, today's entrepreneur creates products and services that have not been noticed by people, and at the same time penetrates the human heart with his new products, it depends on the creativity of this entrepreneur.

The entrepreneur's business acumen and self-reliance factor require business acumen in the market conditions at the highest level from every entrepreneur, in this process the entrepreneur strongly believes in his own strength. Although the business acumen of an entrepreneur brings great benefits in the conditions of fierce competition, but confidence can also be the reason for the entrepreneur's defeat in the competition.

In this case, it is appropriate for the entrepreneur to study all the processes and start working.

Another key factor in entrepreneurial activity is the entrepreneur's reliance on teamwork in the production process. In most cases, an entrepreneur works together with his team, and he succeeds only when an entrepreneur creates a team that effectively influences the process of realizing his idea. A good relationship with the team is one of the most difficult problems faced by the entrepreneur.

One of the problems is to determine what kind of specialists are needed for the success of entrepreneurial activities, what qualities they need to have, and whether they can enter the mental environment formed by the entrepreneur.

Finally, one of the main factors in the development of entrepreneurial activity is the entrepreneur's ability to make management decisions and control their results. One of the most important qualities of an entrepreneur is making the right decision in managing the company's activities. Every decision made by an entrepreneurial manager determines the future of business activity.

This is the entrepreneur's responsibility in the field of his activity, his business. In fact, an entrepreneur, having made a decision and implementing it, takes responsibility not only for his partners, but also for the outcome of his future decision. The entrepreneur's responsibility to take responsibility also means taking risks. Thus, the ability to see the risk and the readiness to eliminate it are also important qualities characteristic of an entrepreneur.

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MILLIY KURASHNING PAYDO BO'LISHI, KURASH HAQIDA BUYUK ALLOMALAR, SHOH VA SHOIRLARNING QARASHLARI

Annotatsiya: Maqolada milliy kurashning rivojlanish bosqichlari, kurash haqida buyuk allomalar, shoh va shoirlarning qarashlari tahlil qilingan.
Kalit so'zlar: kurash, qoida, yonbosh, milliy, sport.

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THE EMERGENCE OF THE NATIONAL STRUGGLE, THE VIEWS OF THE GREAT ARTISTS, KINGS AND POETS ABOUT THE STRUGGLE

Abstract: The article analyzes the stages of development of the national struggle, the views of great scholars, kings and poets on the struggle.
Keywords: wrestling, rule, side, national, sport.

Butun jahon nigohiga tushib, dovrug' va shuhrat qozonayotgan millionlarni o'ziga mahliyo etgan kurash ham jahonning yuksak ma'naviy qadriyatlaridan biri sifatida o'zining chuqur tarixiy ildizlariga egadir.

Tarixshunos, qadimshunos va faylasuf olimlarning olib borgan tadqiqotlari, izlanishlari va arxeologik ilmiy qidiruvlar, kuzatishlari natijasida topilgan ashyoviy dalillar kurash sport turining yoshi kamida 2,5 - 3 ming yildan ortiqligini isbotlaydi.

Surxon, Zarafshon vohalari hamda Farg'ona vodiysining bir qator qadimgi aholi manzilgohlarida aniqlangan noyob topilmalar, asori-atiqalari, qoyalarga bitilgan tasviriy san'at namunalari ham bunga to'liq shohidlik beradi.

Kurashimiz tarixini ilmiy isbotlab beradigan 6 ta topilma - ashyoviy dalil mavjud. Chunonchi, Panjikentdan topilgan kurashayotgan ikki pahlavonning devoriy rasmi Sug'diyona davlatchiligiga, ya'ni o'rta asrlar davriga oid noyob yodgorlik sanaladi. Shunday ashyolardan biri silindr shaklidagi sopol idish bo'lib, u qadimgi Baqtriya (Janubiy "O'zbeksiton") hududidan topilgan. Uning bir parchasida ikki kurashchi va ulardan birining o'z raqibini oyog'idan chalayotgani tasvirlangan. Yana bir idish gardishidagi haykalchalarda ham pahlavonlarning qo'llarini ko'tarib kurashga shaylanayotgani holda o'z ifodasini topgan. Bu idishlar bronza davriga oid bo'lib, u kurashning tarixi yana ham ko'proq, ya'ni 3,5 ming yil oldin ekanligiga guvohlik beradi.

Navbatdagi topilma bronza davriga oid ikkita ot taqasidir. Kurash usullari tasvirlangan har ikala taqa, professor M.P.Gryaznovning yozishicha, sak-skif qabilalarining ma'naviy qarashlari ruhida ishlangan bo'lib, ko'chmanchilik davrining dastlabki bosqichlariga oiddir.

Milodiy birinchi ming yillikning o'rtalariga oid kumush cho'mich gardishi sirtida ham ikki pahlavonning kurashichimizga xos olishayotgan holati tasvirlangan.

Samarqand yaqinidagi Chelak qishlog'idan topilgan ashyolar ham o'tmishdan sado beradi. Geometrik naqshlar solingan ushbu idishlar orasida kumush dastali qadoqcha, ayniqsa, e'tiborni tortadi. Uning dastasi sirtida ikki polvon xuddi o'zbek kurashi usulida olishayotgani ifodalangan. Mazkur topilma ilk o'rta asrlar davriga oiddir.

Benazir alloma Abu Ali ibn Sino (980-1037) ham "Tib qonunlari" kitobida kurash insonning ruhiy va jismoniy holatida alohida ahamiyat kasb etishiga urg'u bergani bejis emas. Buyuk tabibning yozishicha, badan tarbiya bilan muntazam shug'ullanuvchi kishi kasallikning davosiga muhtoj bo'lmaydi.

Sharq adabiyoti durdonalari hisoblamnish "Shohnoma", "Qobusnoma", "Boburnoma" singari asarlarda ham polvonlari siyrati-yu qiyofasiga oid yorqin chizg'ilar, ularni noa'naviy olamini serjilo rangli tasvirlar aks etgan.

Alisher Navoiy hazratlari ham kurashdan, uning dovrig'ini yetti iqlimga taratgan polvonlar bahsidan huzurlangan. Shu bois ko'plab asarlarda pahlavonlar hayoti va faoliyatiga oid ajoyib-g'aroyib voqealar, lavhalarini yozib qoldirgan. O'z zamonasining qudratli saltanatini qurgan Amir Temur buyuk davlat arbobi, ma'rifatparvar hukmdor, salohiyatli sarkarda bo'lib qolmasdan, ayni vaqtda kurash ilmi hadisini mukammal egallangan kuchli polvonsifat siymo ham edi. Shuning uchun u mamlakatda yoshlarni chiniqtirish, vatanni sevguvchi, yurt xizmatiga kamarbasta, yetuk shaxslar qilib voyaga yetkazishda kurashning tutgan o'rniga esa katta ahamiyat bergan.

Eramizning IX asrida kurash rivoji yangi bosqichga ko'tarildi. O'sha kezlarda zamonaviy O'zbekiston hududida istiqomat qiluvchi aholi an'anaviy bayramlar, to'y-hashamlar va yirik jamoatchilik tadbirlari davomida kurashdan ko'ngil ochish va dam olish vositasi sifatida foydalanganlar. Keyinroq kurash ko'ngil ochish vositasidan mustaqil sport turi va jismoniy chiniqish usuliga aylandi. Eng kuchli kurashchilar xalq orasida ma'lumu-mashhur bo'lib, ular haqida afsonalar to'qila boshlandi. XII asrda yashab o'tgan Pahlavon Mahmud buning yaqqol namunasidir. Hali-hanuz uning qabri ziyoratchilarning sevimli maskani va muqaddas qadamjolardan biri hisoblanadi.

1980-yillarning boshida mashhur o'zbek kurashi ustasi, dyuzdochi va sambochi Komil Yusupov o'zbek kurashining boy merosini tadqiq etish ishlarini boshlab yubordi. Ushbu sport turining qayta tiklanishining faollaridan biri bo'lgan mazkur zotning asosiy maqsadi kurashning xalqaro me'yorlarga mos bo'lgan yangicha qoidalarini ishlab chiqishdan iborat bo'ldi.

90-yillarning boshlariga kelib u ushbu sharafli vazifani muvaffaqiyatli ado etib o'zbek kurashini xalqaro arenaga olib chiqishni o'z oldiga maqsad qildi. Avvaliga u o'zi ishlab chiqqan kurash qoidalarini jamoatchilik, mutaxassislar va ishqibozlar e'tiboriga havola etdi. Yangi qoidalar o'zbek kurashining eng ardoqli an'analari va maxsus kiyim bosh, musobaqalarni o'tkazish joyi va bellashuvning davom etish muddati kabi xalqaro sport me'yorlarini o'zida mujassam etdi.

Sport mutaxassislari Komil Yusupov tomonidan ishlab chiqilgan kurash qoidalari to'laligicha xalqaro sport talablariga javob berishini e'tirof etdilar. Kurash qoidalarining asosiy afzalliklaridan biri shundaki, ular yotgan holda bellashuvni davom ettirilishiga yo'l qo'ymaydi. Sportchilardan birining tizzasi gilamga tegishi bilanoq hakam bellashuvni to'xtatadi va kurashchilar turgan holda musobaqani davom ettirishadi. Bu hol kurashni tez sur'atlarda olib borilishi va muxlislar uchun qiziqarli va maroqli bo'lishini ta'minlaydi.

Bundan tashqari kurash qoidalari belbog'dan pastki qismni ushlovchi yoki og'riq qo'zg'atuvchi va bo'g'uvchi uslublarni ishlatishni ta'qiqlaydi. Shu tariqa kurash sportchilarga tan jarohati yetkazilishining oldi olingan eng xavfsiz sport turlaridan biriga aylandi. 1991 yilda O'zbekiston o'z mustaqilligini e'lon qilishi kurashga yangicha hayot baxsh etdi.

Mamlakatning turli chekkalaridan kelgan minglab kurashchilar musobaqalarda ishtirok etish istagini bildirgan bo'lsa, millionlab kurash ishqibozlari ushbu jozibali musobaqalardan bahra olish ishtiyoqida respublika bo'ylab stadionlarni to'ldirdilar. Kurash faollarining sa'y-harakatlari O'zbekiston bilan chegaralanib qolmadi. Ular 1992 yildan boshlab Janubiy Koreya, Kanada, Yaponiya, Hindiston, AQSh, Monako va Rossiyada o'tkazilgan qator nufuzli sport anjumanlarida o'zbek milliy kurashini tanitishga qaratilgan tadbirlarga bosh qosh bo'ldilar.

Bundan ko'rinadiki, milliy kurash o'ziga xos nozik hunar, ilmu-odob qorishmasi, uyg'unlashuvi bo'lib, bunda ustoz va shogirdalar o'rtasidagi o'zaro samimiylik, hamkorlik, hamrozilik, beg'arazlik, do'stona munosabat ko'p narsani belgilaydi.

Ustoz o'z bilimini, malakasi, shu milliy kurash ilmini o'z shogirdiga qanchalik puxta o'rgata olsa, uning sa'y-harakatini aniq maqsad-muddaolar sari yo'naltira olsa, bu albatta o'z samarasini berishi shubhasiz. Buning uchun shogird ham o'z betinim mashqi, iqtidori, iste'dodini muntazam mukammallashtirib, ustoz o'gitlarini jon qulog'i bilan tinglab, qabul qilib, ularga izchil amal qilishi, o'z jismu joniga eng yaxshi xislatu-fazilatlarni jo etib borishi ayni muddaodir, shundagina unda ulug' ajdodlarimizga munosib vorislik, komil shaxs bo'lib voyaga yetishdek sifatlar tarkib topib boradi.

Milliy kurashni to'liq o'rganishni istagan har bir yigit yoki qiz uning qonun-qoidalariga, etikasi va axloq-odob tamoyillariga rioya qilmoqlari zarur. U o'z hatti-harakatlari va axloqi bilan hech qachon o'z vatanining va albatta milliy kurashning obro'sini to'kmasligi kerak hamda hayotining oxirgi daqiqasigacha xalqiga, yurtiga, kurashiga har qanday holatda ham sodiq qolishi kerak.

Shu bilan bir qatorda milliy kurashchilar mashg'ulot vaqtida yoki olishuv paytlarida ortiqcha gapirmasliklari (agar bunga zarurat bo'lmasa), diqqatlarini bir joyga to'plab, boshqa narsalarga qaralmasliklari, bir-birlariga shikast yetkazmasliklari, biror usulni o'rganish uchun kurashayotgan vaqtlarida ham bir-birovlarini kurash yaktaklarida biror kamchilik bo'lsa darrov sheriklariga bildirishlari zarurdir.

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CURRENT ISSUES OF TEACHING HISTORY

Abstract: This article discusses the current issues of teaching history. The author explained the methodology of history teaching for young teachers.

Key words: history, method, methodology, problems of methodology, interests of students.

Teachers-practitioners face the question: how to teach student? This didactic question brings us to the category of teaching methods. Teaching methods help to achieve the set goal, to realize the intended content, to fill learning with cognitive activity. The method is the link between the projected goal and the end result. Its role in the system "goals - content - methods - forms - teaching aids" is decisive. Methods should be understood as ways of interconnected activities of the teacher and students in the learning process, aimed at achieving its goals.

I would like to emphasize that in the pedagogical literature the concept of method is sometimes referred only to the activity of a teacher or to the activity of students. In the first case, it is appropriate to talk about teaching methods. And in the second - about teaching methods. If we are talking about the joint work of the teacher and students, then teaching methods are undoubtedly manifested here.

The teaching method is a complex, multidimensional, multi-qualitative education. It reflects objective patterns, goals, content, principles and forms of education. The dialectic of the connection of the method with other categories of didactics is reciprocal. In the structure of teaching methods, objective and subjective parts are distinguished. The objective part of the method is due to those constant provisions that are necessarily present in any method, regardless of its use by various teachers. We are talking about general didactic provisions, principles and rules for all. The subjective part of the method is determined by the personality of the teacher, the characteristics of the students, and specific conditions. The ratio of objective and subjective in pedagogy is interpreted quite broadly. Naturally, the individual mastery of the history teacher is manifested most of all through the method.

In pedagogical science, there are different points of view on the classification of teaching methods. The criterion here is the logical ways of acquiring knowledge by students, the sources of acquiring this knowledge, the degree of activity of students in their assimilation, the form of realization of the

volume of knowledge. No teaching method is universal. In the Soviet school, the most common methods were verbal, visual and practical.

In the methodology of teaching history, there is no consensus on teaching methods. The existing scatter is well shown by A.A. Vagin. Evidence of the unresolved problem is the absence of chapters on teaching methods in the two-volume teaching methodology. I.Ya. tried to systematize the methods of teaching history. Lerner. He proceeds from the fact that the method of teaching as a way to achieve the goal of learning is a joint activity of the teacher and the student. Therefore, each method should determine the teaching and learning activities at the same time. Teaching is primarily a cognitive activity, in the process of which the assimilation of knowledge takes place. Methods are called upon to characterize their specific way of assimilation and organization of this assimilation (cognition).

At the initial stage of knowledge formation, the method of assimilation of information corresponds to the explanatory-illustrative method. Its essence lies in the organization of the conscious perception of ready-made information by students by various means and techniques. It consists in attracting visual figurativeness, in the oral presentation of information and the presentation of documentary and literary texts. At the same time, the teacher uses the spoken word, written text, video, monuments of material and spiritual culture or their reproduction in layouts, copies and symbolic clarity.

The second teaching method is the reproductive method. Its meaning is in the design of tasks for reproduction, the choice of the required number of exercises in a pedagogically justified system, and then reproduction, i.e. reproduction of the action by the student in accordance with the task. This may be a retelling of the teacher's explanation, a description of the content of the picture after its characterization, drawing up a simple and complex plan, an exercise in familiar comparison, a story about a historical figure according to the scheme, answering a question that does not require search, placing events on a contour map, compiling a chronological tables, an exercise in counting years before and after and so on. Here the word, visualization, text and practical activity serve as means of the reproductive method.

I. Lerner emphasizes that one can know, be able, but not be ready for creative activity if its experience is not learned. It can be mastered only in the process of solving problems and problematic tasks. In this case, the research method is used. Its essence lies in the construction or selection of a problem and problematic tasks and their presentation in a certain system for independent solution by the student.

In the methodology, a lecture presentation is distinguished. The lecture presentation is a detailed theoretical reasoning, scientific analysis and generalization, consistently carried out and based on specific historical material. In the lecture presentation, the material of narration and description serves the tasks of analysis and generalization, constituting the factual basis for

conclusions and conclusions. In this case, the analysis and generalization is carried out in a monologue form. In a school lecture, various kinds of visual aids are used, sometimes it takes on the character of a teacher's conversation with the class. A lecture often takes up an entire lesson or even two. In the conditions of a modern school in the second concentre, history lessons are put into the schedule in pairs or a block system is introduced - three lessons of 30 minutes each, which makes it possible for the teacher to use the lecture presentation if necessary. Due to the above circumstances, the pedagogical organization of listening, active mental activity of high school students is especially important. Students should clearly perceive the division of the lecture into logically complete parts. To do this, before it begins, a plan is reported or the task is given to the students themselves in the course of the hearing to draw it up. In any case, the presentation must be conducted in such a way as to clearly identify the formulation of the question, the logic of the analysis of historical material, on the basis of which its essence and significance are revealed, generalizations and theoretical conclusions are made. To facilitate the perception of a lecture, it is important to correctly place not only semantic, but also intonational accents, to present its content in a good literary language, interested, emotionally.

I would like to emphasize that the mid-90s of the XX century. marked by the appearance of a huge number of various textbooks and teaching aids for all periods of domestic and foreign history. Educational and methodological complexes (TMC) are being created, which expands the possibilities for working both in the classroom and at home. In modern literature, there is also an opposite opinion, fundamentally rejecting historical education from a textbook and replacing it with workbooks. This is a debatable issue that requires appropriate elaboration. You can study it according to the works of Yu.L. Troitsky.

So far, one gets the impression that most authors consider workbooks to be an appendix to the textbook. Therefore, they have a lot of tasks for mastering, repeating and consolidating new factual and theoretical knowledge. Often in workbooks, authors seek to go beyond school textbooks, supplement and deepen their content, and stimulate cognitive interest in the subject. Such an approach gives educational work a problematic, creative, research character.

The amount of mandatory and additional material in each case should be determined by the teacher in accordance with the characteristics of the class and the learning objectives.

Imagery and concreteness are mandatory requirements for the presentation of the material by the teacher and the most important conditions for its effectiveness. The liveliness and clarity of the story is achieved with the help of various means and methods of concretization, which are developed in detail by A.A. Vagin.

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E-COMMERCE IN A MODERN BUSINESS SYSTEM

Abstract: It is no exaggeration to say that the widespread introduction of modern information and communication technologies in our economy, in turn, has brought the interaction between consumers and producers to a new level. Today, the country has introduced and effectively used interactive services for customers in the banking sector through electronic payments, the global Internet and mobile communications. It provides a sufficient basis for the effective use of electronic payments and e-commerce opportunities by businesses, including small businesses and entrepreneurs, in the course of their activities, strengthening their competitiveness and achieving high economic results. The article discusses e-commerce opportunities and their importance in the modern business system.

Key words: Small Business and Entrepreneurship, A Global Network of Internet, E-Commerce Opportunities, The Consum.

INTRODUCTION

During the years of independence, small business and private entrepreneurship have become a leading force in our country. Artificial barriers to free enterprise have been removed. To this end, effective measures have been taken. The widespread introduction of trade and services through the use of information and communication technologies is an important factor in the development of business, as well as the creation of a favourable business environment. This, in turn, will increase the competitiveness and quality of products and services produced by entrepreneurs in the global market. The development of science and technology has necessitated the emergence of several new areas in social life. In particular, the development of information and communication technologies has led to radical changes not only in social life but also in business. The reason for the emergence and development of e-commerce also depends on the rapid development of information and communication technologies. The use of information and communication technologies (ICT) in business has created a revolution in the direct relations of companies with consumers. An important issue today is to take a strategic position, identify the opportunities available to firms and reach the highest level of profitability through the effective use of opportunities based on a simple, businesslike and viable e-commerce strategy in the information age and the new economic environment. At the same time, the scope of e-commerce has expanded. Initially, e-commerce was an economic transaction through the

Internet, but now, with the development of ICT and the expansion of e-commerce opportunities, e-commerce is now an entrepreneurial activity involving the sale of goods, works and services using information systems. Nowadays, not only the Internet but also other networks - local area network, virtual local area network, corporate network, regional networks are widely used to increase e-economic activity.

MATERIALS AND METHODS

Currently, along with the growing global trend in the use of modern information and communication technologies in the banking and financial sector, the growth of bank plastic cards and the development of electronic payments and e-commerce, the implementation of several projects in e-payments and e-commerce. Banking and financial institutions of our country provide their customers with remote electronic services such as electronic payments, SMS banking, Mobilbanking through the global Internet and mobile networks. It should be noted that the relevant regulatory framework for regulating e-commerce has been created in the country. In particular, the Law "On Electronic Commerce", the Law "On Informatization", the Law "On Electronic Payments", the Law "On Electronic Digital Signature" and a number of other normative documents.

However, the current level of development of information technology and commerce requires a more thorough regulation of relations in the field of e-commerce. Participants in the e-commerce market can be companies, consumers, government, administration, ie government agencies, investors.

The e-commerce market is divided into several main sectors depending on the electronic interaction of the e-market participants. These are business for business, business for consumer, business for government, consumer for consumer, government for consumer and mobile commerce. Of these e-commerce market sectors, the combined share of business sectors for business and business sectors for consumers is close to 90%. The development of e-commerce is influenced by technological factors, market factors, economic factors. Alternatively, businesses that integrate their activities with e-commerce may have the following advantages and opportunities:

- reducing the cost of maintaining business infrastructure,
- reduction of the price of goods as a result of reduction of advertising costs,
- save time on receipt and execution of orders, control over all orders,
- increase the number of potential customers, conduct their business on a global scale. In developed countries, the use of e-commerce, its widespread use in all spheres of life is highly developed. This is due to the environment that promotes the development of e-commerce - the general infrastructure that promotes the development of computer science, the level of development of information and communication technologies (ICT), the availability of

information networks (Internet) and access to these networks for each citizen. Level of provision, the level of use of ICT in society is provided at a high level.

However, in developed countries, there are various barriers that prevent e-commerce from taking full advantage of opportunities. These are language barriers, infringements of intellectual property rights, different tax and value-added tax (VAT) systems, different currencies, different technical standards used in e-commerce, and more. But for developing countries, the use of e-commerce opportunities is much more beneficial.

These are:

- Facilitates the access of large and small businesses to world markets,
- E-commerce leads to the development of international tourism in developing countries,
- E-commerce facilitates international marketing of agricultural products in developing countries, - facilitates access of small businesses in developing countries to the network of suppliers of raw materials in international B2B and B2G markets;
- E-commerce has expanded the range of services of service companies in developing countries, etc. E-commerce, like traditional economics, is an area that needs to be managed and regulated. However, as e-commerce is a new field, government management tools have not yet been developed in this area. Alternatively, states do not have enough experience to manage these relationships. The regulation and support of e-commerce depend on the level of development of countries. The legal framework governing e-economic activity in Uzbekistan is sufficiently developed. A total of 17 laws and regulations have been developed in the Republic of Uzbekistan to regulate ICT and e-commerce. These are the law on electronic signatures, the law on electronic document management, the law on electronic commerce, the law on electronic payments, and so on. At the same time, the legal framework for the development of e-commerce in Uzbekistan should be improved in the following areas. These are the development of a sequence of legal regulation of online services for the population and business, the strengthening of the specifics of certain types of services in e-commerce, the establishment of procedures for appeals to the law on e-commerce, standardization of electronic documents used in e-commerce, e-commerce issues of determining the procedure for licensing the activities of participants.

RESULTS AND DISCUSSION

In Uzbekistan, the process of implementing e-government as a branch of e-commerce has begun. The first steps in this area began with the process of equipping government agencies with information technology. Later, the single Internet portal of the Republic of Uzbekistan www.gov.uz was created. Today, all public authorities and administration have their own websites. At the same time, the rate of paperless paperwork between government agencies is growing. It should be noted that in addition to the implementation of e-commerce in

Uzbekistan, there are also problems. These are psychological factors (our population still can not clearly imagine trading in a virtual environment), insufficiently developed information and communication infrastructure, the inability of entrepreneurs to clearly imagine the possibilities of e-commerce, low computer literacy among middle-aged and older people, banks in the Internet non-establishment of payment services (internet-banking), etc. Despite the above obstacles, the prospects for e-commerce in Uzbekistan are bright. Because ICT indicators in our country are growing rapidly. And the number of Internet users is growing rapidly.

CONCLUSION

1. It is necessary to further develop the ICT infrastructure in our country. Because the current ICT infrastructure does not allow us to take full advantage of e-commerce opportunities. The development of ICT infrastructure will accelerate the implementation of e-commerce in our country.

2. The legal framework for the development of e-commerce in Uzbekistan should be improved in the following areas. These are the development of a sequence of legal regulation of online services for the population and business, the strict strengthening of the specifics of certain types of e-commerce services in the law, the procedure for applying to the law on e-commerce, standardization of electronic documents used in e-commerce, licensing e-commerce participants issues of determining the order of the process.

3. Along with the development of ICT infrastructure, it is necessary to increase the computer literacy of the population. To do this, it is necessary to ensure the use of information technology by the younger generation and the deepening of their knowledge in this area.

4. It is necessary to ensure the abandonment of conservative views of banks in working with electronic payments and further development of SMS banking.

5. It is necessary to develop the necessary incentive government programs for entrepreneurs to use e-commerce opportunities and increase their e-economic activity.

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ON THE METHODOLOGY FOR ASSESSING CHANGES IN THE HYDROLOGICAL REGIME OF MOUNTAIN RIVERS BASED ON CLIMATE SCENARIOS

Abstract: In this paper, the questions of the formation of the runoff of mountain rivers in Uzbekistan and adjacent territories in the context of climate change are considered. A methodology for studying the hydrological regime of water bodies - rivers, lakes, snow cover and glaciers based on the application of various scenarios of global climate change is outlined.

Key words: river, river basin, hydrological regime, atmospheric precipitation, air temperature, climate change, impact assessment.

The study of the impact of climate change on the natural resource potential of any country and their consequences is one of the most important scientific and practical state tasks. In recent years, in Uzbekistan, within the framework of the State Scientific and Technical Program, a large amount of research has been carried out aimed at assessing climate change and its consequences, such as changes in water, agro-climatic resources, snow cover, glaciation, glacial runoff and others (Glazyrin, 1991; Chub, 2000; Chub 2007; Khikmatov et al. 2020).

Against the background of high natural climate variability in Central Asia in general and, in particular, Uzbekistan, there is a reaction to ongoing global climate changes. As is known (Ososkova et al., 2005), climate change occurs under the influence of both natural climate-forming factors and anthropogenic factors on a global and regional scale.

Studies of the dynamics of the modern climate in Central Asia have shown that against the background of high natural climate variability, the region also has a certain reaction to recent global climate changes. For example, for 100 years, the average annual air temperature in Tashkent has increased by 1.2 0C. Precipitation is characterized by alternating periods of excess and deficit (Chub, 2007).

At the Central Asian Research Hydrometeorological Institute (Scientific Research Hydrometeorological Institute, SANIGMI) (now the Scientific

Research Hydrometeorological Institute, NIGMI Uzhydromet), studies of the current climate and its changes were carried out in parallel in two directions: the first - by the methods of dynamic climatology and, the second - with by determining statistically significant changes, both directional and periodic.

The degree of impact of probable climate changes on the regime of rivers, lakes, snow cover and glaciers in the region, according to these scenarios, has already been assessed using fairly reliable mathematical models of runoff formation developed by Yu.M. Denisov, G.E. Glazyrin, V.G. Konovalov, L.N. Borovikova, B.K. Tsarev, A.S. Shchetinnikov, V.E. Chub and others (Chub, 2000; Khikmatov et al. 2020).

In the 90s of the last century, when assessing changes in the water resources of rivers, lakes, the Aral Sea, glaciers and snow cover, with possible long-term climate changes, L.N. Borovikova, G.E. Glazyrin, B.K. Tsarev, N. E. Gorelkin, A. S. Shchetinnikov, M. G. Glazyrina, G. N. Trofimov and others adopted the following combinations of changes in air temperature and precipitation: temperature - 0, +1, +2 and +3o; atmospheric precipitation: -20, -10, +10, +20, -50 and +50% (Chub, 2007; Khikmatov et al., 2020). Similar combinations of changes in air temperature and atmospheric precipitation can also be taken to assess changes in the hydrological regime and water resources of the rivers of Uzbekistan and adjacent territories due to changes in climatic conditions in their basins.

At present, the world literature provides detailed descriptions of climate scenarios developed by foreign scientists and specialists. For example, today there are the following models of global climate change: GFDL - created in the Geophysical Laboratory of Fluid Dynamics - Model of the Geophysical Fluid Dynamics Laboratory (USA); GISS - at the Goddard Institute for Space Research - Model of the Goddard Institute for Space Sciences (USA); UKMO - in the United Kingdom Meteorological Agency - Model of the United Queen Meteorologikal Office (England); SSCM - at the Canadian Climate Center - Model of the Canadian Climate Center (Canada). In carrying out this work, we used the results of the interpretation of these scenarios of global climate change for the conditions of Uzbekistan and adjacent territories from 2015 to 2030, developed by scientists from NIGMI Uzhydromet (Fig. 1).

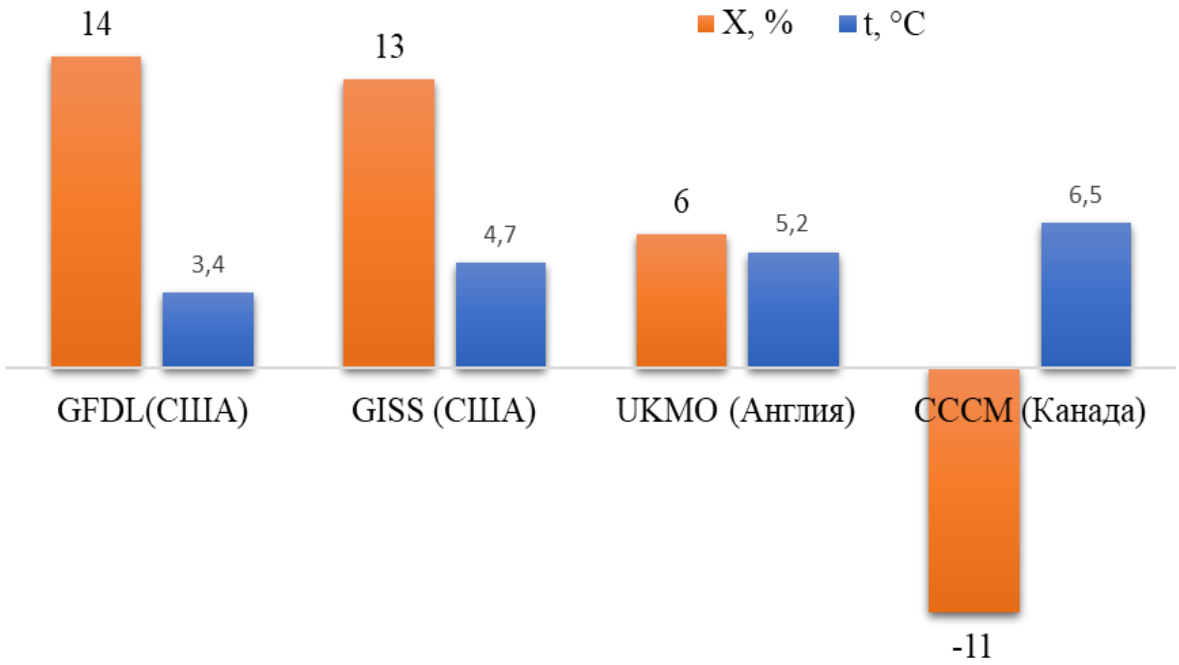


Fig. 1. Values of changes in air temperature (t) and atmospheric precipitation (X) according to global climate change models (Chub, 2000; Chub, 2007)

As can be seen from Figure 1, the SSSM model gives the greatest aridization of climatic conditions, the zone of formation of the flow of rivers in Uzbekistan and adjacent territories (average annual temperature increase by 6.5 0C, decrease in annual precipitation by 11%). An unfavorable situation may also arise if climate change develops according to the UKMO model, when the air temperature may increase by 5.2 0C, and the annual precipitation will increase by 6%. According to the GFDL and GISS scenarios, the average annual temperature in the formation zone will increase by 3–40C, and the average annual precipitation will increase by 10–15%.

The results of the studies carried out by us once again confirmed the climatic conditionality of the formation of runoff in the rivers of Uzbekistan and adjacent territories. The obtained dependencies on the example of r. Kashkadarya makes it possible to predict changes in the water content of rivers due to climate change. In this case, scenarios of possible climate change will be considered given. The degree of impact of likely climate change, i.e. climatic indicators - atmospheric precipitation of different seasons and air temperature of the warm period on the water content of rivers can be assessed using nomograms, an example of which was developed in our previous studies [Frolova et al., 2019; Khikmatov et al., 2020].

In the subsequent stages of research within this direction, i.e. assessments of changes in the water content of rivers will be made taking into account only climatic influences, since the zones of formation of the flow of the studied rivers are mainly located in mountainous areas and are not strongly influenced by non-climatic factors. In general, when assessing changes in the hydrological regime and

water resources of the rivers of Uzbekistan and adjacent territories in connection with climate change, the above scenarios interpreted by scientists from NIGMI Uzhydromet for the study area will be used.

In conclusion, it should be noted that the work shows the expected climatic changes in the mountain river basins of Uzbekistan and adjacent territories. This was largely reflected in the main runoff-forming factors of mountain basins, such as the air temperature of the warm half of the year and atmospheric precipitation. The mode of intra-annual and territorial distribution of atmospheric precipitation, one of the ozone sources of feeding the rivers of the study area, has also changed.

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DEVELOPMENT OF ARTIFICIAL INTELLIGENCE: CHARACTERISTICS OF RESEARCH DIRECTIONS

Annotation. The article presents the periodization of the basic areas of research in the field of artificial intelligence. The first examples of systems created to perform intellectual tasks are considered in detail. The significance of experimental work for the subsequent creation of intelligent machines is described.

Key words: intelligent machine, artificial intelligence, labyrinth search, machine translation, visual pattern recognition.

With the advent of the first generation of computers, the hardware of which was built on the basis of vacuum tubes, research in the field of artificial intelligence (AI) is actively developing. Initially, when creating the first computers, scientists did not think about the implementation of intellectual functions. The earliest designs were designed to perform complex computational tasks. However, later, with an increase in productivity, it became clear that a huge potential is hidden in computers, with the help of which it is possible not only to simplify labor costs and increase the efficiency of human activity, but also to build a system similar to the human mind, and, consequently, to understand how mental thinking is carried out. activity.

For the first time, the theory that the capabilities of electronic computers at some point will equal the capabilities of the human brain was proposed by the English mathematician, logician, cryptographer Alan Turing. In his 1947 report "Intelligent Machines," Turing speculated whether a mechanism could detect intelligent behavior. In 1950, the work “Computing Machines and the Mind” was published, in which he presented a method for determining the “intelligent behavior” of a machine, later called the “imitation game” or “Turing test”. The standard interpretation of this test is: “A person interacts with one computer and one person. Based on the answers to the questions within five minutes, he must determine with whom he is talking: with a person or a computer program. The task of a computer program is to mislead a person into making the wrong choice.” Turing claimed that by the year 2000 computer systems would be free to pass his test, but this did not happen **[**6].

American scientist Marvin Lee Minsky, along with Alan Turing, is considered one of the founders of AI. At the heart of his theory is the idea that "the brain is nothing but a complex machine whose properties can be copied by computers". In 1951, M. Minsky and D. Edmonds created the first network computer based on a neural network - a device built on the principle of organization and functioning of the nerve cells of a living organism. The sample

was named "Snarc" (Stochastic Neural Analog Reinforcement Calculator). It was the first self-learning computer system simulating a network of 40 neurons [7].

Since 1952, Arthur Samuel, a pioneer in the field of computer games and machine learning, has been creating a number of programs for playing checkers. The most important result of his work is the "Checkers-playing" program - one of the first in which self-learning functions are implemented and the basic principles of AI are clearly demonstrated. In the course of his research, Samuel disproved the claim that computers could only do what they were taught: one of his programs "learned" how to play checkers better than its creator. The developments of A. Samuel are considered to be fundamental in this direction [5].

At the same time, the American researcher Allen Newell began to develop a program for playing chess. The working team included analysts from the RAND Corporation (a company that develops new methods for solving strategic problems), as well as a group of Dutch psychologists led by De Groot, who studied the playing styles of outstanding chess players. The result of two years of work was the programming language "IPL" - the first symbolic language for processing lists. After some time, the intellectual program "Logic-Theorist" was written in this language, designed to automatically prove theorems in propositional calculus. With its help, 38 out of 52 theorems of one of the sections of mathematical logic, the propositional calculus, were re-proved. Subsequently, all 52 theorems were deduced on a high-speed computer" [2].

1952 was also marked by the development of the American mathematician, cybernetics and cryptologist Claude Chenon. He created an "electronic mouse" - a learning machine for finding a way out of a labyrinth, controlled by a complex relay circuit. The device independently explored the labyrinth and found a way out of it. At its core, it was a software implementation of the labyrinth search model [4].

In 1954, a demonstration was made of the operation of a device representing a separate area in AI research, namely, machine translation from one natural language to another with the preservation of semantic relations using a special computer program. The idea was proposed back in 1947 by cryptographer Warren Weaver, and on January 7, 1954, IBM, together with Georgetown University, demonstrated the IBM Mark II, which performed a fully automatic translation of more than 60 sentences from Russian into English. The event has been dubbed the "Georgetown Experiment". It gave a powerful start to the development of this area, causing a wide resonance in the scientific community and positively influencing the development of such systems in the future [1].

In 1956, research in the field of AI was formalized as an independent scientific direction. In the American city of Hanover, on the basis of Dartmouth College, a conference on AI was held, which was attended by all prominent

American researchers involved in developments in this area. It was at this conference that computer scientist John McCarthy coined the term “Artificial Intelligence” (“artificial intelligence”). According to McCarthy, intelligence is understood as “the computational component of the ability to achieve a goal, and researchers are free to use methods that are not observed in humans, if necessary, to solve specific problems, both in the design of a machine and in the operation of algorithms” **[**8].

In 1958, John McCarthy also made a significant contribution to the development of a new high-level programming language, Lisp. This language is still one of the main tools for writing the software part of intelligent systems. McCarthy's next discovery, due to the lack of funds to increase the power of computer resources, was the "time-sharing mode" (simultaneous access of several users to one computer). This mode made it possible to unleash the potential of computers and significantly increase the productivity of work.

In the same year, McCarthy described the hypothetical Advice Taker program, the main purpose of which was the use of knowledge, including general ideas about the world, in solving problems. Basing its actions on a set of axioms, the program, depending on the conditions, is able to expand the set of fundamental settings, thereby embodying the principles of knowledge representation and reasoning **[**5].

In 1959, M. Minsky founded the Artificial Intelligence Laboratory at the Massachusetts Institute of Technology and designed a robot capable of perceiving and manipulating surrounding objects. The device was equipped with optical scanners and tactile sensors, controlled by a computer **[**3].

Since 1960, AI as an independent direction has spread throughout the world. The USSR, Japan, European countries joined the work. Period from 1945 to 1960 was the first step in the development of a new science. At this time, the main directions of AI research emerged, the results of which gave rise to a huge number of diverse ideas, generating both interdisciplinary connections and fundamentally new ideas. Experimental intelligent systems have become the starting point in the development of such areas of research as neural networks, game programs, labyrinth search, machine translation, automatic theorem proving, recognition of visual patterns and external influences. It should be said that robotics is not considered in this article, since by 1945 there were already a large number of automatic machines, and the development of computer technology and the emergence of AI theory marked a new stage of research in this direction.

Subsequently, subject to the trends of reducing the cost of hardware components of computers and increasing their capacities, the presented areas of AI research are transformed and intertwined with research in the field of philosophy, psychology, and cultural studies. There are theories of "weak" and "strong" AI. Writers and cinematographers in their fantastic works try to show possible interactions between man and machine, touching upon the problems of

ethics, morality, and religion. AI research, as well as the very understanding and use of the theory of intelligent machines, are being commercialized. AI enters the world market not only as a high-performance computer information system, but also as a global general cultural idea that has given rise to both new hopes and new phobias in the minds of people.

At the moment, every specialist, one way or another connected with computer technology, has heard about AI. The world in the last 70 years has been trying to use computer technology to solve problems that have been relevant throughout the history of mankind - understanding and recreating life, reason, the ability to perceive, understand and explain the world around.

Perhaps this problem will be solved in the process of creating AI, perhaps AI will solve this problem after its appearance. However, it can be confidently asserted that AI, like any other scientific direction, will receive productive development only as a result of the joint active efforts of the world scientific community.

The ideas of AI highlighted in this paper are important because they are fundamental. These are the first attempts to embody the possibilities of the mind, recreated by separate technical systems, in order to subsequently unite into a full-fledged intellectual environment. On the other hand, it was these areas of research that were chosen for consideration, first of all, for the reason that they represent the most general ways of knowing and understanding the world around us - starting from the perception of reality (pattern recognition) to attempts to describe and adapt to the environment of existence. (translation, labyrinth search, game).

Thus, the concepts of learning, playing, searching for something new and adapting it to improve human existence, defined in the course of the cultural and historical development of society, are reflected in the theory and practice of AI. The components of a complex idea (artificial intelligence) implemented with the help of computer tools, described in this article, marked the beginning of a new era of computer culture, which completely covered most of our planet, outlining the features of today's historical era.

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KURASH SPORTI, UNING SHAKLLANISH TARIXI, O'ZBEK KURASHI PAYDO BO'LISHI VA QOIDALARI

Annotatsiya: Maqolada kurash sporti, uning shakllanish tarixi, o'zbek kurashi paydo bo'lishi va qoidalari bayon etilgan. Shuningdek, kurash sportining inson va jamiyat uchun ahamiyati ochibberilgan.

Kalit so'zlar: kurash, milliy kurash, Xalqaro kurash assotsiatsiaysi, Pahlavon Mahmud, Sodiq polvon, O'zbekistonda belbog'li kurash federatsiyasi, Komil Yusupov, kurash qoidalari.

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WRESTLING SPORT, HISTORY OF ITS FORMATION, EMERGENCE AND RULES OF UZBEK WRESTLING

Abstract: The article describes the sport of wrestling, the history of its formation, the origin and rules of Uzbek wrestling. The importance of wrestling for man and society was also revealed.

Keywords: kurash, national kurash, International Kurash Association, Pahlavon Mahmud, Sodiq Polvon, Belt Wrestling Federation of Uzbekistan, Komil Yusupov, rules of kurash.

KIRISH

Sportga e'tibor yuksalgan jamiyat sog'lom jamiyat tarzida rivojanadi. Sportning barcha turlari borki, ular shaxsning nafaqat jismoniy barkamolligini, qolaversa ma'naviy rivojlanishiga ham xizmat qiladi. Xususan, kurash sporti milliy qadriyatlar himoyasi bo'lib, ozida milliy g'urur, iftixor va yorug' kelajakka ishonch tuyg'ularini mustahkamlashni ta'minlaydi. Kurashish san'ati ko'p xalqlarda qadim zamonlardan buyon ma'lum. Bu sport turi belgilangan qoidalar bo'yicha ikki sportchining yakkama-yakka olishuvidir. Kurash qadimda ayniqsa Yunonistonda keng tarqalib, antik olimpiada musobaqalaridan doimiy o'rin olgan. Bugungi kunda milliy kurashning xilma-xil shakllari Gretsiya, Italiya, Yaponiya, Turkiya, Eron, Afg'oniston, Rossiya, O'zbekiston, Gruziya, Armaniston, Ozarbayjon, Qozog'iston va boshqa mamlakatlarda mavjud.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Zamonaviy sport kurashining asosiy qoidalari XVIII asr oxiri — XIX asr boshlarida Yevropaning bir necha mamlakatlarida paydo bo'la boshladi. 1912-yil Xalqaro havaskorlar kurash federatsiyasi (FILA) tuzildi(hozir unga 144 mamlakat a'zo, Xususan, mamlakatimiz unga 1993-yilda a'zo bo'lgan). Xalqaro maydonda sport kurashining yunon-rum kurashi, erkin kurash, dzyudo, sambo va boshqa turlari keng tarqalgan. **[**1] Keyingi yillarda o'zbek kurashi ham alohida kurash turi sifatida dunyo miqyosida tan olina boshlandi. Kurash insonni kuchli, epchil, chidamli va irodali qilib tarbiyalovchi asosiy vositalardan biridir. Mutaxassislar nazorati ostida 12 yoshdan kurash bilan shug'ullanishga ruxsat etiladi. Kurash azaldan o'zbek turmush tarzining uzviy qismi bo'lganligini arxeologik topilmalar, tarixiy qo'lyozmalar tasdiqlaydi. Qadimgi Baqtriya hududidan topilgan Bronza davriga oid silindrsimon sopol idishda ikki polvon kurashi tasvirlangan. Yana bir artefaktda esa polvonlarning Kurash usullari namoyishi aks ettirilgan. Bu noyob topilmalar miloddan 1,5 mingyil ilgari ham kurash ajdodlarimiz turmush tarzining bir qismi bo'lganini anglatadi. Yunon yozuvchisi Klavdiy Elian (II-III asr) va boshqa tarixiy shaxslarning yozishicha, sak qabilasi qizlari o'zlariga kuyovni yigitlar bilan kurashib tanlaganlar. Keyinchalik qizlar kuyovni shart qo'yish yo'li bilan aniqlashgan va bu shartda kurash musobaqasi bo'lgan. Bunga o'zbek xalq qahramonlik dostoni — «Alpomish»dagi Barchin shartlarini misol qilib ko'rsatish mumkin. Ulardan biri ikki kurashuvchining biri o'z raqibining belbog'idan ushlab o'ziga tortadi, shu bilan birga o'z raqibidan qutulishning chorasini qiladi... **[**2]». Bu ta'rif zamonaviy Kurash qoidalariga yaqindir. Shuningdek, Mahmud Koshg'ariyning «Devonu lug'otit turk», Alisher Navoiyning «Hamsa», «Holoti Pahlavon Muhammad», Zayniddin Vosifiyning «Badoye' ul-vaqoye'«, Husayn Voiz Koshifiyning «Futuvvatnomai sultoniy», Z.M.Boburning «Boburnoma» asarida kurash haqida qimmatli ma'lumotlar bor. IX-XVI asrlarda kurash xalq o'rtasida keng ommalashgan. Shu davrda Pahlavon Mahmud, Sodiq polvon kabilar dovrug'i butun Sharqqa tanilgan.

O'zbek xalq yakka kurashining belbog'li kurash deb nomlangan turi ham bor. Bunga taalluqli ko'plab topilmalar va tarixiy qo'lyozmalar mavjud. 5 ming yil ilgari Mesopotamiya hududidan topilgan haykalchada belbog'li kurash usulida musobaqalashayotgan polvonlar tasvirlangan. Xitoyning «Tan-shu» qo'lyozmasida Dovon davlati(Farg'ona vodiysi) to'ylar, sayllar kurash musobaqalarisiz o'tmasligi yozilgan. Ahmad Polvon, Xo'ja polvon kurashning ana shu turida shuhrat qozonishgan(XIX asr oxiri — XX asr boshi). Chorizm va sho'rolar davrida mafkuraviy harakatlar negizida o'zbek milliy kurashini xalq turmush tarzidan sun'iy ravishda siqib chiqarishga harakat qilindi.

MUHOKAMA

1992-yilda O'zbekistonda kurash federatsiyasi tuzildi. Xalqaro kurash assotsiatsiyasi (IKA)ning 2003-yil Toshkentda o'tgan Kongressi har bir uchrashuvning qizg'in bo'lishini ta'minlash maqsadida rasmiy musobaqalarda

bellashuv vaqtini 3 daqiqa qilib belgiladi. Ishlatilgan usullarga bajarilishiga mos ravishda «chala», «yonbosh», «halol» baholari, qoidaga zid harakatlarga esa «tanbeh», «dakki», «g'in-om» jazolari beriladi. Kurashuvchi «halol» bahosini olsa (yoki raqibi «g'in-om» bilan jazolansa) bu uning g'alabasini bildiradi. Ikki bor «yonbosh» bahosini olish (yoki raqibining ikki bor «dakki» deya jazolanishi) ham g'alabani anglatadi. «Chala» baholari hisobga olib boriladi... Ballar tengligida oxirgi baho olgan kurashchiga g'alaba beriladi, kurashchilaming baho va jazolari soni teng holatda baho ustunlikka ega bo'ladi, jazolar soni teng bo'lsa oxiïgi jazo olgan mag'lub hisoblanadi, agar barchasi teng (yoki baho va jazo olinmagan) bo'lsa, g'olib hakamlaming ko'pchilik ovoziga ko'ra e'lon qilinadi **[**3].

2001-yilda O'zbekistonda belbog'li kurash federatsiyasi tuzildi **[**4]. 1998-yil sentabrda Toshkentda 28 davlat (AQSH, Boliviya, Buyuk Britaniya, Gollandiya, Rossiya, O'zbekiston, Yaponiya va b.) vakillari Xalqaro kurash assotsiatsiyasi (IKA) muassislari bo'lishdi va shu munosabat bilan bu yeráa o'zbekcha kurash bo'yicha yirik xalqaro musobaqa o'tkazildi. Prozidentning «Xalqaro kurash assotsiatsiyasini qo'llab-quvvatlash to'g'risida»gi faimoni o'zbek milliy kurashining yanada rivojlanishini ta'minladi. Shu yili Toshkentda o'zbekcha kurash bo'yicha birinchi jahon chempionati, Rossiyaning Bryansk shahrida ayollar o'rtasida xalqaro musobaqa bo'lib o'tdi. IKA qoshida Xalqaro kurash akademiyasi tashkil etildi.

2000-yil O'zbekistonda kurash oyligi o'tkazildi. Bu oylik davomida 2 mln.ga yaqin kishi kurash gilamiga chiqdi. Buyuk Britaniyada IKA faxriy prezidenti Islom Karimov nomidagi an'anaviy xalqaro musobaqaga asos solindi. 2001-yildan Toshkentda Xalqaro kurash instituti faoliyat boshladi. IKA ga 66 ta milliy federatsiya a'zo bo'lib kirdi. Yevropa, Osiyo, Panamerika va Okeaniya kurash konfederatsiyalari tuzildi. Hozirgi paytda o'zbekcha kurash bilan xorijiy mamlakatlarda 600 mingdan ziyod kishi shug'ullanadi. Kurashning bu turi bo'yicha jahon, qit'a va mamlakatlar chempionatlari hamda O'zbekistonda at-Termiziy, Pahlavon Mahmud xotirasiga bag'ishlangan va boshqa ko'plab xalqaro musobaqalar muntazam o'tkaziladi. Osiyo olimpiya kengashi 2003-yilda kurashning bu turini Osiyo o'yinlari dasturiga kiritdi. Kurash bo'yicha o'tkaziladigan jahon chempionatlarida Bahrom Anazov, Isoq Axmedov, Maxtumquli Mahmudov, Kamol Murodov, Toshtemir Muhammadiyev, Akobir Qurbonov (O'zbekiston), Kubashxonim Elknur, Selim Totar o'g'li (Tur-kiya), Aleksandr Katsuragi, Karlos Xonorato (Braziliya), Pavel Melananets (Polsha), Xiroyoshi Kashimoto (Yaponiya) va boshqa g'olib chiqdilar va sovrindor bo'ldilar.

NATIJLALAR

O'zbek xalqining an'anaviy sport turlaridan biri bo'lmish kurash uch yarim ming yillik tarixga ega. Kurash o'zbekcha so'z bo'lib, u qator qadimiy sharq adabiy manbalarida yakkama-yakka olishuv va ijtimoiy ko'ngilochar sport turi sifatida tilga olingan.

Ming yillik tarixga ega afsonaviy Alpomish eposida kurash olis o'tmishda O'zbekiston zaminida ommaviy tus olgan eng sevimli va nufuzli sport turi bo'lganligi yoritilgan.

Qadimda va o'rta asrlarda yashab ijod etgan qator faylasuf va tarixchilar o'z asarlarida kurashni alohida ehtirom ila tilga olganlar.

XULOSA

Kurash faollarining sa'y-harakatlari O'zbekiston bilan chegaralanib qolmadi. Ular 1992-yildan boshlab Janubiy Koreya, Kanada, Yaponiya, Hindiston, AQSh, Monako va Rossiyada o'tkazilgan qator nufuzli sport anjumanlarida o'zbek kurashini tanitishga qaratilgan tadbirlarga bosh qosh bo'ldilar. 2020-yil 4-noyabrda O'zbekiston Respublikasi Prezidentining «Kurash milliy sport turini rivojlantirish va uning xalqaro nufuzini yanada oshirish chora-tadbirlari to'g'risida»gi PQ- 4881-son qarori asosida «Kurash milliy sport turini 2025-yilgacha yangi bosqichga olib chiqish Konsepsiyasi» ishlab chiqildi. Unda kurash milliy sport turini yanada ommalashtirish va rivojlantirishga to'siq bo'layotgan muammolar va ularni bartaraf qilish vazifalari belgilandi. Shu bilan birga Kurashni jahon xalqlarining sevimli sport turlaridan biriga aylantirish, uning insonparvar g'oyalarini keng targ'ib qilish orqali jahonda O'zbekiston nufuzini oshirishning ustuvor yo'nalishlari belgilab olindi.

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ENERGIYA SAMARADORLIGI - BARQAROR ENERGIYA TA'MINOTINING MUHIM OMILI

Annotatsiya: Ushbu maqola cho'g'lanma lampalarni realizatsiya qilish va qo'llashni cheklash ma'nan eskirgan cho'g'lanma lampalarni eng ilg'or yo'nalish sifatida energiya tejamkorlariga almashtirish kabi yoritish texnologiyalarining rivojlanish istiqbollari tahlil qilingan.

Kalit so'zlar: cho'g'lanma lampa, energiya samaradorligi, lyuminessent lampa, ijtimoiy tariflar, elektr energiya, yoqilg'i-energetika resurslari, energiya tejamkorligi.

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ENERGY EFFICIENCY IS AN IMPORTANT FACTOR OF SUSTAINABLE ENERGY SUPPLY

Abstract: This article analyzes the prospects for the development of lighting technologies, such as the implementation and restriction of the use of incandescent lamps, i.e. replacing outdated incandescent lamps with energy-saving ones as the most advanced direction.

Key words: incandescent lamp, energy efficiency, fluorescent lamp, social tariffs, electricity, fuel and energy resources, energy saving.

Energiya va energiya resurslari har qanday mamlakat iqtisodiyotining barqaror rivojlanishini ta’minlaydigan, uning ijtimoiy-iqtisodiy taraqqiyoti darajasi va aholisi farovonligini belgilaydigan omillardan biri hisoblanadi. Soha mutaxassislari va olimlarning ma’lumotlariga ko‘ra, dunyoda aniqlangan mavjud tabiiy yoqilg‘i-energiya resurslari (tabiiy gaz, neft) 60-150-yil ishlatishga yetadi. Shu sababli, ko‘plab davlatlarda energiya xavfsizligini ta’minlash va energiya samaradorligini oshirish siyosati qo‘llanmoqda.

Bugun yangi O‘zbekiston energetika tizimida ham mamlakat energiya xavfsizligini ta’minlash, energiya samaradorligini oshirish va iqtisodiyot tarmoqlarini barqaror energiya bilan ta’minlash borasida ulkan loyihalar amalga oshirilmoqda. Prezidentimiz tomonidan mamlakatimizda yalpi ichki mahsulotning energiya sig‘imini yanada qisqartirish, mahsulot tannarxini kamaytirish va “yashil energetika” siyosatini amalga oshirish, ya’ni qayta tiklanadigan energiya manbalaridan, jumladan, quyosh, shamol va suv energiyasidan foydalanishni kengaytirishga alohida e’tibor qaratilmoqda **[**1].

Yurtimizda elektr energiyasiga bo‘lgan talabning ortib borishi sababli yoqilg‘i-energetika resurslarini iqtisod qilish masalasi nihoyatda dolzarb vazifaga aylanib bormoqda. Shu ma'noda energiyani tejaydigan uskuna va texnologiyalarni qo‘llash va ulardan foydalanish orqali ham ushbu masalani qisman hal etish mumkin.

Respublikamiz energetika strategiyasining muhim vazifalaridan biri aholini va mamlakat iqtisodiyotini energetika resurslari bilan to‘liq va ishonchli ta'minlash, shuningdek energiya tejamkorligini rag‘batlantirish hisoblanadi. Yoritish texnologiyalarining rivojlanish istiqbollari tahlili natijasida, eng ilg‘or yo‘nalish sifatida ma'nan eskirgan cho‘g‘lanma lampalarni energiya tejamkorlariga almashtirish tan olingan **[**2].

2006 yilda 125 yoshga to‘lgan va insoniyat rivojida ulkan ahamiyat kasb etgan cho‘g‘lanma lampalar bugungi kunda mutlaqo eskirgan yorug‘lik manbalari hisoblanadi. Dunyoning ko‘pgina mamlakatlari, xususan, Koreya, Xitoy, AQSH, Yevropa Ittifoqi va MDH davlatlarida energiya samaradorligini ta'minlash va kechki maksimum yuklamalarni boshqarish, shuningdek elektr energiyasi to‘lovi bo‘yicha “ijtimoiy tariflar” tizimini joriy qilishda cho‘g‘lanma lampalardan foydalanishdan voz kechish bo‘yicha tub chora-tadbirlar ko‘rilmoqda **[**3].

Shunday qilib, cho‘g‘lanma lampalarning ishlash tamoyilidan kelib chiqsak, ularning foydali ish koeffitsiyenti 5 foizdan kamroqni tashkil etadi. Bu - elektr energiyasining 95 foizi issiqlikka va faqatgina 5 foizi yoritishga sarflanishini anglatadi. Normativ bo‘yicha ishlash muddati - 1000 soatga yaqin **[**4].

Energiyani tejaydigan lampalarning ishlash davomiyligi cho‘g‘lanma lampalarga nisbatan 10 barobarga ko‘proq bo‘lib, yorug‘lik samaradorligi 4-5 barobar yuqori. Agar yoritish uskunalarining energiya samaradorligi ko‘rsatkichi “lyumen/vatt” cho‘g‘lanma lampalarda 1 vatt elektr quvvatiga 13 lm dan kam

bo‘lmagan miqdorni tashkil etsa, lyuminessent lampalarda 65 lyumen/vattni, svetodiod lampalarda 110 lyumen/vattni tashkil etadi **[**5].

Cho‘g‘lanma lampalar kabi yoritish darajasiga ega bo‘lgan energiyani tejaydigan lampalardan foydalanilganda, elektr energiyasini iste'mol qilish 5 barobardan kam bo‘lmagan miqdorda kamayadi. Jami sarflanayotgan elektr energiyasining 19 foizdan kam bo‘lmagan miqdori esa yoritishga sarflanadi. Hisob-kitoblar ko‘rsatishicha, hozirgi kunda iste'mol qilinayotgan elektr energiyasining 40-50 foiz miqdorini energiya tejamkor texnologiyalar, zamonaviy yorug‘lik manbalari va yoritish tizimlaridan foydalanish orqali iqtisod qilish mumkin **[**6].

O‘zbekistonda 5,5 mln.dan ortiq maishiy abonentlar - elektr energiyasi iste'molchilari mavjud. Agar har bir oilada 2 tadan 100 Vt lik cho‘g‘lanma lampalar 18-22 Vt lik energiya tejamkor lampalarga almashtirilsa, 880 MVt miqdoridagi *(0,08 kVt x 2 dona x 5 500 000 abonent = 880 000 kVt)* yoki Talimarjon IES kabi yirik elektr stansiyasining quvvatidan ko‘proq quvvat bo‘shatiladi. Bu esa respublika elektr energetikasi tarmog‘i barqarorligini mustahkamlashga va barcha iste'molchilarni uzluksiz elektr energiyasi bilan ta'minlashga yordam beradi **[**7].

Agar ushbu lampalarning kunlik o‘rtacha ishlash davomiyligini 6 soat deb olsak, elektr energiyasi iqtisodi bir oyda 158 400 ming.kVt/soatni *(880 000 kVt x 6 soat x 30 kun)*, ya'ni respublika bo‘yicha umumiy kunlik o‘rtacha elektr energiyasi iste'moliga teng miqdorni tashkil etadi **[**8].

Joriy yilning iyul-avgust oylarida “Energiyani tejaydigan lampalar mahalliy ishlab chiqarilishini kengaytirish chora-tadbirlari to‘g‘risida”gi qaror loyihasi Yagona interaktiv davlat xizmatlari portali veb-saytiga muhokamaga qo‘yilgan edi.

Ushbu hujjat, avvalroq qabul qilingan Vazirlar Mahkamasining 2015 yil 9 apreldagi “Respublikada sotiladigan maishiy elektr priborlarini, yangidan quriladigan binolar va inshootlarni energetika jihatidan majburiy markirovkalash va sertifikatlash tizimini joriy etish chora-tadbirlari to‘g‘risida”gi 86-sonli qarori bilan birgalikda, kommunal-maishiy iste'molchilar tomonidan elektr energiyasi iste'molini kamaytirish masalasini hal qilishga yo‘naltirilgan bo‘lib, hududlarni elektr energiyasi bilan barqaror ta'minlash masalasini hal qilinishini ta'minlaydi.

Mazkur qaror kommunal-maishiy sohada ham, iqtisodiyotning turli tarmoqlarida ham cho‘g‘lanma lampalarni energiyani tejaydiganlariga almashtirish orqali ulardan foydalanishni bosqichma-bosqich cheklab borishni ko‘zda tutadi. Shuningdek, umumiy foydalanishdagi cho‘g‘lanma lamplarni olib kirish, yetkazib berish va respublika bozorida realizatsiya qilishni cheklash ko‘zda tutilmoqda.

Hozirda O‘zbekistonda energiyani tejaydigan lampalarni ishlab chiqaruvchi 8 dan ortiq korxonalar mavjud bo‘lib, 2014 yilda ular tomonidan 6,7 mln. donadan ziyod shu turdagi lampalar ishlab chiqarildi.

“O‘zeltexsanoat” AK, “Angren” MIZ va “Jizzax” MIZ korxonalari tomonidan 6,6 mln.donadan ortiq energiyani tejaydigan lampalar ishlab chiqariladi, shundan 3,2 mln. donasi svetodiod lampalar. 2021 yilga borib ushbu korxonalarda bu turdagi lampalarni ishlab chiqarishning yillik hajmi 15,7 mln. donadan ortib ketadi. Bundan tashqari, cho‘g‘lanma lampalarni realizatsiya qilish va qo‘llashni cheklash boshqa ishlab chiqaruvchilar uchun ham raqobat muhitini yaratadi va yurtimizda shu turdagi lampalar ishlab chiqarish hajmining oshishiga zamin yaratadi.

Qabul qilingan qarorni amaliyotda izchil qo‘llanilishi, nafaqat yoritish maqsadlarida elektr energiyasidan samarali foydalanishni, balki mahalliy korxonalarda enegiyani tejaydigan lampalarni ishlab chiqarishni kengaytirish hisobiga yangi ishchi o‘rinlari yaratilishini ham ta'minlaydi.

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EFFECTS OF PSYCHOTROPIC SUBSTANCES

Abstract. In this article describes the effects of psychotropic substances, antidepressants, tranquilizers and some sedatives.

Key words: tranquilizers, sedatives, nootropic drugs, antidepressants and psychostimulants.

Psychotropic drugs (greek psych-soul, consciousness - tropos turn, direction; synonymous with psychopharmacological drugs) are drugs that affect mental functions, emotional sphere and behavior. There are the following (the main groups of Psychotropic drugs: Neuroleptic drugs, lithium preparations (see Lithium salts), Tranquilizers, Sedatives, Nootropic drugs, Antidepressants and psychostimulants (Psychostimulating and analeptic drugs). Drugs of other groups of drugs also have a psychotropic effect, such as narcotic analgesics (morphine, promedol, etc.), sympathomimetic agents (ephedrine), ketamine, ethyl alcohol. However, their psychotropic effect is not the main, but concomitant, and therefore such drugs are not classified as psychotropic drugs.

Each of psychotropic drugs groups with. characterized by a certain direction of psychotropic action. Thus, antipsychotic drugs have an antipsychotic effect, i.e. the ability to weaken the productive symptoms of psychosis (delusions, hallucinations, mental automatisms). The mechanism of action of neuroleptics is associated with a depressant effect on copaminergic transmission in the nigrostriatal, mesolimbic and mesocortical areas of the brain, which explains both the psychotropic and some manifestations of the side effects of drugs in this group, manifested in the form of extrapyramidal disorders (parkinsonism, tardive dyskinesia).

Antidepressants (nialamide, imizinum, amitriptyline, etc.) have a positive fusion in affective disorders, which is accompanied by an improvement in the general mental state and mood. The antidepressant effect of certain drugs in this group can be combined with a psychostimulant (for example, nialamide) or psycho sedative (for example, amitriptyline) action. At the heart of the mechanism of action of antidepressants on the central nervous system. lies their ability to enhance the effects of endogenous neurotransmitters from among monoamines (norepinephrine, etc.) in various ways. Antidepressants are used for psychogenic and somatic depressive states. Antipsychotics are used mainly for the relief of psychotic disorders in various mental illnesses, and also as antiemetics (Antiemetics).

Lithium preparations have selective activity in manic states and are used for the relief and prevention of these states, for example, in manic-depressive psychosis.

Tranquilizers (sibazon, phenazenam, chlozepidum, etc.) have an anxiolytic and calming effect on the central nervous system, and therefore are widely used for various emotional disorders of a neurotic and neurosis-like nature (emotional tension, anxiety, fear, etc.). In addition, they have a moderate hypnotic, anticonvulsant and muscle-relaxing effect), which allows you to prescribe tranquilizers as; hypnotics (hypnotics), as well as in the treatment of certain forms of epilepsy and diseases of the central nervous system, occurring with an increased tone of the skeletal muscles, for example, with spastic paralysis.

Sedatives (bromides and preparations of valerian root, motherwort grass, passionflower and a number of other plants) have a moderately pronounced sedative effect and, along with tranquilizers, are widely used, especially in outpatient practice, for various neurotic conditions, insomnia, increased irritability, etc.

Nootropic drugs have an activating effect on impaired mnestic and intellectual functions of the brain. The drugs of this group can be considered as structural analogs of the inhibitory neurotransmitter aminobutyric acid (piracetam, sodium hydroxybutyrate, phenibut, hopantenic acid) or some vitamins (pyriditol). Nootropics improve energy metabolism in the brain tissue, activate the synthesis of proteins and nucleic acids, facilitate learning and memory processes, and exhibit an antihypoxic effect.

Nalbuphine is a narcotic drug used in the treatment of pain syndromes of varying severity. It is a frequent companion of drug addiction, used by a drug addict to obtain euphoria and a calming effect.

The use in the recommended dosages (in the treatment regimen) does not cause serious consequences. But if the recommendations are not followed or the drug is abused, the following consequences appear: respiratory depression, withdrawal syndrome in opiate addicts, relaxation of smooth muscles, disruption of the gastrointestinal tract, chronic hypanthia. In cases of severe overdose, death is possible.

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PROGNOSIS AND PREVENTION OF NON-PSYCHOTIC MENTAL DISORDERS IN PATIENTS WHO HAVE SUFFERED A MYOCARDIAL INFARCTION

Resume: The article is devoted to non-psychotic mental disorders that occur during myocardial infarction, in which the following information is given as a dolzarlik: diseases of the cardiovascular system occupy a leading position in the structure of mortality among adults - 55% of the total number of deaths, among the main nosologies of coronary heart disease, diseases and atrial fibrillation are also detected. Atrial fibrillation is also one of the most common heart diseases in the world, with about 2.4 million people in the United States infected with AF. It is believed that by 2050 the number of patients with AF may reach more than 5.6 million.

The article presents information that non-material disorders in cardiovascular diseases threaten patients with a number of mental "catastrophes", brain strokes, cardiocerebral embolisms and other ischemic attacks, as well as their mental complications.

Key words: myocardial infarction, non-psychotic disorders, cardiovascular diseases.

Relevance. Modern research in the field of the relationship of cardiac diseases and psychological characteristics of personality to date reveals two approaches to the problem of the relationship of individual typological properties of personality and the development of CVD **[**2,5,9].

The first approach assumes the recognition that personality change and the predominance of any of its properties occurs under the direct influence of the disease and depends on the severity and course of the pathological process, according to a number of authors P. Klersson, S.J. Mann, L.V. Shpak, et al. Patients with coronary artery disease develop depressive states after a myocardial infarction **[**1,7,10], patients with paroxysmal rhythm disturbances, as a rule, suffer from anxiety-phobic disorders **[**3,6,8], patients with a permanent form of atrial fibrillation more often reveal depressive disorders **[**5], the appearance of aggressiveness in behavior in patients with coronary artery disease **[**4]. Patients with ischemic CHF suffer from all of the above changes, which also reduce the adherence to treatment of these patients **[**9].

The second direction is based on the results of studies [6] that have shown that certain personality traits can contribute to the formation of pathology of various organs and systems, including leading to the development of CVD. In the personality structure of a cardiac patient, the role of factors that increase the likelihood of CVD should be noted: hostility, aggressiveness, extraversion, introversion, neuroticism, friendliness and openness to new experiences [8].

The purpose of the study. To develop clinical models of therapy and determine their effectiveness depending on the psychopathological structure of non-psychotic disorders in patients who have suffered a myocardial infarction or brain stroke.

Materials and methods of research. In order to fulfill our task, we selected a total of 80 patients with complications with non-psychotic mental disorders that occur during myocardial infarction for examination.

The main method of correction of nosogenic reactions is psychopharmacotherapy, which is carried out taking into account the clinical structure of the condition and the basic principles of treatment of patients with psychosomatic disorders in general medicine: the choice of drugs based on the balance of efficacy / tolerability; minimum therapeutic and subtherapeutic doses of drugs relative to "standard" recommendations; long-term and continuous therapy taking into account the polymorphism of trigger factors [6].

The results of the study. Two psychopathological variants of anxiety neurotic disorders were identified in persons who had suffered a myocardial infarction or a brain stroke: anxiety disorder proper (60.6%) and mixed anxiety-depressive disorder (39.4%).

The representation of various variants of anxiety neurotic disorders is different depending on the type of physical illness, age and gender of patients, as well as the severity of their disability. Anxiety disorder is more common in patients who have suffered a myocardial infarction, in younger male patients with the smallest disability group (3rd working group). Mixed anxiety-depressive disorder is more typical for patients who have suffered a brain stroke, older people (especially after 50 years) and mainly for women.

The obtained clinical and psychopathological data made it possible to develop clinical and computer models of music therapy with individual selection of psychotherapeutic compositions, which enable the patient to make his own choice of fragments of the musicopsychotherapeutic program, as well as to create individual musicopsychotherapeutic compositions taking into account the psychopathological variant of neurotic disorder.

It was found that the nature of the musical fragments chosen by the patient depends on the variant of anxiety neurotic disorder identified in him.

Conclusion. According to the data of modern literature, patients with coronary heart disease, CHF, AF develop cognitive disorders of varying severity against the background of somatic pathology, including disorders of the emotional and mental sphere. In the conducted studies, it was possible to clarify

that against the background of AF and CHF of ischemic genesis or their combination, psychological and CR aggravate the patient's condition, therefore, their early detection and correction improves the prognosis for the patient. At this stage of diagnosis of patients with coronary heart disease, CHF, AF, there is no consistent algorithm for detecting the UKR syndrome. Among the informative methods of testing cognitive deficits, one can distinguish MMCE tests, Vexler subtests 5, Vexler 7, Bourdon proof-reading test, MOCk test, the methods can be used both separately and together complementing each other. It seems to us that when assessing the psychological status of a patient (congenital personality changes: temperament, character, alexithymic profile and acquired features anxiety, depression, aggressive phobic disorders, etc.), it is also advisable to use a combination of psychometric techniques, including questionnaires, scales and projective tests, for example, the Lusher test.

Psychoemotional stress, in our opinion, is in the modern world a poorly modifiable prolonged predictor of psychodynamic and cognitive changes in patients with coronary heart disease, AF, CHF, aggravating the impact of other cardiovascular risk factors. Hereditary features of the patient's personality should be considered as a set of psychodynamic and cognitive parameters of the patient.

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QAMCHIQ DOVONIDAGI XIMOYA INSHOOTLARIGA QOR KO‘CHKISI TA’SIRINI TAHLIL QILISH

Аннотация: Ushbu maqolada qamchiq dovonidagi qor ko`chkisi, qordan himoyalavchi devorlar va qorni tutib qoluvchi yog’ochli devorlar haqida ma`lumot berilgan.

Калит сўзлар: Avtomobil yo`llari, qor uyumi, himoyalovchi devorlar, qor ko’chish jarayonlari, bir panelli panjaralar, devor qatorlarining soni, qishki sirpanchiq.

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ANALYSIS OF THE INFLUENCE OF THE AVALANCHE ON THE PROTECTIVE STRUCTURES IN THE KAMCHIQ PASS

Annotation: This article provides information about avalanches, snow walls and wooden walls that trap snow in the passage of lashes.

Keywords: roads, snow pile, protective walls, snow migration processes, single-panel fences, number of wall rows, winter scree.

Avtomobil yo‘llarini qish paytida saqlash yo‘llarni qor uyumi bosishidan muhofazalash, yo‘llarni qordan tozalash, qishki sirpanchiqlikka qarshi kurashish, yo‘llarni qor ko‘chkilaridan muhofazalash, muzlamalarga qarshi kurashish ishlar majmuidan iboratdir.

Bu ishlar avtomobillarning uzuluksiz va xavfsiz ravishda harakat qilishlarini ta’minlashga yo‘naltirilgan.Qishda yo‘llarni saqlash bo‘yicha ishlarning butun tizimi avtomobillarning harakat qilishi uchun eng yaxshi sharoitlar yaratib berish, qishda saqlash ishlarini iloji boricha yaxshilash va bu ishlarning tannarxini arzonlashtirilishni ta’minlaydigan qilib tashkil etilishi lozim. Yo‘lda qor va muz qatlamlarining paydo bo‘lishiga yo‘l qo’ymaslik yoki bu jarayonni imkoni boricha kamaytirish, qoplamalarga muzlashga qarshi kimyoviy vositalar bilan ishlov berish, yo‘lga qor keltirilishiga va muz paydo bo‘lishiga yo‘l qo’ymaslikka yordam beradigan himoya choralarini ishlab chiqish va yo‘llarni qor va muz qatlamlaridan tozalash va ularning avtomobillar harakatiga ta’sirini kamaytirish yuzasidan ko‘riladigan chora va tadbirlar

(shinalarning yo‘l qoplamasi bilan ilashish koeffisiyentini oshiruvchi materiallar bilan yo‘lning qor va muz bilan qoplangan qismiga ishlov berish) qishki saqlash ishlari bo‘yicha mazkur vazifalarning bajarilishini ta’minlash uchun yuqorida aytilgan chora-tadbirlar amalga oshirilishi lozim bo`ladi..

Tadqiqot ob’ekti sifatida Qamchiq dovonidagi tog’lar va himoyalovchi devorlar tanlab olindi. Qordan himoyalovchi devorlardan qordan himoyalovchi o‘rmonli tasmalarni yaratishning imkoniyati bo‘lmagan kuchli qorbo‘ronli joylarda foydalaniladi. Ximoyalovchi devorning balandligini aniqlash maqsadida, qish faslining 2021 va 2022 yil yanvar oylarida tadqiqot ob’ektimizda yog’adigan qorning xajmi vaqish davomida hosil bo‘ladigan qor qalinligini aniqladik.

Devorning balandligi yog’adigan qorning hajmi va mazkur joydagi qor qatlami balandligiga qarab belgilanadi.

$$H = 0{,}34 \cdot \sqrt{W_i} + H_к = 0{,}34* \sqrt{200} + 0{,}5 = 5{,}3m$$

bu yerda, H-devorning balandligi, 5,3 m;

W_i-yog’adigan qorning hajmi, 200 m^3/m;

H_k-mazkur joyda qish davomida hosil bo‘ladigan qor qalinligining ko‘p yillik o‘rtacha hajmining eng katta qiymati, 0,5 m.



1-rasm.Qamchiq dovonidagi qor ko’chish jarayonlari

Taxlil natijalariga ko’ra, devorlarni 5 m dan baland qilish kerak emas. Agar hisoblashlar katta balandlikni talab qilsa, unda ikki va undan ortiq qatorli devorlar quriladi. 5 m li, bir qatorli devorning qorni tutib qolish qobiliyati 200 m^3/m ni, ikki qatorli bo‘lganda esa 800 m^3/m ni tashkil etadi.



2-rasm. Qamchiq dovoniga o’rnatilgan ximoya to’siqlari

Bir necha qator qilib o‘rnatilgan devorlarning umumiy qor yig’ish qobiliyati quyidagicha:

$$Q = \beta \cdot (n-1) \cdot H \cdot L + K_1 \cdot H^2 = 0{,}8 \cdot (4-1) \cdot 5{,}3 \cdot 30 + 8 \cdot 5{,}3^2 =$$

$$381{,}6 + 224{,}72 = 606{,}32 \text{m}^3/\text{m}$$

n=4 qator, H=5,3 m

bu yerda, Q-ko‘p qatorli himoya devorlarida yig’ilgan qorning hajmi, m^3/m; β-devorlar o‘rtasidagi bo‘shliqlarning to‘lish darajasini tavsiflovchi koeffisiyenti, 0,8 ga teng deb qabul qilish mumkin: n-devor qatorlarining soni;H-devorning balandligi, m; L-devorlar o‘rtasidagi, 30 N atrofida deb qabul qilinishi lozim bo‘lgan masofa, m; K_1- 8 ga teng bo‘lgan koeffitsiyent.

Formula natijasidan ko’rinib turibdiki 4 qator o’rnatilgan ximoya devorlariga 606,32 m^3/m umumiy qor yig’ish qobiliyatiga ega ekan.

Devorning birinchi qatori yo‘lning poyi qirg’og’idan devorning 15 tadan 25 tagacha balandligiga teng keladigan uzoqlikda o‘rnatiladi, shamolning yo‘nalishi yo‘lning o‘qidan to‘g’ri burchakka yaqin bo‘lgan burchak hosil qilgan hollarda yoki devordan yo‘lgacha bo‘lgan oraliq qiya holatda bo‘lsa, yo‘lning poyi bilan devorning o‘rtasidagi oraliq masofa yanada kattaroq qilib belgilanadi, shamol yo‘lga nisbatan o‘tkir burchakda esadigan va yondosh joylar bilan bir tekisda bo‘lgan joylarda oraliq masofa kamroq qiymatda belgilanadi. Agarda mahalliy sharoitlarga ko‘ra devorni ko‘rsatilgan masofada o‘rnatishning imkoni bo‘lmasa, masofani devorning panjaralari oralig’ini 30% gacha kichraytirib, oraliq masofani devorning 10 ta balandligigacha qisqartirilishiga ruxsat etiladi.

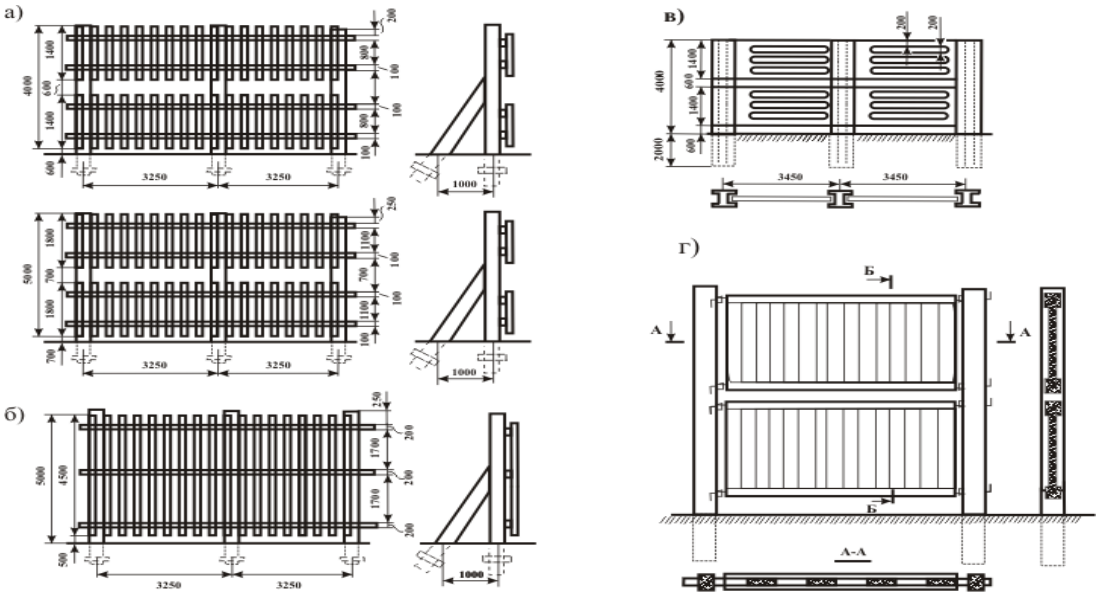
Quyidagi turdagi qor to‘suvchi devorlar o‘rnatiladi:

juft panelli panjaralarining oralig’i 50%li - bir qatorli devor o‘rnatilganda yoki bir-necha qatorli devorlar o‘rnatilganda yo‘lga yaqinroq qatorga o‘rnatiladi (3.a –rasm);

bir panelli panjaralarining oralig’i 70%li ko‘p qatorli devorlarning qolgan qatorlarini o‘rnatishda qo‘llanadi (3.b-rasm);

balandligi 4 m li temirbetonli (3.v-rasm);

panjaralarining oralig’i o‘zgartirilib turadigan (3.g-rasm).



3-rasm. Qorni tutib qoluvchi devorlar.

Yog'och devorlarning taxtalari tik holatda qoqiladi, yig'ma temirbeton devorlarning to'ldiruvchi elementlarini yotiq holatda joylashtirish mumkin. Temirbeton ustunli va panelli yig'ma konstruksiyalarni qo'llashga ruxsat etiladi.

Doimiy ravishda qorbo'ronli shamollar esadigan joylarda va o'rmonsiz ochiq joylarda qor uyumining oldini oluvchi (qorni puflovchi) devorlarni o'rnatish qo'llanishi mumkin.

Ularni bir vaqtning o'zida quyidagi sharoitlar mavjud bo'lgan hollarda qo'llash mumkin:

esayotgan shamol yo'lning o'qiga nisbatan 50 dan 90° gacha burchakdagi yo'nalishda esishi;

qorning quruq va yengil harakatlanuvchan ekanligi;

qorning tushish hajmi – 300 m^3/m dan ortiq ekanligi.

Qorni puflash qobiliyatiga ega bo'lgan devorlar temir va keramzitbetondan, yog'ochdan tayyorlangan bo'lishi mumkin. Puflaydigan tirqishning balandligi h=0,35N sifatida va panelning balandligi h=0,65 N sifatida va devorning balandligi esa 5-8 m sifatida qabul qilinadi.

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FEATURES OF THE RECOVERY OF WALKING SKILLS IN CEREBRAL STROKE

Introduction. Currently, cerebrovascular diseases occupy one of the leading places in the world in terms of mortality, morbidity with disability and disability of the population [2]. Vascular diseases of the brain are one of the most common causes of a decrease in the quality of human life in all countries of the world [3]. In this regard, the study of methods of restorative treatment for cerebral stroke remains an urgent problem. The restoration of motor functions in the first days of the disease leads to a decrease in mortality and complications, as well as a decrease in the patient's dependence on others in the first three months after a stroke and an improvement in the quality of life by the end of the first year [1].

Keywords: cerebrovascular diseases, restoration of motor functions, stroke, quality of life.

The purpose of the study. To study the features of restoring walking skills with the help of orthopedic means in patients with cerebral stroke in the early recovery period.

Materials and methods of research. 46 patients participated in this study (24 men and 22 women) aged 49.2±10.5 years with acute ischemic stroke of various localization. All patients underwent early rehabilitation using standardized treatment (drug therapy, kinesotherapy, mechanotherapy, massage, physiotherapy).

Results. Position treatment, passive gymnastics and massage were started from the first days after the stroke. The verticalization of patients was carried out using a vertical table and a lift designed to move the patient from the "sitting" position to the "standing" position. In the acute period, special attention was paid to learning to walk, which began in bed. Passive and then active exercises simulating walking were carried out. As soon as the patient's condition allowed them to stand on their feet, training began to stand on both legs, then alternately standing on a healthy and paretic leg, then we moved on to the exercise "walking on the spot". When the patient mastered these exercises, they

proceeded to teach him to actually walk. When teaching walking, special attention was paid to the education of triple flexion of the paretic leg (in the hip, knee and ankle joints) and to the patient's observance of correct posture. Walking disorders after a stroke could be associated with a pathological foot position, manifested by plantar flexion and supination. This led to an incorrect transfer of body weight when walking with an unreliable support on the outer edge of the foot. To correct the incorrect installation of the foot in our department, orthopedic products for the ankle and knee joints were successfully used in case of their instability. Stabilizing orthoses prevented unwanted movements, such as plantar flexion in the ankle joint or overextension in the knee, which improved walking function.

Conclusion

This approach in the rehabilitation of stroke patients led to improved walking skills, correct positioning of the foot when walking, and adaptation of the patient to balance when walking based on a paretic leg. By the use of orthoses on the knee joint of the paretic leg revealed an improvement and rapid adaptation of the ligamentous apparatus to the vertical load, as a result, prevention of "wobbling" in the knee joints, improvement of the patient's psychological state, i.e. the absence of fear of falling, feeling the supporting and fixing function of the orthosis. Orthopedic products for the ankle joint contribute to its effective fixation, prevent complications with muscle spasticity and the formation of the Wernicke—Mann pose. During the experience of working with orthoses, stroke patients also improved the skills of correct foot placement, and further movement in general.

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CARCINOGENIC EFFECTS OF THE ACTION OF IONIZING RADIATION IN SMALL DOSES

Abstract. This article deals with the carcinogenic effects of low dose ionizing radiation. From the point of view of molecular events in the genetic material, exposure to any low dose increases the likelihood of future malignancies, which argues in favor of the no-threshold concept.

Keywords: dose-response curve, ionizing radiation, carcinogenic effects, epidemiological data, radiation carcinogenesis.

Аннотация. В этой статье рассматриваются канцерогенные эффекты малых доз ионизирующего излучения. С точки зрения молекулярных событий в генетическом материале воздействие любой низкой дозы увеличивает вероятность возникновения злокачественных новообразований в будущем, что говорит в пользу беспороговой концепции.

Ключевые слова: кривая доза-эффект, ионизирующее излучение, канцерогенные эффекты, эпидемиологические данные, радиационный канцерогенез.

The most important issue in the problem of medical consequences of the action of ionizing radiation in small doses is the question of whether the number of cases of malignant neoplasms increases after irradiation in such doses. There are two opposite points of view on this problem, which are associated with two currently existing concepts of induction of radiogenic tumors: non-threshold and threshold. When accepting a non-threshold concept, the question arises - what is the shape of the dose-effect curve in the region of low doses: linear or not, and if it is linear, then does it coincide with the one obtained by extrapolation (continuation of the curve) obtained with irradiation at high doses. If the induction of malignant neoplasms has a threshold, then the question also arises: starting from what dose does the threshold in tumor induction end? At present, there is very little reliable evidence to support either view, but the biological effects of low-dose irradiation cited above make it possible to choose the more preferable of them. An increase in the risk of developing malignant neoplasms is associated with disturbances in oncogenes and antioncogenes. At the same time, the former increase their activity (expression), while the latter, on the contrary, reduce the expression or “give out” the information spoiled by the mutation, which leads to the synthesis of an inactive product - a protein. Molecular

changes leading to dysfunctions of anti- and oncogenes can in principle also be caused as a result of a single track of an ionizing particle passing through the nucleus of a somatic cell.

Therefore, from the point of view of molecular events in the genetic material, irradiation at any low dose increases the probability of the occurrence of malignant neoplasms in the future, which testifies in favor of the no-threshold concept. However, it is clear that this statement is only circumstantial evidence. The main sources of information about the real carcinogenic effects of low-dose irradiation are epidemiological data and studies of radiation carcinogenesis in experimental animals. The reliability of the results obtained in studies is determined by the sample size and homogeneity of the irradiated and control populations of animals and humans, and in epidemiological observations and its duration. Long-term observations of persons irradiated in small doses as a result of the Chernobyl accident showed that liquidators (average absorbed dose of about 100 mGy) have a statistically significant increase in the occurrence of leukemia, and children living in contaminated areas, including those in whom the thyroid gland is irradiated in a small dose, an increase in the development of thyroid cancer. Therefore, these "Chernobyl effects" can be considered as evidence in favor of the no-threshold concept, although the presence of a threshold in the lower range of low doses cannot be ruled out. With regard to the minimum dose at which a carcinogenic effect can be observed in animal experiments, according to UNSCEAR experts, it is also unlikely to detect a statistically significant increase in the number of malignant neoplasms at total absorbed doses below 100 mGy (for rare ionizing radiation). Therefore, up to the present time, based on the results of studies, a variety of conclusions have been made about the nature of the dose-effect curves for the induction of malignant neoplasms when irradiated at low doses: development of tumors in comparison with the control level;

• the induction of tumor development increases with dose, and the yield of malignant neoplasms per dose unit is much higher than with high doses of irradiation;

•there is an excess of the occurrence of tumors compared to the control level at any low dose, however, the dependence of the yield on the dose in a small dose range is non-monotonic, and has one or possibly more maxima. Thus, from the information about the biological effects of exposure to low doses, it follows that the manifestation of most effects is associated with an influence on the frequency of mutagenesis in somatic cells, which is directly related to carcinogenesis - the more mutant cells in the body, the more often and earlier malignant neoplasms occur. Two well-known observations testify in favor of this conclusion:

• the vast majority of mutagens are carcinogens;

• in humans and animals with hereditary diseases that manifest themselves in the development of genome instability (leading to an increase in the number

of mutant somatic cells in the body), a variety of malignant tumors appear very early and in a large number of cases. The occurrence of mutations in certain genes is a key initiating event in the transformation of a normal cell into a malignant one. However, it is now generally accepted that one mutation is usually not enough to induce a tumor, and the occurrence of most neoplasms requires the occurrence of several more mutations in the cell genome. Thus, in a malignant cell, two, three, and, probably, for the induction of some malignant tumors, and more mutations in certain genes must be present at once. Consequently, by changing the frequency of occurrence of new mutations in the genome of the descendants of irradiated individuals, the probability of the emergence of cells with the required number of mutated genes that control the process of "malignancy" of somatic cells can either increase or decrease. Irradiation in small doses leads to the induction of a number of processes, both contributing to the emergence of new mutant cells - genome instability, the bystander effect, and preventing their appearance - an adaptive response. Which process is predominant is currently unknown. Since the development of effects does not depend much on the dose in a wide range of doses, not all irradiated cells respond to irradiation at low doses and their number is different in different groups of people and animals examined. It is hardly possible to expect the establishment of strict numerical values of the risks of developing tumors from the radiation dose, as was done for cases of exposure to radiation at high doses, and the absence or presence of a dependence of the incidence of tumors on the radiation dose in the range of low doses, probably, cannot serve as a criterion for conclusions about the radiogenic origin of malignant tumors. The greatest influence on the number of induced tumors in one or another group of exposed people is likely to be exerted by the development of genome instability. It is obvious that the number of mutant cells in the body is an integral indicator of the manifestation of all the effects described above in each given person in response to exposure to a low dose, and the assessment of the frequency of mutant cells will probably allow predicting the carcinogenic effect of radiation in the future. Direct evidence of the induction of malignant diseases was obtained with irradiation at doses of about 100 mGy. When irradiated at lower doses, obtaining direct evidence of the development of an additional number of malignant tumors is hardly possible due to the limited number of individuals in the cohorts of exposed people and experimental animals. Indirect evidence suggests that the carcinogenic effect of irradiation does not have a threshold at low doses. Dependence of the development of tumors on the radiation dose in different exposed groups may differ, and the absence or presence of such a dependence, apparently, cannot serve as a criterion for the radiogenic origin of tumors. For any kind of dependence of the incidence of tumors on the radiation dose, the number of radiogenic tumors that occur when exposed to low doses of radiation is much less than the number of malignant neoplasms induced by high doses of radiation. Among those exposed to low doses, individuals with a high

frequency of mutant somatic cells are likely to constitute a risk group for the development of malignant neoplasms.

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PATHOGENESIS AND REGULATION OF IMMUNITY IN HELMINTH INFECTIONS

Annotation: This article provides information on the pathogenesis of gelmint infections and the regulation of immunity.

Keywords: T helper (Th), Helminth Infections, regulatory T (T reg), signal transducer and activator of transcription (STAT)-6.

It is widely accepted that helminths and their antigens inherently induce T helper (Th) 2 responses, and it is likely that Th2 immunity evolved in response to infections with these parasites. In February 2009, scientists from 32 countries assembled in Tahoe City, CA for the Keystone symposium on Pathogenesis and Immune Regulation in Helminth Infections (February 1–5, 2009), organized by Rick Maizels, Maria Yazdanbakhsh, and Thomas Wynn, to discuss how immune responses develop in response to helminth infections and how these infections are (or are not) controlled. The discussions provided new insights into the cellular players, cytokines, and effector molecules that help initiate, and subsequently limit, immune responses during helminth infection. How the human immune system fights off—or learns to live with— worm infections has been extensively studied, but many questions remain unanswered. On the host side, the coordinate functions of multiple cell types, including phagocytes, granulocytes, B cells, Th2 cells, and regulatory T (T reg) cells, dictate the outcome of infection. Getting things started: Th2 cells and beyond IL-4–producing Th2 cells are perhaps the most extensively studied cells in the context of worm infections, and generating an effective Th2 response has long been thought to require the early production of interleukin (IL)-4. Contrary to this idea, however, Graham Le Gros (Wellington, New Zealand) showed that neither IL-4 nor signal transducer and activator of transcription (STAT)-6, a key component of the IL-4R signaling pathway, was essential for the development of a Th2 response in vivo. Activation of an IL-4– linked GFP reporter construct was intact in STAT-6–deficient mice infected with Nippostrongylus brasiliensis (King et al., 2008; van Panhuys et al., 2008), suggesting that other factors, whether host- or parasite-derived, are critical for Th2 polarization in vivo. Another Th2-inducing cytokine, thymic stromal lymphopoietin (TSLP), may also be dispensable for generating Th2 responses against certain helminth infections. In noninfectious settings, such as allergy, Th2 responses are largely TSLP dependent. But in the absence of a functional TSLP receptor, mice infected with Heligmosomoides polygyrus, N. brasiliensis, or Schistosoma

mansoni (Fig. 1). still generated strong Th2 responses (Nicola Harris, Lausanne, Switzerland; Massacand et al., 2009; Ramalingam et al., 2009). This rule does not hold true for all worm infections, however, as TSLP is essential for the development of Th2 responses against Trichuris muris (Taylor et al., 2009a). A key difference between these parasites appears to be the ability of H. polygyrus and N. brasiliensis, but not T. muris, to inhibit the production of inflammatory cytokines, such as IL-6, IL-12, and TNF, from dendritic cells (DCs) in response to Toll-like receptor (TLR) ligation. T. muris may thus require TSLP to help restrain IL-12 production before a Th2 response can develop, whereas other parasites inhibit cytokine production directly, thereby circumventing this pathway. Where and how Th2 cells are generated has been the subject of intense scrutiny. Using IL-4-GFP ("4get") reporter mice to track cells that produce IL-4 in response to infection, multiple groups have found that follicular T helper (Tfh) cells are the predominant IL-4–producing cells in responding lymph nodes (Richard Locksley, San Francisco, CA and Edward Pearce, Saranac Lake, NY; Reinhardt et al., 2009; Zaretsky et al., 2009). Similar findings have also been reported by Markus Mohrs (King and Mohrs, 2009). This may not seem surprising, considering the well-established role of IL-4 in B cell activation and Ig class switching, but it nevertheless raised questions about the precise definition of a Th2 cell. Locksley argued that conventional Th2 cells may function primarily within tissues to mediate classical allergic-like inflammation, such as eosinophil recruitment, whereas Tfh cells function in the follicles to deliver help to B cells. Pearce offered further perspective on the Th2 population in Schistosoma infection by showing that Th2 cells lose responsiveness as chronic disease develops, a process mediated by increased expression of GRAIL, an E3 ubiquitin ligase implicated in the development of T cell anergy (Taylor et al., 2009b). These and other studies have taught us a great deal about the host requirements for generating Th2 responses against helminths. But far less is known about what components of the parasitesare required to initiate the host response. New data from Markus Mohrs (Saranac Lake, NY) revealed that the Th2-inducing potential of schistosome eggs is due in part to the action of omega-1, a glycoprotein with ribonuclease activity that is released from eggs under physiological conditions (Everts et al., 2009). Purified omega-1 induced strong Th2 responses in mice, even in those lacking the IL-4 receptor. Omega-1 also inhibited DC activation in response to lipopolysaccharide, suggesting that the egg protein acts at the initial stages of response (Steinfelder et al., 2009). Production of omega-1 likely helps sustain infection, as the subsequent Th2 response stimulates the formation of protective granulomas around the eggs. The hunt is now on to identify the cellular receptor for omega-1. Like most helminth infections, schistosomiasis elicits a predominant CD4+ Th2 cell response, and mice depend on this response to survive infection. In the absence of IL-4, mice develop hepatotoxicity, endotoxemia, and severe cachexia, which together contribute to the death of the animal. However, some strains of mice, such as

CBA, are more prone to developing Th1 and Th17 responses, and thus develop severe pathology in response to S. mansoni infection (Miguel Stadecker and Mara Shainheit, Boston, MA). DCs from CBA mice produced more IL12p40 and IL-6 in response to live schistosome eggs than did DCs from C57BL/6 mice. CBA DCs also stimulated stronger IL-17 production from transgenic T cells specific for the egg antigen Sm-p40. In vitro experiments suggested that the increased Th17 response requires both IL-1 and IL-23 (Rutitzky et al., 2008) and that the Th17 response is responsible for the severe egg-induced inflammatory response seen in infected CBA mice (Shainheit et al., 2008). Co-infection with the intestinal nematode H. polygyrus decreased IL-17 and interferon (IFN)- production in CBA mice, perhaps helping to explain the low incidence of autoimmune diseases in regions where helminth infections are endemic (Bazzone et al., 2008).

Keeping potentially dangerous Th1 responses at bay in T. muris infection depends on activation of the NF-B signaling pathway in intestinal epithelial cells (IECs), according to David Artis (Philadelphia, PA). In mice with an IEC-specific ablation of the classical NF-B pathway, DCs produced excess inflammatory cytokines leading to the development of a nonprotective Th1 response (Zaph et al., 2007). Normally, the DC-triggered induction of a Th2 response depends on the NF-B– dependent production of TSLP and IL-25 from IECs (Zaph et al., 2008; Taylor et al., 2009a).

Applying the brakes: T reg cells Generating a Th2 response to parasite infections is essential, but controlling that response is equally imperative. Some of this control is provided by T reg cells, which were shown to dampen Th2 responses during H. polygyrus infection (Rick Maizels, Edinburgh, Scotland, UK; Wilson et al., 2005). In this model, the parasite itself drives the differentiation of T reg cells from naive CD4+ T cells by secreting a product that binds to host TGF- receptors. Inhibiting this interaction in vivo decreased the intensity of infection, presumably as a result of more effective Th2 responses, illustrating the evolutionary advantage of this pathway for the parasite. Induction of T reg cells is also needed for Litomosoides sigmodontis to establish long-lasting infections. When T reg cells were depleted in susceptible mouse strains, infection was cleared (Nienke van der Werf and Matthew Taylor, Edinburgh, Scotland, UK; Taylor et al., 2009). In chronic infection, subsequent reactivation of hyporesponsive Th2 cells, which express high levels of GITR, CTLA-4, and PD-1, required CTLA-4 blockade or co-stimulation of the cells through GITR. Indeed, GITR ligation was essential for the development of Th2 responses during this infection. Recent data indicates that GITR also promotes the generation of Th2 responses during the initial immune-priming stage of infection and that blocking the PD-1 pathway enhances parasite killing, illustrating the opposing roles of these pathways in anti-helminth immunity. T reg cells also suppress host immune responses in humans, presumably allowing parasites to establish chronic infections (Maizels and Yazdanbakhsh, 2003).

Indeed, schistosome-infected individuals in Gabon had increased numbers of circulating T reg cells compared with their uninfected neighbors (Maria Yazdanbakhsh, Leiden, Netherlands and Ayola Akim Adegnika, Lambaréné, Gabon). And helminth-induced T reg cells may have more potent suppressive activity than those from healthy individuals. T reg cells from geohelminthinfected individuals in Indonesia, for example, were more effective at suppressing proliferation and IFN-□ production by effector T cells in response to malaria antigens and BCG than T reg cells from healthy individuals (Yazdanbakhsh and Taniawati Supali, Jakarta, Indonesia). Tom Nutman (Bethesda, MD) also reported diminished production of cytokines in response to malaria antigens in peripheral blood cells from helminth/malaria coinfected individuals. This inhibition was driven primarily by the suppressive cytokine IL-10.

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IN GENERAL EDUCATION SCHOOLS “MEHRJON” THE FEAST IS HELD

Annotation. Very important extracurricular activities in secondary schools education– educational importance. Therefore, its is an integral part of the educational process and extracurricular activities. This article is one of the students in extracurricular activities to be held constantly as in the case of the plan “Mehrjon” given information about the holiday.

Keywords: recommended methods, developments, lessons, teachers, “mehrjon”, modern methods, innovative, independent mastering.

Access: Geography club to extracurricular activities, in addition to class training courses, conferences, geographic, geographical night, geographical maps, geographic breakout, geografikjamiyatlar, the museum of local lore, the geographic club. The activities to develop readers know extracurricular activities, and independent work skills, shape their readers in the spirit of nurturing nature and love of country, their country proud of the achievements of the feeling of going is important in the formation. Therefore, the purpose of extracurricular activities and functions exactly work out if the effect of them is very high.

The main purpose of extracurricular activities consists of the following: to teach readers to understand the nature of love and nature; deepening of knowledge about where you stand yourself live; the development of the imagination of readers on the natural environment; the science of interest to the students of geography; geography readers to become familiar with research methods and so on.k.

Mehrjon (Mercy) — a holiday in the holiday as equal autumn autumn days. 1 at the beginning of the autumn holidays in different areas such millennium bc, mas, mehrjon ancient architecture in iran and elsewhere in Chiriruj Timur-d while in Nimsarda name popular. Medium ayerlarda Mercy (M.) was celebrated as one of the important holidays. Was conducted as an official holiday in some countries the state of Mercy. Separated from the state treasury funds for this purpose, gifts, deployed, the land of the soup given to the festival, competitions, distraction and organized. Mehrjon ancient farming culture is associated with the feast of. Holly affected muslim leaders to this holiday, as is the custom transfer resistance is shown. Therefore, there should be the celebration of mehrjon gradually stopped. Below we can see senariy this festive event.

“**Mehrjon” scenarios of events on the theme of the day**

Put the flowers picking up melons around the scene. For example, melon, baskets potatoes, onions, carrots, radishes, beets, cabbage and so on. s

1. The speaker sounded the sounds of surnay, students will carry out in the field and the dish likobchaga the product. For example, apples, pears, grapes, pomegranate, dates, tomatoes, bodiring, cut melon and watermelon, rice, peas, peanut likopchalar up the dish and into the hall or in the case of the class are out.

2. Beginner 2 comes out.

1-beginner:

From the wedding to give me knew
The speaker-surnay imaging.
Shodlantirar hearts
Jarangdor his voice.

2-boshlvchi:

Spread our country sepini
Golden autumn seasons you.
In this time ‘”Mehrjon” holiday
The holidays is the fact.

1-beginner: Herceptin, Xurmatli teachers!

2-beginner: Herceptin, loving parents.

1-beginner: Dear peers!

2-beginner: Today our school students “Mehrjon holiday” 's as dear guests are welcome.

1-beginner: Welcome, dear guests, hasanot your step.

2 and after that scene the reader to the poem reads.

Circle us on net
Qo'ri up in the heart.
You, dear visitors
Say hello-published.
Published otajon of
Published onajonlar
Will send hello
To you children.
Hello master,
Wise, the word of the conversation.
Many greetings from the disciples,
Hello to you-published.
“Mehrjon” holiday that I may have made,
Come, like you I have seen.
The start of the holiday was
Have announced that it is open.

1-beginner: Guests entered the autumn of uzbekistan minion gold. Autumn-abundance subsequently, pishiqchilik time.

2-beginner: For this reason we see the best of the autumn seasons. Our native land more beautiful in the fall, seems to be dignified.

Mother country, minion of the meeting
She might have called you poems I have in mind.
Fascinating garden the eye bo'stoni I have
Proud and iftixorim, jannatmakon I have.

1-beginner: Indeed, our 27 years of independence this year and in celebration of our warehouse grain blend-yu grain, and filled with vegetables and fruit.

2-beginner: Big thanks dehqonboboga are plenty of sustenance of our people. Today's holiday is the result of the selfless labor dehqonboboning.

(Dehqonbobo orqalab comes into tin. On the robe, wearing do'ppi, I am bound slits. Stop, was the start of the word.)

Peasant bobo: Hello dear children,
Mountain grown tulips.
If bayramiz is glorious,
If nasiba is full.
Likes us of the celebration of the harvest,
Children thank you.
Try to taste the fruit from,
We put thank you.
At the mercy of the fruit,giving
Come up to you,
Darmon, power,
Power to'l've ate it.
Presenter hello Dehqonboboga give – herceptin.

1-beginner: Welcome dehqonbobo. Be our guest. (Dehqonboboni are planted).

2-beginner: It has grown fruit Deqonbobomiz like to talk about themselves. Let's let's listen to them-th, it's what I mean.

1-children: (Hand in the wheat, the bread of the children who hold out).
Me grain, grain say,
Say if you want to cook the bread.
Seasoned blessing you,
The child's capacity.
Wheat I have, I have matured, and see,
Arang sig'i to my warehouse.

2 children:(apple removed**)**
The apple I, apple I am
Vitamin-rich.
Polvon is because of me,
Urur vessels flowing.

3 children:(pear removed**)**

The table decoration,
Further need of the fruit,
Pear say my name,
Were able to see and assess my taste.
4 children: pomegranate removed**)**
Me say,pomegranate,
I've enjoyed I will eat,
Ruby example I have the pieces there,
Palm virgins I have.
5 children: (palm removed**)**
My name is palm,
Demang, less xomroqdir.
Yesa fed up with me if
Bo'qoq you will not be sick.
6 children:(grapes removed)
Likobdagi grapes
My word, I listen a moment.
I am the blood vessels,
If I can be.
7. children:nuts (removed)
I am nuts tin men,
Sleeve fed up with me,dermal.
Dental chaqmanglar nuts,
Wow tishimlab left.
8 children:(fig removed**)**
The name figs
The benefits I have is so much more.
I've enjoyed eating I take
There is more that stay put.
9 children:(pistachios,almonds,raisins removed)
We almonds,raisins,sunflower
Take a new step.
Shodon guests,
Ite'mol have time.
10 children:(tomatoes,cucumbers removed)
We have tomatoes and cucumbers,
Pilaf –sleeve oshni add.
In the summer and winter of sorrow eat
Get in the winter like tuzlab sleeve.
11 children:(melon removed)
I am sweet melon-juice,
Eat melon,just don't drink the water.
I cut slice-slice,

I have opened their heart to you.
12 children:(watermelon removed)
Inside my red,blue ustimga,
I am sweet,demang cork.
A wide field of the motherland,
Let all the children eating the wedding.
They had 13 children:(paprika removed)
My name is pepper,
There is Achchiqroq mazam.
I will like both of you.
14 children:(white cotton girls clothes removed)
Paxtaoyman myself
Committing listen to my words.
I am pride of uzbekistan,
Myself exactly as I am happy.
Eli is my shirt,
White table,o'rgulay.
Rangim heart white
My intention is so pure.
(Guests are put in the hands of children before the fruit.)
("Uzbekistan-green " put on a song and dance performance.)

1-beginner: Dear guests, "Mehrjon" holiday takes. Dehqonbobomizning conversation with the fruits of your labor do you like?

2-beginner: Dugonajon, this still is not all. All crops are melons-yu,do you have access to the fruits of language, eh-hey "Mehrjon" they can continue to our holiday morning.

1-beginner: For the same reason,o'rtoqjon our friends we have the appearance of a prepared scene to watch. Blessings!

2-beginner:Blessing, guests. Now you watch that event, "Hozirjavob gardener" is called. Scene.

Out with the old man, a granddaughter, urinyapdi to planting seedlings.Beside rich surrounding mulozim to come with asks.

Rich- Herceptin,bobo.What are they?

The old man-Vaalaykum published.Ekyapman seedlings,I have children.

Rich-Bobo, stay aging yourself. Planting seedlings what to do ? This fruit seedlings until bormisiz still you are not?

The old man-True,the rich father is aging, I have the rest. But if the fruit of this tree won taking my grandson there.

Rich-(Be happy)Live, grandfather, here for the same purpose as gold in your bag (in the bag gives the gold.)

The old man- Rich father, thank you! See others years later the tree of grafts. My tree gave its reconstruction at the yield.

Rich-(Be pleased**)** Bobo,a bag of gold you here again, hozirjavob reward.

The old man-(taking the bag) Qulluq, rich father. The tree is harvested once a year, of others.While my tree will yield two times a day (rich to be happy again laughs).

Mulozim: Dear rich, the father, the faster you let go, you get all the rich old man puts bunaqada(are going to).

The old man-(People depending on you,my children, take every one of tree crops with good intentions.Then the prosperity of the country to the table of our abundance.

1-beginner-Which game did you like the scene class execution of our children?

(perform the dance or the song)

2-beginner:O'rtoqjon, now a test to see if that would educational.

1-beginner-How?

2-beginner: If you play a game, what dey-you? The game of our "how about this fruit?"is called. Find the name of the fruit depends on the eyes of children considered to hold without you. Start?

1-beginner:-We started! (The teacher helps. The eyes of children are bound,fruit,vegetables, melons ushlatiladi hands.Children will continue the game. Encourage children participated in the game.An irrepressible dance performance).

Beginner peasant grandfather paid for:-also for children can I test it?

1-beginner:-Do you want to?

Peasant bobo: Find I have to say, if present, can you find out?

2-beginner:- Children find can you find it?

Children:- Yes.

1-beginner:-Blessing (in this place can bring, until we find wanted.)

Bobo peasant:-Live guys.Your topqirlik I believe.

1-beginner:-The holiday takes.

2-beginner:-Dehqonbobo offer to dance with all readers.

Results:

1-beginner: Uzbekistan is my native land,
Healthy survive.
Over his head is crisp,
Serquyosh heaven.

2-beginner: Our blend of harvest
Have reached to heaven.
Shodon every day is
As a holiday it was.

1-beginner: Dear teachers,dear guests!

2-beginner:-Dear parents-it tengdosh friends !

1-beginner: It's the end of the event we are jonojon of our country is the abundance of harmony in every household.Will always make the intention of farmers that are abundant harvest.A big thanks to you all.

Summary: The geographic contours of the body of knowledge through various events readers scene, sher'riy way, through dance and caring can be expressed by various topqirlik games. The main purpose of the event is aimed at taking readers the practical application of knowledge and skills. In the case of geographic work in a lot of extracurricular activities, the combination will be held without: the production of posters, newspapers, lectures, quizzes, geographical and environmental KVN content in the films can be demonstrated. In the interest of science teacher training from looking to exercise their should be no stop. To do this he posts and his unceasing work should always be used.

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FEATURES OF THE RECOVERY OF WALKING SKILLS IN CEREBRAL STROKE

Introduction. Currently, cerebrovascular diseases occupy one of the leading places in the world in terms of mortality, morbidity with disability and disability of the population. Vascular diseases of the brain are one of the most common causes of a decrease in the quality of human life in all countries of the world. In this regard, the study of methods of restorative treatment for cerebral stroke remains an urgent problem. The restoration of motor functions in the first days of the disease leads to a decrease in mortality and complications, as well as a decrease in the patient's dependence on others in the first three months after a stroke and an improvement in the quality of life by the end of the first year.

Keywords: cerebrovascular diseases, disability, stroke, kinesitherapy, mechanotherapy, massage, physiotherapy.

The purpose of the study. To study the features of restoring walking skills with the help of orthopedic means in patients with cerebral stroke in the early recovery period.

Materials and methods of research. 46 patients participated in this study (24 men and 22 women) aged 49.2±10.5 years with acute ischemic stroke of various localization on the basis of the ASMI clinic. All patients underwent early rehabilitation using standardized treatment (drug therapy therapy, kinesotherapy, mechanotherapy, massage, physiotherapy).

Results. Position treatment, passive gymnastics and massage were started from the first days after the stroke. The verticalization of patients was carried out using a vertical table and a lift designed to move the patient from the "sitting" position to the "standing" position. In the acute period, special attention was paid to learning to walk, which began in bed. Passive and then active exercises simulating walking were carried out. As soon as the patient's condition

allowed them to be put on their feet, training began to stand on both legs, then alternately standing on a healthy and paretic leg, then we moved on to the exercise "walking on the spot". When the patient mastered these exercises, they proceeded to teach him to actually walk.

When teaching walking, special attention was paid to the education of triple flexion of the paretic leg (in the hip, knee and ankle joints) and to the patient's observance of correct posture. Walking disorders after a stroke could be associated with a pathological foot position, manifested by plantar flexion and supination. This led to an incorrect transfer of body weight when walking with an unreliable support on the outer edge of the foot.

To correct the incorrect installation of the foot in our department, orthopedic products for the ankle and knee joints were successfully used in case of their instability. Stabilizing orthoses prevented unwanted movements, such as plantar flexion in the ankle joint or overextension in the knee, which improved walking function.

Conclusion. This approach in the rehabilitation of stroke patients led to an improvement in walking skills, correct positioning of the foot when walking, adaptation of the patient to balance when walking based on a paretic leg. By the use of orthoses on the knee joint of the paretic leg revealed an improvement and rapid adaptation of the ligamentous apparatus to the vertical load, as a result, prevention of "wobbling" in the knee joints, improvement of the psychological state of the patient, i.e. the absence of fear of falling, feeling the supporting and fixing function of the orthosis.

Orthopedic products for the ankle joint contribute to its effective fixation, prevent complications with muscle spasticity and the formation of the Wernicke—Mann pose. During the experience of working with orthoses, stroke patients also improved the skills of correct foot placement, and further movement in general.

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THE ROLE OF THE STATE IN THE POLITICAL TRANSFORMATION OF ENSURING MORAL AND IDEOLOGICAL SECURITY IN UZBEKISTAN

Annotation: The article deals with the role of the state in countering threats that cause ideological, moral and economic problems in the life of societies due to globalization and other factors. The views of world scientists and Uzbek scientists on the role of the state in relation to threats were analyzed. The article gives a conclusion on the role of the state in front of moral, ideological and economic problems of society in the modern period.

Keywords: social problems, ideology, nationalism, parochialism, corruption, missionary work, terrorism, religious fanaticism, "rubber effect", "sustainable development", state, economic growth, USSR, drugs, reforms.

Global and social problems are preparing a new phase for strengthening the role of the state and its place in the international community. Due to the mentioned factors, it is observed that the state has become one of the complex subjects of civilization and is taking the main responsibility for its preservation and development. In recent years, the problems that have gained practical importance as a threat to the ideology of the Uzbek people: nationalism, localism, corruption, missionary work, terrorism, religious fanaticism, fanaticism, etc. have been confirmed as a serious threat to the development and existence of the civilization of our society. This showed that the State, in a certain sense, needs to become a kind of "rubber effect" for the next stages of development, to prevent development from entering a dead end.

It is becoming known that the state should play a decisive role in the transition from the destructive utilitarian-resource approach to the targeted biosphere-ecological approach to the spiritual world of society. In international documents, this new strategy for the development of civilization entered under the name "stainable development"[4]. This concept aims to reflect the essence of the modern paradigm of human development, the relationship between man and society, man and the state.

According to the opinion of a lawyer and a political scientist **N. V. Brutosova** about this concept, *" Only development based on universal human values can be stable, in which the main thing is that a person as a*

[4] Обращение участникам всемирной встречи генерального секретаря ООН Кофи Аннана 2 сентября 2002. https://www.un.org/ru/sg/annan_statements2005.shtml

comprehensively developed person exists in unity and harmony with the state and is an integral part of it." [5]

In the second half of the 20th century, the views of Western thought as an auxiliary part of the state led to a sharp narrowing of the understanding of the state by many researchers, especially Americans. In a very pragmatic version of the view, the state is often distinguished by only one function - the administrative function of management. [6] For example, in 1989, **P. Wolff's** famous American textbook on philosophy, which was published four times, defines the state as follows, *"The state is a group of people who manage social processes, legislate, develop and manage rules for certain social territories and certain borders."* [7]

According to the conclusions of the scientific research of modern Western European researchers (Sweden, Denmark, France, Italy, the Netherlands, Belgium) - countries with traditional strong social-democratic traditions, the state is an active spiritual and ideological, they are considered as a social organizer, sponsor and regulator of the economy. UN experts came to a clear conclusion that the level and quality of life of people depends not on the gross income of the state, but on the methods of distribution of national wealth in the interest of the majority of the population. [8] Any responsible government cannot ignore such conclusions.

Modern studies confirm the "Wagner's law" developed by the German economist **Adolf Wagner** at the end of the 19th century, which showed a strong connection between the rise of capitalism, industrial development and the increasing role of the state in society. Despite some differences in the level and forms of state intervention, the necessity, importance and expediency of such intervention were not denied in any discussion. On the contrary, the ever-increasing role of the state corresponds to the historical trend of all leading political and economic processes in the world.

At present, we can easily say that an important condition for overcoming destructive ideologies in Europe and other developed countries of the world is to increase the authority of this state. Because, according to the results of the latest researches of European researchers, it can be seen that the view that the state strengthens and preserves the general social life, without the role of the state, the society will fall apart. As **N. Verdyaev** noted, the state does not exist to create a paradise on earth, it is necessary to prevent society's life from turning into hell.

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According to the views of **Daron Akemoğlu** and **James A. Robbinson**, states have two factors of development: they must use the ability to organize and develop inclusive economic institutes that pave the way for education and technology, and to ensure their free operation. Support of the extractive economy by the state (North Korea, Latin American countries), the construction of economic institutes and educational institutions of the government that do not encourage the parents of these countries to study their children, their financing, educational institutions that fulfill the dreams of parents and their children. [9]

The President of the World Bank, **D. Wulfsson**, expressed the following view, "In order to increase the well-being of people and society, it is necessary to increase the capacity of the state, which is defined as the ability to effectively conduct and stimulate collective activities. It is noted that the examples of the "miracle" of economic growth in East Asia are evidence of the need for the state to stimulate development and to play a supporting role."

It can be seen from the analysis that the developed countries of the world have successfully put into practice programs to minimize the role of the state in the social and spiritual life of the society. In this way, conflicts of interests or processual and verbal conflicts of various levels were observed between institutions, state NGOs, social strata, political elites. However, what is the role of the state in liberalizing the view of ideological threats in Uzbekistan, which has separated from the structure of the state based on the totalitarian system, where closed and aggressive policy was introduced, and to what extent is its activity observed on ideological fronts?

The recent history of Uzbekistan is related to the centralized statehood of the Soviet administration apparatus. In addition to the economic life of the state, its spiritual-educational and ideological policy is highly centralized, and as a result of the several-level censorship of initiatives and reforms, high dyspathism remained in the mood of the Uzbek society and political elite for several years. The psychological signs of the socio-political worldview of the nation that appeared as a result of the above-mentioned signs of totalitarian rule: fear, political indifference, lack of initiative, indifference, low level of feeling of involvement in the fate of the state and society, etc.

According to **Ch. Aytmatov**, the Soviet Union could not adequately respond to the call of globalization. Firstly, it left people without weapons via lack of ideology, secondly, it left them without a compass, that is, without a god in front of modern spiritual problems. A large number of people with different diasporas, who suddenly got the opportunity to have their own destiny in such a situation, do not necessarily have immunity from foreign ideologies. That's why we consider it the most correct way to guide the society, to form an information culture in protecting people from information attacks, to take the initiative and the main burden in the fight against social problems by the state.

[9] Robinson J. A., Acemoglu D. Why nations fail: The origins of power, prosperity and poverty. – London: Profile, 2012. – p. 120-123.

In order to rise role of the state in liberalizing attitude towards ideological threats, under the leadership of the first president of Uzbekistan I.A. Karimov, the "Uzbek model of development"[10], "Idea of national independence"[11], "From a strong state to a strong society"[12] and other programs and principles were developed. Unfortunately, the above programs were later criticized because they did not justify themselves for many years, they could not become the moral basis and guide of the Uzbek society. We saw how justified the criticisms were when Uzbek society was powerless in the face of missionary, religious fanaticism, terrorism, human trafficking, drug addiction, ignorance, corruption, localism and factionalism, social corruption and other problems.

Of course, society always shows the instinct of self-preservation. This instinct manifests itself when intellectuals and enlightened people, who consider it an honor to serve for its development, start fighting for the benefit of all. Nevertheless, it must be recognized that their activities are quite weak in front of the ideological threats facing our nation, which is numerous and divided into several classes and groups. In order for the activities of enlighteners and social activists to reach their effectiveness, the role of the state's support, legal status, ensuring the inviolability of legal activities and, most importantly, creating a space of equal rights based on dialogue, is incomparable. [13]

We can connect the increase of such indicators with Sh. Mirziyoev's start of activity as the head of the state. Mirziyoev's assumption of the post of president is the process of freedom of speech, establishment of civil society, establishment of dialogue between state bodies and society, recognition of the existence of unrecognized social and moral problems in Uzbek society and the formation of a healthy view to them. An example of this is that, the President sends a petition to the country's parliament, which has been put into practice since 2017, and the petition is a recognition of acute problems that await solution in the state and society, a summary of the work carried out before the people's representatives, and the priority of the state's foreign and social policy for the coming years. The announcement of the plans in the following directions ensured the recovery of broken relations and accountability between the state and society to a certain extent.

2017th year was marked as the year of dialogue with the people and human interests in Uzbekistan. As everyone knows, protection of people's interests, establishment of an effective communication system between society and state management personnel is not a seasonal program, it should be one of

[10] “Taraqqiyotning o`zbek modeli”. https://arxiv.uz/ru/documents/referatlar/milliy-istiqlol-g-oyasi/taraqqiyotning-o-zbek-modeli

[11] T. Risqiyev, X. Sultonov. Milliy istiqlol g'oyasi: asosiy tushuncha va tamoyillar. O'zbekiston faylasuflari milliy jamiyati nashriyoti. 2003.

[12] Karimov.I.A. Biz tanlagan yo`l-demokratik taraqqiyot va ma’rifiy dunyo bilan hamkorlik yo`li. T.,2003.- B. 27.

[13] Мавлонов.Ж.Ё. Повышение роли институтов гражданского общества в обеспечении эффективного диалога государства с народом. Dissertatsiya (DS). 2019. С 35-37

the priority directions of state policy and a means of ensuring its viability. [14] The President's choice of a drastic way of fighting against some symbols familiar to the Uzbek ideology is not the return of the state to authoritarian or totalitarian symbols, but the fact that these evils have become the worldview of our people, their daily life, and the signs of this negative mentality in the implementation of state policy. The level of tension of the problems gathered by the president even reached the level of recognition that the representatives of the local administration can be solved by going to the neighborhoods and living there. [15]

Shavkat Mirziyoev put forward his views such as the need to arouse the hatred of the whole society against the evil of corruption, the establishment of strict demands that the leaders who are prone to it should be treated at the level of treason, and the establishment of an anti-corruption department within all state bodies. As part of the fight against threat that has settled in our society under the leadership of the President, November 4, 2016 Law "On Combating Corruption",[16] May 27, 2019 Presidential Decree "On Measures to Further Improve the System of Combating Corruption in the Republic of Uzbekistan",[17] in 2019-2020 The state program to combat corruption, July 6, 2021 Prident Decree "On measures to create an environment of zero-tolerance against corruption, to drastically reduce corrupt factors in state and community management, and to expand public participation in this",[18] January 13, 2022 "On measures to introduce the system of rating the effectiveness of anti-corruption efforts"[19] Presidential decision and other laws were adopted.

How necessary reforms have become for our society, we can see several times in the example of outbreaks in our society. Examples of this are ethnic clashes in Parkent in 1990, Namangan events in 1991, Andijan events in 2005, Karakalpakstan events in 2022, [20] and the rise of youth membership in various terrorist organizations, drug trafficking flows in Uzbekistan, human trafficking, and the evils of corruption that weaken the public's trust in the state and the future. Analyzing the above-mentioned events that happened several times in the Uzbek society, we find statements about the fact that the people's movement was controlled from outside of the country.[21]

In addition, members of the government make statements that the people fell into the trap of false news and were provoked. Analyzing these events, **Yuriy Sarukhanyan**, an expert in the field of international relations, says that he considers the political institutes and leading personnel of the state to be

[14] Shavkat Mirziyoyev: Erkin va Farovon, demokratik O‘zbekiston davlatini birgalikda barpo etamiz. O‘zbekiston Respublikasi Prezidenti lavozimiga kirishish tantanali marosimiga bag‘ishlangan Oliy Majlis palatalarining qo‘shma majlisidagi nutq. –T.: O`zbekiston, 2017. – B. 44.
[15] https://www.gazeta.uz/oz/2021/02/26/president/
[16] https://lex.uz/docs/-3088008
[17] https://lex.uz/docs/-4355387
[18] https://lex.uz/uz/docs/-5495529
[19] https://lex.uz/uz/docs/-5819319
[20] https://xabar.uz/post/prezident-nukusdagi-voqealarga-yillab-ta
[21] https://www.bbc.com/uzbek/uzbekistan/2011/05/110510_latin_karimov_arab

responsible for this. Because, in the conflicts that occurred not only in Karakalpakstan, but also in various regions of Uzbekistan, the state did not establish an open dialogue with the people, as a result of the passive activity of the state information services, alternatives appeared instead of them, the people could not express their will and lack of confidence that it is possible to express will in another way and other shortcomings allowed by the state.

Kamoliddin Rabimov, an international political expert, also stood for these views, admitting that the government's dynamics of reforms in the next four years has not been the same as before, and emphasized that no state institute is actively working to end alienation and increase integration between the regions of the state. In addition, the political scientist stated that during the first government of Uzbekistan, a mechanical method of management was chosen, problems were rejected, and this element is still preserved in the political views of the current management leaders. According to Rabimov, this kind of management can no longer exist at all. Instead of this, the state should, first of all, set social processes free, and secondly, by persuading social thinking, it should offer ideas, views, values, and interests that change the thinking of society, thereby giving up something and directing the thinking of society in another direction. it should go to the method of nalting. [22]

Conclusion

Based on the above analysis, we believe that it is important for the state to maintain its role as the main initiator, regulator, and supervisor in the processes of freedom of speech, information acquisition, distribution, and analysis in diffuse societies. Especially, this need has maintained a high tension in the countries that were part of the Soviet Union.

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ISSUES OF TREATMENT AND PREVENTION OF NON-PSYCHOTIC DISORDERS IN PATIENTS WITH ARTERIAL HYPERTENSION USING MODERN METHODS

Resume: Arterial hypertension occupies an important place in human life as a psychosomatic disease. Manifesting psychogenically, in the future it continues to develop in accordance with its mechanisms, regardless of whether there is a traumatic situation or it has been canceled.

From this article, however, it follows that for a number of people, the presence of the disease in itself is a mental trauma that aggravates the course of the disease, changes in the psyche lead to the fact that a person's emotional reactions become inactive, he has a tendency to "stick" to unpleasant experiences that create conditions for increased blood pressure, thus, availability

Keywords: mental disorders, mental disorders, arterial hypertension, psychosomatics.

Relevance. The significant prevalence of arterial hypertension (AH), the frequent development of complications leading to high morbidity and mortality of patients, determines the relevance of the search for new ways of diagnosis and therapy. To prevent a decrease in the working capacity and quality of life of this category of patients, it is also necessary to take into account the peculiarities of their mental state **[**2].

The development of hypertension is based on a combination of genetic predisposition to the occurrence of the disease and adverse external influences, therefore, the development of hypertension can be considered as a kind of payment for the body's adaptation to environmental conditions **[**7]. In modern conditions of large cities with a stressful "conveyor" lifestyle, stress takes a chronic course, often resulting in chronic diseases **[**5].

A more pronounced and prolonged hypertensive reaction under conditions of psychological stress is detected in patients with various psychopathological changes **[**3]. The leading place among these conditions is occupied by borderline mental disorders (I, I! IS), such as neurotic and neurosis-like disorders represented by anxiety, obsessive-phobic, neurasthenic, hypochondriac, depressive and hysterical syndromes, or a combination of them.

Assessing the mental disorders associated with GB, N.O. Belova (1993) in 70% of cases found psychoemotional maladaptation mainly in the form of neurasthenia, and according to the observation of G.V. Pogosova (1992), socio-psychological maladaptation is detected in 80% of patients with GB.

In this regard, the study of the influence of the psychological characteristics of the personality of a patient with GB on the clinical picture of the disease becomes relevant. The study of the relationship between the features of the clinical picture of hypertension and the mental status of the patient can contribute to the early detection and timely therapy of psychopathological disorders in hypertension **[**1]. Pharmacotherapy is used for their treatment. Currently, various groups of psychopharmacological agents are successfully used: tranquilizers, antidepressants, small doses of neuroleptics **[**4]. A wide range of psychotropic drugs is necessary, since each drug has only its inherent combination of neurotropic and somatotropic properties, including determining side effects and complications **[**2], the consideration of which is so important in the therapeutic process. At the same time, the need for simultaneous use of antihypertensive and psychotropic therapy in patients with hypertension with 111 IP causes a number of difficulties: an increase in the frequency of side effects, a weakening of the antihypertensive effect of antihypertensive drugs **[**6]. However, we have found isolated reports on this problem in the literature. And although most researchers do not doubt the psychosocial conditionality of hypertension **[**3], nevertheless, the assessment of the psychosomatic state does not go beyond the scope of scientific research, remaining in the competence of psychiatrists. Meanwhile, it is necessary to develop diagnostic approaches used in practical work with extensive use of psychopathological characteristics in a complex of diagnostic methods for assessing the condition of a patient with hypertension.

The purpose of the study. To study the features of non-psychotic disorders in patients with arterial hypertension and the effectiveness of various options for therapeutic correction of this pathology when using hypotensive monotherapy and a combination of hypotensive and psychotropic therapy.

Materials and methods of research. To fulfill our task, we selected a total of 80 patients who suffered from hypertension and came into contact with non-psychotic disorders. We conducted clinical and epidemiological examinations in them.

The results of the study. The typology of borderline mental disorders on the background of GB is determined by three main types of pathology: neurotic disorders (F4) - 62%, mood disorders (F3) - 23%, mental disorders of organic nature (F06) -15%.

Borderline mental disorders are more likely to develop in women over the age of 55, with a duration of hypertension of more than 6 years (76%). Family adaptation of such patients is often not disrupted (60% of patients have a full family), and labor adaptation is disrupted (only 27% have a permanent job).

The structure of PPR against the background of hypertension is represented by depressive states (36%); anxiety disorders (32%); hypochondriac disorders (14%); hysterical syndrome (12%); obsessive-phobic syndrome (6%).

Deterioration of the quality of life and well-being of patients is dependent on

• systolic and diastolic blood pressure ($p<0.05$);
• daily blood pressure index ($p<S,05$);
• body mass index ($p<0.05$).

Emotional disorders in patients with GB are correlated with blood pressure variability ($p<0.05$).

Memory impairment in patients with hypertension is correlated with an increase in the blood pressure area index, average daily blood pressure, blood pressure variability and daily blood pressure index ($p<0.05$).

When using monotherapy (ACE inhibitors, calcium antagonists), a hypotensive effect was achieved in 86.8% of patients, however, therapy with GB using only hypotensive agents does not cause a significant effect in the reduction of PPR ($p > 0.05$).

In the group of patients treated with coaxil (tianeptin), grandaxin (tofizopam) and stagerazine (perfenazine), the psychotropic effect was regarded as "good" in 73.9%, 73.1%, 87.5% of patients, respectively, in 21,7%, 23,1%, 12,5% - " satisfactory" and in the coaxil and grandaxin group at 4.4%, 3.8% of patients, respectively, the result of treatment was "unsatisfactory".

There was no significant difference ($p > 0.5$) in the frequency of side effects when using monotherapy (ACE inhibitors, calcium antagonists) and combination therapy using grandaxin, stagerazine and coaxil.

Conclusion. A comprehensive examination of patients with GB, including SM BP, laboratory data, clinical and psychopathological and experimental psychological methods, makes it possible to obtain additional information necessary for the development of differentiated approaches to the appointment of various treatment regimens and individual prognosis of the course of hypertension.

Psychological characteristics of the personality of patients with hypertension can also be used in solving issues of labor expertise and professional suitability.

The obtained data make it possible at the present stage to evaluate the clinical effectiveness of the treatment of hypertension, expand the range of drugs of choice in the treatment of hypertension with mental disorders.

It is shown that the use of psychotropic drugs in the complex treatment of patients with arterial hypertension with mental disorders can significantly improve the results of therapy.

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HELMINTHIASIS- TYPES, ROUTES OF TRANSMISSION

Annotation: The article provides information about the types of worms (helminthiasis), ways of transmission and symptoms.

Keywords: worm, helminthiasis, parasitic disease, gastrointestinal, geohelminthic, biohelminthiasis.

Worm, helminthiasis (lat. Helminthosis— parasitic worm + -osis) - a parasitic disease. It is mainly found in children, hunters, fishermen and their families, as well as in people living in rural areas. A number of these parasitic worms live, grow and reproduce at the expense of humans and plants. It is estimated that there is no person in the world who has never been infected with worms in their lifetime. Today, 24 percent of the world's population, or 1.5 billion people, are infected with worms. Parasites are divided into two categories depending on which area of the donor body is active: • Gastrointestinal - vomiting that lives in different parts of the gastrointestinal tract. There are about 100 species of intestinal parasites (dozens for each part of the intestine). In the small intestine live ascarids, tapeworms, tapeworms and their other "relatives". The medical literature also describes cases in which a person is infected with different types of parasites at the same time. • Tissues - The parasite can be found in internal organs, tissues and even blood. Modern medicine successfully treats paragonimosis (lungs), cysticercosis (brain), echinococcosis (liver) and filariasis (lymphatic vessels). Some worms travel through the bloodstream and can accidentally attach to any organ. Too many eggs can damage the whole organism. Geohelminthiasis. Infection through soil and water. Soil, sand, and other types of soil are the most typical habitat for worm eggs. Parasitic eggs are excreted in the soil with contaminated feces. Eating unwashed fruits and vegetables, dirty hands, and food dust can lead to helminth infections. Some eggs of parasites enter the human body through the skin of the feet and heels.

Crops are in constant contact with the ground. In the process of harvesting vegetables, fruits and vegetables come into contact with labor, dusty racks of vegetable stores, trucks. In such cases, the probability of contamination of the product with parasitic eggs is very high. Therefore, it is recommended to wash the plant products first under running water and then with boiling water.

Direct contact

In this case, the parasites are transmitted to humans through the interaction of infected animals and other human hands, while children play together.

This is especially true in rural areas where pets walk first on the street and then enter the house. It's not hard to imagine how much dirt a cat or dog can bring into a home after a walk. Mosquitoes and waterfowl are also carriers of helminth eggs. By landing on food, they can damage the food.

Biohelminthiasis. In this case, the parasite is transmitted through the use of food derived from infected animal sources. Consumption of raw and poorly processed meat (shashlik, pork, canned meat, wild meat) and fish (sushi, dried, canned fish) is considered potentially dangerous. There is a possibility of infection not only with helminths, but also with intestinal infections.

• Insect bites. Such infections are rare. These include intestinal miasma, cantariasis, and scoliosis. It is also important not to confuse worm eggs and insect larvae. Some insects can also lay larvae on animal and human skin.

• From person to person. This mechanism of parasite transmission is highly effective. For example, oysters lay eggs around the anus in the evening. When a baby is asleep, itching begins to itch where the egg is laid. Thousands of eggs fall on clothes and bedding, and in the morning on everything the child touches until he washes his face and hands, for example, on the doorknob. As a result, the whole family is at risk of infection.

• By water. There is a lot of vomiting in open pools. Bathing and accidental ingestion of water can cause damage.

Risk group. The main risk group is children. No matter how much parents pay attention to the health of their children, no matter how much they control the cleanliness of their hands, it is very difficult to protect them from parasites. According to statistics, about 95% of children aged 4-5 suffer from vomiting. Children learn about the environment, and nature is interested in them. The child is interested in touching and tasting everything. In addition, their defense mechanisms are in the process of formation. Parents should try to explain the reason for teaching their children the rules of personal hygiene, not coercion.

People who eat fish, wild animals and poultry, and only in homemade milk are at risk for trichinosis and diphyllobotriosis.

Trichocephalus is caused by unsanitary foods. Symptoms appear only in severe cases: diarrhea, abdominal pain, loss of appetite, inflammation of the appendix. In children, stunted growth and rectal prolapse may occur. A few weeks later

Broadband (diphyllobotriosis) Eating infected fish. This parasite can live in a patient for up to 25 years. Symptoms: mechanical injuries of the intestine, avitaminosis, intestinal obstruction, intoxication, allergies. A few weeks later

Roundworm (hookworm) When walking barefoot on damaged soil. Itching, swelling and redness in the area where the parasite enters. Cough, sputum production, bronchial and lung damage. Weakness, dizziness. Menstrual cycle disorders in women and impotence in men. A few days later

Ascariasis (ascariasis) through the consumption of plant products. Intestinal pain, peritonitis, bronchitis, pneumonia, liver, pancreatic diseases. It

can pass from the gastrointestinal tract into the esophagus or respiratory tract and cause suffocation. Around 3 months

Trichinella (Trichinella) Through poorly processed meat. Nausea, heartburn, diarrhea. 2 days later

Fastiola (fascioliasis) Plants and water. Fever, dry cough, loss of appetite, abdominal pain. In 2-4 weeks

Symptoms of worm infestation in humans are obvious and hidden. Examples of symptoms include "unexplained" weight loss, skin discoloration (skin anemia), chronic fatigue, and itching around the anus in the evening.

In some cases, worm infections can lead to an increase in internal diseases and the development of previously undiagnosed diseases. These are hidden symptoms. In this case, the patient begins to treat various other diseases, but does not pay attention to the primary disease.

The symptoms that occur when people have different types of vomiting are different. The duration and extent of the parasitic infection should take into account the patient's pre-infection status. The following table lists the main signs that can be observed in the presence of a particular type of parasite.

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USE OF INNOVATIVE METHODS IN TEACHING BIOLOGICAL PHYSICS

Abstract: This article will discuss about the methods of using new modern technologies in teaching Biological Physics and their effectiveness.

Keywords: advanced pedagogical technologies, interactivity, television training, algorithm of project work.

Introduction of advanced pedagogical technologies into the educational process of the educational process it is a kind of innovative approach to diagnosis. Because pedagogical technology and they interactive methods based on the organization of the educational process without denying the principles of didactics it dictates a new approach to learning. Supporters of this method in particular lesson traditional methods for determining the purpose of the content of educational material for them, teacher they criticize the designation through their activities and the activities of the reader.

One of the interactive methodsdevelopment of creative thinking of students. Advanced pedagogical technologies in the educational process in the National Training Program the importance of introducing advanced pedagogical technologies mentioned separately for its embodiment, interactive teaching methods are considered. Currently, it is used for the production of modern computer technology, economy, its application to business and the teaching process is becoming increasingly modern information technology one of the problems of the new pedagogical technology, created on the basis of which is in the educational process is to create an interactive environment.

Interactivity-to be able to directly influence the work of the user's informative tool the opportunity. Interactive environment in the process of increasing computer literacy of young people the concept, its advantages and capabilities should be carried out separately. Television training shows basically do not have the possibility of an interactive fan. The same among the possibilities of modern Information Technology in the shows are: multimedia the full use of its capabilities allows you to create this environment.

Internet network based on modern information and communication technologies teaching the purpose of creating an inertial environment in distance education is carried out through the process must be carried out in the organization. It turns out that the people of science can mean the great future of our state, modern on the development of information literacy and culture of our people conducting on the basis of pedagogical Technologies is a requirement of the time. In the implementation of these requirements it is recommended to take

full advantage of the possibilities of an interactive environment. The introduction of interactive methods in teaching physics as well. Explaining physics to high school students and engaging them in class in addition, this is the most convenient and most positive way.

National program for the training of a future specialist in active forms of Personnel Training when organizing training sessions and scientific examination of the actual activities of students imitation of professional-practical knowledge and skills from theoretical knowledge and skills this meant giving as much independence as possible.

As you know, there are many different types of methods of active training. They are the variety is calcified by their arrival. The degree of student activation and their the activities of reading-cognitive research project design and hokazo differ in the following. Imitation techniques of active training they in turn make the game work Games playful design and research of concrete tasks without a game in the opening of situational issues pedagogical methods special training skills training in comfortable training educational and scientific examination activities future professional practical activities of students it will be built on the basis of imitation.

No imitative-these techniques are based on the imitation of real relative practical activities will be built. Teaching in schools is the most effective active teaching in technology development methods are considered the following. How to create a unique interactive game solving issues and problems of production (science).

Game design is basically the process of creating and improving an object in this re-established students ' learning knowledge and research activities are directly studied in this the object will have a direct projecting character. It has a functional role and renewable performed in position. Such positions usually refer to a specific object or extracurricular complexes of goals and interests of students participating in the study through works takes into account. Training game be a variety of technologies to conduct in the form of projects can. On their basis lie 3 essential elements.

1. Algorithm of project work

2. Testing of assessment mechanism or project in the form of a game

3. The functional role of future specialists in the game development participants

Mechanism for determining interests. Each of these elements plays an important role in the design of the lesson being taught.

Participation in the first two elements consists of innovative processes in their development (in science creates conditions for them to learn to organize.

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ELEKTR YURITMANI ZAMONAVIY AVTOMATIK HIMOYA QURILMASI BILAN JIHOZLASH

Annotatsiya.Maqola nasos stansiyadagi nasos agregatlarining elektr dvigatellarini avtomatik himoyasini ta'minlashga bag'ishlangan. Tadqiqot ob'ekti – D turdagi 110 kVt 1000 ayl/min 5A markali elektr dvigatel holati va parametrlari o'rganib chiqilgan. Ob'ektning parametrlariga (quvvat, aylanish tezligi, qabul qilish kuchlanishi va h. k) mos ravishda JD turdagi himoya qurilmasi tanlangan. Tadqiqot ob'ektini ishdan chiqarishi mumkin bo'lgan omillar o'rganib chiqilgan va bartaraf etish choralari keltirilgan.

Kalit so'zlar: nasos agregatlari, elektrodvigatel, avtomatik himoyalash, JD turdagi himoya qurilmasi.

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ELECTRIC DRIVE EQUIPMENT WITH MODERN AUTOMATIC PROTECTION

Annotation. The article is devoted to the issues of automatic protection of electric motors of pumping units operating at pumping stations. The electric motor of the pumping unit was chosen as the object of study, the parameters were carefully studied. In accordance with the parameters of the selected object (power, engine speed, reception voltage, etc.), a JD type protection device was selected for electric motor protection. The factors that can lead to the failure of the object of study are studied and, accordingly, corrective actions are proposed.

Key words: pump unit, electric motor, automatic protection, JD type protection device.

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stansiyalarining 74 % 30 yildan, 20 %i 20 yildan, 6 % 10 yildan ortiq xizmat qilmoqda yoki 94 % nasos stansiyalari normativ xizmat muddatini (16-18 yil) o‘tab bo‘lib,ularni modernizatsiya qilish va almashtirish, jami 2887 km bosimli quvurlarning 10,3 % qismi esa birinchi navbatda almashtirishni talab etib, oqibatda ularni ishlatishda avariya holatlari ko‘plab kuzatilmoqda,shuningdek, elektr energiyasi sarfi yuqoriligicha qolayotganligi” aytib o‘tilgan. Ko‘plab nasos stansiyalari uzoq vaqt ekspluatatsiya qilinishi natijasida, ularning foydalanish ish koeffitsienti kamayib ketgan. Natijada energiya isrofi, qishloq xo‘jalik ekinlari uchun talab etilgan suv sarfini ta’minlab berishdagi isrof bo‘lishlar, jihoz va uskunalarning ta’mirlashlar aro davrining kamayishi sababli 1,0 m^3 suvni yetkazib berish katta xarajatlar talab qilmoqda.Ushbu omillarning kelib chiqishiga ta’sir qiluvchi muhim sabablaridan biri nasos stansiyalarida eng asosiy uskunalardan hisoblangan elektr dvigatellarning ishdan chiqishidir.Maqolada aynan shu mumammoni bartaraf qilish choralari keltirilgan.

***Materiallar va uslublar*.** Zamonaviy nasoslarning ishlash muddati -25 yil. Ko'rinib turibdiki, ushbu davrda ularning ishonchliligi va muammosiz ishlashi ko'p jihatdan jihozlar bilan ta'minlangan xavfsizlik tizimlarining sifatiga bog'liq. Shuning uchun, birlikni tanlashda ushbu muammoga alohida e'tibor berilishi kerak, chunki bunday holatda tejash sezilarli xarajatlarga olib kelishi mumkin.

Dvigatelning ishlamay qolishi natijasida kutilmagan nosozliklar, qimmat ta'mirlash va keyingi yo'qotishlarga yo'l qo'ymaslik uchun dvigatelni himoya moslamasi bilan jihozlash juda muhimdir.

Dvigatelni ishdan chiqarishi mumkin bo’lgan holatlari.

Ish paytida turli xil nosozliklar paydo bo'lishi mumkin. Shuning uchun, buzilish ehtimoli va uning sabablarini oldindan bilish va motorni iloji boricha himoya qilish juda muhimdir.

Quyida dvigatelga zarar yetkazoshi mumkin bo'lgan nosozliklar ro'yxati keltirilgan: elektr ta'minotining sifatsizligi; yuqori kuchlanish; past kuchlanish; balanssiz kuchlanish/oqim (to'lqinlar); chastotani o'zgartirish noto'g'ri o'rnatish, saqlash shartlarini buzish yoki elektr motorining o'zini noto'g'ri ishlashi haroratning bosqichma-bosqich oshishi va uning ruxsat etilgan chegaradan tashqariga etarli; yuqori muhit harorati atmosfera bosimining pasayishi (dengiz sathidan yuqori balandlikda ishlash); ishlaydigan suyuqlikning yuqori; elektr motorini tez-tez yoqish / o'chirish; yuk inersiya momenti juda yuqori (har bir nasos uchun har xil); haroratning keskin ko‘tarilishi; rotor qulfi; fazadagi nosozlik;

Yuqoridagi nosozlik holatlari yuzaga kelganda tarmoqni haddan tashqari yuklanish va qisqa tutashuvlardan himoya qilish uchun qaysi tarmoqni himoya qilish qurilmasi ishlatilishini aniqlash kerak.

Natijalar va muhokamalar. Tadqiqot ob’ekti sifatida **D** turdagi **110** kVt**1000** ayl/min **5A** markali elektr dvigatelni tanladik. Quyida uning parametrlari va xarakteristikalarini ko’rib chiqamiz.

110 kVt 1000 ayl/min elektr dvigatel markasining kengaytmasi:**5АИ280S4У2IM xxxxIP 55**

5АИ - asinxron elektr motor, **AIR** tipidagi analog;

280 - dvigatelning o'lchami (aylanish o'qidan o'rnatish tekisligigacha bo'lgan masofa mm);

S - ramka uzunligi bo'ylab o'rnatish o'lchami;

4 - qutblar soni 1000 ayl/min gacha bo'lgan rotorning aylanishlar soni uchun javobgardir;

У2 - iqlimiy versiya 2 - GOST 15150-69 bo'yicha joylashtirish toifasi;

IM xxxx - o'rnatish moslamasining belgilanishi;

IP 55 - chang va suvning chayqalishidan himoya darajasi;

quvvati 110 kVt;

aylanish tezligi 1000 ayl/min;

kuchlanishi 380/660V;

S1 robot rejimi - uzluksiz (tez-tez to'xtamasdan);

GOST R IEC 60034-14-208 bo'yicha tebranish sinfi;

stator o'rash izolyatsiyasi sinfi F (maksimal harorat 150 ° C).

Bugungi kunda gidrotexnika inshootlarida zamonaviy uskuna va jihozlardan foydalanish keng tarqalgan. Nasos stansiyalarida nasos agregatlarining elektr dvigatellarini himoyalashda zamoniy uskunalardan foydalanishning bir qancha usullari qo’llanilmoqda. Endi taklif etilayitgan usul bilan tanishib chiqamiz. Biz taklif etayotgan uskunalar va sxema yuqoridagilarga qaraganda ishonchli va kompleks himoyaga ega, Shuningdek, moliyaviy jihatdan ham ancha arzon.Yuqorida aytib o’tilgan himoya usullari nasos agregatini faqat ma’lum bir omildan himoya qiladi. Taklif etilayotgan sxema nasos agregatining dvigatelini bir qancha tashqi ta’sirlardan kompleks himoya qiladi va ishlash muddatini uzaytiradi.

Elektr dvigatellarni ishlatishda zamonaviy va innovatsion texnologiyalardan foydalanish keng tarqalgan. Ulardan biri Xitoy xalq respublikasining Delixi kompaniyasi ishlab chiqarayotgan JD turdagi himoya relelaridir. Ushbu himoya relelari elektr dvigatelni barcha nosozliklardan himoya qiladi.

Tadqiqot ob’ekti hisoblangan elektr dvigatelning quvvati 110kVt. Shuning uchun biz JD turdagi himoya relesining keyingi avlodi JD-6 ni tanlaymiz. Quyida JD- 6 himoya relesi bilan tanishib chiqamiz.

Delixi fazali boshqaruv kompleksli himoya relesi chiziqli kontaktlarning zanglashini oldini olib, ortiqcha yuklanish va qisqa tutashuvlardan himoya qiladi. Qurilma ta'minot kuchlanishini va fazalar ketma-ketligini nazorat qiladi, alohida fazalardagi nomutanosiblikka javob beradi, faza etishmovchiligini va uch fazali kuchlanishning assimetriyasini aniqlaydi.

JD-6 himoya relesi dvigatelni haddan tashqari yuklanish, sinish va faza muvozanatining buzilishidan himoya qilish uchun ishlatiladi. Ishlash chastotasi - 50 Hz, nominal izolyatsiya kuchlanishi - 690 V gacha, nominal oqim -63–400 A. Uzluksiz yoki interval rejimida ishlashi mumkin. Himoya moslamasi va AC kontaktor odatda birgalikda ishlaydi. Ushbu mahsulot IEC 60947-4-1 standartiga mos keladi.

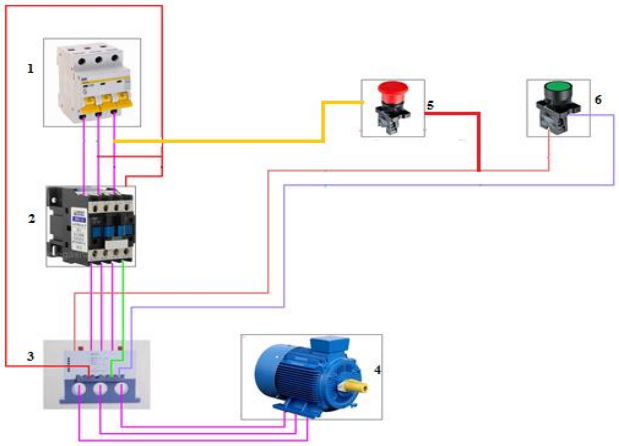
Afzalliklari: tashqi ko'rinishdan qulay va ixcham. Boshqaruv shkaflariga qulay va oson joylashadi. Sezuvchanligi yuqori, o'zgaruvchan ob-havo sharoitlariga bardoshli. U kichik qism, yuqori himoya aniqligi, oqilona tuzilish, mukammal funksiya, va qulay foydalanish hususiyatlari bilan ishlab chiqarilgan. Narx jihatdan ham arzon.

Kamchiliklari: 90°da joylashtirilmasa ajratgichi ishlashi qiyin. Chang joylarda uzoq vaqt ishlamaydi. Tebranish (vibratsiya)da ishlamaydi.

Foydalanish muhiti: balandlik 2000 metrdan oshmasligi kerak;atrof-muhit harorati +40°C dan yuqori va -5°C dan past bo'lmasligi kerak;nominal boshqaruv quvvatining o'zgarish diapazoni 85%-110% nominal kuchlanish;jiddiy tebranish va portlash xavfi bo'lmagan muhitda va metallarni korroziyaga olib keladigan muhitlarda o'rnatilmaydi;faqat vertikal yoki gorizontal o'rnatiladi.

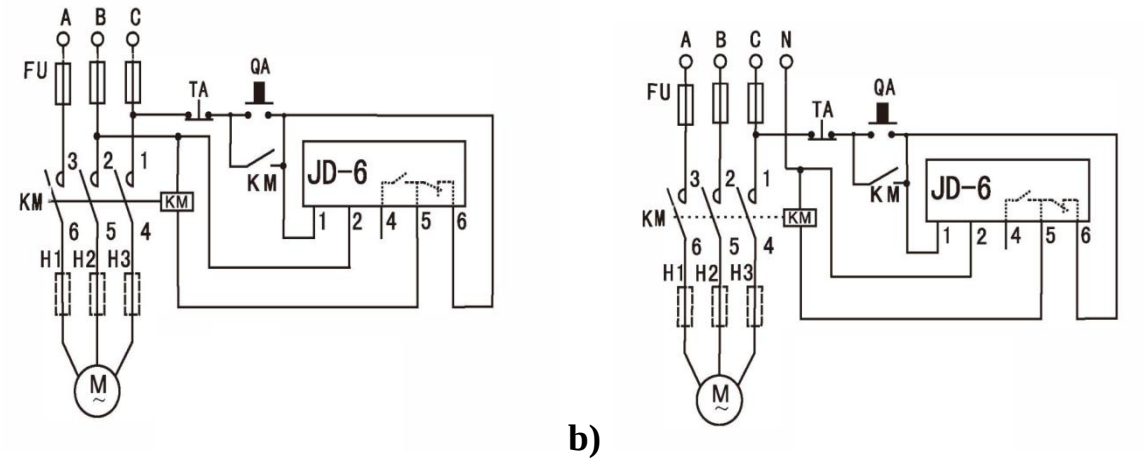
Delixi JD-6 himoya relesining tashqi tarafida o'rnatilgan vaqt va tok kuchini sozlash moslamalari (regulyator) bor. Birinchi moslama tok kuchi oshganda 1-120 sekund oralig'ida kontaktlarni ajratishni sozlash moslamasi. Ikkinchisi 400A gacha sozlash moslamasi. Ikki regulyator o'rtasida elektrotexnikada qo'llaniladigan sariq, yashil, qizil ranglardan foydalanib qo'yilgan nazorat lampalari bor. Sariq lampa yonganda rele noto'g'ri ulangan yoki ishga yaroqsizligini bildiradi. Yashil lampa yonganda rele ishchi holatda. Qizil lampa yonganda tizimda nosozlik borligini bildiradi va ogohlantiruvchi ovozli signal ishga tushadi.

Himoya relesinig ichki qismida 3ta tok transformatorlari va plata bor. Platada transformator, shifrator, 3ta ogohlantiruvchi lampalar, ovoz signali uchun karnay va yarim o'tkazgichlar joylashtirilgan.



***1-rasm*.** JD-6 himoya relesi orqali elektr dvigatelning avtomatik himoyasining funksional sxemasi.

Bu yerda:1-uch fazali avtomat, 2-puskatel, 3- JD-6 himoya relesi, 4-motor, 5- stop tugmasi, 6-pusk tugmasi



a) **b)**

2 –rasm. *Elektr dvigatelning avtomatik himoyasi uchun* ***JD-6*** *himoya relesining prinsipial ulanish sxemalari.* a) 380 Vda ulanishib) 220 Vda ulanishi

Bu yerda**:** A, B, C-fazalar, N-nol faza, FU-saqlagich(predoxranitel), KM-kantaktorlar, TA-stop, QA-pusk, 1-2-4-5-6-himoya relesining ulanish klemmalari.

JD-6 himoya relelsining 1, 2, 4, 5, 6 ya'ni 5ta ulanish nuqtalari bor. 1, 6-nuqtalar pusk tugmasi va blok kontaktning ikkinchi tarafiga ulanadi. 2-nuqta kontaktor cho'lg'amining 1-tomoni va nol tarmoqqa ulanadi. 4-nuqtaga qo'shimcha signal yoki lampa ulasa bo'ladi. 5-nuqta kontaktor cho'lg'amining 2- tomoniga ulanadi. Rele avariya holati yoki nosozlikni sezsa 5 va 6 nuqtalar orasidagi zanjirni uzadi, cho'lg'amning A_1 tomoniga kuchlanish o'tmaydi ya'ni, kontaktor elektr dvigatelga o'tadigan kuchlanishni uzadi va elektr dvigatel ish faoliyati to'xtaydi. Bu hol qaysi holatlarda sodir bo'lishi mumkin? Tarmoqdan keladigan kuchlanish pasayib ketsa quvvat bir xil saqlanishi uchun tok kuchi v poshipniklarining ishdan chiqishi, elektr dvigatelga ulangan mexanizga ortiqcha

yuklama berilishi. Ushbu sxema quvvati 30 kVt dan 240 kVt gacha bo'lgan elektr dvigatellar uchun ishlaydi.

Xulosalar. Tadqiqot ob'ektining himoyasini ta'minlash uchun JD turdagi himoya relelari tanlandi. Himoya relelarining xarakteristikalari, afzalliklari va kamchiliklari o'rganib chiqildi. Ob'ektini himoya qilishning funksional, prinsipial sxemalari ishlab chiqildi. Elektr dvigatelni ta'mirlash va himoya sxemasi uchun sarflanadigan xarajatlari tegishli tashkilot ma'lumotlariga asoslanib keltirildi.Elektr dvigatel taklif etilgan himoya sxemasi bilan ta'minlanganda, uning ishdan chiqish xavfi kamayadi va ta'mirlash xarajatlari sezilarli darajada tushadi.

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GELMINTLARNING MORFO- FIZIOLOGIK VA BIOKIMYOVIY IXTISOSLASHUVI XUSUSIYATLARI

Annotatsiya: Evolutsion taraqqiyot davrida gelmintlar tanasining morfologik tuzilishi boyicha parazit hayot kechirishga, ayniqsa, anaerob yol bilan moddalarni hazm qilishga ota moslashgan. Anaerob organism sifatida hayot kechirishga moslashuvning biokimyoviy tavsifibolib gelmintlarda modda va energiya almashinuvining oziga hosligi hisoblanadi. Voyaga etish davrlari bilan ayrim fermentli tizimlar faolligining sonishi, tez osishi, rivojlanishi va juda kop nasl qoldirishi uchun oqsillar biosintezini jadal yollar bilan taminlanishi gelmintlarning parazit hayot kechirishga moslashuvining asosiy belgilaridir.

Kalit so'zlar: gelmint, larvosista, mikrotrihiyalar, Krebs zanjiri, anaerob, mitohondriya, ATF sintezi.

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FEATURES OF MORPHO-PHYSIOLOGICAL AND BIOCHEMICAL SPECIALIZATION OF HELMINTHS

Abstract: During evolutionary development, according to the morphological structure of the body of helminths, the father adapted to live a parasitic life, especially to digest substances by the anaerobic way. Biochemical characteristics of adaptation to living as an anaerobic organism is the

peculiarity of substance and energy metabolism in helminths. The increase in the activity of certain enzyme systems during adulthood, rapid growth, development, and rapid provision of protein biosynthesis to leave many offspring are the main signs of adaptation of helminths to parasitic life.

Key words: helminth, larvocyst, microtrichia, Krebs chain, anaerobic, mitochondria, ATF synthesis.

Tadqiqot maqsadi: gelmintlarning parazit hayot kechirishga moslashuvini va hujayin organizmiga morfo- fiziologik va biokimyoviy ihtisoslashuvi hususiyatlarini organish.

Tadqiqot materilallari va natijalari:

Yassi chuvalchanglar tipining trematode (Trematoda)lar sinfining turlari Fasciola hepatica, Dicrocoelium lanceatumlarda tana boshligi bolmaydi, uni parenhima toqimasining hujayralari toldirib turadi. Ovqat hazm qilish tizimi ogiz sorgichining markazidan ochiladigan ogiz teshigi, tomoq, qisqa qizilongach va kor osimta bilan tugallanadiganikkita shohlangan ichakdan iborat. Orqa chiqarish (anal) teshigi yoq. Asosan qon, toqima, hujayralararo shiralar bilan oziqlanadi, hazm bolgan tayor oziq moddalar, bevosita, ichakning ozidan parenhma hujayralariga soriladi. Hazm bolmagan oziq qoldiqlari ogiz techigi orqali tashqariga chiqarilib turiladi. Sestodalar sinfinnig vakiilari ham xuddi tremagodalarga uhshab parenximatoz hayvonlar jumlasiga kiradi. Tanasi bosh (skoleks), buyin va bugimlardan tashkil topgan bulib, uning satxi yuqori tuzilgan hayvonlar ichagining ichki epiteliy tuqimasi mikrovorsinkalari - mikrotrixiyalar bilan qoplangan tegumentdir. Ularda gidrolitik fosfotazalar guruxiga kiruvchi hazm fermentlari faollik kursatib, ovqat hazm qiluvchi-absorbsiyalovchi azo vazifasini bajaradi. Chunki Sestodalarda ovqat hazm, nafas olish, qon aylanish azolari tizimi yaqqol rivojlanmagan. Boshi (skoleksi) dagi xar xil darajada rivojlangan sorgichlar, ilmoqlari orqali xujayin organizmi ichagi vorsinkalariga yopishib olib, tanasini qoplab turuvchi mikrotrixiyalari orqali tayyor oziq moddalar (monosaxaridlar, aminokislotalar, yog kislotalari, gleserin, vitaminlar, gormonlar, mineral tuzlar va boshqa metobolitlar)ni absorbsiyalab oziqlanadi, kislorod taqchilligi sharoitida yashaganligi uchun,ularni anaerob oksidlash yuli bilan hazm qiladi. (Beneditov I. I, 1982, Urolov M.U., 1990, 1991). Gelmintlarning parazit hayot kechirishga, ayniqsa, oraliq yoki asosiy xujayin organizmga ota maxsusligining fiziologik-biokimyoviy xususyatlaridan biri ularning yuqimli (invaziali) davri – tuxum (onkosfera)lari yoki larvosistalaridan xarakatchan lichinkalarini ochilib chiqishi davri hisoblanadi. Oziqlanish yuli bilan xujayin organizimga tushgan parazitlarning invazion davrlari"tinch" xolatdan "portlash" yo'li bilan "rivojlanish" davriga otadi. Unga hujayin organizmning ichki muhiti harorati, fermentlari va boshqa biofaol omillari tasir etadi. Eng avvalo, me'yorlashgan harorat ostida HCO3, ionlarining konsentrasiyasi oshadi va tuxum (onkosfera) larvosista membranasi orqali ichki muhitga surilib, mahsus reseptor holida gelmintning embrioni yoki

lichinkalarining reseptorlariga tasir etadi. Natijada, xitinaza, leysen-aminopentidaza, esteraza kabi maxsus shira (ferment)larning biosintezi boshlanib ketadi. Uz navbasida fermentlarning faolligida gelmint tuxumining qobigi invasion lichinkasining sistasi(xaltasi) eriydi va invazion lichinka ochilib chiqib, hujayin organizmning ichki muhitidagi tuqimalarga joylashib olib postembrional yoki imaginal rivojlanishni boshlab yuboradi, oziqlanadi, differeniiallanadi va voyaga etgan lichinka (larvosista) parazit gelmint davriga aylanadi. Anaerob organism sifatida hayot kechirishga moslashuvining biokimyoviy tavsifi bolib, gelmintlarda modda va energiya almashinuvining oziga xosligi hisoblanadi. Jumladan, karbon suvlar almashinuvining kuchli otishi, moddalar almashinuvini oxirgi mahsulotlarining xilma-xilligi, voyaga etish davrlari bilan ayrim fermentli tizimlar faolligining sonishi va tez osishi, rivojlanishi va juda kop nasl qoldirishi uchun oqsillar biosintezini jadal taminlanishi gelmintlarning parazit hayot kechirishga moslashuvining asosiy belgilaridir. Istemol qilingan tayor oziq moddalarning “nafas zanjirida” biologik oksidlanishga uchrashini taminlovchi hujayra mitoxondriyalari,trematodalar (masalan, jigar qurti Fasciola hepatica) lar tanasining hamma qismidagi hujayralarda bir hilda, boshqa nematode (masalan, odam Askaridasi Ascaris lumbricoides) larda, asosan, qisqaruvchi mushak toqimalaridagi hujayralarda kop miqdorda, sestodalar(masalan, odam va kalamush gijjasi- Hymenolepis diminuta)da esa mushak tolalarining sarkoplazmasidagi hujayralarda kam miqdorda uchraydi. Shunga kora, gelmintlarda Krebs zanjiridagi barcha fermentlarning mavjudligi, lekin ularning faolligi juda past ekanligi aniqlangan. Faqat mazkur zanjir boyicha fumaratreduktaza fermentining faolligi tufayli, HAD,H ishtirokida, fumaratni qahrabo kislotasiga ozgarishi gelmintlarning anaerob sharoitga moslashuvining eng muhim belgisi hisoblanadi. Shu hisobdan parazitning sitoplazmasida hosil bolgan malat (olma kislotasi) mitohondriyalarda barcha oksidlanish – qaytarilish reaksiyalari bilan otadigan reaksiyalarning substrati hisoblanadi. Mitohondriyalarda cuksinatdegidrogenaza, alfa-ketoglutoratdegidrogenaza, fumaraza, izositratdegidrogenaza kabi fermentlar ham uchraydi. Bu esa, ularda moddalar almashinuvining ohirgi mahsulotlari sifatida qahrabo (suksinat), propionate, asetat va sut kislotasini hosil bolishini taminlaydi. Faqat nematodalarda laktatdegidrogenaza fermenti mitohondriyadan tashqarida uchraydi, shunung uchun ularning metabolitlari tarkibida sut kislotasining faqat yuqi uchraydi. ATF sintezi, mitohondriyalarda, fumaratni qahrabo kislotasiga flavoprotein tizimi orqali qaytarilishi hisobidan boradigan biokimyoviy ozgarishlar orqali amalga oshib turadi/

Xulosa: Gelmintlarda moddalar almashinuvini, jumladan karbon suvlar almashinuvining kuchli otishi, moddalar almashinuvini oxirgi mahsulotlarining xilma-xilligi, voyaga etish davrlari bilan ayrim fermentli tizimlar faolligining sonishi va tez osishi, rivojlanishi va juda kop nasl qoldirishi uchun oqsillar biosintezini jadal taminlanishi gelmintlarning parazit hayot kechirishga moslashuvining asosiy belgilaridir.

Foydalanilgan adabiyotlar ro'yxati:

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VIETNAM AND THE "NEW GENERATION" FTAs: TRENDS AND SOLUTIONS

Abstract: In recent years, Vietnam has joined a number of "new generation" FTAs, especially the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the FTA between Vietnam and the European Union (EVFTA), the FTA between Vietnam and the United Kingdom (UKVFTA), and The Regional Comprehensive Economic Partnership (RCEP). This brings great opportunities for Vietnam's trade and investment, as well as positively impacts Vietnam's economy through the expansion of export markets and the attraction of FDI. However, participating in the "new generation" FTAs also means that Vietnam has entered the big playing field, accepting to cope with new difficulties and challenges. This article analyzes the trends of "new generation" FTAs, opportunities and challenges for Vietnam's trade and investment, thereby proposing some solutions for Vietnamese enterprises to take advantages of the opportunities and limit the challenges in implementing the commitments of the new generation FTAs in the coming time.

Keywords: Vietnam, "new generation", FTAs, trends, situation, solutions.

1. OVERVIEW OF FTAs AND "THE NEW GENERATION" FTAs

1.1. The concept of the FTAs

FTA is an abbreviation of the word Free Trade Area or Free Trade Agreement. An FTA is the formal purpose of a negotiation process between two or more signatory countries to reduce or eliminate trade barriers. An FTA usually includes elements of import duties, quotas and fees on goods and services traded between FTA signatory members to allow countries to expand access to each other's markets.

Up to now, many different organizations and countries have come up with their own definitions of FTAs. This reflects the different concepts of FTAs as well as the diverse growth of countries. According to the traditional view, "*FTA is an economic cooperation agreement signed between at least two countries, aimed at reducing trade barriers, namely tariffs, import quotas and non-tariff barriers. and at the same time promote trade in goods and services between these countries"* **[**1]. One of the important features of the traditional FTA is that the members of the FTA do not have a common tariff in their trade relations with countries outside the FTA. Typical FTAs under this concept are the FTA

among ASEAN member countries (AFTA) and the FTA among 3 Northern American countries (NAFTA).

1.2. The concept of the "new generation" FTAs

The term "New Generation Free Trade Agreement (FTA)" is used to refer to FTAs with extensive and comprehensive commitments, including commitments on free trade in goods and services as in Traditional FTAs. The "new generation" FTAs ussually offer the deepest commitment level (cutting taxes almost to 0%, possible roadmap), and a strict enforcement mechanism. Moreover, "new generation" FTAs also cover areas that are considered "non-traditional" such as: Labor, environment, state-owned enterprises, government procurement, transparency, and mechanisms for investment dispute resolution… **[**5].

1.3. Main content of FTAs

The scope and issues mentioned in each FTA are different, depending on the selection and agreement between the members participating in the FTA. However, with the general nature of aiming to eliminate barriers to most trade activities between member economies, an FTA usually includes the following main elements: **[**8]

(i) A group of commitments related to freedom by goods (trade in goods)

This heading includes commitments relating to the removal of barriers to trade in goods between Members, in particular:

- Preferential tariffs (export duties, import duties): Usually a list of tariff lines to be eliminated and a roadmap for tax elimination (immediately or after a number of years)

- Rules of origin: Includes commitments on origin to enjoy preferential tariff treatment and procedures regarding the certificate of origin

- Elimination or reduction of non-tariff barriers: Includes binding commitments, restrictions on import and export restrictions/prohibitions, export permits, technical barriers, food safety, anti-dumping, anti-subsidy, safeguard...

In addition, some FTAs in the later stages have additional commitments on issues of promoting and supporting trade in goods, for example: Customs and trade facilitation including commitments on processes, procedures, information transparency... in the process of importing and exporting goods; Principles in the treatment of imported goods circulating in the domestic market

(ii) Group of commitments related to freedom of services (trade in services)

Not all FTAs have commitments on trade service trade. Often, FTAs that are negotiated and signed at a later stage have commitments on this issue, which will usually include:

- Service market opening: Usually an Open List of committed services and specific opening conditions

- Principles related to the treatment of foreign service suppliers when they provide services to Vietnam or to Vietnamese organizations and individuals

(iii) Group of related commitments related to other issues

The FTAs in the later stages often have additional commitments in one or a number of other areas that are not related to trade in goods and services, but play an important role in trade and investment between the Members, such as: Investment (can be an independent investment commitment or an investment commitment associated with service market opening); Intellectual property; Competition; Transparency; anti-corruption; Labor market environment and so on. The number of sectors and the level of detail of the commitments in each area vary between FTAs, depending on the interests of the Members and the negotiating context.

Currently, there are several types of FTAs that Vietnam participates in as follows: Regional FTA, Bilateral FTA, Multilateral FTA, and FTAs signed between an organization and a country.

Table 1: Summary of Vietnam's FTAs as of January 2023 [7]

o.	FTA	Status	of Partnership
FTAs in effect			
1	**AFTA**	Effective since 1993	ASEAN
2	**ACFTA**	Effective from 2005	ASEAN, China
3	**AKFTA**	Yes Effective from 2007	ASEAN, Korea
4	**AJCEP**	Effective from 2008	ASEAN, Japan
5	**VJEPA**	Effective from 2009	Vietnam, Japan
6	**AIFTA**	Effective from 2010	ASEAN, India
7	**AANZFTA**	Effective from 2010	ASEAN, Australia, New Zealand
8	**VCFTA**	Effective from 2014	Vietnam, Chile
9	**VKFTA**	Effective from 2015	Vietnam, Korea
10	**VN – EAEU FTA**	Effective from 2016	Vietnam, Russia, Belarus, Amenia, Kazakhstan, Kyrgyzstan
11	**CPTPP** (Formerly TPP)	Effective from December 30, 2018, effective in Vietnam from January 14, 2019	Vietnam, Canada, Mexico, Peru, Chile, New Zealand, Australia, Japan, Singapore, Brunei, Malaysia
12	**AHKFTA**	Effective in Hong Kong (China), Laos, Myanmar, Thailand, Singapore and Vietnam from 11/06/2019	ASEAN, Hong Kong (China)
13	**EVFTA**	Effective from August 1st, 2020	Vietnam, EU (27 members)
14	**UKVFTA**	Temporarily effective from 01/01/2021, officially effective from 01/05/2021	Vietnam, UK
FTA not yet ratified, coming into effect			
5	**RCEP**	Signed on 15/11/2020	ASEAN, China, Korea, Japan, Australia, New Zealand
FTA under negotiation			
6	**Vietnam – EFTA FTA**	Negotiations started in May 2012	Vietnam, EFTA (Switzerland, Norway, Iceland, Liechtenstein)
	Vietnam –	Negotiations started in December	Vietnam, Israel

7	**Israel FTA**	2015	

Source: WTO and Integration Center, VCCI

1.4. The role of FTAs in the context of globalization

With high requirements and its comprehensive nature, the FTAs play an important role in promoting free trade in both quantity and quality, which is reflected in the following aspects:

First, new generation FTAs are a possible solution to promote trade and investment liberalization, to compete and improve standards on the protection of intellectual property rights, environment and labor standards, which are not covered by existing World Trade Organization agreements. When an FTA is signed, there will be impacts on the interests of countries, changing the policies of member countries as well as countries that are not members of a certain FTA.

Second, besides the role of strongly promoting economic integration and linkage, the new generation FTAs have an important role in raising the standards of trade liberalization. The general role of FTAs is to promote trade, in the context of global trade liberalization through multilateral channels facing difficulties.

Nowadays, the issue of ensuring the rights of workers is increasingly important on the basis that workers are the people who directly produce, so they must first be guaranteed rights, benefits and basic working conditions. This is the approach of new generation FTAs and is becoming a trend in recent years around the world. The inclusion of labor content in FTAs also aims to ensure a fair competitive environment among trade relations.

Third, joining new generation FTAs opens up new development space for member countries. With new generation FTAs, the development space of countries has changed in quality, development opportunities are opened up both horizontally and vertically. As a result, member countries have many options in the new development space. This is an opportunity for startups, for creative development in new fields, industries and business lines. This is especially meaningful for members who are late in the process of socio-economic development. The vision and production space of enterprises, as well as the development strategies of countries in terms of implementing FTAs, especially the new generation FTAs, are not limited to the borders of each country. The new development space itself also poses new requirements in designing and shaping a new and effective national development strategy in the context of implementing new generation FTAs.

Fourth, the effective implementation of new-generation FTAs will contribute to strengthening, ensuring economic security and enhancing the position of member countries. Strengthening linkages among member countries is an effective solution to prevent and combat cyclical or structural crises, ensure economic security and sustainable growth.

When participating in the new generation FTA through regional linkages,

the position of small countries is also improved through the common position of the bloc. On the other hand, the formation of FTAs with high standards, led by major economies, is also an opportunity for member countries to assert their role in building and establishing regional order, influencing the development and the competition for the major country title in the international arena.

2. CURRENT SITUATION OF VIETNAM TRADE AND INVESTMENT ACTIVITIES IN THE CONTEXT OF CURRENT FTAs

2.1. The current state of Vietnam's international trade and investment environment

Aware of opportunities and challenges when international economic integration affects other fields, joining a new generation FTA will help Vietnam expand trade relations with countries that Vietnam has never committed to, provide opportunities to link with foreign enterprises, and promote the development of the domestic economy. This is an opportunity for Vietnam to improve the business environment in order to increase international trade and investment activities. The international business environment includes the political, legal, economic, and cultural environments.

- Political and legal

The political environment refers to government, the relationship between government and business, and the level of political risk in a country. Doing business internationally means dealing with different models of government, relationships and levels of risk. In Vietnam, the political environment is considered to be quite stable, creating favorable conditions for businesses to do business.

In addition, creating a stable and solid legal environment and encouraging entrepreneurship is an important policy that has been and is being encouraged to be implemented in Vietnam. The specific activities of the Government to improve the quality of the investment and business environment are on the right track, they are supporting businesses more and more substantively, which is a push for the birth, existence and step-by-step growth of enterprises in general and foreign-invested enterprises in the coming time.

- Economic environment

Vietnam's GDP in 2017 reached 220 billion USD, 8 times higher than in 1997. The macroeconomy is stable, inflation rate is controlled below 4%. The economic growth rate is projected to achieve higher than the set target of 6.7%; and it is estimated that there are over 130,000 newly established enterprises.

Besides, enterprises that have foreign direct investment (FDI) have made important contributions. Up to now, there have been 128 countries and territories with investment projects in Vietnam, there are about 26,000 FDI projects with a total registered capital of 326 billion USD and the total realized capital of over 180 billion USD. The FDI sector has been increasing rapidly, affirming its important role in Vietnam's economy, contributing to 25% of total social investment capital and 20% of GDP. In which, 58% of FDI capital is

concentrated in processing and manufacturing industries and creates 50% of industrial production value, accounting for 72.6% of total export turnover, creating work opportunities for 3.6 million direct workers and 5 to 6 million indirect workers. Vietnam's economy is developing quite stably and sustainably.

- Cultural environment

For foreign investors, Vietnam has always been evaluated as a country that has a friendly culture, the people are sociable and willing to help others. This is a good cultural feature of the Vietnamese people.

However, Vietnam has not been appreciated for its work ethics and needs to improve labor discipline in the future.

Although the situation in the world and in the region has changed rapidly and complicatedly, greatly affecting the Vietnamese economy in general, with the efforts of the entire political system along with the motto "discipline, integrity, action, creativity and efficiency", the Government has directed and administered drastically at all levels and sectors to effectively implement the proposed tasks and solutions, focus on solving difficulties, and steadfastly achieve the goal to stabilize the macro-economy, create positive changes in the economic restructuring, renew the growth model, accelerate administrative reform, and improve the business investment environment in order to achieve comprehensive results in all areas.

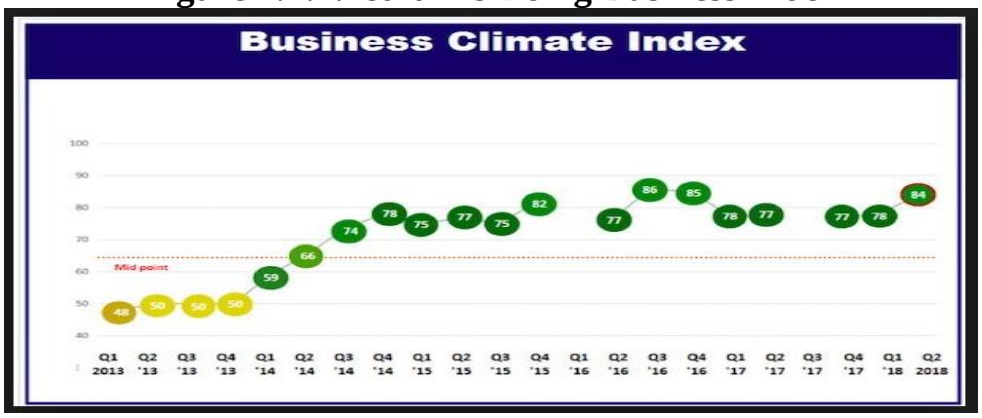
2.2. Assessing the advantages of international trade and investment activities in Vietnam

In order to fulfill the socio-economic development goals in the 2016-2030 period, Vietnam must accelerate the economic restructuring, improve the quality of growth, and take enterprises as the driving force to improve the competitiveness and autonomy of the economy. Therefore, since 2014 until now, the Government has made important efforts to bring Vietnam's business environment into the group of four leading countries in the ASEAN region (ASEAN-4).

In the past 5 years, the Government has made efforts to implement many solutions, in which they have focused on implementing Resolution No. 19/NQ-CP on improving business environment reform and enhancing competitiveness which is published annually from 2014 to present, and Resolution No. 35/NQ-CP in 2016 on supporting business development until 2020. As a result, the reform of Vietnam's business environment has made remarkable improvements. Market entry procedures have been simplified, thus, businesses have saved time and operating costs compared to before. Besides, thousands of unreasonable conditions have been abolished; specialized inspection of import and export goods has been fundamentally renewed according to the principle of risk assessment, changing from pre-inspection to post-inspection for many types of goods; The number of online public services at levels 3 and 4 has increased rapidly...

In recent years, Vietnam's business environment index in the world has improved, thereby creating favorable conditions to attract foreign investment.

Figure 2.1: Vietnam's Doing Business Index



Source: Financial Review 2018

According to the Doing Business 2020 Report conducted by the World Bank, Vietnam is classified as a middle income country and ranks 70th out of 190 countries surveyed. In Southeast Asia, Vietnam's business environment ranking is below Singapore (2nd), Malaysia (12th), Thailand (21st) and Brunei (66th).

Figure 2.2. World Bank ranking on Vietnam's 2020 business environment criteria



Source: World Bank **[**9]

2.3. Assessing difficulties in Vietnam's international business

In addition to achievements, there remain some limitations of the investment and trade business environment in Vietnam that have not been resolved, which are barriers to production and business activities of enterprises, specifically as: (i) According to VCCI's survey, businesses still face many difficulties in applying for conditional business licenses and 42% of them said that they have problems with business licensing and only 13% of business registration procedures are conducted online, 68 specialized inspection procedures can be performed on the national single-window portal. (ii)

Regulatory status lacks clarity on tax, causing inconsistency in understanding between enterprises and tax authorities and even among tax authorities. This problem is still prominent and there is slow progress in overcoming it. (iii) Administrative procedure reform in many localities has made progress, but the implementation of online procedures is still sluggish and has many problems.

3. OPPORTUNITIES AND CHALLENGES FOR VIETNAM TRADE AND INVESTMENT IN THE CONTEXT OF THE "NEW GENERATION" FTAs

3.1. Opportunities of FTAs with Vietnam's trade and investment in the context of the "new generation" FTAs

3.1.1. Attracting many investors from abroad

After the signing, Vietnam will attract more large and potential corporations and investors from European countries to invest in the country, contributing to the boost of the economy, shifting from production and export of mainly rudimentary and handmade products to high-tech processing and fine processing with higher added value. In the long run, it will change the export structure of Vietnam. The survey results show that, provided other factors are favorable, the CPTPP and EVFTA can help Vietnam's GDP increase by 23.5 billion USD in 2020 and 33.5 billion USD in 2025. Exports will increase by $68 billion by 2025. According to this study, Vietnam could be the biggest beneficiary among the countries participating in the agreement. For the CPTPP, according to the World Bank's forecast, it will increase GDP by 1.1% by 2030; In terms of productivity stimulation, Vietnam's economic growth by 2030 could increase to 3.5%. Compared to the economic scenario without EVFTA, the simulation results show that the benefits for Vietnam will be 3.2 billion USD in 2020 and 7.2 billion USD in 2030; In terms of national income, Vietnam's economy is expected to grow by 2.5% in 2020 and 4.6% in 2030 **[**3].

3.1.2. Price competition opportunities for exporters

FTA eliminates most of the tariffs on goods between Vietnam and other countries, bringing about price competition opportunities for Vietnamese exporters with competitors (mainly in Asian countries) in the global market. For example: In the EVFTA, Vietnam and the EU commit to eliminate 99% of tariff lines; In which, the EU commits to eliminate 85.6%, Vietnam commits to eliminate 65% of tariff lines as soon as the EVFTA comes into effect. This is extremely important when the partners in the new generation FTA are European countries, a potential market that brings high profits for exporters compared to Asian countries. According to a World Bank study, when implementing the CPTPP, Vietnam's economic growth in 2030 is expected to increase to 3.5%, exports will increase by 6.9%, imports will increase by 7.6% **[**6].

Table 2: Average tax rates of tariff lines committed to cut in 11 FTAs in the period of 2019 – 2022 [4]

FTA	2019	2020	2021	2022
1. ASEAN	0.07%	0.06%	0.05%	0.04%
2. ASEAN – China	3.6%	2.98%	2.98%	2.98%
3. ASEAN – South Korea	5.9%	5.9%	4.6%	4.6%
4. ASEAN – Australia – New Zealand	3%	3%	3%	2%
5. ASEAN – India	3.2%	2.9%	2.8%	1.9%
6. Vietnam – Chile	6.8%	6.1%	5.1%	4.4%
7. Vietnam – South Korea	4.39%	4.36%	3.78%	3.75%
8. Vietnam – EAEU	2.8%	1.8%	1.42%	1.1%
9. CPTPP	9.1%	7.7%	6.3%	4.8%

FTA	01/04/2018 – 31/03/2019	01/04/2019 – 31/03/2020	01/04/2020 – 31/03/2021	01/04/2021 – 31/03/2022	01/04/2022 – 31/03/2023
10. ASEAN – Japan	4.2%	3.7%	3.3%	2.7%	2.1%
11. Vietnam – Japan	3.69%	2.35%	2.16%	1.99%	1.91%

Source: Financial Review

3.1.3. Increasing export opportunities

FTAs will help Vietnamese enterprises gain more opportunities to export to many different markets, reduce dependence on a specific market, and commercial business risks when diversifying markets. Vietnam has better market access, with lower tax rates than countries such as Canada, Mexico, Chile and Peru - countries with which Vietnam has not yet signed an FTA or bilateral trade agreement. In particular, the CPTPP will contribute to promoting the export of goods to major markets such as Japan, Australia, Canada, and Mexico; at the same time, attracting foreign investment in industries and fields that Vietnam is in need of development. The CPTPP is also open to other countries and territories to join, such as: Korea, Taiwan, Indonesia, Thailand and the Philippines. This helps Vietnam access a large market and supports growth. The impact of the EVFTA can be seen on the main sub-sectors and a number of industries that Vietnam directly benefits, such as: food processing, rice, vegetables, textiles, footwear, electronics, machinery, equipment and some service sub-sector (information, transportation and so on).

3.1.4. Opportunities for workers

FTAs not only create job opportunities, but also have the potential to increase workers' wages through more efficient labor market operations and wage spillovers from FDI enterprises. The salary of FDI enterprises will be about 1% higher than that of domestic enterprises. Besides, when there is an FTA, worker benefits are also increased.

The signing of additional labor agreements helps Vietnamese workers to always be protected in terms of rights, improve standards and conditions for preferential support in the working environment for employees and increase income at the same time (an estimated 4 to 5%).

3.1.5. Opportunities to improve the natural environment

Environmental issues are also committed in new generation FTAs, in order to ensure socio-economic development coupled with environmental protection, conservation and balance of natural resources, responses to climate change, and solutions to environmental pollution problems. Accordingly, the countries participating in the FTA are forced to expedite solutions in order to achieve the committed environmental standards in export products. In line with international regulations and sustainable development, the National Assembly promulgated the Law on Environmental Protection No. 55/2014/QH13; considered to approve amendments and supplementing a number of articles on planning of the Law on Land, the Law on Minerals, the Law on Water Resources, the Law on Biodiversity, the Law on Hydrometeorology, the Law on Natural Resources and Marine Environment and Currently, in Vietnam, GDP has grown faster than the rate of efficiency in the use of important resources (land, water, energy), specifically, data recorded until April/ 2018 shows that the area and quality of forests have been reduced, although, the forest coverage rate still reaches more than 41%; only 75% of industrial parks and export processing zones have a centralized environmental pollution treatment system and only 62% of wastewater from these industrial parks and export processing zones can be treated; 36% of industrial parks and export processing zones have not complied with legal regulations on hazardous solid waste treatment.

3.1.6. Opportunity to improve the State management apparatus and the legal system

With very high standards of transparent governance and fair behavior, the "new generation" FTAs will help Vietnam consolidate and further improve the state management machine in the direction of promoting administrative reform, strengthening responsibility, discipline and discipline of state employees, thereby supporting the process of renewing the growth model and restructuring the economy. of Vietnam. In particular, the completion and strengthening of IPR protection will open up opportunities to attract investment in areas with high knowledge content.

Commitment to perfecting the legal system will help members to improve the legal and business environment, specifically: Protecting domestic and foreign investors from illegal interference; Create a fair playing field for state-owned enterprises and private enterprises; Simplify administrative procedures in business; Facilitating the recognition of product standards; Open the public procurement market for enterprises with investment capital from FTA members; Transparency of activities of state agencies; IPR protection of Vietnamese and foreign individuals and enterprises.

3.2. Challenges for Vietnam's trade and investment in the context of "new generation" FTAs

Besides the advantages that FTAs bring, the big difficulty from FTAs is increasing competitive pressure for the entire international economy. FTAs have

many potential consequences that are important not only to the legal systems of the members but also to the social, cultural and economic policies of these countries. Specifically:

3.2.1. Challenges from trade barriers

In the new generation FTAs, there are many institutions set up for participating countries, which require Vietnam to comply. The commitments in the new generation FTAs mainly require member countries to adjust, amend and supplement their domestic laws in related fields to be consistent with their common commitments, and at the same time to improve their capacity. Competitiveness is not only in terms of capacity but also in terms of implementation resources. In fact, it is difficult to amend and adjust existing institutions according to the new requirements on procedures and order in the commitments of the new generation FTAs. In addition to the traditional commitments, there are also normative commitments that bind the policy behavior of the parties to a great extent, spanning many fields related to trade, business and finance. Most of these commitments must be implemented immediately upon entry into force of the FTA or shortly thereafter. In addition, the establishment of a mechanism to ensure the synchronous implementation of specific obligations under commitments in the new generation FTAs for Vietnam still faces many difficulties.

After 15 years of implementation of the Commercial Law and practice in the integration process, Vietnam's trade policy has appeared many shortcomings, becoming barriers to participating in new generation FTAs [2]. Outstanding issues such as: Traders and their presence; Commodity trade and technical barriers.

In addition, there are regulations on the time of transfer of ownership of goods (Article 62 of the Commercial Law): Ownership of goods is transferred from the seller to the buyer from the time the goods are transferred, which can be understood. When the goods arrive at the port, it is automatically considered as the transfer of ownership to the buyer, which is extremely disadvantageous for the buyer and not in accordance with international practices. International practice provides for the transfer of title to the buyer from the moment he receives the documents of disposition of the goods. Especially, the implementation of CPTPP and EVFTA Agreements contributes to removing tariff barriers between our country and EU member states and 10 CPTPP economic community countries, including key franchise markets such as Canada, Australia, Japan. However, the Commercial Law 2005 has not yet responded to these changes, as the two concepts of "franchising" and "commercial rights"" are not yet fully regulated and in some cases still regulated inconsistencies between texts.

Time to implement and enforce commitments in FTAs is also a big obstacle for Vietnam. With normal FTAs, the total implementation time of all commitments is 10 years. With new generation FTAs, Vietnam will have to

fulfill its commitments in only 5-7 years; in which, many provisions will have to be implemented immediately after the agreement takes effect, many agreements will have to be implemented after 2-3 years.

3.2.2. Challenges in the field of labor

Joining the FTA, member countries must commit to comply with labor standards and regulations and recognize the relationship between workers' rights and trade; the right to freedom of association and the right to collective bargaining of employees and employers; abolition of forced and compulsory labor; ban the use of child labor; eliminating all forms of discrimination in employment and occupation.

Currently, Vietnamese workers face many disadvantages due to the opening of markets and goods from other countries, especially consumer goods. Using imported goods in an increasingly large and diverse amount, with many advantages in quality, price and the Vietnamese people's preference for foreign goods. It will be easy for foreign goods to dominate the domestic market, making domestic enterprises in the country face difficulties in all aspects, forced to restructure, arrange and reduce production, and workers losing their jobs.

Up to now, basically, Vietnamese law has specific regulations on minimum wages, working time and occupational safety and health, child labor, environmental protection... but in fact these standards are being violated in many enterprises. This leads to the fact that we will not be entitled to import duties (0%) from member countries if the required standards are not met.

In fact, violations of enterprises on labor still take place regularly, in many places, in many fields. Working time, especially the problem of excessive overtime in textile enterprises and in the agricultural sector still occurs. The assurance of occupational safety and health in many enterprises has not been done well; Lack of safety equipment and tools, environmental violations; The State's sanctions against enterprises violating labor and environmental regulations are not enough to deter and prevent. In fact, it is very difficult for workers today to find a job. In many enterprises, workers have the need to work more hours or shift shifts to increase their income. One day of overtime, the product is paid by 2 normal working days, this easily leads to the employee disregarding his own health, only seeing immediate benefits but not seeing the consequences later.

On the other hand, due to the limited awareness of the provisions of the law, they do not know or fully grasp their labor rights, unable to propose or recommend to the employer to ensure the right to labor. benefit yourself. In many enterprises, employees, although knowing the provisions of the law, agree to an agreement with the employer and voluntarily work overtime beyond their ability to regenerate labor, in order to have more income and more benefits. opportunity to work at enterprises…

3.2.3. Political and legal challenges

FTAs require participating members to review the entire legal system of

their countries, first of all, in the fields of trade, investment, competition of SOEs, bidding, e-commerce, environment, dispute settlement, and labor.

FTAs also require members to carry out a review of their country's entire system of socio-economic and cultural policies to implement policy transparency, administrative reform, and judicial reform. It is for dealing with the relationship between international trade and issues that are considered "non-commercial" - "social values". For examples, trade and human rights, protecting workers in international trade, trade and environment, trade and culture, trade and security, food safety, sustainable development and good governance, the right of foreign investors to sue the Government of the host country, policy transparency, internet freedom, and so on.

The high standards of transparent governance and fair conduct of the state apparatus will pose great challenges to state agencies. Governments of FTA members will have to implement a difficult policy when they have to balance international trade with issues that are considered “non-commercial”.

Besides, FTAs can pose dangerous opportunities to derail socialism. In the market mechanism, the development of a multi-sector economy, in addition to distribution according to labor, distribution according to capital contribution and economic efficiency. This leads to the fact that social division is increasing. Inequality is still taking place in many different forms, causing tension and social conflicts and pushing social relations away from the essence of justice, democracy, and good humanity- the beauty of socialism.

3.2.4. Challenges from limited competitiveness of domestic enterprises

With a deeper degree of liberalization, Vietnam's missing and weak areas such as transportation, IPR, and human resource training. It will be difficult to meet the practical requirements when diversifying investment flows from abroad with strong capital inflows into the country, high competition will put pressure on enterprises. The pressure of import tax cuts will affect many industries that are protected in the country (automobiles, sugar cane, petrol, etc); many traditional Vietnamese products have not been registered under the International Intellectual Property Law, leading to the risk of brand loss and weak competition in foreign markets; The level of human resources in enterprises has not yet met the requirements to perform operations on high-tech machinery, and there is a shortage of skilled workers in foreign languages.

Policy dialogue report 2016 titled "Potential warnings for Vietnam when joining the Trans-Pacific Partnership (TPP)" by the University of Economics pointed out that when implementing commitments in the FTA, Vietnam will face a big challenge in terms of competitiveness. The report has shown a number of institutional factors, including "the ownership regime, especially property rights attached to land, the ineffectiveness of contract law and contract enforcement", which has made many businesses difficult to operate. Therefore, private enterprises cannot compete with FDI enterprises.

The report also shows that the ability to penetrate and defend domestic

enterprises compared to FDI enterprises is also limited due to various reasons such as: (i) Domestic enterprises are slow to change their strategies, cutting costs, ensuring delivery schedules, and implementing international commitments; (ii) Domestic enterprises face difficulties in participating in the global supply chain as well as in the development of supporting industries, due to the lack of ability to meet the requirements of the chain, especially in terms of product quality.

3.2.5. The challenge of connectivity between countries

The multilateral trading system is under pressure to adjust due to conflicts between major countries. Some views have in fact taken shape at the WTO and are led by different groups of countries. The reform of the WTO will have a significant impact on bilateral and multilateral FTAs in general and the connection and cooperation between countries in particular.

The connection and influence between countries is not only obtained from cooperation, but even if the trend of protectionism increases, trade tensions between major countries appear will also have a certain impact on countries. This shows that the interaction and interdependence between markets and between countries is already at a high level. This process of dependence was basically strongly formed in the previous period, when countries expanded their markets and sought investment, forming production chains of transnational companies and corporations. Some countries that previously supported free trade have now become factors affecting the multilateral trading system and the process of global trade liberalization. This will also have a significant impact on the overall economic prospects of countries, regions and the world. In fact, integration and cooperation forums have witnessed these views and trends, however, they have not prevented the search and formation of new free trade areas, in which, the CPTPP and the EU agreements are typical examples.

Vietnam in particular and East Asian countries in general gradually become the center of cooperation initiatives such as CPTPP, RCEP and other regional connectivity initiatives. The challenge is how to ensure harmony and unity among these connections. Many countries have realized the importance of connecting cooperation initiatives in different fields and in each period. This connectivity is not only limited to Asia, but also influenced by other connectivity plans such as between Asia and Africa, Asia and Europe…

The connectivity between countries becomes more complex. when there are different provisions interwoven between the frameworks of the agreement, between the relationship of the two partners with each other in many aspects, the cooperation framework. Countries participating in FTAs also have different standards and face challenges in the implementation process.

3.2.6. Challenges from the absorption of the Vietnamese economy before foreign investment flows

It is forecasted that after the FTAs take effect, Vietnam will be able to attract large FDI capital. However, lessons from attracting foreign investment

after Vietnam joined the World Trade Organization (WTO) show that the economy's ability to absorb foreign investment flows massively “May pose many challenges for Vietnam in maintaining macroeconomic stability”.

Specifically, in the face of a sharp increase in foreign direct and indirect investment capital, the State Bank must provide a large amount of dong to buy foreign currencies, as well as ensure economic stability when devaluation is slightly to support. Export support has become one of the main reasons for the high inflation rate of Vietnam after 2006. Therefore, this is something that Vietnam needs to pay special attention to. In 2019, there were also signs that the flow of foreign investment capital into Vietnam increased dramatically.

It can be argued that Vietnam has experiences in dealing with this problem, however, with new developments in the world economy, especially the impact of the US-China trade war, foreign capital Inflows into Vietnam will continue to increase. If Vietnam does not prepare carefully, the scenario of the post-WTO period may repeat.

4. SOLUTIONS TO PROMOTE TRADE AND INVESTMENT ACTIVITIES IN VIETNAM IN THE CONTEXT OF “NEW GENERATION” FTAs

Economic integration and linkage in the new era continues to be an inevitable trend in the current context. However, this trend is and will be affected by trade wars between major powers, disruption of supply chains of large companies and economic groups. To take advantage of opportunities, overcome challenges in the integration environment, Vietnam needs solutions to promote economic linkages in the region and the world, effectively taking advantage of advantages, especially advantages from trade agreements. The new generation of free trade brings to Vietnam's economy. Specifically:

4.1. Solutions to trade barriers

First, it is necessary to strengthen communication and dissemination of information through various forms about the new generation FTAs that Vietnam is participating in, especially small and medium enterprises. Vietnamese government also needs to organize training for officials of state management agencies at all levels and the business community on relevant specific commitments, ensuring a clear and correct understanding, thereby implementing the new generation FTAs completely and effectively.

Second, Vietnam needs to complete investment policies in order to develop the import-export market of goods, as well as promote and innovate trade and investment promotion.

Third, in order to adapt and improve the efficiency of implementation of FTAs commitments, there is a need for drastic, unified and specific direction of the Central Government, through a national action program, and concretized by detailed plans at all government’s levels, ministries, branches, localities, and each business community. Accordingly, it is necessary to review the requirements in the FTAs as well as the recent integration practices, to establish

a list of institutional issues that need to be handled (including the law and the management apparatus) should develop overall solutions to develop human resources as well as promote trade promotion activities to explore and expand opportunities to access the EU market.

4.2. Labor solutions

Firstly, Vietnam needs to enhance institutions for trade unions and workers' organizations at enterprises. In addition, Vietnam needs to continue to improve the legal system to adjust labor relations and labor standards in accordance with international standards, commitments and conventions to which Vietnam has joined.

Secondly, enterprises need to change their thinking, be forced to comply with the law to avoid being investigated, sued, or sanctioned. They also need to invest in improving requirements on occupational safety, salary, occupational hygiene, etc. along with other monitoring and sanctioning mechanisms. It is necessary to build and develop corporate culture to participate in regional and international export supply chains. Enterprises must truly realize that employees are "invaluable assets and resources", voluntarily comply with regulations. Thus, it is important to ensure the lives of employees so that they can trust, dedicate efforts, and improve productivity, product quality, have a stable income, and stick with the business, in order to help businesses develop sustainably.

Thirdly, Vietnam also needs to improve the role of mass organizations in the field of labor and social life, create conditions for a truly independent representative organization of employers, not dependent on the State, to operate effectively for the business community to develop sustainably. In addition, grassroots trade unions and industry trade unions need to operate independently and effectively, independent of the employer. They need to perform the function of protecting and representing the legitimate rights and interests of employees- It is the right to inspect and supervise the operation of the enterprise. Unions also need to educate and encourage employees to understand and strictly abide by the provisions of the law, as well as help them self-improve in all aspects in order to protect themselves against violations of the employers. In addition, thay also need to promptly prevent violations of enterprises.

4.3. Legal and political solutions

First, Vietnam needs to continue to improve the legal system to meet the requirements of the modern market economy, integrate into the world and join in new generation FTAs with the spirit of comprehensive and synchronous innovation, both economically and politically. In particular, it is necessary to quickly review, amend and supplement the legal framework to suit the current application conditions, as well as not compatible with the commitments in the new generation FTA. Accordingly, Vietnam needs to study and carefully review the requirements in the new generation FTAs, to establish a list of institutional issues that need to be dealt with... In particular, it is necessary to review, amend and improve Commercial Law in line with international practices and

commitments of new generation FTAs. It is necessary to establish a common and unified mechanism such as: review the legal system, synchronously adjust the law, control the progress, and effectively adjust the law according to commitments. All should be properly designed to ensure uniform guidance in practice.

Second, Vietnam needs to continue to accelerate economic restructuring, innovate the growth model, and enhance the socialist-oriented market economy institution. This is in order to meet the commitments and show Vietnam's determination when accepting international "rules of the game", especially in foreign markets of developed countries.

4.4. Solutions to increase competitiveness for Vietnamese enterprises

First, Vietnames enterprises need to strengthen linkages with each other, creating investment opportunities to increase competitive strength. They also need to actively build production and business capacity, improve product quality and design to enhance competitiveness and build brand. Furthermore, they need to increase investment in supporting industry development, invest in material growing areas to reduce dependence on foreign suppliers for raw materials and accessories.

Second, Vietnamese enterprises need to innovate corporate governance and information technology activities, improving product quality, enhancing brand promotion. Along with that, they need to actively improve their own business strategies, develop production to be able to compete with goods from other countries in the region even in the domestic market and export markets, as wel as do researches to meet the needs of customers and criteria on rules of origin to enjoy tariff preferences. In addition, businesses need to closely monitor the information and commitment roadmap... from there, give the right direction, and build a reasonable business strategy. More importantly, the business community must have a roadmap to adapt and change accordingly. Because, if the tariff barrier is completely removed and there are great economic benefits, then the rule of origin emerges as a new barrier.

Third, it is necessary to have an early human resource investment mechanism, a satisfactory material and spiritual treatment policy for employees, especially highly skilled workers. This is an investment in human resources to create a competitive advantage when integrating. In addition, businesses need to innovate the salary management mechanism associated with labor productivity and business efficiency, encouraging employees to automatically improve their professional skills.

Fourth, Vietnam needs to develop supporting industries to ensure satisfaction of origin requirements. The State needs to identify key export industries and plan the development of supporting industries. With limited resources, Vietnam cannot disperse its forces, but must focus on developing the key supporting industries that it is capable of, such as textiles, footwear, etc. and assembly (such as cars and motorbikes, electrical and electronic equipment).

Fifth, it is necessary to have preferential policies to attract enterprises to invest in the development of production clusters to develop supporting industries, especially SMEs as well as FDI enterprises. Vietnam also needs to develop a favorable mechanism to attract FDI from foreign investors involved in the production process as well as export support activities in Vietnam.

Sixth, Vietnamese enterprises need to develop technology and quality management capabilities to ensure technical and safety standards. It is necessary to well implement policies to encourage scientists inside and outside the industry to transfer research results into production practice, contributing to promoting productive, quality and efficient production. Vietnam also needs to attracts all economic sectors to participate in research and transfer of technical advances, as well as exploit advantages in investment commitments from FTAs to strengthen technological cooperation to absorb advanced science and technology in production. In addition, they need to strongly develop the form of financial leasing in the procurement of machinery, equipment and technology for export enterprises in order to improve the development ability and competitiveness of enterprises. Finally, enterprises need to increase investment in technology to serve the inspection and management of food quality, safety and hygiene and other technical standards.

4.5. Solutions for associations

Firstly, Vietnamese government needs to continue to provide and advise businesses on business law, knowledge about international economic integration, as well as experience in dealing with international lawsuits and trade barriers of export markets. They need to organize many trade-investment promotion programs according to specific markets, industries and business areas to improve access to domestic and foreign markets.

Secondly, the government also need to continue to promote the role of a bridge between enterprises and management agencies, creating conditions for connection and exchange between member enterprises. It is also essential to strengthen the dissemination of information on integration about the laws of other countries, intellectual property, industrial property, quality management, rules of origin, etc. for member enterprises, and support enterprises to build strong trade brands.

Conclusion

The trend of globalization and “new generation” FTAs has become a common trend in the world and is the solution chosen by many countries when agreements are reached within the framework of the World Trade Organization (WTO) has not yet "satisfied" countries with the level of commitment. In particular, the number of FTAs in the world has increased rapidly. According to WTO statistics, as of January 17, 2020, a total of 303 Agreements have come into effect out of 483 Agreements notified to the WTO by countries.

Vietnam's negotiation, signing and accession to FTAs have basically complied with the provisions of the law on international treaties: the 1998

Ordinance on the signing and implementation of international treaties; Chapters II and III of the 2005 Law on Signing, Accessing and Implementing International Treaties; and Chapter II Law on International Treaties 2016.

The participation in FTAs has created more impetus and brought many positive impacts to Vietnam's economy. In 2019, in the context of global economic and trade growth decelerating due to the impact of global trade tensions and competition between major economies, Vietnam continued to maintain its import and export growth momentum in the region with high level. In 2019, Vietnam's total import-export turnover exceeded 500 billion USD; in which export turnover reached 263.45 billion USD, up 8.1% compared to 2018; and import turnover in 2019 reached 253.5 billion USD, up 7% compared to 2018. The implementation of FTAs has contributed to boosting Vietnam's GDP by more than 300%, import and export turnover by 350%. However, international economic integration in general and participation in FTAs in particular, especially new generation, high standard and comprehensive FTAs such as CPTPP and EVFTA not only bring opportunities but also risks and challenges.

In short, economic integration and linkage in the new era is an inevitable trend. Vietnam is considered as one of the active countries in international economic integration and linkage. The results of Vietnam's integration process are recorded through economic growth, investment, production, and export indicators. To take advantage of the opportunities that new-generation FTAs bring, Vietnam needs to maintain economic integration and linkages in the region and the world, improve competitiveness, strengthen national governance and governance capacity in the context of deep integration, and handle the integration well. Vietnam also need to build an autonomous economy to create and consolidate a favorable position in the network of economic forces. "New-generation" FTAs help Vietnam create a new impetus to make significant reforms in management and governance policies towards transparency of information and facilitation of the free movement of goods and service. Especially, the CPTPP, EVFTA, and UKVFTA, when implemented, will bring enormous opportunities for Vietnam to expand its market and diversify markets, creating favourable conditions for Vietnamese enterprises to deeply participate in the global supply chain, especially in high-tech products.

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EVALUATION OF CLINICAL AND IMMUNOLOGICAL CRITERIA OF CHRONIC PYELONEPHRITIS IN CHILDREN

Resume: In recent decades, there has been an unfavorable growth trend in the pediatric population of recurrent pyelonephritis, formed against the background of obstructive uropathy and dysmetabolic diseases. Patients with chronic pyelonephritis (CP) are still at high risk of developing chronic renal failure and a decrease in the quality of life in childhood, which attracts the attention of many researchers to this problem.

This article provides information on the separation of two variants of the course in the clinical form of chronic pyelonephritis: the presence of latent and recurrent forms, the absence of clinical manifestations with atypical symptoms of chronic pyelonephritis, as well as the fact that the presence of the disease can only be detected by laboratory and instrumental examination methods, the recurrence of chronic pyelonephritis

Key words: pyelonephritis, remission, quality of life of patients, children's age.

Relevance. In recent years, new data have been obtained indicating the pathogenetic role of endotoxins, the adhesion of microorganisms, the structural and functional state of cytomembranes, as well as some immunological and immunogenetic mechanisms of the formation of microbial-inflammatory process in the urinary system **[**2,4].

At the same time, despite a large number of studies devoted to various aspects of the etiology and immunopathogenesis of urinary system infection (IMS), there are still many unresolved issues in this problem **[**1,5].

Thus, to date, such issues as the intensity of phagocytosis, differentiation of T-lymphocyte subpopulations, the nature of the cytokine response, as well as allelic polymorphism of HLA-system genes that influence the formation, course, prognosis and outcome of the inflammatory process in the kidneys remain insufficiently studied and debatable **[**3].

Thus, the study of poorly understood pathogenetic mechanisms of the primary response of the immune system to urinary tract infection, the identification of individual, genetically determined features of the immune response in the dynamics of the pathological process in the kidneys, will allow us to study new aspects of the etiopathogenesis of PN, which are far from being resolved **[**6].

The purpose of the study. Identification of clinical, immunological and immunogenetic criteria for the activity and chronization of various forms of PN in children in order to early diagnose, predict the course of the disease and optimize pathogenetic treatment.

Material and methods of research. To solve the tasks, a clinical, laboratory, instrumental and immunogenetic examination of 104 children diagnosed with PN aged 3 to 16 years living in the city of Andijan was carried out. The comparison group consisted of 28 children of the same age who belonged to health groups I-II, in whose anamnesis during the last two months there were no indications of previous illnesses and preventive vaccinations.

The results of the study. The clinical and paraclinical characteristics of PN in children of both age groups at the present stage are manifested by various degrees of activity of the inflammatory process, has a predominantly chronic course, secondary character due to the presence of combined kidney damage at the level of tubulointerstitial tissue, obstructive uropathies that contribute to urohemodynamic disorders and chronization of the disease. Intoxication, abdominal and dysuric syndromes were most often detected in children of the younger age group, while dysuric and pain syndromes prevailed in the older age group. Urinary syndrome was registered with the same frequency in different variants of the course of the disease in children of both age groups.

The immune status in children with PN is characterized by a violation of the main links of immunogenesis - the processes of activation, proliferation and effective functions of the immune system. The revealed divergence of these changes depends on the initial state of the immune system, against which the pathological process in the kidneys develops.

A feature of the immune status in the acute course of PN is its more pronounced violations in the primary form of PN, which confirms the leading role of immune system dysfunction in its genesis. In the chronic course of the disease, the degree of severity of changes in the immune system is more clearly traced in the secondary form of PN against the background of morphofunctional changes in the MVS, contributing to the chronization of the disease.

The minimal degree of activity of the inflammatory process in combination with changes in the immune status of children with PN in the form of impaired stages of maturation, processes of differentiation and activation of immunocompetent cells, increased readiness of lymphocytes for apoptosis, as well as violations of effector and elimination functions of the immune system are an unfavorable prognostic sign predisposing to a prolonged, recurrent course of the disease.

Conclusion. Conducting a comprehensive assessment of the immune status in children with PN, regardless of the clinical variant of its course, will allow a differentiated approach to the appointment of immunocorrecting drugs that increase the effectiveness of basic therapy in order to prevent further progression of the disease and improve the quality of life of children with PN.

The presented differences in immunogenetic changes depending on the age of patients, the clinical variant of PN, the nature of its course and the morphofunctional state of the kidneys can be used to clarify the diagnosis, prognosis of the disease and the appointment of pathogenetic treatment.

Determination of the specificity of the NA system can be used both at the level of population studies, in groups at increased risk of developing PN, as well as at the stages of early diagnosis of the disease and to determine the individual prognosis of the disease.

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THE ROLE OF PERSONALITY IN SOCIAL DEVELOPMENT

Abstract: This article discusses the role of a person in society. In this article, the author revealed the importance of individual characteristics of a person in the social development of society.

Key words: individual, society, social development, human phenomenon, cultural development.

Personality is not only a consequence, but also the cause of socially ethical actions performed in a given social environment. The economic, political, ideological and social relations of a historically defined type of society are refracted and manifested in different ways, determining the social quality of each person, the content and nature of his practical activity. It is in its process that a person, on the one hand, integrates the social relations of the environment, and on the other hand, develops his own special relationship to the outside world.

The elements that make up the social qualities of a person include the socially defined goal of his activity; occupied social statuses and performed social roles; expectations regarding these statuses and roles; norms and values (i.e. culture) by which he is guided in the course of his activities; the sign system he uses; body of knowledge; level of education and special training; socio-psychological features; activity and degree of independence in decision-making. A generalized reflection of the totality of recurring, essential social qualities of individuals included in any social community is fixed in the concept of "social personality type".

The path from the analysis of the social formation to the analysis of the individual, the reduction of the individual to the social, makes it possible to reveal in the individual the essential, typical, naturally formulated in a concrete historical system of social relations, within a certain class or social group, social institution and social organization to which the individual belongs. When it comes to individuals as members of social groups and classes, social institutions and social organizations, then we mean not the properties of individuals, but social types of individuals. Each person has his own ideas and goals, thoughts and feelings. These are individual qualities that determine the content and nature of his behavior.

The concept of personality makes sense only in the system of social relations, only where one can speak of a social role and a set of roles. At the same time, however, it presupposes not the originality and diversity of the latter, but, above all, a specific understanding by the individual of his role, an internal

attitude towards it, a free and interested (or, conversely, forced and formal) performance of it.

A person as an individual express himself in productive actions, and his actions interest us only to the extent that they receive an organic, objective embodiment. The opposite can be said about a personality: it is actions that are interesting in it. The accomplishments of the personality themselves (for example, labor achievements, discoveries, creative successes) are interpreted by us, first of all, as actions, that is, deliberate, arbitrary behavioral acts. Personality is the initiator of a successive series of life events.

The dignity of a person is determined not so much by how much a person succeeded, whether he succeeded or did not succeed, but by what he took under his responsibility, what he imputes to himself. There is only one kind of universally valid norms valid for all times. These are the simplest requirements of morality, such as “do not lie”, “do not steal”, “do not commit violence”. It is them that a person must, first of all, raise into his own unconditional imperative of behavior. Only on this moral basis can the personal independence of the individual be established, his ability to “rule himself”, to build his life as a meaningful, successive and consistent “act” can develop.

The phenomenon of man is an undeniable mystery of nature. Because man in this material world is a guest, almost a stranger, a great stranger and unknown For man, as a biological being, as a member of the huge body of Nature, the huge tree of Nature, is something completely understandable and familiar to us, no more amazing than any highly developed mammal creature. Gilbert Chesterton once said: what would happen if the swallows, instead of building nests for themselves and dragging flies for their chicks, would create philosophical systems and reflect on the meaning of life? Of course, we would think it was a miracle.

So, a person is a similar miracle, because in nature, in our biological, in our psychophysical being, everything is expedient. All processes in our body are a reflection of general biological, or physical or chemical, or simply world processes. And everything has very specific, specific goals: adaptation to the environment, reproduction, respiration, nutrition, and so on. But what is the purpose for our biological species of the selfless thirst for knowledge of such knowledge, which does not at all give concrete practical tangible results? Where does the reverence for the Highest arise in a person, the desire to comprehend the last secret of the world? Where does it come from what we call spirituality? Now this word is quite abused, but I must tell you right away that spirituality, in principle, is the main property of a person that distinguishes him from all living beings.

If we know perfectly well how we got from nature everything that we call our organism, because animals, plants, and minerals live in us - all together - but search the entire Universe known to us (material) - and we will not find anywhere such a secret, such a phenomenon as consciousness, as self-

consciousness, as a personality, as ethical foundations. In this respect, a person, as it were, bursts into a world that is alien to him.

We know what the ecological environment is; we know that the slightest violation of this system, which is very intricately connected in its elements, leads to illness and death of the entire biocenosis as a whole. And our body is extremely complex, but part of this single world whole - biological and physical. Moreover, if we tear our being even for a moment from this whole to which we belong, we perish in the same fraction of a second: we are so closely and firmly inscribed in visible nature; we not only come from it bodily, but we are an inseparable part of it.

But at the same time, our specificity is human, our spirituality - it is not part of this material, visible system at all. Because all visible systems can be weighed, measured, seen, tangible. And only that which in us is invisible, intangible, has neither form nor color - only this makes a person a thinking being. A being who, according to Vernadsky, is capable of transforming the world. A being that, as we now know, can both corrupt the world and lead it to destruction. Therefore, a responsible being, the only one of all living beings; We are, we are responsible for our actions. Because we are the only ones who can choose. Neither the elephant, nor the octopus, nor the boa constrictor, nor any other creature, in essence, chooses. It is hard-coded. In the end, almost all of his behavior is almost an exact reflection... of all those processes that occur in his body. But look at human life, truly human.

Very often, much and important in it not only goes against this, but, as it were, challenges the needs of the body. A person is able to refuse this, to rise above material needs. In the name of some ideas, he is able to endure hardships, inconveniences, and sometimes even go to extreme trials, up to death. Thus, not the life instinct, but something else is present here in the phenomenon of man.

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O‘ZBEKISTONDA ELEKTROMOBILLAR ISHLAB CHIQARISHNI RIVOJLANTIRISH TAMOYILLARI

Annotatsiya.Ushbu maqolada O‘zbekistonda elektromobillar ishlab chiqarishning imkoniyatlari, bu sohani yo’lga qo’yishdagi mavjud muammolar, kamchiliklar va ularning yechimlari, elektromobillar ishlab chiqarish bo’yicha rivojlangan mamlakalardagi hozirgi kundagi holat, ilg’or avtokonsernlar, ularning yutuqlari va kamchiliklari tahlil qilingan. Elektromobillarda qo’llanilishi mumkin bo’lgan akkumulyator batareyalari, elektrodvigatellarning avfzallik va kamchiliklari ilmiy asosda tahlil qilingan va ilmiy tahlil natijalariga ko’ra elektromobillarni ishlab chiqarish yuzasidan xulosalar taqdim qilingan.

Kalit so’zlar: Asinxron, rotor, stator, akkumulyator, inverter, batareya, elektr konvertori, kirish sensorlari.

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PRINCIPLES OF DEVELOPMENT OF ELECTRIC CAR PRODUCTION IN UZBEKISTAN

Annotation. This article analyzes the possibilities of electric car production in Uzbekistan, the existing problems, shortcomings and their solutions in establishing this industry, the current situation in developed countries in the production of electric cars, advanced car concerns, their achievements and shortcomings. Advantages and disadvantages of batteries, electric motors, which can be used in electric cars, were analyzed on a scientific basis, and conclusions on the production of electric cars were presented based on the results of the scientific analysis.

Key words: Asynchronous, rotor, stator, accumulator, inverter, battery, electric converter, input sensors.

KIRISH

Bugungi kunda O’zbekistonda mavjud energiya muammolari avtomobillarning alternativ yonilg’i turlariga o’tishni talab qilmoqda. Bu muommoning yechimi sifatida hozirgi kunda elektromobillar keng miqiyosda ishlab chiqarishda boshlanmoqda. Xususan hozirgi kunda mavjud ichki yonuv dvigateliga ega avtomobillarni ham elektrda harakalanuvchi avtomobillarga

aylantirish ehtiyoji ham mavjud. Shu sababdan bu sohadagi muammolarni yechish hozirgi kunda juda dolzarb hisoblanadi.

O'zbekoston avtomobilsozlik sanoati hozirgi kunda rivojlanmoqda va yangilanmoqda, yildan-yilga yangi rusumdagi avtomobillar ishlab chiqarish yo'lga qo'yilmoqda. Shu bilan bir vaqtda mamlakatimizda kuzatilayotgan yonilg'i yetishmovchiligi alternativ yonilg'i turlarida ishlovchi avtomobillarni ishlab chiqarish zarurligini ko'rsatmoqda. Bu esa o'z navbatida elektromobillarni ishlab chiqarish va mavjud ichki yonuv dvigatellarida harakatlanuvchi avtomobillarni elektromobil qilib qayta jihozlash zarurligini ko'rsatdi.

Hozirgi kundagi mamlakatimizdagi mavjud sharoitdan kelib chiqib respublikamiz prezidenti sohani rivojlantirish bo'yicha "**elektromobillar ishlab chiqarishni tashkil etishni davlat tomonidan qo'llab-quvvatlash chora-tadbirlari to'g'risida**" gi qarorni imzoladilar. Unga ko'ra:

"Yashil" texnologiyalarni barcha sohalarga faol joriy etish, elektromobillar va ularning butlovchi qismlarini ishlab chiqarishni qo'llab-quvvatlash orqali havoga chiqariladigan zararli gazlar hajmini qisqartirish maqsadida:

1. Elektromobillar va gibrid avtomobillarni sanoat usulida ishlab chiqarishni qo'llab-quvvatlashning quyidagi choralari qo'llanilsin:

a) 2030-yil 1-yanvarga qadar:

respublikada ishlab chiqarilgan elektromobillar va gibrid avtomobillar utilizatsiya yig'imidan;

belgilangan tartibda shakllantiriladigan ro'yxatlar bo'yicha xorijdan olib kelinadigan elektromobillarning va gibrid avtomobillarning butlovchi qismlari (mashinokomplekt), xomashyo va materiallar, uskunalar va texnologik jihozlarni, shu jumladan servis xizmati ko'rsatish uchun ehtiyot qismlarni bojxona bojidan ozod etish;

b) elektromobillar va gibrid avtomobillarni to'liq siklda ishlab chiqarish jarayonlari o'zlashtirilgunga qadar, biroq loyiha amalga oshirilishi boshlangan vaqtdan 24 oydan ko'p bo'lmagan vaqt mobaynida ishlab chiqaruvchilarga elektromobillarni va gibrid avtomobillarni bojxona boji va utilizatsiya yig'imi

MAVZUGA OID ADABIYOTLAR TAHLILI

Bir qator xorijiy mutaxasislar elektromobillar va ularda qo'llaniladigan qurilmalar bo'yicha izlanishlar olib borganlar. Jumladan James Larminie, John Lowry (UK), V.E. Yutt, V.I.Stroganov(Rossiya), L.M.Valentinovna(Qozog'iston), Fulton L, Tal G. va Turrentine T. (AQSH) va boshqa olimlarning ishlarini ko'rsatish mumkin.

Oksford Bruks universiteti texnologiya fakultetida aspirantura bo'limi direktori va katta o'qituvchisi Jeyms Larmini va yordamchi injener John Lowrylar [3] olib borgan tadqiqotlarida avtotransport sohasida yaqin kelajakda elektr yuritmalarning hissasi oshishi hamda batareyalarning rivojlanishi natijasida elektromobillar elektropoyezdlar va elektrovelospedlar ishlab

chiqarilishining ortishi borsida ilmiy izlanishlar olib borilgan. Ishlab chiqarilgan ilg'or elektromobil rusumlari tahlil qilingan.

V.E. Yutt, V.I.Stroganov o'z izlanishlarida elektr yuritmalari orqali transport vositalarini ishlab chiqish va kombinatsiyalashgan yuritmali transport vositalarini ishlab chiqish bo'yicha bir qancha tahlillarni o'tkazganlar **[**4].

Fulton L, Tal G. va Turrentine T. larning olib borgan izlanishlarida elektr transport vositalarining dunyo avtomobil bozoridagi so'nggi tendensiyalari o'rganilgan. Dunyo mamlakatlarining jadallik bilan elektr transport vositalariga o'tishi elektromobillarning yaqin kelajakda dominant sifatida rivojlanishini ko'rsatib bergan. Xususan Elektromobiilashish to'g'risidagi Parij (UNFCCC, 2015) deklaratsiyasi butun dunyo bo'yicha 2030-yilga qadar 400 million elektromobillar ishlab chiqarishni talab qiladi. Ushbu maqolada bu talablarga erishish asoslari tadqiqi qilingan **[**5].

L.M.Valentinovnaning olib brogan magistrlik dissertatsiyasida elektromobillarning rivojlanish tendensiyalari va ularning xarakteristika va dizaynini yaxshilash bo'yicha chuqur ilmiy izlanishlar olib borilgan. Xususan hozirgi kunda elektromobillarda qo'llnilayotgan elektrodvigatellar, uzatmalar qutisi, va akkumulyator batareyalari ilmiy asosda tahlil qilingan. Bundan tashqari hozirgi kunda jahon miqiyosida elektr transport vositalari ishlab chiqarish borasidagi raqobat muhiti tahlil qilingan **[**7].

Tomsk politexnika universiteti bakalavri Buxtuyev Vadim Yureyichning diplom ishida elektromobillarni loyihalash bosqichlari to'liq olib borilgan. Xususan elektrodvigatel tanlash va uni tortish tezlik xarakteristikalarini qurish, akkumulyator batareyalarini tanlash va ularning energiya sig'imi, minimal zaryad sikli, optimal ishlash haroratlari hisoblab chiqilgan va empirik tajribalar asosida o'rganilgan. Akkumulyator batareyasi sifatida Litiy-temir-fosfat akkumulyatorlari tanlangan bu aynan eng oxirgi zamonaviy ilg'or akkumulyator batareyasi hisoblanadi **[**8].

TADQIQOT METODOLOGIYASI

O'zbekistonda elektromobillar ishlab chiqarish imkoniyatlarini, yuzaga kelishi mumkin bo'lgan muammolarni ilmiy-amaliy jihatdan tadqiq etish va xorijlik olimlarning ilmiy izlanishlari natijalari va o'zimning amaliy kuzatishlarim mazkur tadqiqotning nazariy-uslubiy bazasi sifatida xizmat qildi. Maqolani tayyorlashda abstract va analitik mushoxada, qiyosiy va omilli tahlil, normativ va pozitiv tahlil hamda boshqa usullardan foydalanildi.

N**ATIJALAR**

O'zbekistonda elektromobillarni ishlab chiqarishni yo'lga qo'yish va uning ertangi kunini prognozlash uchun rivojlangan bir qator mamlakatlar avtokonsernlarining bu sohada qilingan ishlari va erishilgan natijalarni tahlil qilib o'tishni joiz deb topdik.

Nissan:

2010 yildan buyon Nissan kompaniyasi Nissan LEAF deb nomlangan elektr transport vositasini seriyali ishlab chiqaradi. Birinchi seriyali nusxalarni

yig'ish Yaponiyada boshlangan. Keyingi bosqichlarda AQShda Tennessi shtatining Smirna shahrida va 2013 yildan buyon Buyuk Britaniyaning Sanderlend shahrida. Qo'shma Shtatlarda Nissan LEAF sotuvi 2010 yil dekabr oyida boshlangan va dastlab onlayn oldindan buyurtma berish bilan cheklangan.

2010-yil noyabr oyi oxirida Nissan LEAF 2011-yilning Yevropa avtomobili tanlovining birinchi elektromobili g‘olibi deb e’lon qilindi. 2011-yil aprel oyi oxirida Nissan LEAF 2011-yilgi jahon avtomobili tanlovining birinchi g‘olibi sifatida ham e’lon qilindi.

Elektr dvigatelining manbai 1 million kilometrdan ko'proq masofaga mo'ljallangan, chunki farqli o'laroq benzin yoki dizel dvigatelidan elektr motorida ishqalanish qismlari kamroq bo'ladi.

Nissan LEAF akkumulyatori haydovchi va yo'lovchi o'rindiqlari ostida joylashgan. Traktsiya batareya 1500-2000 tsiklga mo'ljallangan, bu 150-200 ming kilometrga teng, keyin u o'z quvvatining 30% dan ko'p bo'lmagan zaryadini yo'qotadi.

Audi AG:

Audi avtomobil ishlab chiqaruvchisi E-tron nomli o’rtao’lchamli elektr krossoverini taqdim qildi. Bu avtomobil yevropada seriyali ishlab chiqarilgan birinchi avtomobil bo’ldi va 2019-yil boshida sotuvga chiqarildi.

Audi e-tron umumiy quvvati 360 ot kuchuga teng bo’lgan 2ta elektrodvigatel bilan jihozlangan. Sport rejimida avtomobil dvigateli quvvati 400 ot kuchiga yetadi va 100 km/s tezlikkga 6 sekundda erishadi. Maksimal tezligi 200 km/s bilan cheklanadi.

Avtomobilga sig’imi 95kVts bo’lgan akkumulyator o’rnatilgan. Bir zaryad bilan yurish masofasi 400 kmni tashkil qiladi. 150 kVt tezkor zayadlash qurilmasi orqali 30 daqiqa Ichida to’liq zaryadlanish qobilyatiga ega.

Tesla:

Amerikaning Tesla kompaniyasi elektromobillarni ishlab chiqarish va elektr energiyasini saqlash muammolari hal qilish bilan shig’ullandi. Kompaniyaga 2003 yilda asos solindi.

Kompaniyasning 5eshikli Tesla Model S- elektromobili Amerikada birinchi elektromobil sifatida 2012-yil iyunida ishlab chiqarila boshlandi. Avtomobilning akkuulyator sig’imi 85 kVts.

Dastlabki ishlab chiqarish bosqichlarida Tesla avtomobil akkumulyatorini avtomatik almashtirish protseduasini ko’rsatdi. Ya’ni bunda zaryadi tugagan akkumulyator batareyasi zaryad to’ldirilgan boshqa akkumulyatorga almashtirilardi. Bunda 90 sekunddan kamroq vaqt sarflanar edi. Bu protsedura benzinli dvigatel bakini to’ldirishga qaraganda 50% kam vaqtni talab qilardi.

Rivojlanish bosqichida Tesla Superzaryadlash stansiyalari batareyani almashtirishga ehtiyoj qoldirmadi. Ishlab chiqaruvchilar 2017-yilda Tesla superzaryadlash stansiyalari orqali avtomobillarni tekin zaryadlash imkonini yaratdilar.

Tesla model S Suyuqlik bilan sovutiluvchi o’zgaruvchan to’kda ishlovchi dvigatel bilan jihozlangan. Dvigatel quvvati 362 ot kuchini tashkil qiladi **[**9].

Akkumulyator batareyasini hisoblash va tanlash

Akkumulyator sig’imi elektromobil 70 km soat tezlikda harakatlanayotgan sharoit uchun hisoblanadi.

100 km yo’lni bosib o’tish uchun qancha vaqt ketishini hisoblaymiz:

$$t=\frac{S}{V}=\frac{100}{70}=1.43\text{soat}$$

Sarflanadigan energiyani hisoblash:

$$W=t\cdot P_{\partial n}=1.43*5100=7293\ \text{Vts.}$$

Talab qilinadigan sig’imni hisoblaymiz:

$$C=\frac{W}{U}=\frac{7293}{200}=34.46\ \text{As.}$$

Talab qilinadigan batareya 200V – 63 katakdan iborat bo’ladi, Har bir yacheyka 3.2 V to’k beradi.

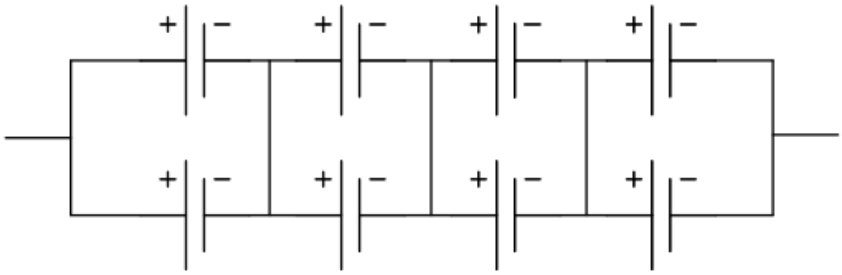
$LiFePO_4$ – WB-LYP100AHA(A) texnoogik batareyasini tanlaymiz.



1-rasm WB-LYP100AHA batareyasi

Texnik xarakteristikasi:

Kuchlanish: 3.2 V.
Sig’im:100A*s.
Texnologiya: LiFePO4.
Zaryadlash sikli soni: 5000 – 7000 marta.
Maksima to’xtovsiz razryadlanish to’ki: 300A(3C).
Eng yuqori razryadlanish to’ki: 1000A(10C).
Maksimal to’xtovsiz beradigan quvvati: 3200Vt.
Yacheykalarning ichki qarshiligi: ≤0.45 mOm.
Maksimal zaryadlanish to’ki: 300A(3C).
Foydalanish temperaturasi: -45C dan 85Cgacha.
O‘lchamlari AKB: 143x67x218 (mm).
Korpusi: olovbardosh plastik.
Massasi: 3.3 kg.



2-rasm. Akkumulyator batareyalarini ulash sxemasi

Yuqoridagi ulanish sxemasi bo’ **[**yicha ulangan batareyalar sig’imi 200 As. Umumiy avtomobilning harakatlanish masofasi 490 kmni tashkil qiladi.

MUHOKAMA

Lityum temir fosfat batareyasi va qo'rg'oshin kislotali akkumulyator o'rtasidagi farq

Xuddi shu hajmda lityum temir fosfat batareyalarining energiya zichligi qo'rg'oshin kislotali akkumulyatorlardan 3 dan 4 baravar, nikel-kadmiy batareyalaridan 2,5 baravar va nikel-metall gidridli batareyalardan 1,8 baravar ko'p. Batareya qo'rg'oshin kislotali, nikel-kadmiy va nikel-metall gidridli akkumulyatorlardan kichikroq va engilroq bo'ladi.

1. Xizmat muddati bo'yicha: qo'rg'oshin kislotali akkumulyatorlarning aylanish muddati taxminan 300 marta. Lityum temir fosfat batareyasi to'plami xona haroratida 1C da zaryadlanishi va zaryadsizlanishi mumkin, monomerning quvvati 2000 tsikldan keyin hali ham 80 foizdan oshadi va 3C aylanish muddati 800 martadan ko'proqqa yetishi mumkin. Qo'rg'oshin-kislotali akkumulyatorlar atrof-muhit haroratiga yuqori talablarga ega va qattiq muhit haroratida ularning ishlash muddati 5 yildan oshmaydi. Lityum temir fosfat batareyasi bir xil sharoitlarda uzoqroq xizmat qilish muddatiga ega.

2. Xavfsizlik ko'rsatkichlari bo'yicha: qo'rg'oshin kislotali akkumulyatorlar, qo'rg'oshinli akkumulyatorlar kuchli to'qnashuvlar ostida portlaydi, iste'molchilarning hayoti xavfsizligiga tahdid soladi. Lityum temir fosfat batareyasi to'plami: Lityum temir fosfat batareyasi lityum kobalt oksidi va lityum manganatning yashirin xavfsizlik muammolarini to'liq hal qiladi. Lityum kobalt oksidi va lityum manganat kuchli to'qnashuvda portlaydi, lityum temir fosfat esa qat'iy xavfsizlik choralaridan o'tdi. Sinovdan o'tgan, hatto kuchli to'qnashuvlarda ham portlash sodir bo'lmaydi.

3. Harorat diapazoni bo'yicha: qo'rg'oshin-kislota akkumulyatorlari -20 daraja -50 daraja harorat oralig'ida, kam o'z-o'zidan zaryadsizlanishi bilan ishlatilishi mumkin. Lityum temir fosfat batareyasi 350 ~ 500 daraja issiqlik cho'qqisiga, keng ish harorati oralig'iga (-20 ~ plyus 75 daraja) ega va yuqori haroratda (60 daraja) 100 foizni chiqarishi mumkin.

4. Zaryadlash samaradorligi nuqtai nazaridan: qo'rg'oshin-kislotali akkumulyatorlar, umumiy elektr avtomobil qo'rg'oshinli akkumulyator batareyalari, elektr energiyasining 100 foizi tugaganda, zaryadlash vaqti 8 ~ 10

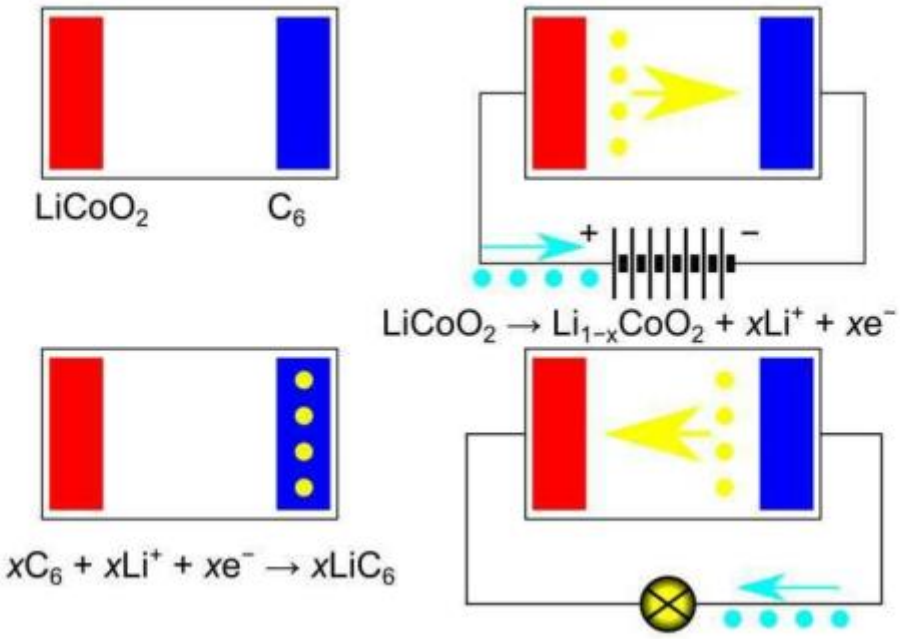
soatni tashkil qiladi. Lityum batareyaning materiali va elektrolitlarining yuqori faolligi tufayli lityum temir oksidli batareya to'plami tezda zaryadlanishi va 2C yuqori oqimda tezda zaryadlanishi va zaryadsizlanishi mumkin. Batareya maxsus zaryadlovchi ostida 1,5C da zaryadlangandan keyin 40 daqiqa ichida to'liq zaryadlanishi mumkin va boshlang'ich oqimi 2C ga yetishi mumkin.

5. Xotira effekti yo'qligi nuqtai nazaridan: qo'rg'oshin kislotali akkumulyator xotira effektiga ega va qayta zaryadlanuvchi batareya ko'pincha to'liq zaryadlangan holda ishlaydi va quvvat tezda nominal sig'im qiymatidan pastga tushadi. Lityum temir fosfat batareya paketlarida bu hodisa mavjud emas. Batareya qanday holatda bo'lishidan qat'i nazar, uni zaryadlashdan oldin uni to'liq zaryadsizlantirmasdan istalgan vaqtda ishlatish mumkin.

6. Yashil atrof-muhit muhofazasi: Qo'rg'oshin kislotali akkumulyatorli elektr transport vositasida qo'rg'oshin kislotali akkumulyatorda katta miqdorda qo'rg'oshin mavjud. Agar u noto'g'ri tashlansa, u atrof-muhitni ifloslantiradi. Lityum temir fosfat moddasi og'ir metallar va nodir metallarni o'z ichiga olmaydi, toksik emas va ishlab chiqarish va foydalanishda ifloslanishga ega emas. Bu Yevropa RoHS qoidalariga mos keladi. Bu yashil batareya bo'lib, tadqiqot nuqtasiga aylandi **[**11].

Litiy-ion (Li-Ion) akkumulyatorlari – Litiy-ion batareyalari elektromobillar uchun hozirgi vaqtda eng keng qo’llanilayotgan akkumulyator batareyasi hisoblanadi. Buning sababi akkumulyatorning bir qancha avfzalliklarga ega ekanligi hisoblanadi.

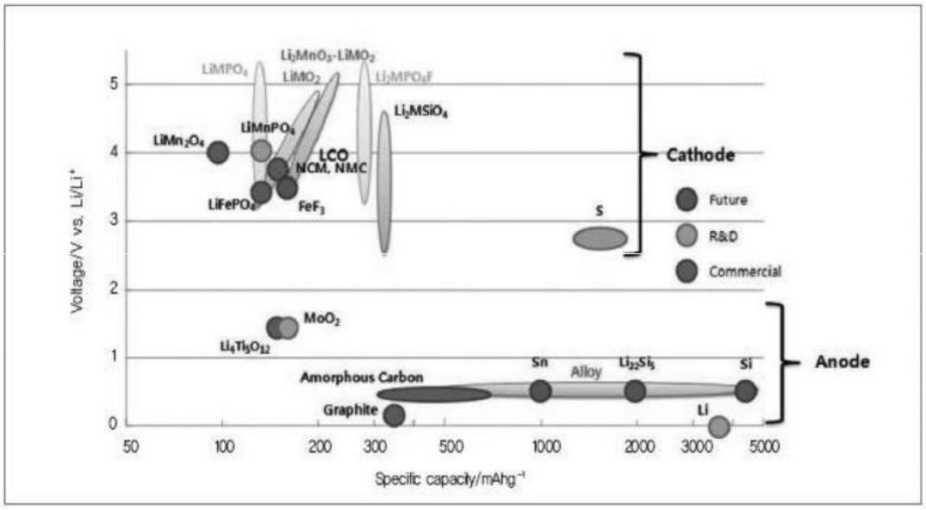
Standart zamonaviy akkumulyatorlarning energiya zichligi 27 kVt / soat ga etadi, xizmat qilish muddati besh yil, zaryadlash va razryadlash davrlari soni 1000 ta, ish harorati oralig'i -40 dan +70 C gacha. Li-Ion batareyalar o'z vaznining 1 kg uchun 100-200 Vt / soat energiya to'playdi.



3-rasm. Litiy-ion batareyalarining strukturasi

Litiy-ion batareyalari 4 qisimdan iborat: anod, katod, separator va elektrolit. Anod litiy oksididan (Li+O) iborat. Zaryadlash vaqtida litiy ioni anoddan chiqadi va katodga ko'chadi. Razryadlanish vaqtida litiy ionlari anodga qaytadi va elektr energiyasi xosil bo'ladi. Zaryadlanish va razryadlanish vaqtida litiy ionlari musbat va manfiy elektrodlar orasida harakatlanadi. Ko'plab anod va katod materiallarida qatlamli qoplash texnologiyasi ishlatiladi.

Litiy-ion akkumulyatorlarining odatiy ishchi kuchlanishda ishlash diapazoni 1,5 dan 4,2 V gacha.



4-rasm. Akkumulyator sig'imi va katod materiali reaktsiya potensiali

Litiy-ion batareyalari hajmiga nisbatan yuqori zichlikda energiya va kuchlanish saqlaydi. Qayta zaryadlanish qobilyati ham juda yuqori shu jihatdan hozirgi kundagi elektromobillarda bu turdagi akkumulyatorlarni qo'llashni optimal variant sifatida qabul qilamiz **[**7].

Litiy-ionli batareyalarning afzalliklari:

– boshqa turdagi batareyalarga qaraganda katta energiya zichligi, hajm va og'irlik jihatidan;

– elementdagi iste'mol kuchlanishi 3,6 V ni tashkil qiladi, bu Ni-MN va Ni-Cd batareyalaridan 3 baravar yuqori va qo'rg'oshin kislotali batareyalarga qaraganda deyarli 2 baravar yuqori;

– batareyaning tezkor zaryadlanishi- 90%gacha 30-40 daqiqa;

– yuqori ko'rsatkichli resurs – 1000 dan ziyod zaryad/razryad sikli;

– o'z-o'zidan zaryadsizlanish ko'rsatkichininng pastligi – oyiga 5% gacha;

– ekologik toza - qayta ishlanmasdan yo'q qilinishi mumkin.

XULOSA

Yuqoridagi tadqiqotlardan kelib chiqqan holda mamlaktimizda elektromobillar uchun akkumulyatorlar ishlab chiqarish va tanlash bo'yicha quyidagi xulosalarga kelindi.

1. O’zbekistonda yuqori kuchlanishda tezkor zaryadlovchi stansiyalarni sonini ko’paytirish.

2. Zaryadlash stansiyalarinini qayta tiklanuvchi energiya manbalari bilan jihozlash va avtomobillarni zaryadlash uchun sarflanuvchi elektr energiya xarajatlarini kamaytirish.

3. Elektromobillarda doimiy magnitli asinxron elektrodvigatellarni qo’llash.

4. Elektromobillarda $LiFePO_4$(litiy-temir-fosfat) asosidagi akkumulyator batareyalarini qo’llash.

5. Elektromobillarga texnik xizmat ko’rsatuvchi servis markazlarini tashkil qilish.

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TALABANING PSIXOLOGIK XUSUSIYATLARI VA UNING BILIM FAOLIYATINI FAOLLASHTIRISH

Annotatsiya: Maqolada yosh va psixologik-pedagogik xususiyatlarni hisobga olgan holda institutlar talabalarining bilim faolligini oshirish muammosi muhokama qilinadi.

Kalit so'zlar: talaba, yosh xususiyatlari, kognitiv faoliyat, faollashtirish.

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PSYCHOLOGICAL CHARACTERISTICS OF THE STUDENT AND ACTIVATION OF HIS EDUCATIONAL ACTIVITY

Abstract: The article discusses the problem of increasing the educational activity of students of institutions, taking into account age and psychological-pedagogical characteristics.

Key words: student, age characteristics, cognitive activity, activation.

Talabalik yoshi-bu oliy o'quv yurtining rivojlanishi bilan bevosita bog'liq bo'lgan hodisa. K. D. Ushinskiy bu yoshni "eng hal qiluvchi" deb atadi, chunki aynan shu davr insonning kelajagini belgilab beradi, bu o'z ustida intensiv ishlashning juda faol davri.

L. D. Stolyarenko talabalar jamoasini oliy ta'lim instituti tomonidan tashkiliy jihatdan birlashtirilgan odamlarning o'ziga xos ijtimoiy toifasi, o'ziga xos jamoasi sifatida tavsiflaydi **[**1]. I. A. Zimnaya ta'rifiga ko'ra, talabalar tarkibiga eng yuqori ta'lim darajasi, madaniyatni eng faol iste'mol qilish va kognitiv motivatsiyaning yuqori darajasi bilan ajralib turadigan bilim va kasbiy ko'nikmalarni maqsadli, tizimli ravishda o'zlashtiradigan odamlar kiradi **[**2]. B. G. Ananievning fikricha, 17 yoshdan 25 yoshgacha bo'lgan hayot davri shaxsni shakllantirishning yakuniy bosqichi va professionallashtirishning asosiy bosqichi sifatida muhim ahamiyatga ega. B. G. Ananyevning so'zlariga ko'ra, 17 yoshga kelib, shaxs o'z-o'zini tarbiyalash faoliyati ko'nikmalarini shakllantirish uchun maqbul sub'ektiv sharoitlarni yaratadi **[**3].

Institutning zamonaviy talabasi, birinchi navbatda, keyingi rivojlanish uchun barcha imkoniyatlarga ega bo'lgan yigitdir. Jamiyatning eng muhim

intellektual salohiyati bo’lgan birinchi kurs talabasi kechagi talaba bo’lib, u zarur tajribaga ega emas va uni sotib olishga shoshilinch ehtiyoj sezadi.

Shu munosabat bilan o’qituvchi birinchi kurs talabasi faoliyatini mustaqil ishlarga imkon qadar tezroq moslashishga yo’naltirishi juda muhimdir. Bu kognitiv faoliyatni rivojlantirishni nazarda tutadi. Talabaga ushbu faoliyatni nafaqat imtihonlarni muvaffaqiyatli topshirish uchun, balki bilim, ko’nikma va ko’nikmalarni egallash uchun olib borishini tushuntirish kerak.

Talabalar yoshlari

Talaba umumiy yosh xususiyatlariga ega: biologik (yuqori asabiy faoliyat turi, shartsiz reflekslar, instinktlar, jismoniy kuch va boshqalar); psixologik (psixologik jarayonlar, holatlar va xususiyatlarning birligi); ijtimoiy (ijtimoiy munosabatlar, fazilatlar, ma'lum bir ijtimoiy guruhga mansublik va boshqalar). Shu bilan birga, ma'lum bir talabani o’rganayotganda, har birining individual xususiyatlarini, uning aqliy jarayonlari va holatlarining xususiyatlarini hisobga olish kerak.

Biz uchun o’smirlik davridan o’smirlik davriga o’tish, rivojlanish xususiyatlarini bilish juda muhimdir. Bu yoshda odamlar jamiyatda o’z o’rnini topishga harakat qilishadi, o’zlarini tushunishga intilishadi, nafaqat o’zlariga, balki boshqalarga ham tanqidiy munosabatda bo’lishadi. Ushbu xususiyatlar mahalliy va xorijiy tadqiqotchilar tomonidan ajralib turadi-A. G.Asmolov, L. S. Vygotskiy, A. N. Leontiev, D. I.Feldshteyn va boshqalar.

Talabalar yillari hayot yo’lining o’ziga xos bosqichidir. Asos juda tushunarli – maqsad, vazifalar va eng muhimi-ushbu institutda mutaxassislik olish natijasida kelib chiqadigan motivatsiyaga muvofiq o’qitish.

Birinchi kurs talabalari uchun bu ayniqsa qiyin. Maktabni tugatish va institutda o’qishni boshlash o’rtasidagi vaqt juda qisqa va unda ilgari qo’yilgan maqsadlarni sezilarli darajada o’zgartirish, odatlaringiz va xatti-harakatlaringizni chuqur qayta ko’rib chiqish kerak, natijada yangi ijtimoiy rollarni bajarishga hissa qo’shadigan yangi fazilatlar paydo bo’ladi, mustaqillik, qiziquvchanlik, tashabbuskorlik kabi shaxsiy fazilatlarning namoyon bo’lishi. Talaba yangi narsalarga — sinfdoshlarga, ixtisoslashtirilgan fanlarning o’qituvchilariga, turli xil hisobot shakllariga va boshqalarning nazarida muhimlikka ko’nikishi kerakligi bilan bog’liq qiyinchiliklarga duch keladi.

O’quv jarayoni va rivojlanish o’rtasida yoshga qarab o’zgarib turadigan murakkab dinamik munosabatlar mavjud. L. S. Vygotskiy [4] rivojlanish jarayonlari o’quv jarayonlariga to’g’ri kelmasligini, balki ularga ergashishini isbotladi. U rivojlanishning ma'lum bir bosqichida talaba mustaqil ravishda emas, balki o’qituvchining rahbarligi ostida hal qila oladigan vazifalar doirasi bilan tavsiflangan proksimal rivojlanishning "zonasini" aniqladi. Ammo vaqt o’tishi bilan, bilim qobiliyatlari rivojlanib borishi bilan, bu vazifalar u tomonidan mustaqil ravishda amalga oshiriladi.

Tadqiqotchilar qobiliyatlarning rivojlanishi uchun eng qulay bo’lgan inson ontogenezining sezgir davrlarini aniqlaydilar. Ushbu davrlarda

qobiliyatlarning ayniqsa intensiv rivojlanishi, shaxsning umumiy rivojlanishidan oldin sodir bo'lishi mumkin. Bu qobiliyatlarni shakllantirishning muhim shartidir.

B. G. Ananyev va bir guruh olimlar tomonidan olib borilgan tadqiqotlar shuni isbotlaydiki, inson etukligining psixofizik rivojlanishining tabiati heterojen va qarama-qarshi bo'lib, turli jarayonlarning murakkab tuzilishi hisoblanadi. Eng chuqur ijtimoiy va psixofiziologik siljishlar kamolotni to'xtatish va insonning etuk, shakllangan xulq-atvori va aql-idrok tuzilmalarini barqarorlashtirish o'rtasidagi chegaralarda sodir bo'ladi.

Ijtimoiy moslashuv lahzalari

Ushbu tuzilmaning tarkibiy qismlari: faoliyatning turli mexanizmlarining funktsional darajasini oshirish, ushbu darajalarni barqarorlashtirish va ularni pasaytirish. B.G. Ananiev eksperiment natijasida insonning psixofiziologik funktsiyalari rivojlanishining tuzilishini tashkil etuvchi momentlarni taqqosladi, funktsional darajaning ko'tarilishi, barqarorlashishi va pasayishi lahzalarini o'z ichiga olgan hayot yillarini ajratdi (jadval. 1).

Jadval 1

Rivojlanish momentlari va ularning etuklikning turli mikro davrlariga nisbati

Mikroperiodlar, yillar	**Funktsional darajani oshirishi %**	**Barqarorlashtirish, %**	**Funktsional darajani pasaytirishi%**
18-22	46,8	20,6	32,6
23-27	44,0	19,8	36,2
28-32	46,2	15,8	38,0
33-35	11,2	33,3	55,5

Jadval ma'lumotlarini tahlil qilish shuni ko'rsatadiki, 18 yoshdan 22 yoshgacha (bizni eng qiziqtiradigan yosh) funktsional darajaning eng katta foizini (46,8%) tashkil etadi, ya'ni. kognitiv qobiliyatlarning eng katta o'sishi.

Kollej yoshi ko'rsatkichlar bilan tavsiflanadi: barqaror e'tibor, rivojlangan tasavvur, xotiraning katta integratsiyasi. Ushbu davrda shaxsiyat, xulq-atvor uslubi jadal rivojlanmoqda. Hech kimga sir emaski, aksariyat talabalar o'zlariga "katta" vazifalarni qo'yadilar. Shu munosabat bilan o'z-o'zini tarbiyalash va o'z-o'zini tarbiyalash muammosi birinchi o'rinda turadi. Shuning uchun talabaning har qanday faoliyatini tashkil qilishda uning psixologiyasini hisobga olish kerak, bu har bir yangi kurs bilan o'zgaradi.

Talabalik davrida shaxslararo munosabatlarda muhim o'zgarishlar yuz beradi. Ular ko'proq shaxsiy va mazmunli o'zaro ta'sirga moyilligi, yuqori reflektivligi bilan ajralib turadi, hissiy tajribalar manbaiga aylanadi. Ushbu yoshda tushunish va hamdardlik, hamdardlik, ishonchli munosabatlarni o'rnatish zarurati kuchayadi. Tengdoshlar bilan muloqot alohida ahamiyatga ega bo'lib, shaxsiy rivojlanishning etakchi omillaridan biriga aylanadi.

V. S. Ilyin [5] va V. A. Nikitin [6] *ta'lim jarayonlarining samaradorligi va axloqiy va ruhiy salomatlikni tiklash talabaning yangi yashash sharoitlariga qanchalik tez moslashishiga bog'liqligini aniqlaydi.*O'quv faoliyatida moslashish kognitiv usullarni o'zlashtirish, kognitiv qadriyatlarga yo'naltirish bilan bog'liq. Tanish muhitning o'zgarishi o'qish natijalaridan norozilik, shaxslararo munosabatlar, guruhdagi tanish maqomning yo'qolishi, kelajakdagi kasbni tanlashda tashvish bilan kuchayishi mumkin. Bu stress va asabiy charchoqqa, charchoqqa va noto'g'ri ishlashga olib keladi. Noto'g'ri moslashish ichki tartibga solish tizimining o'zgarishi, psixikadagi jiddiy og'ishlarcаморазрушающем, o'z-o'zini yo'q qiladigan xatti-harakatlar, tajovuzda namoyon bo'lishi mumkin.

Bazi talabalar uchun yangi xulq — atvor stereotipini ishlab chiqish keskin, boshqalari uchun esa ozmi-ko'pmi bir tekisda amalga oshiriladi. Shubhasiz, ushbu qayta qurishning xususiyatlari yuqori asabiy faoliyat turining xususiyatlari bilan bog'liq. Biroq, bu erda ijtimoiy omillar juda muhimdir. Talabaning individual xususiyatlarini bilish, uning asosida uni yangi faoliyat turlariga va yangi ijtimoiy doiraga kiritish tizimi qurilib, noto'g'ri moslashish sindromidan qochish, moslashish jarayonini bir tekis va psixologik jihatdan qulay qilish imkonini beradi.

Institutda ijtimoiy moslashuv quyidagilarga bo'linadi.

Kasbiy moslashuv, bu o'quv jarayonining tabiati, mazmuni, shartlari va tashkil etilishiga moslashish, o'quv ishlarida mustaqillik ko'nikmalarini rivojlantirish deb tushuniladi;

ijtimoiy-psixologik moslashuv-shaxsni guruhga moslashtirish, u bilan munosabatlarni o'rnatish, o'ziga xos xulq-atvor uslubini rivojlantirish.

Ko'pgina birinchi kurs talabalari dastlab mustaqil o'qitish ko'nikmalarining etishmasligi bilan bog'liq katta qiyinchiliklarga duch kelishadi. Ular ma'ruzalarni qanday yozishni, darsliklar bilan ishlashni, asosiy manbalardan bilim olishni, katta hajmdagi ma'lumotlarni tahlil qilishni, o'z fikrlarini aniq va aniq ifoda etishni bilishmaydi.

Talabalarning o'quv jarayoniga moslashishi odatda 2 — semestr oxiri va 3-semestr boshida tugaydi.

Talabalar turlari va guruhlari

Psixologiya va pedagogika sohasidagi ko'plab tadqiqotchilar bazi talabalar yangi bilimlarni o'zlashtirish uchun ko'p va xohish bilan ishlashlarini aniqladilar. Bir vaqtning o'zida yuzaga keladigan qiyinchiliklar ularga faqat energiya va maqsadga erishish istagini qo'shadi. Boshqalar esa hamma narsani "tayoq ostidan" qilishadi va to'siqlar ularning faoliyatini keskin kamaytiradi.

O'qituvchilar va psixologlar buni **talabalarning individual psixologik xususiyatlari bilan izohlashadi.** Bunday xususiyatlarga aql (yangi bilimlarni o'zlashtirish qobiliyati), ijodkorlik (yangi bilimlarni mustaqil ravishda rivojlantirish qobiliyati), yuqori o'zini o'zi qadrlash va boshqalar kiradi.

O’quv faoliyatining tabiati va unga mos keladigan xulq-atvor modellari bo’yicha talabalarning uch turi ajralib turadi.

У *Birinchi turda*kognitiv qiziqishlar o’quv rejasi va fan dasturlari bilan belgilangan bilimlardan tashqariga chiqadi. Talabalar institut hayotining barcha sohalarida faol bo’lib, keng ixtisoslashuv va ko’p qirrali kasbiy tayyorgarlikka yo’naltirilgan.

*Ikkinchi turga tayinlangan talabalar*tor ixtisoslikka aniq yo’naltirilganligi bilan ajralib turadi. Bu erda ham kognitiv faoliyat o’quv dasturlaridan tashqariga chiqadi, lekin kengroq emas, balki chuqurroq. Butun faoliyat tizimi"yaqin kasbiy manfaatlar"doirasi bilan cheklangan.

Va nihoyat, *uchinchi turdagi talabalarda* kognitiv faoliyat qat'iy ravishda faqat o’quv dasturi doirasida bilim va ko’nikmalarni o’zlashtirishga qaratilgan. Ushbu tur minimal faollik va ijodkorlik darajasini namoyish etadi.

Institutga turli xil odamlar turli xil Sozlamalar va turli xil "boshlang’ich sharoitlar" bilan kelishadi. Shu munosabat **bilan talaba yoshlarni tanlagan kasblari munosabati bilan tahlil qilish qiziq**. Talabalar jamoasi aniq uch guruhga bo’lingan.

Birinchi guruh-bu kasb sifatida ta'limga yo’naltirilgan talabalar. Ushbu guruhda kelajakdagi ishlarga qiziqish, unda o’zini anglash istagi eng muhim bo’lgan talabalarning eng ko’p soni mavjud. Faqat ular ta'limni davom ettirish tendentsiyasiga ega. Boshqa barcha omillar ular uchun unchalik ahamiyatli emas. *Ikkinchi guruh* biznesga yo’naltirilgan talabalardan iborat. Ularning ta'limga bo’lgan munosabati butunlay boshqacha: ta'lim kelajakda o’z biznesingizni yaratishga, savdo-sotiq bilan shug’ullanishga va hokazolarga harakat qilish uchun vosita (yoki mumkin bo’lgan boshlang’ich bosqich) vazifasini bajaradi. ular vaqt o’tishi bilan bu soha ta'limni talab qilishini tushunishadi, ammo ular birinchi guruh vakillariga qaraganda o’z kasblariga kamroq qiziqishadi. *Uchinchi guruh*— talabalar, ular bir tomondan "noaniq" deb nomlanishi mumkin, boshqa tomondan — shaxsiy, kundalik rejaning turli muammolari bilan ezilgan. Ular kundalik, shaxsiy, uy-joy, oilaviy muammolarga duch kelishadi. Aytish mumkinki, bu "oqim bilan ketayotganlar"guruhi. Ular o’z yo’llarini tanlay olmaydilar, ular uchun ta'lim va kasb boshqa guruhlarni tavsiflovchi qiziqish emas. Ehtimol, ushbu guruh talabalarining o’z taqdirini o’zi belgilashi keyinroq sodir bo’lishi mumkin, ammo hozircha biz ushbu guruhga o’z taqdirini o’zi belgilash, yo’lni tanlash va maqsadga muvofiqlik jarayoni xaraktersiz bo’lgan odamlar kirgan deb taxmin qilishimiz mumkin.

Kasb tanlash, institutda o’qish jarayoni bugungi kunda ko’pchilik uchun pragmatik, maqsadli va zamonaviy dunyodagi o’zgarishlarga mos keladigan biznesga aylandi. Ta'limning ijtimoiy hodisa sifatida ahamiyati fonga tushdi. "Tijorat" ishga qabul qilish paydo bo’lishi bilan, o’zlarini hech narsadan bosh tortishga odatlanmagan, tanlovlarining to’g’riligiga amin bo’lgan, kelajakdagi kasbiy faoliyatning o’ziga xos xususiyatlarini yaxshi biladigan badavlat talabalar

institutga kelishdi. Ota — onalarning (odatda tadbirkorlarning) namunalaridan ilhomlangan ushbu talabalar kelajakka qo’rqmasdan qarashadi: ular uchun bu aniq istiqbol. Shu bilan birga, umuman olganda, talabalarning xatti-harakatlari yuqori darajadagi konformizm bilan ajralib turadi.

Institutda o’qish jarayonida turli kurslar turli muammolarni hal qiladi. *Birinchi kursda* sobiq abituriyentni kollektiv hayotning talabalar shakllari bilan tanishtirish vazifalari turibdi: birinchi kurs talabasi o’z rollariga tabaqalashtirilgan yondashuvga ega emas. *Ikkinchi kurs*-bu talabalarning eng qizg’in o’quv faoliyati davri. Ta'limning barcha shakllari ikkinchi kurs talabalari hayotiga intensiv ravishda kiritilgan. Talabalar umumiy ta'lim olishadi, ularning keng madaniy talablari va ehtiyojlari shakllanadi. Muayyan muhitga moslashish jarayoni asosan yakunlandi. *Uchinchi kurs*-ixtisoslashuvning boshlanishi, talabalarning kasbiy manfaatlarini yanada rivojlantirish va chuqurlashtirishning aksi sifatida ilmiy ishlarga qiziqishni kuchaytirish. Ixtisoslashuvga shoshilinch ehtiyoj (institutda shaxsni shakllantirish shakllari asosiy xususiyatlarda ixtisoslashuv omili bilan belgilanadi) ko’pincha shaxsning ko’p qirrali manfaatlari sohasining torayishiga olib keladi. *To’rtinchi kurs*-institutni yaqinda tugatish istiqboli-kelajakdagi faoliyat turiga aniq amaliy munosabatlarni shakllantiradi. Moddiy va oilaviy ahvol, ish joyi va boshqalar bilan bog’liq yangi, tobora dolzarb bo’lib borayotgan qadriyatlar namoyon bo’ladi. Talabalar asta-sekin institutning kollektiv hayot shakllaridan uzoqlashmoqdalar.

Talabaning bilim faoliyati uchun estetik jihat katta ahamiyatga ega bo’lib, u ushbu faoliyatga ma'lum bir yo’nalish beradi, qiziqishlarning rivojlanishiga hissa qo’shadi. Kognitiv faoliyat, qiziquvchanlik va estetik tarbiya bir-biri bilan uzviy bog’liqdir. Kognitiv faoliyatning estetik mazmuni turli xil ijtimoiy tuzilmalar va qiziqishlar bosimi ostida biroz zaiflashadi.

Kognitiv faoliyatning samaradorligi ma'lum pedagogik sharoitlar orqali ta'minlanishi mumkin, bu orqali biz o’quv jarayonidagi o’zaro bog’liq chora-tadbirlar majmuini tushunamiz, bu esa talabalarning axborot bilan ijodiy aloqada bo’lishga tayyorligini ta'minlaydi.

Aloqalardagi o’ziga xoslik

O’quv jarayonining maqsadlari, vazifalari, mazmuni, shakllari va usullarining o’ziga xosligi, shuningdek talabalarning yoshi va psixologik xususiyatlari tufayli texnik institut o’ziga xos xususiyatlarga ega.

Ijtimoiy-iqtisodiy sharoitlar texnik institutlarning bitiruvchilaridan tadbirkorlik, xushmuomalalik, yangi ish sharoitlariga moslashishga tayyorlik kabi fazilatlarni talab qiladi. Ishlab chiqarish bo’yicha mutaxassis to’g’ri qabul qilinishi, qayta ishlanishi va etkazilishi kerak bo’lgan ma'lumotlarning mo’l-ko’l oqimi bilan shug’ullanishi kerak, bu shaxsiy aloqa zaxiralarisiz mumkin emas.

Bir qator tadqiqotchilar takidlashlaricha, *texnik institut talabari*og’zaki bo’lmagan intellektni rivojlantirish bilan ajralib turadi, uning tarkibiga konstruktiv faoliyat qobiliyatlari, yanada rivojlangan fazoviy vakolatxonalar, rasmiy mantiqiy fikrlash, sintetik va analitik fikrlashning kombinatsiyasi kiradi

(L. A. Baranova, L. N. Borisova, V. N. Drujinin, L. N.Sobchik). Yuqori darajadagi kontsentratsiya, diqqatni almashtirish, vizual xotira, aqliy operatsiyalarning yuqori tezligi va aniqligi aniqlandi. Texnik institutlarning talabalari orasida tadqiqotchilar o'quv jarayonida shaxsning introvertligi, bilim motivatsiyasining ustunligi, mustaqillikka intilish, hukmronlik istagi yo'qligi, vijdonlilik, mas'uliyat, talabalar bilan muloqotda hissiyotning past darajasi, atrof-muhitga tanqidiy munosabatni qayd etadilar.

Institut talabasi uchun aqliy qobiliyatlarni rivojlantirish kasbiy shakllanishning muhim bosqichiga aylanadi: nazariy fikrlash, mavhumlashtirish, umumlashtirish qobiliyati sezilarli darajada rivojlanadi. Kognitiv qobiliyatlarda sifatli o'zgarishlar ro'y: allaqachon ma'lum bo'lgan muammolarga nostandart yondashuv; umumiy muammolarga xususiy muammolarni kiritish qobiliyati; eng yaxshi tarzda ishlab chiqilmagan vazifalar asosida ham samarali umumiy savollar berish qobiliyati.

Biroq, Z. I. Qalmiqova [8], N. S.Leyts [9], B. M. Teplov [10] va boshqalarning asarlari shuni ko'rsatadiki, maxsus kompleks ta'sirlarsiz kognitiv faoliyat etarli faoliyatga aylanmaydi, o'rganish qobiliyati, fikrlash samaradorligi va talabalarning da'volari darajasi pasayadi. Kognitiv faoliyatning rivojlanmaganligi, albatta, u yoki bu darajada qoplanadi. Agar biz ko'plab tadqiqotlar natijalaridan kelib chiqsak, bunday kompensatsiya, birinchi navbatda, talaba shaxsining rivojlanishiga to'sqinlik qiladi, bu esa o'z navbatida kognitiv faoliyatning pasayishiga yoki uning bir tomonlama rivojlanishiga olib keladi.

Xulosa

Bizning fikrimizcha, kognitiv faoliyat keng ko'lamli vazifalarni o'z ichiga oladi. Bu внеучебнойталабаларning tanlagan mutaxassisligi bo'yicha bilim doirasini chuqurlashtirish va kengaytirishga yordam beradigan talabalarning turli xil o'quv va sinfdan tashqari faoliyatining ajralmas qismi bo'lishi mumkin. Biz, asosan, talabada shaxsning ijodiy fazilatlarini, o'rganilayotgan materialdan tashqariga chiqish ehtiyojlari va imkoniyatlarini, o'z-o'zini rivojlantirish va uzluksiz o'z-o'zini tarbiyalash qobiliyatini shakllantirish zarurligidan kelib chiqamiz.

Umuman olganda, talabalar rivojlanishining eng muhim omili bo'lib xizmat qiladigan kognitiv faoliyat umumiy ufqni kengaytirish, intellektual darajani oshirish zarurati bilan tavsiflanadi.

Shunday qilib, faqat talabalarning yosh xususiyatlarini hisobga olgan holda, biz ularning bilim faolligini samarali rivojlantira olamiz. Ikkinchisi kelajakda talabaning yuqori darajadagi mustaqilligi va javobgarligini ta'minlaydigan etakchi mexanizmlardan biridir.

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SHAMOLELEKTR STANSIYASINING O’RNATILISH JOYI VA ISH FOLIYATLARI

Annotatsiya: Atmasfera bosimi, shamol tezligi anemometr hisoblangan.
Kalit so‘zlar: gibrid, energiya, shamol, generator, foydali ish koeffitsienti.

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WIND POWER PLANT INSTALLATION PLACE AND WORK ACTIVITIES

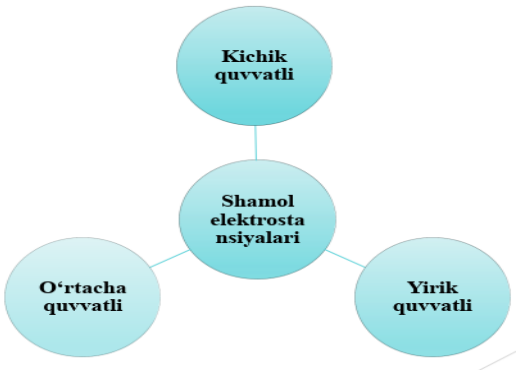
Abstract: Atmospheric pressure, wind speed was calculated by anemometer.
Key words: hybrid, energy, wind, generator, useful work coefficient.

Kirish: Havo oqimi hosil qiladigan mexanik energiyani elektr energiyaga aylantirish, shamol elektrostansiyalari yordamida amalga oshiriladi. Bir necha shamol qurilmalarining yig‘indisi shamol elektrostansiyasini tashkil.

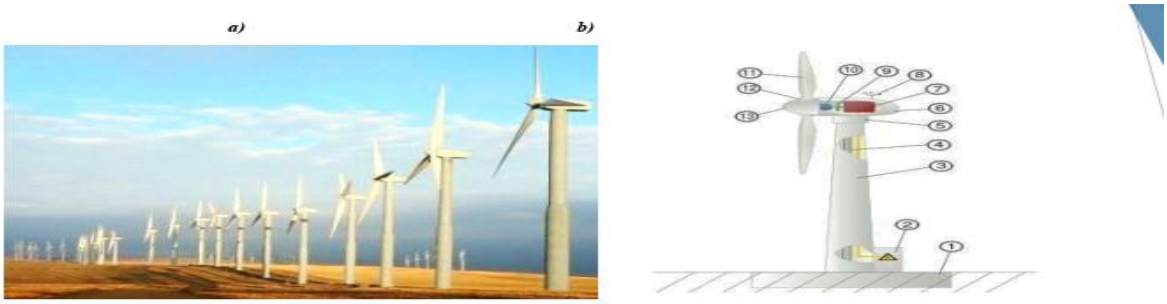
Havo massasining yer atmosferasi atrofida aylanishi ekspertlar tomonidan turlicha baholangan. Shamollarning yillik nazariy zahirasi yer yuzidagi barcha energiya zahiralardan 100 marta ortiq bo‘lib, 3300 x 1012 kVt/ soatni tashkil qiladi. Ammo bu energiyaning faqatgina 10–12 % foydalanish mumkin. Masalan,1987 yilda er yuzidagi barcha shamol qurilmalari tomonidan 10 x 1012 kVt/soat energiya ishlab chiqilgan, ya’ni yillik zahiraning atiga 0,3 % dan foydalanilgan. Iqtisodiy jihatdan joydagi shamolning tezligi 5 m/s dan kam

bo‘lmasa shamol generatorlaridan foydalanish maqsadga muvofiqdir. Shamol elektrogeneratorlari an’anaviy generatorlardan 2 – 4 barobar qimmatdir. Ammo shamol energiyasi doimiy bo‘lgan ba’zi bir regionlarda u muhim energiya manbalaridan hisoblanadi.

Ko‘pgina shamol generatorlari sekundiga 3-4 m/s dan yuqori tezlikdagi shamol yordamida ishlaydi. Shamol generatorlari 8-25 m/s tezlikda esadigan shamol yordamida maksimal quvvatga ega bo‘ladi. Odatda shamol generatorlarining maksimal ishlash tezligi 25-30 m/s ni tashkil qiladi. Shamol energetikasi ekalogik toza energiya manbaidir. Ammo shamol elektrostansiyalari uchun juda katta hududlar zarur (shamol energetik qurilmalarining bir – biridan uzoqda joylashishi va ular orasidagi masofa ish g‘ildiragi diametrining 6-18 barobariga teng bo‘lishi kerak). Masalan, ish g‘ildiragi D = 100 m bo‘lgan shamol energetik qurilmasi uchun 5-7 km^2 hudud kerak. Butun boshli shamol elektr stansiyasi uchun esa o‘nlab km^2 hudud zarur. Boshqa bir noqulay tarafi – ish g‘ildiragi shovqin chiqarib va havoni tebratib ishlashi natijasida teleradio eshittirishlarga halaqit beriladi. Shamol energiyasidan foydalanish bo‘yicha Germaniya birinchi o‘rnini egallab kelmoqda. Bu mamlakatda shamol energiyasini ishlab chiqarish yiliga 500 – 1500 MVt ga ko‘paymoqda, hozirgi vaqtda ishlab chiqariladigan energiya miqdori 2 mln.kVt/soatdan oshib ketdi.



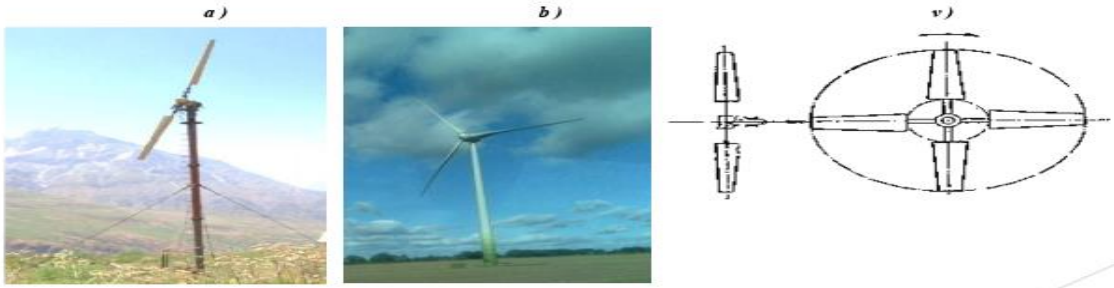
Shamol elektrostansiyalari. Bir necha shamol qurilmalarining yig‘indisi shamol elektrostansiyasini tashkil qiladi. Quvvatiga nisbatan shamol elektrostansiyalarini 3 guruhga bo‘lish mumkin.



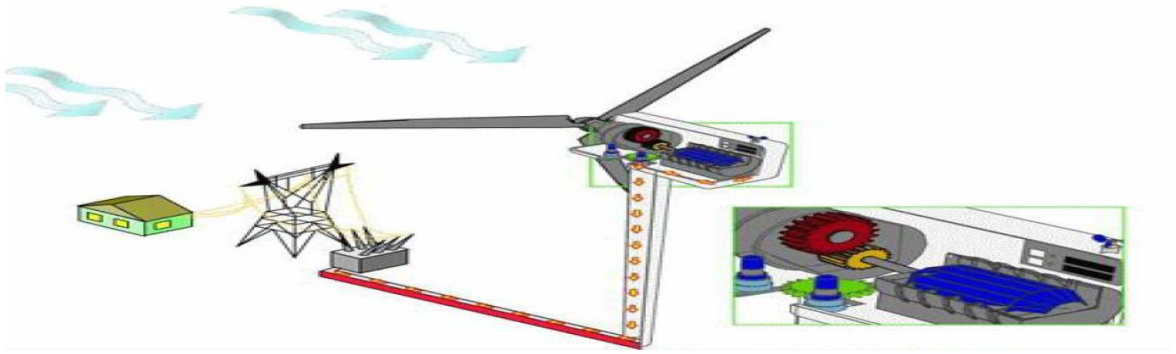
Sanoatda ishlab chiqariladigan shamol energetik qurilmalari ning joylashishi *(a)* va tuzilishi*(b)*:
a) joylashishi; b): 1-fundament; 2-kuch kontaktorlari va boshqaruv zanjirini o‘z ichiga olgan kuch shkafi; 3 - minora; 4-chiqish narvoni; 5 –aylantirish mexanizmi; 6 – gondola; 7 - elektr generatori; 8 –shamol yo‘nalishini shmol yo‘nalishi va tezligini kuzatuvchi tizim(anemometr) 9 – to‘xtatish tizimi; 10transmissiya;11-parraklar;12– parraklar joylashish burchagini o‘zgartirish tizimi;13 –rotor qalpog‘i.

SHamol qurilmalarining asosiy ishchi qismi, shamol g‘ildiragi hisoblanadi.

SHamol g‘ildiraklarining qanotli, karuselli va barabanli turlari mavjud. SHamol elektrostansiyalarida asosan eng samarali bo‘lgan qanotli shamol g‘ildiraklari qo‘llaniladi.



Qanotli shamol g’ildiraklarining ko’rinishi: a-ikki g’ildirakli; **b**-uch g’ildirakli; **c**-to’rt g’ildirakli.

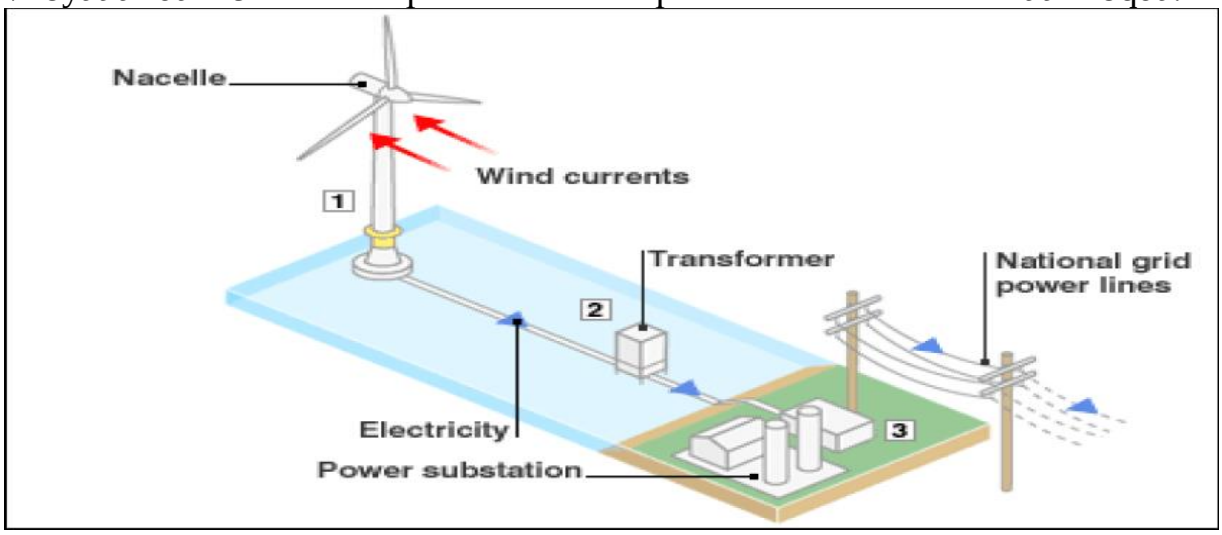


Havo sharlari er sathidan 500 m balandlikkacha o‘rnatilishi mumkin. Havo shariga o‘rnatilgan shamol energoqurilmalari ishlab chiqaradigan elektroenergiya, metall troslarga bog‘langan elektr simlari orqali erga uzatiladi. Kanadaning «Magenn Power» kompaniyasi ishlab chiqqan uchib turuvchi havo shari energetik qurilmalari ham, geliy gazi bilan to‘ldiriladi. Havo shari qurilmasi o‘zining gorizontal o‘qi atrofida aylanish orqali elektro- energiya ishlab chiqaradi. Havo shari qurilmasining ma’lum balandlikdagi barqaror turishi, Magnus effekti hisobiga amalga oshiriladi. Ishlab chiqarigan energiya metalla troslarga bog‘langan elektr simlari orqali, simlarni o‘rab yig‘uvchi

chig‘ir va transformatorlar o‘rnatilgan maydonchaga uzatiladi. Kompaniya ishlab chiqaradigan ushbu konstruksiyadagi havo shari:

Shamol generatorlari-shamolning kinetik energiyasini elektr energiyaga aylantirib beruvchi qurilma. Shamol generatorlarini kki xil turi mavjud: sanoat va uy uchun. Sanoat uchun shamol generatorlari davlat yoki katta energetik korporatsiyalar tomonidan quriladi. Ushbu qurilmalar energiyasi bir joyga to‘planadi va natijada shamol elektrostansiyalari vujudga keladi. Uning asosiy farqi-ishlashi uchun xom ashyoning zarur emasligi hamda hech qanday chiqindi chiqmasligidir. Uning asosiy talablaridan biri – yillik o‘rtacha shamol tezligining yuqori bo‘lishidir. Har bir sanoat energetik qurilmalarida o‘t o‘chirish tizimi, shamol generatorini ishlashi haqida ma’lumot berib turuvchi telekommunikatsion tizim hamda chaqmoqdan himoya qilish tizimi mavjud. Zamonaviy shamol generatorlarining quvvati 6 MVt(6000 kVt)gacha etadi. SHamol generatorining turlari. Shamol turbinalarinig ikkita aso-siy turlari mavjud: vertikal va gorizontal aylanish o‘qli. Vertikal o‘qli turbinalar kichik tezlikdagi shamollarda ishlaydi, shuning uchun ular past samarali hisoblanadi.

Shuning uchun vertikal o‘qli turbinalar juda kam qo‘llaniladi. Asosan ular uy uchun o‘rnatiladi. Uy uchun quriladigan shamol qurilmalarini qo‘llash tez sur’atlar bilan rivojlanib bormokda. Odatda uncha katta bo‘lmagan uy uchun 1 kVt atrofidagi elektroenergiyani 9 m/s tezlikda esayotgan shamol energiyasidan olish mumkin. Hozirgi kunda MCHJ «Dialog» tomonidan mamlakatimiz viloyatlarida 1-3 kVt/soat quvvatli shamol qurilmalari o‘rnatilib ishlatilmoqda.



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ELEKTRON TIJORAT KORXONALARIDA BUXGALTERIYA HISOBI XUSUSIYATLARI

Annotatsiya. Mazkur maqolada Elektron tijorat biznesi haqida qanday ishlar olib borilganligi, Mutaxasis elektron tijorat hisobchisi kerakligini, Elektron tijorat sotuvchilari haqida ma'lumotlar aks ettirilganligini ko'rishingiz mumkin.

Kalit so'zlar. Elektron tijorat, elektron tijorat biznesi, Mutaxassis elektron tijorat hisobchisi, Elektron tijorat sotuvchilari

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CHARACTERISTICS OF ACCOUNTING IN ELECTRONIC COMMERCE ENTERPRISES

Abstract: This article contains information about e-commerce business, the need for a specialist e-commerce accountant, and information about e-commerce sellers.

Key words: E-Commerce, E-Commerce Business, Expert E-Commerce Accountant, E-Commerce Sellers.

Kirish. Sizning biznesingiz qaysi sohada bo'lishidan qat'i nazar, buxgalteriya hisobi va buxgalteriya hisobi mustahkam poydevor qo'yishning muhim qismidir. Sog'lom va sinchkovlik bilan buxgalteriya hisobi va buxgalteriya hisobi amaliyotisiz, siz biznesning moliyaviy holatini yoki soliq majburiyati nuqtai nazaridan qayerda turishini aniq tushuna olmaysiz. Bu nazoratning etishmasligi, o'z navbatida, sizni noto'g'ri sarflash qarorlari va qimmat jarimalar xavfi kabi zararli narsalarga ochiq qoldiradi. Buxgalteriya hisobi va buxgalteriya hisobining ahamiyati barcha korxonalar uchun juda muhim, ammo tez o'zgaruvchan raqamli landshaftda harakat qilayotgan elektron tijorat korxonalari uchun yanada muhimroqdir. Buxgalteriya hisobi barcha elektron tijorat biznes egalari nafaqat omon qolish, balki gullab-yashnash uchun juda jiddiy qabul qilishlari kerak bo'lgan narsadir.

Mavzuga oid adabiyotlar tahlili: Elektron savdo korxonalarini buxgalteriya hisobi xususiyatlari va uning nazariy uslubiy masalalalri xorijlik iqtisodchi olimlardan Tatiana Naumova, Olena Toporkova, Inna Yancheva, Ben Sztejka kabi olimlarning ilmiy ishlarida o‘z aksini topgan.

Respublikamiz iqtisodchi olimlaridan Pardayev M.Q.,Urazov K.B., Shirinov U.A.,Xoliqov O.X., Pashaxodjayeva D.J. ilmiy ishlarida iqtisodiyotning turli tarmoqlaridagi Elektron savdo korxonalarini Buxgalteriya hisobi xususiyatlari haqida ko’plab tadqiqotlar olib borishgan. Ushbu yo‘nalishda ilmiy-tadqiqot olib borish zarurligini ko’p ta’kidlangan.

Tadqiqot metodologiyasi: Tadqiqot jarayonida monografik kuzatish, umumlashtirish guruxlash qiyosiy tahklil, konstruktiv hisoblash kabi iqtisodiy va statistic tahlil usullaridan foydalanildi,. Internet-savdo tushunchasi ko'rib chiqiladi va umumlashtiriladi, asosiy reklama strategiyalari, ularning mazmuni va aloqa vositalari ko'rib chiqiladi.

Tahlil va natijalar. Maqola COVID-19 pandemiyasi sababli karantin davrida elektron savdoni buxgalteriya hisobi va tahliliy qo'llab-quvvatlash muammolariga bag'ishlangan. Mualliflar pandemiya karantin sharoitlarining elektron tijorat sanoatiga ta’sirini ko‘rsatdi va faoliyatning turli sohalaridagi o‘zgarishlar tendentsiyalarini aniqladi. Axborot va innovatsion texnologiyalar ta'sirida iqtisodiy faoliyatning rivojlanish yo'nalishlari aniqlandi. O’zbekistondagi elektron tijorat korxonalari faoliyatini tartibga soluvchi bir qator normativ-huquqiy hujjatlarni ko'rib chiqishda tizimlashtirish va umumlashtirish usullarini o'rganishda foydalaniladi. Axborot-kommunikatsiya texnologiyalarining doimiy rivojlanishi va undan bilim jarayonida foydalanish elektron nazariya bilan asoslanishi aniqlandi. Axborot iqtisodiyotining zamonaviy sharoitida savdo va sanoat korxonalari uchun o‘z veb-saytining mavjudligi davr talabi ekanligi aniqlandi. Buxgalteriya hisobida sayt ma'muriyati bilan bog'liq xarajatlar (vebmasterning ish haqi, xosting to'lovlari) savdo xarajatlariga kiritilishi "Savdo xarajatlari" hisobvarag'ida hisobga olinishi kerakligi ko'rsatilgan. Buxgalteriya hisobining rivojlanish tendentsiyalarini mos ravishda uzoq va qisqa muddatli prognozlar qilish uchun o'z-o'zidan tashkil etilgan tanqidiylik va global determinizm tamoyillaridan foydalangan holda bashorat qilish taklif qilindi. An'anaviy va elektron tijorat bo'limida savdo va ishlab chiqarish korxonalarining daromadlari, xarajatlari va moliyaviy natijalarini hisobga olish metodologiyasi tavsiflangan. Daromadlar, xarajatlar va moliyaviy natijalarni hisobga olish tizimi korxonaning faoliyat sohasini hisobga olgan holda ko'rib chiqiladi. Bo'lajak mutaxassislar uchun zarur bo'lgan malaka va ko'nikmalar ro'yxati aniqlandi. Buxgalteriya hisobini rivojlantirish tendentsiyalari buxgalteriya hisobining uch yo'nalishini qamrab oladi: ilmiy, amaliy va o'quv.

Elektron tijorat buxgalteriya hisobi nima ekanligini tushuntirishga o'tishdan oldin, keling, elektron tijorat biznesi degani nimani anglatishini to'liq tushunganingizga ishonch hosil qilaylik.Shunday qilib, elektron tijorat biznesi

mahsulot yoki xizmatlarni elektron shaklda, birinchi navbatda Internet orqali sotadigan biznesdir - shuning uchun nom. Bu shuni anglatadiki, amalga oshiriladigan har qanday tranzaktsiyalar aniq operatsiyalar emas, balki raqamli almashinuvlardir (masalan, jismoniy do'konda). Bu B2B (biznesdan biznesga) va B2C (biznesdan mijozga) mahsulot yoki xizmatlarga ham tegishli bo'lishi mumkin. Biroq, elektron tijorat C2B (mijozdan biznesga) va C2C (mijozdan mijozga) ham qamrab olishi mumkin.

Elektron tijorat sotuvchilari hozir foydalanadigan eng mashhur onlayn bozorlardan ba'zilari: -**Amazon -Shopify -eBay -Etsy** Elektron tijorat biznesiga buxgalter kerakmi? Endi siz elektron tijorat buxgalteriya hisobi nima ekanligini va nega elektron tijorat biznes egalari uchun yetarli vaqt, kuch va pul ajratish juda muhimligini tushunganingizdan so'ng, yordamni jalb qilish haqida o'ylash vaqti keldi.Elektron tijorat buxgalteriya hisobini autsorsing qilish yoki bermaslik haqida qaror qabul qilish ba'zi sotuvchilar, ayniqsa byudjeti cheklanganlar uchun qiyin qaror bo'lishi mumkin. OnPay tomonidan e'lon qilingan yaqinda o'tkazilgan tadqiqot natijalariga ko'ra, kichik biznesning atigi 30 foizi tashqi hisobchidan foydalanadi. Biroq, buxgalterni yollashning afzalliklari ko'p va biznesning o'sishi va rivojlanishiga sezilarli ta'sir ko'rsatishga qodir. Elektron tijorat biznesi haqida gap ketganda, bu xalqaro savdoni boshqarish va import va eksport majburiyatlari bilan shug'ullanish kabi narsalarni o'z ichiga olishi mumkin.

Mutaxassis elektron tijorat hisobchisini yollashning afzalliklari:Quyida elektron tijorat buxgalterlari raqamli bozordagi har qanday biznesga bunday qimmatli qo'shimcha bo'lishining sabablaridan bir nechtasi keltirilgan.Soha bo'yicha batafsil ma'lumot - elektron tijorat buxgalterlari tom ma'noda sanoatning eng yaxshi tomonlarini bilishni o'z biznesiga aylantiradi - hech bo'lmaganda moliya masalalari bo'yicha. Bu shuni anglatadiki, ular barcha mumkin bo'lgan soliq imtiyozlaridan foydalanayotganingizga ishonch hosil qilishlari va sizni har qanday yangi yoki yangilangan qoidalardan xabardor qilishlari mumkin. Shuningdek, ular har yili kompaniyangizning soliq deklaratsiyasi va QQS deklaratsiyasini topshirishda jarayonni soddalashtirish va soddalashtirish uchun o‘z mahorati va tajribasidan foydalanishi mumkin.Bu nafaqat biznesingiz soliqqa to'la bo'lishini ta'minlabgina qolmay, balki sizga ko'p vaqtni tejaydi va hayotingizni ancha osonlashtiradi. Bu, o'z navbatida, biznesingizni oldinga siljitish uchun sizga ko'proq imkoniyatlarning hashamatini qoldiradi. Elektron tijorat platformalari qanday ishlashini tushunish - Amazon, eBay, Etsy, Shopify yoki boshqa elektron tijorat platformalaridan foydalanasizmi, mutaxassis buxgalter ularning qanday ishlashi va tegishli funktsiyalari bilan yaxshi tanish bo'lishi kerak. Bu shuni anglatadiki, ular sizni qimmatli tushunchalar va ko'rsatkichlar bilan jihozlash uchun mo'ljallangan turli tizimlar va hisobotlar bo'ylab harakatlanishingizga yordam bera oladi.

Yaxshi buxgalteriya hisobi va buxgalteriya amaliyoti elektron tijorat biznesining ajralmas qismidir (agar ba'zan ko'proq bo'lmasa), ular boshqa biznes

turlari uchun. Quyida biz uyni chinakamiga to'g'rilashning eng muhim uchta sababini batafsilroq ko'rib chiqamiz, ular elektron tijorat korxonasining qisqa va uzoq muddatli muvaffaqiyati uchun qanchalik muhim.Barcha zarur soliq majburiyatlarini ta'minlash.Bu o'z-o'zidan tushunarli va sizning elektron tijorat biznesingiz uchun buxgalterni yollashning eng aniq foydasidir

Reychel Philips, AQShning elektron tijorat buxgalteriya firmasining moliyaviy rahbari va asoschisi va bosh direktori, Fully Accountable, elektron biznes uchun buxgalteriya hisobi va buxgalteriya hisobining ahamiyatini mukammal tarzda umumlashtiradi: “Buxgalteriya hisobi va buxgalteriya hisobi sizning biznesingizning moliyaviy yaxlitligini ta'minlaydi. Ular barcha yozuvlar uchun ishonchli tizimni ta'minlaydi va ish haqi va soliq tekshiruvlari kabi jarayonlarni buzmasdan tushunishga yordam beradi. Elektron tijorat buxgalteriya hisobi sizning biznesingizning logistik jihatlaridan xabardor bo'lishingizni va tayyor bo'lishingizni ta'minlaydi.

Elektron tijorat korxonalari uchun buxgalteriya hisobi va buxgalteriya hisobi juda muhim bo'lishining asosiy sababi moliyaviy ma'lumotlar va yozuvlar uchun mustahkam va ishonchli tizimni ta'minlashdir.

Xulosa va takliflar: Xulosa qilib aytganda buxgalteriya hisobi moliyaviy ma'lumotlar va tranzaksiya ma'lumotlarini qayd etish va tartibga solish uchun ishlatiladigan ko'proq ma'muriy jarayonni o'z ichiga oladi. Bunga schyot-fakturalar, hisob-kitoblar, ish haqi va balanslar kabi narsalar kiradi. Boshqa tomondan, buxgalteriya hisobi ushbu ma'lumotlar va ma'lumotlarni oladi va moliyaviy tushunchalar va ko'rsatmalar yaratish uchun undan sub'ektiv ravishda foydalanadi.

Biznes savdoni boshlashdan oldin ham muhim ahamiyatga ega, shuning uchun siz elektron tijoratni boshlash xarajatlari va dastlabki investitsiyalar kabi narsalarni qattiq nazorat qilishingiz mumkin.

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LOGISTIKA XIZMATLARINI KO'RSATUVCHI KORXONALARDA BUXGALTERIYA HISOBINING AYRIM MASALALARI

Annotatsiya: maqolada mamlakatimizda logistika va transport infratuzilmalarini rivojlantirish yo'nalishlari bilan bog'liq yangicha ma'lumotlar bilan tanishtirib chiqilgan. Shuningdek, logistika xizmatlarini ko'rsatuvchi subyektlarda buxgalteriya hisobining ayrim masalalari bo'yicha ko'rsatmalar berilgan.

Kalit so'zlar: logistika, transport infratuzilmalari, harakatlar strategiyasi, yo'l-transport, modernizasiya, raqamli rivojlanish, xarajatlar,soliq imtiyozlari, yuk tashish operatorlik faoliyatlari, ekspeditorlik kompaniyalari, omborxona komplekslari, taqsimlash markazlari, terminallar.

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SOME ISSUES OF ACCOUNTING IN ENTERPRISES PROVIDING LOGISTICS SERVICES

Abstract: the article introduces new information related to the directions of development of logistics and transport infrastructures in our country. Also, instructions are given on some issues of accounting in entities providing logistics services.

Key words: logistics, transport infrastructures, action strategy, road transport, modernization, digital development, costs, tax benefits, cargo transport operator activities, forwarding companies, warehouse complexes, distribution centers, terminals.

KIRISH. Aviakompaniyalar, dengiz laynerlari, temiryo'llar va yuk tashuvchi firmalar kabi logistika va transport sohasida faoliyat yurituvchi subyektlar sof daromadlariga ta'sir ko'rsatishi mumkin bo'lgan bir qancha buxgalteriya va operatsion muammolarga duch kelishadi. Shuning uchun pul oqimi va likvidligini boshqarish uchun yaxshi buxgalteriya amalyotlariga rioya qilish juda muhimdir.

Mamlakatimizni rivojlantirishning 2022-2026-yillarga mo'ljallangan yangi O'zbekistonning taraqqiyot strategiyasida transport va logistika xizmatlari bozori va infratuzilmasini rivojlantirish bandida "Transport va logistika xizmatlarini rivojlantirish konsepsiyasini ishlab chiqish;18 ta katta, 22 ta o'rta va 80ta kichik shaharlar o'rtasida transport-logistika tizimi va infratuzilmasini rivojlantirish;Jahon bankining "Logistika samaradorligi" indeksida (LPI) O'zbekiston Respublikasining o'rnini 77-pog'onadan past bo'lmagan darajagacha ko'tarish;hududlarda yuklar shakllanishining asosiy nuqtalarini hisobga olgan holda transport-logistika markazlari tarmog'ini tashkil etish; xalqaro yuk

tashishlardagi transport hujjatlarini ("e-Permit", "e-TIR", "e-CMR") elektron

ko'rinishga bosqichma-bosqich o'tkazish;yuk tashish xarajatlarini 30 foizgacha kamaytirish;mavjud konteyner terminallarini davlat-xususiy sheriklik asosida rivojlantirish;temir yo'lda konteyner tashishlar ulushini kamida 2 barobarga oshirish.

Mavzuga oid adabiyotlar tahlili: Transport-logistika sohasida respublikamizning iqtisodchi olimlari Q.A.Dadabayev, J.R.Qulmuxammedov,M.M.Aripjanov, K.M.Nazarov, F.R.Mirzayev o'zlarining ilmiy ishlarida logistika xizmatlarini ko'rsatuvchi korxonalarda ayrim masalalari boyicha ko'plab tadqiqotlar olib borishgan, lekin xozirgi iqtisodiyotni diversifikatsiyalsh sharoitida xizmatlar sohasidagi muammolari yaxlit, kompleks tarzda etarlicha o'rganilmagan. Bu esa, ushbu yo'nalishda ilmiy-tadqiqot olib borish zarurligini taqozo etadi.

Tadqiqot metodologiyasi: Mazkur maqolani yoritishda tadbirkorlik faoliyatida logistika sohasiga oid xorijiy mamlakatlar tajribasi nazariy jihatdan o'rganildi,ushbu jarayonga bog'liq fikrlar o'rganildi va statistik malumotlar tahlili amalga oshirildi.Mazkur jarayonlarda tadqiqot metodologiyasining ekspert baholash, statistik guruhlash,qiyosiy va tarkibiy usullaridan foydalanildi.

Tahlil va natijalar. Rivojlangan xorijiy mamlakatlar va respublikamiz iqtisodchi olimlar tomonidan olib borilgan tahlil va natijalarni o'rganish natijasida,mamlakat iqtisodiyotining rivojlanish va yuksalishi bevosita logistika xizmatlariga bog'liq.

Logistika kompaniyalari har doim operatsion xarajatlardagi noaniqliklar bilan kurashishlariga tog'ri kelgan. Neft narxlari va yuk tashish stavkalarining o'zgarishi ularning foyda marjasi va yuk kotirovkalari rentabelligiga katta ta'sir ko'rsatishi mumkin.Covid-19 pandemiyasi potentsial ravishda onlayn xarid qilishni afzal ko'rish harakatini tezlashtirdi, bu qisqa vaqt ichida yetkazib beriladigan tovarlarga talabning oshishiga sabab bo'ldi.

Shulardan kelib chiqqan holda, bugun mamlakatimizni modernizasiya qilish va yangilash, yangi O'zbekistonni yaratish, iqtisodiyotimizning sifat jihatdan yangi, zamonaviy tarkibiy tuzilmasini shakllantirish, hududlarimizni kompleks rivojlantirish bo'yicha barcha rejalarimizning muvaffaqiyatli amalga

oshirilishi yo‘l-transport va kommunikasiya infratuzilma tarmoqlarini yuksak sur'atlar bilan rivojlantirishga uzviy bog‘liqdir. O‘zbekistonda oxirgi yillarda logistikani,klasterlarni,innovasion faoliyatni, raqamlashtirishni shiddat bilan rivojlantirish masalalari davlat iqtisodiy siyosatining ustuvor yo‘nalishlaridan biri bo‘lib qoldi.Prezidentning «2018—2022 yillarda transport infratuzilmasini takomillashtirish va yuklarni tashish bo‘yicha tashqi savdo yo‘nalishlarini diversifikatsiyalash chora-tadbirlari to‘g‘risida»gi qarori bilan avtomobil tashuvchilar va logistika kompaniyalariga soliq va bojxona imtiyozlari taqdim etildi.Xalqaro avtomobil tashuvlarini amalga oshiradigan milliy avtotransport korxonalari hamda transport-logistika kompaniyalari 2022 yilgacha qo‘shilgan qiymat, mol-mulk soliqlarini to‘lashdan, shuningdek, yer solig‘idan ozod qilinadi.Shu bilan bir vaqtda ortgan pullar kompaniyalarning o‘zavtotransport vositalari parkini kengaytirishga, ishlab chiqarish quvvatlarini modernizatsiya qilishga, zamonaviy omborxona terminallarini yaratishga va bank kreditlarini yopishga sarflanishi kerak.Bundan tashqari, kompaniyalar keltirilayotgan omborxona uskunalari, yuk ortish va tushirish texnikasi, agregatlar, zaxira qismlar va O‘zbekistonda ishlab chiqarilmaydigan boshqa mahsulotlar uchun bojxona to‘lovlaridan ozod qilindi.

Xulosa va takliflar: Xulosa o’rnida shuni aytish joizki, Mamlakatimizda transport-logistika klasterlarini rivojlantirish uchun potentsialdan foydalanish samaradorligini oshirish zarurati iqtisodiyotning raqobatdoshligi va diversifikatsiyasini oshirishning ustuvor yo'nalishlaridan biri hisoblanadi. Ushbu jarayonda yetakchi rolni yuklarni muqobil transport turlariga ko'chirish uchun chegara temir yo'l stansiyalarida xalqaro transport koridorlari kesishmasida yaratilishi kerak bo'lgan transport logistika klasterlari o'ynaydi. Transport infratuzilmasi sohasidagi klaster siyosatining asosiy maqsadi transport va logistika xizmatlarining ichki va jahon bozorida tovarlarni saqlash, tashish, export qilish va yetkazib berishga ixtisoslashgan turli tuzilmalarni, shuningdek infratuzilma va boshqa tashkilotlarga xizmat ko'rsatuvchi tashkilotlarni birlashtirish orqali raqobatbardoshlikni oshirishdir. Transport-logistika klasteri ma'lum bir tashkiliy shakl sifatida ma'lum bir hududning logistika salohiyatining rivojlanishi va o'sishiga hissa qo'shgan holda, xom ashyo yetkazib beruvchilardan, ishlab chiqarish tuzilmalaridan iste'molchilarga yuk oqimlari harakatining texnologik zanjirlarini boshqarish samaradorligini oshirish muammosini hal qiladi. Transport-logistika klasterlarini shakllantirish bir qator vazifalarni samarali hal etish, tovar aylanmasini optimallashtirish, shu jumladan ekspeditorlik va terminal ombor komplekslarini oqilona qurilishini ta'minlash, transportning bir nechta turlari bilan bog'liq yuklarni tashish jarayonlarini ratsionalizatsiya qilish, tranzit salohiyatini rivojlantirish va undan samarali foydalanish, operatsion o'zaro ta'sir tizimini shakllantirish, rejalashtirish, transport markazlarida muvofiqlashtirish va dispetcherlik faoliyatini tartibga solish, tovar oqimlariga optimal xizmat ko'rsatishni ta'minlash, klaster a'zolari

o'rtasida samarali ma'lumot almashinuvini ta'minlaydigan logistika axborot tizimini ishlab chiqish kerak.

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O'ZBEKISTONDA TURIZMNI YALPI ICHKI MAHSULOTGA TA'SIRI

Annotatsiya: Mazkur maqolada O'zbekiston Respublikasi tarixiy turizm zona hisoblanib va shu sababli turizm sohasi jadallik bilan rivojlanayotganligi, dunyoning turfa joylaridan yurtimizdagi aynan qaysi bir turizm nuqtalariga kelayotganligi, bu borada qanday qarorlar qabul qilinayotganligi, turistlar tashrif buyurishi ortishining mamlakatimiz iqtisodiy ahvoliga ta'siri va bu ma'lumotlarni statistik raqamlarda ifodalanishi haqida.

Kalit so'zlar: Turizm, YaIM, O'zbekturizm, xususiy sayyohlik uyushmalari, yalpi ichki mahsulot, ijtimoiy-iqtisodiy rivojlanish, turizm ta'siri.

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IMPACT OF TOURISM ON GROSS DOMESTIC PRODUCT IN UZBEKISTAN

Abstract: In this article, the Republic of Uzbekistan is considered a historical tourism zone, and therefore the tourism sector is developing rapidly, which tourist destinations in our country are coming from all over the world, what decisions are being made in this regard, the impact of the increase in the number of tourists on the economic situation of our country and this about expressing data in statistical numbers.

Key words: Tourism, GDP, Uzbek tourism, private tourism associations, gross domestic product, socio-economic development, impact of tourism.

Kirish. Mamlakatimiz keskin sur'atlarda turizm markaziga aylanib bormoqda, bunga yaqqol misolki, yurtimizda oxirgi yigirma yillikda tusistlar qatnovi jadallashgan, va bu tashqi va ichki turizmni rivojlantirish borasida qator, sayyohlar va xususiy sayyohlik uyushmalari uchun qabul qilinayotgan yengillik yaratuvchi islohatlardir. Jumladan, chet eldan tashrif buyurayotgan sayyohlar va ichki sayyohat qiluvchi yurtdoshlarimizni joylarda yashash qolish va

ovqatlanishini taminlash va bu tufayki kichik biznesni yo'lga qo'yish orqali ishsiz fuqorolarimizni ish bilan taminlanishi bilan iqtisodimizga ijobiy ta'sir ko'rsatmoqda. Chet el fuqorolarini turizm maqsadida yurtimizga kirib kelishi, ular orqali pul mablag'lar kirib kelishi demakdir. Bu esa yalpi ichki mahsulotimiz o'sishiga o'z hissasini qo'shadi.

Mavzuga oid adabiyotlar tahlili: Turizm bugungi kunda tez rivojlanayotgan va daromadi bo'yicha yetakchi sohalardan biri hisoblanadi. So'nggi yillarda turizm jahon eksportida o'zining ulkan hissasiga ega bo'ldi va butunjahon yalpi ichki mahsulotining 11%ini tashkil qilayotganligi to'g'risida aytadiBekturdiyev J.K. Yana shuningdek tadqiqotchi Z.M Muxammedovning takidlashicha, O'zbekistonda turizmdan keladigan daromadning yalpi ichki mahsulotdagi ulishi loaqal 5% ga yetkazilsa, aholi jon boshiga YaIM hajmi esa 392.1 ming so'mga oshadi.

Tadqiqot metodologiyasi: Tadqiqot turizm sohasining YaIM ga qo'shayotgan hissasi, yangi turizm zonalarini shakllantirish va bu sohani yanada rivojlantish bosqichlari.

Tahlil va natijalar: Butunjahon sayohat va turizm kengashi ma'lumotlariga ko'ra turizmning jahon YaIM dagi ulushi 10.3% ni, yillik o'sish sur'ati 3.5%ni tashkil etdi. Ushbu sohadagi o'sish sur'ati ketma-ket to'qqiz yildan buyon jahon YaIM o'sish sur'atidan yuqori bo'lmoqda. Shuningdek yurtimiz ham turizm sohasida yuqori o'rinlarni tutmoqda, ko'plab xalqoro nashrlar fikriga ko'ra, mamlakatimiz 2020-yilda eng jozibador sayyohlik joylaridan biriga aylandi. Va yana Buyuk Britaniyaning The Telegraph gazetasi bu yil tashrif buyurish lozim bo'lgan shaharlar ro'yxatida Toshkent shahrimiz ham aytib o'tilgan.

2019-yilning yakuniga ko'ra, O'zbekistonga 6.748 million kishi tashrif buyurgan bo'lib, bu 2018-yil statistikasidan 125% ga ya'ni 5,346 million kishiga ko'pdir. Shu bilan birga turizm xizmatlarining eksporti 1,313 milliard dollar tashkil etgan, 2018- yilda esa bu 1,041 milliard dollarga tel bo'lgan. Hammaga ma'lumki kiyingi 2020-2021 yillarda avj olgan koronovirus pandemiyasi turizm sohasiga katta salbiy ta'sir o'tkazdi. Shu tufayli bu yillarda turizmni YaIM dagi ulushi pasaydi. Biroq 2022-yil dastlabki sakkiz oyida O'zbekistonga 3 mln chet el fuqorolari tashrif buyurdi. Va sayyohlarning kelish maqsadini o'rganadigan bo'lsak.

1-jadval

Tashrif buyurgan chet el fuqorolarining maqsadi.

Qarindoshlarini ko'rish uchun	Dam olish uchun	Davolanish uchun	Xizmat yuzasidan	Tijorat uchun	O'qish maqsadida
2.2 mln. kishi	169,8 ming kishi	44,4 ming kishi	38,8 ming kishi	9,1 ming kishi	2.4 ming kishi

Yana bir statistikani keltirib o’tsam, ya’ni shu davr ichida tashrif buyurganlar aynan qaysi bir davlatlardan kelishmoqda.

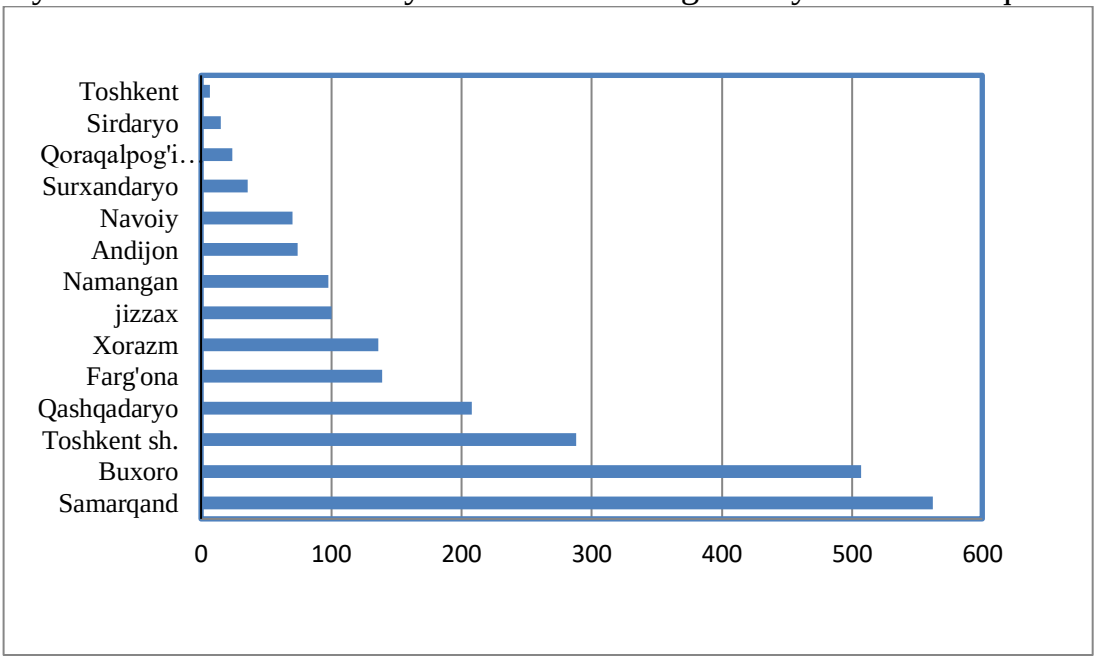
1-jadval

Davlatlar kesimida tashrif buyurgan chet el fuqorolarining maqsadi.

Davlatlar kesimida		
№	**Davlatlar**	**Soni (kishi).**
1.	Qozog’siston	716.7 ming
2.	Qirg’iziston	675,1 ming
3.	Tojikiston	637 ming
4.	Rossiya	247,2 ming
5.	Germaniya	8,0 ming
6.	AQSh	6,3 ming
7.	Fransiya	5,2 ming
8.	Buyuk Britaniya	4,7 ming
9.	Ispaniya	2,5 ming

YaIM mahsulot hajmi esa umumiy olganda shu qisqa davrda, 2022- yil yanvar-sentabr oylari oralig’ida 5,8% ga oshdi ya’ni 627,5 trln so’mni tashkil etdi. Bu esa aholi jon boshiga 17,7 mln so’m (1603$) ni tashlik etdi, 2021-yilning mos davri bilan solishtirganda 3,6 % foizga oshganini ko’rish mumkin. Bu o’zgarishlarga turizm sohasi ham o’z hissasini qo’shmoqda.

O’zbekiston qadimiy qadamjolarga boy shahar hisoblanganligi tufayli aksariyat tashrif buyuruvchi turistlar tarixga nazar tashlash maqsadida kelishyabdi. Yurtimizda bunday maskanlar 2 mingdan ziyodni tashkil qiladi.



1-diagramma. Respublikadagi tarixiy yodgorliklar soni (hududlar kesimida).

O’z-o’zidan 1-diagrammada ko’rinadiki qadimiy daqamjolar ko’p bolgan viloyatlarimizda sahhoylar ko’p tashrif buyuradi. Va shu viloyatlarda turizmni YaIM ga qo’shadigan hissasi balandroq.

Xulosa va takliflar: Xulosa o’rnida shuni ayta olamanki mamlakat YaIM hajmi tarkibida turizm sohasining sezilarli o’rni bor, demakki biz turizm sohasiga keng etibor qaratish orqali mamlakat iqtisodiyotiga ijobiy ta’sir ko’rsata olamiz.

Yurtimiz hozirgi turizm bozorida yaxshi o’rinni egallab turibdi, va shu tufayli sayyohlar oqimi doimiy mavjud. Asosan tarixiy maskanlarimiz ko’pligi ularni jalb etmoqda.

Biroq bu borada yanada yuqoriroqda turish uchun, faqatgina tarixiy maskanlar bilan sayyohlar jalb qilishda cheklanib qolmasdan, yangi texnalogiya asri odamlari uchun ham yetarlicha takliflarni bera olishimiz kerak. Ya’ni yurtimizga tashrif buyurayotgan turistlarning ko’pchiligi yoshi kattalar, jumladan 40 va undan yuqori yoshdagi insonlarni tashkil qilmoqda. Shu sababdan biz yosh sayyohlar uchun “Ko’ngil ochar” zonalarni ham shakllantirish orqali turistlar oqimini yanada ko’paytirishimiz mumkin.

Yuqorida faktlar asosida keltirilgan ma’lumotlarga ko’ra O’zbekistonga chet el fuqorolarini qatnovi asosan yaqin qo’shni davlatlardan, markaziy Osiyodan kelishmoqda. Yevropa mamlakatlaridan keladiganlar soni bir muncha past. Demakki bu borada qayta tadbirlar o’tkazib Yevropa fuqorolariga ham qadimiy qadamjolarimiz haqida qiziqish uyg’otishimiz lozim.

Buning uchun qadamjolarimiz aks etgan

- sifatli vedioroliklar;
- maqolalar;
- kinofilmlar va seriallar; kabi keng va tez ommalashuvchi vositalardan foydalanishimiz kerak. Va, albatta tashrif buyuruvchi turistlarga qulaylik yaratish uchun ko’pgina yangi loyihalarni amalga oshirishirmoq foydali bo’ladi.

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BEMOR BOLALARNING PARVARISHIDA TIBBIY PSIXOLOGIYANINNG O‘RNI

Annatatsiya. Mazkur maqolada oiladagi bemor-nogiron farzandi bo‘lgan ota-onalarning, bola atrofidagi yaqinlari va u bilan muloqat qirishuvchi mutaxassislarning o‘zaro aloqalari munosabatlarining o‘ziga xos muammo va yutuqlari haqida fikr mulohazalar yuritilgan. Shuningdek, bemor - nogiron bolaning ijtimoiy moslashuvi haqida muallifning umumiy xulosalari keltirilgan.

Kalit so‘zlar: kasallikning etiologiyasi, kasallikning patogenezi, kasallikning klinik shakllari, neyropsixologik kasalliklari reabilitatatsiya, abilitatatsiya, fizioterapiya, davolovchi jismoniy mashqlar.

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THE ROLE OF MEDICAL PSYCHOLOGY IN CARING FOR A SICK CHILD

Annotation. This article contains feedback on the specific problems and achievements of parents, who are the patient's patients with disabilities and the relationship with the child's dialogue and communication relations with him. The patient also brings the general conclusions of the author about the social adaptation of the child.

Key words: etiology, pathogenesis, physiotherapy, rehabilitation, abilities, mechanism is explanation, social adaptation, social mobility, social norms, adaptation functions, adaptation structure, classification of social adaptation.

Oilada nogiron bolaga ota-ona va yaqin qarindoshlarning katta e’tibori kerak. Ota-onalar, barcha jihatlarda, o‘z farzandlarining kasalligi tufayli chuqur tushkunlikka tushadilar va aziyat chekadilar, shu tufayli ular faol ijtimoiy faoliyatdan chetlashadilar. Ularning butun ichki hayoti kasal bolaga qaratiladi. Ota-onalar shifokorlar va o‘qituvchilarga yuqori va ba’zan nojo‘ya shiyoyatlar bildiradilar. Onaning psixologiyasi sezilarli darajada o‘zgarishi mumkin va buning natijasida ba’zan oilada oila a’zolari va yaqinlari o‘rtasidagi qiyin, keskin munosabatlar paydo bo‘ladi. Buni shifokor va pedagog-defektologga eslatib o‘tish kerak. Bemorning ota-onasi va qarindoshlari bilan muloqotda ular juda xushmuomalalik ko‘rsatishlari va g‘azablanishdan, xafagarchilikdan va o‘ylamay aytiladigan so‘zlardan qochishlari kerak. Ota-onalarning

psixologiyasini, ularning muammolarini tushunib yetish, ularning kechinmalariga hamdard bo‘lish kerak. Biroq, bu ularning izmida bo‘lish, hamma narsada ular bilan kelishishni anglatmaydi. Kasalliklarning rivojlanish mexanizmlari haqidagi noto‘g‘ri tushunchalar, ko‘pincha ota-onalar o‘rtasida noto‘g‘ri qarashlar, bolaning kasal bo‘lib tug‘ilganligi uchun aybdorlik hissi.

Ba’zida er-xotinlar bir-birlarini kasal bolaning tug‘ilishi yoki unda kasallikning rivojlanishi uchun ayblashni boshlaydilar, nazoratsizlik, befarqlik uchun bir-birlarini qoralaydilar. Rivojlanishida jiddiy nuqsonlar bo‘lgan bola tug‘ilganda oilada ayniqsa qiyin vaziyat yuzaga kelishi mumkin.. **[**6,45]

Ba’zi shunga o‘xshash hollarda, og‘ir nuqsonni davolash mumkin bo‘lmaganda, ota-onalar oldiga bolani ixtisoslashtirilgan maktab-internatga o‘tkazish masalasini qo‘yish joizdir. Bunday taktikani g‘ayriinsoniy deb hisoblash mumkin emas. U ota-onalarni doimiy ruhiy jarohatlardan xalos qilishni anglatadi. Oiladagi hayot normal holatga qaytadi. Ota-onalar normal ishlashlari va sog‘lom bolalarga tegishli e’tibor berishlari mumkin.

Oiladagi kasal bola odatda katta e’tibor, sevgi, mehr bilan o‘ralgan. Ko‘pincha, ota-onasi uni haddan tashqari himoya qiladilar, unga kasal ekanligi to‘g‘risidagi fikrni singdiradilar, unga o‘yinqaroq bo‘lishga, bolalar bilan muloqot qilishga, unga "issiqxona sharoitlari" yaratishga yo‘l qo‘ymaydilar. Bu, albatta, bolalarning xarakterli rivojlanishiga ta’sir qiladi. Bunday bolalar ko‘pincha xudbin bo‘lib o‘sadilar. Ularning ko‘pchiligida psixopatologik xarakter xususiyatlari rivojlanadi va mustahkamlanadi. Bu "haddan tashqari g‘amxo‘rlik" ning o‘ziga xos sindromlaridir. Bunday hollarda pedagog-defektolog ota-onalarga ularning xatti-harakatlarining noto‘g‘riligini taktik shaklda tushuntirishi kerak.

Bolalar davolash-profilaktika va ixtisoslashtirilgan muassasalarida ishlaydigan pedagog-defektologlar bolalarga g‘amxo‘rlik qilish, ularning ota-onalari va yaqinlari bilan ajralish sharoitida bemorlarning ruhiy travmatizmining oldini olish uchun alohida g‘amxo‘rlik ko‘rsatishlari kerak..

Nevrologik va ruhiy kasalliklari bo‘lgan bolalarni ota-onalaridan (kasalxonada, sanatoriyda, maxsus muassasa**)** ajratish sharoitida parvarish qilish alohida ahamiyatga ega. Shuni yodda tutish kerakki, bolalar ularni kasalxonaga, sanatoriyga va boshqa muassasalarga joylashtirishga juda sezgir, ular yig‘laydilar, injiqlik ko‘rsatadilar va ko‘pincha ovqat yeyishni bosh tortadilar. Shuning uchun ular ayniqsa yaxshi, ehtiyotkor, mehrli yondashuvga muhtoj. Pedagog-, hayqiriq, jazolashga yo‘l qo‘yib bo‘lmaydi. Tibbiy xodimlar va pedagoglar bolalar uchun onaning o‘rnini bosishlari kerak. Bu ayni paytda qiyin va olijanob vazifadir. Bola uchun unga nisbatan mehrli munosabatni his qilish juda muhim: bu holda u padagogga, shifokorga, hamshiraga, enagaga moslashadi. Kasal bola bilan yaxshi yo‘lga qo‘yilgan aloqa u bilan olib boriladigan tibbiy-pedagogik ish samaradorligini sezilarli darajada oshiradi.

Tibbiy deontologiyaning muhim sharti shifokorlar, pedagog-defektolog va boshqa xodimlar o‘rtasidagi to‘g‘ri munosabatlardir.

Pedagog-defektolog va shifokor o‘rtasida ularning birgalikdagi faoliyati jarayonida ma’lum munosabatlar o‘rnatiladi. Ular rivojlanishning muayyan og‘ishlarini tekshirish, davolash va tibbiy-pedagogik tuzatishda umumiy pozitsiyalarga asoslanadilar. Bu munosabatlar ish yuzasidan bo‘lishi va bemorning manfaatlaridan kelib chiqishi kerak. Shifokor va pedagog-defektolog bir-birlarini tushunishlari va to‘liq kelishilgan holda harakat qilishlari muhimdir. Bunday holda, ular bemorga ko‘proq foyda keltiradilar.

Bemorni tekshirish jarayonida shifokor tashxis qo‘yadi, patologik jarayonning mohiyatini aniqlaydi va nuqsonni tuzatish yo‘llarini belgilaydi. So‘ngra u tegishli davolanishni amalga oshiradi. Vrach pedagog-defektologga patologik jarayonning mohiyatini, u yoki bu nuqsonni tuzatish imkoniyatini tushuntiradi, keyin ular birgalikda ushbu nuqsonni pedagogik tuzatish taktikasini ishlab chiqadilar.

Pedagog-defektologning ishi bolaning nevrologik va psixologik xususiyatlarini inobatga olgan holda nevropatolog yoki psixonevrolning tavsiyalariga asoslanishi kerak. Fikr almashish jarayonida shifokor va pedagog-defektolog pedagogik mashg‘ulotlar va davolash tadbirlarining umumiy dasturini ishlab chiqadilar. Bolani birgalikda tekshirish vaqtida uning potensial imkoniyatlari aniqlanadi. Shifokor va pedagog-defektolog pedagogik va davolash ta’sirlarining yakuniy natijasini taxmin qiladilar, birgalikda davolash taktikasini va mashg‘ulotlarning hajmini aniqlaydilar.

Bu nafaqat katta insoniy, balki davolash ahamiyatiga ega, chunki bolalar ko‘pincha onalari va boshqa yaqin qarindoshlari bilan aloqa yetishmasligidan aziyat chekishadi. Muloqot yetishmovchiligi bolaning rivojlanishiga salbiy ta’sir qiladi. Tibbiy-pedagogik ishning bir qismi o‘rta tibbiyot xodimlariga topshirilishi kerak. Masalan, davolovchi jismoniy tarbiya bo‘yicha guruh mashg‘ulotlarini yoki fizioterapiya muolajalarini bola bilan individual muloqot bilan birlashtirish juda foydali. Bunday muloqot jarayonida bolalarga ozodalik ko‘nikmalarini o‘rgatish kerak. So‘z boyligini to‘ldirish va to‘g‘ri talaffuzni o‘rgatishga harakat qilish kerak. Vrach va pedagog-defektolog bu borada o‘rta va kichik xodimlarni doimiy ravishda o‘rgatib borishi kerak.

Shifokorlar va pedagog-defektologlar o‘rta va kichik xodimlarga nutq madaniyatini o‘rgatishlari kerak. Shuningdek, hamshiralar, agar tashxislar prognostik jihatdan yomon bo‘lsa, bemorlarga yoki ularning qarindoshlariga ularni etkazmasliklarini kuzatib borish kerak. Shifokor va pedagog-defektolog bemorlarda tuzalib ketishiga ishonch hosil qilishlari hamda hamshira yoki enaga ularning birgalikdagi ishlariga dissonans olib kelmasligini kuzatib borishlari kerak. Kichik va o‘rta tibbiyot xodimlari bemorning ota-onasiga yoki qarindoshlariga keraksiz narsalarni aytmasligi yoki shifokor va pedagog-defektologning harakatlarini shubha bilan muhokama qilmasligi kerak. Shifokor, pedagog-defektolog, o‘rta va kichik tibbiyot xodimlarining aniq, kelishilgan harakatlariga erishish kerak..

Shifokor va pedagog-defektolog bemorning ota-onasiga yoki boshqa qarindoshlariga ular ham uyda muayyan davolovchi va pedagogik tadbirlarni amalga oshirishlari mumkinligini tushuntirishlari kerak. Uy sharoitida massaj, davolovchi jismoniy mashqlar, maxsus nutq mashqlari va boshqa faoliyat mashg‘ulotlarini o‘tkazish mumkin. Ota-onalar yoki qarindoshlarga tegishli davolash-tuzatish choralarini ko‘rishni o‘rgatish kerak. Ota-onalarni bolaning asab-ruhiy kasalliklarini bartaraf etishni uyda davom ettirish kerakligiga ishontirish kerak.

Bemorni uyda, maktabda yoki boshqa jamoada nazoratsiz qoldirmaslik kerak. Uning taqdirini kuzatib borish maqsadga muvofiqdir. Vaqti-vaqti bilan bemor bilan uchrashish, uning ehtiyojlarini, tashvishlarini bilish, maslahat va harakat bilan har tomonlama yordam berish kerak. Shuningdek, davolanish jarayonida (kasalxonada yoki uy sharoitida) olingan ijobiy natijalarni mustahkamlash, nuqsonlarni tuzatish uchun bemorni vaqti-vaqti bilan tibbiy muassasaga salomatligini qo‘llab -quvatlash ijobiy natija beradi..

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AMIR TEMURNING HARBIY YURISHLARGA TAYYORGARLIGI

Annotatsiya: Mazkur maqola Amir Temur harbiy yurishlaridan oldin lashkarlarining jangovar shayligi, anjom-aslahalar bilan ta’minlanganligi va ularning sozligi qay darajada e’tibor qaratilganligini kuzatish orqali qo‘shinni jang oldi mas’uliyatini oshirishi borasidagi tajribasini o‘rganishga bag‘ishlangan.

Kalit so‘zlar: ko‘rik, qurol-yarog‘, ta’minot, jangovor ruh.

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AMIR TEMUR'S PREPARATION FOR MILITARY CAMPAIGN

Annotation: This article is dedicated to the study of Amir Temur's experience in increasing the pre-battle responsibility of the army by observing the level of attention paid to the combat readiness, provision of equipment and their training before military campaigns.

Key words: inspection, weapons, supply, fighting spirit.

Dunyoda birinchi marotaba yengilmas muntazam armiyaga asos solgan Sohibqiron Amir Temurning harbiy daholari yaqqol ko‘zga tashlanib kelmoqda. Amir Temurning harb ilmi borasidagi betakror zakovati jahon sarkardalari uchun ulkan saboq bo‘lib keldi va hozirgi kunda ham uzliksiz ravishda o‘rganilib borilmoqda. Uning nomi va amalga oshirgan ishlari Sharq va G‘arb mamlakatlari harbiy mutaxassislari o‘rtasida juda ma’lum va mashhurdir. Sohibqironning umir bo‘yi jang-u jadallarda va safarlarda yurishi, ko‘plab mamlakatlarni zabt etishi va yengilmas qo‘shinni oqilona boshqarishi barcha harbiy harakatlarni zafarli amalga oshirish uchun namunadir. Ulug‘ Temur son jihatdan juda ko‘p sonli qo‘shinni say- harakatlarini qanday tarzda nazorat qilgani hamda ularni oqillik va sabot bilan boshqargani biz uchun jasorat va mahorat maktabidir.

Amir Temur har bir harbiy yurishdan oldin o‘z lashkarlariga ogohlantiruvchi buyruq bergan. U buyruqni yetkazuvchi maxsus chopar bo‘linmalari mavjud bo‘lib, ular askarlarni yashash joylariga borib safarga otlanish to‘g‘isida habar berishgan. Buni eshitgan askarlar belgilangan maydonga zudlik bilan yetib kelishgan. Sohibqiron har bir yurishidan oldin harbiy ko‘rik o‘kazgan, buni o‘tkazishdan maqsad esa lashkarlarning safar va

jang mobaynidagi turli xil kutilmagan vaziyatlarni oldindan bartaraf etish hamda askarlarga jangovor ruh bag‘ishlab, ularning har tomonlama zarur ta’minotini butlanganligini ko‘zdan kechirish bo‘lgan.

“Yurish oldidan ko‘rik qilib, lashkarim qayergacha borib yetishini bilmoqchi bo‘ldim. Qarasam, to‘rt farsang masofada lashkarim saf tortib turardi” [1].

Ko‘rikdan nafaqat jangovor qismlar, shuningdek ularni qurol-yarog‘, oziq-ovqat, kiyim-kechak zaxiralari ortilgan bir qator og‘ir karvonlar ketma-ket o‘tkazilgan [2]. Shu bilan birga musiqachilar, muxandislar, tabiblar va shu kabi o‘ziga xos bo‘linmalar va anjom-aslaxalarini mavjudligini tekshirgan.

Yetarli miqdorda cherik jam bo‘lgach, barcha qo‘shin turlari – yoychilar, nayzavarlar, qoruandozlar, sangandozlar, taxshandozlar, manjanaq, arroda va turicharx otuvchilar hamda boshqa askariy qisimlar ko‘rikdan o‘tishgan. Temurbek armiyasida ichiga yonuvchi modda naft solingan ko‘zachalar irg‘ituvchi o‘t sochish quroli – ra’dning uzliksiz yetkazib berishni ta’minlovchi maxsus to‘pchilar – ra’dandozlar mavjud bo‘lgan [3].

Sohibqironning bunday qat’iligi va o‘ta talabchanlik harakatlari jangda g‘anim ustidan qozoniladigan g‘alaba uchun dastlabki qadam vazifasini o‘tar edi. Amir Temur bunday ko‘rik o‘tkazishi bilan bir tomondan jangchilarning aslaxalarini tekshirsa, ikkinchi tomondan ulardagi yengilmas kuch bo‘lgan jangovor ruhini ko‘tarar edi. Ulug‘ Amir butun qo‘shini oldida ularga bo‘lgan yuksak ishonchini bildirar hatto har bir askarlar bilan ko‘rishib, ularda o‘zgacha g‘urur uyg‘otar edi.

Amir Temur yaqinlashib kelganda, qo‘shindagi har bir qism boshlig‘i otidan tushib, unga o‘z qismini ko‘rsatar, jangchilarning abjirligi va chaqqonligini namoyish qilar, keyin tiz cho‘kib, yerni o‘par, Amir Temur sha’niga duo o‘qib, uning g‘alabalarini olqishlab, kerak bo‘lganda uning uchun o‘z jonini tikishga ham tayyor ekanligini izhor qilardi. Amir Temur qo‘shin qisimlari yoniga yaqinlashishi bilan jangchilarning hayqiriqlari Dashti Qipchoqni larzaga solardi [4]. Amir Temur lashkarlari, qurol-yarog‘, anjom-aslaxa va qo‘shinning soni bilan ruhiy holatini bilish uchun kelgan ayg‘oqchilar buni ko‘rib dahshatga tushar edi. Aksincha dushman tomonidan tashrif buyurgan elchilarni esa ushbu ko‘rikka taklif etardi. Boyazid chorlovi bilan bo‘lgan jang oldi harakatlarda ham Sohibqiron dushman elchilariga hurmat ko‘rsatib ularni jangovor ko‘rikka taklif qiladi.

Ko‘rik paytida qo‘shin boshliqlari Amir Temur uchun har narsaga tayyor ekanliklarini, o‘z hayotlarini unga xizmat qilishga bag‘ishlaganliklarini bildirib uning dushmanlari yerlarida bir dona ham o‘simlik va ko‘kat qoldirmaslikka, Usmonli Turk davlatini yo‘q qilishga qasam ichadilar [5]. Elchilar bu qo‘shinning qudratini ko‘rib taajjubga tushishadi. Elchilar o‘z yertlariga qaytishi bilan bo‘lib o‘tgan barcha voqealarni o‘z hukumdorlariga aytib berishadi.

Amir Temur bu ko‘rikni qilishi har tomonlama o‘zi uchun muoffaqiyat keltiradi. Chunki birinchidan o‘z qo‘shinlarini jihozlarini ko‘zdan kechiradi,

ikkinchidan har bir bo‘linmalar oldiga borib ularga **“ishonch”** bildiradi. Bu esa o‘z navbatida qo‘shiniga eng kerakli ruhiy ozuqa, ya‘ni jangovar ruhni his etishi uchun asos bo‘ladi. Eng asosiy maqsadi dushman qo‘shinlarini jangovar ruhlarini sindirishga dastlabki qadam bo‘ladi. Elchilar Amir Temurning maqsadini ro‘yobga chiqaradi **[**6].

Ulug‘ Temur mahorabaga otlanishdan avval qo‘shinni safarda oziq-ovqat ta’minoti masalasi bo‘yicha qiyinchilik ko‘rmasliklari uchun ta’minot bo‘linmalarini yuboradi. Bu bo‘linmalar yo‘l yo‘lakay oziq-ovqat g‘amlar, otlar uchun esa yem-hashak to‘plab qo‘riqchi soqchi askar tashlab ketar edi. Amir Temur bu harakarlari bilan qo‘shinni safar mobaynida ham qisqa to‘xtalishlarni oldini olishi, ko‘zlangan marraga esa dushmani kutmagan holatda hujum qilishiga sharoit yaratar edi.

Sohibqiron jang oldi tayyorgarligi ishlarida barcha qo‘shin turlarini ko‘rikdan o‘tkazib chiqar edi. Harbiy musiqachilarga to‘xtalib o‘tadigan bo‘lsak, bu bo‘linmaning xizmati, jangda asosiy jangchilarning xizmati bilan barobar bo‘lardi. Temurning gerblar bilan bo‘lgan janggida ham musiqachilarning xizmati beqiyos bo‘lgan.

Mixail Ivanin o‘zining “Ikki buyuk sarkarda. Chingizhon va Amir Temur: harbiy san’ati, strategiya va taktikasi” asarida keltirilihsicha, “Astoydil himoyaga otlangan gerblar Temur qo‘shinlari hayqirig‘i, karnay va nog‘ora sadolarining tog‘dagi aks sado bilan qaytishidagi shovqindan shu qadar qo‘rqib ketdilarki, natijada bor-yo‘qlarini tashlab, har tarafga qochishga majbur bo‘ldilar” **[**7].

Amir Temur hattoki jangovar bo‘linmalardan tashqari moddiy ta‘minot bo‘linmalari bilan ham to‘laqonli qo‘shin ko‘rigida ishtirokini ta‘minlagan. Qo‘shin ko‘rigida e‘tiborni tortadigan tomoni safda **“jangovar ayollar”**dan tuzilgan bo‘linmalar, tabiblar, qurol-yarog‘larga texnik xizmat ko‘rsatuvchi temirchilar, qurolsozlar, chodir va hammom tiklovchilar, savdo-sotiq bilan shug‘ullanuvchi karvonboshilar bilan o‘zaro suhbatlashib, qo‘shinning moddiy va ma‘naviy ta‘minotini barcha omillar asosida, jumladan, mahsulotlar sifatli, belgilangan muddatida, uzluksiz va tizimli ravishda o‘z jangchilari uchun barcha maishiy sharoitlarini yaratib bergan.

Amir Temurning tarixdagi xizmati yana shundan ibkratki, u davlatchilik boshqaruv tizmi, ichki va tashqi siyosatning, tartib-qoidalari, huquqiy asoslarini yangi tarixiy sharoitda takomillashtirdi **[**8].

Amir Temurning bu kabi jang oldi amalga oshirgan ishlari uning barcha yurishlaridan zafar bilan qaytishiga asos bo‘ldi.

Biz Sohibqiron shaxsini chuqurroq o‘rgana boshladik, o‘zligimizni va ajdodlarimiz jasoratlarini yengilmas kuch qudratini anglay oldik **[**9]. Albatta, ularning harbiy salohiyati, jang maydonidagi qo‘llagan strategiyasi va taktikasi – bu alohida boshqa mavzu. Lekin bu ulug‘ sarkardaning uzoqni ko‘ra bilishi, o‘z vaqtida kerakli bo‘lgan tadbirlarni amalga oshirib, o‘z askarlari qalbida

chinakam vatanparvarlikni, jangovar ruhni singdira olgani biz uchun ulkan ibratdir.

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MAVLONO NIDOIYNING “MANOFE UN-NOS” ASARI HAQIDA

Annotatsiya: Maqolada Qrim xoni Sohib Gireyxonning shaxsiy tabibi, tabobat va yana bir qancha sohalarga doir 22 ta asar yozgan Mavlono Nidoiyning qrimlik savdogarlar tomonidan Muhammad Rahimxonga sovg‘a qilingan “Manofe un-nos” asari va uning o‘rganilishi to‘g‘risida mulohazalar yuritilgan.

Kalit so‘zlar: “Qayunnoma”, xalq tabobati, Germaniyaning Myunxen shahar kutubxonasi, tabib, inson vujudiga foydalar, “Multaqitut-tib”.

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ABOUT MAVLANO NIDIY'S WORK «MANOFE UN-NOS»

Abstract: In the article, the personal physician of Crimean khan sahib Gireykhan, who wrote 22 works on medicine and several other fields, mawlana Nidoi’s work «Manofe un-nos» gifted to Muhammad Rahimkhan by Crimean merchants and its study are discussed.

Key words: «Kayunnoma», folk medicine, Munich city library of Germany, doctor, benefits to the human body, «Multaqitut-tib».

O‘zbek tiliga Davlat tili maqomi berilishi munosabati bilan o‘tmish ajdodlar merosini o‘rganish, ilmiy adabiyotlarni ona tilimizda yozish imkoniyatlari ochildi. Ayniqsa xalq tabobatining boy merosini o‘rganish, uning eng yaxshi tomonlarini hayotga tadbiq etish imkoniyati tug‘ildi. Lekin tarjima qilingan tibbiy asarlar inson salomatligini saqlashda uzoq yillar xizmat qilib kelgan bo‘lsa ham, bu boy merosimizga e’tibor XX asrdan keyin ancha susayib ketganligini ko‘ramiz. Chunki sobiq Ittifoq davrida tabobat ilmiga bag‘ishlangan xalqaro anjumanlarda xalq tabobati merosidan foydalanish masalalari hamisha e’tibordan chetda qoldirilar edi. Sababi, Markaziy Osiyo xalqlarining tabobat sohasida erishgan yutuklar yetarli tan olinmasdi. Vaholanki, barcha fanlar qatori tabobatga oid mukammal yozilgan asarlarni ham maromiga yetkazib tarjima qilib kelinganligiga tarix guvohlik beradi.

Mustaqillik tufayli asrlar davomida shakllanib kelgan an’anaviy Xorazm xalq tabobatini uzoq o‘mishga borib taqaladi. Chunki har bir o‘lka, jumladan Xorazm ham o‘ziga xos xalq tabobatidan tarixiy xazina yaratgan mintaqa hisoblanadi.

Uzoq yillar ilmiy izlanishlar tufayli o‘tmish ajdodlarimiz ko‘plab hayrli ishlar qilganligining guvohi bo‘lmoqdamiz. O‘tmishda ba'zi kishilar tomonidan davlat arboblariga va mashhur shaxslarga noyob kitoblar sovg‘a qilish rasm bo‘lgan. Buning natijasida nodir asarlar, ilm fan to‘g‘risidagi yozma ma’lumotlarning el orasida tarqalishi uchun bir muncha yo‘l ochilgan. Buning yorqin misoli, noma'lum Qrim savdogari Xiva xoni Muhammad Rahimxoni Soniy (Feruz)ga Mavlono Nidoiyning “Qayunnoma” nomli tabobatga oid asarini sovg‘a qilgan. Bu asar Usmonli turk tilidan Mahmud Oxun Al-Xonqaiy tomonidan 1902-yilda “Manofe ul-inson” nomi bilan o‘zbek tiliga tarjima qilingan. Mahmud Oxun Xonqaiy o‘sha davrda Xivadagi Said Zafar masjidida yashagan va ijod qilgan.

Muhammad Rahimxon (1864 – 1910) saroyida tashkil topgan adabiy muhitda shoirlar, olimlar, tarjimonlar bo‘lib, ular tarix, adabiyot va diniy asarlar bilan bir qatorda tibbiy asarlarni ham, arab, fors va boshqa tillardan o‘zbek tiliga o‘girilgan. Xon esa hamisha tarjima qilinishi zarur bo‘lgan asarlar ro‘yxatini tuzib, saroydagi har bir tarjimonning mahoratiga qarab bo‘lib, bergan va uni davlat ishi deb hisoblab kelgan. Chunki Xorazm mamlakatida xalq orasida turli kasalliklar mavjud edi. Tabobat ilmining rivojlanishi ancha pasayganligini hisobga olib, xon barcha viloyatlarda tabib hoziqlarning ko‘payishini, turkiy tilda bitilgan ushbu asarning bo‘lishini, zarur bo‘lganda har bir kasallikni aniqlashni va uning davosini osonlik bilan ushbu kitobdan topishini hisobga olgan edi[23].

Mavlono Nidoiyning mazkur qo‘lyozma tarjima asari farmatsevtika fanlari doktori Rajabboy Sobirov tomonidan Xonqa tumani Oxunboboyev nomli jamoa xo‘jaligida istiqomat qiluvchi Ibrohim Qurbonov xonadonidan 1965-yilda topilgan.Rajabboy Sobirov Mavlono Nidoiy yozgan “Manofe ul-inson” asarini tarjima qilib unga sharh yozishi xayrli ish bo‘libgina qolmay, tibbiyot sohasida izlanuvchilar nabotat olamini o‘rganuvchi va tarixchilarimiz uchun muhim qo‘llanma hamdir. Bu sharh aynan “Feruzshohga noyob sovg‘a” deb nomlangan risoladir. Tarjimonning muvaffaqiyati shundaki, asarning barcha boblarida muallif tomonidan aniq, ko‘rsatilgan kasalliklar, dorinomalar, dori shakllarini tayyorlash va bemorlarga tavsiya qilishdagi o‘ziga xos uslublar haqida haqida yetarli m’lumot berilgan.

Muallif asarida o‘zi haqida to‘xtalar ekan, u Qrim xoni Sohib Gireyxonning (1520-1566) shaxsiy tabibi bo‘lganligini, tabobat va fanning boshqa sohalari bilan shug‘ullanganligini, hamda 22 ta asar yozganligini bayon qiladi. Adabiyotlarda, kutubxonalarida, O‘zbekistonda ham Mavlono Nidoiy yoki uning asarlari haqida hech qanday ma'lumot yo‘q. Biroq nemis olimi Vilgelm Partish (1859) tomonidan nemis tilida tuzilgan “Sharq qo‘lyozmalari” to‘plamining birinchi qismida Nidoiy haqiqatan ham Qrim xoni Sohib Gireyxonning birinchi shaxsiy shifokori bo‘lganligi hamda tabobat sohasida 60

[23] Sobirov R. Feruzshohga noyob sovg’a. – Urganch, 1997.

bobdan iborat asar yozganligi qayd etilgan. Hatto Vilgelm Partish mazkur asarning bir nusxasi Xiva xoniga noma'lum savdogar tomonidan sovg'a qilinganligini ham tasdiqlagan. Asarning bir nusxasi hozirgi kunda Germaniyaning Myunxen shahar kutubxonasida 212 – V inventar nomerida saqlanayotganligini yozadi. Ushbu topilgan asar 60 bobdan iborat bo'lib, arab alifbosida yozilgan Mahmud Oxun Xonqaiy tarjimasidir.

"Feruzshohga noyob sovg'a" risolalasida asarning har bobiga undagi eng asosiy tibbiy ma'lumotlarning tarjimasiga shu bilan birga kasallikning kelib chiqish sabablari va ularni davolash uslublari hamda dori vositalariga hozirgi zamon talablari nuqtayi nazaridan ilmiy yondashilgan. Shuningdek, Nidoiy ishlatgan xalq tabobatining dori turlari, dorivor giyohlarning qo'llanilishi, ularning bir nechta tillardagi nomlari hamda dori nomlari hamma uchun tushunarli izohlar bilan soddalashtirib berilgan.

Tadqiqotchi Sherali Avazmetov 1993-yil Xorazm viloyati Xonqa tumani "Durvadik" qishlog'ida istiqomat qilgan Komil xo'ja boboga o'z otasi Qori Xo'jadan meros bo'lib qolgan XVI asr boshlariga mansub katta tabib Nidoiy Benavoiyning tabobat haqidagi ikki kitobbirni o'z ichiga olivchi asarini topishga muyassar bo'ladi. Birinchisi Nidoiyning "Manofe un-nos" (Inson vujudiga foydalar), ikkinchisi Ja'far xoja Al-Husayniy Al-Karvakiy Al-Hazoraspiyning "Multaqitut-tib" (Tabobat to'plamlari) asaridir.

"Manofe un-nos" asari chiroyli nasta'liq xatida Xorazm shevasida yozilgan. Hajmi 400 bet atrofida bo'lib, har betiga 11 qatordan yozilgan. Asar 60 bobga ajratilgan. Har bir bobda inson tanasi, vujudida paydo bo'ladigan turli kasalliklar, ularning alomatlari, davolash yo'llari, mazkur kasalliklar uchun dorilar tayyorlash usullarigacha juda tushunarli qilib bayon qilingan.

Ushbu asar mohir xattot mulla Qurbonboy bin usto Rahimberdi tomonidan ko'chirilgan. Bu noyob durdonaning muallifi bo'lmish Nidoiyningn o'zi haqida aniq ma'lumotga ega emasmiz. Biroq mazkur "Manofe un-nos" asari uning o'ta bilimdon va tajribali tabib o'tganligini yaqqol ko'rsatib turibdi. Nidoiyning o'zi asarning oltmishinchi bobida quyidagilarni yozadi: "Bul faqir haqir Nidoiy sohibi tasnif xokdoni olamga vujudga kelganimda to'rt og'a-ini edik. Va ularning barchalarining kichigi men faqir Nidoiy Benavoiy edim. Va non va namakdan nasibam tortib, olam sayohatiga tushib, Qrim tarafga azimat etdim va Qrimning hokimi Garoyxon degan mening fazl va kamolimdan ogoh bo'lib, meni o'ziga yaqin sohibroz va mahrami dilnavoz etdi"[24].

Yuqoridagi parchadan Nidoiy XV asrning ikkinchi yarmi va XVI asrning birinchi yarimida yashab o'tgan degan xulosaga kelish mumkin. Chunki Garoyxon hukmronligi aynan shu davrlarga to'g'ri keladi. Asar yozilgan davr bilan hozirgi kun o'rtasida ancha vaqt o'tgan. Shunga ko'ra o'sha davrda ishlatilgan so'zlar, o'simlik, giyoh va taomlar nomlari ham o'zgarishga uchragan. Ko'pchilik, giyoh va taomlar nomlari arabcha va forscha so'zlar bilan

[24] Avazmetov Sh, Manofe un-nos, Toshkent: Xorazm nashriyoti, 2004

atalgan. Sherali Avazmetov tomonidan ushbu asar 2004-yilda “Manofe un-nos” nomi bilan bilan nashrga tayyorlash asnosida yuqoridagi arabcha, forscha va boshqa tushinarsiz so‘zlarni arabcha, forscha va turkiy lug‘atlar asosida o‘zbek tiliga o‘girilgan hamda kitobning tilini saqlagan holda ularni kitobning oxirida, lug‘atda keltirgan.

Bugungi kunda Mavlono Nidoiyning ushbu asari professor Rajabboy Sobirov shaxsiy kutubxonasiga saqlanmoqda.

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QUALITY EDUCATION AND TRAINING IS THE DEMAND OF THE TIMES

Abstract: It is the priority of our time to provide all-round support to the talented young people who are the future of our country, to create favorable conditions for them. In order to organize high-quality educational processes in schools, it is first necessary to improve the infrastructure of all educational areas, to provide schools with modern educational tools, uninterrupted Wi-Fi internet in computer rooms, and more. Our main goal is to continuously provide students with an electronic source of information, to organize reading activities among students, to create strong immunity to ideological "attacks", and to equip them with modern educational tools. In addition, we need to further improve processes such as arousing interest in other languages among young students, organizing various clubs outside of class, and meaningfully organizing their free time. It is our highest task and duty to educate the creators of our tomorrow into highly spiritual people.

Key words: Education, upbringing, modern methodology, highly spiritual young people, modern technologies.

The development of the state, its future is definitely dependent on the way in which attention is paid to education in this nation, to the people who selflessly serve in the field of education. Any nation that achieves high results is based only on dedicated people who serve in the field of education and training. That is why education is the heart of the nation. Education is carried out in harmony with education, although these two concepts are different in form, in essence, they serve the same purpose. The sole purpose of education is to develop a well-rounded person and to serve to reveal the initiative abilities of a person who thinks freely. However, it is difficult to imagine an uneducated "modern man" or an uneducated person. So, these two concepts not only complement each other, but improve side by side. A person who has these two can find his place in the life of our time. However, the formation of the above-mentioned abilities should be organized at a higher level in educational institutions and further improved. In fact, upbringing and education are an integral part of a person, which continues and develops from birth to death. Over the centuries, there have been many reforms in the field of education, which have reached the current indicators.

In fact, education was not organized as comprehensively as it is today and did not achieve such indicators at the national level. However, the organization

of quality education is still the main demand of our time, therefore, new trends and strategies are being defined in the field of education. The main goal is to provide quality education. In addition, there are goals such as sorting young students according to their interests, giving them directions in the field of their choice, and forming skills. As a result of reforms in our country, fundamental changes are being made in the field of education.

Improving the system of personnel training in the field of information technologies is one of the important conditions for the successful implementation of the "Digital Uzbekistan - 2030" strategy, the development of digital technologies and the wide implementation of them in the everyday life of the population. Measures taken to increase the efficiency of the system of vocational training and retraining in the field of information technologies create a solid foundation for providing state bodies and network organizations with qualified IT specialists.

In particular, a school specialized in in-depth teaching of information and communication technologies named after Muhammad al-Khorazmi and branches of a number of foreign universities have been launched, and digital technology training centers are being gradually established in districts and cities..

At the same time, the lack of qualified personnel in the labor market of the republic requires the improvement of educational programs and methods in the field of information technologies, and the strengthening of cooperation between educational institutions and IT companies.

To raise information technology training to a new level in terms of quality, to satisfy the demand of the labor market for qualified IT specialists, as well as the strategy of Actions on the five priority directions of the development of the Republic of Uzbekistan in 2017-2021 "Science, in order to ensure the implementation of the tasks specified in the state program for the implementation of the "Year of Enlightenment and Development of the Digital Economy":

For 5 years, the field of information technology in Uzbekistan, like all other fields, has undergone great changes, which later affected not only the economy, but also the development of the country as a whole. In particular, the speed of the Internet has increased, the number of users of the global Internet network, optical communication lines, mobile base stations, etc., and IT specialists have increased significantly.

Today, we can observe tremendous changes in the field of information technology and communication in the country, and these changes are mainly due to the support provided by the government in the last 5 years.

In addition, on July 24, 2019, the opening ceremony of the IT Park Uzbekistan, Uzbekistan's first technological park in the field of IT, was held. And now, two years later, in honor of its birthday, as well as in order to improve relations with foreign countries and partners, to bring national IT products to the

world market in the IT industry of our country, and to attract foreign partners for joint implementation and development of projects, "IT "Park Rewind 2021" online conference was organized, in which local speakers participated with presentations on the development of a strategy for the formation of IT culture in Uzbekistan, the specifics of creating IT projects and our IT companies.

IT Park CEO Farhod Ibragimov said: "The IT sector, and especially the IT Park, is rapidly developing in Uzbekistan, a unique IT infrastructure is being created, and competitive young IT personnel are being trained. Making Uzbekistan the IT leader of the CIS countries.

We have set very ambitious goals - by 2025, we will have 70% of the population working in outsourcing, create a strong venture capital market, create large-scale IT products, actively explore foreign markets, and achieve the creation of a national market by 2028, and IT services should achieve an increase in the number of exports by 1 billion dollars. The development of the IT sector opens not only the state economy, but also the creation of high-quality electronic textbooks. According to the demand of our time, modernization is entering all areas. It is impossible to be childish. In April 2019, the President of Uzbekistan approved the concept of development of the public education system until 2030. In addition to improving and expanding the educational infrastructure and improving teaching methods, the concept aims to make Uzbekistan one of the 30 leading countries in the world by 2030 according to the PISA rating.

"In schools where children from low-income families receive education, students' achievement level is low, and it is necessary to support these schools," said Sasha Graumann, head of UNICEF's office in Uzbekistan. "In order for all children to have equal opportunities for quality education, it is necessary to provide such schools with the necessary educational materials and highly qualified teachers," he said.

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SPECIFIC FEATURES OF USING INNOVATIVE TECHNOLOGIES TO IMPROVE THE QUALITY OF EDUCATION

Annotation: This article provides information on the basis of the system of using innovative technologies in improving the quality of education, the process of using innovative technologies in improving the quality of education, and the development of scientific methodical recommendations. Also, the content, form, method and means of using innovative technologies in improving the quality of education were discussed.

Key words: pedagogical technologies, identified goals, educational process, intellectual-professional approach.

Updates entering the education system make it necessary to revise and improve its content, structure, and methods. The field of higher education is no exception. Among these are the module system, evaluation based on rating, new pedagogical technologies, and tests, which are widely used in the higher education system. A modern student should have a broad outlook, a free-thinking person who can make an adequate assessment of reality, a sharp talent, a strong will, and in short, a high intellectual power. For this, it is necessary and necessary to establish new innovations in the educational system. It is necessary for the student not to become a (passive) listener-object, but an (active) participant - subject of the educational process.

So, what is the role of integrations in this process? First of all, let's consider the essence of the concept of integration. From a psychological-pedagogical point of view, integration is a socio-psychological aspect, which means the rapid application of something new to the social sphere and the acceleration of the educational process.

Innovations create conditions for overcoming various socio-psychological obstacles in the course of activity. Social groups with different goals, tasks and interests participate in this process. The type of character of motivations also affects the content and quality of innovative activity. In addition, in the process of implementing innovations, the principles, direction and spiritual and moral qualities of a person are also important to a certain extent.

In order to form students' readiness to receive news and participate in it, to increase the ability to receive news, it is necessary to use socio-psychological methods that activate the cognitive process. Examples of such methods include psychological training, role-playing games, etc. The process of new pedagogical

technology introduced into the education system is also a bright example of innovation and integration.

Expressing the identified goals and control tasks in concrete verbs clearly shows the plan of the student's mental activity, determines the direction of self-management. This is an example of a clear view of innovative activity. In revitalizing mental activity, this direction helps to set goals.

Clarity of purpose is productivity of activity. When the activity gives its positive results, this is the same period. However, in the organization of this process, there is a set of positive and negative factors that affect the educational activity of students:

- availability of modern technical means and tools in educational institutions; the existence of various circles, sections, houses of knowledge and the possibility to participate in them;
- material and spiritual conditions created in the family environment and mental stimulation of individuals;
- the continuity of communication with individuals and the rule of a warm interpersonal psychological environment in the family;
- the fact that the prestige of some professions is decreasing in the present period has a strong influence on the educational motivation of students;
- instability of feelings of patriotism and national pride in boys and girls, and the lag behind their formation; [1, 172]

Therefore, strengthening the positive factors in the home, determining measures to reduce and eliminate the effects of negative factors, paying special attention to innovative factors in the integration process, studying and analyzing their psychological basis will give a positive result. Independent opinion is the free expression of existing knowledge, thoughts and attitudes towards reality. Of course, this process does not happen by itself, especially in education. It is known that education is a set of pedagogical relations established between a teacher and a student. In these relationships, mutual trust, demand and order are important, that is, knowledge increases, intelligence improves. This is the main goal of modern pedagogical technologies introduced into the educational system. In the process of the new approach, knowledge appears on the basis of the students' own social order and affects the change of behavior. Expressing independent opinions, the student appears only as a subject of the educational process, that is, creates an educational dialogue with equal rights. In particular, the problematic organization of education has a positive effect on the student's academic activity. In order to make this process more successful, it is necessary to pay attention to the psychological basis.

When the educational process is organized on the basis of modern pedagogical technologies, there are several interrelated stages of knowledge acquisition, situations such as giving, written expression represent the levels of knowledge and understanding. At these levels, a creative approach is not required from the learner. At the next levels of mastering, students are required

to apply the acquired knowledge in practice, obtain certain results, complete, enrich, change, and have their own independent point of view. A problem-based approach is important for these mastery levels.

Organizing the educational process in a problematic way requires an approach to the audience from a specific psychological point of view. For this, there should be no psychological gap between the student and the audience, a warm psychological atmosphere should be created. It is recommended to conduct familiarization training in order to get psychological help. In the introduction training, each student should say his name, the meaning of his name, or say his name and express some quality that he has. Then the rule of effective conduct of today's training is accepted. This process is done together with the audience. The teacher asks the audience what rules students should follow to ensure the effectiveness of today's lesson. To ensure the effectiveness of the training, it is recommended to follow the following rules:

✓ Not interrupting, listening to each other, the ability to listen, the ability to speak in turn, following the rule of raising hands, being patient, mutual respect.

✓ In order to organize the lesson in a problem-oriented way, first of all, the student should be ready to debate, express his thoughts freely, and express a critical attitude. For this purpose, the concepts related to the problems are brought out. Then the problem is clarified and certain conclusions are drawn. This process is expressed in feedback. **[**2,140]

In order to ensure the active participation of the student in the process of solving the problem, the lesson can be conditionally divided into the following three phases:

❖ challenge phase;
❖ awareness phase;
❖ thinking phase;

The challenge phase is the first stage of the lesson, the students' existing knowledge is determined and the student's attention is drawn to the problem. Questions of the following form can be usefully used to organize the call phase:

✓ What information do you have about it?
✓ What do you want to know about it?

Understanding and solving the problem is assumed in the understanding phase. The use of various interactive methods is effective in this. In particular, it is possible to create microgroups, organize a discussion and ask questions in the following order:

✓ Any new information for you?
✓ What is your opinion on this issue?
✓ What aspect impressed you the most?
✓ What do you think is the significance of this?
✓ What do you think the result will be?

In the thinking phase, a solution to the problem is drawn and comments are made. The student makes his own conclusion. It is effective to ask the following questions to attract students' attention in the thinking phase:

- What do you think about it?
- What new ideas came up?
- Can you justify your opinion? **[**3,128]

We observed the following results in melancholic patients with strong internal psychological barriers:

- 44% of 300 students are melancholic, 8% of them are excellent,
- 47% are average, and the rest are satisfactory,
- 56% of students have average to high intelligence level. Lessons are interactive methods and non-traditional.
- 15% of students were excellent, 69% of them achieved good mastery, and 84% of mental abilities-intelligence dynamic increased.

The technology of using innovative methods in the course of the lesson. The developing mental maturity of current students, their thirst for learning, their endless interest in news and their demand for educational content, the teacher's work on himself, improving his skills and further developing his consciousness, among all the innovations in the education system demands to be informed. In recent years, new pedagogical technologies, innovations, new pedagogical and psychological concepts, which have been rapidly entering the educational system, have been mastered and used by the teacher, and have radically changed the educational process. it will not be a mistake to say. During the course of the lesson, a modern teacher should organize his students to look at science from a creative point of view, form in them the characteristics of inquisitiveness and, of course, organize a lesson using new pedagogical technology methods. For this, he needs to be familiar with new educational methods. **[**4,172]

Modern pedagogical technologies are all components of the educational process; it is a perfectly developed technological system that guarantees the setting of specific goals aimed at strengthening the mental potential of students and teachers of educational laws, content, methods, tools and forms, and their full implementation.

Interactive methods are a set of actions aimed at exchanging ideas, complementing each other's ideas, sometimes non-verbally, sometimes verbally. Interactive methods are intellectual activities built on the basis of interaction, which are not limited to performing the function of influence and motivation, but also direct the subjects of cooperation to creative research, help to open and discover an unknown situation can be expressed in comments. The following interactive methods are appropriately used in mastering the educational content, depending on the students' level of knowledge, level of mastery, source of education, didactic tasks:

- ✓ demonstration method of teaching;

- ✓ method of independent work;
- ✓ problematic heuristic modeling method;
- ✓ scientific research methods;
- ✓ problem-research and reproductive method of teaching;
- ✓ inductive and deductive method of teaching;
- ✓ method of control and self-control of teaching;

Various methods are used in lesson systems based on interactive methods. In this case, students are not prohibited from using books, notebooks and other tools, on the contrary, they are encouraged to use such methods. Innovative methods are classified as follows:

- ➢ methods aimed at acquiring new knowledge;
- ➢ methods aimed at practical implementation of acquired knowledge;
- ➢ filling, filling and control methods;
- ➢ methods of checking and evaluating knowledge, skills and qualifications;
- ➢ creative research and research methods;

The main basis of pedagogical technologies depends on the selected technologies so that the teacher and the student can achieve a guaranteed result in cooperation with the specified goal. If every educational technology used in the teaching process to achieve a guaranteed result according to the goal is a cooperative activity between the teacher and the student, if both can achieve a positive result, if the students think independently, It is effective only if they can work creatively, search, analyze, draw their own conclusions, and evaluate themselves and their group.

Each lesson, educational subject has its own technology, that is, it is a two-way process in which the teacher, the student-student are directed to one goal, planned in advance and aimed at providing a guaranteed result. In this case, the choice of technology is aimed at achieving a specific goal and result. In this case, the level of the students is selected depending on the nature of the group, the conditions, and the teacher needs to design the future lesson process in order to be able to see each lesson as a whole and imagine it. It is very important for the teacher to create a technological map of the lesson.

Because the technological map is created for each topic, each lesson based on the nature of the taught subject, opportunities and needs of students. For this, the teacher should be aware of pedagogy-psychology, pedagogy and information technologies, as well as be able to use interactive methods. In the process of teaching, pupils-students are treated as individuals, various pedagogical technologies and modern methods are used to make them feel the responsibility of independent, free thinking, research, a creative approach to every issue, conducting scientific and research work, analysis, enhances their interest in the effective use of scientific literature, reading, science, pedagogy and the profession of their choice. Achieving such results requires the use of innovative and information technologies in the educational process.

As can be seen from the above analysis, for the future teacher's professional competence, it is necessary for him to know the methodological foundations of the application of innovative methods in practice. Among the main, basic qualities that describe the professional personality of specialists, the quality of his education, include "technological competence, Competence in working with information, thinking skill" is listed. **[**5,264].

Logical-hereditary essence, their definition, structure, students for them, specific features explaining the development and formation of terms and concepts, opportunities to solve educational tasks with the help of concepts, ways of forming concepts and other issues N. Mamadov 2009 in the experience of innovative management of general education schools **[**6, 59.], M. Jumaniyozova in 2007 in the process of professional development pedagogical foundations of training teachers for innovative activities showed in their research.

The intellectual-professional approach implies distinguishing the concept based on their intellectual level, taking into account the hierarchical complexity and difficulties in the profession. A hierarchy of modules is formed, taking into account the concept level. In the construction of interdisciplinary modules of education, in the process of systematization of information, in addition to didactic principles, there is scientificity, systematicity and coherence, an intellectual-professional approach is used. Based on the intellectual-professional approach, the internal content, which is considered the core of the interdisciplinary module of education, is distinguished.

In conclusion, it should be said that every teacher who successfully uses interactive methods in the educational process will have the following opportunities:

- ✓ activates students' thinking ability;
- ✓ it is guaranteed that the teacher will achieve the goal of education;
- ✓ students are directed to discussion, debate, discussion;
- ✓ students are taught to think freely;
- ✓ students develop the ability to express their opinion;
- ✓ provides conscious and creative activity;
- ✓ an opportunity to develop critical thinking is created;
- ✓ forms positive motives for educational activities

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MOLIYA TIZIMIGA RAQAMLI TEXNOLOGIYALARNI JORIY ETISH YO‘LLARI VA JAHON TAJRIBASI

Annotatsiya. Globallashuv davrida raqobatning tobora o‘sib borayotgan muammolarini inobotga olgan holda, iqtisodiyotning maqsadga muvofiqligi va boyligi uchun innovasiya juda muhimdir. Bu borada rivojlangan davlatlarda innovasiya mamlakat iqtisodiy rivojlanishining asosiy ustunidir va uni hukumat siyosatinigg eng muhim masalalaridan bir sifatida qarab kelmoqda. Ushbu maqolada moliya tizimida raqamli texnologiyalarni joriy etish yo’llari hamda bu boradagi rivojlangan mamlakatlar tajribasiga oid masalalar tahlil qilingan.

Tayanch iboralar. Raqamli iqtisodiyot, texnologiya, kraudfanding, krauninvesting, elektron tijorat.

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WAYS OF INTRODUCING DIGITAL TECHNOLOGIES INTO THE FINANCIAL SYSTEM AND WORLD EXPERIENCE

Abstract. Given the ever-increasing challenges of competition in an era of globalization, innovation is critical to the viability and prosperity of the economy. In this regard, in developed countries, innovation is the main pillar of the country's economic development, and it is viewed as one of the most important issues of government policy. This article analyzes the ways of introducing digital technologies in the financial system and the issues related to the experience of developed countries in this regard.

Key words. Digital economy, technology, crowd funding, crown investing, e-commerce.

Kirish.

Moliya tizimi o‘ta keng qamrovli va murakkab operatsiyalardan iborat soha hisoblanadi. Koronavirus infeksiyasi oqibatlariga qarshi kurashish moliya tizimi vazifalarining yanada kengayishiga olib keldi hamda ularni bajarish muddatlarini keskin tezlatish zaruriyatini paydo qildi. Moliyaviy operatsiyalarni talab darajasida va oldingidan ancha qisqa vaqtlarda amalga oshirish mutaxassisning intensiv ishlashi bilangina hal qilinadigan ish emas. Buning uchun moliyaviy jarayonni tezlashtira oladigan zamonaviy texnika va texnologiyalardan foydalanish zarur bo‘ladi. Moliya tizimiga raqamli texnologiyalarni joriy etish ana shu maqsadga erishishning ustuvor yo‘nalishlaridan biri hisoblanadi. Mazkur maqola aynan shunday dolzarb

masalaga bag‘ishlangan. Unda moliya tizimiga raqamli texnologiyalarni joriy etishni tezlatishning zaruriyati, dolzarbligi va ahamiyati asoslab berilgan hamda raqamli texnologiyalarni joriy etishning asosiy yo‘nalishlari ishlab chiqilgan.

2019 yilning oxirida paydo bo‘lgan koronavirus insoniyat hayoti va jahon iqtisodiyotini butunlay o‘zgartirib yubordi. Koronavirus infeksiyasiga qarshi kurash jarayonida butun dunyoda bo‘lgani kabi O‘zbekiston Respublikasida ham majburiy ravishda odamlar harakatini cheklash hamda ishlab chiqarish va xizmat ko‘rsatish sub'ektlari faoliyatini vaqtincha to‘xtatish jamiyat hayotiga juda katta salbiy ta'sir ko‘rsatdi. Ya'ni ishlab chiqarish va iste'mol miqdorlari qisqarmoqda, xalqaro iqtisodiy aloqalar toraydi, xomashyo mahsulotlari narxi pasaydi, konyunktura yomonlashdi. Natijada yangi sharoitda iqtisodiy faoliyatning an'anaviy turlaridan muayyan qismi o‘z ahamiyatini yo‘qotdi va uning yangi shakllari paydo bo‘ldi.

Moliya tizimi turli bo‘g‘inlari o‘rtasida hamda soha bilan byudjet tashkilotlari o‘rtasida amalga oshiriladigan operatsiyalar ko‘lami ham haddan tashqari katta. Ular ham ko‘proq qo‘l mehnati yordamida amalga oshiriladi. Blokcheyn tizimidan foydalanish moliyaviy axborotni tezlik bilan va xavfsiz ravishda almashtirish hamda saqlash imkonini yaratadigan texnologiya hisoblanadi. Masalan, blokcheyn usulida pul o‘tkazmalari haqidagi yozuvlarni qayd etish va ularni ishonchli ravishda saqlash mumkin. Blokcheynda operatsiyaga chetdan aralashish, hujjatlarni soxtalashtirish va buzish imkoni yo‘q bo‘ladi. Umuman, u hozir qog‘ozda saqlanayotgan barcha moliyaviy operatsiyalarni blokcheynda yozish va saqlash imkonini beradi. Tasavvur qiling, blokcheyn qay darajada katta iqtisodiy samara beradigan texnologiya hisoblanadi. Blokcheyn mutlaqo shaffof va operatsiyaga chetdan arashish imkoniyatini yo‘q qilishi tufayli korrupsiyaga yo‘l bermaydigan muhim vosita ham hisoblanadi. Qolaversa, u o‘ta konservativ moliya tizimini liberallashtirishga ham yordam beradi.

Mamlakatimizda oxirgi yillarda amaliyotga joriy etilgan va moliya tizimiga ham muayyan darajada daxldor bo‘lgan yana qator raqamli texnologiyalar ham bor. Masalan, mobil telefonlarga o‘rnatilgan Click, Payme, Humo va boshqa dasturlar orqali pul o‘tkazish, moliyaviy operatsiyalarni amalga oshirish shular jumlasidandir. Ularni ishlatish miqyoslarini yanada kengaytirish uchun rag‘batlantirish tizimini ishlab chiqish va uni amaliyotga joriy etish lozim.

Xo‘jalik sub'ektiga iqtisodiy faoliyatni kengaytirish uchun qo‘shimcha mablag‘ kerak bo‘lgan paytda davlat byudjeti va bank kreditidan foydalanish imkoni yoki xohishi yo‘q tadbirkorlar moliyalishtirishning yangi shakllaridan foydalanishga harakat qilishadi. Masalan, rivojlangan davlatlarda “kraudfanding” va “kraudinvesting” deb ataladigan loyihalarni birgalikda moliyalashtirish usullari mavjud. “Kraudfanding” o‘zbek tilida “xalq tomonidan moliyalashtirish” ma'nosini beradi. Bunda internet orqali start-up kompaniyalarni, kichik tadbirkorlikni hamda tabiiy ofatlardan zarar

ko‘rganlarni, masalan, bugungi koronavirusday ofatlardan aziyat chekkanlarni qo‘llab – quvvatlash, birgalikda o‘zaro foydali investisiyalar qilish mumkin.

“Kraudinvesting” esa kraudfandingning turlaridan biri bo‘lib, u ham jahon moliya bozorida startap va kichik biznesga mikroinvestorlar tomonidan investisiya kiritish usulidir. Kraudinvestingda xayriya maqsadlariga mablag‘ ajratilmasligi, faqat foyda olish uchun investisiya qilishi uning kraudfandingdan farqi hisoblanadi. Mazkur operatsiyalarni tashkil etishda ham raqamli texnologiyalardan foydanish juda qulay hamda samarali usul hisoblanadi.

Tahlil va natijalar muhokamasi.

Raqamlashtirish bo‘yicha 246 mamlakatda olib borilgan keng ko‘lamli tadqiqotlarga ko‘ra, RIning rivojlanish ko‘rsatkichlari turli mamlakatlarda turlicha tendensiyaga ega. Dunyo mamlakatlarida raqamli iqtisodiyotning ko‘rsatkichlari va rivojlanish yo‘llarining turlicha bo‘lishiga qaramay, unga faol innovasiyalar uchun qulay shart-sharoitlar yaratish, raqamli texnologiyalar va infratuzilmaga investisiya harajatlarini sezilarli darajada oshirish kabi umumiy bo‘lgan xususiyatlarni kiritish mumkin bo‘ladi.

Qisqa tarixiy taraqqiyot davriga qaramay, raqamli iqtisodiyot birinchi navbatda savdo va internet xizmatlarida - elektron tijorat, internet -banking, elektron to‘lovlar, internet-reklama, internet-o‘yinlar va boshqalarda raqamli texnologiyalardan foydalanishga qaratilgan. Ta'kidlab o‘tish joizki, bugungi kunda dunyoda raqamli platformalar “Amazon”, “Alibaba”, “Facebook”, “Ebay”, “Uber”, “Didi Chuxing” yoki “Airbnb” kabi yirik korporatsiyalar uchun asosiy biznes modeliga aylandi. Bu korporatsiyalar vositachilar va infratuzilma platformalari sifatida muhim afzalliklarga ega. Ular raqamli platformalardan foydalanuvchilar o‘rtasidagi barcha bitimlar bo‘yicha ma'lumotlarni ro‘yxatdan o‘tkazish va qabul qilish imkoniga ega. Elektron tijoratning jadal rivojlanishi virtual makonda bozor mexanizmi asoslarini yaratdi va bu bitimlar sonining barqaror o‘sishiga olib keldi.

XX-asr boshida, axborot texnologiyalari bozorlarida mamlakatlarning ikki guruhi samarali faoliyat yuritganlar:

1) fundamental fani rivojlangan ilg‘or mamlakatlar (AQSh, Buyuk Britaniya, Germaniya, Yaponiya va boshqalar);

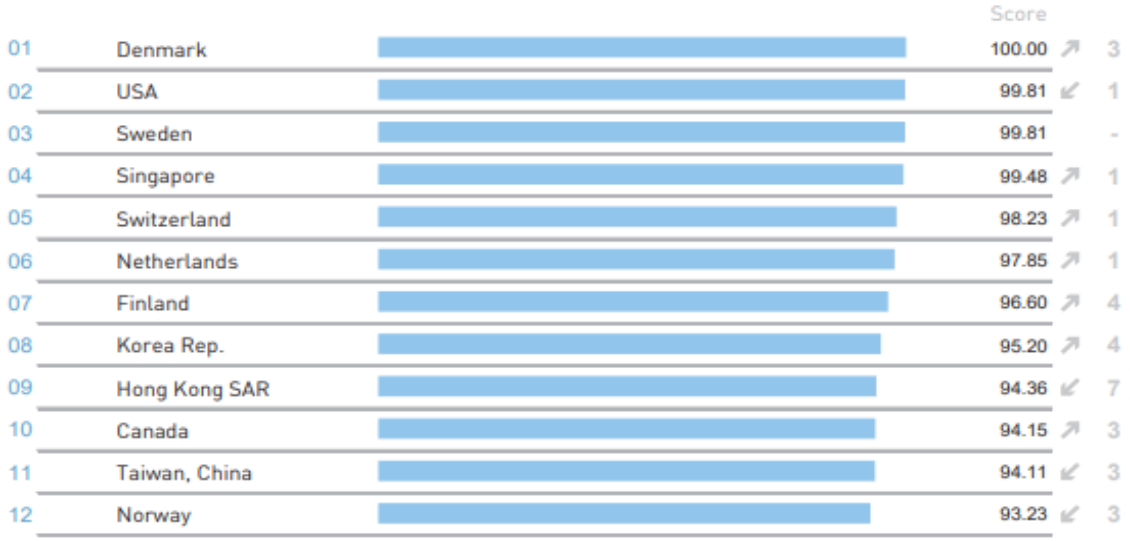
2) birinchi guruh mamlakatlar (Tayvan, Xitoy, Janubiy Koreya va boshqalar)ning innovatsiya va texnologiyalaridan foydalanadigan mamlakatlar.

Keyinchalik uchinchi guruh mamlakatlar xam paydo bo‘ldi: Finlyandiya, Shvesiya, Norvegiya, Irlandiya va Isroil, ular ta'lim, ilm-fan va axborot texnologiyalari tizimlarini samarali modernizasiya qilish orqali jahon bozorlariga chiqishga muvaffaq bo‘ldilar. Bugungi kunda, raqamli iqtisodiyotda ilg‘or va yetakchi mamlakatlarga Norvegiya, Shvesiya va Shveysariyani kiritish mumkin. TOP 10talikka AQSh, Buyuk Britaniya, Daniya, Finlyandiya, Singapur, Janubiy Koreya va Gonkong ham kiradi. AQShda raqamli iqtisodiyotning ulushi 10,9%, Xitoyda 10%, Yevropa Ittifoqida 8,2%, Braziliyada 6,2%ni, Rossiyada 3,9% ni tashkil etadi.

AQSh iqtisodiyotida YaIMning uchdan bir qismi (33%i) raqamli texnologiyalari ta'siri ostida va AQSh moliya sektorining katta ulushi (60%i) raqamli asosga o‘tkazilgan, shuning uchun AQSh moliya sektori dunyoda eng rivojlangan hisoblanadi. Unga yaqin aloqa sohasi bo‘lib, u uzoq muddatli rivojlanish uchun zamonaviy, barqaror raqamli platformani yaratishga va uning ahamiyatini sezilarli darajada oshirishga intilmoqda. Raqamlashtirish sohasida Amerika Qo‘shma Shtatlarining asosiy raqobatchisi Xitoy hisoblanadi, 2021 yilda uning B2C (Business-to-consumer) raqamli bozor daromadi 765 mlrd. dollardan ortiqni tashkil etdi va shu tariqa mamlakatni jahon bozori yetakchisiga aylantirdi. 2018 yilda raqamli bozor AQShda $ 700 milliarddan ortiq daromad keltirdi, Yevropaning 5tamamlakatida (Germaniya, Buyuk Britaniya, Fransiya, Italiya, Ispaniya) esa raqamli bozor daromadi 500 milliard dollardan ortiq bo‘ldi.

Internetdan foydalanuvchilarning asosiy ulushi Osiyoda joylashgan, ammo aholi orasida internetdan foydalanuvchilar ulushi bo‘yicha Osiyo ikkinchi o‘rinda turadi-aholining faqat yarmi internetdan foydalanadi (49,7 %). Ushbu ko‘rsatkich bo‘yicha Shimoliy Amerika birinchilardan bo‘lib, uning internet foydalanuvchilari mintaqa aholisining 88% ini tashkil qiladi. Internetdan foydalanuvchilarning eng yuqori darajada o‘sishi Shimoliy Yevropa (94 %),G‘arbiy Yevropa (90%) va Shimoliy Amerikada (88%) kuzatilmoqda. Afrikada eng tez, yiliga 20 % dan ortiq o‘sish sur'atlari kuzatilmoqda.

Rivojlangan mamlakatlarda, xususan, AQSh, Yevropa Ittifoqi, Yaponiyada internetdan foydalanuvchilar aholining o‘rtacha 81%ini, rivojlanayotgan mamlakatlarda internetdan foydalanish ulushi esa 40% ni, Rossiya, MDH va Sharqiy Yevropa kabi o‘tish iqtisodiyotini boshdan kechirayotgan mamlakatlarda 15% ni tashkil etmoqda. Xitoyga aholi soni bo‘yicha (aholisining 55,8%i) dunyodagi eng yirik internet auditoriya, shu jumladan mobil banking foydalanuvchilari (97,5%) tegishlidir.



1-rasm. Jahon raqamli raqobatbardoshlik reytingi 2022

2022 yil holatiga ko'ra, Daniya dunyodagi eng raqamli raqobatbardosh mamlakat deb topildi. Raqamli raqobatbardoshlik reytingi mamlakatning raqamli texnologiyalarni o‘zlashtirish va ushbu texnologiyalarni korxonalar va davlat tashkilotlari doirasida joriy etish qobiliyatini tahlil qilishga qaratilgan. Skandinaviya mamlakatlari ro‘yxatda yuqori o‘rinni egalladi, Shvetsiya, Finlyandiya va Norvegiya ham birinchi o‘n beshtadan joy oldi. Amerika Qo'shma Shtatlari 2021 yilda eng raqobatbardosh davlat sifatida ikkinchi o'rinni egalladi.

Shunday qilib, jahonda raqamli iqtisodiyotni milliy darajada rivojlantirish va davlat tomonidan tartibga solish borasida ancha tajriba to‘plangan. Bunda faqatgina jahon tajribasida AQSh, Kanada, Yaponiya va Yevropa Ittifoqi kabi yetakchi davlatlarininggina amaliyotlari yetakchi hisoblanmaydi. Qator holatlarda Xitoy yoki Hindiston kabi rivojlanayotgan davlatlar ham milliy xo‘jalik yuritishining raqamli iqtisodiyot rivojida yutuqlarga ega bo‘lib, ular nafaqat xalqaro mehnat taqsimotida autsorsing bo‘yicha bozorni egallamoqdalar, balki, o‘zlari ham, masalan, Xitoy kabi, astasekin yetakchi mamlakatlarga AKTni rivojlantirish standartlarini qo‘yishni boshlamoqdalar.

Elektron tijoratning rivojlanish tendensiyalarini hisobga olgan holda bugungi kunda elektron tijorat zamonaviy iqtisodiyotning ajralmas qismiga aylandi. Iste'molchilarning tobora ko‘proq qismi internet orqali tovarlarni sotib olmoqdalar, tijorat tashkilotlari esa u yoki bu tarzda tadbirkorlik faoliyatini amalga oshirishda ushbu tarmoq imkoniyatlaridan foydalanmoqdalar. Elektron tijoratning iste'mol segmentida jami butun jahon sotuvi hajmi 2012 yildayoq 1trln.dollardan oshgan edi va hozirgacha yanada barqaror o‘sib bormoqda. McKinsey baholashiga ko‘ra, 2030-yilga kelib butunjahon elektron tijorat xalqaro savdo hajmini 1,3-2,1trln.dollarga oshirishi mumkinligini taxmin qilmoqda, bu esa sanoat tovarlari savdosi hajmini 6-10% ga oshiradi.

Xulosa va takliflar.

Moliya tizimiga raqamli texnologiyalarni jalb etishning shakllari va imkoniyatlari juda katta. Mazkur maqolada raqamli texnologiyalarning moliya sohasiga tezda va kam xarajat bilan joriy etish mumkin bo‘lgan ayrim yo‘nalishlari haqida fikr yuritildi, xolos. Davlat byudjeti va mahalliy byudjetlarni shakllantirish, bajarish, xarajatlar monitoringi, bajarilishini tahlil qilish, moliyaviy hisobotlarni tayyorlash va topshirish, turli jamg‘armalar mablag‘larini ulardan yordam oluvchilarga tarqatish, sarflash, monitoringini yuritish va hisobotini topshirish, moliya tizimi turli bo‘g‘inlari o‘rtasida hamda soha bilan byudjet tashkilotlari o‘rtasidagi moliyaviy munosabatlar, Click, Payme, Humo va boshqa dasturlar orqali pul o‘tkazish, moliyaviy operatsiyalarni amalga oshirish ko‘lamlarini kengaytirish, xo‘jalik sub'ektiga qo‘shimcha mablag‘ kerak bo‘lgan paytda davlat byudjeti va bank kreditidan foydalanish imkoni yoki xohishi yo‘q tadbirkorlar moliyalashtirishning yangi shakllaridan foydalanish jarayonlariga (masalan, “kraudfanding” va

“kraudinvesting” usulida) hozirning o‘zida qisqa muddatlarda raqamli texnologiyalarni joriy etish mumkin.

Mazkur maqolada bayon etilgan mulohazalar raqamli texnologiyalarning foydali jihatlari juda ko‘p ekanligidan dalolat bermoqda. Ular jamiyat hayotini, jumladan, moliya tizimini tubdan o‘zgartiradi, uning taraqqiyotini yangi bosqichga olib chiqadi. Mazkur masalaning yana bir o‘ziga xos jihati shundaki, koronavirus pandemiyasi tufayli kiritilgan cheklovlarmamlakatimizda raqamli texnologiyalardan foydalanish zaruriyatini yanada kuchaytirmoqda. Lekin bu jarayonning salbiy oqibatlari ham bor. Ya'ni raqamli texnologiyalardan foydalanish ko‘lamlari ortib borgan sari moliya tizimidaan'anaviy lavozimlarning ma'lum qismiga ehtiyoj kamayib boraveradi. Shu bois moliyachi mutaxassislar raqamli texnologiyalarni puxta o‘rganishlari ayni paytda davr talabiga aylandi. Umuman aytganda, moliya tizimi xodimlari raqamli texnologiyalar davriga o‘tishga puxta tayyorgarlik ko‘rishlari va jahon raqamli moliya sahnasida o‘zlariga munosib o‘rin olish uchun qattiq kurashishlari talab etiladi.

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TEACHING ENGLISH TO ESP STUDENTS

Abstract. Teaching English to med students (medical students) is a hard process for professors of English as a second or foreign language. Additionally, both professors and learners encounter significant challenges and barriers when it refers to educating and mastering medical terminology. Professors find it tough to express concepts disguised in terminology from languages other than English, including such Greek and Latin, which belong to the Indo-European and Romance linguistic groups. As a consequence, students are intimidated by extensive and sophisticated terminology and also have difficulty pronouncing, pronouncing, and comprehending foreign forms. My latest research looks into the issues that young doctors have in mastering medical terms. It supplies participants with a wide range of educational methodologies.

Keywords: Medical students, Indo-European and Romance linguistic groups, Greek and Latin, foreign forms, medical terms.

INTRODUCTION

English is employed as the language of training in a wide range of occupations and services. It distinguishes from those other worldwide languages in that it openly and commonly accepts words from other languages. Many terms from Arab, Latin, Greek, French, even German, for instance, can be used not only within ordinary English but additionally in specialized areas of medicine, pharmacology, and many others. Numerous healthcare terminology, for example, have derived from the abovementioned languages, which also included Arabic, Latin, Greek, French, and German. Because English is so widely used currently, these languages really improved and were absorbed into it. As a result, English may be regarded as an overlapping language rather than a distinct language. Numerous different languages have contributed to and continue to contribute significantly to the English phenomenon. Furthermore, (Serjeantson, 1935) notes that certain terms entered English indirectly through an intervening language rather than directly through interaction with the originating language. Many of the early Italian loan phrases flow through French in this way, as do many of the earlier loan words from the east, many of which have previously passed through Greek before reaching Latin.... Words went thousands of kilometers from Asia to Europe, then from east to west and south to north through Europe, and all the way around the Mediterranean from nation to nation and generation to generation. (Talgeri, 2004) There is absolutely no wonder that English, similar to any other language, offers native speakers with such a broad range of implementations in multiple fields; even so, it is also worth mentioning that this really provides non-native English speakers with

such an equally large variety of using it since it is international and can be applied to various fields of science, retail, commerce, and interaction between various nations around the world. 2005 (Abdullah) There really are three different varieties of English. English is utilized by two methods for students of English as a first language (L1), second language (SL), or foreign language (FL): English for general purposes (EGP) and English for specific purposes (ESP) (ESP). EGP supplies an infinite number of languages that can be applied for a wide range of tasks without defining particular needs or people. Medical English is a subset of ESP that is tailored to the demands of those studying and practicing in the medical industry. The current study seeks to assess the challenges that medical students encounter while seeking to understand complex vocabulary, as well as to give tactics, procedures, and approaches for comprehending the principles concealed behind such terminology.

METHODS

The value of teaching English to healthcare learners is increasing. This is based on the fact that only the full development of competencies that ensure high-quality interaction between future doctors and their foreign colleagues in a variety of professional and academic environments is an essential aspect in the success and productivity of our future healthcare workers' job. As a consequence, working with students who learn a foreign language for specific purposes involves unique challenges. The first challenge is that planning time can be seriously constrained. Moreover, particular students' requests and needs present extra challenges for professors, which are associated with the actualization of English language in the realm of highly specialized professional communication. In this setting, the educator is regularly required to develop creative materials which are suitable for the learners' academic needs. The attraction of various authentic medical documents in English newsletters for patients, medical quizzes, multimedia materials, and leaflets in English that are distributed in medical centers in English speaking countries with the purpose of educational work among the population, in English-language medical sites, and telemedicine can help to solve such problems. All of these resources are quite valuable when developing this type of course. Furthermore, in order to completely comprehend the meaning of medical terms and concepts. Tactics, strategies, methods, and approaches are all viable options. The main focus of understanding and teaching medical terminology must be on the most important techniques and strategies. Domestic and well-known international textbooks, as well as medical faculty guides authored by domestic writers, can be used to improve educational efficacy and teach students. These resources assist students in developing a lexical and grammatical foundation, as well as skills for dealing with specific texts and knowledge of anatomy, physiology, and pathological processes. In addition, academic and professional terminology should be introduced in context. For instance, students can be taught the context of a new vocabulary unit through different texts, or they can be exposed to medical

terminology and given practice using it. Exercises such as naming skeleton bones, emphasizing digestive system organs, matching terms and definitions, filling in blank phrases, and contrasting medical language with its everyday equivalents should also be used.

FINDINGS AND DISCUSSIONS

In addition, each student has a distinct requirement in the classroom. As a result, the vocabulary lesson is a theme one. The majority of pupils lack motivation to study English vocabulary, and they have difficulty recalling words with similar pronunciations but different meanings. Furthermore, (August, Carlo, Dressler, and Snow, 2005) discovered that English language learners with delayed vocabulary development performed worse on grade level reading tests than their counterparts. According to (Harmer, 1992), this was considered incidental to the primary goal of language teaching, which was the development of grammatical knowledge about the language. When studying structure, terminology was essential to provide pupils with something to grasp onto, but it was rarely the major focus of learning itself. As a result, one of the most practical and effective techniques for teaching and learning English vocabulary is to use visual aids, particularly pharmaceutical packages. Using a medicine box as a realistic teaching tool might help students concentrate on the topic, engage their attention, and broaden their understanding of global health. With the help of this medium, students can have fun, decompress, and keep their minds open to studying and practicing language. Conclusion Finally, the terminology represents concepts that pupils have thoroughly grasped or ideas that they may freely and actively employ when needed. Terminologies are included in students' active vocabulary because they are required for professional responsibilities as well as concept construction and formulation in a foreign language. The employment of terminologies in the professional environment of foreign language communication is determined by one's communicative competence. Terminology training in the context of a communicative approach is inextricably tied to the construction of speech patterns that mimic genuine professional activity scenarios. Based on the results of this study, we can conclude that English teachers can successfully address the issue of developing non-philological students' professional communicative competence by teaching terminology during verbal communication. Improving their capacity to hold a full-fledged professional conversation in a foreign language is one component of this.

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GEOGRAPHICAL FEATURES OF PILGRIMAGE TOURISM (IN THE CASE OF KASHKADARYA REGION)

Abstract: This article talks about the importance of Kashkadarya region in the development of pilgrimage tourism. The author, relying on archaeological data, archival documents and written sources, analyzed the problem on the basis of available scientific and historical literature and studied the features of the Kashkadarya region in the development of tourism. In addition, the article provides information about the activities of our research government in the field of tourism.

Keywords: pilgrimage tourism, pandemic, domestic tourism, picturesque beauty, tourism infrastructure, tourism potential, natural tourism.

INTRODUCTION

One of the most pressing problems until recently, the pandemic has had its negative impact on all sectors of the world economy, especially the tourism sector. The pandemic has led to a reduction in people's demand for travel, both omovially foreign and domestic. According to the World Tourism Organization, pandymia caused 730 billion dollar losses to the tourism sector in the first eight months of 2020. And the number of tourists decreased by 70%. During the pandemic, large shocks both economically and in terms of violations of social relations came to the tourism industry. About 75 mln jobs have been lost in the world tourism sector. In Uzbekistan itself, there is also information that about 45-50 thousand crowns are canceled. How to get out of the crisis after the pandemic worries all states. After the pandemic, the demand for foreign tourism for travelers will sharply decrease, and the need for domestic tourism will increase. This necessitates a greater attraction of tourists, further developing domestic tourism, especially pilgrimage tourism.

MAIN PART

In the socio-economic development of the Republic of Uzbekistan, the role and role of the spheres of service for the population is very significant, in which the importance of tourism is developing with higher rates than in other areas of Service. Therefore, in the following years, great attention has been paid to issues related to the development of tourism in Uzbekistan, and ways of effective use of its tourist potential are being formed. Therefore, the economic development of the tourism sector, which is currently one of the modern types of service network, is becoming more important.

Improving tourist activity through the development of tourism in our country and increasing competition in the domestic market, establishing mutual

cooperation remains a requirement of the time. The emergence of strong competition in the conditions of innovative development necessitates the use of advanced technologies and innovations in tourist activities. Today, on the basis of the scientific research of pilgrimage tourism, which is developing all over the world, the realization of the territorial impact of sacred shrines and pilgrimage tourism on sacral geographical objects, their economic geographical aspects, the analysis of rituals associated with shrines, the study of local features of sacral and natural geographical objects of pilgrimage tourism is widely promoted.

RESULTS AND DISCUSSIONS

It is known that Kashkadarya region is a kind of picturesque beauty, famous for its geographical location, unique nature and sacred shrines. Especially in recent years, the need for the development and investigation of domestic and pilgrimage tourism in our country has become extremely urgent. Kashkadarya region is one of the most ancient regions of our country with a rich history, developed culture, fertile land. This oasis, located between the Zarafshan and Amudarya rivers of Kashkadarya, was called South Sughd, South Turon in ancient times, has a favorable climate and water conditions for agriculture and livestock, and its unique beautiful nature, has attracted the attention of many since ancient times. There are more than 7 thousand historical monuments in Uzbekistan, more than 200 are on the UNESCO list. As a state rich in monuments of Islamic culture, preservation and historical monuments, Uzbekistan occupies the 9th place. In the kashkadarya region, there are a total of 894 cultural heritage sites. 638 of them are archeology, 181 are architecture, 75 are sculpture monuments, and 37 are shrines. Kashkadarya is a picturesque region for both tourists and visitors. Outstanding scientists and thinkers known all over the world in our Holy Land have found eternal rest. Their rich spiritual and cultural heritage is of great interest to the whole world as before. Hundreds of shrines are preserved as historical and cultural monuments of our people. Here are the steps of the pilgrims from this Abu Ubayda al-surgeon, Abu Muin Nasafi, Muradbakhsh father, Isak father, Tatar mosque, anchor father, Sultan Mir Haydar, Hazrat Bashir, Mirijan father, Kumchup father, Gusam father, quarried father, Tahir-Zukhra and other such holy steps uzilmaydi.Va this is not just a journey, it is an opportunity to realize yourself, a hope for spiritual purification, a wish for the positive of prayers and desires, a path to faith. Pilgrimage it is an appeal to the Almighty through past Saints, to calm his mind and spirit, to realize the truth of holiness, to go through the path of loneliness and purification.

Al-Jarrah memorial complex in Abu Ubayda, located in Karshi, is also crowded with pilgrims every day. Especially every Wednesday of the week, a lot of people visit this shrine for visiting purposes. If we look at the history of this shrine. One of his great companions, Ubayda, when sahibkiran Amir Timur conquered the Lands of Damascus in the late 14th century, was brought from the Tomb of Omir ibn Al-Jarrah khaki and buried in Karshi, where he built a

mausoleum. The mausoleum is broken. The complex, restored in the 2nd half of the 20th century, consists of a mausoleum, a porch, a tower. There are also many shrines in the Guzar district, which are shrines such as Father The Stranger, father the Mirijan, father the Sandball, and Tahir-Zukhra. Those who live in the district go to these shrines and make a pilgrimage. Pilgrims from other regions also come to the Tahir-Zukhra shrine and go on a pilgrimage. The main part of the pilgrimage consists of praying, praying (worship) and religious worship of holy places. Muratbakhsh father shrine is located in the village of Maymanak, Kasbi District of kashkadarya region. This shrine is located on Mount Maymanak. The pilgrims come out to the shrine of the muratbakhsh father with intent, and they are mentally relieved.

In Uzbekistan, special attention is paid to the development of not only tourism, but also pilgrimage tourism, which is an integral part of it. Even with the decree on the development of domestic tourism and pilgrimage tourism, the issue of creating many opportunities for visitors who come today, creating a wide range of opportunities for hotels and entrepreneurs serving pilgrimage tourism has taken place. Despite the huge opportunities in the field of Tourism, Uzbekistan's tourism infrastructure, the quality of tourism services and its level, as well as the network management system, do not comply with modern requirements in the context of globalization and sharp competition. New potential types of tourism – pilgrimage, historical, environmental, educational, ethnographic, gastronomic, Sports, treatment-wellness, intensive development of rural, business, Children, Youth and family tourism;

CONCLUSION

Despite the fact that pilgrimage tourism is modern, its roots go back to a long history. The pilgrimage, which has gone through the historical epochs of tarakkiyot, is today manifested in a transformed (re-transformation, Re-Formation). This serves as one of the main factors for the development of pilgrimage tourism. Pilgrimage tourism has a significant impact on the social, economic, spiritual life of the population, as a result of showing the spiritual image of countries. Pilgrimage tourism, which is developing as a separate direction in the tourism industry, is causing new surprises with its peculiarities. A number of issues awaiting a solution in the direction of visiting tourism are in particular the establishment of state-standard hotels and the introduction of this type of catering and other service services and other aspects.

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METHODOLOGY OF USING NEW PEDAGOGICAL TECHNOLOGIES IN TEACHING THE SCIENCE OF DRAWING GEOMETRY, DISTANCE GRAPHIC LEARNING TECHNOLOGY

Annotation: This article focuses on the issues of using new pedagogical advanced pedagogical technologies for young students from drawing geometry, which is one of the important subjects included in the engineering cycle. It also talks about the importance of information technologies in independent education, the preparation and transmission of resources suitable for the worldview of young people in a modern, interactive and creative way using information technologies.

Key words: drawing geometry, pedagogy, creative, interactive, content, independent education, graphic teaching technology, electronic resource and electronic test.

Distance learning is a system where the student and the teacher are located at a certain distance. In this case, the teacher is required to be organized on the basis of tools such as computers, satellite communication, and cable television during the lesson.

All these tools allow students to implement the practical skills and competencies they have formed in the lesson under the supervision of the teacher.

The Internet allows students to quickly familiarize themselves with the work of the educational institution and post their thoughts. Audits can be distributed by accessing the Internet and received from local e-mail.

Works of this type help to model network forms of distance education in the classroom.

The following are the advantages of distance education over traditional forms.

1. Creative teaching environment. In education based on traditional methods, the student learns only the given material. Based on the distance learning method, the students themselves have the opportunity to search for the necessary information from the information warehouse and to teach and share their experiences with other students.

2. Presence of major changes in the workplace. Education based on the distance education method creates a wide range of conditions for different students (especially students who are learning without being separated from production);

3. A new and effective means of teaching and learning. Statistics show that distance learning is very effective. The advantage of students studying in this way is that they are provided with the best and high-quality didactic materials and potential teachers. In this way, students can get acquainted with world news through the Internet.

The sequence of implementation of organizational-methodical models in distance education is as follows.

1. Systematized teaching-methodical materials (case-technology) compiled into cases and sent to students (students) for independent study, the contents of the cases are changed over time. They are filled with magnetic carriers and records. They begin to use television (TV) technology for training and practical implementation. In this case, the student periodically comes to the tutors' daytime consultations in educational centers.

2. Multimedia teaching (in which technology is provided by the teacher-consultant, cases, game situations, simulation models).

3. Networked distance learning (incorporating the first) - remote control, including communication with teachers of foreign educational institutions.

4. Virtual university (the highest form of distance learning organization, for example, the virtual university of the European Union).

Teachers participating in distance learning are required to acquire certain knowledge, skills and qualifications. These knowledge, skills and abilities can be divided into the following parts.

1. General knowledge and skills of the teacher in the field of new information technologies in education:

- to know the principles of operation of a personal computer and its external devices;
- acquisition of modern software;
- Mastering the basic principles of working on the Internet and software;
- knowledge of methodological materials and scientific literature on the problem of using new information technology tools in teaching;
- to understand the possibilities of using a computer to manage the educational process;
- analysis of the didactic potential of the software;
- organizing and conducting trainings using new information technology tools;
- to independently search for information from the Internet, various electronic directories, databases, information search systems and dictionaries;
- to store information, to be able to analyze it and choose forms of representation;
- applying the obtained information to the issues being resolved;

2. Special knowledge and skills of teachers in the field of using the Internet:

- to know the main forms of telecommunication systems and general principles of operation;

- understanding the peculiarities of users' access to the Internet at different levels;

- to know the specifics of organizing and holding teleconferences;

- knowledge of telecommunication etiquette;

- to be able to use various means of telecommunication to exchange information with other users;

- having network information "navigation" skills;

- to be able to understand the specifics of using software tools for organizing distance education courses;

- ability to work with e-mail;

- ability to communicate with users through the network;

- work with modern hypertext and hypermedia systems;

- To be able to distinguish among the Internet information materials suitable for the purpose of education;

- to be able to prepare information for network transmission using various application programs and necessary utilities.

3. Pedagogical and psychological skills of the teacher and general knowledge and skills in their field:

- to know the personal styles of distance learning students in learning activities;

- to know the factors that determine the activity of students in distance education;

- to know the specifics of the process of acquiring knowledge in distance education;

- To know the features of organizing independent work of students in the information environment of the Internet;

- to have methods of communication with distance education participants;

- to be able to create a personal psychological-pedagogical portrait of students;

- to be able to create a personal psychological-pedagogical portrait of students;

- psychological support of students at the initial stage of educational activity;

- to be able to conduct a virtual educational psychological-pedagogical diagnosis;

- creating a psychological environment in a virtual study group;

- to prevent and resolve conflict situations.

4. General knowledge and skills of the teacher in the field of educational management:

- knowledge of modern methods of personal orientation - cooperative learning method, research method and other methods;

- to have individual, group and frontal methods of education;
- ability to adapt the form of teaching to the conditions of the Internet;
- ability to combine individual, group and frontal forms of education when working with distance students.

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KO'P UCHRAYDIGAN YOPIQ BUYRAK JAROHATLARI

Annotatsiya: Buyrak shikastlanishi qorin bo'shlig'i og'ir shikastlangan bemorlarning 10% da kuzatiladi. Umuman olganda, genitoüriner shikastlanishlarning deyarli 65% buyrak shikastlanishi bilan birga keladi. Genitoüriner tizimning ushbu organi ko'pincha ichki tashqi jarohatlar bilan shikastlanadi. Buyrak shikastlanishlarining katta qismi (85-90% hollarda) to'mtoq jarohatlar, odatda yo'l-transport hodisalari, yiqilish yoki kaltaklash natijasida yuzaga keladi. Davolash natijalari asosan erta tashxis qo'yish va jabrlanuvchini kasalxonaga o'z vaqtida etkazish samaradorligi bilan belgilanadi.

Kalit so'zlar: buyrak shikastlanishi, jarohatlar, ko'karishlar, perirenal gematoma, davolash taktikasi.

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CLOSED KIDNEY INJURIES

Annotation: Kidney injury is observed in 10% of patients with severe abdominal injuries. Overall, nearly 65% of genitourinary injuries are accompanied by kidney injury. This organ of the genitourinary system is injured most often with domestic external injuries. The vast majority of kidney injuries (85–90% of cases) are due to blunt trauma, usually from traffic accidents, falls,

or beatings. The results of treatment are largely determined by the effectiveness of early diagnosis and timely delivery of the victim to the hospital.

Key words: kidney injury, injuries, bruises, perirenal hematoma, treatment tactics.

Buyrak shikastlanishi – shikastlovchi omil ta'sirida buyraklar yaxlitligining yopiq yoki ochiq buzilishi. Qorin bo'shlig'i og'ir jarohatlari bo'lgan bemorlarning 10% da buyrak shikastlanishi kuzatiladi. Umuman olganda, siydik chiqarish shikastlanishlarning deyarli 65% buyrak shikastlanishi bilan birga keladi. Buyrak shikastlanishlarining katta qismi (85-90% hollarda) yopiq jarohatlar, odatda yo'l-transport hodisalari, yiqilish yoki kaltaklash natijasida yuzaga keladi. Ko'p jarohatlar engil og'irlikda kechadi.

Buyrak shikastlanishlari ikkita katta guruhga bo'linadi: yopiq va ochiq (yaralar). Ochiq jarohatlarning tabiatiga ko'ra o'q, parchalanish, sanchish, kesish va boshqalar ajratiladi. Ochiq jarohatlar ichida buyraklar teginish yaralar bilan ajralib turadi; kosa va tos suyagi shikastlangan yaralar; buyrakni maydalanishi; qon tomir shikastlanishi.

Yopiq jarohatlar fibroz kapsulaning yaxlitligini buzmasdan ko'karishlarga bo'linadi; buyrak parenximasining yorilishi, kosa va buyrak tos suyagiga etib bormaydi; buyrak parenximasining yorilishi, kosa va buyrak tos suyagiga kirib boradi; buyrakni maydalanishi; qon tomirning ajralishi yoki siydik yo'lining ajralishi.

Buyraklar va siydik yo'llarining shikastlanishi jabrlanuvchining og'ir ahvoli, ko'p qon yo'qotish, kuchli og'riq sindromi bilan tavsiflanadi. Davolash natijalari asosan erta tashxis qo'yish va jabrlanuvchini kasalxonaga o'z vaqtida etkazish samaradorligi bilan belgilanadi.

Tadqiqotning maqsadi - yopiq buyrak shikastlanishlarining xususiyatlarini aniqlash.

Material va tadqiqot usullari: Andijon Davlat Tibbiyot Instituti klinikasi urologiya bo‘limida statsionar davolangan 6 nafar yopiq buyrak shikastlangan bemorlarning retrospektiv tahlili. Bunda umumiy klinik tadqiqot usullari qo'llanilgan: shikoyatlar to'plash, anamnez morbi, anamnesis vitae, laborator va instrumental usullari (ultratovush tekshiruvi, buyrak shikastlanishining og'irligini aniqlash uchun ekskretor urografiya va kompyuter tomografiyasi o'tkazildi).

Tadqiqot natijalari shuni ko'rsatdiki, erkaklar ko'proq yopiq jarohatlarga duchor bo'lishadi: 4 nafar erkak, 2 nafar ayol, o‘rtacha yoshi 26,5±2,3 yosh. Jarohatdan keyin shifohonaga qabul qilishgacha bo'lgan vaqt 30 daqiqadan 120 soatgacha (o'rtacha 8 soat) tashkil qilgan. Aniqlanishicha, 3 nafar erkak balandlikdan yiqilgan, bir erkak va ikki ayolda kaltaklar buyrak shikastlanishiga sabab bo‘lgan.

Bemorlarning ahvolining og'irligi RTS shkalasi bo'yicha baholandi (Qayta ko'rilgan Trauma Score), u o'rtacha 6,2 (0 - klinik o'lim, 7,841 - normal). Yengil

buyrak shikastlanishi (organ shikastlanishi shkalasi bo'yicha I-III daraja - OIS) konservativ davoga ko'rsatma bo'lib, og'ir (OIS bo'yicha IV-V daraja) - ko'pincha nefrektomiya qilinadi. Shu bilan birga, qo'shma travmada davom etayotgan qorin bo'shlig'i qon ketishi shoshilinch laparotomiyani talab qiladi, bu ko'pincha yuqoridagi tadqiqotlarni imkonsiz yoki ma'lumotsiz qiladi. Shuning uchun buyrak shikastlanishi allaqachon laparotomiya paytida tashxis qilinadi.

Barcha bemorlarda gematuriya qayd etilgan. 6 nafar bemorda (bundan tashqari, polikistoz buyrak kasalligi fonida - 2 tasida) sonografiya yordamida buyrak shikastlanishi belgilari aniqlangan. Operatsiya qilingan 3 nafar bemorda aralashuv vaqtida retroperitoneal gematoma (RG) aniqlandi, u paranefrik to'qimalarga tarqaldi. 1 ta kuzatuvda pararenal gematomalar (PG) aniqlangan, ular operatsiya davomida rivojlanmagan. Bir holatda buyrak yorilishi tikilgan. Barcha holatlarda tanlangan taktika bilan bog'liq operatsiyadan keyingi asoratlar yo'q edi.

Xulosa: Buyrak shikastlanishining ogirlik darajasi va keyingi davolash taktikasi jarrohlik paytida aniqlanadi.

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LOGISTICS COMPLEXES SPECIALIZED IN INTENSIVE CULTIVATION, PROCESSING, DRYING AND SALE OF FRUIT AND VEGETABLE PRODUCTS IN KHOJHAABAD DISTRICT (AS AN EXAMPLE OF NAVIGUL LOGISTICS CENTER)

Annotation: In this article, logistics complexes specializing in the processing, drying and sale of fruit and vegetable products in Khojaabad district (as an example of the logistics center "Navigul"), their importance in the economy of the district, indicators of economic efficiency, available jobs creation, export potential were discussed.

Key words: Cluster, logistics, drip irrigation, bordeaux liquid, abresquitl, chemical preparations, veretino form, potassium, phosphorus, intensive, extensive.

Introduction: Analysis of the experiences of developed countries in the cultivation, storage, processing and export of fruit and vegetable products shows the need to develop cooperation and clusters of producers of these products. In particular, a number of decrees and decisions have been adopted in recent years. These include PF-5388 of the President of the Republic of Uzbekistan dated March 29, 2018 "On additional measures for the rapid development of fruit and vegetable growing in the Republic of Uzbekistan" and "Agriculture of the Republic of Uzbekistan" dated October 23, 2019 Decree No. PF-5853 "On approving the strategy for the development of agriculture for 2020-2030" and "On additional measures to increase the efficiency of the export of fruit and vegetable products to foreign markets" dated October 17, 2018 PQ-3978, March 14, 2019 PQ-4239 decisions "On measures to develop agricultural cooperation in the field of fruit and vegetable production" can be cited.

The main part: It is known that the current natural and climatic conditions in our country allow for the sustainable development of agricultural products, in particular, fruit and vegetable growing. The President and the government of the Republic of Uzbekistan pay great attention to the development of fruit and vegetable growing as a priority in the process of transitioning the industry to market relations. After all, the fact that a significant part of the foreign currency income of the country is formed due to the sale of

fruit and vegetable products in foreign markets indicates the priority of radical reform and rapid development of the sector.



The process of agrotechnical processing of an intensive garden.

In 2017, a large logistics complex "Navigul" logistics center specializing in processing, drying, freezing and selling fruit and vegetable products was established in Khojaabad district of Andijan region. The total area of the enterprise is 1000 hectares. From this, intensive gardens were established on an area of 400 hectares. 100 hectares of these gardens are occupied by cherries, 150 hectares by peaches, 100 hectares by apples, 30 hectares by plums and 20 hectares by apricots. 1666 saplings are planted per hectare. The seedlings in the intensive garden are watered by drip irrigation.

Modern techniques are mainly used in the implementation of these processes. In particular, 8 minitractors, 6 platform trucks, 8 sprayers and the most modern drug sprayers are being used. In addition, 30-40 t of humus, 240-260 kg of pure nitrogen, 120-150 kg of pure phosphorus and 60-70 kg of pure potassium are added annually in order to obtain high productivity. In an intensive garden planted in small grafts under fog conditions, the seedlings are cut 60 cm above and given shape. Seedlings coming from abroad are planted in the form of veretino, that is, the main leader branch is left and focused on giving more branches next to it. When shaping, 50 cm is left for the tree trunk in the main leader branch of the seedling, 8-10 eyes are left above it, 3 eyes are left in the ceiling, and the excess is cut. 250 people are employed in this intensive park. Trees are treated from December to May. From flowering to ripening, it is treated with various chemical preparations. Bordeaux liquid is sprinkled in early

spring. Fights against various pests. Cherry fruits begin to be picked from May. All fruits are harvested from May to October.

On the basis of the extensive factor, i.e., while preserving the old form of production, in the enterprises that have chosen the method of expanding the land area in agriculture, an average of 20 tons is obtained from 1 gram of land. In order to increase the yield in the extensive method, it is necessary to plant another 1 g of crops. This requires additional manpower and funds.

40-50 tons of crops are obtained from 1 gram area of these complex orchards, which are using the advanced technologies of selecting intensive factors and using the existing production potential. In total, 3,000 tons of crops are harvested from the gardens of the "Navigul" logistics center per year. All the harvested crops are exported under the label "Made in Uzbekistan". Currently, the fruits of the enterprise fill the markets of Russia, Germany, and Belarus.

Conclusion: In conclusion, foreign countries have great experience in creating intensive parks. If we can study the experiences of foreign countries and implement it in our country, this will be our big achievement. For this reason, today, great attention is being paid to improving the qualifications of personnel. Increasing the qualification of personnel is the guarantee of future success. Thanks to the establishment of intensive gardens, it will be possible to prevent food shortages in the future.

It can be said that the "Navigul" logistics center in Khojaabad district is an important sector in the economy of the district. The logistics complex, formed as a modern branch of agriculture, is currently achieving high efficiency by providing employment to 1,200 residents of the district with low expenditure. it is necessary to emphasize that it brings benefits to the economy together with exports to foreign countries.

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TEXNOLOGIK TA'LIMDA CHIZMACHILIK FANINI YANGI PEDAGOGIK TEXNALOGIYALAR ASOSIDA O'QITISH METODIKASI (OTM MISOLIDA)

Annotatsiya: Ushbu maqolada texnologik ta'limda chizmachilik fanini yangi pedagogik texnalogiyalar asosida o'qitish metodikasini o'rganish bo'yicha ma'lumot keltirilgan.

Kalit so'zlar: o'quvchi, chizmachilik fani, texnologik ta'lim, ruhiy va jismoniy kuch, zamonaviy texnologiya.

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METHODOLOGY OF TEACHING DRAWING IN TECHNOLOGICAL EDUCATION ON THE BASE OF NEW PEDAGOGICAL TECHNOLOGIES (IN THE CASE OF OTM)

Annotation: this article provides information on the study of the methodology for teaching drawing Science in technological education on the basis of new pedagogical technalogies.

Keywords: reader, drawing science, technological education, mental and physical strength, modern technology.

Zamonaviy ta'limni tashkil etishga qoyiladigan muhim talablardan biri ortiqcha ruhiy va jismoniy kuch sarf etmay, qisqa vaqt ichida yuksak natijalarga erishishdir. Qisqa vaqt orasida muayyan nazariy bilimlarni o'quvchilarga yetkazib berish, ularda ma'lum faoliyat yuzasidan ko'nikma va malakalarni hosil qilish, shuningdek o'quvchilar faoliyatini nazorat qilish, ular tomonidan egallangan bilim, konikma hamda malakalar darajasini baholash oqituvchidan yuksak pedagogik mahorat hamda talim jarayoniga nisbatan yangicha yondashuvni talab etadi. Ta'lim sohasini rivojlantirishning omillaridan biri oqitishning yangi zamonaviy texnologiyalarini joriy qilishdan iboratdir. O'qituvchi o'z mutaxassisligi bo'yicha egallagan bilimidan tashqari pedagogik va psixologik bilimlarni, yangi pedagogik texnologiya va o'qitish metodikalari yig'indisi bo'lgan zarur pedagogik minimumlarni egallagan bo'lishi shart.

Malumki, o'qituvchilik kasbi juda mashaqqatli kasb hisoblanadi. O'qituvchi dars berishdan oldin avvalambor darsga tayyorgarlik ko'rib, ajratilgan vaqtdan unumli foydalanib pedagogik mahoratini o'z talabalariga ko'rsatib o'zining fanidan talim – tarbiya berishga intiladi. Shuni aytish joizki

hozirgi zamon talablariga mos holda dars o'tish yangi pedagogik texnologiyalarni joriy etish lozim. Biz bilamizki XXI asr texnika asri hisoblanib shunday ekan bizga texnik asbob-uskunalardan programmalardan keng unumli foydalanib turli xil slaydlar orqali turli xil didaktik o'yinli texnologiyalarni tashkil etib dars jarayonini samarali o'tishiga harkat qilish kerak, albatta. Fan va texnika taraqqiyoti insoniyat faoliyatining turli sohalari, kishilarning bilimlari, texnika madaniyati va politexnik malumotiga katta talablar qo'yilmoqda va ular grafik faoliyat bilan uzviy bog'langandir.

Talaba o'quvchilarni bilim saviyasini oshirish uchun didaktik o'yinli texnologiyalar yordamida dars jarayonida qo'llash uning samarasiga erishish hamda mavzuni o'zlashtirib olganligi haqida bilib olishimiz mumkin. Shu o'yinlar orqali talabani qanday bilimlarga ega ekanligi haqida ularning fazoviy tasavvurlarinioshiribgina qolmay endiki uni shu fanga qiziqishlarini rivojlantirishga ega bo'lamiz.

Bunda talabaning psixik o'zgarishlariga mos didaktik metodlarni qo'llab, yaxshi natijalarga erishish mumkin. Didaktik o'yinlar ko'pi chizmani o'qishga qaratilgan. Ularni darsning o'rtasida o'quvchilar ongiga biror grafik tushunchani tarkib toptirish maqsadida qo'llash mumkin ammo o'yinga berilib ketib dastur materiallardan chetga chiqmaslik kerak. Didaktik o'yinlarni tuzishda har bir darsni muayyan bo'laklarga ajratib, o'zlashtirilishi shart bo'lgan tushuncha va ko'nikmalarni belgilab chiqish,

So'ngra dars bosqichlariga tegishli o'yinni oldindan rejalashtirib qo'yish va udarsning umumiy yo'nalishiga uyg'unlashib ketishi kerak. Shundagina mazkur o'yinlar talabalarning grafik savodxonligiga ijobiy tasir ko'rsatishi mumkin.Umumtalim maktablaridagi chizmachilik fani o'quvchilarningfazoviy tasavvurlarini, ko'z bilan chamalash, ko'rish xotirasi, topqirlik vaijodkorlik qobiliyatlarini rivojlantirishdagi ahamiyati juda katta. O'yinlar turli maqsadlarga yo'naltirilgan bo'ladi. Ular didaktik, tarbiyaviy, faoliyatni rivojlantiruvchi va ijt imoiylashuv maqsadlarida qo'llaniladi. O'yinning didaktik maqsadi bilimlar doirasi, bilish faoliyati, amaliy faoliyatda bilim, malaka va ko'nikmalami qo'llash, umumtalim malaka va ko'nikmalarini rivojlantirish, mehnat ko'nikmalarini rivojlantirishni kengaytirishga qaratilgan bo'ladi. O'yinning tarbiyaviy maqsadi mustaqillik, irodani tarbiyalash, muayyan yondashuvlar, nuqtai nazarlar, ma naviy, estetik va dunyoqarashni shakllantirishdagi hamkorlikni, kollektivizmni, jamoaga kirishib keta olishni, kommuni kativlikni tarbiyalashga qaratilgan bo'ladi.

Faoliyatni rivojlantiruvchi o'yinlar diqqat, xotira, nutq, tafakkur, qiyoslash malakasi, chog'ishtirish, o'xshashini topish, faraz, xayol, ijodiy qobiliyat, empatiya, refleksiya, optimal yechimni topa olish, o'quv faoliyatini motivatsiyalashni rivojlantirishga qaratilgan bo'ladi. Ijtimoiylashuv o'yinlari jamiyatning me'yorlari va qadriyatlariga jalb qilinish, muhit sharoitlariga ko'nikish, ehtiroslarni nazorat qilish, o'z-o'zini boshqarish, muloqotga o'rgatish

hamda psixoterapiyani nazarda tutadi.Inson hayotida o’yin faoliyati orqali quyidagi vazifalar amalga oshiriladi:

- o’yin faoliyati orqali shaxsning o’qishga, mehnatga bo’lgan qiziqishi ortadi;
- o’yin davomida shaxsning muloqotga kirishishi yani, kommunikativ
-muloqot madaniyatini egallashi uchun yordam beriladi;
- shaxsning o’z iqtidori, qiziqishi, bilimi va o’zligini namoyon etishiga imkon yaratiladi;
- hayotda va o’yin jarayonida yuz beradigan turli qiyinchiliklarni yengish va mo’ljalni to’g’ri olish ko’nikmalarining tarkib topishiga yordam beradi;
- o’yin jarayonida ijtimoiy normalarga mos xulq-atvorni egallash, kamchiliklarga barham berish imkoniyati yaratiladi;
- shaxsning ijobiy fazilatlarini shakllantirishga zamin tayyorlaydi;
- insoniyat uchun ahamiyatli bo’lgan qadriyatlar tizimi, ayniqsa, ijtimoiy,

manaviy-madaniy, milliy va umuminsoniy qadriyatlarni o’rganishga etiborqaratiladi; o’yin ishtirokchilarida jamoaviy muloqot madaniyatini rivojlantirish ko’zda tutiladi.

Chizmachilik darslarida mavzuni o’qitish jarayonida qo’llanilgan texnologiyalar, foydalanilgan metodik manbalar, olib borilgan suhbatlar natijasida o’quvchi o’quv materialini qay darajada o’zlashtirishi mumkin degan savolga psixolog hamda pedagog mutaxassislar quyidagi javoblarni bergan.Agar material maruza holida taqdim qilinsa 10-20%, material hayotiy namunalarda ko’rsatilsa va eshittirilsa 30-50 %, o’quvchilar o’zaro yoki biror inson bilan muloqot qilganda va o’z ish tajribasida sinab ko’rganda 70-80 % didaktik o’yinlar, kichik guruhchalardagi musobaqalar, o’zaro tortishuvlar asosida o’rgatilsa 90%, o’z ehtiyoji, o’z xohishi orqali, yozish, chizish, grafik topshiriqlarni bajarish, to’liq konspekt olib o’qiganda 95% o’zlashtirish mumkinligi tadqiqotlarda isbotlangan. Bundan ko’rinib turibdiki, ko’rsatmali qurollardan samarali va o’rinli foydalanish o’zlashtirishga katta hissa qo’shar ekan. Agar ko’rsatmali qurollar, pedagogik texnologiyalar va bevosita amaliy ishlar uyg’unlikda tatbiq etilsa juda yuqori natijaga erishish mumkin.

Y.A.Komenskiy — “Buyuk didaktika” asarida — oltin qoidani ifodalagan holda ko’rsatmalilik prinsipining 3 ta asosini ifodalagan: birinchidan, avval sezmagan narsasi haqida kishida bilim ham bo’lmasligi, ikkinchidan, bilimning to’g’ri va aniqligi ham sezgilarning guvohligiga bog’liq, uchinchidan, sezgilar - xotiraning eng ishonchli vositasi. Komenskiy o’z taklifini Plavtning “Eshitganini aytib beradigan 10 ta kishidan oz ko’zi bilan ko’rgan 1 ta guvoh afzall fikri bilan mustahkamlaydi.

Ko’rsatmali qo’llanmalarda ko’rsatmalilikning quyidagi turlaridan foydalaniladi:

1. Tabiiy ko’rsatmalilik o’quvchilarni mavjud obektlar: o’simliklar, binolar, mashinalar va hokazolar bilan tanishtirishni taqozo etadi.

2. Hajmli ko’rsatmalilik - mavjud olamning hajmli aks etishidir. Bu esa fotosurat, rasm, diafilmlardan iborat.

3. Ovozli ko’rsatmalilik - tovush obrazlarini ifodalash uchun ovozli vositalardan foydalanish. Magnitafon, ovozli kino.

4. Ramziy va grafik ko’rsatmalilik - xaritalar, rejalar, sxemalar, chizma va diagrammalar. Ular mavjud voqelikni shartli umumlashgan ramziy ko’rinishda aks ettirish sababli fikrlashni rivojlantiradi.

Talim jarayonidagi o’quvchining faolligi, didaktikaning asosiy tamoyillaridan biri bo’lib kelgan va shunday bo’lib qoladi. O’quvchining faolligi maqsadli yo’naltirilgan boshqaruvchi pedagogik tasirlar va pedagogik muhitning tashkil etilishi natijasidir.

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CHARACTERISTICS OF HUMAN-NATURE-SOCIETY RELATIONS

Annotation: This scientific paper focuses on the global challenges of the present day, namely human problems, and their health problems, including priority issues of food quality and safety - with its solutions and related to the reforms in Uzbekistan.

Keywords: natural environment, human essence, dialectical process, material basis of the universe, environmental problem, society, social environment, healthy environment, peace-stability, prosperous life.

In order to analyze the interaction between the natural environment and man, it is necessary to determine the essence and place of man in this process.

A person is a product of consciousness, thinking (intellect), production, and society. Under the influence of these three factors, a person becomes socialized and rises to the human level. It is definitely a dialectical process and has been forming since the beginning of mankind, that is, from the time when our ancestors "Homo Sapiens" - intelligent people, who came to the field of history about 50 million years ago, began to live.

Man went on the path to perfection. For a person, the criteria of perfection are health, peace and prosperity. Man can never achieve these criteria by his own strength, knowledge and effort. For this, he enters into the necessary contact with the primary nature. At the same time, factors such as society, social environment, especially its healthy environment, peace and stability, and prosperous life play a major role.

According to accounting books, human health depends on the following three factors, namely:

1. Up to 20-40% to the environment surrounding a person
2. Up to 15-20% heredity
3. It can be seen that life directly depends on lifestyle up to 10%.

Philosophers from Central Asia, who made a great contribution to the development of philosophical thinking, thought about the material basis of the universe and considered 4 elements, i.e. water, air, earth and fire, as substances. That is why humanity has valued and honored these 4 elements. As knowledge and experience are formed in a person, his thinking and mind are improving. With the formation of human ecstasy, and the growth of his attitude towards nature, the rational attitude became irrational, and he reached the stage of taking more and more than the norm from nature's resources. As a result of the improvement of labor tools and the expansion of the production infrastructure,

instability began to take the place of stability in the relationship between nature and man. The desire to gain wealth beyond necessity creates negative actions such as a market-based approach to nature. Slowly, the purity of the environment began to deteriorate. As a result, concepts such as ecological problem and ecological risk appeared. The beginning of this danger was initially small in this space (national), then regional, and by the 20th century it became a global problem. It can be seen that elements such as water, air, earth, fire, which were considered valuable in the early stages of human life, are damaged in terms of quality and become dangerous elements for human life and health. As a result, it is a fact that harming the primary factors for living, eating, drinking, and breathing, i.e., the process of natural satisfaction of the craving for food products, the health, which is the factor of human perfection, is in serious danger.

It is necessary to pay double attention to the issue of providing the population with quality and safe food products:

first: security related to providing the population with necessary food products;

secondly: the issue of safety of providing the population with quality food products;

This scientific article focuses on the second side of the issue.

Disruption of naturalness gives way to artificiality. Irrational activities are expanding and problems are becoming more acute, undermining food security on a global scale. Human health has become a global problem as a result of the violation of eating culture, especially the fact that our national dishes are being replaced by European dishes, the use of "hormonal preparations" in the cultivation of artificial foods, that is, fruits and vegetables, meat, especially poultry, the use of artificial sweeteners and coloring substances in thirst-quenching drinks, and this life itself shows that the process is becoming more intense by the 21st century.

It is a fact that at the same time that European nations are abandoning artificiality in food products, food products created on the basis of the above-mentioned "hormonal preparations" are entering Central Asia, including Uzbekistan, as regular food products.

It is self-evident that this process has a negative effect on the heredity that depends on human health. Children born in the family have various diseases: anemia, lack of vitamins, heart disease, bone diseases, low immunity among the population as a result of iodine deficiency.

In the years of independence in our republic, the ability to provide the population with high-quality and safe food products became important. As a result of the transition to the market economy, the wide opening of private ownership and entrepreneurship, regulation and control of the activities of individuals and legal entities engaged in providing the population with food products became the primary task of the state administration. Development of

quality and safe food products in our country and prevention of monopoly in the process of its realization. It can be seen that state control has been firmly established in the country on issues such as regulation of export-import operations related to food products, stabilization of prices in the domestic consumer market for different types of food products, control of the safety of food products imported from abroad.

The legal basis for providing the population with high-quality and safe food products is the Law of the Republic of Uzbekistan "On the Quality and Safety of Food Products" adopted on August 30, 1997 and consisting of 18 articles, and No. PF-5303 of the Republic of Uzbekistan, adopted on January 16, 2018 It is defined in the documents under the law and regulations, such as the decree of the President. In addition, the problems related to the current issue in the article are justified both theoretically and practically in the Strategy of Actions on five priority areas of development of the Republic of Uzbekistan in 2017-2021. In particular, the issue of providing the population with clean agricultural products, including the preparation, storage, and sale of potatoes, vegetables, food, and oil crops, providing the population with clean drinking water, in a word, the issue of ensuring the ecological safety of people's living has been raised to the level of state policy.

In conclusion, it can be said that the issue of providing the population with quality and safe food products is not only a national, regional, but also a global issue.

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OLIY TA'LIM MUASSALARIDA INKLYUZIV TA'LIMNI RIVOJLANTIRISH: MUAMMO VA YECHIMLAR

Annotasiya: Ijtimoiy-iqtisoiy rivojlanishining hozirgi bosqichida umuminsoniy tamoyilar asosida demokratik islohotlarni olib borayotgan mamlakatlar tajribasida aholining barcha qatlamdagi vakillari uchun ta'lim olish imkoniyatlari va sharoitlarini yaratilgangligini ko'rishimiz mumkin. Jumladan jamiyatimiz teng huquqli a'zolari hisoblanadigan jismoniy yoki aqliy rivojlanishida nuqsonlari bo'lgan shaxslarni ta'lim olishini ta'minlash borasida bugungi kunda rivojlangan mamlakatlarda inklyuziv ta'lim amaliyoti yaxshi natija berayotganini ommaviy axborot vositalarida keng targ'ib etib kelinmoqda. Maqolada O'zbekiston oliy ta'lim muassalarida inklyuziv ta'limni rivojlantirishning zaruriyati, bugungi holati, ushbu ta'lim shaklini joriy etishda mavjud muammo va to'siqlar, hamda ularni bartaraf etish bo'yicha tavsiyalar yoritib berilgan.

Kalit so'zlar: imkoniyati cheklangan shaxslar, inklyuziv ta'lim, oliy ta'lim muassalari, innovatsiya, konvensiya, kontsepsiya, tarraqiyot strategiyasi, ratifikatsiya.

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DEVELOPMENT OF INCLUSIVE EDUCATION IN HIGHER EDUCATIONAL INSTITUTIONS: PROBLEMS AND SOLUTIONS

Annotation: At the present stage of socio-economic development in many countries carrying out democratic reforms, taking into account universal values, all conditions and opportunities have been created for education of all members of society. In particular, it is observed in the media that in many developed countries a positive effect in the education of persons with disabilities is given by the practice of introducing inclusion into the educational process. The article discusses the need to develop inclusive education in higher educational

institutions of Uzbekistan, analyzes the current situation, identifies current barriers and problems, and develops conclusions and recommendations for their elimination.

Key words: persons with disabilities, inclusive education, higher education institutions, innovation, convention, concept, development strategy, ratification.

Kirish. Ijtimoiy-iqtisodiy rivojlanishning xozirgi davrida butun dunyoda sog‘lom odamlar va sog‘ligida muammolari bo‘lgan shaxslar auditoriyada birgalikda ta’lim olish uchun innovatsion ta’lim platformalari asosida o‘quv jarayoniga yangi texnologiyalarni tadbiq etish va o’zlashtirish tendensiyalari kuzatilmoqda. Jahon ta’lim amaliyotida bu yo‘nalish inklyuziv ta’lim deb ataladi, O‘zbekiston Respublikasi o‘quv jarayoni amaliyotiga xam inklyuziya kirib keldi.

Alohida ehtiyojli bolalarni tarbiyalash mamlakatimizning asosiy vazifalaridan biridir. Bugun jamiyatimiz o‘z oldiga nogironligi bo‘lgan shaxslarning huquqlarini har tomonlama qo‘llab-quvvatlash, bu jarayonning barcha bo‘g‘inlarida ularning to‘laqonli ta’lim olish imkoniyatini amalda qo‘llash vazifasini qo‘ygan. Bizning fikrimizcha, bu vazifani amalga oshirishning eng maqbul va samarali yo‘nalishi aynan inklyuziv ta’limdir. Inklyuziv ta'lim - bu tirik organizm, tirik jarayon bo'lib, u o'qituvchilar va ota-onalar tomonidan o'quv jarayoniga ijodiy yondashishni nazarda tutadi. Zero, har bir bola individual yondashuvni talab qiladi, har kim bilim olish va jamiyatda o‘z qobiliyatini e’tirof etish huquqiga ega”dir **[**1].

Tadqiqotning maqsadi respublikamizda ushbu yo‘nalishdagi ishlarning mavjud holatini ko‘rib chiqish, shuningdek, inklyuziv ta’limni hayotga tatbiq etish maqsadida mamlakatimizda inklyuziv ta’lim tizimini yanada takomillashtirish bo‘yicha tavsiyalar ishlab chiqishdan iboratdir.

Bugungi kunda O‘zbekistonda 700 mingdan ortiq nogironligi bo‘lgan shaxslar istiqomat qiladi, ularning 100 mingdan ortig‘i 16 yoshgacha bo‘lgan shaxslardir (Respublika Oliy Majlisi Senati ma’lumotlari bo‘yicha). So‘nggi yillarda respublikamizda nogironligi bo‘lgan shaxslarning huquq va majburiyatlarini mustahkamlashga qaratilgan normativ-huquqiy baza sohasida davlat darajasida qator ijobiy islohotlar amalga oshirildi. Jumladan:

1. 2020-yilda “Nogironligi bo‘lgan shaxslarning huquqlari to‘g‘risida”gi qonun **[**2] qabul qilindi, unda nogironlarning uy-joy olishda imtiyoz va engilliklar, ta’lim olishi, ularni ish bilan ta’minlash, shuningdek mavjud infratuzilma, axborot va davlat xizmatlaridan to’laqonli foydalanishlarini ta’minlash belgilangan.

2. 2021-yil 7-iyun kuni O‘zbekiston Respublikasi Prezidenti Sh.M. Mirziyoyev O‘zbekiston Respublikasining O‘RQ-695-sonli “Nogironlarning huquqlari to‘g‘risidagi konvensiyani ratifikatsiya qilish to‘g‘risida”gi Qonunini (Nyu-York, 2006 yil 13 dekabr) **[**3] imzoladi, unda quyidagilar ko‘zda tutilgan:

Nogironlarning huquqlari va nogironlar hayotining barcha jabhalarida boshqalar bilan teng huquqqa layoqatli ekanligini tan olish. Ushbu holatni hisobga olgan holda, tegishli sharoitlarda va qonun hujjatlariga muvofiq nogironligi bo‘lgan shaxslarni qo‘llab-quvvatlash va qarorlar qabul qilish mexanizmlaridan, shu jumladan nogironlarning muomala layoqatini cheklashdan foydalanish imkoniyatini ta’minlash bo‘yicha tegishli choralar ko‘rish nazarda tutilgan.

3. 2020-yil 13-oktabrda O‘zbekiston Respublikasi Prezidenti Sh.M. Mirziyoyevning 4860-sonli “Alohida ta’limga muhtoj bolalarni o‘qitish va tarbiyalash tizimini yanada takomillashtirish chora-tadbirlari to‘g‘risida”gi **[**4] qarori qabul qilindi. Qaror inklyuziv ta’lim tizimining normativ-huquqiy bazasini takomillashtirish, kadrlar tayyorlash, qayta tayyorlash va malakasini oshirish mexanizmini yaratishni nazarda tutadi. Jumladan inklyuziv ta’lim tizimi uchun kadrlar malakasini oshirish; shuningdek, moddiy-texnika bazasini mustahkamlash va inklyuziv ta’lim joriy etilgan muassasalarni maxsus qurilmalar (ko‘tarish moslamalari, panduslar, panjaralar va boshqalar), zarur adabiyotlar, o‘quv qurollari, turli kasb-hunar egalari uchun jihozlar va o‘quv qurollari bilan ta’minlash nazarda tutilgan;

4. O‘zbekiston Respublikasi Prezidentining 2019-yil 8-oktabrda “O‘zbekiston Respublikasi oliy ta’lim tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to‘g‘risida”gi PF 5847-sonli farmoni qabul qilindi **[**5]. Ushbu xujjatning muhim bandlaridan biri aholining ijtimoiy himoyaga muhtoj qatlamlarini, xususan, nogironlarni oliy ta’lim bilan qamrab olishni kengaytirish nazarda tutilgan.

Aytishimiz mumkinki, keyingi yillarda respublikamizda nogironlar huquqlarini himoya qilish borasida samarali ishlar amalga oshirildi. Ammo shuni ta'kidlash kerakki, amalda qonunlar, shuningdek, qabul qilingan qonunosti hujjatlarini amalga oshirish har doim ham yetarli darajada samarali bo'lavermaydi. Darhaqiqat, qabul qilingan qonunlar va qonunosti hujjatlari nogironligi bo‘lgan shaxslarni jamiyat hayotining barcha jabhalariga jalb etishga xizmat qilishi kerak, bu esa yangi O‘zbekiston taraqqiyotining hozirgi bosqichida muhim ustuvor yo‘nalish hisoblanadi. Yuqoridagi me’yoriy-huquqiy hujjatlarda belgilangan me’yorlarning hayotga tatbiq etilishi nogironligi bo‘lgan shaxslarning mamlakatimiz ijtimoiy-iqtisodiy hayotida ishtirok etishi, tegishli infratuzilma xizmatlaridan foydalanishi, tibbiy xizmat ko‘rsatishi, ish bilan ta’minlanishi va erkin foydalanishi uchun sharoit yaratishga qaratilgan.

Yuqorida aytilganlarga asoslanib, tadqiqot mavzusining dolzarbligini hisobga olgan xolda inkluziv ta’lim tizimini joriy etish bo’yicha ilmiy izlanishlarni amalga oshirish maqsadga muvofiq deb hisoblaymiz.

Tadqiqotning metodologik asosi bo’lib O‘zbekiston Respublikasining inklyuziv ta’limni rivojlantirish sohasidagi me’yoriy-huquqiy hujjatlari, dialektik va statistik metodlar, adabiyotlar va davriy nashrlar tahlili, shuningdek, o‘rganishga shaxsiy-ijodiy yondashuv xizmat qildi. Oliy o‘quv yurtlarida

inklyuziv ta’limni rivojlantirish muammolari va yo‘nalishlari Uilyam Seyts[25.26], Yusupov D.[27], Baqoeva F. va D. Muratovlar D.[28], Alekhin S.V.[29], Akimova O.I.[30], Shipitsyna L.M.[31], Kraineva E.I.[32], Pugachev A.S.[33], Z.J.Adilovalar[34] o’z ilmiy-tadqiqotlarida izlanishlar olib borishgan.

Muallif ushbu ilmiy-yadqiqot ishini tadqiq etishda O‘zbekiston oliy o‘quv yurtlarida inklyuziv ta’limni rivojlantirishning bugungi holatini tahlil etish, mavjud muammolarni aniqlash, shuningdek, universitetda inklyuzivlikni joriy etishni takomillashtirish bo‘yicha tavsiyalar ishlab chiqishni maqsad qilgan.

Tahlil va natijalar: O‘zbekiston ta’lim muassasalarida inklyuziv ta’lim amaliyoti Sovet Ittifoqi davridan boshlangan. Sovet ittifoqi davrida nogironlar ixtisoslashtirilgan o‘quv yurtlarida tengdoshlaridan ajratilgan holda o‘qigan. Bugungi kunda ilm-fan ancha oldinga ketdi, G'arb olimlarining ko'plab ilmiy va amaliy sinovdan o'tgan ilmiy tadqiqotlarida nogironlarni o'qitishda eng katta samaraga ularning tengdoshlari bilan guruhda birgalikda o'qishga erishilishi isbotlangan. Birlashgan Millatlar Tashkilotining statistik ma'lumotlariga ko'ra, dunyo aholisining 15 foizi jismoniy yoki aqliy rivojlanishida nuqsonlarga ega va shunga mos ravishda nogironlar sifatida ro'yxatga olingan. Shuni ta'kidlash kerakki, bu ko'rsatkich yildan-yilga ortib bormoqda, bu asosan atrof-muhitning yomonlashishi va normal turmush tarzining buzilishi bilan bog'liq va barcha nogironlarning 80 foizi rivojlanayotgan mamlakatlar xissasiga to’gri kelayotganligi bu mamlakatlar uchun to'g'ridan-to'g'ri ogohlantiruvchi chaqiriqdir. Ushbu mamlakatlar hukumatlari bunday toifadagi shaxslarni

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jamiyatda to'liq hayotga moslashtirish bo'yicha shoshilinch choralar ko'rishlari talab etiladi.

2022-yil yakuni bo‘yicha O‘zbekiston Respublikasi aholisi soni 36 million kishiga yetdi, ularning 60 foizini 30 yoshgacha bo‘lgan yoshlar tashkil etadi. Respublika statistik ma'lumotlariga ko'ra, Respublikada rasmiy ro'yxatga olingan nogironlar mamlakat umumiy aholisining 2,1 foizini tashkil qiladi. Ammo bu ko'rsatkich mamlakat aholisini ro'yxatga olishning yo'qligi sababli juda buzib ko'rsatilgan bo’lishi mumkin. O‘zbekiston mustaqillikka erishgan 1991 yildan beri aholini ro‘yxatga olish o‘tkazilmagan; birinchi aholini ro'yxatga olish 2023 yilga rejalashtirilgan biroq, Davlat statistika qo'mitasi nogironlik bo'yicha Vashington guruhi tomonidan tavsiya etilgan aholini ro'yxatga olishda nogironlik bo'yicha savollarni o'z ichiga olmaydi, chunki nogironlikni aniqlashda mablag' va tajriba etishmashmaydi **[**6].

O‘zbekiston Respublikasida fan, ta’lim va ishlab chiqish integratsiyasi tamoyilini amalga oshirish maqsadida O‘zbekiston Respublikasi Prezidenti Sh.M.Mirziyoyev rahnamoligida oliy ta’lim tizimini 2030 yilgacha rivojlantirish konsepsiyasi qabul qilindi. Mazkur konsepsiyaning maqsadi oliy ta’lim sohasida ilg‘or xorijiy tajriba asosida raqobatbardosh yuqori malakali kadrlar tayyorlashni davom ettirgan holda islohotlarni chuqurlashtirishdan iboratdir.

Mazkur konsepsiyasida inklyuziv ta’lim asoslarini joriy etish va rivojlantirishga alohida e’tibor qaratilgan. Jumladan:

• imkoniyati cheklangan o‘quvchilarga ko‘rsatilayotgan ta’lim xizmatlari turlarini ko‘paytirish va sifatini oshirish;

• ta'limda inklyuziv jarayonlarni keng rivojlantirish, adaptiv texnologiyalarni joriy etish;

• talabalar turar joylari va oliy o‘quv yurtlari binolarida imkoniyati cheklangan talabalar uchun qo‘shimcha shart-sharoitlar yaratish;

• ta’lim muassasalarini ushbu toifadagi o‘quvchilarni zarur adabiyot va o‘quv-metodik qo‘llanmalar bilan ta’minlash, aholining ijtimoiy himoyaga muhtoj qatlamdagi o‘quvchilarini moddiy rag‘batlantirish va qo‘llab-quvvatlash choralarini ko‘rish.

2017-yil 1-dekabrda O‘zbekiston Respublikasi Prezidentining “Nogironligi bo‘lgan shaxslarni davlat tomonidan qo‘llab-quvvatlash tizimini tubdan takomillashtirish chora-tadbirlari to‘g‘risida”gi farmoni **[**7] e’lon qilingan bo‘lib, unga ko‘ra nogironligi bo‘lgan shaxslarga universitetga kirishda bir qator imtiyozlar berildi. Xususan, 2018-2019 o‘quv yilidan boshlab I va II guruh nogironlariga mamlakatimiz milliy oliy o‘quv yurtlariga o‘qishga kirish uchun qo‘shimcha 2 foizli kvota ajratildi. Shu bilan birga, nogironligi bo‘lgan shaxslarning oliy ta’lim tizimiga kirishi uchun kirish imtihonlarida to‘plangan minimal ball ham 56,7 ballga (eng yuqori mumkin bo‘lgan 189 ballning 30 foizi) tushirildi.

Biroq, nogironligi bo'lgan shaxslarni oliy o'quv yurtlariga qabul qilishda mavjud imtiyozlarga qaramay, ushbu toifadagi shaxslarning oliy o'quv yurtlariga

qabul qilish ulushi ancha past bo'lib qolmoqda va bu, birinchi navbatda, mamlakatdagi aksariyat universitetlarning ushbu shaxslarni tayyorlashga tayyor emasligi bilan bog'liq. Nogironlar uchun qulay muhitning yo'qligi oliy o'quv yurtlari tomonidan bunday toifadagi shaxslarni ajratish va kamsitishni keltirib chiqaradi. Universitetlarda nogironligi bo'lgan shaxslarni o'qitish uchun qulay muhitning yo'qligi, birinchi navbatda, quyidagilarda namoyon bo'lmoqda:

✓ Binolar arxitekturasi va binolarga tutashgan inshootlar infratuzilmasi nogironligi bor shaxslarni o'qitishga moslashmagan;

✓ O'zbekistondagi aksariyat oliy o'quv yurtlarining o'quv binolari to'rt qavat va undan yuqoridir, ammo mintaqaviy kesimda o'rganadigan bo'lsak, ularning ko'pchiligida liftlar yo'q, borlarda esa lift ishlamaydi yoki ta'mirlashga muxtoj, bu o'z navbatida tayanch-harakat tizimida nuqsoni bo'lgan nogironlarni bino bo'ylab harakatlanishda qiyinchiliklarni keltirib chiqaradi;

✓ Mamlakat oliy o'quv yurtlariga qabul kvotalari keskin oshishi munosabati bilan ko'pchilik universitetlar o'quv xonalari fondining yetishmasligiga duch kelmoqda, buning natijasida dars jadvalini har bir juftlik kesimida tartiblash va guruh talabalarning darslarini o'tkazish uchun auditoriyani o'zgartirishga to'g'ri keladi, bu har bir juftlik darslarini turli qavatlarda joylashgan turli auditoriyalarda o'qitishga sabab bo'lmoqda. Bunday holda, baland zinapoyalar va panduslarning yo'qligi nogironlar aravachasidagi talabalar uchun binoga kirish va harakatlanish uchun jiddiy to'siqdir;

✓ Respublikamizning ko'pgina oliy o'quv yurtlarida nogironligi bo'lgan shaxslarni o'qitish uchun mo'ljallangan maxsus o'quv va o'quv-uslubiy adabiyotlarning yetishmasligi yoki yo'qligi;

✓ O'zbekistonda inklyuziv ta'limning o'ta jiddiy muammosi - bu ta'lim muassasalarining yuqori malakali kadrlar bilan ta'minlanmaganligidir;

✓ Respublikamizdagi ko'plab oliy o'quv yurtlarining umumiy foydalanish joylari (oshxona, kutubxona, hojatxona) nogironlar ehtiyojlariga moslashtirilmagan, maxsus jihozlar bilan jihozlanmagan, bu esa imkoniyati cheklangan talabalarning ushbu joylardan foydalanishini qiyinlashtiradi;

✓ Mamlakat oliy o'quv yurtlari professor-o'qituvchilarining aksariyati nogironligi bo'lgan shaxslarni o'qitish bo'yicha maxsus malakaga ega emas;

Bugungi kunda ko'plab nogironlar uchun universitet ta'limi nafaqat tegishli bilimlarni egallash, balki hayotiy va ijtimoiy ko'nikmalarni egallashdan iborat bo'lishi kerak, o'z navbatida oliy ta'lim muassalari buni taqdim etishga tayyor bo'lishi kerak.

Shu munosabat bilan, inklyuziv ta'limni yanada rivojlantirish, ta'lim muassasalarining moddiy-texnik bazasini mustahkamlash O'zbekiston Respublikasi hukumatining ustuvor vazifalaridan biri sifatida e'tirof etilishi va belgilangan vazifalarni to'liq amalga oshirish uchun barcha sharoitlarni yaratish zarur deb hisoblaymiz.

Aytish joizki, mazkur yo'nalishda qator ijobiy tendentsiyalar kuzatilmoqda, ularning asosiysi mamlakatimizda inklyuziv ta'limni

rivojlantirishga qaratilgan islohotlarni chuqurlashtirish bo‘yicha hukumatning amaliy harakatlarida namoyon bo‘lmoqda. Xususan: Osiyo taraqqiyot bankining jalb qilingan mablag‘lari hisobidan mamlakatimizda inklyuziv ta’limni rivojlantirish loyihasi amalga oshirilmoqda, “Mehribonlik” ixtisoslashtirilgan maktab-internatlari va Mehribonlik uylarining moddiy-texnik bazasini mustahkamlash bo‘yicha loyihalar ishlab chiqilib, amalga oshirilmoqda. ". **[**7]

O‘zbekiston Respublikasida inklyuziv ta’limni rivojlantirish, nogironligi bo‘lgan shaxslarning huquq va erkinliklarini qo‘llab-quvvatlash muammosi 2022-2026-yillarda O‘zbekiston Respublikasini rivojlantirish strategiyasida ham o‘z ifodasini topgan. Xususan, “Adolatli ijtimoiy siyosat yuritish, inson kapitalini rivojlantirish”, nomli 4-ustuvor yonalish “Nogironligi bo‘lgan shaxslarni qo‘llab-quvvatlashning samarali tizimini shakllantirish, ularning hayot sifati va darajasini oshirish” nomli 66-maqsadida bevosita mamlakatimizda nogironlarning yashash huquqlarini himoya qilish va amalga oshirish nazarda tutilgan. **[**8]

2021-yil 3-dekabr Xalqaro nogironlar kuni munosabati bilan O‘zbekiston Respublikasi Prezidenti Sh.M.Mirziyoyev: “Aholining eng ijtimoiy himoyaga muhtoj toifasi – nogironlar bilan olib borayotgan ishlarimizni tanqidiy baholagan holda, biz ular hech qachon o‘zini yolgiz his qilmasliklari, davlat va xo‘jalik hayotida faol ishtirok etishlari uchun barcha kuch va imkoniyatlarni safarbar etishda davom etamiz” **[**9] – deb ta’kidlab o’tdilar. Bu O‘zbekiston rahbariyatining nogironligi bo’lgan shaxslarni huquqiy himoyasiga, ularning erkinliklari, shuningdek, mamlakatimizda inklyuziv ta’lim tizimini yanada rivojlantirish va takomillashtirishga katta e’tibor qaratayotganidan dalolat beradi.

Yuqorida aytilganlardan kelib chiqib, biz mamlakatimizda nogironligi bo‘lgan shaxslarning to‘laqonli turmush tarzini olib borishlariga, faol hayot kechirishlariga. jamiyatning iqtisodiy va siyosiy hayotida ishtirok etishlari, shuningdek fuqarolik majburiyatlarini bajarishga ko’maklashuvchi mamlakatimizda inklyuzivlikni rivojlantirish borasida amalga oshirilayotgan siyosatni zamonaviy voqelikdan kelib chiqgan xolda dolzarb va muxim deb xisoblaymiz.

Xulosa va takliflar: O‘zbekiston Respublikasini ijtimoiy-iqtisodiy rivojlantirishning hozirgi voqeliklarida nogironligi bo‘lgan shaxslarning ta’lim olish imkoniyatlarini amalga oshirishni hisobga olgan holda respublikada inkluziv ta’lim tizimi o‘zining shakllanish bosqichida bo’lib, davlat tomonidan qo'llab-quvvatlanishi zarur. O‘zbekistonda nogironligi bo‘lgan shaxslarning yashashi, ta’lim olishi uchun sharoit yaratish bo‘yicha salmoqli ishlar amalga oshirilmoqda, bunday toifadagi shaxslarning yanada rivojlanishi uchun shart-sharoit yaratish bo‘yicha qonunchilik bazasi yaratilgan. Jumladan: 2020–2025-yillarda xalq ta’limi tizimida inklyuziv ta’limni rivojlantirish konsepsiyasi, O‘zbekiston Respublikasi oliy ta’lim tizimini 2030-yilgacha rivojlantirish konsepsiyasi qabul qilindi. Bundan tashqari, mamlakatimiz Prezidenti

tomonidan nogironligi bo‘lgan shaxslarni ijtimoiy jihatdan qo‘llab-quvvatlash tizimini yaratish, ularning hayot sifati va darajasini oshirishga qaratilgan 2022-2026-yillarda O‘zbekiston Respublikasini rivojlantirish strategiyasi tasdiqlandi.

O‘zbekistonda oliy ta’lim tizimida inklyuzivlikni shakllantirish va joriy etish borasida erishilgan yutuqlarga qaramay, inklyuziv ta’lim shakli uchun professor-o‘qituvchilar tarkibini tayyorlashning yetarli darajada emasligi, binolarning arxitektura-muhandislik infratuzilmasi nogironlar talablariga javob bermaydi, shuningdek, inklyuziv ta'limga moslashtirilgan maxsus o'quv dasturlarining yo'qligi kabi qator muammolar aniqlandi.

O‘zbekiston oliy ta’lim muassasalarida ta’limning inklyuziv shaklini rivojlantirish va samarali tatbiq etish maqsadida, bizning fikrimizcha, quyidagi vazifalarni hal etish maqsadga muvofiq bo‘ladi:

- BMTning nogironlar huquqlari to‘g‘risidagi konvensiya qoidalari va tamoyillariga muvofiq ta’limning inklyuziv modelining huquqiy asoslarini takomillashtirish; umume’tirof etilgan xalqaro ta’riflar va vositalar asosida nogironlar bilan bog‘liq statistika va ma’lumotlarni yig‘ish tizimini uyg‘unlashtirish;
- yangi bino va inshootlarni qurish va mavjudlarini rekonstruksiya qilishda ularni nogironlarning ehtiyojlari va talablariga moslashtirish;
- ta’limning inklyuziv modelida bevosita ishtirok etuvchi pedagog kadrlarni tayyorlash va ularning malakasini oshirish tizimini takomillashtirish;
- Respublika va alohida hududlarning imkoniyatlaridan kelib chiqib, nogironlarga g‘amxo‘rlik ko‘rsatish va ularni reabilitatsiya qilish dasturlarini amalga oshirish bo‘yicha ijtimoiy xizmatlarning faol ishtirokida inklyuziv ta’limning hozirgi holati va rivojlanish tendensiyalarini monitoring qilish tizimini shakllantirish, xalqaro standartlar va me'yorlarga muvofiq o'qitish va ishga joylashtirish;

O‘ylaymizki, mazkur tavsiyalarning amalga oshirilishi Oliy ta’lim tizimini 2030-yilgacha isloh qilish konsepsiyasida nazarda tutilgan maqsadlarga erishish hamda ta’lim muassasalariga inklyuziv ta’limni samarali integratsiyalash, moslashtirish va rivojlantirish bo‘yicha islohotlarni amalga oshirishga xizmat qiladi.

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NEUROREHABILITATION OF MINOR INJURIES OF THE LUMBOSACRAL SPINE DEPARTMENT IN ATHLETES WITH THE USE OF APPLIED TRAINING SWIMMING FOR STRETCHING

Annotation. The most frequent injuries of the musculoskeletal system in athletes are so-called minor injuries: minor concussions, bruises, compressions, sprains, chronic microtrauma, degenerative dystrophic processes, etc. Most of these injuries are minor sports injuries or manifestations of overtraining that do not require specialized diagnosis and treatment. Minor injuries of the lumbosacral spine require special attention, since in the absence of adequate treatment they can lead to serious health problems for an athlete. The leading means of neurorehabilitation of minor injuries of the lumbosacral spine in athletes are traction therapy and physical therapy (exercise therapy).

Keywords: musculoskeletal system, minor injuries, bruising, compression, sprains, chronic microtrauma, degenerative dystrophic processes. athletes, physical therapy.

The purpose of this study is to test the method of applied training swimming for stretching as a complex method of neurorehabilitation of minor injuries of the lumbosacral spine in athletes.

Materials and methods. The testing was carried out during 2013-2023. The study involved 64 male and female athletes who are representatives of complex coordination sports (gymnastics, acrobatics like, rhythmic gymnastics, synchronized swimming) at the age of 10 to 18 years old with minor injuries in the lumbosacral spine. All recovered athletes were randomly divided into two subgroups, approximately equal in number, age and nature of the injuries sustained. Athletes of the first (control) subgroup received traditional rehabilitation treatment using physical therapy and underwater stretching. The second (experimental) subgroup of athletes was restored with the help of applied stretching training swimming.

Results and their discussion. In the course of the study, it was confirmed that with prolonged (more than 45 minutes) swimming in warm water, deep tendon-muscle relaxation occurs, leading to compensation of tendon-muscle

contractures and vascular spasm, and normalization of microcirculation in tissues. With prolonged, more than 45 minutes, swimming in warm water and performing stretching exercises (sliding with a board, kolobashka), there is an increase in the intervertebral distance, decompression of the discs and spinal nerves, pain syndrome is stopped. We have developed special sets of exercises of applied swimming for stretching, which, like exercise therapy, carried out the formation of a muscular-ligament corset against the background of passive stretching of the spine (swimming on the chest and on the back with a board and / or a bun in flippers or without them). In the course of the study, it was shown that long-term applied traction swimming in warm water combines the advantages of exercise therapy and traction therapy (underwater traction). Recommended standard of appointments: 7-10 sessions of 45-90 minutes daily. Also effective conducting applied swimming 2-3 times a week for 2 weeks. In the course of the performed study, a significant difference was noted in the quality of rehabilitation measures carried out in control and experimental subgroups (reduction of the time of complete recovery of athletes by 46%). It should be noted that the considered method of applied training swimming for stretching may have relative contraindications for cardiological and therapeutic diseases, which, as a rule, are absent in athletes.

Conclusion. The long-term experience of rehabilitation activities carried out in the period from 2013 to 2023 has shown the high effectiveness of applied traction training swimming as a method of neurorehabilitation of athletes with minor injuries of the lumbar spine. The leading role in carrying out such recovery is played by a sports medicine doctor, who, in addition to rehabilitation, must have the necessary knowledge in sports and applied swimming and in the theory of sports training. The load method of neurorehabilitation using applied stretching training swimming can be recommended to sports doctors of teams when planning and implementing rehabilitation measures with athletes who have minor injuries in the lumbar spine.

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APPLYING THE EFFECTIVENESS ASSESSMENT OF THE MODERN PEDAGOGICAL METHOD IN TEACHING THE FRENCH LANGUAGE

Annotation: Currently, it is possible to achieve high efficiency in teaching foreign languages by using foreign pedagogical methods. For this purpose, we can use new pedagogical technologies in teaching foreign languages to increase students' language skills and maintain their interest in the lesson.

Key words: pedagogical technologies, problem and experiment (Problem Tasks and experiments P&E), student ability, educational process.

INTRODUCTION

Education is the need of the hour because it creates a literate society and motivation and guidance are very important in the process of educating the society and teachers, guides and administrators are responsible for motivating the students. By providing education to the majority of the society, the literacy rate will be high.

However, with the passage of time, pupils and students are demanding new techniques and methods for learning, which will not only specialize them in theoretical learning, but also provide them with practical knowledge, sharpen their skills and cope with any challenges. takes Books and other materials written for French language learners are difficult to use for teaching French at school or at home. The needs of students learning French as a second language are very different from those of students who speak French as their first language. We teachers sometimes undertake the formative task of adapting, modifying, or creating new materials to meet the needs of our students with little or no preparation and planning. The relative difficulty of the subject and materials leads to a decrease in enthusiasm among students and a decrease in attention during class activities. This does not affect the quality and effectiveness of education. In order to prevent this, we can improve the quality of lessons and topics by using new modern pedagogical technologies.

In the 1980s, David Hestenes and Ibrahim Halloun (Halloun and Hestenes, 1985) published articles on didactic research in the United States, their object was high school students, and in his research, he announced the effectiveness of using pedagogical technologies in the classroom **[**1]. In addition, the main difference between traditional methods and techniques is that pedagogical technology is derived from the theory of complexes, that is, it obeys all the laws of this theory. One of the main issues is the use of teaching skills in the process of teaching foreign languages, the organization of an effective teaching process, adaptation to educational standards, improvement of world

standards, the perfect formation of knowledge and skills in teaching foreign languages to students. is one of the important factors of the educational process [2,3]. Today, modern technologies of interactive teaching of foreign languages are created, developed and effectively used in the educational process [4]. In addition, Martín-Blas, T., Seidel, L., Serrano-Fernández announced in their research that it is possible to achieve results by using pedagogical technologies in teaching foreign languages. [5].

MAIN BODY

In my main research, I applied the interactive pedagogic method of "Problem Tasks and Experiments P&E" in teaching French. Its main idea is to work interactively with students using experiments and problem analysis. This method changes the student's participation in the lesson from passive to active. In this method, experiments (traditional experiments, computer experiments, video-experiments, video-analysis, simulations) and the positive aspects of modern interactive methods are used to solve problematic tasks in teaching foreign languages. It consists of the following steps:

Stage 1. Preparatory stage: in an explanatory lesson, the teacher defines the main concepts that he wants to explain and deals with them in the lesson. He breaks the lesson into 5-10 minute intervals for concepts. Within these intervals, a concept/theory/idea is explored and the teacher presents several problems related to this concept.

Step 2 Idea/Theory/Idea Engagement: Teacher teaches a 5-10 minute idea/theory/idea

Stage 3. Assignment of the problem: presentation of a problem assignment related to the concept under consideration. In the P&E method, the problem task can be defined in 4 ways.

Method 1: in written form, i.e. in the order of question-distribution material

Method 2: Video image format

Method 3. In the experimental method

Method 4: Traditional-writing on the board

Step 4. Solving the problem. After the speaker introduces a question/problem (in one of the 4 ways), student discussion begins. During the discussion, students discuss possible solutions to this problem under the supervision of the teacher. The teacher gradually writes the solutions on the board. In this case, individual answers are written on the board by the teacher without any reason or objection. then each given answer is analyzed by students and wrong solutions are excluded. This process continues until only one correct solution is found. Students write incorrect solutions on their worksheets, including physical reasoning (eliminating the misconception) and the correct solution. Sometimes the assignment can be open and the problem can be better explained during the discussion. Students write all solutions on their worksheets, including a scientific rationale for why the solution is correct or incorrect.

Step 5. Evaluation. In the lesson, not only the correct answer, but also the active participation of the student is taken into account. Also, on the handout distributed to the students, they write their conclusions from the lesson, their opinions about the shortcomings of the lesson or what should be done. By collecting these sheets, the teacher learns more about the level of engagement of the students in the class and about the lesson **[**5].

CONCULUSION

Thus, intensive methods had a great impact on the teaching of foreign languages. It is necessary to apply the achievements of intensive methods in the field of activating the processes of perceiving and mastering the material foundations of communication, opening its motivational reserves and developing adequate forms of collective interaction in the course of lessons. In the case of using the pedagogic method, after 10 lessons, the performance was tested by giving tests and tasks to the groups. The results of the students improved.

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Namangan favqulodda vaziyatlar boshqarmasi Hayot faoliyati xavfsizligi o'quv markazi katta o'qituvchisi

KO'P QAVATLI UYLARDA YASHAYDIGAN AHOLINI FAVQULODDA VAZIYATLAR XAVFI SODIR BO'LGANDA KO'CHIRISH TADBIRLARINI TASHKIL ETISH

Annotatsiya: Yong'in omillari ta'sir qilish ehtimoli mavjud bo'lgan hududdan odamlarni majburiy ko'chirish jarayoni o'rganish.
Kalit so'zlar: xavf, evakuatsiya, yong'in, portlash.

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ORGANIZATION OF MEASURES TO RELOCATE RESIDENTS LIVING IN MULTI-STOREY BUILDINGS IN CASE OF EMERGENCIES

Abstract. Study of the process of forced evacuation of people from the area where there is a possibility of fire factors.
Key words: danger, evacuation, fire, explosion.

Odamlarni evakuatsiya qilish - bu xavfli yong'in omillari ta'sir qilish ehtimoli mavjud bo'lgan hududdan odamlarni majburiy ko'chirish jarayoni.

Evakuatsiya chiqish - yong'in sodir bo'lganda xavfsiz hududga olib boradigan chiqish.

Qochish yo'li - favqulodda chiqish joyiga olib boradigan odamlarni evakuatsiya qilishning xavfsiz usuli.

Qochish yo'llari binolarning binolaridagi barcha odamlarni evakuatsiya chiqishlari orqali xavfsiz evakuatsiya qilishni ta'minlashi kerak.

Chiqish evakuatsiya hisoblanadi, agar u olib keladi:

- birinchi qavatning binolaridan to'g'ridan-to'g'ri tashqarida yoki yo'lak orqali, vestibyul (foye), yo'lak va vestibyul (foye) orqali, zinapoyadan, yo'lak va zinapoyadan;

- har qanday qavatning binolaridan (birinchi qavatdan tashqari) to'g'ridan-to'g'ri zinapoyaga yoki tashqi ochiq zinapoyaga, to'g'ridan-to'g'ri zinapoyaga yoki tashqi ochiq zinapoyaga chiqish imkoniyati bo'lgan zalga (foye);

- xuddi shu qavatdagi qo'shni xonaga, agar u yuqorida ko'rsatilgan chiqishlarga ega bo'lsa va xonaning o'zi yong'in va portlash xavfi bo'yicha A

yoki B toifali texnologik jarayonlarga ega bo'lgan ombor yoki ishlab chiqarish xonasi bo'lmasa.

Agar ularning teshiklarida toymasin va ko'taruvchi eshiklar va eshiklar, temir yo'l harakatlanuvchi tarkibi uchun eshiklar, aylanma eshiklar va turniketlar o'rnatilgan bo'lsa, chiqish joylari evakuatsiya qilinishi mumkin emas.

Binodagi har qanday xonada, qoida tariqasida, kamida ikkita favqulodda chiqish joyi bo'lishi kerak. Ushbu qoidadan yagona istisno (ya'ni, ular faqat bitta favqulodda chiqish joyiga ega bo'lishi mumkin) quyidagi binolardir:

- maktabgacha ta'lim muassasalari, qariyalar va nogironlar uylari, shifoxonalar, maktab-internatlar yotoqxonalari va bolalar muassasalari binolarida bir vaqtning o'zida 10 yoki undan kam odam bo'lishi uchun binolar;
- podvalda va podvalda bir vaqtning o'zida 15 yoki undan kam odam yashashi uchun binolar;
- yong'in va portlash xavfi bo'yicha A yoki B toifali texnologik jarayonlarga ega bo'lgan ombor yoki ishlab chiqarish binolari, eng ko'p smenadagi xodimlar soni 5 kishi yoki undan kam bo'lgan, S toifasi eng ko'p smenada 25 kishi yoki kamroq yoki ularning maydoni 1000 m 2 dan kam;
- bir vaqtning o'zida 50 yoki undan kam odam bo'lgan boshqa maqsadlardagi binolar.

Binolarning qavatlaridan evakuatsiya chiqishlari soni, agar ular kamida ikkita evakuatsiya chiqishlari bo'lgan binolarni o'z ichiga olgan bo'lsa, kamida ikkita bo'lishi kerak. Ba'zi binolar, hatto qavatlarida bitta favqulodda chiqish joyi bo'lishi mumkin bo'lgan xonalar mavjud bo'lsa ham, ikkita (yoki undan ko'p) avariya chiqishlari bo'lishi kerak.

Bunday binolarga quyidagilar kiradi: maktabgacha ta'lim muassasalari binolari, qariyalar va nogironlar uylari, shifoxonalar, maktab-internatlar yotoqxonalari va bolalar muassasalari; maktablar, maktabdan tashqari va o‘rta maxsus ta’lim muassasalari, kasb-hunar maktablari, oliy o‘quv yurtlari va malaka oshirish muassasalari binolari; stantsiya binolari.

Shuningdek, mehmonxonalar, yotoqxonalar binolari kiradi; sanatoriylar, dam olish uylari, lagerlar, motellar va pansionatlar yotoqxonalari binolari; maishiy xizmat ko'rsatish korxonalari, davlat muassasalari, loyihalash, axborot, tahririyat, nashriyot, ilmiy-tadqiqot tashkilotlari, banklar va idoralar binolari.

Turar-joy binolari (odatda) bitta favqulodda chiqish joyiga ega bo'lishi mumkin. Ammo agar qavatdagi kvartiralarning umumiy maydoni (qismning qavatida) 500 m 2 dan ortiq bo'lsa, bunday uyning har bir qavatida kamida ikkita favqulodda chiqish joyi bo'lishi kerak.

Barcha holatlarda kamida ikkita evakuatsiya chiqishlarida 300 m 2 dan ortiq yoki bir vaqtning o'zida 15 dan ortiq odam bo'lgan yerto'la va podvallar bo'lishi kerak.

Binodan evakuatsiya chiqishlari soni kamida ushbu binoning har qanday qavatidagi evakuatsiya chiqishlari soniga teng bo'lishi kerak..

Evakuatsiya marshrutlari uchun yongin xavfsizligi talablari

Evakuatsiya yo'llaridagi binolar va inshootlarda talablarga muvofiq favqulodda yoritish ta'minlanishi kerak.

Yong'inga chidamliligining barcha darajalari va konstruktiv yong'in xavfi sinfidagi binolarda, yong'inga chidamliligi V darajali binolar va C3 toifali binolar bundan mustasno, yong'in xavfi yuqori bo'lgan materiallardan foydalanishga yo'l qo'yilmaydi:

G1, V1, D2, T2 - devorlar, shiftlarni tugatish va lobbi, zinapoyalar, lift lobbilarida to'xtatilgan shiftlarni to'ldirish uchun;

G2, V2, D3, T3 yoki G2, V3, D2, T2 - umumiy koridorlar, zallar va foyelarda devorlar, shiftlarni tugatish va to'xtatilgan shiftlarni to'ldirish uchun;

G2, RP2, D2, T2 - lobbilarda, zinapoyalarda, lift lobbilarida pol qoplamalari uchun;

B2, RP2, D3, T2 - umumiy koridorlar, zallar va foyelarda pol qoplamalari uchun.

Xonalarda va qochish yo'llarida to'xtatilgan ship ramkalari yonmaydigan materiallardan tayyorlanishi kerak.

Evakuatsiya yo'llaridagi koridorlarda devorlar tekisligidan 2 m dan kam balandlikda chiqadigan asbob-uskunalarni, gaz quvurlari va yonuvchi suyuqliklar bo'lgan quvurlarni, shuningdek, shkaflardan tashqari o'rnatilgan shkaflarni joylashtirishga yo'l qo'yilmaydi. aloqa va yong'in gidrantlari uchun.

Uzunligi 60 m dan ortiq bo'lgan yo'laklarni 2-toifa yong'inga qarshi qismlarga bo'lish kerak.

Eshiklar xonalardan koridorlarga ochilganda, koridorning kengligi evakuatsiya yo'lining kengligi sifatida qabul qilinishi kerak, qisqartiriladi.

Foydalanilgan adabiyotlar:

1. O‘zbekiston Respublikasining 1999 yil 20 avgustdagi “Aholini va hududlarni tabiiy hamda texnogen xususiyatli favqulodda vaziyatlardan muhofaza qilish to‘g‘risida”gi Qonuni.
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UDK 33

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ACCOUNTING AUDIT: TASKS, METHODS AND PROCEDURE OF CONDUCTING

Annotation: According to domestic legislation, an audit is an independent audit of an enterprise's financial statements. In this article highlights tasks, methods and procedure of conducting accounting audit.

Key words: economy, financial statement, audit, accounting audit, domestic legislation, enterprise, company, office.

Organizations that carry out their activities are required to keep accounting records and prepare accounting statements. This requirement is fixed at the legislative level and applies to all economic entities, with the exception of structural divisions of foreign companies and individual entrepreneurs.

Any operation expressed in monetary terms (for example, the purchase of equipment or the issuance of salaries to employees) must be recorded and documented. And the ultimate goal of accounting will be the preparation of accounting statements reflecting information about the company's activities, its property status and performance indicators. However, in practice, no one is immune from errors, and their presence in the reporting may entail a violation of the principle of reliability, considerable risks and consequences for companies. Therefore, organizations conduct an audit of accounting statements to minimize such risks and address a number of other issues.

The main purpose of the audit is to express an opinion on the reliability of the company's financial statements, and its main condition is the independence of the auditor's opinion. Its formation is influenced by the principle of reasonable confidence in the accuracy and reliability of reporting, which is guided by the auditor during the audit. At the same time, the probability of detecting distortions is influenced not only by the methods used by the auditor, but also by the process of organizing and maintaining accounting records, as well as the quality of the work of the internal control department of the audited company.

During the procedure, the auditor conducts an examination of accounting, an analysis of the compliance of all transactions with the legislation and the correctness of their reflection in the accounting documents. The specialist identifies all errors and shortcomings that can lead to fines. An audit is necessary for any company - from a small store to a giant holding company. The main task of the accounting audit is an independent examination of the

company's financial statements. An audit is ordered for a variety of reasons and in various situations. Some firms conduct it in order to be able to provide proof of their economic viability to their partners. Others want to control tax risks. Still others conduct an audit to control their own accounting (especially when there are suspicions that the accountant is not fully competent). For some companies, auditing becomes a mandatory procedure. In particular, in cases where:

- the organization has the organizational and legal form of an open joint stock company (JSC);
- the company is a credit, insurance organization or mutual insurance company, a commodity or stock exchange, an investment fund, a state extra-budgetary fund, the source of the formation of funds of which are mandatory calculations provided for by legislation, made by individuals and legal entities, or a fund, the sources of the formation of funds of which are voluntary contributions of individuals and legal entities;
- the company's revenue for one year exceeds the minimum wage established by law;
- the organization is a state or municipal unitary enterprise based on the right of economic management, if the financial indicators of its activities correspond to those specified in the previous paragraph. For municipal unitary enterprises, financial indicators may be lowered.

Even highly professional accountants with extensive experience make mistakes from time to time. The work of an accountant is complicated, it involves solving a huge number of current issues. The auditor looks at things with a fresh eye, he is not distracted by "turnover" and can fully concentrate on checking documentation. Often small companies with a small budget cannot afford a really competent accountant - they hire either yesterday's graduates who do not yet have enough practical experience, or a part-time accountant - such a specialist works somewhere else and cannot concentrate solely on the conduct of the affairs of this firm. In both cases, errors are inevitable, and there is definitely no way to do without an audit. For each company, an audit is primarily a significant reduction in business risks. Firstly, after the audit, the head will know exactly how things are at the enterprise. Secondly, the audit reveals violations even before they can harm the case and lead to penalties. And finally, the manager receives recommendations on improving and optimizing accounting and document management.

Audit companies conduct proactive and mandatory audits, risk audits, selective audits of individual transactions, audit of settlements with the budget, audit of cash and banking transactions, audit of settlements with counterparties and support of tax audits. You can order both a general audit and a separate examination of some direction. The concept of "audit services" is broader than the concept of "audit". In addition to the audit itself, audit companies usually provide other services: setting up, restoring and maintaining accounting,

reporting, consulting, including tax, management and legal, analysis of financial and economic activities, automation of accounting and the introduction of information technology, property valuation, business plans, marketing research and much more.

The audit report, which indicates violations identified during the initiative audit, is a strictly confidential document, which only the customer has the right to use. The tax inspectorate receives another document issued based on the results of a mandatory audit - an audit report. It contains the auditor's opinion on the reliability of the financial statements.

Various methods are used to check accounting statements and analyze them - their choice depends on specific goals and objectives.

Continuous verification involves the analysis of the entire set of documents, accounting registers and accounting statements.

Random verification is based on the laws of probability theory, according to which these parts of the whole can give reliable information about everything. Each element of the random check should have the same chance of being selected in the sample.

Combined verification uses the methods of continuous and random verification.

Documentary verification is based on the examination of all documentation, but does not involve an inventory and interviews of staff and management. Often this type of inspection is carried out even without leaving the facility.

The actual audit includes checking documents, interviewing accounting staff and management, and sometimes conducting an inventory. In this case, the auditors go to the facility and work together with the company's employees.

During the accounting audit, the employees of the audit company carefully check all accounting documentation and the organization of work processes - the principles of accounting and document management, financial transactions, reporting and other operations. To do this, auditors work together with the accounting department of the company for a certain time. After the examination is completed, the auditor draws up a detailed report on the work carried out. The report, among other things, records all errors. The conclusion on the results of the audit is an official document intended for accounting statements. The cost of an initiative audit depends on the size of the company and the type of audit, but these costs are always justified - in the end, the audit is beneficial to the company itself. Regular internal audit and implementation of all recommendations received from the expert help the company to save money, increase profits and, of course, avoid fines.

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HYDROLOGICAL REGIME OF THE RIVERS OF THE KASHKADARYA BASIN AND ASSESSMENT OF LOCAL WATER RESOURCES

Abstract: The article is devoted to the assessment of the hydrological regime of the rivers of the Kashkadarya basin and the local water resources of the oasis. In it, at first, the intra-annual distribution of river runoff by months of the basin and the coefficient of river nutrition were calculated. In the following parts of the work, the coefficients of variability of the river runoff of the basin and changes in water resources for two calculation periods were determined. At the end of the study, the main indicators of river runoff in the Kashkadarya basin were calculated. All calculations are performed for different accounting periods. The results obtained during the study were compared and analyzed with data from previous studies, and scientific conclusions were given.

Keywords: river, water discharge, runoff module, runoff layer, runoff volume, hydrological regime, runoff change during the year, coefficient of variation, water resources.

The hydrological regime of the rivers of Central Asia was studied in the middle of the last century by V.L.Shultz, O.P.Shcheglova, M.N.Bolshakov and others **[**1, 3, 4, 5]. In the future, similar studies were continued by G.N.Trofimov, V.E.Chub, Yu.N.Ivanov, A.A.Rasulov, F.H.Hikmatov and others **[**2, 6-8, 9]. The results of these studies have been used in the relevant fields of hydrological and water management calculations.

By now, over the next 40 years, a sufficiently large amount of material has been accumulated, which allowed V.E. Chub to clarify previously defined characteristics of the flow of the rivers of the Kashakadarya basin. The results of a special study by V.E. Chub **[**3] made it possible to make a more detailed assessment of the local water resources of the Kashkadarya oasis, which differ in the completeness of the coverage of the hydrological material and, accordingly, their reliability. This assessment is necessary taking into account

the longer series of observations and its implementation has become a time requirement. The results of such studies are necessary for solving problems related to the sustainable development of the country and its individual regions, such as the Kashkadarya Oasis.

In the last century, hydrological observations with different series of durations were conducted at 50 hydrological sites in the Kashkadarya River basin. Taking this into account, in this work we have selected hydrological posts with longer series of actual observations.

When using water resources for the purposes of irrigated agriculture, data on the intra-annual distribution of river flow are of particular importance. As is known by V. L. Shultz, the annual distribution of river runoff can be very significantly influenced by the thickness of the snow cover, which determines the position of the snow line, and the height of the glaciers. These hydrological indicators are also typical for the Kashkadarya basin. In this regard, we have calculated the annual distribution of the flow of the studied rivers using data from recent years of observations. The calculation results are shown in Table 1.

In the table we can see, that rivers of the Kashkadarya basin differ in a certain range of the time of the onset of the monthly maximum and by a different anual flow distribution. In the table we can see, that rivers of the Kashkadarya basin have been differ in a certain range of the time onset of the monthly maximum and by a different anual flow distribution. For example, at average catchment heights up to 2000 m (Kashkadarya - Varganza, Jinydarya - Jazz), the monthly maximum flow (20% or more of the annual) is observed in April. On the rivers Akdarya (Khazarnau), Tankhizydarya (Katagan), Yakkabagdarya (Tatar), the average height of catchments ranges from 2200 – 2750 m, the monthly maximum flow is observed in May and even in June.

Table 1

Intra-annual distribution of river runoff by months (in %) and values of the Schulz coefficient (δ)

River – post	Billing period		Months												δ
			I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Kashqadarya – Varganza	I	1933-1952	5,0	8,2	16,2	23,8	16,6	8,0	4,6	3,7	3,2	3,3	3,5	4,2	0,18
	II	1927-2020	3.3	5.1	10.6	15.5	10.4	4.6	2.6	1.93	1.7	1.8	2.2	3.1	0,15
Djinydarya– Jauz	I	1933-1952	4,6	12,3	7,9	20,0	18,3	7,6	4,9	4,3	4,7	5,2	5,3	5,0	0,26
	II	1941-2020	0,9	1,1	1,9	3,1	2,7	1,5	1,0	0,9	0,9	1,0	1,1	1,1	0,31
Akdarya-Khazarnau	I	1933-1952	2.6	2.9	4.5	8.6	13.9	21.7	19.0	10.8	6.3	4.0	3.2	2.9	0,74
	II	1927-2020	2.6	2.7	5.6	11.2	17.4	28.4	30.6	21.5	10.6	6.2	4.8	3.4	1,0
Tankhizidarya–	I	1933-1952	2,0	2,2	3,5	9,6	22,8	28,0	15,9	5,9	3,3	2,5	2,2	2,2	0,39

Kattagan	II	1951-2020	0.9	1.0	2.1	5.8	11.9	13.2	6.3	2.0	1.0	0.8	1.0	1.0	0,29
Yakkabagdarya–Tatar	I	1933-1952	1,8	1,3	2,7	9,0	22,7	28,0	17,3	6,5	3,5	2,70	2,40	2,19	0,44
	II	1930-2020	1.2	1.9	1.9	6.7	15.8	20.2	11.8	4.5	2.5	1.8	1.6	1.4	0,42

Notes: 1 – according to V.L. Schulz, 2 – results obtained by the authors.

This is evidenced by the graphs constructed on the basis of the data in Table 1, the average annual distribution of the runoff of characteristic rivers of the studied area (Figs.1 and 2). The results of calculations of the annual distribution of the flow of the rivers of the Kashkadarya basin were compared with the data of V.L.Schultz (Table 1).

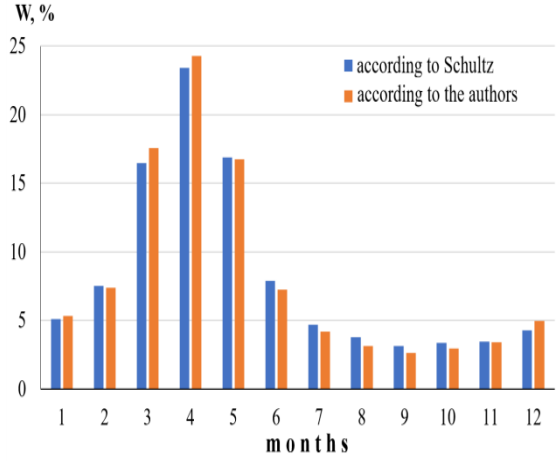


Fig.1. Average long-term intra-annual distribution of runoff by month (% of annual), p.Kashkadarya - K.Varganza

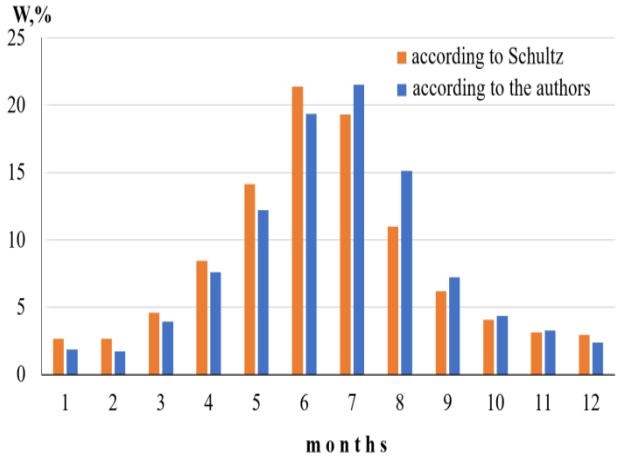


Fig.2. Average long-term intra-annual distribution of runoff by month (% of annual), p.Akdarya - K.Hazarnau

This paper presents an assessment of the indicators of runoff and the share of river power sources based on the materials of 5 hydrological posts with sufficiently long series of observations. For this purpose, the values of the coefficient δ were calculated and, based on them, the power sources of the rivers were clarified.The results are compared with the data of V.L.Schultz (Table 1).

The values of the parameter δ calculated by us with the involvement of materials from recent years of observations, are close with the given values (δ) of V.L. Schultz. However, it should be noted that in recent years, for most of the rivers in the Kashkadarya river basin, the runoff for the months of March-June is higher than had V.L. Schultz (Table 1).

It is known that V.L.Schultz attributed p.Kashkadarya in the group of snow-fed rivers, and according to our results, this river belongs to the snow-rain type. The rivers Jinydarya, Akdarya, Yakkabagdarya by V.L.Schultz were attributed to the snow-glacial type of source, which is also confirmed by our calculations.

As can be seen from Table 1, the values of δ decreased for the

Tankhizydarya (Kattagan) and Yakkabagdarya (Tatar) rivers.The reason for this is the intensive melting of glaciers in the high-altitude part of the studied basin and a decrease in their area, as well as the size of eternal snow in the relatively low zones of the basins of these rivers. For example, as mentioned above, the total area of glaciers in the Kashkadarya basin according to V.L.Shultz was 20.3 km^2, and subsequently it was decreased by 23.6%.

In this work, the issues of long-term variability of the runoff of the rivers of the Kashkadarya basin are also considered on the basis of the materials of the 10 above-mentioned hydrological stations. We calculated the values of the coefficients of variation for three selected calculation periods (Fig. 3).

In this paper, the issues of long-term variability of the flow of the rivers of the Kashkadarya basin are also considered on the materials of the 10 above-mentioned hydrological posts. We calculated the values of the coefficients of variation for three selected calculation periods (Fig. 3).

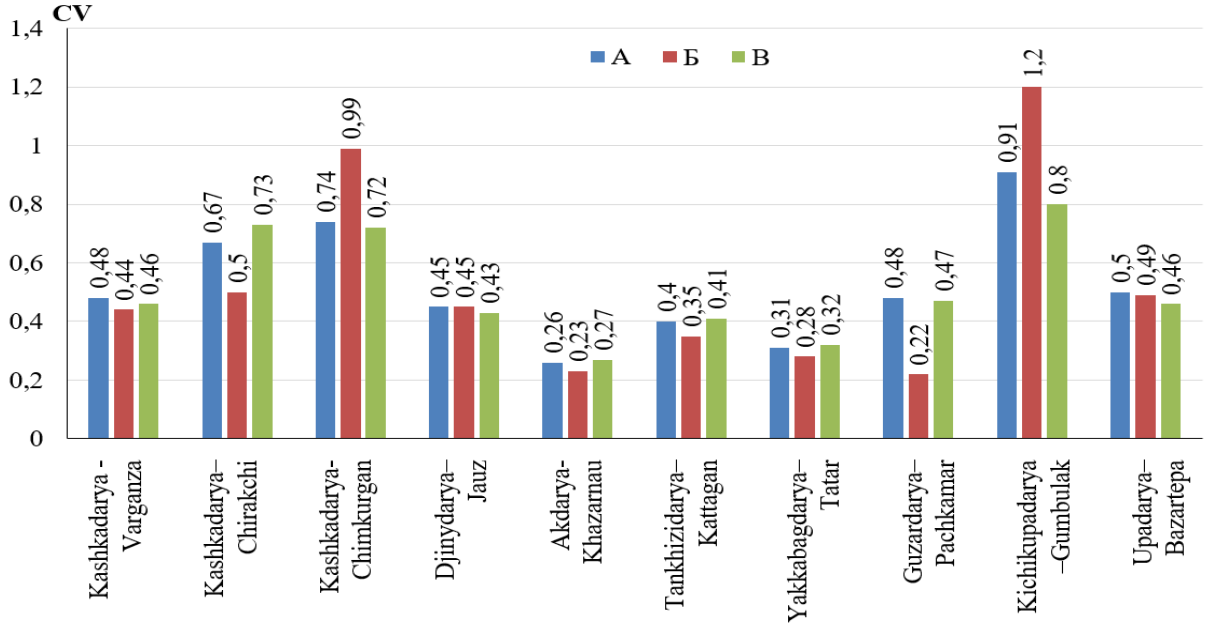


Fig.3. Values of the coefficients of variation calculated for the selected periods
Note: A – the period covering all the years of observations; B – the period up to 1970; C – the period from 1971 and subsequent years.

As can be seen from Figure 3, for each of the three calculation periods for the rivers of the upper part of the Kashkadarya (Varganza), the values of the coefficients of variation are almost the same, only in the last period (C) it is less relative to the previous calculation periods A and B. For the Tankhizydarya, Guzardarya, Kashkadarya (Chimkurgan) rivers, the coefficient of variation increased slightly in the last calculation period.

It should be noted that on the rivers of the Guzardarya basin, the values of the coefficient of variation of annual runoff fluctuate within significant limits. At the same time, for the Uradarya River, the values of the coefficient of variation in the last period significantly decreased compared to the second

period. In general, for all three selected periods, the values of the coefficients of variation varied in the range of 0.24 – 1.13. If its minimum value falls on Akdarya (Khazarnau), then the maximum value is obtained for Kichik Uradarya River (Gumbulak).

The study of changes in river flow is of great scientific and practical importance for the planned organization of water management of any territory in the future. To this end, the corresponding calculations were performed for the following two periods: I. Conditionally natural period (inclusive up to 1970); II. The period of intensive land development (1971-2018). When allocating these periods, the intensive development of the lands of the Karshi steppe is taken into account. Calculations were made on the basis of materials from 10 hydrological sections (Table 2).

Table 2

Changes in river water runoff for settlement periods (I, II)

№	River - post	I			II			ΔW, 10^6 м^3	%
		Number of years	Q_{mid}, м^3/с	W_y, 10^6 м^3	Number of years	Q_{mid}, м^3/с	W_y, 10^6 м^3		
1	Kashkadarya – Varganza	44	5.43	171.3	50	5,09	160,5	-10,7	-6,7
2	Kashkadarya– Chirakchi	25	24.9	785.3	50	20,1	633,3	-132,9	-21,0
3	Kashkadarya – Chimkurgan	8	16.71	527.0	50	12,71	400,9	-126,2	-31,5
4	Djinydarya– Jauz	29	1.48	46.7	50	1,51	47,6	0,93	1,95
5	Akdarya–Khazarnau	44	12.88	406.2	50	11,62	366,5	-39,6	-10,8
6	Tankhizidarya– Kattagan	20	4.8	151.4	50	3,66	115,3	-36,01	-31,2
7	Yakkabagdarya– Tatar	40	6.63	209.1	50	5,44	171,5	-37,6	-21,9
8	Guzardarya– Pachkamar	6	5.05	159.3	50	5,53	174,6	0,9	0,53
9	Kichikupadarya– Gumbulak	3	3.2	100.9	50	1,41	44,4	-56,8	-127,9
10	Upadarya– Bazartepa	6	3.1	97.8	50	4,08	128,55	23,8	18,54

The average annual values of water flow rates (Q_{mid}) and annual runoff volumes (W_y) of selected rivers for the specified calculation periods are calculated. Then, for the studied rivers of the Kashkadarya basin, the difference in flow volumes (ΔW) was determined, calculated from the average annual water consumption for each of the two calculation periods. Analysis of the calculated values of the difference in flow volumes showed that in most cases there is a decrease in flow in the second calculation period: its minimum value (ΔW = 4.0%) corresponds to the Kashkadarya River, and the maximum value is

127.9% at the Kichikuradarya River. The reason for this is the increased water intake above the hydrological levels in the second billing period. Only in a single case (Jinydarya, Guzardarya and Uradarya,) the difference has a positive sign (Table 2). On average, the change in flow for all rivers was -22.81%, which is the result of intensive use of river flow for irrigation purposes.

Based on the available materials on the water flow of the studied rivers, we calculated the following main indicators of river flow: average annual water flow rate (Q, m^3/s); flow modulus (M, $l/s \cdot km^2$); flow layer (Y, mm); flow volume - W, million m^3 (Table 3).

Table 3

The main indicators of the runoff of the rivers of the Kashkadarya basin, calculated for different calculation periods

River - post	A source	Billing period	F, km^2	Q, m^3/s	M, $l/s\ km^2$	У, mm	W, mln. m^3
Kashkadarya - Varganza	I	1926-1960	468	5,46	11,7	368	172,2
	II	1926-2002	511	5,22	10,2	322	164,5
	III	1927-2020	511	5,25	10,4	327	167,2
Djinydarya–Jauz	I	1941-1960	163	1,43	4,0	277	45,1
	II	1941-1990	152	1,56	10,3	323	49,2
	III	1941-2020	152	1,44	10,1	317	48,3
Akdarya-Khazarnau	I	1927-1960	845	12,3	14,6	459	387,9
	II	1927-2002	845	12,1	14,3	451	381,6
	III	1927-2020	845	12,08	14,5	459	387,9
Tankhizidarya–Kattagan	I	1926-1960	427	4,30	10,3	318	135,6
	II	1951-2002	425	4,11	9,7	305	129,6
	III	1951-2020	435	3,92	9,2	291	126,5
Yakkabagdarya–Tatar	I	1930-1960	504	6,74	13,4	422	212,6
	II	1930-2002	514	6,11	12,1	382	192,6
	III	1930-2020	504	5,94	11,8	372	187,3
Guzardarya - Yartepa	I	1928-1960	3170	6,0	1,89	60	189,2
	II	1928-1965	3170	5,95	1,88	59	187,7
	III	1928-1965	3170	5,95	1,88	59	187,7
Guzardarya–Pachkamar	I	1928-1964	1260	4,49	3,6	112	141,6
	II	1965-2002	1250	4,81	3,8	121	151,7
	III	1971-2020	1250	4,00	3,3	103	128,4
Kichikupadarya–Gumbulak	I	-	-	-	-	-	-
	II	1968-2002	1570	1,29	0,82	26	40,7
	III	1968-2020	1570	1,44	0,94	30	47,0

Note: I - according to V.L. Schultz; II - according to V.E. Chub; III - according to the authors.

The obtained results of calculations of the main characteristics of the flow of large rivers were compared with the data of V.L. Shultz and V.E. Chub (Table 3). As can be seen from this table, despite the differences in the calculation periods, the values of the average long-term characteristics of the

flow of rivers almost coincide, especially with the results of V.E. Chub. This indicates that over the past 30-40 years there have been no drastic changes in the hydrological regime of the rivers of the Kashkadarya basin.

Thus, we have clarified the values of the main indicators of river runoff: the average annual water consumption, the flow modulus, the layer and the volume of runoff. The obtained results were compared with the data of V.L. Shultz and V.E.Chub. Despite the differences in the calculation periods, the values of the average annual characteristics of river flow do not differ much.

The recorded water resources of the rivers of the Kashkadarya basin are characterized by the following values: the total volume of surface water runoff varies from 600 million m^3 to 1.9 billion m^3 per year, the total average annual flow rate of rivers is 44.9 m^3/s, and the average annual flow volume is 1.416 km^3.

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MOBILE COMMERCE IN THE MODERN ERA

Abstract: This paper is based on the major impacts of mobile commerce in modern society. And it illustrates how increasing the role of the mobile commerce sector is among all types of electronic commerce.

Keyword: mobile commerce, mobile payment, mobile banking, mobile shopping, omnichannel, customer security, digital economy, economy, enterprises, application, information communication technologies and global economy.

Introduction.

Mobile commerce, also called m-commerce, includes any monetary transaction completed using a mobile device, such as a cell phone or tablet.

It is an advancement of ecommerce, enabling people to buy and sell goods or services from almost anywhere, simply using a mobile phone or tablet device.

But mobile commerce is more than just a simple evolution of electronic commerce.

It has also served as a trigger for new industries and services or helped existing ones grow, including: Mobile money transfers, Electronic ticketing and boarding passes, Digital content purchases and delivery, Mobile banking, Contactless payments and in-app payments, Location-based services, Mobile marketing, coupons and loyalty cards.

Different Types of Mobile Commerce

While m-commerce covers a wide variety of transactions, they can all be categorized as one of three types:

Mobile shopping. This is mostly similar to ecommerce but accessible via your iPhone or Android. Mobile shopping is now possible through mobile optimized websites, dedicated shopping apps and even social media platforms.

Mobile banking. Mobile banking isn't too different from online banking, however you may find some transaction types are limited or restricted on mobile devices. Mobile banking usually involves a dedicated app, though some banks have started experimenting with the use of chatbots and messaging apps.

Mobile payments. There are so many diverse mobile payment options that we have chosen to cover them in detail further in this article.

As a business owner and user of BigCommerce, your exposure and interest in mobile commerce would mostly relate to shopping and payments, which is what the rest of this article will focus on.

Common Benefits of Mobile Commerce

Not long ago, creating mobile apps and switching to mobile-friendly platforms may have only been an option for larger companies like Amazon and Walmart, but as the cost of going mobile drops, more and more companies are able to reap the benefits.

So, whether you're a big or small business, keep reading to find out some of the key advantages of mobile commerce and how it can help you scale your business.

Better overall customer experience.

The advent of ecommerce was already a huge improvement in the way we shop. With the ability to shop from their desktop computer instead of walking into a store, customers could access a wider range of products, compare pricing quickly and shop from the comfort of their own homes.

But now, shoppers can still do all of these things, but they don't even need a desktop computer — they just need the phone in their back pocket.

Plus, the very nature of m-commerce means that it has certain capabilities that you simply can't find with ecommerce:

Mobility: Although desktop computers are portable, it's unlikely that a shopper will always have a laptop on-hand. But considering most people never leave the house without a smartphone, m-commerce makes online shopping far more convenient.

Reachability: With the ability to send customers SMS push notifications, online retailers can reach a wider range of customers even when they're on the go.

Location-tracking: M-commerce apps and online stores can pinpoint user locations using GPS technology and Wi-Fi, which helps provide content that is personalized and location-specific.

Phenomenal growth potential.

Although mobile commerce already has a large user base, the industry growth shows no sign of stopping.

In 2021, mobile ecommerce sales were expected to account for 6% of all US retail sales. But by 2025, Statista forecasts that m-commerce sales will make up over 10% of all US retail sales, which would be a growth of 7 percent points since 2018.

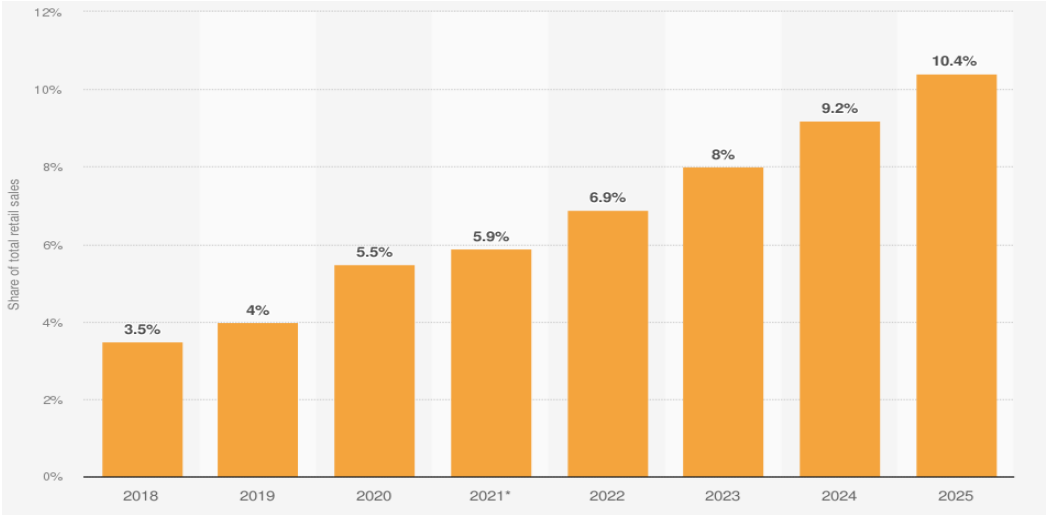


Figure 1. Mobil commerce sales as percentage of total retail sales in the United States from 2018 to 2025

A true omnichannel experience.

Omnichannel commerce refers to selling both in-store and online through multiple channels — on your ecommerce website, Amazon, eBay, Instagram, etc — to create a seamless experience and cohesive brand message across all touchpoints.

But more than that, creating an omnichannel experience is about meeting your customers where they are and making it easier for them to buy.

Therefore, mobile devices are the ideal medium for omnichannel commerce, since you can expect that most of your customers have their smartphones on hand at all times.

Variety of payment options.

To make the buying process even easier, emerging mobile payment solutions have opened the door for a variety of payment options, such as Apple Pay, PayPal One-Touch, Visa Checkout and Amazon Pay.

Many ecommerce sites now offer one-click checkout functionalities, which allow customers to enter their payment details only once, and then they can use the one-click option every time they make a purchase thereafter.

Disadvantages of Mobile Commerce

Constant need for optimization.

Although m-commerce is on the up and up, we can't forget that desktop still matters. In fact, desktop still holds many advantages over mobile.

According to Retail Touch Points, the average desktop device has a conversion rate of 3.9%, which is more than double the 1.8% average rate for smartphones.

However, the reason for this is likely the difference in screen size rather than mobility, considering tablets held a conversion rate of 3.8%, while other devices with smaller screens (i.e. smart watches) had a rate of only 0.1%.

On top of that, desktop devices are also farther ahead of mobile devices in terms of order value. Statista found that, in 2019, smartphones accounted for 64% of global retail website visits but only generated 46% of ecommerce revenue, which was the same as desktop devices.



Figure 2. Average value of global online shopping orders as of 3rd quarter 2020, by device (in U.S. dollars)

Thus, there is an evident need for mobile commerce optimization.

As consumer behavior continues to change, you will need to be aware of the latest technologies and applications to ensure that your online store is not just mobile-friendly, but also fast, convenient and easy to navigate.

Variety of payment methods.

While the abundance of payment methods can be an advantage, unfortunately, not all payment platforms and mobile wallets are available in all regions. Plus, customers in different regions often prefer certain payment options over others, making it more complex for online retailers to manage their business on a global scale.

You might think that offering more payment options would simplify the mobile experience, but sometimes less is more.

In fact, a 2000 study found that offering too many product choices often leads to decreased sales and customer satisfaction.

Thus, you'll want to figure out the right mix of payment options for your area of business and the locations you're serving. It may seem difficult at first, but as you gather data about your customers and understand their preferences, you'll be able to gauge which payment options work best for you.

Easier for customers to compare prices.

One of the pitfalls of simplifying the mobile user experience is that it makes it much easier for customers to quickly compare prices across a variety of stores. In just a few clicks, customers can find out how much a similar product

costs from your store and ten others — and often they'll search until they find the cheapest product for the highest value.

So, how do you combat this? By — just like your customers — being aware of how you match with your competitors. Look out for when competitors drop or raise their prices, as well as shipping costs, and be ready to react.

Customer Security.

According to a study by Forrester, 30% of smartphone users said they don't make online purchases on their mobile device, because they don't feel secure using mobile payment services, and 14% said they were afraid of their phone information being sold to third parties.

Therefore, when customers give permission to access their data through their mobile devices, ecommerce businesses hold a greater responsibility to protect their personal data and steward it well.

You'll need to comply with a wider range of regulations but also be transparent with your customers in how you're using their collecting and sharing their information.

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THE IMPORTANCE OF PLAY COMPETENCES IN THE FIRST STEP STATE PROGRAM

Annotation: This article shows the goals and tasks, the main competencies of educational activities for the transition to the next stage of education in the development of primary and preschool children.

Key words: curriculum, game competence, preschool educational institution, parents, knowledge, skills, child's personality, communication.

The decision of the President of the Republic of Uzbekistan in 2017 "On the organization of activities of the Ministry of Pre-School Education in Pre-School Education Institutions of the Republic of Uzbekistan".

Decision of the President of the Republic of Uzbekistan dated December 29, 2016 on measures to further improve the preschool education system.

Implementation of the first step program in the educational process, the role of methodical support and methodical support in the full development of the program was determined.

On the basis of the first step program, special attention was paid to the role of the educator in the organization of centers and general group work in all age groups. The working curriculum of the educational organization was established by the pedagogues of the organization with the involvement of parents and approved in accordance with the current legislation. In pre-school educational organizations, children work in 5 centers based on the "First Step" state curriculum. These are the following:



1. Center for language and speech.

2. Construction, design and mathematics center. (Building, design and math classes)

3. Art center (painting, appliqué, clay building, crafting classes).

4. Story-role games and dramatized center.

5. Center of science and nature (exercises to introduce nature and the surrounding world).

The activities mentioned in the above explanation perform important tasks in preparing children for education. Among children of this age, there are also children with special needs. It is recommended to easily carry out the activities considered for the comprehensive development of the child in cooperation with parents.

There are 5 mandatory educational principles of the competency-based approach to teaching preschool children.

1. "Formation of physical development and healthy lifestyle" competence.

2. Competencies in the field of "speech, communication, reading and writing skills".

3. Competencies in the field of "Development of the cognitive process".

4. Competencies in the field of "creative development".

5. Competence in the field of "social-emotional development".



Competence: a set of knowledge, skills, abilities and values of a child. Primary competencies, regardless of the field of development, serve as the basis for the formation of the child's personality.

Game competence is a child's creative use of experience, knowledge and skills in the game process and its organization. Education is the basis for educational activity.

Game competence is one of the means of intellectual, moral, physical and aesthetic education of children. Children's games have a great impact on the development of children in all aspects. Intuition, perception, thinking, imagination, memory, attention, will, emotions and other mental processes are involved during the game. There are 3 main characteristics of children's games. First, the child performs game activities freely and at his own will. Second, this activity is creative and active. Thirdly, the enthusiasm of game actions: the child becomes interested in the game, enjoys it, the sense of comradeship increases, etc. Depending on the content of the games, children are divided into playful, eventful, action and didactic games:

1. Games with toys are mainly games of children of preschool age (simple toys, playing with cubes, playing with sand)

2. In active games, children imitate the activities of adults. These games reflect the reality of the child's external environment.

3. Children play active games individually or together (play ball, run fast, hide and seek, etc.).



These games help children grow up healthy and strong.

In the process of research, we can say that the above competencies help primary and pre-school children to grow up with mental, physical intuition, perception, thinking, imagination, memory, attention, will, emotions, and spiritual well-being. I believe he can give it.

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ИСПОЛЬЗОВАНИЕ МАГНИТНО-РЕЗОНАНСНОЙ ТОМОГРАФИИ ПРИ ДИАГНОСТИКЕ ПРОТРУЗИИ

Аннотация. Протрузия межпозвонкового диска является начальной стадией образования межпозвонковой грыжи. «Протрузия» означает протрузию — смещение части диска, расположенной между позвонками, за границы межпозвонкового пространства. При этом целостность наружной части фиброзного кольца сохранена, студенистое ядро не выходит за его пределы.

Ключевые слова. Радиология, исследование, МРТ, протрузия, диагностика, лечение.

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USE OF MAGNETIC RESONANCE IMAGING IN THE DIAGNOSIS OF PROTRUSION

Annotation. Protrusion of the intervertebral disc is the initial stage of the formation of an intervertebral hernia. "Protrusion" means protrusion - the displacement of a part of the disc located between the vertebrae beyond the boundaries of the intervertebral space. At the same time, the integrity of the outer part of the fibrous ring is preserved, the nucleus pulposus does not go beyond its limits.

Keywords. Radiology, research, MRI, protrusion, diagnostics, treatment.

Актуальность. Магнитно-резонансная томография (МРТ) и многосрезовая спиральная компьютерная томография (МСКТ) очень чувствительные методы для выявления изменений в позвоночнике и поэтому высок риск неправильной интерпретации полученной информации при выяснении причины поясничных болей, особенно распространенных в старших возрастных группах населения. Результаты МРТ и МСКТ могут повлиять на выбор неадекватной тактики лечения. Одной из задач анализа диагностических изображений является разграничение грыжи (экструзии) и протрузии межпозвонкового диска.

Выпячивание материала диска кзади расценивается как протрузия или грыжа (экструзия), в зависимости от формы и объема смещенного материала. Существующие морфологические и количественные критерии для отличия грыжи и протрузии при небольших объемах изменений могут быть недостаточны для точной оценки состояния заднего контура межпозвонкового диска.

Цель исследования. Целью данного исследования является изучение МРТ анализов больных с протрузии для улучшения дианостики и лечении данного заболевания.

Материалы и методы. В основу работы положен комплексный анализ данных МСКТ и данных МРТ пациентов с жалобами на поясничные боли. Объектом исследования был позвоночный сегмент (ПС) в поясничном отделе позвоночника (ПОП), который мы принимали за единицу наблюдения. Всего обследовано 156 позвоночных сегментов (ПС) у 52 больных. Возраст пациентов находился в диапазоне от 19 до 78 лет. Средний возраст составил 50,6±13,3 лет. МРТ проводилась на высокопольном магнитно-резонансном томографе «Signa 1.0 High Speed Infiniti» с напряженностью поля в 1,0 Тл с коротким туннелем.

Результаты. В данной статье использовалось получение трех серий МР-томограмм с изображением ПОП в сагиттальной и аксиальной плоскостях. Аксиальные томографические срезы всегда планировались по данным томографии в сагиттальной плоскости. Выбирался срединный сагиттальный срез, на котором строили аксиальные срезы через плоскости МПД. На каждый из трех МПД (L3- L4, L4-L5, L5-S1) приходилось 3 аксиальных среза: через верхнюю замыкательную пластинку тела вышележащего позвонка, середину МПД и нижнюю замыкательную пластинку тела нижележащего позвонка. Стандартная методика МРТ включала в себя протоколы получения двух типов изображений: Т1ВИ и Т2ВИ в сагиттальной плоскости и Т2ВИ в аксиальной плоскости, которые могли дополняться протоколами получения Т1ВИ и Т2*ВИ в аксиальной плоскости. МСКТ проводилась на сорокасрезовом спиральном компьютерном томографе «SOMATOM Sensation 40-slice». Стандартно получали реформатированные изображения ПОП в сагиттальной плоскости с толщиной выделенного слоя в 3 мм. Затем по полученным на

первом этапе реформатирования изображениям планировалось получение изображений в косоаксиальной плоскости. Аксиальная плоскость имела наклон, соответствующий плоскости каждого из трех нижних дисков ПОП. Толщина выделенного слоя выбиралась равной 3 мм. Всегда применялся фильтр математической обработки информации B20S, который создавал оптимальную четкость контуров МПД на реконструированных томограммах.

По результатам анализа 78 ПС ПОП по данным МРТ грыжи дисков выявлены в 13 случаях, протрузии в 19 случаях. Для повышения точности в разграничении протрузии и грыжи был применен и изучен морфологический критерий изменения заднего контура межпозвонкового диска - признак распространения материала выпавшей кзади части диска в каудальном и/или краниальном направлениях. При этом ставилась задача установить, имеется ли распространение материала диска за пределы плоскости субхондральных замыкательных пластинок тел двух смежных позвонков. Мы основывались на предположении, что при разрыве фиброзного кольца происходит оттеснение кзади задней продольной связки, частичная или полная утрата ее связи с частями тел позвонков, которые располагаются краниальнее и/или каудальнее уровня межпозвонкового диска. Образовавшееся пространство между телом позвонка и задней продольной связкой при грыже (экструзии) может заполняться материалом выпавшей части диска, что будет являться признаком грыжевого выпячивания диска. Значительная степень пролабации диска в краниальном или каудальном направлении может привести к его секвестрации. Умеренно выраженная степень кранио-каудального распространения материала диска может служить дифференциальнодиагностическим признаком для разграничения грыжи (экструзии) и протрузии. При протрузии не происходит полного разрыва фиброзного кольца. Неповрежденная его часть сдерживает ткани пульпозного ядра и поэтому распространения материала выступающей кзади части диска каудально или краниально не должно происходить.

Результаты изучения этого признака при грыже и при протрузии по данным МРТ. удальном направлении при грыже (экструзии). Признак выявлен в 13 (96,2±3,7 %) случаях. Как видно на рисунке, при грыже диска L4- L5 материал выпавшей части распространяется каудально за линию плоскости субхондральной замыкательной пластинки. Только в одном случае (3,8±3,1 %) при грыже диска этот признак не был зарегистрирован. Чаще встречалось распространение материала диска в каудальном направлении, отмечено в 8 (57,7±9,7%) случаях. В 2 (15,4±7,1%) случаях отмечалось распространение материала краниально, в 3 (23,1±6,9%) случаях - краниально и каудально одновременно. В отличие от грыж в 17 (91,9±4,5%) случаях протрузий диска распространения материала выпавшей кзади части диска каудально или краниально отмечено не было.

Как видно на рисунке, при протрузии диска L5-S1 – материал диска не распространяется за линии плоскостей субхондральных пластинок.

Незначительная степень выраженности этого признака зафиксирована в трех случаях. В 1 (2,7±2,0%) При МСКТ признак выявлен в 13 (100 %) случаях грыж дисков из-за лучшей визуализации костных структур, в том числе субхондральных замыкательных пластинок. Чаще встречалось распространение материала диска в каудальном направлении, что отмечено в 7 (57,7±10,6 %) случаях, очень редко в краниальном - в 2 (15,4±7,1%) случаях. При 3 (26,9±10,7 %) грыжах отмечалось распространение материала краниально и каудально одновременно. В отличие от грыж в 17 (91,9±4,9 %) случаях протрузий диска распространения материала выпавшей кзади части диска каудально или краниально отмечено не было. Незначительная степень выраженности этого признака зафиксирована в виде краниального – 1 (2,7±2,0 %) случай и каудального варианта распространения – 1 (5,4±3,5 %) случая.

Оценивая полученные результаты, можно сделать вывод, что признак кранио-каудального распространения материала выпавшей части диска можно применять как морфологический критерий для разграничения грыжи (экструзии) диска от протрузии для обоих методов.

Вывод. Анализ полученных результатов МРТ и МСКТ исследований свидетельствуют о том, что признак кранио-каудального распространения материала выпавшей кзади части диска является характерным для грыжи (экструзии) и очень редко отмечается при протрузиях. Таким образом, использование указанного морфологического признака позволяет получить дополнительные данные для разграничения грыжи и протрузии. Наличие данного признака в единичных случаях протрузий диска свидетельствует о необходимости комплексного (с оценкой морфологических и количественных критериев) подхода для изучения изменений заднего контура МПД в ПОП.

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ИСПОЛЬЗОВАНИЕ ИКТ В ОБРАЗОВАНИИ – ВАЖНЫЙ ФАКТОР РАЗВИТИЯ ИНФОРМАЦИОННОГО ОБЩЕСТВА

Аннотация: В статье рассматриваются вопросы положительных результатов внедрения информационных технологий в процесс преподавания, которое влечет за собой необходимость повышения информационной культуры педагога, внедрения новых методов обучения с использованием компьютерных технологий.

Ключевые слова: информатизация, интеграция, коммуникация, технология, обучение, познавательная деятельность.

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USE OF ICT IN EDUCATION AN IMPORTANT FACTOR IN THE DEVELOPMENT OF THE INFORMATION SOCIETY

Abstract: The article deals with the positive results of the introduction of information technology in the teaching process, which entails the need to improve the information culture of the teacher, the introduction of new teaching methods using computer technology.

Keywords: informatization, integration, communication, technology, learning, cognitive activity.

Сегодня в процессе высшего педагогического образования растет интерес к интерактивным методам: использование инновационных педагогических и информационных технологий для повышения эффективности обучения. Современное образование, требует от всех нас огромного запаса знаний в области современных технологий. И, к сожалению, большая часть учителей чувствует себя «не очень хорошо подготовленными» к использованию компьютера в преподавании своего предмета. Сегодня школы обеспечиваются современными компьютерами, электронными ресурсами, доступом к Интернету.

Использование ИКТ в образовании считается одним из важнейших направлений развития информационного общества. Интеграция ИКТ в учебный процесс позволяет, с одной стороны, получить учащимися навыки, необходимые для жизни и работы в современном обществе, и, с другой стороны, создает предпосылки для коренного изменения

технологии получения нового знания посредством более эффективной организации познавательной деятельности.

Преимущество ИКТ в том, что они:

- способствуют совершенствованию практических умений и навыков;
- позволяют индивидуализировать процесс обучения;
- повышают интерес к урокам;
- активизируют познавательную деятельность учащегося;
- развивают творческий потенциал учащихся;
- делают урок современным.

На уроках возможны следующие варианты применения ИКТ:

- создание слайдов с текстовым изображением, предназначенных для уроков объяснения, закрепления и обобщения материала (данный вариант работы удобен тем, что его можно организовать как в компьютерном классе, так и в классе при наличии одного компьютера, который находится на столе у учителя);
- использование компьютерных тестов, предназначенных для контроля за уровнем знаний школьников на этапе закрепления и повторения пройденного;
- организация мультимедийных презентаций по темам и разделам изучаемого предмета;
- организация проектной деятельности учащихся;
- применения ИКТ во внеклассной работе (КВН, игры и др.);
- организация мультимедийной поддержки сообщений, докладов, индивидуальных и творческих заданий.

В этом процессе ученик становится главной фигурой. Основными причинами нынешнего акцента на эффективное использование современных педагогических технологий в образовательном процессе высших педагогических учебных заведений являются:

Во-первых, существует широкий спектр возможностей для реализации обучения личностного развития в современных педагогических технологиях и подготовки будущих педагогов. Поэтому в Законе об образовании и Национальной программе повышения квалификации особое внимание уделяется совершенствованию высшего педагогического образования.

Во-вторых, современные педагогические технологии позволяют глубоко внедрить системный подход в образовательный процесс в системе высшего педагогического образования.

В-третьих, современные педагогические технологии побуждают профессоров заранее разрабатывать технологическую цепочку, от целей образовательного процесса до создания системы диагностики и контроля над процессом.

В-четвертых, поскольку современные педагогические технологии основаны на использовании в учебном процессе современных учебных и информационных методов, их эффективное использование обеспечит выполнение требований «Национальной программы обучения».

Одним из достоинств применения мультимедиа технологии в обучении является повышение качества обучения за счет новизны деятельности, интереса к работе с компьютером. Применение метода проектов с использованием информационных технологий в рамках естественнонаучных дисциплин является высокоэффективным средством обучения, отвечающим всем требованиям современности: при достаточно высоком уровне мотивации, даже «слабые» ученики могут находить оригинальные решения нестандартных проблемных ситуаций; участие в коллективной творческой деятельности; организация педагогом деятельности, которая выходит в социальную сферу; деятельностный уровень освоения реальности; самообразование; целостная картина окружающего мира в динамике.

Главная функция учителя связана с организацией собственной деятельности школьников, которая признавалась бы ими как «своя», за которую они «лично» ответственны». Важнейшая роль в таком процессе отводится самооценке учащегося.

Учитель должен создать такие условия для детей, чтобы каждый школьник увидел свой индивидуальный результат и смог оценить его в сравнении «с самим собой вчерашним». Для оценки труда учащихся учитель применяет индивидуальные эталоны, способствующие созданию ситуации успеха каждому обучающемуся.

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РАЗВИТИЕ МАЛОГО ЭПИЧЕСКОГО ЖАНРА В РУССКОЙ И УЗБЕКСКОЙ ПРОЗЕ

Аннотация: Первый (начальный и очень краткий) период развития эпических жанров связан с попыткой литературы осознать себя в условиях культурно-исторического разлома. Круг лиц, определяющих облик литературы этих лет, непосредственно связан с предреволюционной культурно-исторической ситуацией; большинство ее представителей вскоре покинет Россию или расстанется с жизнью при трагических обстоятельствах. Однако поднятый в эти годы круг проблем сохранит свое значение на протяжении последующих десятилетий. Крайне ограниченный во времени промежуток литературного развития демонстрирует многообразие идейных и жанрово-стилевых устремлений, их альтернативность.

Ключевые слова. Проза, язык, значения, идея, жанр.

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THE SPECIFICS OF THE DEVELOPMENT OF THE SMALL EPIC GENRE IN RUSSIAN AND UZBEK PROSE AT THE BEGINNING OF THE 20TH CENTURY

Annotation: The first (initial and very short) period in the development of epic genres is associated with an attempt by literature to realize itself in the conditions of a cultural and historical break. The circle of persons who determined the appearance of the literature of these years is directly connected with the pre-revolutionary cultural and historical situation; most of its representatives will soon leave Russia or lose their lives under tragic circumstances. However, the range of problems raised in these years will retain its significance over the next decades. The period of literary development, which is extremely limited in time, demonstrates the diversity of ideological and genre-style aspirations, their alternativeness.

Keywords. Prose, language, meanings, idea, genre.

Среди эпических жанров в этот момент лидирует публицистика. Полный объем и истинный масштаб этого явления можно осмыслить лишь сегодня, поскольку до последнего времени одна часть произведений этого

рода была погребена на страницах недоступных периодических изданий, другая, вышедшая незначительными тиражами, превратилась в библиографическую редкость, третья ходила в списках или была издана на Западе (тогда же или позднее) и также оказалась вне досягаемости. Рожденная своим временем и попытавшаяся осмыслить его корневые проблемы, послеоктябрьская публицистика имела большое значение для читателей-современников и являла собой необычайное жанрово-видовое многообразие: то был и очерк (А.Серафимович, Л.Рейснер и др.), и лирикопублицистическое эссе («Слово о погибели Русской Земли» А.Ремизова, 1917), и заметки «на случай», приобретающие в контексте цикла характер целостного трактата о проблемах современности («Несвоевременные мысли» М. Горького, 1917-1918); поэтические по своей природе проблемные статьи А. Блока («Интеллигенция и революция», 1918; «Крушение гуманизма», 1919; «Катилина», 1919); дневниковые записи 1918-1919 гг. (дневник-памфлет И.Бунина «Окаянные дни»); переписка («Переписка из двух углов» (1920) Вяч. Иванова и М.Гершензона); письма В.Короленко народному комиссару Луначарскому, 1920; манифест «О тенденциях пролетарской культуры», 1919 А.Гастева; сборники статей, посвященные философским проблемам («Из глубины. Сборник статей о русской революции», 1918; «Освальд Шпенглер и закат Европы», 1922) и др. Диапазон воззрений на революцию, провозглашаемых авторами публицистических произведений, колеблется от трагедийно-восторженного у А.Блока до бескомпромиссно отвергающего у И.Бунина или А.Ремизова. Меж этими крайними полюсами позиции тех, кто, отрекаясь от старого мира и веруя в творческий смысл русской революции, не мог принять правоту и реальность марксистских предначертаний и пытался найти некий третий путь – соединить пафос материального преобразования мира с идеями его нравственного преображения, а также тех, кто вступал в полемику с большевиками, оставаясь на почве социального переустроения жизни, но пытался соотнести идеи большевизма с реальными обстоятельствами российской действительности, а цели – со средствами, подобно М.Горькому и В.Короленко. Революция и органическое развитие России, политика и нравственность, проблема народного характера, русская ментальность, судьба страны в аспекте традиционной триады Запад–Россия–Восток, личность и масса, кризис традиционного гуманизма и возможность рождения «нового человека», техническая цивилизация и судьбы личности, перспективы развития культуры и демократизация общества – в контексте обсуждения этих проблем зародилось много социальнополитических, культурно-исторических, философских идей, которые в дальнейшем оказались в центре внимания литературы. В самом начале 1920-х годов появляются значительные явления в области большой эпической формы. У ее истоков стоят представительные для литературной

эпохи фигуры и произведения: «Хождение по мукам» (1919-1921 – журнальный вариант, 1922 – отдельное издание) А.Толстого, «Мы» (1921) Евг. Замятина, «Голый год» (1921) Б.Пильняка, «Железный поток» (начат в 1922, опубл. в 1924) А.Серафимовича. Судьбы этих писателей, созданные ими в этот момент произведения, являют собой знаки разных писательских биографий и разных тенденций в дальнейшем развитии прозы. А.Толстой весной 1919 г. отплывет из Одессы, в 1919- 1920 гг. создаст первый роман русского зарубежья – «Хождение по мукам», который будет известен советскому читателю в поздней редакции как первая часть трилогии под названием «Сестры»; в 1923 г. возвратится в Россию, где социально-психологический роман реалиста Толстого войдет (после переработки) в состав романа-эпопеи – наиболее чтимого жанра социалистического реализма. Алексей Толстой вернется, чтобы стать «красным графом», вторым после Горького человеком советского литературного мира. А.Толстой продолжит традиции реализма в их классическом варианте, выступит прямым наследником старшего Толстого, а в дальнейшем создаст одно из самых значительных произведений XX века – роман «Петр Первый». Питаемый общей потребностью в освоении нового состояния мира в формах самой жизни, реализм, связанный с такими фигурами, как М.Горький, Л.Леонов, М.Шолохов, А.Толстой, проявит в XX веке удивительную жизнеспособность; реалистический тип обобщения окажется способен раздвинуть масштабы видения человека и обновить традиционную систему жанров, скорректировать систему художественных координат, используя опыт «неклассической» прозы. Однако к концу литературной эпохи от лица реализма будет представительствовать К.Федин, проза которого, по справедливому замечанию М.Чудаковой, стремясь наследовать великим романистам второй половины XIX века и «продемонстрировав (отдадим ей должное) понимание повествовательной традиции и верность образцам», будет «постепенно вырождаться уже под его пером в то, что стало вскоре эпопеями авторов с табличками на дверях кабинетов»1. «Голый год» Б.Пильняка станет одним из первых произведений большой эпической формы, подхватившим завоевания Андрея Белого, который быстро прошел путь от символизма к авангарду. Пильняк поставит своего рода художественный эксперимент, обнаруживший продуктивность орнаментализма (в частности мотивности как средства организации художественного целого), неомифологизма и гротескной образности.

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РОЛЬ ПСИХОЛОГИЧЕСКОЙ КОРРЕКЦИИ В ЛЕЧЕНИИ ВОЗНИКНОВЕНИЯ ИЗБЫТОЧНОГО ВЕСА У ДЕТЕЙ

Резюме: В данной статье проведен сравнительный анализ высокой эффективности психологической терапии увеличения массы тела у детей с фармакологической терапией. Психотерапевтическое воздействие направлено на снижение массы тела, формирование стабильного пищевого поведения ребенка, предотвращение повторения набора веса, нормализацию психоэмоционального фона личности, устранение патологических последствий адаптации. Для детей и их родителей рекомендуется проводить индивидуальные и групповые сеансы психотерапии с элементами семейной терапии.

Ключевые слова: увеличение массы тела, дети, психотерапевтическая коррекция.

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THE ROLE OF PSYCHOLOGICAL CORRECTION IN THE TREATMENT OF OVERWEIGHT IN CHILDREN

Resume: In this article, a comparative analysis of the high effectiveness of psychological therapy for weight gain in children with pharmacological therapy is carried out. The psychotherapeutic effect is aimed at reducing body weight, forming a stable eating behavior of the child, preventing the recurrence of weight gain, normalizing the psycho-emotional background of the individual, eliminating the pathological consequences of adaptation. For children and their parents, it is recommended to conduct individual and group psychotherapy sessions with elements of family therapy.

Key words: weight gain, children, psychotherapeutic correction.

Актуальность. В литературе представлены данные о влиянии ожирения на психологическое здоровье и качество жизни детей, однако авторы зачастую основываются лишь на субъективном мнении родителей

о своем ребенке. Изучение качества жизни детей с ожирением представляет научный и практический интерес [2,7].

Наряду с необходимостью снижения массы тела, которая достигается, как правило, при уменьшении калорийности нищи и увеличении физической активности, детям с ожирением необходимы психологическая поддержка, а также применение физиотерапевтических методик, способствующих коррекции психоэмоционального статуса и улучшению качества жизни.

Предлагаемые на сегодняшний день методы лечения ожирения пока дают весьма скромные результаты [5,9]. Диетотерапия не всегда надежна, так как после прекращения ее использования часто наблюдаются рецидивы заболевания [1,5]. Применение ряда препаратов, используемых у взрослых, (анорексигенные, ингибиторы жирорастворяющих ферментов), у детей нежелательно или ограничено [3,6].

Существенную роль в лечении играют осознанное желание и воля ребенка преодолеть недуг, возможность управлять своим психическим состоянием при поддержке семьи, что достигается применением психологических методик [4,8].

Цель исследования. Оптимизировать лечение ожирения у детей с применением метода психологической коррекции.

Материалы и методы исследования Всего были обследованы 150 детей, из них 82 ребенка с ожирением I-III степеней (экзогенно-конституциональное было у 46 и гипоталамическое ожирение - у 36 детей) в возрасте от 12 до 16 лет, выделенных в основную группу, и 68 детей без ожирения, составивших контрольную группу.

Результаты исследования. У детей с ожирением неблагоприятные пре- и постнатальные факторы, осложнения интранатального периода встречаются в среднем в 3 раза чаще, чем у детей с нормальной массой тела.

Наиболее значимыми факторами формирования ожирения у детей являются: генетическая предрасположенность, внутриутробная гипоксия плода, нерациональное вскармливание с раннего возраста. У детей с ожирением отмечается более высокая частота сопутствующей соматической патологии -51,2 %, чем у детей группы сравнения, - 26,5%.

Дети с ожирением в 3 раза реже посещали спортивные секции; в 2 раза больше времени проводили перед телевизором, чем дети группы сравнения. 68,3% детей с ожирением воспринимали еду как источник радости и удовольствия, в то время как таких детей в контрольной группе было 26,5%.

Для детей с ожирением характерны: чувство неполноценности (81,7%), зависимости (80,5%) незащищенности (53,7%), агрессивности (52,4%), демонстративности (52,4%). У них выявлены повышенный уровень общей тревожности (74,3%), а также самооцепочный (28%) и

межличностный (39%) виды тревожности. Для семей, воспитывающих детей с ожирением, характерны сниженные показатели независимости, ориентация на достижение цели, ориентация на активный отдых и сниженные показатели сплоченности и экспрессивности.

У детей с ожирением снижен общий показатель качества жизни (77,5 балла), а также физического (81,7 балла), социального (86,6 балла) и эмоционального (70,9 балла) функционирования.

Проведение курса цзеторитмотерапии значительно уменьшает число детей с высоким уровнем тревожности (62,2% и 46,3% соответственно), агрессивности (52,4% и 36,6%), повышает показатель эмоционального функционирования (70,9 и 86,5 балла) и общий показатель КЖ (77,5 и 88,7 балла соответствешшо).

Доказана ее эффективность в катамнезе: через 6 месяцев снизились показатели общего (73,4 и 59,2 балла), самооценочного (24,1 и 13,1 балла), школьного (24,2 и 13 балла) видов тревожности, неполноценности (75,6% и 59,8%), агрессивности (52,4% и 36, 6%).Улучшились показатели качества жизни: общий показатель КЖ (77,5 и 87,9 балла), показатель эмоционального функционирования (70,9 и 82 балла), функционирования в школе (72,3 и 81,6%). Массу тела снизили 57,3% детей с ожирением.

Вывод. Таким образом, у детей и подростков с ожирением выявлен ряд психологических проблем, которые сопровождаются нарушением психосоциальной адаптации в обществе. Наличие психологических проблем, возникающих под действием внешних факторов, приводят к диерегуляции внутренней картины заболевания и, в конечном счете, приводят к срыву адаптационных возможностей организма и, как следствие, увеличению массы тела, которая не снижается без решения психологических проблем.

Важную роль в решении психологических проблем отведена родителям; при их участии в жизни детей психологические проблемы решаются лучше, масса тела снижается более эффективно.

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ХОЖИОБОД ҚИШЛОҒИ ТАРИХИГА ОИД АЙРИМ МУЛОҲАЗАЛАР

Аннотация: Мақола Наманган вилояти Уйчи туманидаги Хожиобод қишлоғи тарихи ҳақида. Муаллиф қишлоқ топиними ва археологик ёдгорликлари ҳақида маълумотлар келтирган Қишлоқнинг тарихини ўрганишда эътиборга олиниши керак жиҳатлар мақоланинг хулоса қисмида берилган.

Калит сўзлар: тарих, Хожиобод, Ровот, Қизилровот, топоним, археологик ёдгорликлар, Ниёзбек тепа, Оқгумбазтепа, Тариқмозор тепа.

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SOME OPINIONS ABOUT HISTORY OF VILLAGE KHOJIOBOD

Summary: This paper is about history of village Khojiobod of Uychi district of Namangan region. The author gave information about its archeological monuments of the village. In the conclusion of paper it was proposed special features of studying the history of the village.

Key words: history, Khojiabad, Rovot, Kyzilrovot, toponym, archaeological monuments, Niyozbek tepa, Okgumbaztepa, Tariqmozor tepa.

Тарихни билиш зарурати тарихчи зиммасига улкан масъулият юклайди, шу қаторда унинг олдига қатор вазифалар ҳам қўяди. Энг аввало, ҳаққоний тарихни қайта тиклаш ва ёритиш вазифаси. Истиқлолнинг дастлабки йилларидаёқ бу борада назарий ва амалий қадамлар ташланди ва давом эттирилмоқда. Улардан бири Ўзбекистондаги ҳар бир маъмурий-ҳудудий бирлик таркибига кирувчи ҳудудлар тарихини ўрганиш ва уларни умумлаштириш, шу аснода Ватан тарихини яратиш борасидаги саъй-ҳаракатлардир. Ушбу мақолада Наманган вилояти Уйчи туманидаги Хожиобод қишлоғи тарихига оид мулоҳазаларни баён қилиш мақсад қилиб олинган. Ҳозир ҳам халқ орасида Қизилровот деб аталувчи бу ҳудуд бугунги кунда 22 мингдан ортиқ аҳоли истиқомат қиладиган ва шаҳарчага айланишга улгурган.

Ровот ёки Қизилровот топоними ҳақида бир нечта ривоят бор.

Уларнинг бирида айтилишича, Қизилровот сўзи Хизробод сўзининг бузиб айтилишидир. Қишлоқ ҳудуди қадимда сув чиқмайдиган

баландликда жойлашган экан. Бир кишининг тушига Хизр алайҳиссалом кириб сув йўлини кўрсатган эканлар. Шундан сўнг одамлар ўша йўл орқали сув келтириб обод ерларга айлантирган эканлар. Халқ орасида бу жой Хизробод, яъни Ҳизр обод қилган жой деб аталган.

Иккинчи ривоятга кўра, қадимда қишлоқ ҳудудида ровот, яъни карвонсарой вазифасини бажарувчи иншоот бўлган экан. Хитойга қатновчи карвон йўли устида жойлашган бу ровот атрофида кейинчалик қишлоқ барпо бўлган экан.

Яна бир ривоятга кўра, қишлоқ ҳудуди қадимда Чортоқ тумани Короскон қишлоғида яшовчи шайх томонидан қизларига берилган бўлиб, Қизларобод деб аталган, кейинчалик Қизилровотга айланиб кетган экан.

Ҳар уччала ривоятнинг тарихий асослари бор. Бироқ ривоятга хос хусусиятлар ҳам мавжуд. Масалан, қишлоқ ҳудудида сув билан таъминланиш масаласи ривоятдагидек: баландликка сув чиқариш билан боғлиқ; қишлоқ ҳудудида ровот қолдиқлари бор; Қизилровот ўз тарихида Короскон шайхларига вақф қилиб берилган.

Қишлоқ тарихи антик даврга бориб тақалади. Унинг ҳудудида 3 та антик ва илк ўрта асрларга оид қуйидаги ёдгорликлар бор:

Ниёзбек тепа *(Ниёзбоши)* – Антик ва илк ўрта асрларга оид қўрғон қолдиқлари бўлиб, Шимолий Фарғона каналининг нинг ўнг қирғогида жойлашган. Узунлиги 1-2 кмгача давом этган.

Оқгумбазтепа - Янгиер ҳудудида жойлашган антик ва илк ўрта асрлар ёдгорлиги қадимги қўрғон ва қабристон қолдиқлари. Ривоятларга кўра, Оқгумбаз ота қирғиз бийларидан бўлган, асл исми Ниёзбекбий отанинг якка қизи бўлиб, ҳаждан қайтаётиб шу ерда қолган ва қизини чақиртириб омонатини топширган.

Тариқмозор тепа – Наманган – Учқўрғон автомобил йўлининг жанубидан 150-200 метрлар узоқликда жойлашган қўрғон қолдиқлари.

Бироқ бу ёдгорликлар ҳақидаги маълумотлар Маданият ва спорт ишлари вазирлиги тизимидаги Моддий маданий мерос объектларини муҳофаза қилиш ва улардан фойдаланиш давлат инспекцияси томонидан мустакиллик даврида амалга оширилган ишлар юзасидан ахборотида қайд этилган бўлиб, ҳозирга қадар уларнинг ўрганилиши ҳақидаги бошқа маълумотларга дуч келмадик. Шунингдек, сув эррозияси ва аҳолининг ўзлаштириши туфайли уларнинг келажаги хавф остида қолмоқда.

Қизилровот ҳақидаги кейинги маълумотлар XVI асрга оид бўлиб, унга қадар бўлган давр тарихига доир маълумотларга эга манбалар учрамайди. 1965 йилда нашр этилган А.Жавонмардиевнинг “ XVI-XIX асрларда Фарғонада ер-сув масалаларига доир” китоби ЎзР ФА Шарқшунослик институти (ҳозирги Шарқ қўлёзмаларини ўрганиш маркази)даги “Ёрлиқлар тўплами” ҳақида маълумотлар ўрин олган. Мазкур китобда қишлоқ Қизилработ номи билан берилган. Унда

ёзилишича, Султон Сайид авлодига суюрғол қилиб берилган тўрт қишлоқ орасида Қизилработ ҳам бор [1].

Хожиобод қишлоғининг XX асрдаги тарихига доир манбалар эса жуда кўп. Архив материаллари, даврий матбуот нашрлари, фото ва фоноҳужжатлар билан биргаликда оғзаки тарих усулида манба тўплаш учун имкониятлар ҳам етарли. Бу даврда шаҳарчада жамоа хўжалиги ва тажриба хўжаликлари фаолият кўрсатган бўлиб, “Қизилровот” пахта нави яратилган. Қишлоққа раҳбарлик қилган шахслар фаолияти ҳам алоҳида ёритишга муносиб.

Қишлоқ тарихига оид манбаларни кузатиш асносида қуйидаги хулосаларни бериш мумкин:

1. Хожиобод қишлоғи тарихи антик даврга бориб тақалади, бироқ бу ҳақда етарлича манбалар топилмаган ва археологик тадқиқотлар олиб борилмаган.

2. Қишлоқнинг V-XVI асрга қадар бўлган даврдаги тарихига оид манбалар ҳали аниқланмаган, бу эса уларни топиш ва таҳлил қилиш зарурлигини англатади.

3. Хожиободнинг яқин тарихини оғзаки тарих услуби ёрдамида ёритиш ҳам яхши самара беради ва бой тарихий-этнографик материаллар тўпланишига олиб келади.

4. Хожиобод қишлоғининг тарихи умумлаштирилган ҳолда китоб шаклида нашр этилмаган. Бу эса тарихчи сифатида бизнинг олдимизга яна бир муҳим вазифани қўяди.

P.S. Мақолани ёзишда Маданият ва спорт ишлари вазирлиги тизимидаги Моддий маданий мерос объектларини муҳофаза қилиш ва улардан фойдаланиш давлат инспекцияси ахбороти ва қишлоқда яшовчи инсонларнинг оғзаки маълумотларидан ҳам фойдаланилган.

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ОПЫТ И РАБОТА ОРГАНИЗАЦИИ СИМУЛЯЦИОННОГО ОБУЧЕНИЯ ВРАЧЕЙ АНЕСТЕЗИОЛОГОВ-РЕАНИМАТОЛОГОВ В АНДИЖАНСКИЙ ГОСУДАРСТВЕНЫЙ МЕДИЦИНСКИЙ ИНСТИТУТ

В статье рассмотрена актуальность симуляционного обучения в практической подготовке врачей анестезиологов-реаниматологов. Обоснованы теоретические и практические предпосылки включения симуляционного образования в траекторию образовательного процесса с целью снижения числа врачебных ошибок в одной из самых высокотехнологичных специальностей современной медицины. Представлен опыт этапного симуляционного обучения врачей анестезиологов-реаниматологов в симуляционном центре АГМИ.

Ключевые слова: симуляционное обучение, анестезиолог-реаниматолог, практический навык.

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EXPERIENCE AND WORK OF THE ORGANIZATION OF SIMULATION TRAINING OF ANESTHESIOLOGISTS-RESUSIATOLOGISTS IN THE ANDIJAN STATE MEDICAL INSTITUTE

The article describes the topicality of simulation-based technologies as a part of the practical training of anesthesiologists and emergency physicians. It validates the theoretical and practical background for inclusion of simulation-

based technologies into the training in order to decrease the number of medical errors in one of the most highly technical fields of modern medicine. The authors share the experience of staged simulation-based training of anesthesiologists and emergency physicians in the Simulation Center of ASMI.

Key words: simulation-based training, anesthesiologist and emergency physician, practical skills.

В настоящее время требования к профессиональной деятельности врачей неизмеримо возросли посравнению с событиями 20-летней давности. Врач, не владеющий практическими навыками на достаточном уровне, не может быть допущен к профессиональной деятельности. Современная практика непрерывного медицинского образования в определенной степени позволяет решить эту проблему. Тем не менее для создания системы высокой надежности

в деятельности врача важно не только постоянно повышать уровень теоретических знаний, но и научить его правильно и безопасно выполнять технически сложные действия строго в соответствии с протоколами лечения. Среди медицинских специальностей анестезиология-реаниматология является одной из самых наукоемких [2]. В этом разделе клинической медицины происходит постоянное накопление объема используемой научной информации, неуклонное внедрение в практику работы современных высоко-технологичных диагностических и лечебных методик. Эти обстоятельства в свою очередь порождают опасность допущения врачом профессиональных ошибок, которые нередко становятся причиной летального исхода у пациента. В США при тщательном анализе летальности пришли к выводу, что врачебные ошибки составляют значительную часть причин смерти больных, достигая 50–100 тыс. слу чаев ежегодно [3]. По данным разных авторов, в Европе получены аналогичные результаты. В частности, в Великобритании – 70 тыс., в Германии–100 тыс. в Италии – около 90 тыс. пациентов [4,6,7,14]. Допущенная врачебная ошибка трактуется как проявление «человеческого» фактора или «сбоя системы». При профессиональной подготовке врачей необходимо учитывать и психологические аспекты деятельности анестезиологов-реаниматологов. При всей настороженности и готовности к нелучшему варианту событий врач анестезиолог-реаниматолог постоянно рискует столкнуться с незапланированной ситуацией. «Часы скуки и мгновения ужаса» [8] – формулировка, ярко характеризующая характер работы и в какой-то степени объясняющая причины профессиональных девиаций анестезиологов. В критических ситуациях врач работает не один, а в команде и внутри сложно организованной системы. На смену врачам, «научившимся на своих ошибках», приходят те, у кого все сложности еще впереди. Формируется новый фактор стресса – страх ошибок, страх быть втянутым в судебный

процесс при неблагоприятном для пациента исходе. Значительно возрос общий уровень конфликтности в условиях, когда необходимо разделять ответственность внутри команды за здоровье и жизнь пациентов. Все это требует качественно новых подходов к подготовке врачей анестезиологов-реаниматологов к профессиональной деятельности. Одним из таких подходов в современных условиях является симуляционное обучение (СО), тем более что в силу специфических особенностей специальности освоение практических навыков оказания реанимационной помощи в клинике невозможно и осуществимо только на манекенах. Симуляционный тренинг – метод активного обучения, направленный на развитие знаний, умений, навыков и социальных установок [9]. Он способствует увеличению интеллектуального потенциала обучающегося, активации его способности к обучению, освоению конкретных видов производственной деятельности, формированию адекватных форм общения в процессе этой деятельности с коллегами по работе и средним медицинским персоналом. Важнейшие преимущества СО – освоение практических навыков без нанесения физического и психологического вреда пациенту, а также объективная оценка качества профессиональной подготовки каждым специалистом. Применяемая до недавнего времени классическая система обучения предусматривает освоение четко регламентированных учебных дисциплин и предметов. Это не обеспечивает необходимый уровень мотивации курсантов и их осознанной активности в реализации процесса обучения. При симуляционном варианте профессиональной подготовки происходит их активное когнитивное и эмоциональное вовлечение в учебный процесс. Это позволяет существенно повысить уровень приобретенных ими необходимых знаний теории вопроса, а также практических умений в условиях полноты и реалистичности моделируемой клинической ситуации [1, 10, 11, 15]. СО позволяет научить работать специалистов в соответствии с современными стандартами и протоколами оказания неотложной помощи, выработать навыки командного взаимодействия в коллективе врачей и средних медицинских работников, повысить качество выполнения сложных медицинских процедур и объективно оценить результат деятельности. Для этого необходимым является освоение солидной теоретической базы знаний патофизиологии, клиники и диагностики критических состояний, владение современными принципами их лечения, безупречное выполнение технологий оказания неотложной помощи и реанимации на симуляционных манекенах и умение работы в команде [13]. В связи с выше изложенным определены 4 основные задачи СО:

1) обеспечение квалифицированного уровня освоения практических профессиональных навыков неотложной реанимационной помощи при критических состояниях на специальных тренажерах;

2) подготовка профессионально подготовленного врача, способного и готового применить свои знания и практические навыки в различных критических ситуациях;

3) контроль эффективности и качества проводимых реанимационных мероприятий;

4) изучение и внедрение в практику работы врача анестезиолога-реаниматолога современных методов повышения качества его врачебной деятельности, оценка их соответствия профессиональным стандартам и протоколам.

В качестве этапов обучения и процесса тестирования используем модифицированные предложения И. З. Ялонецкого и др. [5]. Обучение проводится по трем этапам.

1.Теоретический дистанционный этап. Изучение теоретических основ практических навыков проводится дистанционно по размещенным на платформе Moodle учебным материалам.

2.Практический дистанционный этап. Визуальные автоматизмы практических навыков отрабатываются на платформе Moodle с помощью просмотра видеофильмов (сердечно-легочная реанимация, «трудный дыхательный путь», внутрикостный доступ, коникотомия, катетеризация центральных вен, эпидуральная и субарахноидальная анестезия и др.). Осваиваются фармакокинетические аспекты анестезии с помощью симулятора Gas Man. Этап завершается промежуточным тестированием на платформе Moodle.

3.Симуляционный коммуникативный этап. Отработка практических навыков проводится в симуляционном центре с использованием манекенов, тренажеров, инструментария и расходных материалов.

Обучающиеся, которые не освоили предыдущий этап практического обучения, не могут быть допущены к последующему этапу. Обучение практическим навыкам проводится в соответствии с рекомендациями Европейского совета по реанимации (ERC), которые используем при всех видах тренинга. ERC рекомендует осваивать практические навыки с использованием симуляторов и тренажеров в виде 4-ступенчатого метода:

1-я ступень – преподаватель для всех слушателей группы в режиме реального времени показывает на тренажере, как правильно выполняется тот или иной навык;

2-я ступень – преподаватель показывает и объясняет все элементы навыка и отвечает на вопросы;

3-я ступень – обучающийся говорит преподавателю, как выполнять навык, а тот исполняет на тренажере его инструкции, даже если обучающийся дает неверные указания. На этой ступени обучающийся должен увидеть возможные ошибки и сам исправить их;

4-я ступень – обучающийся самостоятельно выполняет навык и комментирует его выполнение. Это позволяет лучше запомнить совокупность составляющих элементов навыка.

Кроме того, в ряде случаев применяется методика «обучился сам – обучи коллегу». С помощью подготовленных на основании реальных клинических случаев сценариев создается клиническое окружение с высоким уровнем достовер ности: реанимационная палата или операционная, современное техническое оснащение, соответствие уровня работы симулятора клинической задаче. В полном объеме моделируется выполнение всех манипуляций (вскрытие ампул, инфузионная терапия, внутрикостный доступ, алгоритм «трудный дыхательный путь», сердечно-легочная реанимация, коникотомия, катетеризация центральных вен, эпидуральная и субарахноидальная анестезия и др.). В критической ситуации внимание врача сконцентрировано на пациенте. Тем не менее важно учитывать различные аспекты работы, в том числе правильное документирование кризисной ситуации. В условиях клинического моделирования учитывается административная структура медицинской организации. Моделируемая система обязанностей, профессиональных взаимоотношений идентична таковой в практическом здравоохранении. Это относится и к документации, регламентирующей работу специалистов и используемой врачами и медицинскими сестрами в процессе симуляционного обучения (наркозные карты, листы назначений, протоколы гемотрансфузий и др.). Занятия в симуляционном центре проводятся малыми группами. При обучении применяется соотношение инструктор – курсант (от 1: 2 до 1: 4). При использовании тщательно разработанных сценариев работа может проводиться командой без участия педагога-инструктора в рамках самостоятельного обучения в присутствии вспомогательного технического персонала (техников-программистов).

Достаточный штат инструкторов позволяет решить за короткий период времени многие задачи – отосвоения новых навыков до объединения различных специалистов для разрешения кризисной ситуации, когда каждый выполняет свои действия, успешно скооперировав их с членами команды. Во время симуляционной работы обучающиеся должны самостоятельно видеть возникающие проблемы, предполагать сценарий развития ситуации, находить решения, со сменой клинической обстановки ставить перед собой новые цели. Функции координатора в этих условиях может выполнять член команды обучающихся. Инструктор соблюдает принцип «экстерриториальности» и ведет

дистанционное наблюдение из отдельного помещения. Сразу по завершении сценария проводится подробное обсуждение клинической ситуации, при этом анализ своих действий осуществляет каждый обучающийся. В условиях работы специалистов различных специальностей (акушеры, анестезиологи-реаниматологи, неонатологи)

оценивается их взаимодействие [14, 16]. Итогом являются обсуждение проблем клинической практики, выявление и коррекция слабых сторон практической подготовки [17]. Аттестация обучающихся проводится ответственным за их обучение преподавателем по каждому изучаемому практическому навыку. Тест считается сданным успешно и по данному навыку выставляется оценка «Зачтено», если обучающийся выполнил его с результатом 70% и более. При аттестационном выполнении практического навыка преподаватель не может задавать вопросы и комментировать действия экзаменуемого. Исключением являются те случаи, когда обучающийся совершил грубую ошибку, которая исключает возможность правильного выполнения навыка. В этом случае аттестация по данному навыку прекращается и аттестуемому выставляется незачетная оценка. При этом обучающийся не лишается возможности аттестоваться по другим практическим навыкам, если это предусмотрено программой аттестации. Несданные практические навыки подлежат повторной аттестации после дополнительной подготовки. Ежегодно на кафедре в рамках сертификационных циклов обучается около 100 врачей анестезиологов-реаниматологов. Тестирование обучающихся в симуляционном центре является частью сертификационного экзамена. Таким образом, накопленный опыт показал, что СО позволяет повысить качество профессиональной подготовки врачей анестезиологов-реаниматологов, в том числе и за счет усиления мотивации курсантов в достижении конечного результата обучения. Внедрение СО по оказанию медицинской помощи пациентам в критическом состоянии дает возможность не только объективно оценивать исходный уровень профессиональной подготовки врачей, но и его динамику в процессе обучения, тем самым определяя качество организации учебного процесса на кафедре. Ожидаемым результатом перехода на данную практико-ориентированную систему обучения является значительное снижение риска профессиональных ошибок, обусловленных человеческим фактором, и повышение безопасности пациентов. Одной из задач ближайшего времени видится необходимость объективной оценки роли симуляционного образования в повышении качества оказания реанимационной помощи в клинике.

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ОПЫТ ЛЕЧЕНИЯ КАРДИОЛОГИЧЕСКОЙ УДАРНО-ВОЛНОВОЙ ТЕРАПИЕЙ БОЛЬНЫХ ИШЕМИЧЕСКОЙ БОЛЕЗНЬЮ СЕРДЦА

Аннотация: Целью исследования было изучить влияние экстракорпоральной кардиологической ударно-волновой терапии (КУВТ) на результаты лечения у пациентов с ишемической болезнью сердца. Проведено лечение у 14 больных со стабильной стенокардией напряжения ФК III-IV (CCS) на фоне продолжающейся антиишемической и антитромбоцитарной терапии. Результаты оценивались через 12 недель лечения. Клинически отмечалось уменьшение частоты ангинозных приступов, повышение толерантности к физическим нагрузкам при проведении нагрузочного стресс-теста (ВЭМ), уменьшение болевых и безболевых эпизодов ишемии миокарда по данным суточного мониторирования ЭКГ по Холтеру.

Ключевые слова: кардиологическаяударно-волноваятерапия, стабильная стенокардия, ишемия миокарда, ангиогенез.

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EXPERIENCE IN THE TREATMENT OF CARDIOLOGICAL SHOCK WAVE THERAPY IN PATIENTS WITH CORONARY HEART DISEASE

Abstract: The aim of the study was to investigate the effect of extracorporeal cardiac shock wave therapy (ECWT) on treatment outcomes in patients with coronary artery disease. Treatment was carried out in 14 patients with stable angina pectoris FC III-IV (CCS) against the background of ongoing anti-ischemic and antiplatelet therapy. The results were evaluated after 12 weeks of treatment. Clinically, there was a decrease in the frequency of anginal attacks, an increase in exercise tolerance during an exercise stress test (EST), a decrease in pain and painless episodes of myocardial ischemia according to 24-hour Holter ECG monitoring.

Keywords: Cardiac shock wave therapy, stable angina pectoris, myocardial ischemia, angiogenesis.

ВВЕДЕНИЕ

Несмотря, на достигнутые успехи современных методов фармакотерапии, чрескожных инвазивных вмешательств, обходного шунтирования коронарных артерий и других техник реваскуляризации, лечение ишемии миокарда продолжает оставаться сложной задачей. Известно, что при распространенных и дистальных поражениях коронарных артерий возможности реваскуляризационных методик ограничены. А совершенствование технологий в инвазивной кардиологии и хирургии шунтирования увеличило выживаемость пациентов, но и выявило новые проблемы, как появление возвратной стенокардии и обнаружение рестенозов и окклюзий приангиографическом контроле в 35-40% случаев [2].

МАТЕРИАЛЫ И МЕТОДЫ

Обследовано 14 пациентов. Средний возраст составил 59±10,8 лет, мужчин было 13. В анамнезе у 13 больных перенесенный инфаркт миокарда, из них у 2-х (15,4%) – повторный, артериальная гипертония - у 12 (85,7%), сахарный диабет - у 3 (21,4%). У 7 (50%) пациентов была желудочковая экстрасистолия, у 1 (7,1%) - мерцательная аритмия, у 2-х (14,3%) - полная блокада левой ножки пучка Гиса, у 2-х (14,3%) - полная блокада правой ножки пучка Гиса.

У 3 пациентов при селективной КАГ выявлено поражение дистальных отделов коронарных артерий. У 2-х больных со стабильной стенокардией ФК III-IV (CCS) ударно-волновая терапия проводилось из-за отказа от инвазивных и хирургических вмешательств и неэффективности лекарственных препаратов в максимально переносимых дозах.

Таблица 1. **Параметры лечения КУВТ**

Показания	Количество терапевтических волн засеанс	Уровень энергии	Комментарии
Стенокардия	50 на зону	0,8-3,0	через день,3 раза в неделю. 3 этапа лечения с 3-х недельным интервалом 9 процедур

Лечение экстракорпорально-генерируемыми терапевтическими волнами проводилось на аппарате «Storz Medical Modulith^{R} SLC». У всех пациентов эхокардиографически определялась целевая область для лечения – зоны гипокинезии (ишемизированные зоны с наличием жизнеспособного миокарда).

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Во время процедуры проводилось постоянное наблюдение за местоположением целевой области на ультразвуковом мониторе и постоянный контроль сигналов электрокардиограммы. Согласно протоколу лечение начинали с минимальных уровней энергии 0,8 с постепенным повышением до 3,0,по 50 волн на каждую из 12 зон (табл.1). Всего 9 процедур: через день, по три в неделю терапии и трехнедельный перерыв между каждой неделей лечения.

Таблица 2. **Оценка показателей клинического состояния и данных неинвазивного обследования пациентов при лечении КУВТ**

Обследование	До лечения	Лечение	Через 12 недель
Медикаменты	+	+	+
Ферменты	+	-	+
Оценка стенокардии	+	+	+
ЧДД	+	+	+
ЧСС	+	+	+
АД	+	+	+
ЭКГ	+	-	+
СМ ЭКГ по Холтеру	+	-	+
Стресс- тест (ВЭМ)	+	-	+
ЭхоКГ	+	-	+

Лечение КУВТ проводилась на фоне антиишемической и антитромбоцитарной терапии.

Все пациенты субъективно лечение КУВТ переносили хорошо, во время процедуры неблагоприятные симптомы не наблюдались, при мониторировании не выявлено динамических изменений ЭКГ, не отмечались нарушения сердечного ритма. Частота сердечных сокращений по пульсу составила в среднем до лечения 65,6±4,8 ударов в мин, после лечения - 74,1±0,8 ударов в мин. Частота дыхательных движений составила до лечения 19±2 в мин, после лечения - 18±1 в мин.

Таблица 3. **Результаты лечения КУВТ**

Показатели	До лечения	После лечения
ЧСС	65,6±4,8	74,1±0,8
ЧДД	19±2	18±1

АД	115±11,8/70±8	122±10,3/73±5, 76
Частота приступов стенокардии	3,3±0,7	1,8±0,6
Стресс-тест (ВЭМ)	75В±17	135±18
СМ ЭКГ	60,0±0,8	59,3±1,1

Показатели АД до лечения были в среднем по группе систолическое 115±11,8 мм. рт. ст., диастолическое 70±8 мм. рт. ст., после лечения систолическое 122±10,3 мм.рт.ст., диастолическое 73±5,6 мм. рт. ст. (табл. 3). Показатели активности МВ фракции КФК в пределах нормы (1,8±1,25 е/л).

Клинически отмечалось уменьшение частоты ангинозных приступов, повышение толерантности к физическим нагрузкам при проведении нагрузочного стресс-теста (ВЭМ), уменьшение болевых и безболевых эпизодов ишемии миокарда по данным суточного мониторирования ЭКГ по Холтеру. Средняя частота приступов стенокардии снизилась с 3,3±0,7 в сутки до лечения, до 1,8±0,6 в сутки после лечения. По результатам ВЭМ пробы толерантность к физическим нагрузкам увеличилась с 75±17 Вт до 135 ±18 Вт после лечения.

ЗАКЛЮЧЕНИЕ

Неинвазивная реваскуляризация миокарда в совершенно новом направлении экстракорпоральной кардиологической ударно-волновой терапии позволяет улучшить результаты лечения у пациентов с ИБС. Имеющиеся клинические наблюдения и наши данные свидетельствуют о том, что КУВТ является безопасным методом лечения, приводящим к улучшению миокардиальной перфузии, уменьшению приступов стенокардии, повышению толерантности к физическим нагрузкам и улучшению качества жизни.

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АЛГОРИТМИЗАЦИЯ ЭТАПОВ СОЗДАНИЯ ОТКАЗОУСТОЙЧИВЫХСИСТЕМ РЕАЛЬНОГО ВРЕМЕНИ

Аннотация: Развитие цифровой экономики неразрывно связано с нарастающим ростом влияния информатизации во все области системы массового обслуживания, компьютерных сетей, органов управления и многих социальных сфер и отраслей экономики. В современном мире интенсивность развития компьютернқх систем зависит от надежной работы программного обеспечения информационных систем различного уровня. В настоящей статье автором предложен подход для создания программных средств функционирование в условиях возмущающего воздействия среды для периодической диагностики и анализ нормального состояния контролируемого продукта. Кроме этого, в статье показано трансформация информационных технологий в сторону создания безотказных систем обеспечения информационной безопасности.

Ключевые слова: Цифровая экономика, надежность программного обеспечения, диагностика, безотказность, возмущающее воздействие среды, восстановление нормального состояния.

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ALGORITHMIZATION OF THE STAGES OF CREATING FAIL-RESISTANT REAL-TIME SYSTEMS

Abstract: The development of the digital economy is inextricably linked with the growing influence of informatization in all areas of the queuing system, computer networks, governments and many social spheres and sectors of the economy. In the modern world, the intensity of the development of computer systems depends on the reliable operation of the software of information systems of various levels. In this article, the author proposes an approach for creating software tools for functioning under disturbing environmental influences for periodic diagnostics and analysis of the normal state of a controlled product. In addition, the article shows the transformation of information technology towards the creation of trouble-free information security systems.

Key words: Digital economy, software reliability, diagnostics, non-failure operation, environmental disturbance, normal state restoration.

Введение

Разработка успешного IT-продукта – сложный многоступенчатый процесс с рядом обязательных этапов, часть из которых может идти параллельно. Стоит отметить, что аутсорс-компании по-разному определяют этапы разработки продукта и здесь важно, чтобы процесс был полностью прозрачен для разработки программ заказчика. Существуют различные подходы определения этапов разработки программных средств. В данной статье предложенное направление учитывает классическое понятиеко всем этапам создания информационных систем. При этом рассматривается и вопросы обеспечения информационной безопасности.

Анализ литературы по теме

На протяжении всей истории создания программных продуктов предпринимаются целый ряд попыток формулирования единого набора правил и методик создания программного обеспечения.

Создателями самых известных процессов являются крупные компании — производители ПО. Например: MSF (Microsoft Solution Framework [1]) от компании Microsoft или RUP (Rational Unified Process) от компании Rational Software Corp. Но та же Microsoft использует для разработки собственных продуктов смесь MSF и Agile methodology, признавая, что полностью описанный, унифицированный фреймворк MSF несколько далек от практики. Многие успешные компании-разработчики программного обеспечения используют в качестве процесса производства компиляцию общепризнанных подходов и методик.

Полный цикл разработки программного продукта состоит из следующих основных стадий: анализ требований; разработка архитектуры; разработка продукта; тестирование; установка клиенту; поддержка.

Считается, что планированием должны заниматься менеджеры или руководители команд. На самом деле, в нем участвует каждый работник внутри проектной команды [2]. На этапе написания спецификаций весь проект разбивается на подзадачи. Часто промежуток времени между окончанием работы первого программиста и началом работы тестера достаточно большой. Это не позволяет разработчику исправлять свои ошибки по «горячим следам», пока не забыты все особенности кода [3]. Юнит-тесты — это программные модули, которые тестируют внешние методы и свойства данного класса.

Хранилище исходного кода позволяет хранить все исходные коды проекта в одном месте, вести лог всех изменений с указанием номера версии, даты, имени программиста и описания изменений. Программ, которые реализуют функции хранилища, много. Возможно, самая популярная из бесплатных программ — SVN [4].

Более подробно о работе с SVN можно прочитать в материал http://tortoisesvn.tigris.org/ «Управление версиями в Subversion» [5].

Хранилище задач позволяет вести учет всех изменений системы, распределять те или иные задачи между релизами, служит единым местом постановки задач всем членам проектной команды. Примерами подобных систем являются FogBugz [6] и Jiro [7].

Функции по гарантии качества выполняют люди, кровно заинтересованные в успехе продукта, для которых не бывает мелочей. Например, в компании Apple такую функцию выполнял ее директор Стив Джобс. И, как правило, именно от этих людей зависит то, как воспримут продукт конечные пользователи.

Джоэль Спольски [8], основатель и владелец компании Fog Creek Software, один из создателей Excel в компании Microsoft, придумал тест «The Joel Test: 12 Steps to Better Code» [9].

Учеными доказано, что большие данные играют огромнейшую роль в нашей жизни. Без них невозможно существование многих привычных вещей, которые нас окружают. С помощью больших данных можно автоматизировать многие процессы, практически без участия человека.

Невозможно представить современный мир со всеми его услугами и сервисами, которые мы сегодня потребляем без использования больших данных и современных программных продуктов.

Методология исследования

Методологической базой исследования являются системный и аналитический подход, позволяющие представить научные исследования социально-экономический явлений и процессов в их развитии, взаимосвязи и взаимообусловленности.

Методология исследования определена принципами научного познания, научными достижениями, отраженными в публикациях классиков и ученых современного периода в области разработки и эффективной эксплуатации информационных систем. Методической основой явились разработки современных ученых, занимающихся оптимизацией разработки и применения программного обеспечения в отраслевых информационных системах, законодательные и нормативные акты Республики Узбекистан по развитию отрасли информационно-коммуникационных технологий.

В ходе написания данной статьи использованы методы логического, сравнительного, экономико-математического анализа.

Анализ и результаты

Информационные системы и технологии в современном мире – главный инструмент развития нового технологического уклада.

Также обеспечения качества жизни людей, национальной безопасности.

Как было отмечено выше, важную роль в эффективном функционировании современных информационных систем играет программное обеспечение.

Программное обеспечение можно охарактеризовать, как некий набор программ, правил, а также соответствующей документации системы, предназначенных для эффективной и оптимальной обработки информации.

В современный период в Республике Узбекистан все отраслевые данные накапливаются в статистических органах. И организация работы этой сферы требуют отчеты всех предприятий республике периодически, и этот период программное обеспечение функционировает по правилу 24/7, т.е. в онлайн режиме.

В этой связи можно провести формализацию этапов реализации задачи создания и эксплуатации программных продуктов (рис. 1).

Пусть задачи связанные с электронным документооборотом в некоторой сфере составляют следующее множество – {M}, которое разделим формально на задачи M_1, M_2,...

$\{M\}=(M_1, M_2,...,M_n)(1)$

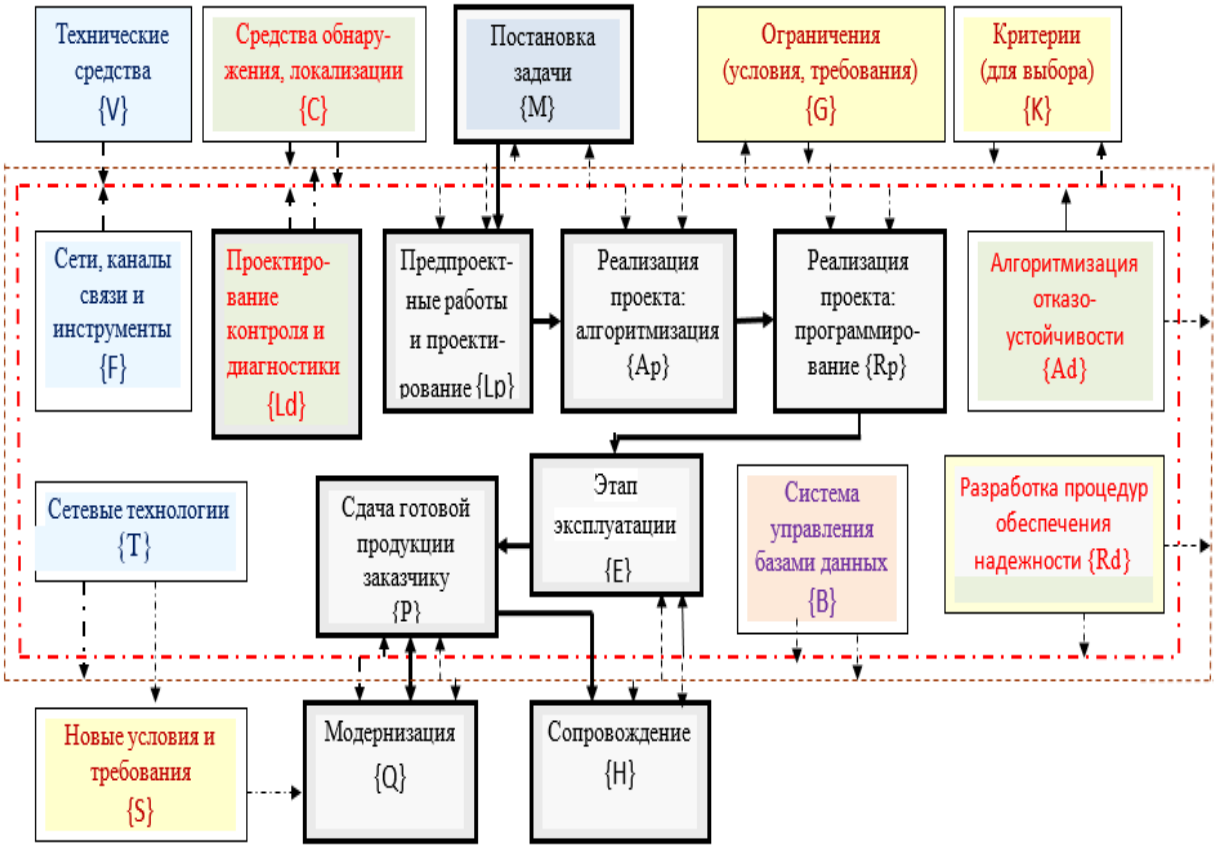
Предположим, что для каждой i- задачи имеется несколько ограничений, но не более m. Тогда, можно составить следующие формулы (2) и (3).

$\{G\}=(G_1, G_2,...,G_n)$ (2)

Где, Gi – множество ограничений для i- задачи.

Точно также выделим множество критериев математическим символом Ki для n задач формулой (3) и средств обнаружения и локализации ошибок множеством Ci для n задач формулой (4):

$\{K\}=(K_1, K_2,...,K_n)$ (3)



Прямые линии – переход к этапам разработки и функционирования системы

Пунктирные линии – учет ограничений, критерий, новых условий и требований

Рис. 1. Функциональная схема этапов создания отказоустойчивих систем реального времени

$\{C\}=(C_1, C_2,...,C_n)$(4)

Далее, введем следующие обозначения:

- комплекс технических средств - Vi,
- каналы связи и инструменты - Fi,
- технология сетей - Ti,
- системы управления базами данных – Bi.

Элементы этих комплексов, множеств можно представить следующими формулами (5), (6), (7), (8)

$\{V\}=(V_1, V_2,...,V_n)$(5)

$\{F\}=(F_1, F_2,..., F_n)$(6)

$\{T\}=(T_1, T_2,..., T_n)$ (7)

$\{B\}=(B_1, B_2,..., B_n)$(8)

Для решения конкретной алгоритмической задачи будут затребованы следующие этапы:

- предпроектные и организационные работы($L^p i$),

- проектирование контроля и диагностики($L^d i$),
- алгоритмизация этапов создания ПО (A^p_i),
- алгоритмизация отказоустойчивости (A^d_i),
- разработка проекта и производства ($R^p i$),
- разработка процедур обеспечения надежности $\{R^d_i\}$
- эксплуатация проекта (Ei),
- сдача законченной работы заказчику(Pi),
- сопровождение проекта на уровне программной разработки(Hi),
- изменение программы для модернизации(Qi).

Эти комплексы работ формально будут представлены следуюшим образом:

$\{L\}=(L_1, L_2,..., L_n)$ (9)

$\{A\}=(A_1, A_2,..., A_n)$ (10)

$\{R\}=(R_1, R_2,..., R_n)$(11)

$\{E\}=(E_1, E_2,..., E_n)$ (12)

$\{P\}=(P_1, P_2,..., P_n)$ (13)

$\{H\}=(H_1, H_2,..., H_n)$(14)

$\{Q\}=(Q_1, Q_2,..., Q_n)$(15)

От предпроектных и организационных работ до конца выполнения всех этапов проекта будет определен функциональная последовательность, согласованный с компетентными органами, и программное обеспечение будет основано на выбранном алгоритме и фазе реализации проекта.

В качестве ограничений можно перечислить следующие факты:

- ответ на каждый запрос не могут превышать одну минуту, или могут применяться общие требования, включая информацию обо всех юридических лиц республики, условиях использования и других.

Предпроектные и организационные работы связаны с задачейсвязаны с задачей предпроектные работы и проектирование ($L^p i$) и проектирование контроля и диагностики ($L^d i$).

Данную взаимосвязь представим в виде формулы (16)

$\{L\}=(L^p, L^d)$(16)

Здесь R^p, R^d определяются следующими (17) и (18) формулами:

$\{L^p\}=(L^p_1, L^p_2,..., L^p_n)$ (17)

$\{Ld\}=(L^d_1, L^d_2,..., L^d_n)$(18)

Задачи разработки алгоритмизация этапов создания ПО (A^p_i) связанқ с задачей алгоритмизация отказоустойчивости (A^d_i).

Данную взаимосвязь представим в виде формулы (19)

$\{A\}=(A^p, A^d)$ (19)

Здесь A^p, A^d определяются следующими (20) и (21) формулами:

$\{A^p\}=(A^p_1, A^p_2,..., A^p_n)$ (20)

$\{A^d\}=(A^d_1, A^d_2,..., A^d_n)$ (21)

Задачи разработка проекта и производства ($R^p i$) связана с задачей разработка процедур обеспечения надежности $\{R^d_i\}$.

Данную взаимосвязь представим в виде формулы (22)

$\{R\}=(R^p, R^d)$ (22)

Здесь R^p, R^d определяются следующими (23) и (24) формулами:

$\{R^p\}=(R^p_1, R^p_2,..., R^p_n)$ (23)

$\{R^d\}=(R^d_1, R^d_2,..., R^d_n)$ (24)

Как известно, на стадии эксплуатации, могут появиться новые требования и условия (S**)**. Их можно представить в виде формулы (25).

$\{S\}=(S_1, S_2,..., S_n)$(25)

Тогда, создав множества {Ω} и{Ψ}, все процессы-этапы создания программного продукта условно обозначим формулой (25), и множество {Ω} определить формула (26):

{Ω}=(M, L,A, R, P, E, Q, H) (26)

Ограничения, условия, требования, критерии условно обозначим множеством (Ψ), соответственно формулой (27):

{Ψ}=(C, G, R, S)(27)

Кроме того, нам понадобится множество, охватывающее технические средства, указывающее взаимосвязь с компьютерной сетью, каналами связи, языками программирования и базой данных и т.д. Данные взаимосвязи можно выразить следующим множеством:

{Ə}=(V, F, T, B)(28)

И наконец, результатом или математическим моделираванием будет определена последовательностью операций над тремя множествами

{Y} = {Ω}U{Ψ}U{Ə} (29)

В произвольно вкбранной отрасли или сфере экономики этапы создания отказоустойчивых систем программного продукта формально являются частью этих фаз-этапов разработки и их компонентов.

Таким образом, из выше определенной модели следует, что большую роль в эффективном функционировании современных информационных систем играет программное обеспечение. Его оптимизация в условиях интеграции информационных систем является важной задачей, способствующей эффективному функционированию отраслей и сфер национальной экономики

Заключение

В условиях формирования единой интегрированной информационной системы национальной экономики, программное обеспечение должно служить эффективным инструментом для надежной организации поступления информации в интегрированную систему, приведения ее к виду, удобному для принятия оптимальных управленческих решений. Данную задачу на сегодняшний день выполняют хранилища данных, работающие по специальным алгоритмам. Хранилища данных выполняют функции предварительной подготовки и хранения данных для системы принятия решений на основе информации из системы управления предприятием (или базы данных предприятия или отрасли), а

также информации из сторонних источников, которые в достаточном количестве стали доступны на современном рынке информационных продуктов и услуг и с каждым днем получают все большее и большее развитие.

Использованные источники:

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ФАКТОРЫ, СДЕРЖИВАЮЩИЕ РАЗВИТИЕ «УМНЫХ» ИННОВАЦИЙ

Аннотация. Современный этап развития цивилизации требует применения современных инновационных и цифровых технологий в процесс деятельности предприятий всех отраслей. Самыми восприимчивыми и заинтересованными в осуществлении инновационной деятельности должны быть субъекты малого предпринимательства. Так как это помогает им не только увеличить объемы производства, но и повысить свою конкурентоспособность. Однако, за субъектами малого предпринимательства не наблюдается высокая инновационная активность и стремление произвести «умные», подрывные инновации. В статье дана попытка выявить основные факторы, сдерживающие развитие «умных» инноваций.

Ключевые слова: потенциал, бизнес возможности, цель, задачи, потребности, безопасность, анализ, факторы, инновации, цифровые технологии, барьеры.

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FACTORS RESTRAINTING THE DEVELOPMENT OF "SMART" INNOVATIONS

Annotation. The current stage of the development of civilization requires the use of modern innovative and digital technologies in the process of activities of enterprises in all industries. The most receptive and interested in the implementation of innovative activities should be small businesses. Since this helps them not only increase production volumes, but also increase their competitiveness. However, small businesses do not have high innovative activity and the desire to produce "smart", disruptive innovations. The article attempts to identify the main factors hindering the development of "smart" innovations.

Key words: potential, business opportunities, goal, tasks, needs, security, analysis, factors, innovations, digital technologies, barriers.

Вспышка коронавируса COVID-19 в 2020 году отрицательно отразилась на развитии всей мировой экономики. Однако она помогла

государствам реально оценить свои внутренние возможности и потенциал, а также определить новые горизонты и направления стратегии инновационного развития. В следствии этого для предприятий малого бизнеса и предпринимательства открываются новые бизнес-возможности и задачи в решении национальных стратегических целей страны.

Предназначением современных инноваций является не только получение прибыли, посредством конкурентного преимущества, но и решение более благородных вопросов и проблем социально-общественного назначения. Современные инновации должны быть ориентированы на потребности общества [1].

Целью современных, «умных» и прогрессивных инноваций должно стать обеспечение высокого уровня социально-экономического и общественного развития страны, посредством обеспечения прав, гарантий и безопасности, как мирного населения, так и людей всех профессий [1].

Их основной **задачей** является помощь государству в обеспечении и удовлетворении потребностей населения посредством своевременного обновления своей деятельности, в силу своей гибкости и целенаправленного стремления к разработкам и применению современных, умных инноваций во всех сферах экономики.

Согласно теории «Эволюции технологических волн» инновации присущие 6 волне (2010—2035 гг.) – это инновации в сфере высоких, «умных» технологий, цифровизации и бесконтактных услуг. Они требуют совместных усилий и знаний таких специалистов, как биохимики, микроэлектроники, информатики, биотехнологи, генной инженерии, то есть они приобретают следующий уровень сложности и носят характер «умных» технологий.

Следовательно, на современных предприятиях малого бизнеса и предпринимательства должны работать высококвалифицированные специалисты своего дела, способные не только качественно работать, но и осуществлять инновационную деятельность, отвечающую требованиям 5 волны теории «Эволюции технологических волн». Появление «умных» технологий на рынке окажет эффект «подрывных» инноваций, так как они отсутствуют на рынке, а мировой рынок «умных» технологий находится на стадии зарождения.

Анализ деятельности предприятий малого бизнеса и предпринимательства, а также производимой ими продукции выявил ряд факторов, отрицательно сказывающихся на развитии инновационной деятельности и разработок «умных» технологий и инноваций. К основным следует отнести:

- отсутствие интеллектуального потенциала. Интеллектуальный потенциал предприятия формируется на основе человеческого потенциала, характеристиками которого выступают образование, квалификация, опыт сотрудников, способность к инновационной деятельности и т.д. Очевидно,

что если предприятие обладает сотрудниками с высоким уровнем образования, стремлением к саморазвитию и самореализации, активно повышающими свой интеллектуальный уровень, то установление инновационного вектора развития на предприятии произойдет успешнее, и процесс инновационной деятельности будет более результативным, чем на предприятии, где качественный и количественный состав не соответствует требуемому уровню, где нет мотивации и постоянная текучесть кадров. Кроме того, интеллектуальный потенциал как составная часть инновационного потенциала предприятия должен отражать объем созданных на предприятии научно-исследовательских и опытно-конструкторских разработок, объектов интеллектуальной собственности, объем нематериальных активов предприятия как результатов интеллектуальной деятельности;

- отсутствие подобных инноваций на рынке, так как существующие инновационные разработки в этой области находятся на стадии исследования и тестирования, они еще не готовы к масштабному производству. В следствии чего отсутствует конкуренция, что не стимулирует предпринимателей в поиске инновационных решений и осуществлению инновационной деятельности;
- засекреченность существующих разработок и исследований;
- очень высокая стоимость исследований;
- отсутствие видения перспектив развития «умных» инноваций;
- отсутствие осведомленности о современных инновационных и цифровых технологиях, что является основной причиной неприменения их в деятельности.

Здесь надо отметить, что субъекты малого бизнеса, в силу выше перечисленных причин, не заинтересованы в найме высококвалифицированных специалистов. Они стремятся увеличить объем производства и нанять дешевую рабочую силу. Поэтому нанимают специалистов со средним и средне-специальным образованием. Подобные специалисты выполняют физическую работу в цехах и никак не формируют интеллектуальный потенциал предприятия. Что является главной ошибкой субъектов малого бизнеса и предпринимательства, которая заключается в не видении перспективы и надобности осуществления инновационной деятельности, применения современных цифровых технологий, разработок «умных» инноваций.

Устранение вышеперечисленных барьеров, будет способствовать ускорению перехода предприятий малого бизнеса и предпринимательства к осуществлению инновационной деятельности и повышению конкурентоспособности как предприятий, так и страны. Современные, прогрессивные инновации будут способствовать:

- использованию совместных знаний специалистов различных областей;

- выходу на совершенно новые рынки;
- созданию прогрессивных инноваций;
- учету обеспечения безопасности населения;
- созданию платформы для разработок и внедрения инноваций нового поколения **[**1].

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ЗНАЧЕНИЕ ПСИХОСОМАТИЧЕСКОГО МЕТОДА В ПЕДИАТРИИ

Аннотация: Здоровый ребенок – это комплексная государственная задача: это проблема не только медицинская, но и социально-гигиеническая, психолого-педагогическая и политическая, это главная проблема ближайшего и отдаленного будущего нашей страны, так как весь потенциал, и экономический, и творческий, все перспективы социального и экономического развития, обеспечения обороноспособности, высокого уровня жизни, науки и культуры – все это будет итогом уровня достигнутого здоровья детей, их физической и интеллектуальной работоспособности.

Ключевые слова: педиатрия, психосоматический метод, лечение, диагностика, дети.

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THE SIGNIFICANCE OF THE PSYCHOSOMATIC METHOD IN PEDIATRICS

Abstract: A healthy child is a complex state task: this is not only a medical problem, but also a socio-hygienic, psychological, pedagogical and political one, this is the main problem of the near and distant future of our country, since all the potential, both economic and creative, all prospects for social and economic development, ensuring defense capability, a high standard of living, science and culture - all this will be the result of the level of children's health, their physical and intellectual performance.

Keywords: pediatrics, psychosomatic method, treatment, diagnosis, children.

ВВЕДЕНИЕ

Сохранение и укрепление здоровья человека – одна из центральных задач, решаемых обществом на всех этапах исторического развития.

В общем процессе формирования человека и его здоровья период детства играет важную роль. Это возраст, в котором происходят

интенсивный рост, развитие и совершенствование всех систем организма человека. Вследствие чрезвычайной пластичности организма ребенка и его чувствительности к различным воздействиям особенно важное значение приобретают условия его жизни. Поэтому поиски путей оптимизации обучения и воспитания, укрепления здоровья детей в век социального и технического прогресса, когда повышаются требования к всестороннему развитию человеческой личности, особенно актуальны. Следует отметить, что проблема нормального функционирования организма человека в процессе жизнедеятельности связана с проблемой здоровья.

МАТЕРИАЛЫ И МЕТОДЫ

Здоровье, в соответствии с определением ВОЗ, в настоящее время понимается как единство физического, психического и социального благополучия. Это единство не является какой- либо статической величиной, это диалектический синтез всех компонентов организма со средой: индивид живет со своей группой и вместе с ней врастает в общество, к которому он приспосабливается с хорошими субъективными ощущениями при активной умственной и волевой деятельности. Этим подчеркивается многомерность понятий «здоровье» и «расстройство здоровья» как в отдельных областях жизни человека и всего общества (здоровье как биосоциальное явление), так и во времени. Анализ проблем соматического здоровья и его расстройств влечет за собой появление множества новых подходов. В педиатрии все эти вопросы усложняются аспектами развития детского организма [1]. С углублением изучения и понимания соматопсихического единства человека и с получением соответствующих выводов для практики начинает более четко вырисовываться значение общественных факторов для здоровья человека, в особенности – для здоровья ребенка.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

В настоящее время в медицине все более усиливается тенденция учитывания роли психологического фактора в развитии соматических заболеваний [2]. Особую значимость это приобретает в реабилитационной работе, при которой врачу важно знать не только нозологический и синдромологический диагноз, но и то, у какой личности, и в какой социальной микросреде эта болезнь возникает [3]. Болезнь может изменить все перспективы человеческой жизни, характер ее ориентации на будущее. Всякое истинное развитие в то же время предполагает именно направленность в будущее, открытость «перспективы движения». Изменение эскиза будущего – одна из наиболее существенных характеристик новой, складывающейся в условиях болезни социальной ситуации развития. В этом и состоит одно из наиболее драматичных для заболевшего противоречий новой жизненнойситуации. Биологический фактор (биологическая вредность) относится к классу условий развития человека как личности. Основополагающим же моментом является

социальное бытие человека, та реальная деятельность, которую он осуществляет как общественный индивид [4].

Направленность личности здорового или больного человека оказывает влияние на психические процессы, состояние и свойства личности, на систему ее материальных и духовных потребностей, интересов, склонностей, мотивационную сферу, идеалы, ценностные ориентации, т.е. эта направленность выступает в качестве системообразующего фактора, определяет психологический облик личности как здорового, так и больного человека. Как сложное интегративное образование в личности, ее направленность оказывает влияние на отношение человека к себе и окружающим, к своему здоровью и болезни, к медицинским работникам, проводимому лечению и системе реабилитационных мероприятий, к своему настоящему и будущему. По данным В. В. Николаевой [5], человек, выступая в качестве активного субъекта деятельности, заболевая, остается им. Это находит выражение прежде всего в том, что в новой жизненной ситуации – в условиях болезни – человек формирует свое собственное отношение к новым обстоятельствам жизни и к самому себе в этих обстоятельствах, т.е. внутреннюю картину болезни (ВКБ).

Длительное соматическое заболевание у детей нередко становится источником задержки общего и психического развития. Так, задержки психического развития соматогенного происхождения, вызванные соматической недостаточностью различного генеза (хронические инфекции, пороки развития соматической сферы и т.п.), выделяются как один из вариантов задержек психического развития. Чаще всего стойкая астения, снижающая общий психический тонус, приводит к нарушениям эмоционально-волевой сферы [5]. Более того, можно говорить об определенной степени психического инфантилизма у детей и подростков с врожденными пороками сердца, ревматизмом, хронической дизентерией и т.п.

ЗАКЛЮЧЕНИЕ

Анализ литературных данных, безусловно, свидетельствует о необходимости дальнейшего изучения психосоматических взаимоотношений и формирования ВКБ у детей с целью повышения эффективности лечебно-реабилитационных мероприятий. В то же время в борьбе за здоровье детского населения педиатрия должна использовать результаты не только всех основных и прикладных исследований в области естественных наук, которые каким-нибудь образом касаются ребенка, но и все выводы общественных и других наук, относящиеся к молодому поколению.

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ИНТЕГРАЦИЯ КАК СПОСОБ ФОРМИРОВАНИЯ КОМПЕТЕНЦИЙ УЧАЩИХСЯ НА УРОКАХ ХИМИИ И ГЕОГРАФИИ

Аннотация. В статье разработана и апробирована практическая значимость проведенного автором исследования «Химию и географию изучаем: наблюдаем, измеряем, сравниваем» на уроках химии и географии в комплексных лабораторных работах и в курсе химии и географии в школе находится в методических указаниях для учителей по оформлению практической части.

Ключевые слова. Интеграция, химия, география, наблюдения, измерения, сравнения, школа.

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INTEGRATION AS A WAY OF FORMING STUDENTS' COMPETENCIES IN CHEMISTRY AND GEOGRAPHY LESSONS

Abstract. The article developed and tested the practical significance of the research conducted by the author "We study chemistry and geography: observe, measure, compare" in the lessons of chemistry and geography in complex laboratory work and in the course of chemistry and geography at school is in the guidelines for teachers on the design of practical parts.

Keywords. Integration, chemistry, geography, observations, measurements, comparisons, school.

Установление межпредметных связей в школьном курсе способствует более полному усвоению знаний, формированию научных понятий, законов, совершенствованию учебно-воспитательного процесса и оптимальной его организации, формированию мировоззрения, пониманию взаимосвязи явлений в природе и обществе **[**1]. Это имеет огромное воспитательное значение. В результате педагогических наблюдений за учащимися, было выявлено ряд проблем: во-первых, учащиеся не умеют переносить знания, полученные при изучении одной дисциплины для

описания природного явления в целом; во-вторых, учащиеся не видят взаимосвязи, многомерности природных явлений; в-третьих, учащиеся не умеют использовать знания по химии при описании природных объектов живой и неживой природы при изучении биологии и географии [2,3].

Анализируя образовательные стандарты и учебные программы по дисциплинам естественнонаучного цикла, приходим к выводу, что в образовательном процессе точки соприкосновения между химией и географией лежат в области межпредметных связей [4,5]. Поэтому данная тема легла в основу проекта СОШ №13 г. Чирчика «Интеграция учебных дисциплин как способ формирования компетенций учащихся на уроках химии и географии», над которым работает творческая группа учителей кафедры «Химии» Чирчикского государственного педагогического университета - предметников естественно-научного цикла (2020 - 2022) [6.7].

Межпредметные связи в обучении, как дидактический принцип и как дидактическое условие, захватывают цели и задачи, содержание, методы, средства и формы обучения нескольких учебных предметов [8]. Межпредметные связи влияют на состав и структуру учебных предметов [9]. Каждый учебный предмет является источником тех или иных видов межпредметных связей [10]. Поэтому возможно выделить те связи, которые учитываются в содержании химии, и. наоборот, идущие от химии в другие дисциплины [11].

Наглядно межпредметные связи можно проследить на примере интеграции химии и географией, для чего мы использовали метод построения матриц связи [12]. Матрицы межпредметных связей химии с другими учебными дисциплинами представлены на примере тем при изучении курса «Органическая химия» и курса «Аналитическая химия» [13].

Анализ данных матриц позволяет сделать вывод: в наибольшей степени межпредметность химии и биологии, химии и географии можно проследить при изучении «Органической химии» [14]. Это объяснимо содержанием самого предмета, кроме того, межпредметность химии и географии в этом курсе средней школы связана с промышленными центрами, городами, странами, то есть географическими объектами, где расположены производственные комплексы, центры добычи или месторождения тех или иных полезных ископаемых [15]. С темой «Геология планеты Земля» очень тесно связана тема «Углеводороды в природе. Переработка нефти» [16].

Различают несколько видов межпредметных связей в содержании обучения химии: фактические, понятийные, теоретические [17].

Фактические - это установление сходства фактов, изучаемых в курсах химии, биологии, географии, их всестороннее рассмотрение с

целью обобщения знаний об отдельных явлениях, процессах, объектах природы [18].

Понятийные межпредметные связи - это расширение и углубление признаков предметных понятий и формирование понятий, общих для родственных предметов. К общепредметным понятиям в курсах естественнонаучного цикла относятся понятия теории строения вещества – тело, вещество, состав, молекула, строение, свойство, явление, процесс, энергия. При этом они углубляются, конкретизируются, приобретают общенаучный характер.

На интегрированных уроках легче сформировать социально – трудовую компетенцию, так как одной из главных целей является доведение до сознания школьников, что изучаемые предметы не могут быть оторванными от окружающей действительности. Выполнение самостоятельно практических работ, лабораторных опытов по химии, географии показывает, что каждый шаг, каждое действие живой и неживой природы можно и нужно объяснять с помощью законов, изучаемых на уроках.

Метод интегрированного обучения успешнее формирует три вида компетенций: коммуникативные, учебно-познавательные и информационные.

выполнения этих умственных действий, развивать способности находить новые внутрипредметные и межпредметные связи и закономерности.

Выделяют два этапа на пути установления межпредметных связей. Первый, начальный, подготовительный, - приуроченный к началу изучения учебной темы на широкой межпредметной основе, и второй – представляющий непосредственное раскрытие ведущих положений темы на межпредметной основе.

Работа над проектом творческой группы учителей по подготовке интегрированных уроков включала ряд этапов:

1) изучение раздела «Межпредметные связи» по каждому курсу своего предмета и опорных тем из программ, учебников химии, географии, чтение дополнительной литературы научной, научно-популярной, методической;

2) поурочное планирование реализации межпредметных связей с использованием тематических планов;

3) разработка средств и методических приёмов реализации межпредметных связей на конкретных уроках;

4) разработка методики подготовки и проведения комплексных форм организации обучения;

5) разработка приёмов контроля и оценивания результатов осуществления межпредметных связей в обучении.

Анализируя проводимые интегрированные уроки можно сделать выводы:

- уроки проводятся совместно с учителями двух или нескольких предметов, с заранее продуманнойметодикой проведения урока, определённым объемом и глубиной раскрытия материала, последовательностью изложения материала;

- учитываются сроки изучения различных аспектов комплексной проблемы в смежных дисциплинах, которые должны предшествовать обобщению, с целью сохранения логики изучения каждого отдельного предмета;

- уроки целесообразно проводить после усвоения учащимися большого раздела курса химии, биологии, географии или в конце учебного года.

- нтегрированные уроки позволяют рассмотреть учебные вопросы или проблемы более многогранно, сплетая знания, умения по отдельным предметам в единое целое;

- образовательные технологии повышают активность учащихся, помогают им осознать важнейшие актуальные проблемы современности (экологическая, здоровье нации, экономическое развитие страны), стимулируют самостоятельный поиск взаимосвязизнаний различных предметов;

- интегрированным урокам предшествует тщательная подготовка со стороны учителей, организация опережающих домашних заданий, которые предлагаются отдельным учащимся или всему классу;

-оценка деятельности осуществляется одновременно по нескольким предметам.

Интегрированные уроки осуществлялисьпо разной методике:

- «эстафета», в которой учитель химии передаёт право вести урок учителю другого предмета (биологии, географии) и наоборот, а выступления учениковдополняют друг друга;

- изложение учителем новой темы, учащиеся, увлечённые разными научными направлениям, дополняют его информацию.

Например, ученик, интересующийся географией, дополняет рассказ учителя о нахождении железа в природе, сообщая географические объекты основных месторождений железной руды в мире.

Интегрированными являются и нетрадиционные типы уроков:

1. Интегрированные двух-, трёх-, четырёхпредметные уроки, урок-погружение, урок-экскурсия, урок-поход, урок-путешествие.

2. Уроки в форме соревнований и игр: урок-конкурс, урок-турнир, урок-эстафета, урок - деловая или ролевая игра, урок-кроссворд, урок-викторина.

3. Уроки творчества: урок-исследование, урок - мозговая атака, урок-интервью, урок-проект.

4. Уроки на основе нетрадиционной ориентации учебного материала: урок мудрости, урок любви, урок откровение, урок–презентация, урок-«дублёр начинает действовать».

5. Уроки с имитацией публичных форм общения: урок-прессконференция, урок-аукцион, урок-семинар, урок-телепередача.

6. Уроки с использованием фантазии: урок-сказка, урок-сюрприз.

7. Уроки, основанные на имитации деятельности учреждений и организаций: урок-суд, урок-следствие, урок-выборы.

8. Перенесение в рамки урока традиционных форм внеклассной работы: урок КВН, урок - «Что? Где? Когда?», урок-концерт, урок-утренник.

Межпредметные связи - важнейший принцип обучения в современной школе. Это высший уровень обучения, самая эффективная в настоящее время форма реализации межпредметных связей при изучении комплексной проблемы.

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ЖИЗНЕННЫЙ УРОВЕНЬ НАСЕЛЕНИЯ ПО РЕГИОНАМ УЗБЕКИСТАНА

Аннотация: В статье рассматривается бедственная ситуация в Узбекистане, а также пути ее решения. В данной статье представлено авторское исследование степени бедности в Республике Узбекистан, в котором также исследуются причины, различные группы бедности и различные определения бедности, а также ее причины и распространенность в республике. Завершено исследование ключевых показателей, определяющих текущую социально-экономическую ситуацию в стране. На основе сделанных выводов предлагаются пути решения проблемы.

Ключевые слова: уровень бедности, подходы к определению бедности, социально-экономическое состояние страны, пути решения проблемы, реформы, безработица, социальная нестабильность, уровень жизни населения.

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LIVING STANDARDS OF THE POPULATION BY REGIONS OF UZBEKISTAN

Annotation: The article deals with the disastrous situation in Uzbekistan, as well as ways to solve it. This article presents the author's study of the degree of poverty in the Republic of Uzbekistan, which also examines the causes, various groups of poverty and various definitions of poverty, as well as its causes and prevalence in the republic. A study of key indicators that determine the current socio-economic situation in the country has been completed. Based on the conclusions made, ways to solve the problem are proposed.

Key words: poverty level, approaches to the definition of poverty, socio-economic state of the country, ways to solve the problem, reforms, unemployment, social instability, standard of living of the population.

Актуальность исследования. Решение проблемы повышения уровня жизни населения становится одним из первоочередных вопросов укрепления узбекского государства в условиях радикальных социально-экономических преобразований. Социальная структура узбекского общества претерпела коренные изменения в результате социально-экономических реформ, что также вызвало значительное снижение уровня жизни большинства узбеков. Из-за повышенной нисходящей социальной мобильности, вызванной бедностью, безработицей и социальной нестабильностью, в результате процесса маргинализации населения образовался значительный слой бедняков.

Принятие успешных стратегий по искоренению бедности определяется требованием сохранения социальной стабильности. Помощь социально уязвимым группам людей, когда они больше всего в ней нуждаются, может оказать большое влияние на развитие социальных процессов, эффективно предотвращая аномию и способствуя социальной интеграции.

Цель исследования - определение качественных черт низкого уровня жизни населения Республики Узбекистан на протяжении всего периода социальной революции и выяснение способов его регулирования.

Для достижения цели необходимо было решить следующие задачи:

- определить уровень жизни как социально-экономическую категорию и его значение;
- рассмотреть современные методологические подходы к определению бедности;
- исследовать социологические характеристики различных групп и слоев с низким качеством жизни и особенности их проявления;
- охарактеризовать современный уровень жизненного уровня населения и выделить основные факторы, влияющие на его эволюцию, на основе изучения фактического материала;
- исследовать причины бедности разных слоев населения Республики Узбекистан;
- исследовать целесообразность использования социальных технологий в процессах управления уровнем жизни и искоренения бедности на основе теоретико-методологических разработок и анализа фактического материала.

Объект исследования - бедность как социальное явление.

Предметом исследования является бедность, как крайнее проявление низкого уровня жизни.

Научная новизна исследования заключается в следующем:

- поддержано и уточнено определение термина «уровень жизни», который автор определяет, как сложную социально-экономическую категорию, отражающую степень развития потребностей, а также обстоятельства, необходимые для их удовлетворения и позволяющие

человеку полноценно участвовать в общество. Выявлены ключевые показатели, определяющие уровень жизни;

- Очерчен социально-демографический профиль бедных, выявлены причины бедности. Низкий среднедушевой доход, низкая заработная плата, низкий уровень образования, слабое здоровье, высокая иждивенческая нагрузка на работающих членов семьи, индивидуальные особенности, связанные с образом жизни, ценностными ориентациями, проживание в депрессивных регионах с низким экономическим потенциалом относятся к факторам, способным привести к бедности., по мнению автора;

- социальные технологии необходимы для регулирования уровня жизни населения, обеспечения решения важных проблем, таких как регулирование заработной платы; государственное регулирование занятости населения; оптимизация жизни трудоспособного населения; адресная социальная поддержка населения;

- внесены предложения по использованию потенциала социального партнерства в управлении уровнем жизни и сокращении бедности. На рабочем месте социальное партнерство рассматривается как трехстороннее партнерство между государством, работодателями и работниками, а также продуктивный диалог между государственными учреждениями, частным бизнесом и некоммерческими, неправительственными, благотворительными группами;

- систематизированы различные определения проблемы бедности и предложена авторская иерархия уровней российской бедности, которая поддерживается наукой и позволяет дифференцировать получателей социальной поддержки и помощи с целью максимального выхода из бедности;

- предоставлены формы и процессы управления бедностью в городе с учетом их распределения по уровням управления; - организован процесс управления бедностью в современных условиях Узбекистана;

Существует ряд объективных и произвольных переменных, влияющих на социально-экономическое положение малообеспеченных семей.

Официальные оценки бедности в Узбекистане производятся Государственным комитетом по статистике на основании результатов ежегодных (ежеквартальных) обследований домохозяйств (выборка 10 000 домохозяйств в год), а также Министерством поддержки махалли и семьи на основании данных малообеспеченные семьи в "Темир Дафтар"

Обследование семейного бюджета. С 2001 года Госкомстат использует подход Всемирного банка для оценки уровня абсолютной бедности, исходя из нормы потребления продуктов питания на человека в 2100 ккал в день. по результатам обследования бюджетов домохозяйств за 2001–2019 гг. Неравенство снизилось с 27,5% до 11,0%. Согласно

прогнозам IPMI, с использованием этой методологии ожидается, что уровень бедности вырастет до 12,3% в 2020 году с учетом того, как пандемия коронавируса может повлиять на качество жизни людей.

По степени бедности регионы можно разделить на категории в порядке, указанном в таблице 1:

Ташкентская (2,0%), Навоийская (8,3%), Ташкентская (9,0%), Бухарская (9,2%) и Самаркандская области (10,8%) имеют самые низкие показатели бедности.

Андижанская (13,1%), Кашкадарьинская (13,2%), Джизакская (13,9%), Хорезмская (14,4%) и Ферганская области (14,9%) имеют самые высокие показатели бедности.

Сырдарьинская (15,0%), Сурхандарьинская (15,9%), Наманганская (16,7%) и Республика Каракалпакстан (16,4%) имеют относительно высокий уровень бедности.

Таблица 1

Распределение уровня бедности по регионам Узбекистана

Низкий уровень	Средний уровень	Высокий уровень
Регионы (уровень бедности 2,0-10,8%)	Регионы (уровень бедности 13,1-14,9%)	Регионы (уровень бедности 15-16,7%)
г.Ташкент	Андижанская область	Сырдарьинская область
Навоийская область	Кашкадарьинская область	Сурхандарьинская область
Ташкентская область	Джизакская область	Наманганская область
Бухарская область Хорезмская	Хорезмская область	Каракалпакстан
Самаркандская область	Ферганская область	

На практике государственные организации, в том числе органы местного самоуправления, не принимают ни этот методологический подход, ни его выводы. Исследовательские институты и международные организации, использующие их в сравнительных оценках для Узбекистана и мониторинге реализации ЦУР до 2030 года, являются ключевыми потребителями этой разработки.

Ниже приведены некоторые проблемы, связанные с использованием этой методологии для оценки бедности:

- Существующая методика, созданная около 20 лет назад, нуждается в существенной доработке и уточнении;

- Поскольку эта методика игнорирует региональные различия и менталитет населения, ее использование в качестве общенационального критерия бедности требует обоснования (как, например, в случае выявления малообеспеченных семей в махаллях).

Субъективная оценка уровня бедности в махаллях. Министерству по поддержке махалли и семьи Республики Узбекистан и его территориальным подразделениям поручено тесно взаимодействовать с

органами самоуправления граждан и обеспечить адресность назначения социальных выплат и материальной помощи в соответствии с Указом Президента от апреля № 3 от 2020 года «О дополнительных мерах поддержки населения, отраслей экономики и субъектов предпринимательства в период пандемии коронавирусной инфекции».

Путем создания «Темир дафтар» («железная тетрадь») списков обездоленных семей была разработана система учета. По состоянию на 15 ноября 2020 года, по данным Министерства поддержки махалли и семьи Республики Узбекистан, в списке «Темир дафтар» состояло около 2,5 млн человек, или 7,2% населения.

Распределение регионов по данной методике оценки бедности представлено следующим образом (табл. 2):

Таблица 2.

Распределение регионов по уровню бедности по методике включения в «Темир Дафтар»

Низкий уровень	Средний уровень	Высокий уровень
Регионы (уровень бедности 4,4-7,0%)	Регионы (уровень бедности 7,2-8,4%)	Регионы (уровень бедности 8,6-9,0%)
Хорезмская область	город Ташкент	Бухарская область
Джизакская область	Навоийская область	Кашкадарьинская область
Наманганская область	Андижанская область	Сырдарьинская область
Ташкентская область	Ферганская область	Сурхандарьинская область
Самаркандская область	Республика Каракалпакстан	-

Хорезмская (4,4%), Джизакская (5,4%), Наманганская (5,5%), Ташкентская (7,0%) и Самаркандская области (5,1%) являются регионами с самыми низкими показателями бедности и потребности в социальной помощи.

Республика Каракалпакстан (7,5%), Навоийская (8,0%), Андижанская (7,6%), Ферганская (7,2%) и г. Ташкент (8,4%) являются регионами с самым высоким средним уровнем бедности.

Бухарская (8,6%), Кашкадарьинская (9,0%), Сырдарьинская (8,7%) и Сурхандарьинская области имеют относительно высокий уровень бедности (8,7).

Эта методология также требует точной оценки положения семей и научного обоснования ее использования в качестве национального критерия бедности (совместно с Госкомстатом).

Сравнение двух подходов к оценке бедности показывает существенные различия не только по Узбекистану в целом (12,3% и 7,2%), но и по регионам страны (табл. 3).

Степень бедности в двух стратегиях существенно различается. Например, по второму методу в Кашкадарьинской области уровень бедности составляет 9,0%, а в Республике Каракалпакстан самый высокий

процент – 16,4%. Разница превышает 1,8 раза. То же самое относится и к районам с минимальной бедностью. 2,0% для г.Ташкента и 4,4% для Хорезмской области. Дифференциал в данном случае составляет 2,2 раза.

Таблица 3.

Территориальные различия в уровнях бедности (оценка 2020 г.)

Регионы	**По результатам обследования бюджетов домохозяйств**		**По данным «Темир Дафтар» по махаллям**	
Республика Узбекистан	Уровень бедности	Рейтинг	Уровень бедности	Рейтинг
Республика Каракалпакстан	16.4	13	7.5	7
Регионы:				
Андижан	13.1	6	7.6	8
Бухара	9.2	4	8.6	11
Джизак	13.9	8	5.4	2
Кашкадарья	13.2	7	9.0	14
Навои	8.3	2	8.0	9
Наманган	16.7	14	5.5	3
Самарканд	10.8	5	5.9	4
Сурхандарьинская	15.9	12	8.7	12
Сырдарья	15.0	11	8.7	13
Ташкент	9.0	3	7.0	5
Фергана	14.9	10	7.2	6
Хорезм	14.4	9	4.4	1
город Ташкент	2.0	1	8.4	10

Несмотря на многочисленные аналитические методики расчета уровня бедности, необходимо пояснить и конкретно обосновать имеющиеся пробелы.

Для единой национальной оценки бедности с возможностью их практического применения важно увязать подходы, учтенные на макро- и микроуровнях.

К 2026 году Узбекистан хочет вдвое сократить свою бедность. Эта работа предусмотрена в Стратегии развития страны на ближайшие пять лет.

Однако современный мир в результате спецоперации России на Украине вступил в новую реальность, и эта реальность имеет свой набор ориентиров и ограничений. Мировая экономика страдает от жестких антироссийских санкций. Этот удар дошел и до Узбекистана.

Например, часть трудовых мигрантов стала возвращаться в страну в результате негативной конъюнктуры рынка труда Российской Федерации, крупнейшего импортера дешевой рабочей силы на постсоветском

пространстве. В результате существовала вероятность роста уровня безработицы, что впоследствии могло серьезно сказаться на социально-экономическом положении населения республики.

В 2020 году Узбекистан принял Стратегию сокращения бедности.

Узбекистан начал реализацию плана по искоренению бедности два года назад. Для этого даже было создано отдельное ведомство Министерства экономического развития и сокращения бедности.

До 2020 года проблема бедности в Узбекистане на официальном уровне держалась в секрете. Были изменены названия программ некоторых международных организаций по борьбе с бедностью в стране (Стратегия сокращения бедности), и они позиционировались как инициативы по повышению уровня жизни населения. При этом ни в одном госбумаге не было упоминания о «бедных». В результате распространилось представление о том, что бедняков в республике нет. С момента реализации Стратегии произошел существенный сдвиг в восприятии этой проблемы. Власти в открытую заявили, что бедные составляют порядка 12-15% населения Узбекистана.

Первоначально использовался подход, используемый Всемирным банком для определения уровня бедности в стране. Так, уровень бедности в стране составил 11,9% в 2017 г. и 11,4% в 2018 г. В зависимости от метода расчета показатели в данном случае могут меняться. Например, если вы учитываете прибыль менее 2 долларов в день, это одно число. Стоит немного превысить показатель дневного дохода, например, до 5 долларов, и мы получим в итоге совсем другую статистику. Другими словами, в стране будет значительно больше бедных людей.

Конечно, было много разногласий по поводу того, как измерять бедность, и ученые, и простые люди выразили свою озабоченность. Однако именно так в настоящее время реализуется государственная политика Узбекистана.

К 2030 году президент Шавкат Мирзиёев хочет вдвое сократить бедность. Из-за эпидемии его реализация была затруднена, поскольку глобальное экономическое развитие замедлилось.

Важно осознать, что материальное благополучие людей играет роль в ликвидации бедности. Однако это далеко не единственное условие успеха в этом начинании. Правительство должно следить за тем, чтобы экономический рост был инклюзивным, и чтобы он приносил пользу всему населению в целом, а не только определенным его группам. Эта стратегия требует ряда вещей, включая создание новых рабочих мест, повышение уровня здравоохранения, образования и социальных программ, среди прочего.

Основная обязанность правительства – положить конец социально-экономическому неравенству. Исходя из этого, можно будет оценить успешность государственной политики борьбы с бедностью.

Сначала необходимо установить параметры этой стратегии, чтобы можно было оценить успех реформ в социальной, экономической или политической областях. Нам нужны цели. На это и направлены реформы.

Мониторинг процесса по конкретным показателям необходим для подтверждения успешности реализации того или иного проекта или программы. У нас еще нет полных стандартов для оценки усилий по сокращению бедности. Например, по данным администрации, бедное население страны сократится вдвое. Мониторинг используется для оценки эффективности выполнения задачи, нашего продвижения к конечной цели и того, находимся ли мы на правильном пути или нет. Для этого явно нужны данные. Кроме того, крайне важно, чтобы они были опубликованы в открытых источниках.

В качестве одного из показателей бедности в Узбекистане выбран критерий «потребительская корзина». Содержание и денежная стоимость этого компонента несколько раз уточнялись и рассматривались. Человек автоматически классифицируется как бедный гражданин, если он тратит более половины своего месячного дохода на продукты питания и другие предметы первой необходимости. Статус человека меняется по мере изменения пропорции, например, когда он тратит 10% своего дохода на еду, а остальные 90% - на другие нужды.

В Узбекистане до недавнего времени не было «потребительской корзины», что привело к ряду проблем. Размер всех социальных выплат населению действительно нужно будет сильно увеличить, если этот показатель рассчитывать по международным стандартам. В результате государственный бюджет будет подвергнут дополнительной нагрузке. Готово ли Министерство Финансов взять на себя такое бремя? Ведь экономика Узбекистана особенная, поскольку включает в себя социальный сектор. Это поднимает еще один важный вопрос: можем ли мы на самом деле реализовать этот социальный компонент? Ведь искоренение бедности требует планирования до мельчайших деталей: кого и где нанимать, сколько платить безработным и т. д.

Вывод

Согласно Плану действий на 2020–2021 годы, Узбекистан разрабатывает Стратегию сокращения бедности до 2030 года, чтобы оживить экономический рост и продолжить структурные улучшения. В эту задачу входит создание методологии, внедрение передового опыта со всего мира, выявление нуждающихся и совершенствование механизмов адресных мер поддержки. Проект Концепции сокращения бедности в Узбекистане ранее был подготовлен Центром экономических исследований и реформ и Министерством экономического развития и сокращения бедности.

Последствия пандемии сделали задачу сокращения бедности значительно более сложной и в то же время важной. И в этом случае

использование самых последних достижений в этой области имеет решающее значение для того, чтобы растущая Стратегия сокращения бедности в Узбекистане была максимально успешной и эффективной. Стратегия сокращения бедности, несомненно, будет усовершенствована и приведена в соответствие с реальными потребностями и желаниями людей на местах благодаря опыту и результатам, полученным в ходе пилотного проекта в Букинском и Чиназском районах Ташкентской области.

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РАҚАМЛИ ИҚТИСОДИЁТ ШАРОИТИДА СУД-БУХГАЛТЕРИЯ ЭКСПЕРТИЗАСИНИ ТАЙИНЛАШ ЗАРУРИЯТИ ВА УНИНГ АҲАМИЯТИ

Аннотация: Ушбу мақолада иқтисоий экспертизанинг бир тури бўлган Суд-бухгалтерия экспертизасини тайинлаш зарурияти, моҳияти, ҳуқуқий меъёрий асослари ҳақида сўз боради.

Калит сўзлар: Суд, Экспертиза, Суд экспертизаси, Рақамли иқтисодиёт.

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THE NEED AND ITS SIGNIFICANCE OF APPOINTMENT OF FORENSIC ACCOUNTING EXPERTISE IN THE DIGITAL ECONOMY

Annotation: in the article the essence, legal-normal basics, designating necessity of judge-accounting expertise which isone type of expertise and formalization of its consequences were stated.

Key words: Expertise, expert, judge expertise, accountant-expert, the consequence of judge-expertise.

Кириш

Рақамли иқтисодиёт(инг л: digital econoty)нингўзига хос хусусияти барча иштирокчиларнинг ахборот, шу жумладан, шахсий маълумотлардан фойдаланиш эҳтиёжларини қондириш бўлган иқтисодиётдир” (академик С.С.Гулямов таърифи).

Ҳозирги кунда рақамли иқтисодиётнинг дунё миқёсида тутган ўрни ва унинг ривожланиш тенденциялари тобора ортиб бормоқда. Жаҳон миқёсида олиб қарайдиган бўлсак, рақамли иқтисодиётнинг ривожланиш географиясида икки мамлакат етакчи ўринни эгаллаб турибди. Булар АҚШ ва Хитой.

Ҳозирги пайтда компьютерлаштириш ва юқори технологиялар асрида

рақамли иқтисодиёт ҳаётимизнинг ҳар бир жабҳасига: соғлиқни сақлаш, таълим, интернет-банкинг, ҳукуматга дахлдор бўлмоқда. Ўзбекистон Республикаси Президентининг «Рақамли иқтисодиёт ва электрон ҳукуматни кенг жорий этиш чора-тадбирлари тўғрисида»

ги2020йил 28 апрелдаги, ПҚ – 4699 - сонли Қарори асосида 2023 йилга келиб рақамли иқтисодиётнинг мамлакат ялпи ички маҳсулотидаги улушиниикки бараварга кўпайтириш назарда тутилган.

Ўзбекистон Республикаси Президенти Ш.М. Мирзиёевнинг 24 январь 2020 йил ОлийМажлисга Мурожаатномасида таъкидлаганидек:... рақамли иқтисодиётнишакллантириш керакли инфратузилма, кўп маблағ ва меҳнат ресурслариниталаб этишини жуда яхши биламиз. Бироқ, қанчалик қийин бўлмасин, буишга бугун киришмасак, қачон киришамиз?! Эртага жуда кеч бўлади. Шубоис, рақамли иқтисодиётга фаол ўтиш – келгуси 5 йилдаги энг устуворвазифаларимиздан бири бўлади. Рақамли технологиялар маҳсулот вахизматлар сифатини оширади ҳамда ортиқча харажатларни камайтиради. Энг муҳими, қишлоқ жойларда аҳолини рақамли саводхонлигини кўтариш ҳамда иш билан бандликни (ортиқча харажатларсиз) оширади ва камбағалчиликни кескин қисқартиради.

Рақамли иктисодиёт шароитида барча мутахассислар каби ҳисоб ва назорат тизимида фаолият кўрсатаётган мутахассисларининг масъулияти ва жавобгарлиги янада ортади. Шу боис бухгалтерия хисоби ва назорати ходимлари хўжаликни юритишга ёрдам кўрсатиши, турли хўжалик ҳолат ва муҳитларини тезкор ва тўлиқ аниқлаб иш кўра билиши, бозор иқтисодиёти вазифаларини ва улардаги йўналишларни тушиниб етиши, бошқарув қарорларини қабул қилишда раҳбариятга ҳамда фуқаролик, жиноий ва хўжалик фаолиятлари бўйича кўрилаётган ишларни одилона ҳал қилишда суд-тергов органларига суд экспертизаси ўтказиш натижалари бўйича асосланган тавсияларини тақдим этишлари лозим бўлади.

Рақамли иқтисодиёт шароитида суд-бухгалтерия экспертизасини тайинлаш зарурияти

Суд-бухгалтерия экспертизаси суд-иқтисодий экспертизасининг таркибий қисми бўлиб, у қуйидаги ҳолатларда белгиланади:

-кузатилган фуқаролик ёки жиноий ишнинг терговини олиб борувчи терговчи ишни сифатли ва қонунан тўғри боришида чуқур ва юқори савияли бухгалтерия билимлар лозим деб топса. Ишни олиб борувчи терговчи ҳам маълум бир бухгалтерия билимларга эга бўлиши ва оддий ҳисобларни ўзи бажариши ёки тергов вақтида айбланувчининг ёхуд гувоҳларнинг кўрсатмаларини таҳлил этиши мумкин. Хусусан иш юзасидан жиноий ишга қўл урган шахслар, моддий жавобгар шахслар юритган ҳар бир ҳужжат ва материалларини таҳлил қилиб янги фактларни очиши ҳам мумкин. Аммо бундай ҳолатларда терговчи суд бухгалтерия экспертининг ёрдамисиз кўзланган ютуққа эриша олмайди.

Ўзбекистон Республикасининг сиёсий ва иқтисодий жабҳаларида олиб борилаётган чуқур ислоҳатлар суд-ҳуқуқ тизимини ҳам кенг қамраб олди.Муҳтарам Пезидентимиз ўзининг Олий Мажлисга

мурожаатномасида *“Энди суд орқали инсонларнинг ҳуқуқи тикланганини эътироф этиш билан чекланиб қолмасдан, нима сабабдан судгача бўлган тергов жараёнида инсон ҳуқуқ ва эркинликлари бузилган, деган саволни ҳам кўндаланг қўядиган, тазйиқлар учун жавоб берадиган вақт келди”*[35] деган эди.

Президент бундай фикрни бежиз айтмади. Кўп йиллик суд-ҳуқуқ органлари амалиётида мавжуд бўлган адолатсизликлар: нотўғри ўтказилган тергов-суриштирув ишлари, фақатгина номигагина иш материалларини бўрттириш учун олинган сохта экспертиза хулосалари натижасида инсон ҳуқуқлари поймол бўлаётгани халқимиз орасида ҳуқуқни ҳимоя қилувчи органларга ишончсизлик ҳисларини туғдирди.

Юқорида баён этган фикрини давом эттириб Президентимиз *“Эски тузумдан қолган ва ҳануз давом этаётган суд қарорларини прокуратура томонидан чақириб олиб, ўрганиш амалиётини чеклаш лозим. Энди фақат иш юзасидан шикоят келиб тушган ҳолдагина прокурор суд қарорини олиб ўрганиши мумкин”* [1] деди.

Республикамиз мустақилликка эришгандан сўнг Республикада суд экспертиза фаолиятини такомиллаштириш, одил судловни таъминлаш мақсадида қатор ишлар амалга оширилди. Жумладан: 1995 йил 22 июндаги Ўзбекистон Республикаси Вазирлар Маҳкамасининг “Ўзбекистон Республикасида Адлия вазирлигининг экспертиза хизматини ривожлантириш тўғрисида” ги 234-сонли қарорига асосан, Тошкент суд экспертиза илмий-тадқиқот институти Республика илмий-тадқиқот криминалистика марказига айлантирилди. Маказнинг илмий салоҳиятини Тошкент шаҳридаги 8 та етакчи лаборатория ва 9 та вилоятлардаги бўлинмалари ташкил этди.

Суд-иқтисодий экспертизанинг бир тури бўлган суд-бухгалтерия экспертизаси ўтказилиши бугунги кунда нафақат Марказий муассасада, балки вилоят бўлинмаларида ҳам экспертизанинг қуйидаги турлари: бухгалтерия, молия-кредит, банк-кредит, солиқ қонунчилиги ва ташқий-иқтисоий,иқтисодий-режавий, меҳнат иқтисодиёти ва иқтисодий-статистика экспертизаларига суд-тергов органларини бўлган эҳтиёжларини қондириб келмоқда.

Бугунги кунда суд, тергов амалиётида суд-иқтисодий экспертизанинг турларидан бири бўлган суд-бухгалтерия экспертизасининг роли ошиб бормоқда. Республика суд-экспертиза марказининг Самарқанд вилоятлараро бўлими бугунги кунгача Самарқанд, Навоий ва Бухоро вилоятларида суд-иқтисодий экспертизанинг барча турлари бўйича экспертизалар ўтказиб келмоқда. Жумладан: 2020 йилда 6058 та, 2021 йилда 4942 та 2022 йилнинг 9 ойи мабайнида 3234 та экспертизалар ўтказилган.[36]

Қуйида Вилоят Суд бухгалтерия экспертизаси Марказининг 2020-2022 йиллар бўйича ўтказилган экспертизалар маълумотлари келтирилган:

[35] Ш.М.Мирзиёев “Олий Мажлисга мурожаатнома” 24 январь 2020 йил
[36] Вилоят вилоят СБЭ марказининг статистик ҳисоботидан

Йиллар	Жами ўтказилган экспертизалар сони	Экспертиза тайинлаган идоралар						
		Жиноят ишлари бўйича судлар	Фуқаролик ишлари бўйича судлар	Иқтисодий судлар	Прокуратура	Ички ишлар идоралари	ДХХ	Бошқалар
2020	6058	35	480	21	505	4480	46	491
2021	4942	44	1382	27	520	2490	103	376
2022 (9ой)	3234	36	1027	15	467	1023	257	409
Жами	14234	115	2889	63	1492	7993	406	1276

Юқоридаги жадвалдан кўриниб турибдики экспертиза тайинлови аксарий ҳолларда ички ишлар ва фуқаролик ишлари бўйича судлар томонидан амалга оширилган. Бунга сабаб ички ишлар органларида йўл-транспорт ҳодисалари ва фуқаролик ишлари бўйича судларда эса фуқаролар ўртасида содир бўлаётган муаммолик муносабатларни ҳал этиш билан боғлиқдир.

Суд-бухгалтерия экспертизасини тайинлаш одатда қуйидаги ҳолларда амалга оширилади:

- тафтиш ва тергов материаллари мос келмаганда ёки дастлабки ва такрорий тафтишлар хулосаларида зиддиятлар мавжуд бўлганда;
- айбланувчи тақдим этган хужжатлар тафтишчи томонидан қабул қилинмаган ҳолларда;
- маълум масалаларни хал этиш бухгалтерия ҳисобидаги махсус билимлар талаб қилиниши тўғрисида айбланувчининг асосланган мурожаати мавжуд бўлганда;
- суистеъмол ва товар моддий бойликларни топишда тафтишчи томонидан қўлланган услуб ва методларни тўғрилиги ва тўла эканлигига ҳамда тафтиш хулосасига терговчининг гумони бўлгана;
- моддий жавобгар шахсларни аниқлаш ва улар келтирган зарарнинг миқдори ва даврини ташкилот бухгалтерияси тўғри аниқланганлигини текшириш зарурияти туғилганда;
- хужжатли тафтиш тартиби тўғри ўтказилиб ва тафтишчининг нотўғри харакатлари тафтишчининг тафтиш қилинаётган корхона ходимлари билан ишга тааллукли бўлмаган алоқалари тўғрисида маълумотлар мавжуд бўлган ҳолда.

Суд-бухгалтерия экспертизаси Ўзбекистон Республикаси “Суд экспертизаси тўғрисида”ги Қонуннинг 15-моддасига асосан корхона, муассасалар бухгалтерлари томонидан тузилган ёки тузилажак бухгалтерия ҳужжатлари асосида ўтказилади.[37]

Шунинг учун Суд-бухгалтерия экспертизаси хулосасининг ҳаққонийлик (ҳодисанинг ҳақиқий ҳолатини акс эттириш) даражаси асосан тузилган бухгалтерия ҳужжатларининг сифатига боғлиқ бўлади.

[37]Ўзбекистон Республикаси “Суд экспертизаси тўғрисида”ги Қонун 18-ноябрь 2009 йил

Ҳозирги давр талабидан келиб чиқиб, ахборот технологиялари ривожланган, рақамли иқтисодиёт шароитда бухгалтерия ҳужжатларининг янги даври – электрон ҳужжат пайдо бўлди. Электрон ҳужжатларнинг расмийлаштириш ва улар айланмаси Ўзбекистон Республикаси Марказий банки томонидан ишлаб чиқилган йўриқнома асосида олиб борилади ва назорат қилинади.

Қонун устуворлигини таъминлаш ва суд-ҳуқуқ тизимини янада ислоҳ қилиш фақат қонунларга бўйсиниш, унга тўлиқ амал қилиш орқали эришилади. Президентимиз эътироф этганидек: “Танқидий таҳлил, қатъий тартиб-интизом ва шахсий жавобгарлик – ҳар бир раҳбар фаолиятининг кундалик қоидаси бўлмоғи керак”[2]. Ушбу вазифаларни тўлиқ ижро этиш қонунларга амал қилиб фаолият юритишни, суд-ҳуқуқ тизими ишларида кескин бурилиш ясаш, жамият, халқ манфатларини кўзлаган ҳолда, ҳар қандай кўрилаётган фуқаролик, жиноий ва иқтисодий ишлар жараёнини шаффофлигини ва одилона ечимини таъминлашни талаб этади.

Юқорида қайд этилган вазифаларни тўлиқ бажариш кўп ҳолларда судларда фуқаролик, жиноий ва иқтисодий ишларини кўриб чиқишда бойликлар талон-тарожи, мансабдорлик ва хўжалик жиноятларини суриштириш ва тергов қилишда иқтисодий фанлар жумладан махсус бухгалтерия ҳисоби билимлари қўлланилади. Махсус билимлар орасида суд-бухгалтерия экспертизаси муҳим ўринда туради.

Бу уч сўздан иборат (суд, бухгалтерия, экспретиза) сўзлар бирикмасидан пайдо бўлган “Суд-бухгалтерия экспертизаси”нинг моҳияти қуйидагилардан ташкил топади:

Суд - фуқаролик, жиноий ва хўжалик(иқтисодий) масалалари бўйича қўзғатилган ишларнинг кўриб чиқиш жараёни.

Экспертиза- жиноят процессуал қонуни асосида, фан ва техниканинг, санъат ва иқтисодиётнинг айрим соҳаларидаги мутахассислар, касб-ҳунар эгалари томонидан терговда ёки суд муҳокамасида келиб чиқадиган баъзи камчиликларни аниқлаш мақсадида объектлар устида олиб бориладиган текшириш ишлари.

Бухгалтерия– корхонанинг бухгалтерия ҳисоби ва ҳисоботини юритувчи таркибий бўлими.

Шундан келиб чиққан ҳолда ***“Суд-бухгалтерия экспертизаси”***–бу бухгалтерия ҳужжатларида ва регистрларида акс эттирилган хўжалик операцияларини бухгалтер-эксперт (мутахасис)томонидан текшириш жараёнидир.

Хулоса:

Тергов ва судда кўрилаётган ишларга далил сифатида хулоса далолатнома тайёрлаш билан биргаликда ҳўжаликка етказилган моддий зарарни аниқлаш ва камомадни ундириб олишда бухгалтерия

[2]Мирзиёев Ш М “Танқидий таҳлил, қатъий тартиб-интизом ва шахсий жавобгарлик – ҳар бир раҳбарнинг кундалик қоидаси бўлиши керак” Тошкент: Ўзбекистон НМИУ, 2017

экспертизасини аҳамияти ортиб боради. Шундай экан, ***суд-бухгалтерия экспертизаси ўтказишдан мақсад*** - жиноий ва фуқаролик ишлари бўйича адолатли хукмнинг амалга ошишига ёрдам бериш, иктисодиёт соҳасида жиноят ва ҳуқуқ, бузишларга йўл қўймаслик, келажакда хўжалик ҳуқуқ бузишларни огохлантиришга дойир тадбирларни белгилашдир.

Ўзбекистон Республикасининг 2009 йил 18 ноябрда қабул қилинган «Суд экспертизаси тўғрисида»ги Қонуннинг 17-моддасига биноан суд экспертизасини ўтказишнинг асоси бўлиб, терговчи, прокурор ёки суднинг қарори ёхуд судда кўрилаётган фуқоролик, хужалик ва жиноят ишлари бўйича суднинг ажрими ҳисобланади.

Ўзбекистан Республикаси ЖПК моддасига мувофиқ қонунда белгиланган тартибда суд, терговчи ижтимоий хавф-хатар мавжудлиги ёки мавжуд бўлмаганлиги ушбу ҳаракатни содир қилган шахс айбдорлиги ва ишни тўғри ечилишга аҳамияти бўлган барча хақиқий маълумотлар жиноий иш бўйича далил бўлади. Эксперт хулосаси ана шу далиллар жумласидандир.

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МЕЖСЛОЕВЫЕ СДВИГИ ДВУХСЛОЙНЫХ КОМБИНИРОВАННЫХ ПЛИТ НА ОСНОВЕ МЕТАЛЛА И СТЕКЛОПЛАСТИКА

Аннотация: В работе рассматривается межслоевые сдвиги двухслойных комбинированных плит на основе металла и стеклопластика. Также рассматривается влияние поперечного сдвига композитного слоя на прочность и деформативность двухслойной комбинированной плиты. Также рассматривается междуслоевые сдвиги плиты выполненная на основе металла и стеклопластика, отличающихся по толщине и физика механическими свойствами. Исследовано влияние НДС таких плит на их прочность и деформативность.

Ключевые слова: Двухслойная комбинированная плита, равномерно-распределенная нагрузка, перемещение срединной поверхности, функция сдвига, касательные напряжения, прогиб, поперечный сдвиг, прочность, податливость клевого шва деформативность, модуль сдвига.

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INTERLAYER SHIFT OF TWO-LAYER COMBINED PLATES BASED ON METAL AND FIBERGLASS

Abstract: The paper considers interlayer shifts of two-layer combined slabs based on metal and fiberglass. The influence of the transverse shear of the composite layer on the strength and deformability of a two-layer combined slab is also considered. We also consider interlayer shifts of a slab made on the basis of metal and fiberglass, which differ in thickness and physico-mechanical properties. The influence of the stress-strain state of such plates on their strength and deformability has been studied.

Key words: Two-layer combined slab, uniformly distributed load, displacement of the middle surface, shear function, shear stresses, deflection, transverse shear, strength, compliance of the adhesive joint, deformability, shear modulus.

При эксплуатации слоистых плит и оболочек необходимо учитывать работу склеивающего шва, так как он позволяет создавать надёжную

конструкцию в неблагоприятных производственных условиях [1,2,3], предохраняя их от нагрева и внешних давлений.

В машиностроительных конструкциях встречаются двухслойные плиты и оболочки, многослойные цилиндры, комбинированные конструкции, созданные на основе металла и композиционных материалов.

Продолжим исследования напряженно-деформированного состояние плит и оболочек с учетом податливости клеевого шва и различных механических характеристик отдельных слоев. Напряженно-деформированное состояние комбинированных двухслойных плит с учетом межслоевых сдвигов, построенных на основе металла и стеклопластика по уточненной теории [3,4,5], позволяет оценить прочность и деформативность с достаточной высокой точностью при решении инженерных задач.

Рассмотрим соединение двухслойных ортотропных комбинированных плит (рис.1), считая, что первый несущий (стеклопластиковый) слой значительно отличается от второго (металлического) армирующего.

Полагаем, что применительно к плитам, рассматриваемым в данном случае, справедливы принятые гипотезы по уточненной теории [3,6,7,8]: толщины первого и второго слоя постоянные; первый слой значительно мощнее, чем второй. Поэтому примем приближенно $e_{zz} = 0$; $w=w(x, y)$. Здесь e_{zz} – относительное удлинение деформации по координате z; w–прогиб.

Деформации сдвига первого слоя

$$e_{xz} = 0{,}5\left(\frac{h^2}{4} - \gamma^2\right)\Phi_1 + \left(0{,}5 - \frac{\gamma}{h}\right)\frac{\tau_1}{G^{(1)}{}_{13}};$$

$$e_{xz} = 0{,}5\left(\frac{h^2}{4} - \gamma^2\right)\Phi_2 + \left(0{,}5 - \frac{\gamma}{h}\right)\frac{\tau_2}{G^{(2)}{}_{23}}. \quad (1)$$

Деформации сдвига второго слоя

$$e^{(2)}{}_{xz} = \left(0{,}5 + \frac{\gamma_1}{\delta}\right)\frac{\tau_1}{G^{(2)}{}_{13}};$$

$$e^{(2)}{}_{yz} = \left(0{,}5 + \frac{\gamma_1}{\delta}\right)\frac{\tau_2}{G^{(2)}{}_{23}}, \quad (2)$$

где h, δ– толщина слоев стеклопластика и металла;

$\Phi_i = \Phi_i(x, y)$ –произвольные искомые функции сдвига координат x, y;

$\tau_i = \tau_i(x, y)$ – искомые касательные напряжения;

$G^{(1)}{}_{ik}, G^{(2)}{}_{ik}$ –модулы сдвигов первого и второго слоя (i=1,2; k=3).

Координаты γ имеют следующие границы изменения;

для первого слоя $-\frac{h}{2} \leq \gamma \leq \frac{h}{2}$;

для второго слоя $-\frac{\delta}{2} \leq \gamma_1 \leq \frac{\delta}{2}$.

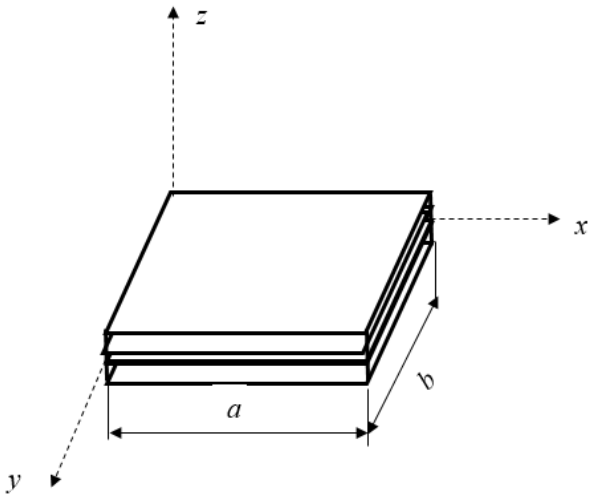


Рис.1. Соединение двухслойных ортотропных комбинированных плит.

Перемещения стеклопластикового слоя выводим, используя соотношения теории упругости [2]:

$$u^{(1)} = u_0 - \gamma\frac{\partial w}{\partial x} + \left(\frac{\gamma h^2}{8} - \frac{\gamma^3}{6}\right)\Phi_1 + \gamma\left(\frac{1}{2} - \frac{\gamma}{2h}\right)\frac{\tau_1}{G^{(1)}{}_{13}};$$

$$v^{(1)} = v_0 - \gamma\frac{\partial w}{\partial y} + \left(\frac{\gamma h^2}{8} - \frac{\gamma^3}{6}\right)\Phi_1 + \gamma\left(\frac{1}{2} - \frac{\gamma}{2h}\right)\frac{\tau_1}{G^{(1)}{}_{13}}. (3)$$

Аналогично для металлического слоя:

$$u^{(2)} = u_0 - \gamma_1\frac{\partial w}{\partial x} + \gamma_1\left(\frac{1}{2} - \frac{\gamma_1}{2\delta}\right)\frac{\tau_1}{G^{(2)}{}_{13}};$$

$$v^{(2)} = v_0 - \gamma_1\frac{\partial w}{\partial y} + \gamma_1\left(\frac{1}{2} - \frac{\gamma_1}{2\delta}\right)\frac{\tau_2}{G^{(2)}{}_{23}}. (4)$$

где $u_0 = u_0(x,y), v_0 = v_0(x,y)$ – искомые тангенциальные перемещения соответствующей точки серединной поверхности первого слоя.

Тангенциальные перемещения $u^{(1)}, u^{(2)}, v^{(1)}, v^{(0)}$ – какой-либо точки плиты, формулы (3), (4) в отличие от классической теории зависят от γ нелинейно, во втором слое –от γ_1линейно. Это связано с различием в толщине слоев и с учетом поперечного сдвига в более мощном первом.

Соблюдая условия непрерывности перемещений клеевого шва, находим связь между перемещениями первого и второго слоя.

$$u_{\text{ш}} = u^{\text{в}}{}_{\text{ш}} - \gamma\frac{\tau_1}{G^{(1)}{}_{\text{ш}13}};$$

$$v_{\text{ш}} = v^{\text{в}}{}_{\text{ш}} - \gamma\frac{\tau_2}{G^{(1)}{}_{\text{ш}23}}. (5)$$

Запишем условия контакта слоев

$$u_{\text{ш}(\gamma=-\frac{h}{2})} - \tau_1\varepsilon_{\text{ш}13} = u_{\text{ш}(\gamma_1=+\frac{\delta}{2})};$$

$$v_{\text{ш}(\gamma=-\frac{h}{2})} - \tau_2\varepsilon_{\text{ш}23} = v_{\text{ш}(\gamma_1=+\frac{\delta}{2})}; (6)$$

где $u^{\text{в}}{}_{\text{ш}}, v^{\text{в}}{}_{\text{ш}}$ – перемещения шва при $\gamma = -\frac{h}{2}$; $\varepsilon_{\text{ш}ik} = h_{\text{ш}}/G_{\text{ш}ik}$;

$h_{\text{ш}}, G_{\text{ш}ik}$ – толщина и модуль сдвига шва.

Соблюдая условия (6), после необходимых преобразований перемещения второго слоя запишем

$$u^{(2)} = u_0(\xi_2 - \gamma_1)\frac{\partial w}{\partial x} - \frac{h^3}{24}\Phi_1 + \left[\left(\frac{\gamma_1}{2} + \frac{{\gamma_1}^2}{2\delta}\right)\frac{1}{{G_{13}}^{(2)}} - SH_{13}\right]\tau_1;$$

$$v^{(2)} = v_0(\xi_2 - \gamma_1)\frac{\partial w}{\partial y} - \frac{h^3}{24}\Phi_2 + \left[\left(\frac{\gamma_1}{2} + \frac{{\gamma_1}^2}{2\delta}\right)\frac{1}{{G_{23}}^{(2)}} - SH_{23}\right]\tau_2. (7)$$

Здесь

ξ_2 = 0,5(h+ δ);

$$\xi_{413} = \frac{3}{8}\left(\frac{h}{{G_{13}}^{(1)}} + \frac{\delta}{{G_{13}}^{(2)}}\right);$$

$$\xi_{423} = \frac{3}{8}\left(\frac{h}{{G_{23}}^{(1)}} + \frac{\delta}{{G_{23}}^{(2)}}\right);$$

$SH_{13} = \xi_{413} + \varepsilon_{ш13}$;

$SH_{23} = \xi_{423} + \varepsilon_{ш23}$.

Деформации в слоях определяются известными соотношениями Коши

$${\varepsilon_x}^{(i)} = \frac{\partial u^{(i)}}{\partial x};$$

$${\varepsilon_y}^{(i)} = \frac{\partial v^{(i)}}{\partial y};$$

$${\varepsilon_{xy}}^{(i)} = \frac{\partial v^{(i)}}{\partial x} + \frac{\partial u^{(i)}}{\partial y}, (8)$$

Для напряжений в слоях имеем

$${\sigma_x}^{(i)} = {\mathrm{B}^{(i)}}_{11}{\varepsilon_x}^{(i)} + {\mathrm{B}^{(i)}}_{12}{\varepsilon_y}^{(i)};$$

$${\sigma_y}^{(i)} = {\mathrm{B}^{(i)}}_{22}{\varepsilon_y}^{(i)} + {\mathrm{B}^{(i)}}_{12}{\varepsilon_x}^{(i)};$$

$${\tau_{xy}}^{(i)} = {G^{(i)}}_{11}{\varepsilon_{xy}}^{(i)}; (9)$$

где

$${\mathrm{B}^{(i)}}_{11} = \frac{{\mathrm{E}^{(i)}}_1}{1-\mu_1\mu_2};$$

$${\mathrm{B}^{(i)}}_{12} = \frac{\mu_1{\mathrm{E}^{(i)}}_2}{1-\mu_1\mu_2};$$

$${\mathrm{B}^{(i)}}_{22} = \frac{{\mathrm{E}^{(i)}}_2}{1-\mu_1\mu_2};$$

${\mathrm{E}^{(i)}}_1, {\mathrm{E}^{(i)}}_1$ – модуль упругости слоев;

μ_1 и μ_2 – коэффициент Пуассона для различных слоев;

i = *1, 2* – для первого слоя.

Уравнение деформирования плиты получим с помощью вариационного принципа, приняв в качестве функционала полную энергию плиты. Функционал имеет вид

$$u = \frac{1}{2}\iiint_s ({\sigma^{(i)}}_x{\varepsilon_x}^{(i)} + {\sigma^{(i)}}_y{\varepsilon_y}^{(i)} + {\tau^{(i)}}_{xy}{\varepsilon_{xy}}^{(i)}) +$$

$$+\frac{1}{2}\iint_s (\tau_1{}^2\varepsilon_{11} + \tau_2{}^2\varepsilon_{ш23} - 2qw)ds. (10)$$

Используя вариационное уравнение Эйлера, получаем систему дифференциальных уравнений четвертого порядка в частных производных относительно неизвестных $w, u_0, v_0, \Phi_1, \Phi_2, \tau_1, \tau_2$. Из-за громоздкости систему дифференциальных уравнений, коэффициенты и граничные условия не приводим.

Для исследования влияния межслоевого сдвига берем плиту, свободно спертую по контуру. Применяя метод Навье, предположим, что плита несет равномерно распределенную нагрузку q. Решением системы дифференциальных уравнений равновесия, удовлетворяющей граничным условиям, служит двойной тригонометрический ряд.

Пример. Рассмотрим прямоугольную квадратную двухслойную плиту размером $a = b = 1.2$ м. Толщина первого и второго слоев соответственно

$h = 1.5 \times 10^{-2}$м. Упругие характеристики комбинированных плит приняты по работам [3,4].

$\mathrm{E_1}^{(1)} = 3.05$ МПа; $\mathrm{E_2}^{(1)} = 1.88$ МПа; $\mu^{(1)} = 0.18$;

$\mathrm{E_1}^{(2)} = \mathrm{E_2}^{(2)} = 0.21 \times 10^2$ МПа; $\mu^{(2)} = 0.26$;

$G_{12}{}^{(1)} = 0.49$ МПа; $G_{13}{}^{(1)} = 0.31$ МПа;

$G_{23}{}^{(1)} = 0.35$ МПа; $G_{ik}{}^{(2)} = 81$ МПа;q = 1.

Численные примеры показали, что модуль сдвига и толщина шва оказывают большое влияние на прочность и деформативность комбинированных двухслойных плит, если модуль сдвига склеивающего слоя значительно меньше модуля сдвига слоев. Если первый мощный слой состоит из композиционного материала, то влияние поперечного сдвига на напряженно-деформированное состояние комбинированных плит будет больше.

Следует заметить, что, чем меньше модуль, тем больше влияние податливости шва на деформативность слоистых комбинированных плит. Приняв для эпоксидного клея ($G_{\text{ш}ik} = 0.5 \times 10^{-2}$МПа), увидим, что увеличение модуля сдвига шва в 10 раз уменьшает напряжение в стеклопластиковом слое, что составляет 4.45 % ($\sigma^{(1)}$), а в металлическом слое увеличивает его на 10 %. Изменение толщины склеивающего слоя в два раза (с $h_{\text{ш}} = 10^{-4}$ до 0.5×10^{-4}м) изменяет напряжение в стеклопластике по направлению к x на 4.1 % (см. рис. 2, 3), построенной для точки $x = 0.5a$, $y = 0.5$b.

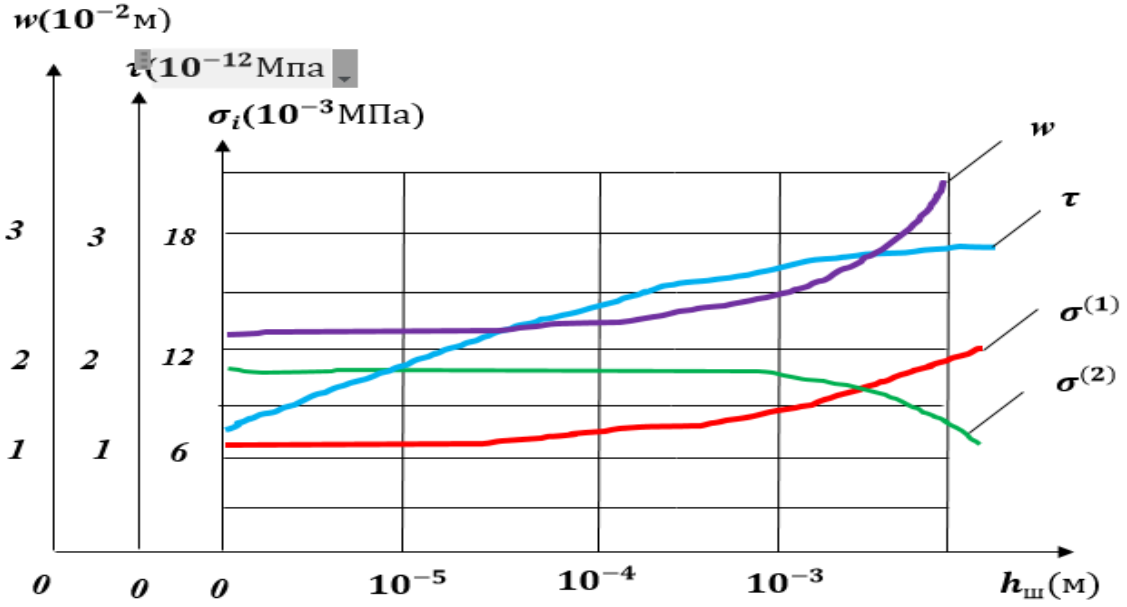


Рис. 2.

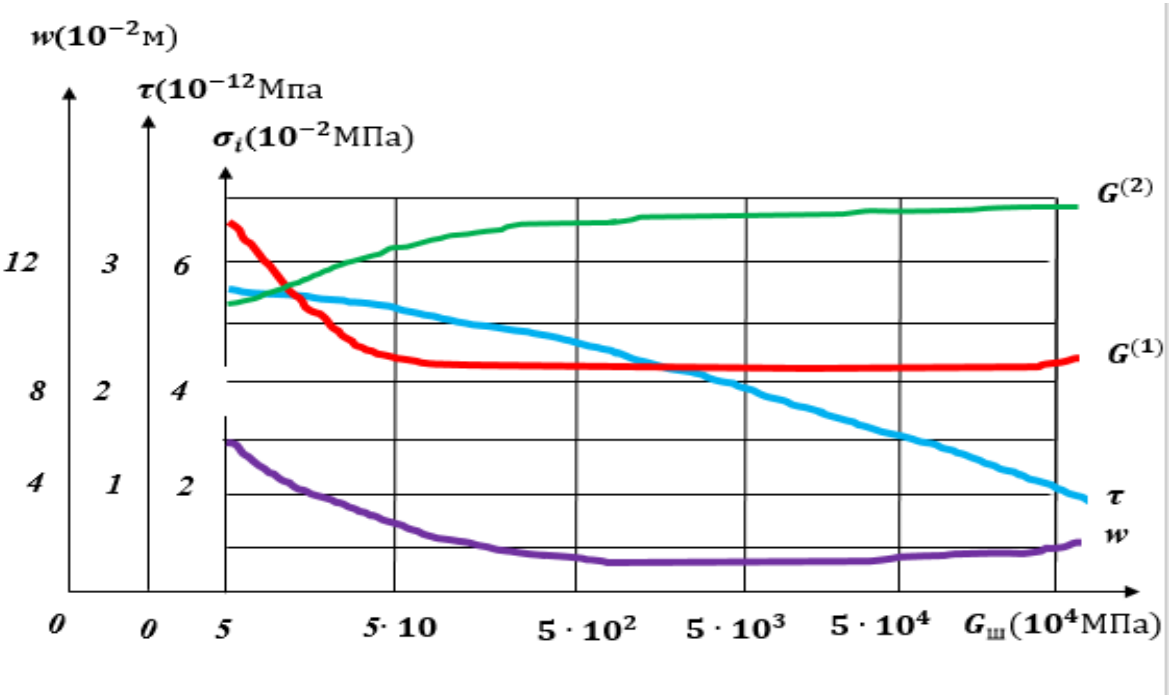


Рис. 3.

Таким образом, чем больше модуль сдвига шва, тем меньше его влияние на напряженно-деформированное состояние.

Анализ показал, что увеличение толщины склеивающего слоя, выполненного из эпоксидного клея К-147 ($G_{шik} = 0.5 \times 10^{-2}$МПа**)**, в 10 раз

(с 10^{-4} до 10^{-3} м) увеличивает прогиб плиты на 21 %. При большом значении $G_{шik}$ порядка 0.81×10^{2} МПа толщина шва на прогибы сказывается незначительно (меньше 1 %**)**. Установлена закономерность,

что, чем больше толщина несущего стеклопластикового слоя, тем меньше влияние модуля сдвига шва на напряжения и деформативность двухслойных комбинированных плит. Прогиб стеклопластиковых плит с внешним металлическим армированием по рассматриваемой теории [2], учитывающей межслоевой сдвиг при $h = 1.5\times 10^{-2}$м, $\delta = 0.2\times 10^{-2}$м, $h_{ш} = 0.5 \times 10^{-3}$м

и $G_{шik} = 0.5 \times 10^{-2}$МПа, меньше на 64.64 % по сравнению с прогибом плиты без внешнего армирующего слоя.

Установлена закономерность, чем больше толщина несущего металлического слоя, тем меньше влияние модуля сдвига шва на напряжения и деформированность двухслойных комбинированных плит.

На основании приведенных расчетов можно сделать вывод, что возможно увелечение прочности двухслойных комбинированных плит.с учетом сдвигов неметаллического слоя на 18-20% по сравнению с однослойными металлическими плитами.

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ОПТИМИЗАЦИЯ РАСПРЕДЕЛИТЕЛЬНЫХ СИСТЕМ ГАЗОСНАБЖЕНИЯ

Аннотация: в статье рассматривается вопрос теоретических основ расчета оптимальных эксплуатационных параметров распределительных систем газоснабжения потребителей на базе природного газа. Приводятся рекомендации по определению оптимальных потерь давления газа по участкам газовой сети, обеспечивающие экономию материальных и денежных ресурсов.

Ключевые слова: природный газ, распределительная система, оптимальные параметры, потери давления газа.

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DEVELOPMENT OF GAS SUPPLY ISTRIBUTIVE SYSTEMS

Resume: The article describes scientific aspects relating the development of theoretical framework for calculating optimum operational parameters of consumer gas distribution systems operating natural gas. The authors provide guidelines for determination of opti- mum gas pressure losses across the gas networks which ensure conservation of material and financial resources.

Key words: natural gas, distribution system, optimal parameters, gas pressure loss.

В настоящее время природным газом пользуется около 90 млн. жителей России. Несмотря на широкие масштабы газификации страны, уровень газоснабжения сельского населения не отвечает современным требованиям и потенциальным возможностям Единой системы газоснабжения. В этой связи стратегическая задача, поставленная Президентом РФ и закрепленная Федеральным законом № 122-ФЗ по газоснабжению Российской Федерации, предусматривающая широкую газификацию сельских поселков на базе сетевого природного газа,

является приоритетным направлением развития газовой промышленности в целом и ее газораспределительной отрасли, в частности.

Вопросам оптимального функционирования поселковых систем газоснабжения посвящено большое количество научных публикаций. Одна из важных научно-технических задач, решаемых при проектировании распределительных систем газоснабжения, – обоснование оптимального перепада давления в распределительных газопроводах – требует проведения технико-экономических исследований.

В условиях системного анализа особую актуальность приобретает разработка обобщенной математической модели, связывающей эффективность использования газа и режимы его давления.

Отсюда следует, что располагаемый перепад давлений в газовой сети изменяется более чем в5 раз в зависимости от номинального давления газа перед приборами и режимов давления газорегуляторной установки. Следует отметить также, что расчетные потери давлений для распределительных газопроводов низкого давления даже при установке газоиспользующих приборов и оборудования с пониженным номинальным давлением намного меньше установленных нормативным документом СП.

По этой причине современные правила проектирования газораспределительных систем из условия приводят к нарушению требований ГОСТа в части поддержания минимально возможной величины давления газа перед газоиспользующими приборами. В результате понижается коэффициент полезного действия бытовых газовых приборов и возникает риск нарушения их устойчивой работы.

Гидравлический расчет газопроводов из условия полного использования располагаемого перепада давлений обусловливает минимум затрат в сооружение и эксплуатацию газовой сети. Вместе с тем наличие указанного перепада давлений в распределительных газопроводах обусловливает пониженное давление газа перед газоиспользующими установками. Как следствие, снижается КПД газовых аппаратов, повышаются расход и стоимость потребляемого топлива.

В качестве целевой функции задачи используются приведенные затраты в систему газоснабжения по комплексу: распределительный газопровод – газовый прибор:

$$З = З_{ГС}[d(\Delta P)] + \Delta T\{\eta_{Г}[P_{Г}(\Delta P)]\} = \min,$$

где $З$ - затраты в систему газоснабжения, $З_{ГС}$ - затраты в газовую сеть, руб./год,

ΔT - прирост годовой стоимости расходуемого топлива за счет снижения КПД газоиспользующих установок, руб./год.

На рис. 1 представлен качественный график зависимости КПД газоиспользующей установки от давления газа перед прибором.

аб

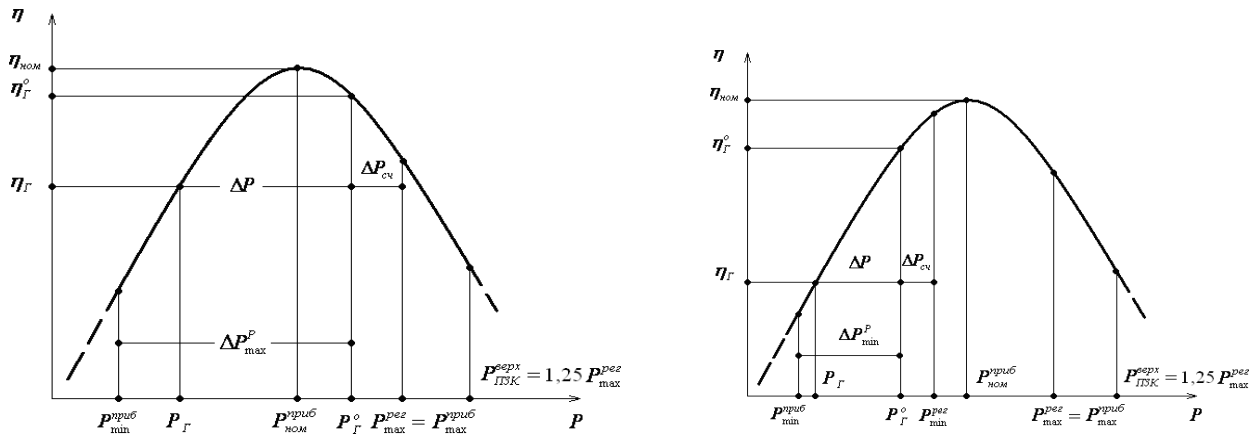


Рис. 1. Зависимость КПД газоиспользующей установки от давления газа перед прибором.

Согласно результатам исследований, экспериментальная зависимость относительного КПД газоиспользующей установки от относительного давления газа перед прибором аппроксимируется следующим выражением:

$$\eta_{отн} = -0{,}514P^6_{отн} + 2{,}355P^5_{отн} - 3{,}066P^4_{отн} - 0{,}765P^3_{отн} + 4{,}423P^2_{отн} - 2{,}992P_{отн} + 1{,}553,$$

где $P^o_{отн} = \frac{P^o_Г}{P^{приб}_{ном}}$; $P^Г_{отн} = \frac{P_Г}{P^{приб}_{ном}}$; $\eta^o_{отн} = \frac{\eta^o_Г}{\eta_{ном}}$; $\eta^Г_{отн} = \frac{\eta_Г}{\eta_{ном}}$.

В целях численной реализации экономико-математической модели были проведены соответствующие расчеты. В качестве объекта газоснабжения принята отопительная котельная, оборудованная чугунными секционными котлами. Снабжение котельной газом осуществляется от шкафной газорегуляторной установки с минимальной величиной регулируемого давления

Котлы эксплуатируются при постоянном расходе газа, близком к номинальной величине. Изменение теплопроизводительности котельной в зависимости от температуры наружного воздуха обеспечивается путем автоматического включения (выключения) котлов по температурному графику тепловой сети.

В расчетах использовались следующие исходные данные и предпосылки:

1.Расчетная теплопроизводительность котельной Q = 500 МДж/ч.

2.Номинальное давление газа перед котлами Р приб = 1300 Па.

3.КПД отопительных котлов при работе на номинальном режиме (86%).

4.Годовое число часов использования максимума тепловой нагрузки (2500 ч/год)

5.Длина распределительного газопровода (60 м).

6.Прокладка газопровода – подземная из стальных труб.

7.Удельная стоимость газа (10,0 руб./м3).

Результаты соответствующих расчетов представлены на графике (рис. 2).

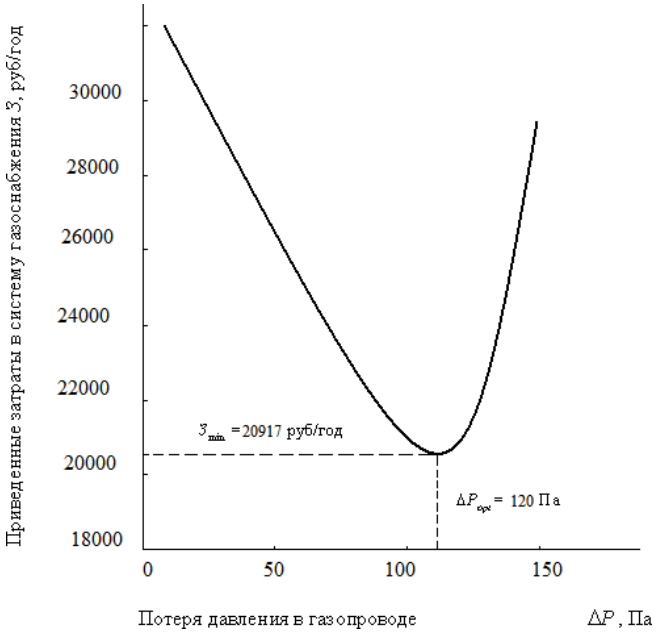


Рис. 2. Зависимость приведенных затрат в систему газоснабжения от потери давления в газопроводе

Как следует из рис. 2, минимальному значению приведенных затрат в проектируемую систему соответствует значение потери давления, являющееся оптимальным. Полученная величина в 5 раз меньше предельно допустимого значения расчетного перепада давления, установленного во второй главе (596 Па).

Анализ полученных результатов показывает, что оптимизация потерь давления в уличных газовых сетях позволяет получить значительную экономию годовых приведенных затрат в сооружение и эксплуатацию проектируемой газораспределительной системы. Например, при расчетном перепаде давления (596 Па), по рис. 2 имеем снижением затрат с З = 29733 руб./год до 20917 руб./год или на 42,2 % в относительном выражении.

Еще одним положительным результатом оптимизации потерь давления в газораспределительных сетях является повышение величины давления газа перед теплогенераторами и, как следствие, повышение общей эффективности использования газового топлива.

Приведенная модель применима не только для транзитного газопровода, но также с некоторым допущением (в сторону завышения

диаметра газопроводов) и к разветвленной системе распределительных газопроводов.

Выводы

1.Анализ современного состояния газораспределительной отрасли Российской Федерации показывает, что наиболее приоритетным направлением ее развития на ближайшую перспективу является широкая газификация сельской местности на базе сетевого природного газа.

2.Ретроспективный анализ развития распределительных систем газоснабжения сельских поселков вскрывает тенденцию к снижению степени их централизации путем широкого внедрения шкафных газорегуляторных установок и одноступенчатых систем газоснабжения, оборудованных домовыми регуляторами давления.

3.Как показывают расчеты, несмотря на многообразие и широкий диапазон изменения исходных параметров, определяющее влияние на величину оптимальной потери давления оказывают тип газоснабжаемого здания и характер его газового оборудования. В качестве обобщенных значений для проектной практики рекомендуется принимать 250 – 300 Па (жилые усадебные здания).

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РЕКОНСТРУКЦИЯ СИСТЕМЫ ГАЗОСНАБЖЕНИЯ НИЗКОГО ДАВЛЕНИЯ

Аннотация. В статье рассматриваются рекомендаций позволяющие существенно ускорить и удешевить реконструкцию систем газоснабжения низкого давления.

Ключевые слова: Природный газ, распределительная система, оптимальные параметры, потери давления газа.

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RECONSTRUCTION OF THE LOW PRESSURE GAS SUPPLY SYSTEM

Abstract. The article discusses recommendations that can significantly speed up and reduce the cost of the reconstruction of low-pressure gas supply systems.

Keywords: Natural gas, distribution system, optimal parameters, gas pressure loss.

Многие жилые районы г. Коломна Московской области и других городов нуждаются в реконструкции, а жилые здания – в капитальном ремонте. Это относится и к распределительным газопроводным сетям, особенно низкого давления, многие из которых исправно работают около 50 лет.

При реконструкции систем газоснабжения низкого давления появляется возможность усовершенствования, начиная с выбора проектных решений в зависимости от принятой методики расчета необходимой пропускной способности сети и заканчивая технологией ее капитального ремонта и замены с учетом новых требований нормативных документов. Так, до сих пор при расчете, проектировании и сооружении домовых систем газоснабжения низкого давления пользуются рекомендациями известной работы Н. И. Пешехонова [1], в общем

совпадающими с методикой А. А. Ионина [2]. Указывается, что в жилых домах приходится делать отдельные вводы в каждую секцию и устанавливать стояки для распределения газа по этажам [1, с. 88]. При этом расчетный отбор газа из дворового распределительного газопровода определяется для каждого ввода отдельно с учетом подключенных газовых приборов и соответствующего им коэффициента одновременности, который зависит от вида и количества газовых приборов. Такой расчетный расход газа на газоснабжение здания в целом оказывается завышенным, так как проводится по отдельным вводам (подъездам), а затем арифметически суммируется и не учитывает уменьшение величины коэффициента одновременности с увеличением количества газовых приборов, не позволяет использовать существующую внутридомовую систему газоснабжения при реконструкции здания с увеличением количества и номенклатуры присоединенных газовых приборов без перемонтажа старой системы.

Известны рекомендации по подводке газа к зданию через внутриквартальный подземный коллектор с последующим отдельным вводом в каждый подъезд, при котором расчетный расход потребления газа, как видно из приведенного примера [2, с. 402–406], определяется как суммарный с учетом количества присоединенных газовых приборов для каждого отвода от подземного коллектора. К недостаткам этого способа следует отнести подземную прокладку специального внутриквартального коллектора для каждого здания и отсутствие учета неравномерности потребления газа для общего количества потребителей, присоединенных к коллектору, который является общим отводом от распределительной сети низкого давления. Преимущество способа – использование для учета режима потребления газа специального коэффициента неравномерности, который зависит не от числа приборов, а от количества проживающих в квартире человек и норм потребления газа. Как указывает автор [2, с. 66], главный недостаток метода расчета по коэффициентам одновременности состоит в том, что в нем не учитывается число человек, пользующихся одним газовым прибором. При современных условиях бытового обслуживания населения мощность установленных газовых приборов, как правило, превосходит необходимую, вытекающую из потребности людей, проживающих в квартире. В перспективе в связи с дальнейшим ростом службы быта избыточность мощности газовых приборов квартиры будет расти. Несоответствие мощности установленных приборов ее потребности приводит к существенным ошибкам в определении расчетных расходов по коэффициентам одновременности. В большинстве случаев это ведет к перерасходу металла. В добавление к [2] можно отметить, что применявшаяся ранее и сохранившаяся до сих пор при расчете жилых домов методика определения расчетного расхода газа с использованием

коэффициентов одновременности [3] оставляет большой запас пропускной способности не только внутридомовой сети газоснабжения, но и распределительной сети низкого давления.

Известен метод регулирования расхода и давления газа при поставках потребителям [4], который предназначен для снабжения их газом из газотранспортной сети. Технический результат позволяет обеспечить надежную поставку газа всем потребителям, согласно заключенным с ними контрактам, независимо от удаленности потребителя, и обеспечить нормальную работу газотранспортных предприятий. Этот метод регулирования расхода и давления включает стабилизацию расхода и давления газа, осуществляемую с помощью соответствующих регуляторов, выходы которых через селектор соединяют с исполнительным клапаном. Однако главным недостатком данного метода является необходимость гидравлического обеспечения соответствующего распределения в газовой сети давления газа, нужного для обеспечения расхода газа, что может иметь место только при правильном гидравлическом расчете газотранспортной сети. Если газопроводная сеть не обеспечивает гидравлический режим, то с помощью регулировочных клапанов можно регулировать снижение подачи газа потребителям в уменьшенном объеме.

Наиболее близким техническим решением к разработанному является восстановление или реконструкция зданий в той их части, которая касается монтажа стояков для выполнения внутренней сети теплогазоснабжения [5]. Это предложение не исключает недостатки, указанные в методах [1] и [2]. Кроме того, для их реализации необходимо присутствие при монтаже этажей здания работников специализированной газомонтажной организации, имеющей лицензию на производство газомонтажных работ, что усложняет комплекс строительных работ в целом.

Задачами восстановления или реконструкции системы газоснабжения внутри зданий и сооружений являются: сохранение значений гидравлического сопротивления и отбора газа в расчетном (максимальном) режиме при уменьшении величины коэффициента одновременности и увеличении количества возможных потребителей газа и, как следствие, обеспечение неизменности режима работы внешней распределительной системы газо- снабжения низкого давления при возможном росте количества квартир и этажей в результате восстановления и реконструкции здания; разделение во времени и пространстве нормального функционирования существую- щей системы газоснабжения старого дома, в котором продолжают находиться жильцы (восстановление и реконструкция без отселения жильцов), и сооружение внутренней системы газоснабжения достраиваемой (восстанавливаемой) части.

Для решения указанных задач предлагается проектирование внутридомовой системы газоснабжения производить с учетом новых требований ТКП и СТБ газоснабжения, новой номенклатуры газопроводных труб и газового оборудования, а заводское производство заготовок различных элементов систем газоснабжения, подготовку необходимых отверстий в межэтажных перекрытиях и перегородках производить в соответствии с рабочим проектом на этапе общестроительных работ по реконструкции дома и надстройке всех дополнительных этажей здания. При этом монтаж системы внутридомового газоснабжения и подключение ее к внешней распределительной системе производят после этапа общестроительных работ по реконструкции дома и надстройке всех дополнительных этажей здания. Причем для подключения здания к внешней распределительной сети газоснабжения организуется единый для всех подъездов отвод с протяженным коллектором, расположенным снаружи здания, к которому (коллектору) подсоединяются вводы газопроводов в отдельные подъезды. Иначе говоря, необходимые отдельные отводы в каждый подъезд от внешней распределительной сети газоснабжения заменяют одним отводом с общим коллектором.

В результате объединения всех потребителей газа в одну домовую систему газоснабжения с одним отводом от внешней (дворовой, уличной) распределительной системы газоснабжения количество присоединенных газовых приборов и потребителей существенно возрастает, что приводит к уменьшению величины коэффициента одновременности и увеличению количества возможных потребителей газа при сохранении прежнего расчетного уровня потребления газа реконструируемым домом при росте количества квартир и этажей. Сохранение постоянства отбора газа из внешней распределительной системы газоснабжения, в свою очередь, позволяет обойтись без ее реконструкции, что существенно понижает инфраструктурные расходы при реконструкции жилых зданий. Кроме того, указанный порядок монтажа внутридомовой системы газоснабжения позволит резко повысить качество сборки системы специализированной организацией газовой отрасли.

Для сохранения постоянства гидравлического режима распределительной системы газоснабжения района питания ГРП, что необходимо обеспечить при реконструкции жилого здания с увеличенным количеством потребителей для сохранения без реконструкции старой наружной распределительной системы, расчетный расход газа для реконструированного дома, как и общее гидравлическое сопротивление его внутридомовой системы газоснабжения, должны оставаться прежними. Поэтому введение в систему газоснабжения дома одного общего коллектора с одним присоединением к распределительной системе не должно оказывать существенного влияния на величину необходимого

давления в точке врезки отвода в общедомовой коллектор от дворового (уличного) участка распределительной системы газоснабжения.

Общеизвестная формула гидравлического расчета распределительной системы газоснабжения низкого давления имеет вид [2]

$$p_н - p_к = 0{,}81 \mu \rho 0 (Q^2/d^5) l_р, \quad (1)$$

где $p_н$ – давление газа в начале расчетного участка, Па; $p_к$ – давление газа в конце расчетного участка, Па; μ – коэффициент трения; ρ0 – плотность газа при нормальных условиях, кг/м^3; Q – расход газа в расчетном участке газопровода, м^3/ч; d – условный диаметр газопровода, мм; $l_р$ – расчетная длина расчетного участка газопровода, м.

Как видно из приведенной формулы, для сохранения постоянства величины $p_н$ при $p_к$ = const с учетом незначительного изменения необходимо обеспечить постоянство симплекса Q^2l/d^5 = const, что возможно при прямо пропорциональном изменении Q^2l и d^5.

При использовании общедомового газового коллектора расход газа через него увеличивается. В начале коллектора это увеличение расхода газа примерно пропорционально количеству подъездов с отводами газопроводов. Далее по ходу движения газа по коллектору расход газа соответственно уменьшается. В принципе, методика гидравлического расчета коллектора аналогична расчету с путевым расходом газа. Одновременно с ростом расхода газа увеличивается длина его пути движения. Поэтому для сохранения постоянства $p_н$ необходимо соответственно увеличить диаметр коллектора по сравнению с диаметрами отдельных отводов от наружного распределительного газопровода в каждый подъезд.

Как показывают многочисленные расчеты, для компенсации увеличения расхода газа в домовом коллекторе и его длины для сохранения примерно постоянной величины $p_н$ достаточно двух-, трехкратного увеличения диаметра коллектора по сравнению с отдельными отводами в подъезды. При этом диаметры отвода и общедомового коллектора не должны быть больше диаметра внешнего распределительного газопровода, к которому присоединяется коллектор. В случае весьма длинного коллектора (более 50–60 м) его присоединение к дворовому (уличному) распределительному газопроводу следует производить вблизи от центральной части коллектора. В случае отсутствия необходимости замены или реконструкции внутридомовой системы газоснабжения старого жилого дома и необходимости подачи газа в новую надстройку или пристройку для уменьшения стоимости реконструкции представляется возможным с использованием общедомового газового коллектора соорудить отдельные вводы, которые сначала прокладываются снаружи по стенам, что для газопроводов низкого давления при соблюдении соответствующих требований СНБ 4.03.01–98 [3] вполне

допустимо, а затем вводятся в лестничные клетки (кухни, коридоры) новых этажей надстройки (пристройки) по мере необходимости.

В последние годы все большее распространение получают распределительные системы газоснабжения жилых районов и отдельных зданий, работающие на среднем давлении. В этом случае используются домовые регуляторы давления, устанавливаемые снаружи здания на одной из глухих стен. При такой схеме газоснабжения жилого дома наиболее целесообразным и экономически выгодным является использование общедомового газового коллектора с низким давлением газа.

В приведенном расчетном примере [2] общий отбор газа из распределительной сети низкого давления в подземный домовой коллектор даже при обычном суммировании расчетных расходов по отдельным вводам в подъезды (три подъезда) составляет 44,37 м^3/ч. Если произвести вычисление необходимого отбора газа по старой методике, которая применяется и поныне, с учетом коэффициентов одновременности и самостоятельным отводом газопровода в каждый подъезд, то эта величина для газоснабжения этого же дома составит 40,66 м^3/ч, что несколько меньше по сравнению с предыдущим случаем. При использовании общедомового газового коллектора необходимый расчетный расход газа составляет 34,1 м^3/ч, что на 27 % меньше по отношению к применяющейся в настоящее время методике.

При реконструкции системы газоснабжения внутри надстраиваемых или новых зданий в пределах района питания одного газораспределительного пункта (ГРП) в [4] предлагается производить повсеместную (вводы в жилые дома, стояки, опуски к бытовым газовым приборам) замену натяжных пробковых кранов на шаровые краны, что позволяет значительно снизить расходы на профилактическое обслуживание системы газоснабжения (расчетный срок окупаемости – 6,73 года). Никакого перераспределения подачи газа при этом не предусматривается. Высокая стоимость системы газоснабжения, предложенной в [4], крайне ограничивает ее использование и не допускает применение при реконструкции жилых зданий микрорайона. Однако принципиальным недостатком этого способа является невозможность обеспечения необходимого уровня потребления газа всеми потребителями в случае превышения одним или несколькими из них первоначально обусловленного уровня при предельно договорном уровне потребления газа остальными потребителями, если источник газоснабжения не имеет соответствующего запаса подачи газа в систему газоснабжения. Такого запаса ГРП не имеет при пиковой потребности в газе.

В этом случае задачами реконструкции газоснабжения являются: обеспечение расчетного потребления газа реконструируемых зданий с увеличением этажности и общей жилой площади, и новых зданий и сооружений в зоне питания одного ГРП при сохранении существующей

распределительной системы газоснабжения низкого давления зоны обслуживания данного ГРП; перераспределение расчетных расходов газа между отдельными потребителями.

Решение указанных задач при реконструкции системы газоснабжения модернизируемых и новых зданий (сооружений), включающей наличие газовых проточных водонагревателей и сохраняющей существующую наружную распределительную сеть газоснабжения, заключается в том, что в модернизируемых или новых зданиях (сооружениях) в зоне действия одного газораспределительного пункта при переводе системы горячего водо- снабжения части или всех потребителей газа с газовых проточных водонагревателей на централизованное теплоснабжение производится переключение части или всех потребителей газа с секционного отбора газа из распределительного газопровода на отбор из общих коллекторов модернизируемых или новых зданий (сооружений) для уменьшения расчетного уровня потребления газа. При этом дополнительно перераспределяют расчетные величины потребления газа между указанными потребителями одного газораспределительного пункта, причем освобождаемый расчетный расход газа направляют на обеспечение потребления дополнительных потребителей, находящихся в модернизируемых или новых зданиях (сооружениях), а отвод газопровода к модернизируемому или новому зданию (сооружению) от ветви распределительной системы газоснабжения присоединяют преимущественно перед отводами модернизируемых или новых зданий (сооружений), переведенных на централизованную систему газоснабжения по ходу движения газа в данной ветви. Перевод систем горячего водоснабжения части или всех потребителей газа в зоне действия одного газораспределительного пункта на централизованное теплоснабжение производится в непосредственной близости к нулевым точкам распределительной газовой сети.

При модернизации старых жилых и общественных зданий, построенных более 10 лет назад, когда требования к термическому сопротивлению ограждений были значительно (примерно в три раза) ниже по сравнению с современными (СНБ 4.03.01–98), в первую очередь предусматривается тепловая модернизация стен и чердачных помещений, что позволяет уменьшить теплопотери примерно в 1,5–2 раза и создает резерв возможностей обеспечения теплоснабжения дополнительных объемов модернизируемых и вновь строящихся зданий и сооружений. Последнее особенно необходимо при модернизации старых (с надстройкой дополнительных этажей) и строительстве новых зданий с целью снижения стоимости 1 м^2 новой площади примерно на 20 % за счет использования существующей системы теплогазоснабжения и другой инфраструктуры.

Возможность образования резерва теплоснабжения жилого района при тепловой модернизации зданий позволяет осуществлять перевод

некоторых или всех старых зданий с газовых проточных водонагревателей на централизованное горячее водоснабжение. В таких домах расчетный расход газа существенно уменьшается, что создает резерв газоснабжения для его использования при реконструкции старых и строительстве новых зданий.

В качестве примера возможного уменьшения расчетной величины расхода газа можно использовать 64-квартирный 5-этажный жилой дом при четырех подъездах и отводах газопроводов от дворового распределительного газопровода. В каждом подъезде 16 квартир с четырехконфорочной газовой плитой для приготовления пищи и газовым проточным водонагревателем.

В этом случае расчетный расход газа для каждого отвода в подъезд составит

$Q_р = nK0(Qn + Q_в) = 19{,}2$ м^3/ч, (2)

где n – количество квартир; $K0$ – коэффициент одновременности в соответствии с СНБ 4.03.01–98; Qn – расчетный расход газа для четырехконфорочной плиты, м^3/ч; $Q_в$ – расчетный расход газа для газового проточного водонагревателя, м^3/ч.

При наличии в каждой квартире только газовой плиты

$Q_р = nK0Qn = 4{,}2$ м^3/ч, (3)

что на 15 м^3/ч меньше по сравнению с наличием газовых проточных водонагревателей. Итого, для такого дома экономия расчетного расхода газа составляет 60 м^3/ч, что при благоприятных условиях позволяет обеспечить газом, по крайней мере, три-четыре аналогичных дома при установке только газовых плит. В случае надстройки 5-этажных домов до 9 этажей при наличии только газовых плит в квартирах такой реконструкции достаточно, чтобы обеспечить газом дополнительно несколько новых жилых домов.

Таким образом, перевод жилого дома с газовых проточных водонагревателей на централизованное горячее водоснабжение, кроме существенного повышения безопасности жильцов, позволяет создавать возможности модернизации жилых домов с надстройкой новых этажей и газификации новых зданий без реконструкции распределительной сети низкого давления в зоне одного ГРП.

Перевод жилого дома на централизованное горячее водоснабжение требует определенных затрат, которые во много раз меньше по сравнению со стоимостью реконструкции распределительной системы газоснабжения низкого давления в зоне обслуживания ГРП. Наряду с переходом на централизованное горячее водоснабжение возможно добиться уменьшения расчетного расхода газа путем перевода с секционного отбора газа из распределительного газопровода на общие коллекторы нескольких зданий, что уменьшает расчетный уровень потребления газа.

Существенный эффект дает изменение источника энергии для

горячего водоснабжения внутри модернизируемого жилого дома. При этом может образоваться даже некоторый резерв величины расчетного расхода газа, который можно использовать при модернизации соседних домов, где нет газовых проточных водонагревателей.

При выборе жилых домов, являющихся объектами модернизации, для сохранения параметров существующей распределительной системы газоснабжения необходимо правильно выбрать места расположения таких объектов. Поэтому необходимо рассмотреть особенности изменения гидравлического режима при распределении потребляемых объемов газа между объектами модернизации.

Как известно [2], схемы распределительных систем газоснабжения, в принципе, относятся к двум видам – кольцевым и тупиковым, представленным на рис. 1. В практике газоснабжения обычно приходится иметь дело с различными комбинациями схем, но их всегда можно разделить на простые элементы, состоящие из кольцевых и тупиковых схем.

Гидравлический расчет таких схем достаточно прост, но громоздок, и производится на компьютере по готовой программе, что позволяет просчи-тывать любые перераспределения отборов газа из распределительной сети.

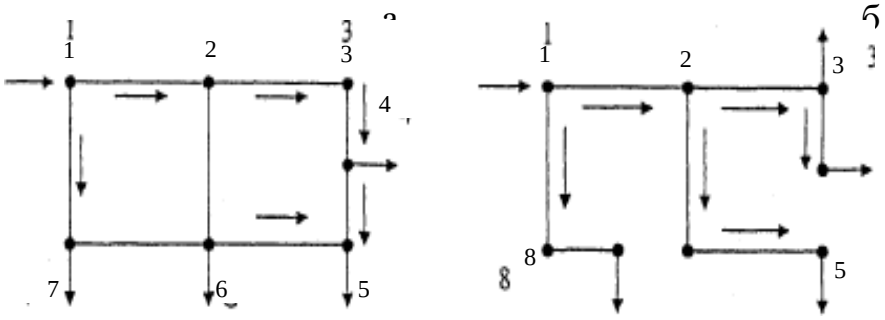


Рис. 1

Однако для предварительной ориентировки выбора положения модернизируемых или вновь строящихся зданий с перераспределением потребности в газе необходимо проанализировать возможные изменения гидравлических параметров газораспределительной сети. При этом для сохранения постоянства режима работы распределительной сети необходимо постоянство расчетных давлений в узловых точках (рис. 1, точки 1, 2, 3 и т. д.)или перепадов давлений между узлами.

Оценить влияние места расположения модернизируемых зданий проще всего на простом примере их расположения на участке (перемычке) газопровода между узлами 2 и 6 (рис. 1) и в соответствии со схемой, приведенной на рис. 2, где точкой 9 обозначено надстраиваемое или новое здание, а точкой 10 – здание, переводимое с газовых проточных водонагревателей на централизованное горячее водоснабжение. При этом

перепад давления на участке 2–6 должен остаться постоянным, в противном случае направление движения газа на участке перемычки может измениться и вся система рассогласуется по сравнению с первоначальным состоянием.

Особенностью расчета перемычек является полное использование газа потребителями

$Qn = Q9 + Q10$, (4)

где Qn – полный расчетный расход газа потребителями, расположенными

у перемычки, м^3/ч; $Q9$, $Q10$ – расчетный расход газа потребителями 9 и 10, м^3/ч.

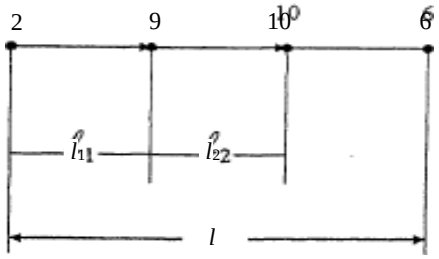


Рис. 2

Как показывают многочисленные расчеты, увеличение эффекта перераспределения расчетных расходов газа при расположении модернизируемого или нового здания до переведенного на централизованное горячее водоснабжение по направлению движения газа существенно меньше по сравнению с предыдущим случаем. Поэтому для получения большей эффективности перевода жилого дома с газовых проточных водонагревателей на централизованное горячее водоснабжение необходимо присоединять отводы от распределительного газопровода к надстраиваемому или строящемуся зданию преимущественно перед отводами по ходу движения газа к дому, переведенному с проточных газовых водонагревателей на централизованную систему газоснабжения.

Из представленного анализа видно, что эффективность перераспределения расчетных расходов газа за счет перевода жилых домов с газовых проточных водонагревателей на централизованное горячее водоснабжение зависит не только от количества ликвидированных водонагревателей, но и от взаимного расположения потребителей. В качестве примера ниже приведен расчет перераспределения расходов газа между модернизируемым 5-этажным домом с надстройкой четырех этажей при ликвидации газовых проточных водонагревателей и новым 9-этажным строящимся жилым домом, в котором пять подъездов с 24 квартирами каждый (1-й этаж занят магазином), оборудованных четырехконфорочными газовыми плитами.

Как было вычислено ранее, для 5-этажного дома с газовыми

проточными водонагревателями в 16 квартирах каждого подъезда расчетный расход газа 19,2 м^3/ч, что для всего дома при отводах от распределительного газопровода в каждый подъезд составляет $Q10.1$ = 76,8 м^3/ч, а для надстроенного до 9 этажей $Q10.2$ = 28,6 м^3/ч. Для нового

9-этажиого дома $Q9.2$ = 30,8 м^3/ч.

При расчете газоснабжения нового дома в случае $Q9.1$ = 0 приведенная ранее зависимость имеет вид

$$Q_{9.2} = \sqrt{\frac{Q_{10.1}^2 \frac{l_1}{l} + Q_{10.1}^2}{\left(1 + \frac{Q_{10.2}}{Q_{9.2}}\right)^2 \frac{l_1}{l_2} + \left(\frac{Q_{10.2}}{Q_{9.2}}\right)^2}} \quad (12)$$

В случае $l_1 = 200$ м и $l_2 = 100$ м получим

$$Q_{9.2} = \sqrt{\frac{76{,}8^2 \cdot 2 + 76{,}8^2}{\left(1 + \frac{28{,}8}{30{,}8}\right)^2 \cdot 2 + \left(\frac{26{,}8}{30{,}8}\right)^2}} = 49 \text{ м}^3/\text{ч},$$

что при данных l_1 и l_2 указывает на их малое влияние.

При перераспределении потребляемых газовых потоков, даже в случае изменения направления движения газа в газопроводах вблизи нулевой точки (рис. 1а, точка 5 без отбора газа), расчетная величина давления газа в домовом отводе должна составлять

$p_n + \Delta p_d$,(13)

где p_n – нормативное давление газа при входе в газоиспользующий прибор; Δp_d – потери давления газа во внутридомовой сети.

Поэтому желательно предусматривать перевод здания на централизованное горячее водоснабжение поближе к нулевой точке распределительной сети от ГРП.

Известны способы [6] расчета газопроводов с параллельными нитками, лупингами*, вставками для различных условий их применения. Однако условия и особенности их использования для различных случаев не рассматриваются из-за отсутствия постановки задачи перераспределения расчетных расходов газа и точек их отбора потребителями при сохранении старого гидравлического режима.

В описанном выше способе реконструкции системы газоснабжения частично рассмотрено проведение перераспределения расчетных величин потребления газа между потребителями одного ГРП, причем освобождаемый расчетный расход газа направляется на обеспечение потребления дополнительных газовых приборов, расположенных либо в строящихся, либо в реконструируемых зданиях, а присоединение отвода газопровода к ре- конструируемому или строящемуся зданию от ветви распределительной системы газоснабжения производят преимущественно перед отводами по ходу движения газа в данной ветви к зданию. В связи с чем в этом случае предусматривается использование изменения расчетных расходов газа потребителей в непосредственной близости к нулевым

точкам распределительной газовой сети. Задачи такого способа реконструкции распределительной системы газоснабжения являются: обеспечение расчетного потребления газа реконструируемых (с увеличением этажности и общей жилой площади) и новых зданий и сооружений в зоне питания одного ГРП при сохранении существующего режима работы распределительной системы газоснабжения низкого давления зоны обслуживания данного ГРП; перераспределение расчетных расходов газа между отдельными потребителями.

Решение указанных задач обеспечивается посредством реконструкции распределительной системы газоснабжения реконструированных или новых зданий (сооружений), при котором производят перераспределение расчетных величин потребления газа между потребителями одного ГРП в существующей наружной распределительной сети газоснабжения. При этом освобождаемый расчетный расход газа направляют на обеспечение потребления дополнительных потребителей, находящихся в реконструированных или новых зданиях (сооружениях), а к наружной распределительной сети газоснабжения через отвод газа подключают новый газопровод от потребителя с уменьшенным расчетным расходом газа и прокладывают его до потребителя с повышенным или новым расчетным расходом газа, причем диаметр нового газопровода определяют исходя из перепада давления между точкой отвода от наружной распределительной сети и точкой присоединения к потребителю при расчетном расходе газа, равном сэкономленному в точке отвода.

При использовании экономии расчетных расходов газа от двух или более отводов к потребителям новый газопровод прокладывают через необходимые точки отводов с диаметрами, определяемыми по перепадам давлений между точками отводов, и расходами, равными суммам экономии расчетных расходов газа во всех последовательных точках отводов, к которым присоединяют новый газопровод.

При уменьшении расчетного потребления газа для сохранения постоянства давлений в действующей ветви наружного газопровода с увеличенным расходом газа вместо отдельного нового газопровода на каждом участке старого газопровода до точки нового отвода или отвода с увеличенным расчетным расходом газа прокладывают лупинг, параметры которого обеспечивают постоянство прежнего гидравлического режима наружной распределительной сети. На каждом участке наружного газопровода с повышенным расчетным расходом газа до точки его отбора устраивают вставки, обеспечивающие постоянство прежнего гидравлического режима наружной распределительной сети.

Предлагается реконструкция наружной распределительной системы газоснабжения реконструируемых и новых зданий и сооружений, обеспечивающая сохранение режима работы, существующей наружной

распределительной сети газоснабжения. Сущность этого заключается в том, что к отводу газа к потребителю с уменьшенным расчетным расходом газа дополнительно подключают новый газопровод, который прокладывают до потребителя с повышенным или новым расчетным расходом газа, при этом во всей сети обеспечивается прежний (исходный) режим движения газа путем сохранения во всех узловых точках неизменных величин давления. Последнее необходимо для сохранения неизменным потокораспределения, особенно в сложнокольцевых распределительных сетях низкого давления, характерных для микрорайонов и жилых массивов старой застройки. Это достигается посредством учета перепадов давлений в конечных точках подключения (между точкой отвода от наружной распределительной сети и точкой присоединения к упомянутому потребителю – строящемуся новому или реконструируемому зданию) нового газопровода при выборе его диаметра.

Схема примерной распределительной системы газоснабжения реконструируемых старых или строящихся новых зданий в пределах района питания одного ГРП представлена на рис. 3. На схеме позициями I и II обозначены потребители с уменьшенным расчетным расходом газа, определяющие места отводов в наружной распределительной сети газоснабжения для подключения нового газопровода; позициями III и IV – соответственно реконструируемое здание посредством его надстройки и/или уширения и новое строящееся здание – потребители с повышенным или новым расчетным расходом газа; 11 – наружная распределительная сеть; 12 – ГРП сети; 13 – новый газопровод; 14 – места включения лупингов.

Наиболее простым решением поставленной задачи является подсоединение к отводу (рис. 3, точка 3) от наружного распределительного газопровода нового газопровода (рис. 3, пунктир) до общедомового коллектора, реконструируемого (рис. 3, точка 10) или нового здания (рис. 3, точка 9), нуждающегося в дополнительном расчетном газопотреблении. При этом диаметр нового газопровода определяется по методике, предложенной в [2], и по перепаду давления между отводом (рис. 3, точка 3) от наружного распределительного газопровода и вводом реконструируемого (рис. 3, точка 10) или нового здания (рис. 3, точка 9).

В случае необходимости экономии величин расчетных расходов газа от двух (рис. 3, I + II) или более зданий параметры нового газопровода определяются последовательно для каждого участка присоединения (рис. 3, точки 3–5, 5–9 или 5–10) в соответствии с возрастающим расчетным расходом газа. При использовании рассчитанного таким образом дополни тельного нового газопровода режим работы старой распределительной сети газоснабжения останется неизменным благодаря обеспечению прежнего распределения давлений во всех узловых точках.

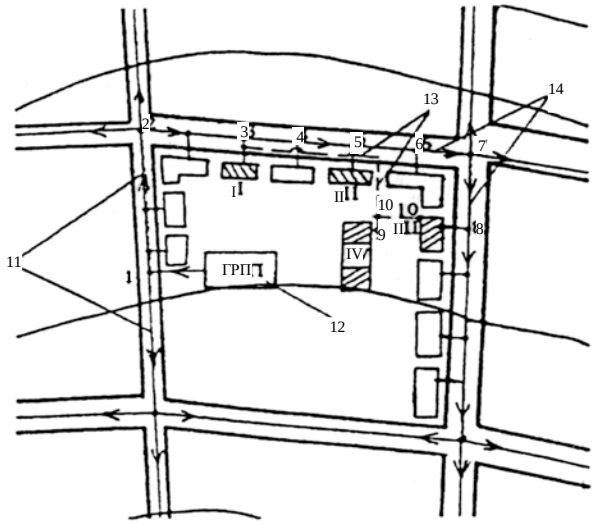


Рис. 3

Однако прокладки дополнительного нового газопровода для перераспределения расчетного газопотребления и сохранения постоянства режима работы старой газораспределительной сети можно избежать путем использования лупингов (параллельных участков газопроводов) [7], которые необходимо прокладывать на всех участках старого газопровода с измененным расчетным расходом газа. Так, в приведенном примере (рис. 3) для газоснабжения нового дома IV лупинги надо прокладывать на участках 3–4 и 4–5.

Для увеличения использования расчетного расхода газа реконструированным зданием III лупинги следует устраивать на участках 3–4, 4–5, 5–6, 6–7 и 7–8. Расчет параметров лупингов (длину и диаметр) следует производить по формулам, рекомендуемым С. А. Бобровским [7]. Так как лупинги могут быть значительно короче участков газопроводов, для которых они предназначены, площадки их устройства можно выбирать в удобных местах старых территорий, не загроможденных различными подземными коммуникациями и строениями. Кроме того, присоединение новых газопроводов и лупингов для низкого давления газа можно производить без выключения и продувки реконструируемого участка старого распределительного газопровода, что значительно упрощает все процедуры.

Прокладку новых газопроводов и лупингов можно заменить устройством специальных вставок увеличенного диаметра в действующий старый распределительный газопровод. Устраивать вставки необходимо на всех участках от узловых точек экономии расчетных расходов газа до их роста аналогично лупингам. Устройство вставок требует отключения этих участков старого распределительного газопровода, что вызовет дополнительные трудозатраты и расходы.

Выбор вариантов модернизации тупиково-разветвленной ветви распределительной системы газоснабжения для части жилого массива

производят после завершения проекта реконструкции и дополнительной застройки данной части жилого массива посредством расчета гидравлического режима, основанного на том, что используют следующие меры:

- новые вставки газопровода с внутренним диаметром в 1,6–2 раза больше диаметра модернизируемого участка и длиной
- лупинги с внутренним диаметром в 1,6–2 раза больше диаметра модернизируемого участка и длиной
- при необходимости уменьшения потерь давления примерно на порядок во всей ветви газопровода производят замену участка данной ветви или сооружают параллельные участки газопровода, диаметр которых в 1,6–2 раза больше диаметров модернизируемых участков.

Модернизацию посредством обустройства вставок, лупингов или параллельных участков осуществляют на ветвях газопроводов с высокими потерями давления, обусловленными их относительно небольшими диаметрами. Следует рассматривать несколько вариантов модернизации отдельной части распределительной системы газоснабжения – тупиково-разветвленной ветви, приводящих к повышению пропускной способности участков газопроводов и уменьшению потерь давления:

- замена части участка газопровода на трубу большего диаметра, называемую «вставкой»;
- устройство лупинга;
- устройство параллельного ответвления для всего участка газопровода;
- замена всего участка газопровода на трубу большего диаметра;
- комбинация этих способов.

Для каждого варианта модернизации каждого элемента распределительной системы газоснабжения необходимо найти наиболее эффективные и дешевые способы повышения пропускной способности газопровода и параметры их применения в сложных условиях старых жилых массивов, где существуют многочисленные подземные системы жизнеобеспечения (водопровод, канализация, тепло- и электросети и др.), а также расположение и конфигурация зданий создают большие трудности проведения земляных работ.

Исходя из вышесказанного, можно получить:

1) зависимость необходимого внутреннего диаметра газопровода от удельного падения давления (Δp) на любом участке распределительного газопровода при развитом турбулентном (автомодельном) режиме движения газа

2) зависимость необходимых диаметров параллельно соединенных газопроводов от необходимых расходов газа

$$d2/d1 = (Q0,2/Q0,1)^{0,4}, \quad (19)$$

где $d1$, $d2$ – внутренние диаметры газопроводов, см

3) уменьшение потерь давления в газопроводе при увеличении его внутреннего диаметра в 1,6–2 раза составляет 10–32 раза;

4) отношение капитальных затрат на устройство лупингов в зависимости от их длин и расходов газа

$$K2/K1 = ((Q0 - Q0,2)/(Q0 - Q0,1))^{0,4}(l2/l1)^{0,2}(l2/(l1 - \Delta l)),(20)$$

где $K2$, $K1$ – капитальные затраты на устройство лупинга и параллельной ветки; $Q0$ – необходимый общий расход газа через расчетный участок распределительной сети; $l2$, $l1$ – длины лупинга и параллельной (основной) ветви; $\Delta l = (\Delta p1 - \Delta p0)/\Delta\rho1$, $\Delta p1$, $\Delta p0$ – расчетные перепады давления на расчетном участке после и до модернизации; $\Delta\rho1$ – необходимое удельное падение давления на участке после модернизации.

Основываясь на приведенных основных принципах решения постав ленных задач, следует отметить, что для нормальной работы всех газопотребляющих приборов низкого давления избыточное давление газа на входе в прибор должно составлять 1,2–3,0 кПа, а у каждого ответвления в здание – 1,8–3,0 кПа [3, с. 80]. Если верхний предел величин допустимого избыточного давления газа обеспечивается функционированием ГРП, то нижние значения избыточного давления зависят от гидравлических характеристик распределительной сети и объемов потребления газа всеми потребителями. При росте потребления газа по пути его следования к концевым потребителям последним просто не хватит газа, что выразится падением его избыточного давления на входе в газовые приборы ниже нормативного и ухудшением их работы, отключением и повышением опасности эксплуатации. Поэтому увеличение количества газопотребляющих приборов, связанное с увеличением жилой площади и количества квартир при реконструкции старых жилых домов с достройкой верхних этажей и дополнительной застройкой свободных территорий, в каждом конкретном случае может приводить к необходимости модернизации какого-то участка газопровода. При этом произведенные отдельные модернизации участков газопроводов при окончательной реконструкции жилого массива могут взаимно перекрываться и даже мешать друг другу. Следовательно, выбор, оценку и реализацию вариантов модернизации отдельных элементов распределительной системы газоснабжения необходимо производить по комплексному проекту реконструкции и дополнительной застройки всего жилого массива.

Увеличение длин вставок и лупингов приводит к росту капитальных затрат на модернизацию участка распределительной системы газоснабжения. Поэтому вставки и лупинги должны быть минимальных размеров, которым существенно способствует резкое (в 1,6–2 раза) увеличение их диаметров. Поэтому устраивать целые параллельные ветви или замены участков газопроводов экономически оправдано только в

случае необходимости уменьшения потерь давления на этих участках в 10 и более раз. При этом следует учитывать технические сложности, связанные с земляными работами и временным отключением газоснабжения в старых жилых районах особенно крупных городов.

Следовательно, наиболее предпочтительными мероприятиями при модернизации отдельных участков газопроводов являются лупинги и вставки с диаметрами газопроводов в 1,6–2 раза больше старого участка. При этом длины вставок с учетом остаточных потерь давления должны составлять 1,1–1,2 расчетной длины, где коэффициент 1,2 используется с учетом местных сопротивлений изменения диаметра при $d1/d0$ = 1,6 и $l1 < 0{,}5l0$, а коэффициент 1,1 – при $l1 > 0{,}5l0$, где $l0$ – длина участка газопровода.

Для лупингов с учетом старой ветви газопровода при $d1/d0$ = 1,6 (где $d2$ – внутренний диаметр лупинга) нет необходимости учитывать местное сопротивление врезок и поворотов, если не учитывать частичный проход газа через старый параллельный участок газопровода. Тогда необходимая длина лупинга составляет $l2 = (\Delta p1 - \Delta p2)/$ □□1,

Для уменьшения затрат на модернизацию отдельных участков газопроводов при помощи вставок и лупингов, а также устройства параллельных ветвей для участков газопроводов следует выбирать участки небольших диаметров (≤ 200 мм) с высокими потерями давления.

Одним из условий ресурсосбережения при проектировании сетей газоснабжения является применение всего сортамента выпускаемых промышленностью диаметров труб [8]. Использование ограниченного сортамента трубопроводов в последнее время может объясняться, во-первых, несовершенством методик проектирования, при использовании которых наличие дополнительных типоразмеров диаметров не приводит к сокращению затрат на строительство, модернизацию и эксплуатацию газовых сетей. Во-вторых, усложнение процессов поставки, хранения и монтажа, что, однако мало отражается в сметных нормах. В-третьих, заказчик не всегда проводит конкурс между проектными организациями, в то время как строители заинтересованы в увеличении стоимости проекта. Применение только выпускаемых в Республики Беларусь полиэтиленовых труб, сортамент которых весьма ограничен вследствие их более низкой стоимости по сравнению с импортными благодаря программе импортозамещения, экономически целесообразно, хотя приводит к несколько завышенной материалоемкости.

ВЫВОД

Использование приведенных рекомендаций позволяет существенно (на 10–30 %) ускорить и удешевить реконструкцию систем газоснабжения низкого давления, многие из которых уже отработали свой срок службы.

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ГОСУДАРСТВЕННО-ПРАВОВОЕ СОДЕРЖАНИЕ МОЛОДЕЖНОЙ ПОЛИТИКИ В РОССИИ

Аннотация: в статье рассматриваются политико-правовые аспекты формирования и реализации государственной молодежной политики в Российской Федерации.

Ключевые слова: молодежь, государственная молодежная политика, федеральная молодежная программа, нормативно-правовое регулирование молодежной политики.

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STATE LEGAL CONTENT OF YOUTH POLICY IN RUSSIA

Resume: The article deals with the political and legal aspects of the formation and implementation of the state youth policy in the Russian Federation.

Key words: youth, state youth policy, federal youth program, legal regulation of youth policy.

Многообразие молодежной жизни, сложность и многоаспектность проблем молодежи должно учитываться в соответствующих направлениях реализации молодежной политики в общественно-политической, социально-экономической и культурной сферах. Последние должны опираться на четко очерченные базовые принципы, отражающие философско-идеологические основы молодежной политики. Речь идет о недопустимости патерналистской модели отношения субъектов молодежной политики молодого поколения, развитие субъектности молодежи, стимулирования его собственной активности, наиболее полное и эффективное раскрытие ее инновационного потенциала, а также учета культурной, социальной, политической неоднородности социальных групп молодежи.

В формировании и реализации определенных философско-идеологических основ молодежной политики значительную роль играет старшее поколение - государство и гражданское общество. Поэтому в

структуре молодежной политики следует выделить государственную и общественную составляющие, которые взаимодополняют друг друга. Первая опирается на государственную идеологию и систему права, вторая - на определенные нормативные представления во втором и третьем секторах общества [1].

При этом политическая активность и творчество молодежи как предпосылки успеха молодежной политики развиваются и стимулируются прежде всего усилиями институтов гражданского общества, среди которых ведущую роль играют молодежные общественные организации.

В числе основных приоритетов молодежной политики в РФ согласно действующего законодательства относятся следующие: качественное образование, развитие потенциала, молодежное предпринимательство и занятость, формирование здорового образа жизни, поддержка молодых семей, патриотическое воспитание, развитие духовности и нравственности, повышение уровня правосознания и правовой культуры и предотвращение негативных явлений, развитие гражданской активности молодежи, волонтерства, сотрудничества с органами власти, привлечение молодежи к работе в органах власти, международная молодежная интеграция, обеспечение прав молодежи с особыми потребностями.

Государственная молодежная политика ориентирована на граждан РФ в возрасте от 14 до 35 лет независимо от происхождения, социального и имущественного состояния, расовой и национальной принадлежности, пола, образования, языка, отношения к религии, рода и характера занятий и осуществляется через органы исполнительной власти, учреждения, социальные институты и объединения молодых граждан.

Успешность реализации государственной молодежной политики зависит от того, будут ли усовершенствованы механизмы реализации этой политики, гибко сочетающих правовые, государственно- властные составляющие как на уровне компетентных органов государственной власти, так и на уровне органов местного самоуправления, которые обеспечивают управление, координацию в молодежной сфере и реализацию государственной молодежной политики, а также общественные институты, деятельность которых является важным условием привлечения широких слоев населения, прежде всего молодежи, к решению общесоциальных задач, формирование механизмов социальной самоорганизации граждан, их гражданско-правового сознания и ответственности.

Активизация сотрудничества государства и общественности в рамках молодежной политики должна предусматривать:

– повышение субъектности молодежного сообщества;

– стимулирование общественной активности молодежи;

– содействие приобщению молодежи к процессу разработки и реализации молодежной политики;

– качественное улучшение информационной составляющей молодежной политики путем обеспечения многовекторной взаимодействия между различными субъектами молодежной политики, использования различных средств в ходе распространения информации, содействия ориентации информации на конкретные категории молодежи.

– разработку критериев для оценки эффективности государственной молодежной политики;

– мониторинг результатов реализации государственной молодежной политики.

Источники решения интерпретационной путаницы заключаются в определении целей и инструментов формирования и реализации молодежной политики.

Стратегическая цель молодежной политики заключается в создании условий для самореализации и творческого развития каждого молодого человека, реализации инновационного потенциала молодежи во всех сферах общественной жизни, воспитании поколения людей, способных эффективно работать и учиться в течение жизни, сохранять и приумножать ценности народа РФ и гражданского общества, развивать и укреплять суверенное, демократическое, правовое государство как неотъемлемую составляющую европейского и мирового сообщества.

Важное значение для эффективной молодежной политики имеет создаваемый структурами гражданского общества пространство свободы, что является предпосылкой свободной активности, инициативы молодежи.

Уровень общественно - политической активности молодежи свидетельствует об уровне ее потребностей и понимание свободы. Важное значение в осознании свободы и превращении ее во внутреннюю потребность принадлежит нормам, ценностям и формам функционирования сферы публичной жизни конкретного общества, и связанного с ней гражданского пространства государства.

Прежде всего, это касается всей сети или сетки ценностных значений (приоритетов), распространяемых в обществе средствами образования, культуры, массовой информации. Свобода перестает быть абстрактным понятием и превращается в совокупность конкретных ценностных значений (приоритетов) именно через интерпретацию ее в публичной сфере, где она приобретает реальных ценностных признаков свобод политических и гражданских.

Вектор направленности государственной молодежной политики и разнообразный состав ее субъектов обусловливают ее общественную сущность. С другой стороны, мы придерживаемся мнения, что государство является институтом общества, который должен находиться с ним в диалоговом взаимодействия.

Мы поддерживаем позицию тех ученых, которые акцентируют внимание на участии в формировании и реализации молодежной политики

именно структур общественного сектора. Государственная молодежная политика невозможна без активного участия общественных структур, прежде всего, молодежных общественных организаций. Государство должно выполнять координирующую и организационную роль, осуществляя правовые, финансовые, информационные и другие функции, а молодежные организации - выступать инициатором содержания политических и других решений, принимаемых властью, обосновывая их суть и убеждая в их необходимости [2].

Таким образом, необходимым условием эффективной молодежной политики является политическая активность и творчество молодежи, которая преимущественно реализуется в деятельности молодежных общественных организаций и движений. Молодежная политика в целом реализуется через молодежное движение, который представлен в обществе разнообразными молодежными структурами, в первую очередь организациями, объединениями, движениями молодежи [3].

Его мнение поддерживают и другие ученые. Молодежные общественные организации являются важным фактором привлечения молодежи к участию в общественной жизни. Эти организации помогают молодым людям решать их проблемы, позволяют проявлять инициативу, действовать в соответствии с собственными потребностями и интересами. Они являются средой общения и взаимодействия, своеобразным «обществом в обществе», в котором, кроме общепринятых правил поведения, действуют свои нормы и законы. Именно через эти организации молодые люди становятся активными общественными деятелями, способными раскрыть свой потенциал и способности как в собственных, так и в общегосударственных интересах [4].

Привлечение молодежи к деятельности общественных, в частности молодежных организаций направлено на выполнение важной социальной функции - стимулирование общественной активности молодежи в виде социальных инициатив. Поддержка молодежных инициатив развивает молодежную культуру, поощряет молодых людей брать на себя ответственность, обеспечивает конкуренты преимущество на рынке труда, без чего невозможно развитие гражданского общества и государства.

Вопросы формирования субъектности молодежи анализировали и другие ученые. Некоторые ученые выделяют следующие аспекты ее участия в жизни своей общины:

– работа в органах местного самоуправления;

– участие в деятельности институтов гражданского общества на местном уровне (общественные организации, местные ячейки партий);

– общественная активность (участие в местных выборах, местных инициативах);

– сотрудничество молодежи с властными институтами на местном уровне и участие в принятии решений [2].

Центральным противоречием, которое призвана решать государственная молодежная политика, является противоречие между субъективными планами, интересами молодых людей и государственными, и общественными потребностями. Встает непростой вопрос согласования этих интересов.

Молодежная политика является государственной тогда, когда она провозглашается от имени государства в лице органов и должностных лиц, которые ее представляют. Другие субъекты принимают участие в процессе формирования и реализации государственной молодежной политики.

Вместе с этим, нужно учитывать, что молодежную политику можно рассматривать и как одно из направлений политики государства. В этом контексте молодежная политика является составной частью государственной политики (политики государства).

Итак, молодежная политика должна реализовываться прежде всего за счет инициативы и деятельности самой молодежи как в ее собственных, так и общественных интересах.

Государственная молодежная политика не может зависеть от организационных перемен в системе управления государством, прихода либо ухода тех или иных политических деятелей, должностных лиц органов государственной власти. Принятые стратегические направления государственной молодежной политики не должны пересматриваться чаще, чем раз в 10-15 лет. Судьба нации, страны не может быть предметом конъюнктурных интересов и действий.

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ГЕЛЬМЕНТОЗНЫЕ ЗАБОЛЕВАНИЯ И ИХ ЕСТЕСТВЕННОЕ ЛЕЧЕНИЕ. МЕТОДЫ ЛЕЧЕНИЯ

Аннотация: В природе существуют организмы, паразитирующие на человеке, животных и растениях. Паразитология изучает их структуру, морфологию, физиологию, жизнь, развитие, распространение и меры противодействия. Практически паразитология направлена на сохранение здоровья человека и животных и защиту растений путем разработки научных основ борьбы с паразитарными заболеваниями.

Ключевые слова: Паразитология, морфология, физиология, Гиппократ, эхинококк, биогельмент, фасциолез.

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HELMENT DISEASES AND THEIR NATURAL TREATMENT. TREATMENT METHODS

Abstract: In nature, there are organisms that live as parasites on humans, animals and plants. Parasitology studies their structure, morphology, physiology, life, development, spread and countermeasures. Practically, parasitology is aimed at maintaining the health of humans and animals and protecting plants by developing the scientific basis of the fight against parasitic diseases.

Key words: Parasitology, morphology, physiology, Hippocrates, echinococcus, biogelment, fasciolosis.

Паразитические организмы, наносящие большой вред хозяйству и здоровью человека, широко распространены в природе, и важно их изучение и разработка мер противодействия. Первые сведения о паразитических организмах были известны задолго до нашей эры. Знаменитый итальянский врач Гиппократ оставил ценные сведения о паразитическом существовании аскарид, осторис и эхинококков в организме человека. Аристотель (384-342 до н.э.) также оставил сведения об эхинококкозе у крупного рогатого скота, цистицеркозе у свиней, аскаридозе у человека и страусов. Гельминты очень распространены, их более 3000 видов живут как паразиты в домашнем скоте, диких животных

и сельскохозяйственных культурах, а также в организме человека. Гельменты делятся на следующие группы

Гельминты, относящиеся к 1-й группе, называются биогеогельминтами и в их развитии участвует «основной хозяин», т. в теле человека или животного начинает прощать.

Гельминты, относящиеся ко 2-й группе, называются биогельминтами и развиваются они при участии двух: «основного» и «промежуточного» хозяев. Беспозвоночные (ракообразные, моллюски и др.) часто являются основными хозяевами.

Изучение гельминтов, паразитирующих на человеке и животных, разработка мер борьбы с ними, в конечном итоге приводит к развитию сельского хозяйства и сохранению здоровья человека.

печеночный червь. Плоские черви относятся к типу трематод и являются эндопаразитами, обитающими в желчных протоках позвоночных и человека. Тело листовидное, уплощенное с плечевого и брюшного сторон, длиной 20-30 мм и шириной 10-12 мм. Печеночный червь является биогельминтом, что означает, что в цикле развития участвуют два хозяина. Для прохождения начального периода развития должен быть промежуточный хозяин, а для полного развития паразита - окончательный (основной) хозяин. Промежуточным хозяином служит водяная слизь – моллюск. Печеночники чрезвычайно плодовиты, одна особь может отложить до миллиона яиц в неделю. Во внешней среде должны быть благоприятные условия для дальнейшего развития зародыша в яйце - свет и тепло, вода и кислород. В таких условиях через 17-18 дней из яйца (15-300) выходит длинная, покрытая мелкими ресничками личинка-мирацидий, размером 0,15 мм. В темноте мирацидии не могут вылупиться и могут жить внутри яйца до 8 месяцев. Личинки выходят из яиц только тогда, когда становится светло. Низкая температура (10-200) замедляет развитие яиц, наоборот, высокая температура (400) вызывает гибель. Пройдя несколько личиночных стадий, через 2,5-4 мес превращается в половозрелого печеночного червя и живет в организме последнего хозяина в среднем от 10-12 мес до 3-5 лет. Печеночный червь питается кровью, печенью и тканями, нанося своему хозяину большой вред. Заболевание, вызываемое печеночной двуусткой, называется фасциолезом.

Фасциолез распространен преимущественно в заболоченных садах и пастбищах с большим количеством пресной воды. Передача личинок паразитов животным достигает высокого уровня в летние месяцы. Фасциолезом заражаются и животные в местах, где обычно нет пресной воды в годы с большим количеством осадков. Наоборот, в засушливые годы с малым количеством осадков трава на мелких родниках и пастбищах высыхает, в результате чего резко снижается и заболеваемость фасциолезом. Это заболевание широко распространено в Узбекистане, 35,9-66,5% продуктивного скота заражено фасциолезом. В Узбекистане

встречаются два типа фасциол: Fasciola hepatica и Fasciola gigantisa. Вид Fasciola hepatica чаще встречается у животных Андижанской, Ферганской, Ташкентской, Сырдарьинской, Самаркандской, Джизакской, Кашкадарьинской областей. Fasciola gigantisa широко распространена в Сырдарьинской, Бухарской, Навоийской и Хорезмской областях. Человек также может болеть фасциолезом, причем заболевание протекает очень тяжело. Передача фасциол человеку происходит случайно, и он передается при употреблении воды из пруда или озера, или при употреблении в пищу различных видов водорослей, где присутствуют невидимые личинки (адолескарии), распространяющие заболевание. Более 500 человек заразились этим заболеванием недалеко от города Лион, Франция. Это было вызвано употреблением в пищу кресс-салата, который растет на болоте. Проявление болезни зависит от вида гельминтов, их локализации и количества в организме. Наиболее распространенными гельминтами у человека являются устрицы, аскариды, мелкие аскариды, печеночные черви, эхинококки, трихинеллы и другие солитеры. У детей, зараженных гельминтозами, отмечается задержка развития, задержка роста, отсутствие половой жизни, ухудшение памяти. Эти заболевания лечат с помощью различных средств народной медицины.

В борьбе с гельминтами готовят следующие природные средства.

Лекарство из лука. 1. Тонко нарезать луковицу, сложить в пол-литровую тару, залить 40% спиртом и поставить в теплое место на 10 дней. Замочить в марле и пить по 1-2 столовые ложки перед едой.

2. Луковицу среднего размера измельчить, залить 1 стаканом кипятка, оставить на ночь, утром процедить и пить по полстакана 3-4 раза в течение дня.

Лекарства из тыквенных семечек.

1. Сырые, очищенные, но с тонкой кожицей тыквенные семечки употребляют в пищу в течение 10-14 дней. Он служит важным инструментом в очистке от солитеров.

2. На завтрак съешьте 100 г очищенных тыквенных семечек, а через 1 час выпейте 1 стакан кипяченого молока с 1 зубчиком чеснока. Через 30 минут принимают слабительное, а через 2 часа делают клизму на воде, приготовленной из чеснока.

Лекарства с чесноком. Люди, которые регулярно едят чеснок, не имеют паразитических червей.

1. Кашу из чеснока и хрена смешивают в равных количествах. Взять 50 г его, залить пол-литра 40% спирта, выдержать при комнатной температуре в темноте 10 дней, часто встряхивать. После купания пить по 1 столовой ложке 2-3 раза до еды. Дает хорошие результаты в очистке печени.

2. Размять 1 зубчик чеснока, одну очищенную селедку, 2 столовые ложки сока (пшено) и 1 сырое яйцо с желтком. Смесь прокипятить,

развести охлажденным молоком и пить по полстакана несколько раз в день. Это важное средство для избавления от ленточных червей.

3. Раздавить 2 зубчика чеснока, смешать 1 столовую ложку цветков пижамы, кипятить в 1 стакане молока, закрытого, на слабом огне 10 минут. После охлаждения, процеживания, разведения в теплой воде 2 стакана каши используют в качестве клизмы.

Травяные лекарства.

1. Взять одну чайную ложку полыни (сусла) – травы дармана, залить 2 стаканами кипятка и остудить. Пить по 1-2 столовые ложки 3 раза в день за 20 минут до еды. Таким образом изгоняются острисы и аскариды.

2. 1 столовую ложку сухих цветков пижамы залить 1 стаканом кипятка и дать настояться 1 час, затем процедить. Пить по 1 столовой ложке за 20 минут до еды в течение 2-3 дней.

3. Возьмите 1 столовую ложку пижамы, залейте 0,5 л кипятка и дайте настояться 3 часа. Затем с этой настойкой делают клизму. (детям нельзя).

В дополнение к этому Абу Али ибн Сина рекомендовал варить кору корня граната с виноградным вином, есть семена тыквы и измельчать семена кунжута, чтобы отогнать червей.

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ПРОБЛЕМЫ ОРГАНИЗАЦИИ ОПЛАТЫ ТРУДА В БЮДЖЕТНЫХ УЧРЕЖДЕНИЯХ

Аннотация: В статье приведено исследование актуальных проблем оплаты труда в бюджетных учреждениях. В ходе написания работы, было выявлено ряд проблем.

Ключевые слова: оплата труда, бюджетные учреждения, заработная плата, доход, должностной оклад.

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ORGANIZATION REMUNERATION OF LABOR IN BUDGETARY INSTITUTIONS

The article presents a study of the actual problems of remuneration in budgetary institutions. In the course of writing the work, a number of problems were identified.

Keywords: wages, budgetary institutions, wages, income, official salary.

Заработная плата – часть фонда личного потребления материальных благ и услуг, поступающая сотрудникам в соответствии с количеством и качеством их труда, а также его результативностью (вкладу в итоги труда коллектива). Заработная плата есть сумму денежных выплат и стоимость натуральной оплаты за работу, которая выполнена по трудовому договору (контракту). Выделяют номинальную и реальную оплату труда. **[**1. с. 78].

На практике заработная плата, или доход определенного работника в бюджетном учреждении, может принимать форму разных денежных выплат: месячных окладов, часовых тарифных ставок, премий, комиссионных вознаграждений, гонораров, возмещений и т.д. В условиях рыночного механизма экономики вместе с главной заработной платой работников в зависимости от результатов труда действуют также поступления от собственности. В нашем государстве до текущего момента эта форма дохода фактически не применялась.

В разработку вопросов оплаты и стимулирования труда в бюджетных учреждениях внесли значительный вклад труды данных

зарубежных и российских ученых как Л. Аллен, А.Н. Беляев, И.Ф. Беляева, и другие.

Необходимо отметить, что, невзирая на огромный интерес ученых к задачам построения организации оплаты и стимулирования труда в бюджетных учреждениях, не все их основы в достаточной степени проработаны.

Это сопряжено не только с трудоемкостью и отраслевой спецификой исследований, но и с недостаточной проработкой ряда методологических вопросов, таких как: разработка методики создания постоянного сегмента оплаты труда на базе принципа «за содержание труда» в пределах тарифной организации оплаты труда, разработка методики создания переменной сегменты оплаты труда на базе показателей результативности трудовой деятельности, а также разработка методики внедрения организации оплаты и стимулирования труда в бюджетных учреждениях.

Структура доходов в бюджетных учреждениях Российской Федерации определяется соотношением трех главных составляющих оплаты труда: должностных окладов, доплат и компенсаций, надбавок и премий.

Должностные оклады определяют величину оплаты труда в соответствии с его сложностью и ответственностью при нормальных условиях работы, и которые соответствуют издержкам работников, а также в соответствии с занимаемой должностью (ведущая должность, начальствующая). Доплаты и возмещения устанавливаются на возмещение добавочных затрат работников при которых существуют аномалии условий труда. **[**2. с. 198].

Прибавки и премии предусматриваются для стимулирования высокой творческой активности персонала, увеличения качества работы, производительности труда и результативности производства. Как видно, тарифные ставки выражают цену работников при нормальных условиях её использования. Доплаты и возмещения учитывают увеличение издержки труда, а прибавки и премии предназначаются для стимулирования персональных достижений работников. **[**2. с. 199].

Существует ряд проблем, при расчете оплаты труда. Первая состоит в том, что управленец бюджетного предприятия при рассматриваемых условиях наделен широкими полномочиями касаемо оценки размера оклада сотрудников, а из данных полномочий вытекает проблема: сотрудники с одной и той же должностью, с одними и теми же обязанностями имеют разную оплату труда.

Второй - если управленцы станут независимо назначать оплату труда, пускай и которые установлены пределах, возникнет риск того, что они не станут ее увеличивать даже тем, кто добросовестно выполнял обязанности и заслужил увеличение оплаты труда. **[**3, с. 231].

Руководителям подъём зарплаты сотрудников невыгоден, потому что увеличение оплаты труда ведет к росту и отчислений на страхование, и затрат предприятия. Вероятно, в сочетании с расширением полномочий начальника относительно оплаты труда нужно формирование организации контроля руководителей, дабы не допустить превышения ими собственных полномочий.

Улучшение организации оплаты труда работников бюджетной сферы, адресовано на формирование отраслевых систем оплаты труда, наиболее адаптированных к новым условиям хозяйствования.

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АНЕМИЧЕСКИЙ СИНДРОМ ПРИ РАЗНЫХ ХРОНИЧЕСКИХ ЗАБОЛЕВАНИЯХ

Резюме: Синдром анемии очень распространен среди населения всего мира, он привлекает внимание любых специалистов своей актуальностью и побуждает многократно подходить к этой теме в своей практической деятельности. Среди различных патогенетических вариантов анемия хронических заболеваний занимает второе место и диагностируется при многих патологических состояниях, таких как злокачественные опухоли и длительные воспалительные процессы.

В этой статье рассматривается широкий спектр решений этой проблемы, которая актуальна сегодня, и меры по предотвращению их повторения.

Ключевые слова: хроническая анемия, заболевания крови, соматические заболевания, геморрагия.

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ANEMIC SYNDROME IN VARIOUS CHRONIC DISEASES

Resume: Anemia syndrome is very common among the world's population, it attracts the attention of any specialists with its relevance and encourages them to repeatedly approach this topic in their practical activities. Among the various pathogenetic variants, anemia of chronic diseases takes the second place and is diagnosed in many pathological conditions, such as malignant tumors and prolonged inflammatory processes.

This article discusses a wide range of solutions to this problem, which is relevant today, and measures to prevent their recurrence.

Keywords: chronic anemia, blood diseases, somatic diseases, hemorrhage.

Актуальность. Синдром анемии при хроническом заболевании очень распространен среди населения и очень часто встречается в практической деятельности любых специалистов. Очень сложно определить данные о фактическом распространении этого заболевания, поскольку это зависит от следующих обстоятельств:

1) обращались ли пациенты в медицинские учреждения;

2) как это состояние кодируется в медицинских документах. Известно, что в большинстве случаев анемия имеет вторичный генез.

По данным Всемирной организации здравоохранения (ВОЗ), около 1,62 миллиарда человек, или 24,8% от общей численности населения планеты, страдают различными патогенетическими вариантами анемии. В 2008 году был опубликован отчет ВОЗ по результатам анализа распространенности синдрома анемии, с высоким уровнем среди детей дошкольного возраста (76,1%), беременных (69,0%) и небеременных женщин (73,5%), низким уровнем – среди детей школьного возраста (33,0%), мужчины (40,2%) и пожилые люди (39,1%) **[**3,5].

Со студенческой скамьи большинство экспертов доказывают, что развитие анемии напрямую связано с дефицитом железа. И действительно, железодефицитная анемия занимает лидирующее положение в этиологии анемического синдрома. Согласно данным последних лет, анемия хронических заболеваний занимает второе место по частоте встречаемости среди всех патогенетических вариантов анемии, и частота ее возникновения все больше увеличивается **[**1,6]. На этот момент я хотел бы обратить особое внимание, поскольку в общей медицинской практике при определении снижения уровня гемоглобина специалисты часто работают только с диагнозом ЖДА **[**2,4].

Цель исследования. Дифференциальная диагностика истинного железодефицитного состояния и функционального дефицита железа (ДЖ) при хронических заболеваниях.

Материалы и методы исследования. Мы обследовали 50 больных (30 исследований) и 20 здоровых (контрольная группа). Из них 11 онкологических больных поступили на хирургическое лечение и 22 — на химиотерапию (ХТ); 6 онкогематологических больных, 8 больных с заболеваниями молочной железы без анемического синдрома, 3 сотрудника института с признаками ДЖ.

В плазме крови методом иммуноферментного анализа определяли содержание ферритина (ФР), растворимый рецептор трансферрина (рТФР) и уровень эндогенного эритропоэтина (ЭПО).

Результаты исследования. Лечение ЖДА включает прежде всего устранение причины дефицита железа (если это возможно) и прием препаратов железа (ферротерапия). Существует более 100 различных препаратов железа, в РУз наиболее часто используют около 10-15 лекарственных форм.

Суточная терапевтическая доза элементарного железа при лечении ЖДА для взрослых составляет в среднем 100— 200 мг в 2—3 приема. Поливитаминные комплексы, содержащие железо, не рекомендуют в качестве лечения ЖДА, т. к. они содержат недостаточное количество железа либо оно плохо всасывается в кишечнике.

При адекватном лечении уже в течение первых 3 суток наблюдается увеличение числа ретикулоцитов в крови, на 7—10-й день отмечается ретикулоцитарный криз (пик ретикулоцитоза). К 3—4-й неделе лечения имеет место увеличение уровня гемоглобина на 20 г/л. Прием препаратов железа необходимо продолжать еще в течение 3—6 месяцев после нормализации уровня гемоглобина — пока насыщение трансферрина железом не превысит 30 % и концентрация ферритина не достигнет 50 нг/мл (показатель восстановления тканевых запасов железа).

Среди 20—30 % пациентов в результате приема препаратов железа отмечаются различные диспептические расстройства (тошнота, дискомфорт в эпигастрии, диарея или запор). Риск развития желудочно-кишечных расстройств можно снизить, принимая препарат во время еды или на ночь, а также при постепенном увеличении дозы.

Обсуждение. У хронических больных анемия имеет сложный многофакторный и многокомпонентный механизм развития, и в основе этого заболевания лежат: нарушение обмена железа, увеличение выработки регуляторного белка гепсидина, нарушение процессов пролиферации и дифференцировки клеток эритропоэза, снижение синтеза и биологической активности эритропоэтин. В связи с особенностями механизма развития данного варианта анемии необходимо правильно определить основные подходы к ее лечению.

Прежде всего, максимум усилий следует направить на лечение основного заболевания (снижение активности выработки противовоспалительных факторов), важно своевременно определиться с инструкцией по назначению усилителей эритропоэза. наличие железа.

Несмотря на все полученные данные о прогрессе, достигнутом в лечении этой патологии, необходимо дальнейшее изучение патогенетических механизмов развития анемии у хронических пациентов, что поможет разработать более оптимальные этапы диагностического поиска и определить оптимальные терапевтические методы. Исправьте это.

Современные направления коррекции анемии у хронических пациентов связаны с рядом возможных прогрессивных методов, среди

которых: применение хелатов железа для увеличения выработки ЭПО; применение препаратов из категории антагонистов гепсидина для устранения задержки железа в ретикулоэндотелиальной системе; применение гормонов или цитокины, которые могут оказывать эффективное действие. стимуляция эритропоэза при наличии воспалительных и противовоспалительных признаков;

Воздействие на генетический аппарат для коррекции провоспалительных цитокинов, которые участвуют в реализации анемии у хронических пациентов.

Вывод. Таким образом, для правильной оценки наличия или отсутствия железодефицитного состояния организма при АХЗ необходимо исследовать все показатели клинического анализа крови и при гипохромной микроцитарной анемии обязательно включать в исследование определение ФР, рТФР и ЭПО.

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КОРХОНА ФАОЛИЯТИДА СИФАТ ЁНДАШУВИ

Аннотация. Мазкур мақолада бугунги кунда мамлакатимизда корхоналар фаолиятини сифат бошқарувини такомиллаштириш, соҳада сифатни бошқариш бўйича хорижий тажрибалардан самарали фойдаланиш асосида бошқарув тизимини ривожлантириш бўйича илмий асосланган таклиф ва тавсиялар ишлаб чиқилган.

Калит сўзлар: менежмент, корхона, сифатни бошқариш, хорижий тажрибалар, сифат ёндашуви.

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QUALITY APPROACH IN ENTERPRISE ACTIVITY

Abstract. In this article, scientifically based suggestions and recommendations have been developed for the improvement of the quality management of enterprises in our country today, the development of the management system based on the effective use of foreign experience in quality management in the field.

Key words: management, enterprise, quality management, foreign experiences, quality approach.

Рақобат курашига бардош бериш учун Европанинг йирик фирмалари маҳсулот сифатини бошқаришнинг илғор шакл ва усулларини танлаш учун бирлашадилар, уларни маҳсулотнинг барқарор сифатини кафолатлаш билан боғлайдилар. У барқарор технология, назоратнинг метрологик воситалари ва маҳсулотни синовдан ўтказиш, кадрлар тайёрлашнинг самарали тизимини ўз ичига олади.

Сифат масалаларини ҳал қилишга Европа ёндашувининг ўзига хос хусусиятлари:

- сифатни баҳолаш ва тасдиқлаш билан боғлиқ барча ишларни олиб бориш учун қонунчилик асоси; миллий стандартларнинг талаблари, қоидалар ва сертификатлаш
- тартибларини ўзаро мувофиқлаштириш;

• маҳсулот ва сифат тизимларини сертификатлаш ишларини олиб боришга ваколатли миллий ташкилотлар инфратузилмаси ва тармоғини яратиш, лабораторияларни аккредитациялаш, сифат бўйича мутахассисларни рўйхатга олиш ва ҳоказо.

Сифатга ғарбий (АҚШ ва Европа) ва шарқий (Япония) ёндашувларни таққослаш 1-жадвалда келтирилган.

1-жадвал

Сифатга ёндашувларни таққослаш

Ғарбий ёндашув (АҚШ ва Европа)	Шарқий ёндашув (Япония)
Сифат нархларнинг паст даражасига асосланади. Биринчи мақсад – фойда, сифат – тасодифий категория. Харидорлар сифат масалалари бўйича таъминотчининг рухсатини сўрашлари керак. Умумий ғоялар сифатдан келиб чиқади	Сифат нуқсонларнинг паст даражасига асосланади. Биринчи мақсад – сифат, фойда кетма-кетликни секинлаштирмайди. Сифат масалалари бўйича харидорнинг талаблари билан келишиш. Ҳар бир предмет учун қатъий сифат сиёсати

Турли давлатлар томонидан эришилган сифат даражаларининг бир-бирига яқин келиши кўп сабаблар билан изоҳланади. Асосий сабаблардан бири сифатни яхшилаш бўйича илғор иш тажрибасини ижодий айирбошлаш, юқори сифатга эришиш назарияси ва амалиётининг эволюцион ривожланиш йўлида инсоният ўзлаштирган барча ёндашувлар ва усулларни уйғунлаштириш ҳисобланади.

Шу тарзда ишлаб чиқилган, барча давлатларнинг мутахассислари тан олган ягона ёндашувлар ҳозирда сифатни умумий бошқариш (TQM) тамойиллари номи билан машҳур.

Сифатни бошқаришга ёндашувларни икки асосий йўналишга ажратиш мумкин.

Маъмурий ёндашув. Ишлаб чиқарилаётган маҳсулот сифатини **100 %** гача ошириш таклиф қилинади. Маҳсулот сифати унинг ҳаёт цикли босқич-ларига мос равишда туркумланади (1-расм).



1.2-расм. Маҳсулотнинг ҳаётий цикли

Маҳсулотнинг ҳаёт цикли маркетинг тадқиқотлари ва ишланмаларидан бошланиб, ишлаб чиқариш, сотиш, эксплуатация қилишни қамраб олади ва утилизациялаш ёки истеъмол қилишгача давом этади. Нуқсонларнинг юзага келишига имкон берувчи муҳим босқич ва операциялар ажратилади ҳамда тадқиқ этилади. Юзага келган нуқсонлар турларга ажратилади. Шунга кўра, нуқсонлар юзага келишининг олдини олиш ва сифат даражасини 100 %гача олиб чиқиш чоралари кўрилади.

Маъмурий ёндашувда нуқсон пайдо бўлиши билан дарҳол бартараф қилиниши лозим бўлган фавқулодда ҳолат сифатида эътироф этилади.

Сифат масаласигаиқтисодий ёндашувда маҳсулот сифатининг кўзланган даражасига эришиш учун иқтисодий жиҳатдан мақсадга мувофиқ харажатлар миқдори аниқланади.

Сифатни таъминлаш учун киритилган бир сўм ишнинг муайян бошланғич босқичида ўнлаб, ҳатто юзлаб сўмда даромад келтириши мумкин. Сифатни таъминлаш йўлида харажатларнинг меъёрдан ортиши киритилган пул бирлигига нисбатан қайтимнинг камайишини келтириб чиқаради. Сифатни таъминлаш харажатлари ортиши шунга олиб келадики, киритилган ҳар бир сўм учун тенг худди шунча қўшимча даромад олинади. Катта харажатлар билан киритилган капитал қўйилмалар кам қайтимни беради.

Иқтисодий ёндашувда мазкур чегара сифатнинг оптимал даражасини аниқлашга имкон беради. Ишлаб чиқариш ва фойдаланиш жараёнида нуқсонлар ва алоҳида буюмларнинг орқага қайтарилиши беҳуда сарф-харажатлар қилинишига сабаб бўлади.

Ишлаб чиқариш соҳасида иқтисодий категория сифатида “сифат” тушунчасининг ривожланиши электроника саноати мисолида кўзга яққол ташланади. Электроника саноати тараққиётининг муайян босқичида технология чиқиндисиз ишлаб чиқаришни таъминлашда яроқсиз ҳисобланди. Ўзининг хусусиятига кўра электроника сифат ҳақидаги тасаввурни сезиларли даражада ўзгартириб юборди.

Сифатни илгариги тушунишга қайтиш юз беради. Бундай тушунишда маҳсулот ёки хизматларнинг100 %и ўрнатилган талабларга тўлиқ мос кела-ди, лекин сифатнинг бундай даражасини таъминлаш мураккаб хусусиятга эга.

Сифатга тактик ёндашув ишлаб чиқариш ва тайёрланаётган маҳсулот турлари, талаб ва таклифнинг муносабати, мазкур маҳсулотнинг асосий ишлаб чиқарувчиларининг рақобат курашига кўп жиҳатдан боғлиқ. Шунга кўра, режалаштирилган сифат даражасига эришиш йўллари ва воситалари изланади.

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КЛИНИКО-НЕВРОЛОГИЧЕСКИЕ ИЗМЕНЕНИЯ У БОЛЬНЫХ ПЕРЕНЕСШИХ COVID-19

Аннотация. Цель данного обзора — обобщение и анализ опубликованных литературных данных в период пандемии COVID-19 о возможных патогенетических механизмах развития нейропсихиатрических и когнитивных нарушений (КН) у пациентов с коронавирусной инфекцией. Согласно имеющимся в настоящее время данным, SARS-CoV-2 может поражать в организме каждый орган, приводя к острым повреждениям и долгосрочным последствиям, причем последние эффекты стали очевидны только недавно.

Ключевые слова. COVID-19, SARS-CoV-2, коронавирус, психонейроиммунологии, когнитивные нарушения.

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CLINICAL AND NEUROLOGICAL CHANGES IN PATIENTS AFTER COVID-19

Abstract. The purpose of this review is to summarize and analyze published literature data during the COVID-19 pandemic on possible pathogenetic mechanisms for the development of neuropsychiatric and cognitive impairments (CI) in patients with coronavirus infection. According to currently available data, SARS-CoV-2 can affect every organ in the body, leading to acute damage and long-term consequences, with the latter effects becoming apparent only recently.

Keywords. COVID-19, SARS-CoV-2, coronavirus, psychoneuroimmunology, cognitive impairment.

Механизм поражения нервной системы при вирусных инфекциях сложен и продолжает изучаться. Полиморфизм морфологических и клинических проявлений самого вирусного заболевания связан с многообразием патогенетических механизмов: непосредственным токсическим влиянием вируса, активацией других микроорганизмов и вирусов, вторичными сосудистыми расстройствами и др.

Предположение о наличии нейротропного потенциала вируса SARS-CoV-2 подтверждает исследование L. Mao и соавт., в котором показано, что 78 (36,4%) пациентов из 214 заболевших COVID-19 имели клинические проявления поражения нервной системы [1]. Нарушение респираторной функции при COVID-19 ряд авторов рассматривают как результат нарушения центральной регуляции дыхания вследствие мультифокального симметричного поражения ствола головного мозга [2, 3].

Следует отметить, что пандемия является значительным психологическим стрессором в дополнение к ее огромному воздействию на все аспекты жизни отдельных людей и общества в целом. Страх перед болезнью и неуверенность в будущем провоцируют тревожные и стрессовые расстройства, и некоторые специалисты справедливо призывают к созданию и распространению надежных программ скрининга и лечения психических нарушений для широкой общественности и медицинских работников. Однако, помимо связанного с пандемией психологического дистресса, прямое воздействие самого вируса (нескольких коронавирусов острого респираторного синдрома; SARS-CoV-2) и последующее влияние иммунологического ответа на ЦНС и связанные с этим исходы неизвестны [1, 2]. Проспективный нейропсихиатрический мониторинг лиц, подвергшихся воздействию SARS-CoV-2 в различные периоды жизни, а также оценка их нейроиммунного статуса необходимы для полного понимания долгосрочного воздействия COVID-19 и создания основы для интеграции психонейроиммунологии в эпидемиологические исследования пандемий [6]. Инфекция COVID-19 посредством активации иммунно-воспалительных процессов и цитокинового шторма может привести к проявлениям нервно-психических симптомов, а также усилению выраженности психиатрических симптомов у инфицированных COVID-19 лиц с предшествующими психическими расстройствами. Данное предположение может расширить представление о важности хронического воспаления даже легкой степени и цитокинового шторма в психонейроиммунологии. Соответственно, пациенты, перенесшие COVID-19, из старших возрастных групп с учетом когнитивной коморбидности в большей степени подвержены прогрессированию КН, так как на фоне

возрастных изменений наблюдается накопление дефекта и декомпенсация при прогрессировании того или иного заболевания.

Необходимо раннее выявление (при поступлении) пациентов с тревожными расстройствами и высоким уровнем тревоги, а также с зависимостями (алкоголизмом, пристрастием к бензодиазепинам, каннабиноидной и опиоидной наркоманией), имевшимися до поступления [4]. После нахождения в реанимации и аноксического повреждения у пациентов развиваются тревога, депрессия и КН. Нужны организация и проведение нейропсихологической реабилитации, психологических консультаций, психологической поддержки, когнитивных тренингов [5].У пациентов, перенесших COVID-19, часто развиваются психические расстройства: депрессия, тревожные расстройства [6]. А депрессия, в свою очередь, может усугублять имеющиеся КН или сама по себе быть их причиной (так называемая псевдодеменция) [7]. Поэтому коррекция эмоциональных расстройств оказывает благоприятное влияние на когнитивные способности. В терапии депрессии у лиц с КН следует избегать препаратов с выраженным холинолитическим действием, например трициклических антидепрессантов, поскольку они могут усугублять КН. Напротив, современные антидепрессанты из группы селективных ингибиторов обратного захвата серотонина (флуоксетин, пароксетин, флувоксамин и др.), вортиоксетин оказывают положительное влияние на когнитивные функции [7].

Таким образом, после завершения острого периода вирусной инфекции у больных может отмечаться нарастание когнитивного нарушения во всех возрастных группах, особенно при наличии коморбидных когнитивных нарушениях. Постковидные неврологические нарушения приводят к существенному снижению качества повседневной жизни у большого количества пациентов, в том числе у больных трудоспособного возраста. Не до конца понятны механизмы формирования изменений со стороны нервной системы при новой коронавирусной инфекции.

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АГМИ

ОСОБЕННОСТИ АНОСМИИ ПРИ COVID-19

Обнаружено, что самым специфическим симптомом новой коронавирусной инфекции COVID-19 является аносмия. Данные признаки наиболее специфичны по сравнению с такими известными симптомами как кашель и лихорадка. Имеется связь между симптомами аносмии и новой коронавирусной инфекцией. Есть настоятельные рекомендации о том, что если пациент предъявляет жалобы на потерю обоняния, будь то данные симптомы единственными или в составе комплекса жалоб, мы относим больного к потенциальному носителю и переносчику вируса COVID-19.

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FEATURES OF ANOSMIA IN COVID-19

It was found that the most specific symptom of the new coronavirus infection COVID-19 is anosmia. These signs are the most specific compared to such well-known symptoms as cough and fever. There is a link between the symptoms of anosmia and a new coronavirus infection. There are urgent recommendations that if a patient complains of loss of sense of smell, whether these symptoms are the only ones or as part of a complex of complaints, we treat the patient as a potential carrier and carrier of the COVID-19 virus.

Введение. Клиническое описание вспышки коронавирусной болезни 2019 года (COVID-19) в Китае показывает, что у большинства пациентов (81%) наблюдается гриппоподобное заболевание или легкая пневмония, а в 19% случаев наблюдается тяжелая или критическая пневмония **[**1]. Лихорадка, кашель, усталость и миалгия обычно являются основными симптомами. После клинического обследования первых пациентов мы заметили, что во многих случаях сообщалось об аносмии. Описание аносмии и других ЛОР-симптомов при COVID-19 скудно. Например, в недавнем обзоре COVID-19, проведенном ЛОР-специалистами, подчеркивалось, что ЛОР-симптомы были необычными при COVID-19, поскольку заложенность носа и ринорея наблюдались менее чем в 5% случаев. Однако они заметили, что было мало сообщений об аносмии и дисгевзии без реального описания симптомов **[**8]. Мы стремились описать распространенность и особенности аносмии у пациентов с COVID-19.

Метод. Мы провели ретроспективное обсервационное исследование в клинике АГМИ. В период с сентября-декабря 2022 года мы зарегистрировали всех взрослых пациентов (≥ 18 лет) с подтвержденным COVID-19, которые были обследованы в консультации по инфекционным заболеваниям или госпитализированы в больницу и которые сообщили об аносмии.

Беременные женщины, дети (<18 лет) и пациенты с деменцией (которые не могут сообщить о функциональных симптомах) были исключены.

Диагноз был подтвержден методом ПЦР в реальном времени (ОТ-ПЦР) на образцах из дыхательных путей, главным образом мазках из носоглотки, мокроте, аспиратах из бронхов или жидкостях для бронхоальвеолярного лаважа. Вирусную РНК экстрагировали с использованием набора для РНК-вирусов NucleoSpin (Macherey-Nagel) в соответствии с инструкциями производителя и амплифицировали с помощью программ RT-PCR, разработанных Charité. Наши национальные рекомендации рекомендовали наблюдение на дому для пациентов, не находящихся в стационаре. Не госпитализированных и выписанных пациентов вызывали через семь дней (± 7 дней) после появления первых симптомов и каждую неделю до выздоровления для мониторинга клинического исхода. Данные, необходимые для исследования, были собраны из медицинских карт пациентов: возраст, пол, сопутствующие заболевания, особенности аносмии (дата появления с момента появления симптомов, продолжительность аносмии), другие симптомы, физические признаки и исход. Обычная описательная статистика была использованный. Категориальные переменные были выражены в виде чисел, процентного возраста или среднего значения. Непрерывные переменные были выражены как среднее значение со стандартным отклонением (SD).

Мы стремились описать распространенность и характеристики аносмии у пациентов с подтвержденным COVID-19.

Результаты. Пятьдесят четыре из 114 пациентов (47%) с подтвержденным COVID-19 сообщили об аносмии и были включены в это исследование. Среди этих 54 пациента, средний возраст которых составил 47 (± 16) лет, и 36 (67%) были женщинами. Средний индекс сопутствующей патологии Чарльсона составил 0,70 (±1,6 **[**0–7]). Наиболее частыми сопутствующими заболеваниями были астма (13%, n = 7), артериальная гипертензия (13%, n = 7) и сердечно-сосудистые заболевания (11%, n = 6). Другие сопутствующие заболевания встречались реже, и ни у одного пациента не было хронической обструктивной болезни легких (ХОБЛ). Среди 54 пациентов средняя продолжительность аносмии составила 8,9 (± 6,3 **[**1-21]) дней. Продолжительность составила ≥ 7 дней у 55% (24/44) и ≥ 14 дней у 20% (9/44) (рис. 1); один пациент (1/44) не выздоровел к концу наблюдения (через 28 дней). Аносмия никогда не была первым или вторым симптомом, который развился, но это был третий симптом в 38% (22/52) случаев. Аносмия развилась через 4,4 (± 1,9 **[**1-8]) дня после начала инфекции. Что касается других ЛОР-симптомов, то аносмия была связана с дисгевзией в 85% случаев (n = 46). У тридцати одного пациента была ринорея (57%), и только у 16 пациентов (30%) была заложенность носа. Носовое кровотечение, шум в ушах и потеря слуха были редкостью (<15%). Что касается других симптомов, то семь симптомов присутствовали более чем у половины пациентов: усталость (93%, n = 50), кашель (87%, n = 47), головная боль (82%, n = 44), лихорадка (74%, n = 40), миалгия (74%, n = 40), артралгия (72%, n = 39) и диарея (52%, n = 28). Другие симптомы проявлялись в меньшей степени. Пятнадцати (28%) пациентам был поставлен клинический диагноз пневмонии, связанной с COVID-19. Их насыщенность кислородом составила 94,6% **[**± 4,6] при поступлении. Более трети наших пациентов (37%, n = 20) были госпитализированы, в том числе пять пациентов (9%) в отделении интенсивной терапии (ОРИТ). У четырех пациентов (7%) при поступлении насыщение кислородом было <90%, 11 пациентам (20%) потребовалась кислородная терапия во время госпитализации, и два пациента (4%) умерли.

Вывод. Аносмия, связанная с COVID-19, - это новое описание в медицинской литературе. У половины пациентов с COVID-19 наблюдается аносмия. Аносмия связана с дисгевзией более чем в 80% случаев. Результат кажется благоприятным менее чем через 28 дней. Это понятие необходимо донести до медицинского сообщества.

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НЕЭФФЕКТИВНОСТЬ АНТИГЕЛИКОБАКТЕРНОЙ ТЕРАПИИ

Аннотация: Цель статьи суммировать и проанализировать основные каузативные факторы, определяющие неэффективность современных схем антигеликобактерной терапии.

Ключевые слова: эрадикация, комплайнс, полиморфизм, CYP2C19, MDR1, IL-1β, дженерики, кларитромицин.

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EFFICACY OF PHARMACOTHERAPY FOR POSTOPERATIVE PAIN IN CARDIAC SURGERY

Abstract: The purpose of the article is to summarize and analyze the main causative factors that determine the ineffectiveness of modern antihelicobacter therapy regimens.

Keywords: eradication, compliance, polymorphism, CYP2C19, MDR1, IL-1β, generics, clarithromycin.

ВВЕДЕНИЕ

В настоящее время инфекция *Helicobacter pylori* относится к одной из наиболее распространенных бактериальных инфекций человека. Согласно эпидемиологическим данным, более 50% населения мира (примерно три миллиарда человек) инфицировано данным микроорганизмом [1]. При этом исследователями многих стран наглядно показана прямая корреляционная зависимость степени инфицированности жителей от общего экономического развития страны, уровня жизни и образования, а также санитарно-гигиенических условий проживания [2]. Так, в индустриально развитых странах от 20 до 50% взрослого населения инфицировано *H. pylori*, а в развивающихся странах уровень инфицированности превышает 80% (рис. 1).



Рис. 1. Распространенность инфекции *H. Pylori* в мире среди взрослого населения

МАТЕРИАЛЫ И МЕТОДЫ

Неэффективность ЭТ может зависеть от ряда факторов, которые в целом можно разделить на три основные группы в зависимости от происхождения (см. таблицу):

· факторы, детерминированные микроорганизмом (бактерией);

· факторы, детерминированные макроорганизмом (пациентом);

· факторы, детерминированные врачом.

При этом в клинической практике нередки случаи, когда у одного пациента имеется сочетание нескольких независимых факторов, определяю-щих неудачу проводимой ЭТ [2].

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

На настоящий момент резистентность *H. pylori* к антибактериальным средствам рассматривается как главный фактор, негативно влияющий на эффективностьразличныхсхем ЭТ [3]. В основе формирования механизмов резистентности лежат преимущественно точечные мутации, обусловливающие альтерацию механизмов действия антибиотиков [4]. В свою очередь, главной причиной столь драматичного роста антибиотикорезистентности *H. pylori* можно считать бесконтрольный и подчас необоснованный прием антибактериальных средств в популяции.

Факторы, определяющие неэффективность ЭТ

Факторы		
детерминированные микроорганизмом (бактерией)	детерминированные макроорга-низмом (пациентом)	детерминированные врачом
Резистентность к антибактериальным препаратам Реактивация кокковых форм *H. pylori* в спиралевидные Высокая бактериальная нагрузка Вирулентность штамма бактерии (CagA-отрицательные, VacA s2m2)	Низкий комплайнс пациента Гиперсекреция соляной кислоты Полиморфизм CYP2C19 Полиморфизм MDR1 Полиморфизм IL-1β Курение Избыточная масса тела/ожирение Сахарный диабет	Некорректное назначение ЭТ Использование дженериков в схемах ЭТ

По данным литературы, распространенность устойчивых штаммов *H. pylori* растет во всем мире [4]. Спектр резистентности охватывает фактически все препараты, используемые в целях эрадикации микроорганизма. При этом среди антибиотиков, применяемых в схемах первой линии ЭТ, наиболее остро проблема резистентности стоит к метронидазолу и кларитромицину, в то время как устойчивость к амоксициллину и тетрациклину остается на довольно низком уровне. Так, согласно систематическому обзору de Francesco и соавт., в общемировой популяции отмечаются следующие показатели резистентности

H. pylori к основным антибиотикам, применяемым в схемах ЭТ [28]:

· кларитромицин – 17,2% (95% ДИ 16,5–17,9),
· тетрациклин – 5,9% (95% ДИ 4,7–7,1),
· рифабутин – 1,4% (95% ДИ 0,81–9,0),
· полирезистентность – 9,6% (95% ДИ 8,5– 10,7).

Некоторые исследования показали, что высокая бактериальная нагрузка является существенным фактором риска неэффективности стандартных схем ЭТ [2]. Во многом это может быть обусловлено вероятностью присутствия на момент начала антибактериальной терапии резистентных штаммов [4].

Курение. Накопленные данные свидетельствуют, что курение негативно влияет на эффективность ЭТ [23, 53, 83]. Например, в мета-анализе T. Suzuki и соавт. было продемонстрировано, что эффективность эрадикации H. pylori на 8,4% выше у некурящих лиц

(95% ДИ 3,3–13,5%, p<0,01). В свою очередь, отношение шансов (ОШ) неудачи ЭТ у курильщиков составило 1,95 (95% ДИ 1,55–2,45, p<0,01) [3].

Избыточная масса тела/ожирение. В исследовании M. Abdullahi и соавт. установлена достоверная ассоциация между низкой эффективностью ЭТ и избыточной массой тела или ожирением у пациентов без сахарного диабета. Так, эффективность эрадикации у этой категории больных составила 55,0% по сравнению с 85,4% у лиц с ИМТ <25 кг/м2 (ОШ 4,77; 95% ДИ 1,64–13,87, p<0,005) [2].

Сахарный диабет. В ряде исследований выявлено отрицательное влияние сопутствующего сахарного диабета (как 1-го, так и 2-го типа) на эффективность ЭТ. Так, в сравнении с контрольными группами изучавшийся показатель у этой категории больных, как правило, был на 30% ниже [1].

ЗАКЛЮЧЕНИЕ

Таким образом, эффективность антигеликобактерной терапиизависитотдостаточноширокого спектра гетерогенных причин. На настоящий момент, безусловно, главным фактором, определяющим неэффективность назначенного лечения, является рост антибиотикорезистентности *H. pylori* к основным препаратам, используемым в схемах ЭТ первой линии. В мире уровень резистентности к кларитромицину пока не является критическим, что обусловливает приоритетный выбор стандартной тройной ЭТ с кларитромицином как основной схемы эрадикации инфекции. Тем не менее, некорректное назначение ЭТ, в том числе использование некачественных дженериков кларитромицина, может являться фактором недостаточной эффективности ЭТ, а также причиной прогрессирования антибиотикорезистентности в нашей стране. Ввиду сказанного представляется разумным преимущественное назначение оригинального кларитромицина в схемах ЭТ.

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СРАВНИТЕЛЬНАЯ ОЦЕНКА ТЕРАПИИ ПРЕПАРАТОМ УРО-ВАКСОМ ДЕТЕЙ С ОСТРЫМ И ХРОНИЧЕСКИМ ПИЕЛОНЕФРИТАМИ

Аннотация.В настоящей работе приводятся результаты исследования 80 детей с острым и хроническим пиелонефритом в возрасте от 0 до 18 лет. Полученные данные свидетельствуют о том, что клинико-лабораторные и иммунологические показатели у больных детей с пиелонефритом, вызванным различными возбудителями, существенно не отличались. Включение в комплекс лечения препарата уроваксом позволяет проводить иммунокоррекцию у больных пиелонефритом детей, что приводит к более быстрому наступлению клинико-лабораторной ремиссии.

Ключевые слова: пиелонефрит, иммунокоррекция, уроваксом, лимфоциты, иммуноглобулины.

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COMPARATIVE EVALUATION OF IMMUNOTHERAPY IN CHILDREN WITH ACUTE AND CHRONIC PYELONEPHRITIS

Abstract. This paper presents the results of a study of 80 children with acute and chronic obstructive pyelonephritis aged 0 to 15 years. These data suggest that the clinical laboratory and immunological parameters in patients with children with pyelonephritis caused by various pathogenethis, were not significantly different. Introduction to complex drug treatment by Uro-vaksom allows immunocorrection in patients with pyelonephritis children, which leads to a more rapid onset of clinical and laboratory remission.

Keywords: pyelonephritis, immunotherapy, Uro-vaksom, lymphocytes, immunoglobulins.

Актуальность проблемы. Пиелонефрит является одним из самых распространенных после ОРВИ заболеваний. Анализ данных литературы и результаты собственных наблюдений и исследований свидетельствуют о том, что пиелонефрит в детском возрасте отличается упорным течением и непредсказуемым прогнозом. Поэтому чрезвычайно важным является изыскание новых эффективных способов лечения детей, больных пиелонефритом. По последним данным в разных регионах стран СНГ заболеваемость пиелонефритом среди детей колеблется от 4,4 до 27,5 % **[**1,2,3,4,5]. В настоящее время достоверно установлено, что возбудителем пиелонефрита является микробная флора, которая предшествует и сопутствует заболеванию. В последние годы появились отдельные сообщения о роли иммунологических реакций в патогенезе пиелонефрита, в литературе имеются указания на схожесть патогенеза пиелонефрита и гломерулонефрита, в развитии которого сущесвтенная роль принадлежит иммунолопатологическим механизмам. Однако остаётся не до конца изученной роль иммунологических реакций в патогенезе острого и хронического пиелонефрита.

Цель работы: Изучить состояние клеточного и гуморального иммунитета при острых и хронических пиелонефритах у детей в зависимости от возбудителя заболевания, разработать критерии эффективности лечения пиелонефрита с учетом включения в комплексную терапию иммунокорригирующих препаратов.

Материал и методы исследования. Работа проводилась на базе нефрологического отделения Областного детского многопрофильного медицинского центра города Андижан в период с 2021-2022 гг. Под нашим наблюдением находилось 80 детей (30 мальчиков и 50 девочек) в возрасте от 1 года до 18 лет с манифестными клинико-лабораторными проявлениями острого пиелонефрита на фоне дисметаболической нефропатии с сохраненной функцией почек (42 больных) и хронического необструктивного пиелонефрита. У наблюдаемых больных общепринятыми методами проводились общеклинические, биохимические, бактериологические, инструментальные и иммунологические исследования. Иммунологический статус больных изучался в центральной научно-исследовательской лаборатории АГМИ. Обследование больных проводилось 2-х кратно – при поступлении в стационар и в период клинико-лабораторной ремиссии.

Результаты и их обсуждение. При посевах мочи у наблюдаемых нами больных в 50% случаев был выделен стафилококк, в 38% кишечная палочка, в 7 % - клебсиелла, в 5 % - протей (Рис. 1).

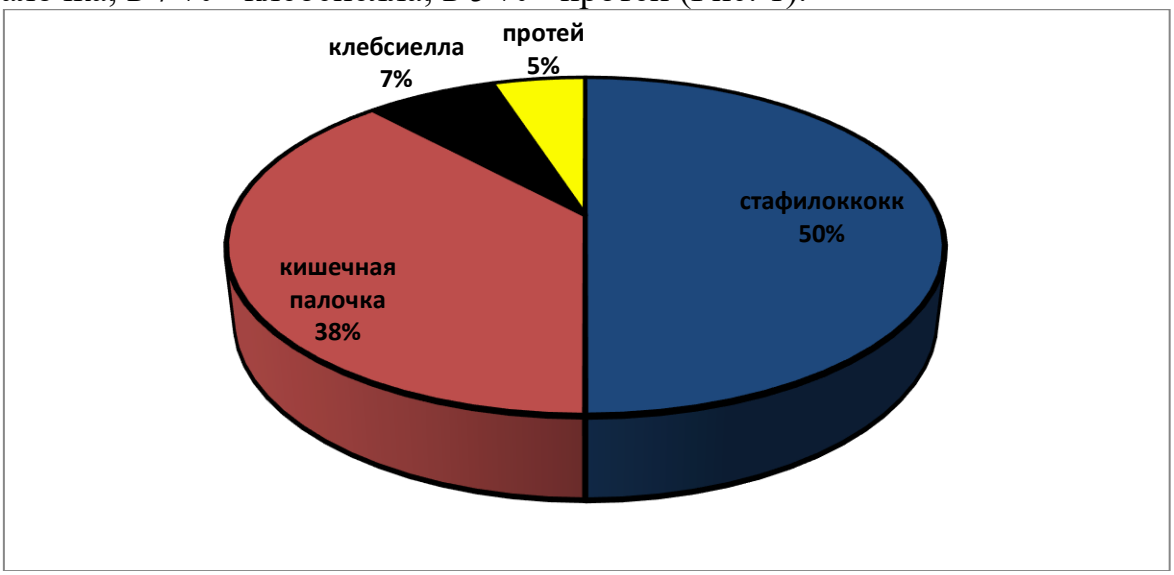


Рисунок 1. ***Возбудители пиелонефрита по данным на 2021-2022 годы отделения нефрологии ОДММЦ.***

Несмотря на то, что возбудителями пиелонефрита у наблюдаемых детей были разные микроорганизмы, каких-либо отличительных особенностей клинико-лабораторных проявлений заболевания, вызванного стафилококком, кишечной палочкой, протеем и клебсиеллой, у них не отмечалось. Не отмечалось существенной разницы и в иммунологических показателях (Таблица 1).

Таблица 1

Иммунологические показатели крови у детей, больных пиелонефритом, вызванных разными возбудителями (M±м)

Показатели	Контрольная группа	У больных пиелонефритом	
		При поступлении	В период клинико-лабораторной ремиссии
Популяции и субпопуляции лимфоцитов в крови:			
Т-лимфоциты	59,54±0,87	45,63±0,82	53,74±0,73
Т- хелперы	73,04±1,70	58,20±0,90	67,84±0,71
Т-супрессоры	26,90±1,70	41,80±0,90	32,16±0,71
Отношение Тх/Тс	2,9±0,26	1,39±0,07	2,10±0,06
В-лимфоциты	25,28±0,39	24,46±0,67	26,8±0,94
О-лимфоциты	14,94±0,80	29,91±0,88	19,39±0,64
Иммуноглобулины в сыворотке крови в мкмоль/л:			
Иммуноглобулин G	54,97±1,86	50,63±0,83	53,69±0,75
Иммуноглобулин A	8,46±0,33	7,70±0,18	7,69±0,20
Иммуноглобулин M	0,92±0,02	1,50±0,05	1,02±0,03

У общей группы больных пиелонефритом при поступлении в стационар имело место значительное уменьшение количества Т-лимфоцитов (P<0,001), что сохранялось через 2 недели от начала лечения (P<0,001), т.е. в периоде клинико-лабораторной ремиссии. Наряду с этим, у больных во все сроки исследования имело место уменьшение количества Т-хелперов и увеличение числа Т-супрессоров, понижение соотношения Тх/Тс (P<0,01-0,001), повышение процентного содержания О-клеток (P<0,001) при отсутствии достоверных изменений числа В-лимфоцитов в крови. Кроме того, у детей с пиелонефритом при поступлении в стационар выявлялось небольшое увеличение иммуноглобулина G (P<0,05), во все сроки исследования – небольшое понижение концентрации иммуноглобулина A(P<0,05) и выраженное увеличение содержания иммуноглобулина M в сыворотке(P<0,01-0,001).

У 56 больных отмечалась высокая чувствительность к антибиотику цефалоспоринового ряда – цефазолину и цефтриаксону, а у 24 больных отмечалась чувствительность к гентамицину. В этой связи в качестве базисного антибактериального препарата нами был использован Цефазолин или Цефтриаксон, относящиеся к группе цефалоспоринов и Гентамицин, относящийся к аминогликозидам и воздействующий на грамм-отрицательные микроорганизмы. Наряду с антибиотиками 60 больным в комплекс лечения был включен препарат Уро-ваксом, являющийся иммуностимулирующим агентом, который оказывает стимулирующее действие на Т-лимфоциты, индуцируя производство эндогенного интерферона и увеличивает количество иммуноглобулина A (IgA), в том числе в моче. Соответственно 20 больных пиелонефритом

детей (8 с острым пиелонефритом и 12 с хроническим пиелонефритом), в комплекс лечения которых не был включен Уро-ваксом, составили контрольную группу. Антибактериальная терапия всех исследуемых детей с пиелонефритом проводилась на основе данных бактериологического исследования мочи, т.е. антибиотик + уросептик. При наличии дисметаболической нефропатии назначалась соответствующая диета и дополнительно литолитический препарат. Курс лечения антибиотиками составлял 7-10 дней, всего 2-3 курса с последующим переходом на ежемесячное поддерживающее уроантисептическое лечение в течение 6-12 месяцев. Больным детям основной группы в комплекс лечения был включен препарат Уро-ваксом в виде капсул для приёма внутрь 1 раз в день в течение 30 дней.

Анализ данных наблюдений и исследований позволил установить, что у больных пиелонефритом, получавших в составе комплексной терапии препарат Уро-ваксом, имело место более быстрое исчезновение основных клинических симптомов заболевания и тенденция к нормализации лабораторных показателей. Клинико-лабораторная ремиссия процесса наступала у этих детей быстрее и они выписывались из стационара на 4-5 дней раньше больных, не получавших Уро-ваксом. Сравнительная оценка результатов исследований у детей с пиелонефритом, получавших в составе комплексной терапии препарат Уро-ваксом показала, что у этих групп больных регистрировались неоднозначные сдвиги иммунологических показателей (Таблица 2).

Таблица 2

Сравнительная анализ иммунологических показателей у детей с пиелонефритом, получавших в составе комплексной терапии Уроваксом

Показатели	**Больные пиелонефритом, получавшие традиционное лечение**		**Больные пиелонефритом, получавшие Уроваксом в составе комплексной терапии**	
	При поступлении	**В период клинико-лабораторной ремиссии**	**При поступлении**	**В период клинико-лабораторной ремиссии**
Популяции и субпопуляции лимфоцитов в крови:				
Т-лимфоциты	45,63±0,82	53,74±0,73	45,63±0,82	59,84±0,78
Т- хелперы	58,20±0,90	67,84±0,71	58,20±0,90	71,82±0,82
Т-супрессоры	41,80±0,90	32,16±0,71	41,80±0,90	28,18±0,82
Отношение Тх/Тс	1,39±0,07	2,10±0,06	1,39±0,07	2,54±0,06
В-лимфоциты	24,46±0,67	26,8±0,94	24,46±0,67	22,68±0,53
О-лимфоциты	29,91±0,88	19,39±0,64	29,91±0,88	17,48±0,93
Иммуноглобулины в сыворотке крови в мкмоль/л:				
Иммуноглобулин G	50,63±0,83	53,69±0,75	50,63±0,83	52,85±0,65

Иммуноглобулин А	7,70±0,18	7,69±0,20	7,70±0,18	7,58±0,13
Иммуноглобулин М	1,50±0,05	1,02±0,03	1,50±0,05	0,92±0,02

У детей с пиелонефритом после курсов традиционного лечения во все сроки исследования сохранялся дефицит Т-лимфоцитов и хелперов, увеличение количества В- и О- клеток в крови (Р<0,02 - 0,001). Но у больных, получавших Уро-ваксом в составе комплексной терапии, регистрировался менее выраженный дефицит Т-лимфоцитов и более низкое содержание в крови) О-клеток, нежели у больных, получавших традиционное лечение (Р<0,02 - 0,001). У больных, получавших традиционное лечение (антибиотик + уросептик) в динамике отмечалось нормальное содержание иммуноглобулина G, пониженный уровень иммуноглобулина А и повышение концентрации иммуноглобулина М.

У больных пиелонефритом, в состав комплексного лечения которым вводился препарат Уро-ваксом, регистрировалась нормализация количества Т-лимфоцитов, хелперов и супрессоров, при сохранении уменьшенного числа В-лимфоцитов (Р<0,001) и небольшого увеличения числа О-клеток (Р<0,05). У детей с пиелонефритом, получавших в составе комплексной терапии иммуностимулятор Уро-ваксом, в период ремиссии заболевания регистрировалась нормализация содержания иммуноглобулина G и М при сохранении пониженной концентрации иммуноглобулина А в сыворотке крови (Р<0,02). Представленные выше данные свидетельствуют о том, что у детей с острым и хроническим необструктивным пиелонефритом, получавших в составе комплексной терапии препарат Уроваксом констатировалось более быстрое наступление клинико-лабораторной ремиссии процесса и выраженная тенденция к нормализации иммунологических показателей, нежели у больных, получавших традиционное лечение.

Выводы:

1.Результаты исследований свидетельствуют о высокой терапевтической эффективности препарата Уро-ваксом в составе комплексной терапии пиелонефрита у детей.

2.Введение в комплекс лечения препарата Уро-ваксом позволяет корригировать иммуные сдвиги у больных пиелонефритом детей, что приводит к более быстрому наступлению клинико-лабораторной ремиссии и профилактике рецидивов.

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МЕХАНИЗМЫ РАЗВИТИЯ КАРДИОЛОГИЧЕСКИХ ЗАБОЛЕВАНИЙ ПРИ ВОЗРАСТНЫХ НАРУШЕНИЯХ СОСТОЯНИЯ НЕРВНОЙ СИСТЕМЫ

Аннотация: Приводятся оригинальные данные о содержании синтазы оксида азота в нервном аппарате сердца в норме и при ишемической болезни сердца, намечены перспективы иммуноцитохимических исследований центральной и периферической нервной системы в возрастном аспекте и при основных сердечно-сосудистых заболеваниях.

Ключевые слова: онтогенез нервной системы, ранняя инволюция симпатических сплетений, вариабельность сердечного ритма, синтаза оксида азота.

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MECHANISMS OF THE DEVELOPMENT OF CARDIAC DISEASES WITH AGE DISTURBANCES OF THE STATE OF THE NERVOUS SYSTEM

Abstract: Original data on the content of nitric oxide synthase in the nervous apparatus of the heart in normal and coronary heart disease are presented, prospects for immunocytochemical studies of the central and peripheral nervous system in the age aspect and in major cardiovascular diseases are outlined.

Keywords: ontogeny of the nervous system, early involution of sympathetic plexuses, heart rate variability, nitric oxide synthase.

ВВЕДЕНИЕ

Известно, что этиопатогенез многих заболеваний связан с состоянием нервной системы. В кардиологии активно развивается направление

«Мозг-сердце» и проводится изучение нарушений регуляторных влияний нервной системы в генезе сердечно-сосудистой патологии [3]. Исследования возрастной иннервации внутренних органов, начиная с

прошлого века, проводились в Казанском мединституте под руководством Н.А. Мислявского [3].

МАТЕРИАЛЫ И МЕТОДЫ

Иммуногистохимическими методами изучена активность NO-синтазы в ганглиях сердца в норме и при патологии. Установлено, что в конце 2-го месяца развития в нервные терминали сердца и сосудов эмбриона проникают медиаторы — ацетилхолин и норадреналин [2]. Это дало основание считать, что с началом плодного периода на 3-м месяце беременности одновременно с образованием плаценты появляются адаптационно-трофические влияния нервных сплетений на развивающуюся сердечно-сосудистую систему (рис. 1, А). Таким образом, плодный период наряду с дифференцировкой центральной нервной системы характеризуется началом медиаторного этапа вегетативной нервной системы.

Морфофункциональныйанализ развития иннервации сердечно-сосудистой системы наряду с традиционными нейрогистохимическими исследованиями казанских нейрогистологов был проведён также в исследованиях А.Д. Ноздрачева и П.М. Маслюкова [1]. Необходимо отметить, что при детальном исследовании домедиаторного, медиаторного и постмедиаторного этапов возрастных преобразований регуляторных механизмов сердечно-сосудистой системы В.Н. Швалевым совместно с А.А. Сосуновым были выделены их последовательные стадии [3], а совместно с В.П. Реутовым установлено значение в динамике этих процессов изменений содержания в тканях сердца и сосудов синтазы оксида азота [3].

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Активное развитие нервного аппарата сердца происходит к периоду полового созревания, и в наибольшей степени концентрация афферентных и эфферентных сплетений определяется в сердце человека на втором и третьем десятилетиях (рис. 1, Б).

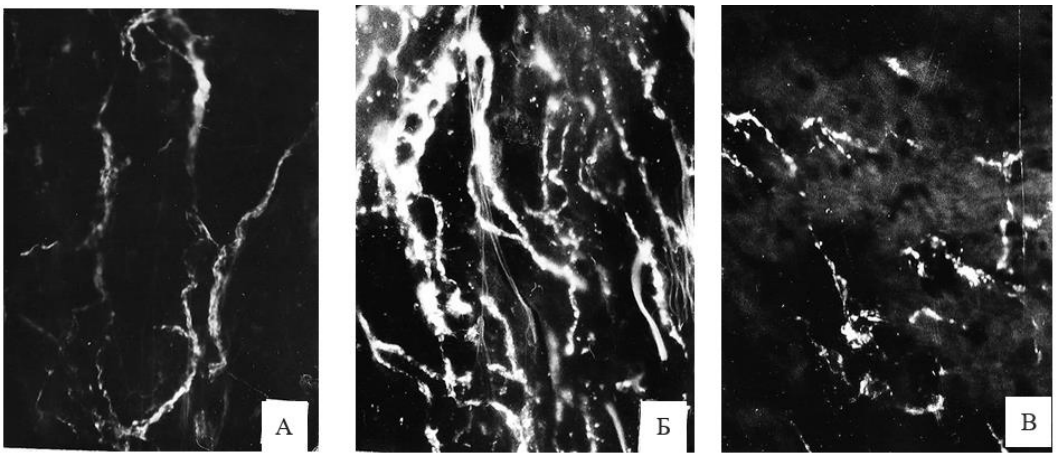


Рис. 1. Динамика возрастных изменений плотности адренергических нервных сплетений в миокарде левого желудочка сердца в пренатальном и постнатальном онтогенезе. А — 9-недельный плод человека (материал после аборта); Б — 32-летний мужчина; В — 64-летний мужчина (исследования сердец здоровых людей, погибших при катастрофах). Люминесцентная микроскопия. Увеличение ×400

Со стороны центральной нервной системы трофическая регуляция сердечно-сосудистой системы усиливается. Таким образом, взаимоотношения мозг-сердце человека в течение первых 30–40 лет жизни характеризуются оптимально высокой активностью, но затем наряду с возрастными изменениями нейронов центральной нервной системы происходит снижение деятельности соматического отдела периферической нервной системы. Как показали морфофункциональные исследования, это отчасти связано с уменьшением содержания медиаторов в симпатических сплетениях сердца и сосудов, однако одновременно возникает и нарастает компенсаторное повышение эндокринной регуляции кровеносной системы [1], хотя влияние вредных привычек при нарушениях морфофизиологии сердца и сосудов продолжает проявляться [2].

Как правило, при внезапной смерти обнаруживались очаговые нарушения состояния симпатических нервных сплетений сердца, особенно в синусовом узле (рис. 2) и по протяжению проводящей системы. Возникающая вследствие резкой неравномерности морфологии нервного аппарата сердца нестабильность его нервной регуляции, несомненно, способствовала частому сокращению миокарда — фибрилляции желудочков сердца.

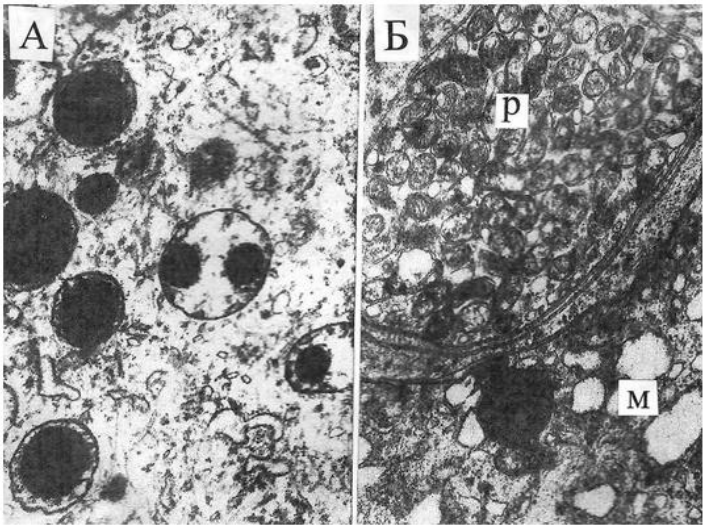


Рис. 2. Состояние нейронов звёздчатого нервного узла при внезапной сердечной смерти. А — изменения в нейронах митохондрий с нарушениями крипт; выявляется терминаль рецептора, инвагинированная в нейрон и отличающаяся неизменёнными митохондриями. Мужчина 51 года. Б — заполнение изменяющихся митохондрий осмиофильным материалом в нейронах звёздчатого нервного узла при внезапной сердечной смерти. Мужчина 54 лет

ЗАКЛЮЧЕНИЕ

Как известно, исходя из классических трудов Кеннона и Розенблюта, в результате десимпатизации сердца и сосудов происходит «повышение чувствительности денервированных структур» [3]. Адренореактивность тканей в десимпатизированных тканях нарастает, компенсаторно увеличивается гуморальная регуляция сердечно- сосудистой системы. В связи с этим назначение пациенту адреноблокаторов направлено не на мнимое снижение «повышенной активности симпатоадреналовой системы», как ошибочно продолжают утверждать некоторые кардиологи [1]. Вводимые медикаменты обеспечивают блокаду возрастающего в онтогенезе количества адренорецепторов в связи с проявлениями феномена ранних инволюционных изменений симпатического отдела вегетативной нервной системы [4].

Таким образом, фундаментальными и перспективными направлениями в развитии кардиологии в настоящее время являются проблемы углублённого изучения этапов онтогенеза системы мозг-сердце, усложняя морфофункциональные исследования изменений состояния нервной системы при кардиологических заболеваниях. Сегодня перспективно детальное изучение возрастной регуляции сердечно-сосудистой системы в аспекте возможных изменений генетического кода организма при реализации планируемых космических полётов.

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О ФАКТОРАХ, ОПРЕДЕЛЯЮЩИХ ПРОБЛЕМЫ РАЗМЕЩЕНИЯ НАСЕЛЕНИЯ В ГОРНЫХ РАЙОНАХ УЗБЕКИСТАНА (НА ПРИМЕРЕ ГОРНЫХ РАЙОНОВ ДЖИЗАКСКОЙ ОБЛАСТИ)

Аннотация: В статье на примере районов, расположенных в горных районах Джизакской области. Факторами, определяющими эти проблемы, являются наблюдаемые в последние годы тенденции в размещении населения Узбекистана, то есть население все больше перемещается в горные и предгорные районы, а по демографическим показателям увеличивается рождаемость. в этих регионах. Поэтому подчеркивается, что территориальная организация населения в регионах страны, особенности природных условий и природных ресурсов должны учитываться при формировании поселений, и это должно быть важным аспектом социальной политики страны. Также в связи с этим сказано, что необходимо исследовать природные условия и ресурсный потенциал разных регионов и давать выводы.

Ключевые слова: горные и предгорные районы, населенные пункты, природный ресурс, проблема, размещение населения, водоемы.

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ON THE FACTORS DETERMINING THE PROBLEMS OF POPULATION PLACEMENT IN THE MOUNTAIN AREAS OF UZBEKISTAN (ON THE EXAMPLE OF THE MOUNTAINOUS REGIONS OF THE JIZZAKH REGION)

Annotation: The article uses the example of districts located in the mountainous regions of the Jizzakh region. The factors determining these problems are the trends observed in recent years in the distribution of the population of Uzbekistan, that is, the population is increasingly moving to mountainous and foothill areas, and in terms of demographic indicators, the

birth rate in these regions is increasing. Therefore, it is emphasized that the territorial organization of the population in the regions of the country, the peculiarities of natural conditions and natural resources should be taken into account when forming settlements, and this should be an important aspect of the country's social policy. Also in this regard, it is said that it is necessary to investigate the natural conditions and resource potential of different regions and draw conclusions.

Key words: mountainous and foothill areas, settlements, natural resource, problem, population distribution, reservoirs.

Размещение населения и организация хозяйственной деятельности в горных и предгорных районах зависят от взаимосвязанного воздействия многих факторов. Наряду с общими природно-географическими факторами формируются образ жизни и хозяйственная деятельность людей, а также сложный узел экономических и социальных отношений. В первую очередь люди селятся в горных и предгорных районах, где ресурсы наиболее доступны, где природные условия оказывают подходящее воздействие, и создаются поселения. Отмечено, что важнейшим фактором, определяющим размещение населения в горных и предгорных районах, являются водоемы. Кроме того, учитываются такие факторы, как водный режим, движение, рельеф, осадки и направление ветра этих водоемов, сторон света. Анализируя влияние этих факторов на их размещение в разной степени, можно будет сделать вывод об особенностях формирования поселений в горных районах.

Ш. Рашидовский, Бахмальский, Галлаорольский, Зоминский, Форишский, Янгиабадский районы, расположенные в горных и предгорных районах Джизакской области, близки между собой по территориальному расположению и аспектам формирования, но в них наблюдаются некоторые различия по возможности использования природных ресурсов этих районов. Системы расселения в горных районах формировались с древних времен, развитие сельских и городских поселений связано с различными факторами. В горных районах деревни, естественно, являются основными населенными пунктами. Природные условия горного региона оказывают непосредственное влияние на формирование сел, поэтому существуют некоторые различия в плотности заселения горных районов.

Территориальные соотношения населённых пунктов горных районов Джизакского вилоята.
(2021 год)

№	Наименование административных территорий. (районов)	Площадь 1000 км2	Количество населённых пунктов.	Плотность населённых пунктов. На каждой 100 км. кв. НП.
1.	Бахмал	1,86	99	5,3
2.	Им. Ш. Рашидова.	0,45	45	10
3.	Заамин	2,87	82	2,8
4.	Фариш	9,67	112	1,2
5.	Янгиабад	0,72	30	4,1
6	Галлаарал	1,95	109	5,6

Таблица составлена автором на основе данных Статистического управления Джизакского вилоята.

Как видно из таблицы, плотность поселений неодинакова по районам. Это связано с тем, что системы расселения населения в районах связаны с природными условиями и возможностями использования ресурсов. Например, количество населенных пунктов в Форишском районе самое большое, а площадь района очень большая, и основную часть этой территории составляют равнины вокруг Кызылкумов и Айдарколь, следовательно, расселение населения односторонний. В связи с этим видно, что количество и расположение населенных пунктов в Бахмальском и Галлаорольском районах выгодно по сравнению с другими районами. Ожидается увеличение плотности заселения на территории Джизакской области, так как этот район имеет наиболее благоприятные условия для расселения населения.

Факторами, влияющими на размещение населения в горных и предгорных районах и расширение населенных пунктов, являются:

- ❖ Рельеф местности;
- ❖ Возможность использования водоемов;
- ❖ Наличие площадей для посадки сельскохозяйственных культур;
- ❖ Природно-ресурсный потенциал: растительный покров, образующий естественные пастбища;
- ❖ Рост населения.

Эти факторы всегда имеют комплексное воздействие, каждый фактор взаимосвязан, и под этим комплексным воздействием происходит рост населения и расширение территории.

При рассмотрении распределения населенных пунктов районов, расположенных в горных и предгорных районах области, по высотным районам было известно, что высотные районы, в которых расположены районы, имеют большие различия в количестве населенных пунктов. Такие различия определяются размерами территории, что может повлиять на

рост поселений в количественном и территориальном отношении. Например, Джизакская область имеет большую площадь в предгорной равнине до 400 м абсолютной высоты, при этом формируется спрединговый конус реки Сангзор, равнинная территория имеет дополнительную систему искусственного орошения, в результате поселения постоянно расширяются и их число увеличивается. В Галлаорольском районе такие возможности есть на высоте 600-800 м. Отмечается, что данная ситуация связана с рекой Сангзор. Из анализа размещения и количественного соотношения населенных пунктов в районах по высотным районам можно сделать вывод, что размещение населения и количество населенных пунктов тесно связаны с определенными высотными районами, и эта связь может вызвать ряд проблем в настоящее время и в будущем. Такие проблемы имеют следующий характер:

- увеличение плотности населения на определенной территории и территориальные вопросы;
- Проблемы, связанные с использованием ресурсов в районах с высокой плотностью населения;
- Потребление населения и экологические проблемы;
- Проблемы, связанные с охраной природных территорий.
- Проблемы, связанные с планировкой и развитием населенных пунктов;
- Проблемы, связанные с оказанием услуг населению.

Увеличение в природных условиях плотности населения в благоприятных местах зависит от наличия природных ресурсов, и люди стремятся жить в таких местах. Например, плотность населения в Бахмальском и Галлаорольском районах сохраняется вдоль реки Сангзор, а плотность населения в этих селах увеличивается. По мере удаления от него количество поселений уменьшается, поселения в основном расположены вдоль ручьев. Проблемы использования водных объектов являются очень актуальным вопросом в обоих районах, а также в Форишском районе. Рост населения увеличивает интенсивность использования ручьев и родников, вызывая рост населения вдоль водоемов. В результате стремление населения использовать больше природных ресурсов приводит к расширению поголовья скота, обрабатываемых площадей и жилых массивов. Население оказывает наиболее сильное влияние на рациональное использование природных ресурсов в горных и предгорных районах области. Известно, что население этих районов в основном занимается скотоводством и богарным земледелием. В результате расширения поселений, расширения посевных площадей площадь пастбищ сокращается и перемещается на более высокие высоты.

В последние годы в различных аспектах проявляются особенности расселения населения в природных зонах, свойственные горным и

предгорным районам. У жителей каждого горного района свои проблемы размещения. В Бахмальском районе наблюдается интенсификация поселений по реке Сангзор, активизация хозяйственной деятельности на склонах гор и увеличение по Большому Узбекскому тракту, на Галлаоролском равнине. Это участки, которые используются как пастбища только ранней весной, а поселения в этом районе тянутся вдоль ручьев.

Проблемы, характерные для населенных пунктов горных районов, проявляются в их территориальных связях, что приводит к усложнению вопросов, связанных с транспортом и снабжением. К таким проблемам относятся:

1. Увеличение населения приводит к созданию новых поселений;

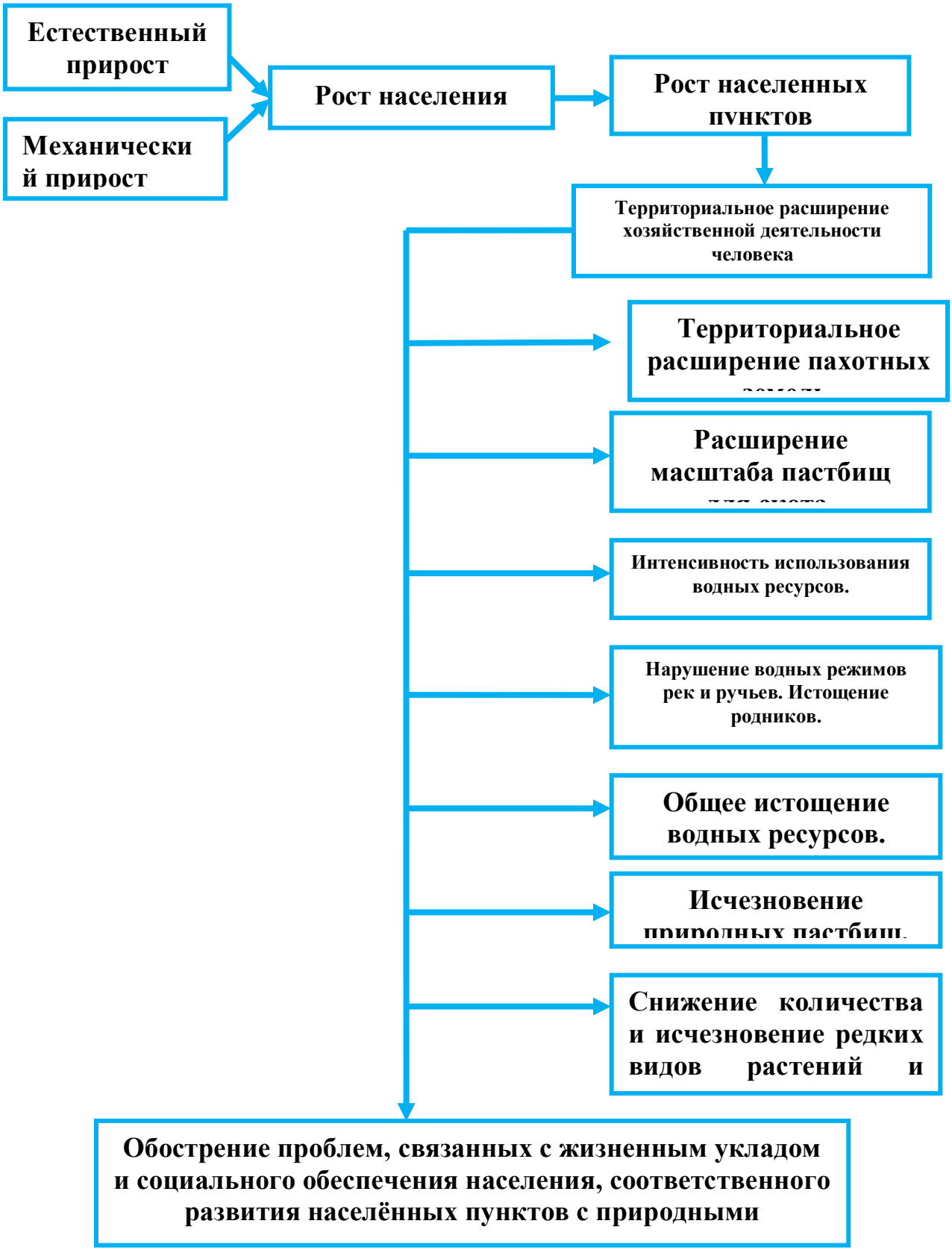
2. Замечено, что новые поселения создаются в местах, неудобных для ведения бизнеса людьми, вдали от ранее занятых благоприятных районов;

3. Из-за того, что единого упорядоченного плана новых поселений не установлено, устройство домов и улиц свидетельствует о беспорядочности размещения строений и о трудности формировании нужных инфраструктур;

4. Возникают трудности с обеспечением таких населенных пунктов газом, электричеством, транспортом.

Следует отметить, что близость населенных пунктов горных районов к предгорьям и их концентрация вдоль водоемов вызывает проблемы экологического характера. Постоянное использование пастбищ населением и превращение естественных сенокосных угодий в возделываемые поля могут привести к утрате редких видов растений и ускорению эрозионных процессов в предгорьях. В то же время районы Туркестанского, Молгузарского и Нуротинского хребтов, нуждающиеся в охране, приближаются к местам проживания людей и хозяйственной деятельности и все больше на них воздействуют. Даже если нет прямого уничтожения населением охраняемых растений и животных, приток людей в такие районы оказывает негативное влияние на природу. Наряду с хозяйственной деятельностью населения увеличивается количество людей, приезжающих в природные зоны для отдыха и развлечений, что усугубляет проблему.

Факторы, определяющие возникновение и постепенный рост проблем расселения населения в горных районах.



Также вызывает озабоченность то, что плотность поселений на берегах водоемов повышает уровень водопользования и приводит к уменьшению воды, нарушению водного режима рек и ручьев, что в свою очередь усиливает негативное воздействие на естественные процессы.

Поэтому для охраны природных процессов в горных районах, для охраны природных богатств района актуальным вопросом является контроль за расселением населения в этих районах, регулирование расселения людей в районах, а также организация поселений.

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ПРИЧИНЫ АВАРИЙ И НЕСЧАСТНЫХ СЛУЧАЕВ НА ПРОИЗВОДСТВЕ НЕФТЕГАЗОВОЙ ОТРАСЛИ

Аннотация: в статье рассматриваются причины аварий и несчастных случаев на производстве нефтегазовой отрасли.
Ключевые слова: нефтегазовая отрасль, рабочее место, газовая промышленность.

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CAUSES OF ACCIDENTS AND ACCIDENTS IN THE OIL AND GAS INDUSTRY

Abstract: the article discusses the causes of accidents and accidents in the oil and gas industry.
Keywords: oil and gas industry, workplace, gas industry.

Нефтегазовые аварии, травмы и смертельные случаи стали серьезным и слишком частым явлением, поскольку отрасль продолжает расти огромными темпами. По данным переписи смертельных случаев производственного травматизма с 2020 по 2022 год, на производстве погибло 1485 нефтяников и газовиков. Нефтяная и газовая промышленность является жизненно важной частью экономики, но она также полна опасностей для сотрудников.

В 2011 году в нефтегазодобывающей и вспомогательной отраслях было занято более 450 000 человек (Ежеквартальная перепись занятости и заработной платы). Эти рабочие заняты во многих различных производственных процессах, необходимых для успешного бурения и обслуживания скважин. Эти методы часто требуют использования специализированного оборудования и специализированных рабочих бригад. С 2003 по 2016 год 1485 рабочих нефтегазового сектора погибли на рабочем месте – уровень смертности в семь раз выше, чем во всех отраслях промышленности, по данным Ростехнадзора.

Работники нефтяной и газовой промышленности подвержены всевозможным травмам из-за природных опасностей на работе.

Большинство смертей в нефтегазовой отрасли связано с транспортом, особенно когда рабочие переезжают с одного рабочего места

на другое по небезопасным сельским дорогам. Примерно четыре из каждых десяти смертей на работе происходят в результате столкновений транспортных средств. Несчастные случаи на транспорте являются наиболее частой причиной смертельных травм на рабочем месте в нефтегазодобывающей промышленности. Только в 2011 году этот тип несчастных случаев стал причиной почти 50 процентов смертельных случаев на рабочих местах в отрасли. От рабочих часто ожидают, что они будут проводить долгие смены в нескольких часах от дома. Работники нефтегазовой отрасли часто не подпадают под действие правил, которые не позволяют водителям грузовиков работать подолгу в дороге, что вынуждает сотрудников совершать длительные поездки домой после смены, которая может длиться 20 часов и более.

Три из пяти смертельных случаев на буровых площадках происходят в результате опасностей, связанных с ударами рабочих, их защемлением и попаданием между движущимися транспортными средствами или оборудованием, линиями высокого давления и падающим оборудованием. Нефтегазовые компании используют опасное оборудование и тяжелую технику, что приводит к производственному травматизму. Тяжелые подъемники, подъемники, буровые вышки, бурильщики, а также разгрузка и погрузка материалов могут привести к раздавливанию или травме. Кроме того, машины, используемые при бурении, очень громкие и могут вызвать потерю слуха. Совершенно необходимо, чтобы нефтегазовые компании требовали от операторов носить соответствующие средства защиты, такие как затычки для ушей и перчатки, при работе с оборудованием.

К сожалению, сочетание опасного оборудования с длительными сменами и усталостью рабочих может привести к катастрофе. Рабочие могут быть расчленены, раздавлены или даже погибнут, если попадут в компрессоры, насосы и другое тяжелое оборудование. Нефтяные и газовые компании обязаны соблюдать правила OSHA, чтобы свести к минимуму риск таких травм, часто проверяя свое оборудование и следя за тем, чтобы у сотрудников были надлежащие средства защиты и перерывы.

Химическое воздействие является обычным явлением в нефтегазовой промышленности. Процессы бурения могут привести к выбросу вредных химических веществ в рабочую зону. В частности, нефтеперерабатывающие заводы могут выделять фтористоводородную кислоту, которая может оставить рубцы в легких и вызвать смерть от удушья. Он настолько ядовит, что может проникать через кожу и вступать в реакцию с кальцием глубоко в наших костях. Длительное воздействие других химических веществ на нефтеперерабатывающих заводах и скважинах может привести к проблемам с дыханием, травмам головного мозга, параличу, лейкемии и другим видам рака.

В краткосрочной перспективе рабочие, подвергшиеся воздействию химикатов нефтяной промышленности, жалуются на головную боль,

тошноту, утомляемость, раздражение глаз и химические ожоги. Крайне важно, чтобы нефтегазовые компании требовали от рабочих носить надлежащие средства защиты и респираторы при работе как на буровой, так и на нефтеперерабатывающем заводе.

Горючие газы и пары представляют опасность для работников нефтяных месторождений при их выбросе из резервуаров, вибросит, грузовиков, генераторов, двигателей, колодцев и другого производственного или наземного оборудования. Пожары и взрывы могут начаться, когда эти материалы вступят в контакт с молнией, статическим электричеством, сигаретами, сварочными и режущими инструментами, открытым огнем, электрическими источниками и даже горячими поверхностями. Работодатели могут предотвратить катастрофические травмы работников, проводя оценку риска возникновения пожара, применяя правила техники безопасности на рабочем месте, и они должны иметь надлежащий план предотвращения пожаров и принимать все меры предосторожности, необходимые для предотвращения трагедии.

Работникам нефтяной и газовой промышленности часто приходится выполнять свои рабочие обязанности высоко над землей, что делает их более уязвимыми к травмам, связанным с падениями. Падение с буровых платформ, поднятого оборудования может привести к серьезным и опасным для жизни травмам. Закон требует, чтобы работодатели обеспечивали защиту от падения, чтобы защитить работников от этих рисков.

К другим угрозам в нефтегазовой отрасли, которые подвергают риску работников, относятся замкнутые пространства, эргономические опасности, обращение с линиями и машинами высокого давления, работа с электроэнергией и опасности, связанные с устьевым оборудованием.

Опасности работы в нефтегазовой отрасли не секрет: опасности хорошо известны, и отраслевые стандарты безопасности отражают этот факт. Но что может быть не столь очевидным, так это огромное количество травм рук и пальцев по сравнению со всеми другими зарегистрированными инцидентами. Безусловно, руки подвергаются наибольшему насилию и больше всего рискуют.

Например, по данным Международной ассоциации буровых подрядчиков (IADC), травмы рук и пальцев составляют гораздо больший процент, чем любая другая категория. В 2015 году общее количество земель в США составляло почти 40 процентов, при этом сочетание других травм, таких как голова, спина и туловище, составляло остальную часть зарегистрированных событий.

Количество аварий на опасных производственных объектах в России 2019 году уменьшилось на 14,3% - со 175 до 150. Число несчастных случаев со смертельным исходом за год снизилось на 7% - со 177 до 165. Это следует из данных Ростехнадзора.

При этом ведомство зафиксировало рост числа аварий на нефтехимических и нефтеперерабатывающих предприятиях- с 12 случаев в 2018 году до 19 по итогам 2019 года.

Самой крупной аварией в 2019 году назван пожар на заводе изопрен-мономера «Нижнекамскнефтехима». В результате пострадали 17 человек, из них четверо скончались. Экономический ущерб от аварии был оценен в 4,2 млн рублей. Приволжское управление Ростехнадзора оштрафовало НКНХ за аварию на 1 млн рублей.

Ростехнадзор в прошлом году отмечал, что уровень промышленной безопасности на предприятиях группы "ТАИФ" оставляет желать лучшего. Они дают основной прирост по количеству аварий и несчастных случаев в отрасли химии и нефтехимии.

С 2014 года на таких предприятиях происходит от одной до четырех аварий в год, а с 2015 года -ежегодно от одной до двух аварий происходит на «Нижнекамскнефтехиме».

Среди причин участившихся аварий он называл критическую изношенность оборудования. Еще одна причина - снижение квалификации персонала, не только работников, но и руководителей. Глава Ростехнадзора Алексей Алешин в декабре 2019 года сообщал, что НКНХ находится под особым вниманием службы. В компании реализовывали программу по повышению уровня промбезопасности.

Существенная часть аварий пришлась на предприятия, входящие в группу «Роснефть». Так, в январе 2019 года случилась авария на «Ангарском нефтехимическом комплексе». Тогда обошлось без пострадавших, экономический ущерб составил 347,9 млн рублей.

С 2017 года «Роснефть» реализует программу по повышению уровня промбезопасности на уфимской группе НПЗ. Этому решению предшествовала серия аварий в 2017 году, показавших состояние заводского оборудования. «Роснефть» тогда возложила ответственность на прежнее руководство «Башнефти», которую она приобрела в конце 2016 года. На эти цели компания планировала направить 25 млрд рублей до 2022 года.

Большинство нефтегазовых компаний проводят кампании по защите рук и пальцев. Образовательные плакаты на стройплощадке и обучение рабочих создают атмосферу осведомленности, что помогает, особенно с более опытными работниками. Отчеты по статистике несчастных случаев показывают, что после пяти лет работы в отрасли количество инцидентов с работниками значительно сократилось.

Однако осведомленность и опыт делают только часть работы. Чтобы бороться с постоянно растущим числом травм, компаниям необходимо подходить к безопасности изнутри, сводя к минимуму возможности риска, а не только обеспечивая защиту. Если защита не работает, рабочий подвергается полной грубой силе опасности.

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ПРОЕКТИРОВАНИЕ РЕСУРСА ДЛЯ ИЗУЧЕНИЯ АНГЛИЙСКОГО ЯЗЫКА

Аннотация: в данной статье описывается проектирование ресурса для изучения английского языка.

Ключевые слова: диаграммы, проектирование, изучение английского языка.

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ENGLISH LEARNING RESOURCE DESIGN

Annotation: This article describes the design of a resource for learning English.

Keywords: diagrams, designing, learning English.

В соответствии с проходящей глобализацией, роль иностранных языков в системе образования значительно изменилась, из обычного дополнительного предмета он превратился в один из основных элементов современной системы образования. Можно заметить, как с каждым днем обучение иностранным языкам становится все популярнее, постоянно открываются новые специализированные учебные заведения, создаются разнообразные курсы и учебные программы.

Несмотря на актуальность темы изучения иностранных языков, выбрать подходящий, а главное эффективный способ изучения является нетривиальной задачей. В то время, как специализированные учебные заведения, языковые курсы и занятия с репетитором зачастую оказываются не по карману, всё большую популярность набирают приложения и интернет- сервисы, позволяющие значительно повысить уровень своих знаний или обучиться языку с нуля практически бесплатно. Однако зачастую такие ресурсы являются узконаправленными и предназначены для изучения одного конкретного языка.

Таким образом, стала актуальной задача создания приложения, позволяющего изучать различные иностранные языки. Важным условием её выполнения является возможность доступа с любого устройства в любой точке мира. Проанализировав особенности создания приложений для различных платформ, было принято решение о разработке web-приложения.

Изучение английского языка для большинства из нас становится, чуть ли не главной проблемой в жизни. Каждый взрослый человек мечтает овладеть английским хотя бы на разговорном уровне и готов выкладывать кучу денег, чтобы овладеть этим навыком. Ниже приведены основные причины популярности английского языка.

Проектирование информационных систем всегда начинается с определения цели проекта. Основная задача любого успешного проекта заключается в том, чтобы на момент запуска системы и в течение всего времени ее эксплуатации можно было обеспечить:

– требуемую пропускную способность системы;

– требуемое время реакции системы на запрос;

– простоту эксплуатации и поддержки системы.

Методология IDEF0 позволяет создать контекстную диаграмму «Как должно быть» интернет-платформы для изучения английского языка в сфере IT (Рис. 1.).

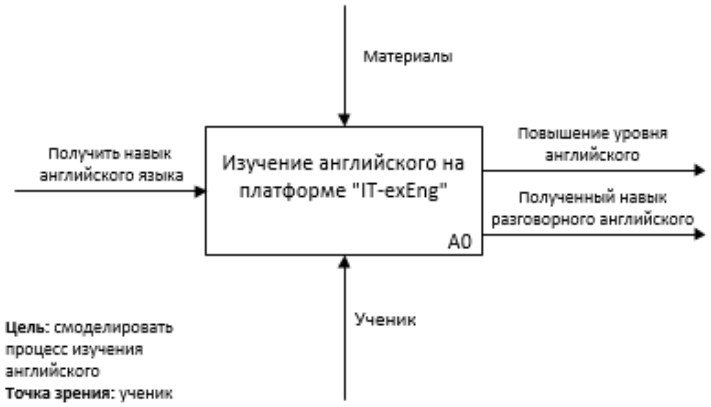


Рис 1. Контекстная диаграмма нотации IDEF0

На данной диаграмме представлен единственный блок с граничными стрелками. Стрелки отображают связи объекта моделирования с окружающей средой. Спроектированная диаграмма декомпозиции (Рис. 2.).

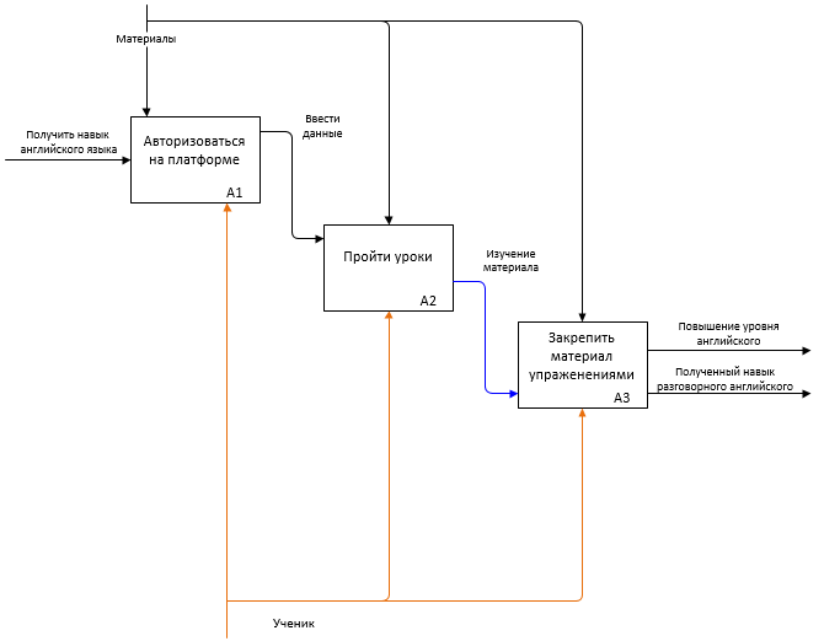


Рис 2. Диаграмма декомпозиции IDEF0

Нотация IDEF0 поддерживает последовательную декомпозицию функций до требуемого уровня детализации. Дочерняя диаграмма, создаваемая при декомпозиции, охватывает ту же область, что и родительская функция, но описывает ее более подробно. Согласно методологии IDEF0 при декомпозиции стрелки переносятся на дочернюю диаграмму в виде граничных стрелок.

В эпоху постоянного развития информационных технологий и Интернет-ресурсов методики преподавания претерпевают изменения, они меняются, совершенствуются и осовременяются. То же самое касается и

обучения иностранному языку, так как актуальность и востребованность знания английского языка возрастает с глобализацией общества и увеличением средств коммуникации с внешним миром.

В теоретическом плане работа показала, что современное преподавание иностранного языка становится заметно легче и эффективнее с использованием новейших технологий и средств представления информации.

Общий итог практического исследования показал целесообразность использования веб-сайтов и мобильных приложений в обучении иностранному языку. Изучение отечественной и зарубежной литературы по данному вопросу позволило сделать вывод о том, что использование веб-сайтов и мобильных приложений дает возможность ученикам получать информацию в удобном и интересном для них формате и иметь доступ к образовательному ресурсу в свободное время, что способствует повышению качества обучения.

Таким образом, среди основных результатов проведенных исследований и разработок можно выделить следующие пункты:

– существующие программные продукты для изучения иностранных языков не уделяют существенного внимания активному использованию языков во время занятий;

– многие из разработчиков существующих решений учитывают современные тенденции, в частности широкое распространение портативных устройств, но не часто задействуют больше аппаратных средств устройств для расширения функционала продуктов;

– применение инструментов обработки естественных языков во многих существующих программных комплексах является ограниченным, также немногие разработчики интегрируют машинное обучение для расширения функциональных возможностей продуктов.

Эксперимент, проведенный со студентами вузов групп лингвистического и нелингвистического направлений, показал наличие технической компетенции студентов для изучения иностранного языка с помощью ИКТ, большую заинтересованность к внедрению веб-сайтов и мобильных приложений в образовательный процесс в вузах и в изучении английского языка вне учебного процесса с применением предложенных ресурсов.

Практическая ценность данной работы заключается в возможности использования на практике методических разработок, созданных на основе материалов, взятых на веб-сайтах и в мобильных приложениях, перспективной областью для дальнейших исследований в плане изучения данной проблемы.

Перспектива исследования состоит в том, что созданные методические разработки с использованием веб-сайтов и мобильных

приложений могут и должны быть применены при дальнейшем изучении иностранного языка.

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НАТРИЙУРЕТИЧЕСКИЕ ПЕПТИДЫ: ИСПОЛЬЗОВАНИЕ В КАРДИОЛОГИИ

Аннотация: Показано, что мониторирование уровня мозгового натрийуретического пептида (NT-proBNP) может быть использовано для подбора оптимальных лекарственных комбинаций в каждом отдельном случае и тем самым, поможет повлиять на течение и исход заболевания, а также снизить стоимость лечения.

Ключевые слова: сердечная недостаточность, мозговой наутрийуретический пептид, диагностика, лечение, несиритид.

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NATRIURETIC PEPTIDES: USE IN CARDIOLOGY

Abstract: It has been shown that monitoring the level of brain natriuretic peptide (NT-proBNP) can be used to select the optimal drug combinations in each individual case and thus help to influence the course and outcome of the disease, as well as reduce the cost of treatment.

Keywords: heart failure, brain nautriuretic peptide, diagnosis, treatment, nesiritide.

ВВЕДЕНИЕ

История открытия натрийуретических пептидов началась в 50–70-е гг. XX в., когда B. Kisch, а затем J.P. Marie обнаружили в предсердиях морских свинок секреторные гранулы, которые формировались в ответ на водно-электролитные изменения в ткани **[**1, 2]. В 1956 г. физиологи

J.P. Henry и J.W. Pearce в эксперименте продемонстрировали увеличение диуреза у собак после баллонной дилатации левого предсердия **[**3]. В 1981 г. A.J. de Bold установил, что инъекции гомогенизированных экстрактов ткани предсердий крысам способствуют повышенной экскреции натрия и воды и приводят к снижению системного артериального давления **[**4].

МАТЕРИАЛЫ И МЕТОДЫ

Первые случаи увеличения концентрации предсердного натрийуретического пептида у больных сердечной недостаточностью (СН) были зарегистрированы в 1986 г. В 1993 г. было отмечено повышение содержания как предсердного, так и мозгового натрийуретического пептида еще до появления клинической симптоматики при дисфункции левого желудочка (ЛЖ). BNP выделяется непосредственно в желудочках сердца (основным пусковым механизмом этого процесса служит увеличение конечного диастолического давления), соответственно, более точно отражает нагрузку на миокард, в связи с чем он был признан более значимым для постановки диагноза и определения прогноза заболевания [2].

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Монофазное увеличение концентрации BNP установили в 2004 г. M. Galvani и соавт. [2] у пациентов с острым коронарным синдромом. Была обнаружена прямая связь между степенью дисфункции ЛЖ, величиной давления заклинивания легочной артерии и концентрацией мозгового натрийуретического пептида, которая одновременно отражала общую вероятность риска летального исхода от сердечно-сосудистых событий.

Следующим шагом практического использования BNP стали попытки применения его в лечении пациентов с СН. В 1999 г. R.M. Mills и соавт. провели многоцентровое двойное слепое рандомизированное плацебоконтролируемое исследование, в котором оценивали центральную гемодинамику в течение 24 ч инфузии и 4 ч после завершения введения рекомбинантного человеческого BNP (несиритида) у больных с клинической картиной СН и признаками систолической дисфункции (фракция выброса менее 35%). Участие приняли 103 пациента с ХСН II–IV функционального класса по NYHA (New York Heart Association) [3]. Обнаружено значимое повышение фракции выброса, снижение давления заклинивания легочной артерии (ДЗЛА) в результате введения несиритида. Меньшее влияние препарат оказал на общее периферическое сосудистое сопротивление и давление в правом предсердии. Подобный положительный эффект позволил задуматься о применении несиритида в качестве препарата первой линии у пациентов с симптомами СН.

C.M. O'Connor и соавт. в 2011 г. оценивали динамику выраженности одышки через 6 и 24 ч (для оценки использовали шкалу Лайкерта), а также повторные госпитализации и летальные исходы в течение 30 сут при лечении несиритидом пациентов с острой декомпенсированной СН в сочетании со стандартной терапией [3]. Через 6 ч улучшение по показателю одышки в группах несиритида и плацебо отмечено на 44,5 и 42,1% случаев, соответственно; через 24 ч — на 68,2 и 66,1% соответственно; повторные госпитализации и летальные исходы — в 9,4% случаев при лечении несиритидом и в 10,1% среди пациентов, получавших

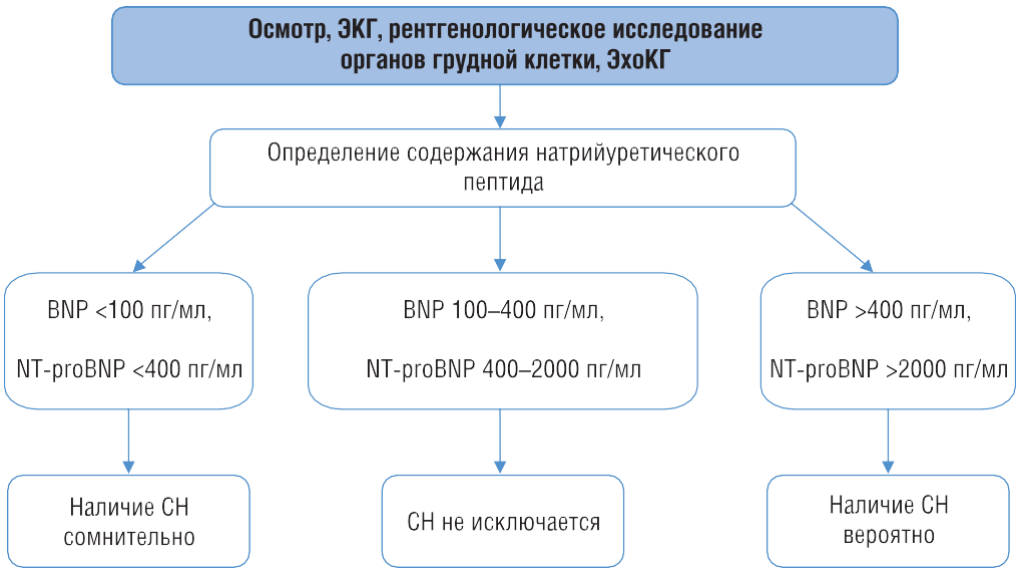
плацебо. Полученные результаты свидетельствуют о том, что несиритид не влияет на смертность и не снижает числа повторных госпитализаций, незначительно влияет на одышку, в связи с чем авторы не рекомендуют его для рутинного использования при лечении острой СН.

H.H. Chen и соавт. в 2012 г. оценивали эффективность подкожного введения BNP при лечении сердечной недостаточности: 20 пациентов с фракцией выброса менее 35% и сердечной недостаточностью II–III функцио- нального класса по NYHA в течение 8 нед получали BNP в дозе 10 мг/кг (в контрольную группу также входило 20 пациентов) [3]. В исследуемой группе было достигнуто большее снижение систолического и диастолического объема ЛЖ, объема левого предсердия, отношения E/E' (отношение максимальной скорости раннего наполнения трансмитрального кровотока к максимальной скорости движения фиброзного кольца митрального клапана в раннюю диастолу), улучшение клинического статуса по шкале MLHF (Minnesota Living with Heart Failure) по сравнению с плацебо. Таким образом, длительная терапия BNP улучшает ремоделирование ЛЖ у пацентов со стабильной сердечной недостаточностью при оптимальной схеме лечения.

На основании полученных данных можно сделать вывод об эффективном улучшении гемодинамики при применении рекомбинантного человеческого BNP у пациентов с застойной СН.

Исследование концентраций BNP и NT-proBNP в соответствии с современными рекомендациями исполь зуется в диагностике и определении оптимальной тактики ведения больных ХСН (рис.)

Рис. Современный алгоритм диагностики сердечной недостаточности.



Примечание. ЭКГ — электрокардиография, ЭхоКГ — эхокардиография, СН — сердечная недостаточность.

ЗАКЛЮЧЕНИЕ

Установлено, что содержание BNP и NT-proBNP увеличивается при повышенной нагрузке на миокард. Не столь высокой является диагностическая ценность этих показателей в отделениях реанимации и интенсивной терапии, поскольку период полужизни BNP и NT- proBNP довольно длительный и не может отображать резкие изменения состояния левого желудочка, которые происходят в результате интенсификации лечения. Не следует забывать и о состояниях, которые также могут влиять на концентрацию BNP и NT-proBNP — тахикардия, пожилой возраст, гипоксемия, гипертрофия левого желудочка, перегрузка правого желудочка, почечная дисфункция, цирроз печени, инфекционные заболевания, ишемия миокарда.

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ТРУДОВОЙ ПОТЕНЦИАЛ И ТРУДОВЫЕ РЕСУРСЫ ФАКТОРЫ ДЕМОГРАФИЧЕСКОГО РАЗВИТИЯ ОБЩЕСТВА

Аннотация.В данной статьи рассмотрено вопросы, связанные трудовой потенциал и трудовые ресурсы, а также человеческого капитала предприятия с учетом региональных особенностей, а также факторы, влияющие на трудовой потенциал предприятия и демографического развития в Республике Таджикистан.

Ключевые слова: труд, предмет труда, человеческий капитал, демография, трудовой потенциал, трудовой ресурсы, рабочая сила, средства труда, экономические активное населения.

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LABOR POTENTIAL AND LABOR RESOURCES FACTORS OF THE DEMOGRAPHIC DEVELOPMENT OF THE SOCIETY

Annotation. This article discusses issues related to labor potential and labor resources, as well as the human capital of an enterprise, taking into account regional characteristics, as well as factors affecting the labor potential of an enterprise and demographic development in the Republic of Tajikistan.

Key words: labor, object of labor, human capital, demography, labor potential, labor resources, labor force, means of labor, economically active population.

Направление по изучению теории человеческого капитала накопила достаточный научный инструментарий для четкого определения сущности, содержания, видов, способов оценки и регулирования данной активной части капитала любого предприятия. Проблематика человеческого капитала широко обсуждается в научной, прикладной и учебной литературы. Человеческий капитал как экономическая категория одним из общеэкономических стержневых понятий, позволяющих описать и

объяснить через призму человеческих интересов и действий многие экономические процессы.

В содержательном плане человеческий капитал, включает запас здоровья, знаний, навыков, способностей, которые капитализируются при следующих условиях:

- потоковый, накопительный запас способностей человека по фазам;
- жизнедеятельности;
- целесообразность использования запаса способностей, что ведет к росту производительности труда;
- прирост производительности труда закономерно приводит к росту заработков работника;
- увеличение доходов мотивирует работника делать дополнительные вложения в свой человеческий капитал, кумулятивно его накапливать.

Труд человека, является главным условием жизни и развития общества. Только он может создать материальные и духовные блага, преобразует жизнь человека и обогащает его. В процесс труда всегда участвуют три основных элемент: сам труд, средства труда и предмет труда,

Труд предпринимателя и менеджера имеет существенную специфику по сравнению с другими видами труда. Предприимчивость и деловая сметка, новаторство, организаторские способности и высокая ответственность, чувство бережливости и экономии, умение разумно рисковать, энергия и сила воли требуются для ведения бизнеса или управления. Большое значение и уникальность данных предпринимательских способностей признают большинство экономистов. Предпринимательские привилегии - владение огромными ресурсами, ноу-хау, коммерческими секретами позволяют превратить их в особый вид человеческого капитала – организационно-предпринимательский капитал.

Организационно-предпринимательский капитал - один из наиболее перспективных и важных видов человеческого капитала. Инвестиции в его развитие являются все более продуктивными. Предприимчивостью обладают не все люди. Умение управлять, организовывать, создавать и вести успешный бизнес - сложная способность, изучением которой занимаются психологи, социологи, экономисты. В развитых странах доля предпринимателей во взрослом населении достигает 7-10%.

В экономической литературе широко используются понятия: экономически активное и неактивное население «рабочая сила», «трудовые ресурсы», «рынок труда», «трудовой потенциал», человеческий капитал.

В настоящее время понятие «трудовой потенциал», с учетом региональных особенностей, не имеет достаточного четкого определения. Слова **«потенциал»** означает средство источники, которые могут быть использованы в экономике как «ресурсный потенциал. Понятие «трудовой

потенциал» появилось в экономической науке и средствах массовой информации в 70- е годы, **а** в научный оборот вошло в 80-е годы. В 90-х годах термин «трудовой потенциал» стал использоваться в государственных и правительственных документах **[**1].

Базовой категорией характеристики общественного труда является «рабочая сила», означающая способность человека к труду, совокупность его физических духовных, умственных и эстетических сил, применяемых им в процессе производства материальных и нематериальных ценностей. Характерными чертами трудовых ресурсов является их потенциальность и обезличенность. Их можно распределить, перераспределить и использовать. Они могут быть вовлечены в процесс производства и могут остаться за его пределами. К их категории тесно примыкает понятие трудовой потенциал, охватывающее население, обладающее способностью к труду, что характеризует его как более ёмкое и широкое понятие.

Трудовой потенциал - это интегральная характеристика количества, качества и меры совокупной способности к труду, которой определяются возможности отдельного человека, различных групп работников и трудоспособного населения в целом по участию в общественно полезной деятельности.

Качество трудового потенциала характеризуется четырьмя основными составляющими:

- **физической** – это показатель эффективной работоспособности, состояния здоровья;
- **интеллектуальной** – это показатель системы знаний и опыта подготовки квалифицированных кадров;
- **социальной** – это показатель социального психологического и нравственного состояния общества;
- **техника** - технологический – этот показатель зависит от технической вооруженности.

Суммарная величина используемого рабочего времени, могут быт:

- ✓ число часов, на которое сокращается продолжительность рабочего дня;
- ✓ число дней дополнительных отпусков;
- ✓ число дней по общей заболеваемости.

Величина трудового потенциала в предприятиях определяется по формуле;

Фп = Фк = Тнп или Фп = Чр * Д * Тсм,

где, Фп - совокупный потенциальный фонд рабочего времени предприятия,

Фк - величина календарного фонда времени, ч;

Тнп – нерезво образующие неявки и перерывы, ч;

Чр - численность рабочих, чел;

Д - количества рабочих дней в периоде, дни

Тсм - продолжительность рабочего дня, ч;

Применительно к обществу трудовой потенциал определяется:

m

Фп общ =Тч1 * Тр,

l= 1

где, Фп общ - потенциальный фонд рабочего времени общества, ч.

m

Тч1 - численность населения, способного участвовать в общественном

I=1 производстве, по группам;

Тр - законодательно установленная величина времени работать по графику работников в течение календарного периода (год, квартал и месяц),

С точки зрения отношения к трудовой деятельности, все население подразделяется на три группы. (2).

*до рабочего возраста - это период получения общего профессионального образование;

* рабочий;

* после рабочий (пенсионный возраст),

Согласно статистической практике трудовые ресурсы состоят из следующих

* из трудоспособных граждан, а трудоспособном возрасте, работающих в экономика страны;

* граждан моложе трудоспособного возраста (подростки);

* граждан старше трудоспособного возраста, трудоспособный рабочий возраст - это период, в течение которого человек способен трудиться без ущерба для своего здоровья, Расчет численности трудовых ресурсов производят тремя методами;

1.Демографический метод:

Sтр = Sт - Sн - Sрп - Sп,

где, Sтр - численность трудовых ресурсов;

Sт- численность населения в трудоспособном возрасте; SH-инвалиды и группы:

Sрп—число работающих подростков;

S-число работающих пенсионеров,

2.Экономический метод:

Sтр = S3 + Sдх + Sу + Sб + Sн3,

где. S3 -фактически занятое населения, включая занятых, а личном подсобном и сельском хозяйстве;

Sдх - занятые в домашнем хозяйстве;

Sу -учащиеся с отрывом от производстве (старше 16 лет);

Sб - численность безработных,

Sн3 - остальные, незанята лица в трудоспособный возраст.

3.Универсальным методом с учетом маятниковой миграции.

Sтр = Sтт + Sрп + Sп + (Sлп - Sлв),

где, Sтр - трудовые ресурсы (области района, города);

Sтт -численность трудоспособного населения в трудоспособном возрасте;

Sрп -число работающих подростков;

Sп -число работающих лиц пенсионного возраста;

Sлп -число лиц, прибывших на работу из данный области;

Sлв - число лиц, выбывших на работу из данного района в другие области, районов.

4.Количественные изменения численности трудовых ресурсов характеризуется такими показателями как абсолютный прирост. Абсолютный прирост определяется как разность между численностью трудовых ресурсов на начало и конец рассматриваемого периода (месяц, квартал, год)

Sтр = So -Sн,

где, Sтр -абсолютный прирост трудовых ресурсов;

So - численность трудовых ресурсов на начало периода;

Sн - численность трудовых ресурсов на конец периода.

Темпы роста рассматривается как отношение абсолютной величины численности трудовых ресурсов в конце данного периода к их величине в начале периода. Если рассматривается темп за ряд лет, то среднегодовой темп определяется как среднее геометрический:

где, Трс- среднегодовой темп роста;

п -число лет;

Sн -численность трудовых ресурсов в конце периода;

So -численность трудовых ресурсов в начале периода

Темп прироста можно рассчитать по формуле;

$$Трс = \sqrt[n]{\frac{SH}{SO}};$$

Трудовые ресурсы как социально- экономическая категория могут рассматривается четырех позиций -демографической,

- экономической,
- социологической,
- статической.

Демографический аспект отражает зависимость трудовых ресурсов от воспроизводства населения и учитывает такие его корректировки, как пол, возраст, место жительства.

Экономический аспект отражает экономические отношения по формированию, распределению и использованию трудоспособного населения в общественном производстве.

Социальный аспект отражает формирование и использование тру-

довых ресурсов внутри исторически определенной формации и под ев влиянием.

Статический аспект характеризует трудоспособный (рабочий возраст населения)

Структура трудовых ресурсов многогранна ев можно поделить на две основные группы.

-количественная характеристика,

- качественная характеристика,

К количественным характеристикам трудовых ресурсов относят численность, их состав по полу, возрасту, общественным группам, месту жительства, национальности и языку, религии, занятости по отраслям и сферам экономики,

К качественным - образовательный уровень трудовых ресурсов их профессионально - квалификационную структуру и т д.

Однако трудовые ресурсы - это не единое понятие, которое выражают человеческие ресурсы. В странах с развитой рыночной экономикой в 1966 году начали использовать «экономически активное население» (2). **Экономически активное население** - это совокупность работающих и безработных это часть населения, обеспечивающая предложение рабочей силы для производства товаров и оказанных услуг.

Экономически неактивное населения - это население, которое не входят в состав рабочей силы. К нему можно отнести следующие категории людей:

. учащиеся, студенты, аспиранты, докторанты очных форм обучения;

. лица, получающие различные виды пенсии;

. лица, занятые ведением домашнего хозяйства, уходом за детьми и больными;

. лица, отчаявшиеся найти работу, прекратившие ее поиск;

. лица, у которых нет необходимости работать независимо от источника дохода.

В экономической теории принято рассчитывать уровень экономической активности населения по формуле,

$$Уэа = \frac{Чэан}{Чн} * 100\%,$$

где, Уэа -уровень экономической активности населения;

Чэан - численность экономически активного населения;

Чн - общая численность населения,

Рабочая сила в экономической теории понимается как совокупность физических и интеллектуальных способностей, которыми располагает человек и которые используются им для производства материальных и духовных благ.

К. Маркс доказывает, что потребительная стоимость товара -

рабочая сила именно и состоит в том, что она способна приносить прибавочную (силу) стоимость, прибыль на вложенный капитал.

Для превращения рабочей силы в товар необходимо три условия:

-работник должен быть лишен средства производства и средств существования;

-работный должен быть юридически свободным, иметь возможность полностью распоряжаться своей рабочей силой;

-на рынке должен бать владелец средств производства, способный покупать рабочую силу.

Следует, что трудовые ресурсы -это важнейшая и активная часть ресурсов общества. Это более широкое понятие, чем ЭАН и рабочая сила.

Распределения населения по категориями

В формировании человеческих ресурсов огромное значение имеет воспроизводство населения.

Существует **три типа** воспроизводства населения.

•расширенное - повышение числа рождаемости, над числом смертей;

•**простое** - число рождений равно числу смертей;

•**суженное** - смертность превышает рождаемость.

Для характеристики воспроизводства используют показатели рождаемости, смертности и естественного прироста, Рождаемость и смертность рассчитываются на 1000 человек населения и измеряются е помощью коэффициентов:

$$Кр = \frac{Чр}{Нсг} * 1000$$

$$Кс = \frac{Чу}{Нсг} * 1000,$$

где, Кр и Кс - коэффициенты рождаемости;

Чр - число родившихся за год;

Нсг - число умерших за год;

Чу - среднегодовая численность населения.

Разнице между ними дает коэффициент естественного прироста населения.

$$Кеп = Кр - Кс$$

Воспроизводство трудовых ресурсов является важнейшей составной частью всего общественного воспроизводство.

Воспроизводство включает в себе 4 фазы

1. Формирование трудовых ресурсов,

2, Фаза распределения,

3. Фаза обмена.

4, Фаза использования,

1.Формирование трудовых ресурсов - это процесс постоянного во-

зобновления численности трудовых ресурсов.

Он зависит от следующих факторов:

. демографических;

. природные;

. исторические;

. социальное

2.Фаза распределения определяют размещение трудовых ресурсов по территориям, сферам деятельности, отраслям и предприятиям.

3.Фаза обмана совершается на рынке труда, где трудовые ресурсы вступая в стадию куплипродажи, становятся рабочей силой.

4.Фаза использования - заключительная фаза воспроизводство ресурсов. Она происходит в процессе трудовой деятельности и реализации способности к труду, трудовых ресурсов в процессе производства материальных и духовных благ и услуг. Задала этой фазы - обеспечение эффективной занятости, создание условий для рационального и высокопроизводительного использования трудовых ресурсов.

Распределение занятых трудовых ресурсов проходит по территориям, отраслям и секторам экономики. Различают два вида распределения трудовых ресурсов: первичное и вторичное **[**6],

Движение трудовых ресурсов это сложный социально-демографический и экономический процесс. Существует несколько видов движения трудовых ресурсов;

➢ естественное движение трудовых ресурсов. Это портативная про должительность трудовой жизни и трудовой активности;

➢ отраслевое (связано с разными темпами развития различных отраслей);

➢ профессионально-квалификационное (связано с изменением профессии, разряда должностей);

➢ социальное (формирование новых социальных групп). Территориальное движение трудовых ресурсов называется миграцией. Его основные виды:

✓ межгосударственная (внешняя) связанная с выездом из стран (эмиграция) или въездом в страну (иммиграция);

✓ внутригосударственная (внутренняя);

✓ постоянное переселение со сменой постоянного место жительства;

✓ цикличное перемещение на определенный срок с возвращением к прежнему место работы;

✓ временная перемещение на

✓ длительный срок (работа по контракту в летнее время); сезонная ежегодные перемещения на определенный период года (не более в месяцах);

✓ маятниковая жизненное передвижение на работу или на учебу

(связана с изменением профессии,

- ✓ разряда, должности);
- ✓ эпизодическая кратковременная и самая многочисленная;
- ✓ брачная миграция перемена места жительства в связи с вступлением в брак.

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АНАЛИТИЧЕСКИЕ ИНСТРУМЕНТЫ УПРАВЛЕНЧЕСКОГО УЧЕТА

Аннотация: В статье рассматриваются проблема внедрения управленческого учета в отечественную практику. Которое приобретает первостепенное значение, связанного необходимостью проведения глубоких исследований экономической природы, сущности и содержания управленческого учета, его фундаментальных теоретических основ, для принятия обоснованных управленческих решений.

Ключевые слова: управленческий учет, финансовый учет, затраты, анализ, этапы, информация, модель, управление.

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ANALYTICAL TOOLS FOR MANAGEMENT ACCOUNTING

Annotation: The article deals with the problem of introducing management accounting into domestic practice. Which is of paramount importance, associated with the need to conduct in-depth studies of the economic nature, essence and content of management accounting, its fundamental theoretical foundations, for making informed management decisions.

Key words: management accounting, financial accounting, costs, analysis, stages, information, model, management.

В условиях модернизации, технического и технологического оснащения предприятия и ее отраслей особое внимание уделяется управлению его подразделениями. Это обусловлено тем, что именно здесь сосредоточено основные материальные, трудовые и финансовые ресурсы предприятия. Поэтому система управленческого учета на современном предприятии не может рассматриваться как отдельно взятый инструмент или набор каких-то специфических функций. На основе информации управленчемкого учета, отчетности и анализа рассчитываются следующие параметры внутрихозяйственных отношений: установление внутренних цен на продукцию; составление бюджета доходов и расходов подразделений; разработка и утверждение сметы затрат на производство;

обязательства подразделений между собой и перед предприятием; учетные доходы и расходы подразделений; учетная прибыль (убытки) подразделений.

Управленческий учет – это тот же учет затрат на производство и калькуляция себестоимости продукции в системе бухгалтерского учета. При этом термин «управленческий учет» следует понимать, как «учет для управления» предприятием. Такой точки зрения придерживаются – П.С.Безруких, С.А.Стуков, так и зарубежные авторы Ч.Т.Хорнгрен, Дж.Фостер. С точки зрения А. Ибрагимова, И. Очилова, И. Кузиева, Н. Ризаева: «Основной задачей управленческого учета и отчетности в системе корпоративного управления является обеспечение сбора, анализа и предоставление информации менеджменту предприятия для принятия наиболее рациональных решений».

Х. А. Ортиков дает следующее определение управленческому учету: «Управленческий учет - это есть внутрихозяйственный учет, система ведения учета направленная на повышение эффективности хозяйственной деятельности предприятия, на изучение прошлого, настоящего и будущего процессов снабженческо-заготовительных, производственных и реализационных процессов, разработка управленческих решений и их претворение в жизнь в целях решения тактических и стратегических задач целом по предприятию и его структурным подразделениям».

Р.Д. Дусмуратов и Д.У.Мамадияров считают, что «Управленческий учет-это новая трактовка внутрихозяйственного учета приспособленная к требованиям рыночной экономики в условиях углубления экономических реформ и либерализации экономики». «Управленческий учет представляет собой подсистему бухгалтерского учета, информация которой в рамках одного предприятия используется для управления и контроля за деятельностью». Такой точки зрения придерживаются А.Д. Шеремет, Н.П.Кондраков и С.М.Шапигузов. Как пишет А.Х. Пардаев:«Целью управленческого учета является обеспечение необходимой информацией руководство предприятия и менеджеров для принятия обоснованных решений». М.А.Вахрушина, С.А.Николаева считают: «Организация подсистему бухгалтерского учета, как управленческий учет – внутреннее дело данного предприятия. Обобщая вышесказанные мнения, применительно к современным условиям отечественной методологии бухгалтерского учета и предприятия бухгалтерской работы, управленческий учет, на наш взгляд, нужно рассматривать как самостоятельную функцию системы управления предприятием в совокупности его подразделениями с помощью прогнозирования, планирования, бюджетирования, учета и анализа деятельности предприятия.Применение определенных методик позволяет повысить скорость внедрения систем автоматизации управленческого учета и значительно оптимизировать бизнес-процессы управления.

По результатам изучения внешних и внутренних факторов, определяющих потенциал развития проекта, предприятию также рекомендуеться проведение экспертной оценкиа и сделать SWOT-анализ перспектив проекта и возможных стратегий развития предприятия.

Для SWOT-анализа экспертной группой необходимо отобрать наиболее важныеи критичные факторы, привести ранжирование оценки важности отобранных факторов. Каждый параметр внутри поля «Сильные стороны», «Слабые стороны», «Возможности», «Угрозы» оцениватся по пятибалльной шкале. Даже при выборе описанных выше методик могут возникнуть неточности при внедрении. Это происходит из-за недостаточной проработки и анализа текущей системы управления или отсутствия сформированных требований к системе. Такие ошибки могут повлечь за собой проблемы при формировании управленческой отчетности, а также существенно затруднить ее анализ.

Помимо перечисленных ошибок при внедрении системы, необходимо учитывать, что со временем в компании могут меняться приоритеты в стратегическом управлении. Меняться цели управленческого учета. Чтобы избежать этих ошибок и получить объективную информации о финансовом положении компании, необходимо тщательно прорабатывать каждый этап внедрения управленческого учета, особенно анализ текущего состояния. Тогда система учета будет максимально соответствовать потребностям руководителей и целям стратегического управления. В качестве статистического метода выявления и измерения влияния различных факторов на динамику прибыли транспорного предприятия УП «Узтемирйўлмаштаъмир» используем корреляционно-регрессионный анализ. С помощью данного метода анализа выявим степень и форму аналитической зависимости прибыли от каждого из факторов, приведённых в таблице 1.

Таблица 1.

Формирование прибыли на предприятии, млн. сум*

№	Показатели	2016г.	2017г.	2018г.	2019 г.	2020 г.
1	Доходы	80737	120987	157882	187521	207521
2	Расходы	80013	119983	155292	185156	205156
3	Финансовый результат	724	1004	2592	2365	2365
4	Прибыль	393	586	2104	1814	1151

По итогам проведённого исследования в факторную модель отобрано пять основных факторов, активно влияющих на уровень прибыли выпускаемой продукции. Все включённые факторы в модель являются линейно независимы, но в то же время каждый из них оказывает определенное влияние на ежегодную прибыль.

Важным этапом построения уравнения множественной регрессии является отбор и включение факторных признаков. Сложность формирования модели множественной регрессии заключается в том, что многие факторные признаки находятся в зависимости один от другого. Один из индикаторов определения наличия мультиколлениарности между признаками является превышение парных коэффициентов корреляции величины 0,8. Устранение мультиколлинеарности в первую очередь связано с исключением из модели регрессии одной или нескольких связанных независимых переменных. Исходя из анализа, мы посчитали, что целесообразно включить в начальную модель все факторы, а затем отбросить не подходящие. Для этого применяется пошаговый регрессионный анализ с постепенным исключением незначимых факторов.

Анализ показывает, что отрицательная обратная взаимосвязь существует между прибылью и численностью работников, коэффициент корреляции r_{yx4} =– 0,5905. Между прибылью и выявленными двумя факторами – обратная взаимосвязь, т.е. с увеличением численности работников и доли заработной платы в общих затратах прибыль уменьшается. То есть оба фактора оказывают отрицательное влияние на прибыль УП «Узтемирйўлмаштаъмир».

В результате исследования получена многофакторная корреляционная модель, которую можно использовать для анализа влияния факторов на уровень риска хозяйствующего субъекта, проверки текущих и перспективных бизнес-планов, что позволит улучшить качество анализа риска предприятия и, следовательно, повысить их достоверность и научную обоснованность.

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ИНФИЛЬТРАТИВ-МАДДАЛОВЧИ ТРИХОФИТИЯ ВА УНИНГ ЗАМОНАВИЙ ДАВОЛАШ АСОСЛАРИ

Ушбу мақолада 18 та бемор РИДВ ва КИАТМ Андижон ҳудудий филиалига текширувга келган. Уларнинг 6 ёшдан 42 ёшгача бўлиб, 11 таси эркаклар ва 7 таси аёлларни ташкил этган бўлиб, 3-тери бўлимида стационар шароитида инфильтратив-маддаловчи трихофития билан даволанишди. Улардан 10 тасини жароҳати силлиқ тери ва қов сохасида, қолган 8 та беморни жароҳат жойи бош соҳасининг сочли қисмида жойлашган. Беморларнинг барчасида бактериологик текширувлар ўтказилганида: олинган материалдан замбуруғ мицелийлари топилган. Лаборатория текширув натижалари ташхисни тўғри қуйишга асос бўлган.

Калит сўзлар: трихофития, инфильтрация, замбуруғ, мицелий, ташхис.

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INFILTRATIVE-PROMOTING TRICHOPHYTOSIS AND THE BASIS OF ITS MODERN TREATMENT

In this article, 18 patients came to the regional branch of RIDV and KIATM Andijan for examination. Their age ranged from 6 to 42 years, 11 of them were men and 7 were women. In 10 of them, the wound was on the smooth skin and scalp, and in the remaining 8 patients, the wound was on the hairy part of the head. When bacteriological examinations were carried out in all patients: fungal mycelia were found in the obtained material. The results of the laboratory examination were the basis for making a correct diagnosis.

Key words: trichophytia, infiltration, fungus, mycelium, diagnosis.

Замбуруғлар табиатдан кенг тарқалган бўлиб, улар ҳавода, тупроқда, ўт ва сув ҳавзаси атрофида нофаол ҳаёт кечиради. Аммо бошқа шароитларга масалан: инсон ёки ҳайвон терисига тушганда касаллик келтириб чиқариши мумкин. Ҳозирда замбуруғларнинг 500 дан ортиқ тури маълум бўлиб, улардан 100 га яқин тури одам ва ҳайвонлар учун патоген ва шартли патоген ҳисобланади, яъни касаллик чақириши мумкин [1,3,4,5].

Паразит замбуруғлар келтириб чиқарган тери касалликларини дерматомикозлар деб аталади. Терининг замбуругли касалликлари юқумли бўлиб, тез тарқалади ва айниқса улар болалар орасида тез-тез учрайди. Касаллик бемордан ёки касал ҳайвондан одамга юқади. Касалликнинг қуйидаги турлари таснифланади: 1) Кератомикозлар (кепакли ёки ҳар хил рангдаги темиратки, тугунли трихоспория, қўлтиқ ости трихомикози); 2) Дерматомикозлар (эпидермофития, рубромикоз, трихофития, микроспория ва фавус) - энг катта эпидемиологик аҳамиятга эга бўлган қисми, терининг замбуругли жароҳатланиши, энг кўзга кўринган гуруҳи; 3) Кандидозлар (тери, шиллиқ қаватлари ва ички аъзоларнинг касалликлари); 4) Чуқур (системали) микозлар, лекин кам учрайдиган замбуруг касалликлари группаси (хромомикоз, актиномикоз, споротрихоз, бластомикоз ва бошкалар) **[**7, 8].

Инфильтратив-йирингли ёки зоофил трихофития. Зооантропофил замбуруғлари билан чақириладиган бу шаклини чуқур йирингли тугунлар пайдо бўлиш билан характерлангани учун чуқур трихофития / Gr.protunola. деб аталади. Ҳозирги пайтда аниқланишича зооантпопофил замбуруғлари одамда яллиғланиш ходисалари ва ҳар хил даражада бўладиган клиник кўриниш чақира олар экан **[**2, 6].

Клиникаси ва кечиши. Инфильтратив - йирингли трихофитиянинг бир нечта клиник шакллари фарқ қилинади. Бошнинг сочли қисми инфильтратив йирингли трихофитияси. Характерли кечганда кўп миқдорида йирингли, ширали пўстлоқлар билан қопланган анчагина қалин қизарган, аник чегаралари, онда-сонда учрайдиган йирик жароҳатланган жойлар, пайдо бўлади. Шу пўстлоқлари олиб ташлагандан сўнг йирингнинг ҳар бир фолликулдан чиқаётганини кўриш мумкин бўлсада биринчи қаралганда беморда битта катта ва чуқур абсцесс борга ўхшайди. Шу сабабли касалликнинг бошка номи бор - "фолликуляр абсцесс". Ҳар фолликулдан алоҳида чиқаётган йиринг асалари инидан чиқаётган асални жуда эслатади. Бунда касалликнинг учинчи тез-тез учраб турадиган номи – Kerion Celci (Цельзийнинг асалари инлари) кузатилади. Соқол ва мўйлов инфильтратив йирингли трихофитиясида (Sycosis parasitaria) бощдагидек йирик бўлмаган, бошқа клиник кўринишлари бошнинг сочли қисмидаги жароҳатига ўхшаш жароҳатлар пайдо бўлади. Чуқур шаклда ўтадиган зоофил трихофитияда қаттиқлашган жой пальпация қилинганда аллақанча оғриқ сезилади. Тез-тез умумий ходисалар (маза кочиш, ҳароратнинг кўтарилиши, бош оғриғи) регионар лимфа безларининг шишиши ва оғриши мумкин бўлади. Касаллик даволанилмаса бир неча ойдан сўнг ўзидан кейин чандиқлар ёки кўпроқ чандиқли атрофия қолдиради.

Силлик тери инфильтратив-йирингли трихофитиясида қизарган, атрофда соғ тери билан аниқ чегараланган, юмалоқ, қалин, кепакли ёки пластинкали тангачали бляшкалар пайдо бўлади: унинг сатҳида жуда кўп миқдорда фолликуляр пустулалар ва йирингли пўстлоқчалар бўлади.

Атрофга кенгайиб, қалинлашган бляшка катта размер (диаметри 5 см ва ундан катта) ларга айланган бўлиб, гиперпигментация, гоҳо чандиқли атрофия қолдириб бир неча ҳафтадан кейин ўз-ўзидан яхши бўлиб кетади.

Текширув ва кузатувларимиз натижасида биз қуйидаги холатни баён қиламиз: 18 та бемор РИДВ ва КИАТМ Андижон ҳудудий филиалига текширувга келган. Уларнинг 6 ёшдан 42 ёшгача бўлиб, 11 таси эркаклар ва 7 таси аёлларни ташкил этган бўлиб, 3-тери бўлимида стационар шароитида инфильтратив-маддаловчи трихофития билан даволанишди. Улардан 10 тасини жароҳати силлиқ тери ва қов сохасида, қолган 8 та беморни жароҳат жойи бош соҳасининг сочли қисмида жойлашган. Беморларнинг барчасида бактериологик текширувлар ўтказилганида: олинган материалдан замбуруғ мицелийлари топилган. Лаборатория текширув натижалари ташхисни тўғри қуйишга асос бўлган.Даволаш усуллари норматив асосларига асосланиб берилди:«Терфалин» таблеткаси 250 мгдан 2 маҳал суткасига ичиш учун 7кун, диазолин таблеткаси 0,1дан 1 махал суткасига ичиш учун буюрилди. Силлик теринг фақат ўзи жароҳатлаганда фақат маҳаллий даволаш билан касалликни бутунлай даволаш мумкин: эрталаб йоднинг 2-5% спиртли эритмаси, кечкурун эса 10% олтингугурт ва 3% салицил кислотали малҳам ёки 10-15% олтингугурт-корамой малҳами ишлатилди. Бундай даволашни 2-3 хафта давомида олиб борилди. Шундай сунг 3-4 ҳафта давомида 2% йоднинг спиртли эритмасини суртиш буюрилди.

Ташқи муолажа учун 10% ли ихтиол мазь+ 33% олтингугурт мазлар қўйилади.Натижа: даволаш давомида беморларимизда қуйидаги холатлар кузатилди: маддаланган-инфильтратив трихофития юқорида кўрсатилган турларида жароҳат ўчоғида силлиқ терида тезроқ қизаришлар камайиши, элементларни сўрилиши кузатилди. Бошнинг сочи қисмиди жароҳат ўчоғи жойлашган беморларимизда эса 7- кундан бошлаб маддалар ва инфильтратлар сўрила бошлади, тангачалар эса 10 -кунга борганда йўқола бошлади, 14 - кунга келганда эса беморларни умумий аҳволи қониқарли бўлди, тошмалар ўрнида тўқ қизғич рангли гиперпигментацияли доғ қолди. 16 -кунга келиб беморлардан қайта лаборатор текширувга материал олинди ва натижаси: замбуруғ мицелийлари топилмади, яна 5 кун давомида терфалин таблеткаси ичиш учун буюрилди ва 2 маротаба қайта бактериологик текширув ўтказилди. Микологик натижа манфий чиқишига эришилди.

Даволаш тамом бўлганидан сўнг жароҳатланган жойлардан олинган сочларни 3 марта қайтариб микроскопик текшириш ўтказилади. Текшириш хар 7-10 кунда олиб борилади. Кейинчалик 2 ва 3 ойларда микологик текшириш ўтказилинади. Болалар коллективига қатнаш 3 марта манфий натижа берган анализдан сўнг қалпоқчада юриш шарти билан ва уйда якунловчи дезинфекция қилингандан сўнг руҳсат этилади. Даволашдан сўнг (контрол микросковик текширишлар бошланилганидан) 3 ой

мобайнида кузатув беморни бутунлай тузалган деб айтишга асос бера олади.

Бошнинг сочли қисмида инфильтратив-йирингли формаси бўлганида бошқа асослар бўйича даволанилади. Ўткир кечганда (чуқур шаклида) аввал хўллаб-қурийдиган бойлагичлар қўйилади (ихтиолнинг 10% эритмаси, борат кислотасининг 2% эритмаси, этакридин лактатнинг 0,1% эритмаси, фурацилиннинг 1:5000 эритмаси, Ag. Cronlurdi) ва киприк пинцети билан сочларни қўлда юлиб ташланади. Ўткир ходисалар тинчиганидан кейин 10-15% олтингугурт малҳами ёки Вилькинсон малҳами буюрилади. Зооантропофилли трихофитиянинг инфильтратив ва юзаки кўринишларида бир йула (хўлланиб-қурийдиган бойлагични аввал хўлламай туриб малхамлар билан даволашни бошланади. Бу холларда аввал процессни қўзғаб олиб кейин йод ва малҳамларнинг даволаш фойдасини орттиришга эга бўлиш мумкин. Зооантропофилли трихофития жароҳат жойларидаги процессни қўзгаш учун уларга 24 – 48 - 72 соат ёпишкок пластирни “черепица” ўхшаб ёпиштириб қўйиш ёки бўлинган рентген эпиляцияни буюриб ва уни касаллик қўзгаганда тўхтатиб (бу холда йиринг сочдаги замбуругларни эритади, бундан ташкари, йирингли гилофга билан ўралган сочни осонгина қўл билан эпиляция қилиб олиб ташлаш мумкин) қўйилади. Хулоса: Шундай қилиб, касалликни ўз вақтида аниқланиши эрта ташхис қўйишга ва тўғри, самарали даволашга сабаб бўлади, натижада микотик препаратларни айни вақтида берилиши эса замбуруғ касалликларини тезроқ тузалишига олиб келди. Шунингдек инфильтратив-маддаловчи трихофития ва унинг асоратларини олдини олишга эришилди.

Мақолани ёзишдан хулоса шуки, касалликни даволашдан кўра уни олдини олган маъқулдир, шу сабабли касалликни олдини олиш чора – тадбирлари (профилактикаси) қуйидагича: касаллиги аниқланган бемор бошқалордан ажратиб қўйилади, унинг уст кийимлари, чойшаб-кўрпалари зарарсизлантирилади. Сочиқ, ички кийим ва ёстиқ жилдлари олдин қайнатилиб, сўнг ювилади. Бемор турган уйнинг поли, эшиклар дастлаб 5% ли хлорамин ёки лизол эритмаси билан, сунг қайноқ сув билан ювилиши керак. Трихофития тузалган болада 3 ҳафтагача касаллик белгилари топилмай ва микологик текшириш натижалари 3 мартагача манфий бўлгандагина боғча, мактабларга қатнашишга рухсат берилади. Шунингдек мусассасадагиларнинг барча ходимлари мунтазам равишда тиббий кўрикдан режали равишда ўтказилиб турилиши лозим. Бемор оила аъзолари, ҳамда унинг атрофидаги барча болалар текширувдан ўтказилади. Чуқур инфильтратив-маддаловчи трихофития аниқланса касаллик манбаи бўлган жойдаги ҳайвонларни ҳам текширувдан ўтказилади.

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ОЦЕНКА ВЛИЯНИЯ ВОЗМОЖНЫХ ФАКТОРОВ РИСКА НА ТЕЧЕНИЕ НЕРЕВМАТИЧЕСКИХ КАРДИТОВ У ДЕТЕЙ РАННЕГО ВОЗРАСТА

Аннотация. Истинная распространенность кардитов в детской популяции не известна. Отсутствие чётких диагностических критериев, а также высокая распространенность инфекционных заболеваний у детей и, в частности респираторно-вирусных, приводит к достаточно частому вовлечению в патологический процесс сердечно-сосудистой системы. Немаловажную роль в развитии острых кардитов у детей раннего возраста играют – неблагоприятный перинатальный анамнез, белково-энергетической расстройство питания и высокая склонность к гиперергическим реакциям.

Ключевые слова: сердечно-сосудистая система, кардит, сердечная недостаточность, систолический шум, электрокардиография, Эхокардиография.

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ASSESSMENT OF THE INFLUENCE OF POSSIBLE RISK FACTORS ON THE COURSE OF NON-RHEUMATIC CARDITIS IN YOUNG CHILDREN

Annotation. The true prevalence of carditis in the pediatric population is not known. The lack of clear diagnostic criteria, as well as the high prevalence of infectious diseases in children and, in particular, respiratory viral, leads to a fairly frequent involvement in the pathological process of the cardiovascular system. An important role in the development of acute carditis in young children is played by an unfavorable perinatal history, protein–energy eating disorder and a high tendency to hyperergic reactions.

Keywords: cardiovascular system, carditis, heart failure, systolic murmur, electrocardiography, echocardiography.

Актуальность. В последние годы возрос интерес кардитов у детей, как болезни некоронарогенной и неревматической природы, в связи с ростом данной патологии, особенно среди детей раннего возраста. **[**3,6,7]

Такое понятие как «кардит» довольно недавно было введено в педиатрическую клиническую практику. Целесообразность выделения кардитов в педиатрии, обусловлено не только изолированным, но и часто сочетанным поражением двух или трёх оболочек сердца. **[**4,6,7]

Истинная распространенность кардитов в детской популяции не известна. Отсутствие чётких диагностических критериев, а также высокая распространенность инфекционных заболеваний у детей и, в частности респираторно-вирусных, приводит к достаточно частому вовлечению в патологический процесс сердечно-сосудистой системы. **[**1,8]

По данным многих исследователей примерно 1-5% больных детей острой вирусной инфекцией могут иметь поражение миокарда, которые либо не диагностируются, либо диагноз ставится в более поздние сроки. [2,4,8]

Особенности клинической манифестации кардитов зависит от локального или диффузного поражения одной или нескольких оболочек сердца, что определяет особенности клинического течения, возможные осложнения, а часто и прогноз. [1,5,6]

Течение кардитов, независимо от причины, вызвавшей поражение сердца, могут варьировать от лёгких, мало симптомных форм со стёртой клинической картиной и без признаков сердечной недостаточности, до ярко выраженной клинической картины с тяжёлой недостаточностью кровообращения и сложных нарушений ритма сердца. [3,7,8]

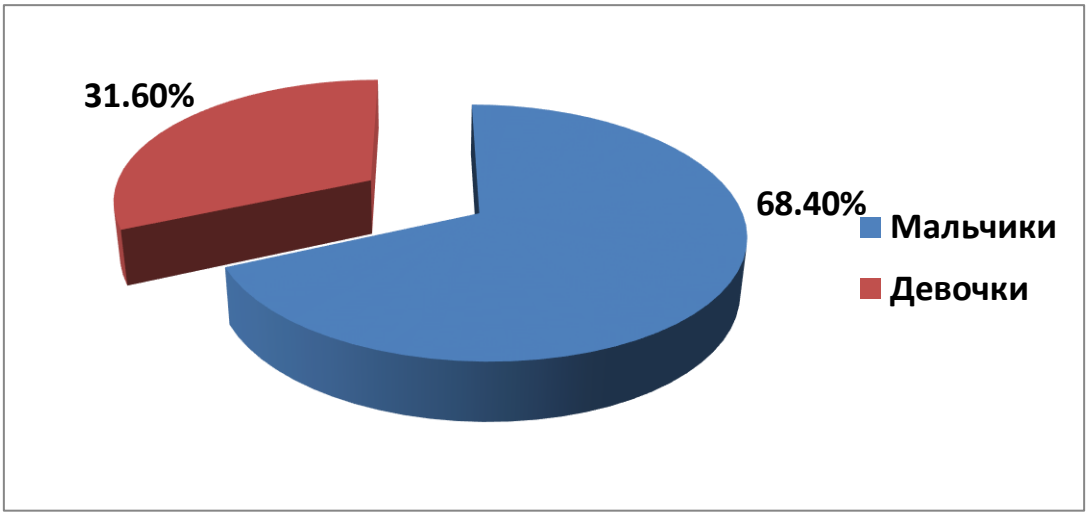
Немаловажную роль в развитии острых кардитов у детей раннего возраста играют – неблагоприятный перинатальный анамнез, белково-энергетической расстройство питания и высокая склонность к гиперергическим реакциям. [1,4,6]

Цель исследования: установить возможные факторы риска и особенности клинических проявлений кардитов у детей раннего возраста.

Материал и методы исследования. Все исследования выполнены на базе Андижанского областного детского многопрофильного медицинского центра, в отделении кардиоревматологии, за период 2020-2022 годы. В работе представлены данные обследования 38 детей в возрасте от 6 месяцев до 3-х лет. При выполнении работы нами проводились беседы с родителями, изучались истории болезни и использовались результаты лабораторных и инструментальных методов исследования.

Результаты. Все дети поступали в стационар в тяжелом состоянии. У 7 детей (18,4%) данная госпитализация повторная, у остальных первичная. С диагнозом «Кардит» на стационарное лечение поступило 28 детей (73,7%), остальным (26,3%) диагноз был установлен в период перенесенной острой внебольничной пневмонии.

По месту постоянного проживания доминировали дети из сельской местности – 86,8%. По гендерному признаку преобладали мальчики.



У всех матерей, дети которых получали лечение по поводу острого кардита, имел место неблагоприятный акушерский анамнез. Частота и значимость возможных факторов риска анте- и перинатального периодов представлены в таблице.

Факторы риска анте и перинатального периодов	Абс.	%
Частые ОРВИ во время беременности	38	100%
Анемия у матери	38	100%
Внутриутробная гипоксия плода	12	31,6%
Наличие TORCH-инфекции у матери	9	23,7%
Гестозы	8	21%
Обострение инфекции мочеполовой системы у матери	6	15,8%
Слабость родовой деятельности	16	42,1%
Раннее излитие околоплодных вод	12	31,6%
Обвитие пуповиной в родах	5	13,1%

Наиболее информативными и предрасполагающими факторами в развитии кардитов у детей раннего возраста в постнатальном периоде нами выделены: анемия (100%), перинатальное поражение нервной системы (60,5%), аллергическая настроенность (55,2%), частые острые респираторные вирусные заболевания (42,1%), внутриутробное инфекция (23,7%) и белково-энергетическая недостаточность питания (13,2%).

Особую настороженность в плане ведущего фактора риска развития кардита вызвали дети, при исследовании крови которых выявлена цитомегаловирусная инфекция (23,7%), с показателями содержания иммуноглобулина G в 3 раза превышающими нормативные показатели.

Клиническое течение кардита зависело от многообразия и полиморфности жалоб. У всех детей (100%) при поступлении отмечалась одышка и стонущее дыхание, усиливающиеся при любой физической активности ребенка. Субфебрильная температура диагностирована в 47,3% случаев, навязчивый кашель – у 63,1% и у 21% детей отмечались отёки,

появление которых родители связывали со снижением диуреза. Нарушение сна у 8% детей проявлялось сонливостью, у остальных – с периодами немотивированного беспокойства по ночам.

Аускультативный феномен у 1/3 детей (31,6%) проявлялся приглушенностью I тона, у 69,4% детей - глухостью тонов, причём выраженность последнего ассоциировалась со степенью кардиомегалии. У 2/3 детей – 69,4% выслушивался систолический шум, не связанный с органическими поражениями, а у 14 детей (36,8%) отмечалось расщепление I тона по типу ритма галопа.

Симптомы сердечной недостаточности по левожелудочковому типу диагностированы у всех детей, причём у 73,3% – II Б степени. Гепатомегалия, как признак застоя в большом круге кровообращения имело место у всех детей. Размеры печени варьировали от +2 см до +5 см.

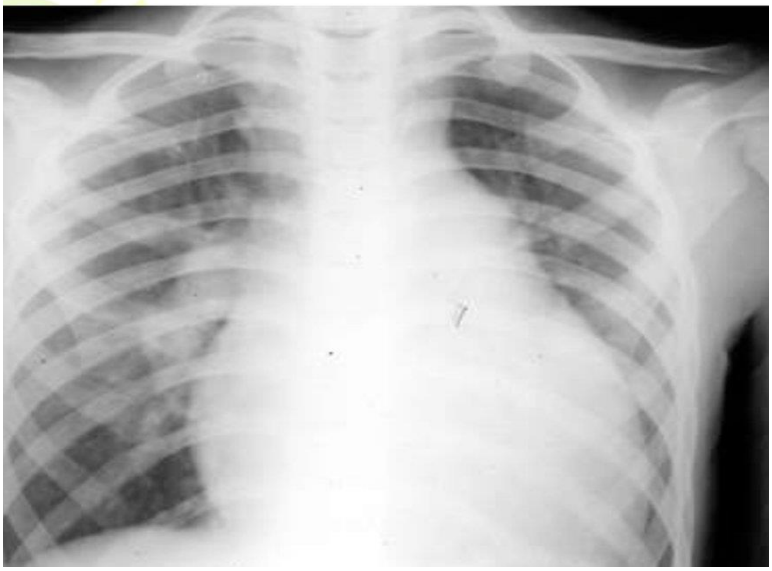
Гемодинамические нарушения оценивались по показателям электрокардиографии. Нарушения автоматизма проявлялись синусовой тахикардией и более, чем у половины обследованных детей (55,3%), частота сердечных сокращений превышала 20% порог от возрастных нормативов. У одного ребенка при поступлении в стационар диагностирован приступ суправентрикулярной тахикардии. Нарушения проводимости у детей с острым кардитом представлены – НБПНПГ (23,9%) и AV-блокадой I степени (7,9%).

Кроме того, электрокардиографическими признаками кардита у обследованных нами детей, явились признаки: гипертрофии левого желудочка (39,5%), гипертрофия левого желудочка с перегрузкой предсердий (39,5%), бивентрикулярной гипертрофии (21%), субэндокардиальной ишемии (31,6%) и метаболических изменений в миокарде (15,8%).

Эхо-признаками, подтверждающими кардит, диагностированы изменения в виде дилатации полости левого и правого желудочков, увеличение конечно-систолического и конечно-диастолического размеров левого желудочков и значительное снижение фракции выброса, диапазон показателей которых находился в пределах от 28% до 42%.

При рентгенографическом исследовании определялось увеличение тени сердца, преимущественно за счёт левого желудочка, с показателями кардиоторакального индекса 67% $\pm$ 3%.

Рентгенограмма больного Дадаханов И., 1 год 6 месяцев, диагноз – Кардит приобретенный, острое течение, тяжелая степень, НК 2 А. (история болезни №321/508/471).



Из показателей исследования крови у всех госпитализированных детей с кардитом диагностирована анемия, как фактор усугубляющий течение данного заболевания. Дети с анемией средней тяжести составили 63%, у 8 детей (21%) показатели Нв соответствовали анемии тяжелой степени.

Маркером поражения миокарда является показатель КФК, повышение которого выявлено у всех детей с тяжёлым течением (73,7%) кардита. Кроме этого, у всех детей имели место высокие показатели СРБ, превышающие нормативные показатели в 4-5 раз.

Таким образом, на основании полученных нами результатов, можно предположить, что наиболее вероятными и значимыми факторами риска развития кардитов у детей раннего возраста являются со стороны матери: отягощенный акушерский анамнез; со стороны ребенка – частые вирусные и вирусно-бактериальные инфекции, внутриутробные инфекции, перинатальное поражение нервной системы, белково-энергетическая недостаточность питания и аллергическая настроенность.

Острые кардиты у детей раннего возраста в наших исследованиях протекали преимущественно в тяжелой форме, с симптомами сердечной недостаточности, что нами расценивалось как неблагоприятный прогностический признак.

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ХАРАКТЕР ВЕГЕТАТИВНЫХ РАССТРОЙСТВ У ПОДРОСТКОВ С УЧЁТОМ ГЕНДЕРНОЙ ПРИНАДЛЕЖНОСТИ

Аннотация. Несмотря на более чем вековой период изучения данной патологии и её высокую распространенность среди детей и подростков, остаются дискутабельными принципиальные вопросы относительно самостоятельности вегетативной дистонии как нозологической формы. Симптомы вегетативной дисфункции можно обнаружить практически у всех детей, начиная с периода новорожденности. В разные возрастные периоды, а также зависимость от гендерной принадлежности проявляется различной степенью клинических проявлений.

Ключевые слова: вегетативные расстройства, подростки, гендерная принадлежность, кардиалгия, цефалгия, эмоциональные лабильность.

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THE NATURE OF AUTONOMIC DISORDERS IN ADOLESCENTS, TAKING INTO ACCOUNT GENDER

Annotation. Despite the more than a century-long period of study of this pathology and its high prevalence among children and adolescents, fundamental questions regarding the independence of vegetative dystonia as a nosological form remain debatable. Symptoms of autonomic dysfunction can be found in almost all children, starting from the newborn period. In different age periods, as well as dependence on gender identity is manifested by varying degrees of clinical manifestations.

Key words: vegetative disorders, adolescents, gender, cardialgia, cephalgia, emotional lability.

Актуальность. Начало большинства заболеваний взрослых, в том числе болезней сердца и мозга, лежат в детском возрасте и истоком многих из них является вегетососудистая дистония. **[**1,3,9]

Несмотря на более чем вековой период изучения данной патологии и её высокую распространенность среди детей и подростков, остаются дискутабельными принципиальные вопросы относительно самостоятельности вегетативной дистонии как нозологической формы. **[**5,8,10]

В связи с этим до настоящего времени нет единого мнения среди врачей различных специальностей (педиатров, кардиологов, неврологов) и исследователей по трактовке нейроциркуляторной дистонии (НЦД) у детей и подростков. Что это — самостоятельная болезнь или пограничное состояние между нормой и патологией, или один из вариантов вегетососудистой дистонии (ВСД), хотя и часто встречающийся, или фактор риска **[**3,6,11].

Симптомы вегетативной дисфункции можно обнаружить практически у всех детей, начиная с периода новорожденности. В разные возрастные периоды изменяется лишь степень их выраженности. **[**2,4,10,11]

В структуре клинических проявлений у подростков не зависимо от половой принадлежности выделяют три ведущих синдрома: психовегетативный (перманентно-пароксизмальные нарушения, обусловленные дисфункцией систем мозга), вегетативно-сосудисто-трофический (периферические вегетативные нарушения, вызванные поражениями смешанных нервов, сплетений и корешков, обеспечивающих

конечности нервными волокнами и проходящими по ним импульсами) и синдром прогрессирующей вегетативной недостаточности (периферические сегментарные, а также в сочетание с церебральными и периферическими вегетативными расстройствами). [7,10,12]

В связи с недостаточностью изучения данной проблемы у подростков в зависимости от гендерного признака, нами была поставлена **цель** изучить характер вегетативных расстойств у подростков в зависимости от их половой принадлежности.

Материал и методы исследования. Обследование подростков проводилось на базе Андижанского Областного детского многопрофильного медицинского центра, находившихся на лечении в кардиоревматологическом отделении. В исследование включены 42 пациента старшего школьного возраста от 13 до 18 лет. Программа исследования включала следующие методы6 анамнестический, клинический и инструментальный.

Результаты исследования. В наших исследованиях почти в 3 раза чаще встречались девочки.

Распределение детей по половому признаку



С первичным поступлением в стационар - 85,7%. Повторное поступление (24,3%) с одинаковой частотой наблюдалось как среди мальчиков, так и среди девочек.

Оценка тяжести состояния при поступлении в стационар также имели гендерные особенности. Полученные результаты свидетельствуют, что основная масса детей поступала на стационарное лечение в средне-тяжелом состоянии не зависимо от половой принадлежности. Удовлетворительное состояние встречалось чаще среди мальчиков, а в тяжелом состоянии поступали исключительно девочки. Семейная отягощенность в данной возрастной группе составила 81%. Наиболее часто среди родственников 1 и 2 линии родства встречались: нейроциркуляторная дистония, гипертоническая болезнь, ишемическая болезнь сердца, дискинезия желчевыводящих путей, хронический гастрит, нейрогенный мочевой пузырь.

Анализ частоты и характера перенесенных заболеваний в зависимости от половой принадлежности показал, что анемия и вирусные инфекции с одинаковой частотой встречалась как у мальчиков, так и у девочек. В то же время пневмония, пиелонефрит и функциональные расстройства ЖКТ чаще зафиксированы у девочек, а бронхит и ангина чаще встречались среди мальчиков.

Кроме того, по результатам беседы с родителями установлено, что 1/3 детей, не зависимо от половой принадлежности, в периоде раннего возраста находились на диспансерном наблюдении у невропатолога по поводу перинатального поражения нервной системы.

По характеру жалоб наиболее частой жалобой, предъявляемой мальчиками из группы старшего школьного возраста, явилась кардиалгия (66,6%). Боли в области сердца колющего характера, не постоянные и чаще всего связанные с физической нагрузкой и эмоциональной нестабильностью. Эмоциональные нарушения (83,3%) у мальчиков проявлялись в виде повышенной раздражительности (58,3%) и плаксивости (25%) на любую, даже не значительную «стрессовую ситуацию».

Головная боль (25%) и гипервентиляционные нарушения (25%) встречались с одинаковой частотой, преимущественно в вечернее время. Астенические жалобы (58,2%) (повышенная утомляемость и слабость) пациенты связывают с физической активностью и высокой школьной нагрузкой.

Нарушения сна (25%) у мальчиков проявлялось в виде не полноценного сна (16,6%) и не благоприятным в плане прогноза у одного ребенка отмечались ночные апноэ (8,3%). Редкой жалобой среди мальчиков явились тошнота (8,3%) и боли в животе (8,3%).

Характер жалоб со стороны девочек данной возрастной группы имели отличительные особенности, по отношению к жалобам со стороны мальчиков.

Полученные результаты свидетельствуют о том, что жалобы со стороны девочек отличались частотой и полиморфизмом. Ведущей жалобой являлась цефалгия (46,6%), появление которой больные связывали с эмоционально-стрессовой ситуацией и переутомлением за счёт повышенной учебной нагрузки (школьная программа и дополнительные занятия с репетиром). Второй по частоте жалобой были жалобы на гипервентиляционные нарушения (40%), сопровождающиеся чувством нехватки воздуха, частыми вздохами, с наибольшей частотой в вечернее время.

В 10% случаев среди девочек данной возрастной группы отмечались головокружения с приступами предсинкопальных состояний (потемнение в глазах при ортостазе). Кардиалгия (30%) встречалась только у 1/3

девочек и характеризовалась приступообразными колющими болями в левой половине грудной клетки.

Появление болей в нижних конечностях (23,3%) девочки связывали с повышенной физической активностью и у одной пациентки боли сопровождались мышечной дрожью (3,3%).

Со стороны желудочно-кишечного тракта ведущими жалобами были тошнота (13,3%), абдоминальные боли (16,6%) и склонность к запорам (6,7%).

Наиболее часто среди девочек встречались эмоциональные нарушения (66,7%), в большинстве случаев связанные не только со стрессовыми ситуациями, но и беспричинно, проявляющиеся плаксивостью (30%) и быстрой сменой настроения (26,6%).

Астенический синдром (46,7%) был достаточно частой жалобой в виде слабости (30%) и утомляемости (16,7%).

Сравнительный анализ наиболее часто встречающихся жалоб в зависимости от пола обследуемых детей старшей возрастной группы представлен в таблице.

Сравнительная оценка наиболее часто встречающихся жалоб у детей с СВД в зависимости от половой принадлежности.

Жалобы	**Мальчики**	**Девочки**
Кардиалгия	66,6%	30%
Цефалгия	25%	46,6%
Синкопе	-	10%
Гипервентиляционный синдром	25%	40%
Нарушения сна	25%	-
Эмоциональная лабильность: плаксивость быстрая смена настроения раздражительность	83,3% 25% - 58,3%	66,7% 30% 26,6% 10%
Астенический синдром: слабость утомляемость	58,3% 16,6% 41,6%	46,7% 30% 16,6%
Абдоминальный синдром: тошнота боль в животе склонность к запорам	16,6% 8,3% 8,3% -	36,6% 13,3% 16,6% 6,7%
Боль в ногах	8,3%	23,3%

Данные объективного осмотра также имели различия в зависимости от половой принадлежности детей в старшей возрастной группе.

Если реакция мальчиков на осмотр проявлялась эмоциональной гиперемией (58,3%), то у девочек – бледностью кожных покровов (76,7%). Кроме того, в момент осмотра у 1/3 девочек отмечались сухие холодные конечности (33,3%), у мальчиков преобладала повышенная потливость при волнении (66,7%).

Изменение частоты сердечных сокращений со склонностью к тахикардии (33,3%) и аритмии (26,6%) чаще встречалось среди девочек, а у мальчиков превалировала брадикардия (66,7%).

По показателям АД у мальчиков имело место склонность к понижению АД (33,3%), а у девочек – к повышению АД (16,7%).

Наиболее значимыми изменениями на ЭКГ у мальчиков явились: горизонтальное положение ЭОС (50%) и брадикардия; у девочек – вертикальное положение ЭОС (60%), тахикардия и аритмия, нарушения процессов реполяризации в миокарде встречались с одинаковой частотой, не зависимо от половой принадлежности (25% и 20% соответственно).

Таким образом, на основании полученных результатов нами были сделаны следующие выводы:

1. Клинико-инструментальные проявления вегетативной дисфункции, не зависимо от пола, представлены кардиалгическим, вазомоторным и дисдинамическим синдромами.

2. У мальчиков по совокупности жалоб и объективного осмотра преобладала ваготоническая направленность СВД (кардиалгия, брадикардия, склонность к понижению АД, нарушение сна, эмоциональная гиперемия кожи, гипергидроз конечностей);

3. У девочек превалировали симптомы симпатикотонического типа СВД (цефалгия, головокружения, синкопе, эмоциональная бледность кожи, плаксивость, быстрая смена настроения, боли в ногах с мышечной дрожью и выраженный абдоминальный синдром).

Использованные источники:

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РОЛЬ МЕТАФОРЫ НА АНГЛИЙСКОМ ЯЗЫКЕ

Аннотация. В статье рассматривается метафоры, которые играют существенную роль в установлении связей между научным языком и миром

Ключевые слова. Существенный, Метафора, визуальное мышление, практика, Наука, абстрактные понятия.

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THE ROLE OF METAPHORS IN ENGLISH

Annotation. The article deals with metaphors that play a significant role in establishing links between the scientific language and the world.

Key words; Essential, Metaphor, visual thinking, practice, Science, abstract concepts.

Метафора это – слово или выражение, употребляемое в переносном значении, в основе которого лежит сравнение предмета или явления с каким-либо другим на основании их общего признака. Английский язык богат на метафоры, которые поражают глубиной и образностью.

Метафора является одним из самых ярких и сильных средств создания выразительности и образности текста.

Через метафорическое значение слов и словосочетаний автор текста не только усиливает зримость и наглядность изображаемого, но и передаёт неповторимость, индивидуальность предметов или явлений. Метафоры служат важным средством выражения авторских оценок и эмоций.

С тех пор как я прочитал «метафоры, которыми мы живем» лакоффа и джонсона (1980), я был очарован метафорами, но мне оставалось только гадать, какую роль метафоры могут играть в научной практике. Многие научные дисциплины имеют дело с абстрактными понятиями и объектами,

невидимыми невооруженным глазом, поэтому метафоры определенно пригодятся при передаче этих идей широкой публике, но могут ли метафоры что-то сделать для самих ученых? В моей собственной области нейронауки классическая метафора (которую я широко использовал в своей книге «нейрокомик») — это метафора «нейроны как деревья» и «мозг как лес». Эта метафора используется далеко не только в образовании, она стала неотъемлемой частью нашего технического жаргона. Каждый день нейробиологи говорят о дендритных «ветвях» и «разветвлениях» аксонов, и когда на этих ветвях наблюдали крошечные структуры, их называли «шипами» (не волосками, не перьями и не бугорками). Короче говоря, кажется, что мы не только описываем нейроны как деревья, но со временем мы действительно стали думать о нейронах как о деревьях.

Я обнаружил, что возвращаюсь к этой метафоре, когда читал «создание истины: метафора в науке» (2003), в которой теодор браун убедительно доказывает, что метафоры, даже до того, как они станут достоянием общественности, могут играть фундаментальную роль в научных открытиях. Приводя множество поучительных примеров, особенно из истории атома, браун показывает, как задолго до того, как концепция будет хорошо понята, метафоры могут помочь ученым придумывать и проводить эксперименты, тем самым направляя сам научный прогресс. Единственная проблема, которая у меня есть с аргументом брауна, заключается в том, что он, кажется, объединяет «метафоры» и «модели», но действительно ли каждая модель является метафорой? Я думаю, физики могли бы возразить, что некоторые из их моделей действительно абстрактны и чисто математически на ранней стадии. Однако нет никаких сомнений в том, что метафоры и мысленные эксперименты (или назовем их нарративами?), такие как демон максвелла, кот шёредингера и близнецы эйнштейна, сыграли важную роль в принятии лежащих в их основе моделей. Действительно, в «настоящей науке» (2002) физик джон зиман утверждает, что «научные теории неизбежно метафоричны».

Если метафоры являются не просто побочным продуктом науки, а действительно могут направлять само открытие, то тщательный выбор этих метафор становится неотъемлемой частью работы ученых. Конечно, как указывает браун, метафора редко выбирается одним человеком раз и навсегда, предлагается много неудачных метафор, пока в конечном итоге не появится одна, когда она будет использоваться в разговорной речи и расширяться другими учеными. Тем не менее, первоначальный выбор может иметь далеко идущие последствия, и к нему нельзя относиться легкомысленно. Когда метафора становится общепринятой, от нее трудно отказаться, и она может увести поле в заблуждение на годы и даже десятилетия. На самом деле метафоры/модели брауна лежат в основе того,

что томас кун назвал «парадигмами» в «структуре научных революций» (1962). Сам кун, кажется, признавал важность метафор, в «метафорах и насквозь» (1993) он утверждает:

«метафоры играют существенную роль в установлении связей между научным языком и миром. Однако эти ссылки не даются раз и навсегда. Изменение теории, в частности, сопровождается изменением некоторых соответствующих метафор и соответствующих частей сети сходств, через которые термины связываются с природой».

Есть много примеров метафор, которые «пошли не так». Одна из моих любимых метафор «парникового эффекта» из «создания правды», которая, хотя и полезна для понимания некоторых аспектов изменения климата, подвергалась критике, поскольку вызывает ассоциации с защитной и приятно теплой средой теплицы. Кроме того, в нем не отражена сложность изменения климата, слишком много внимания уделяется глобальному потеплению и упущены другие важные аспекты, такие как закисление океана. Короче говоря, по мере роста поля метафора с теплицей становилась слишком предписывающей и в конце концов потеряла популярность. Однако некоторые метафоры настолько глубоко укоренились в нашей культуре, что от них трудно отказаться. В книге «болезнь как метафора» (1978) сьюзен зонтаг обсуждает, как различные неизлечимые болезни на протяжении всей истории становились метафорами самой смерти, неся с собой предрассудки и суеверия. Еще одним недавним примером таких вредных метафор является воинственный язык, используемый для обсуждения лечения рака («битвы против рака»), что может иметь побочный эффект в виде обескураживающего профилактического поведения (hauser and schwarz, 2015).

В конечном счете мы могли бы утверждать, что метафоры всегда будут включать чрезмерное упрощение и, возможно, их следует вообще избегать в науке. Но если принять довод лакоффа о том, что метафоры не только полезны, но и необходимы для человеческого познания, то из этого следует, что ученым следует уделять гораздо больше времени и внимания выбору метафор. Однако, поскольку формулы для создания удачной метафоры не существует, ученые могут полагаться только на собственное творчество и спонтанные ассоциации. Вот почему некоторое визуальное мышление и творческое письмо, вероятно, должны быть частью образования ученого. Действительно, браун заключает:

« [преподавание науки] включает в себя передачу концептуального понимания и чувства интеллектуального возбуждения по поводу предмета. Творческое использование метафор — жизненно важный элемент в этом процессе».

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UDK 34

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РОЛЬ ОБЩЕЧЕЛОВЕЧЕСКИХ ЦЕННОСТЕЙ В ГРАЖДАНСКОМ ОБЩЕСТВЕ

Аннотация: Общечеловеческие ценности формируются и развиваются на основе ценностей, присущих всему человечеству. Они также служат сближению и развитию всех национальных ценностей одновременно.

Ключевые слова: демократия, гражданского общества, общечеловеческих ценности, национальная идея.

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THE ROLE OF UNIVERSAL VALUES IN CIVIL SOCIETY

Abstract: Universal values are formed and developed on the basis of values inherent in all mankind. They also serve to bring together and develop all national values at the same time.

Keywords: democracy, civil society, universal values, national idea.

Особенности проявления общечеловеческих ценностей в построении гражданского общества носят относительный характер, это свойство которого, то есть относительность, не всегда бросается в глаза. Соответственно, при сочетании демократических принципов с национальными ценностями необходимо выделить следующие формы его проявления.

а) формирование как национальной ценности на основе непрерывности демократических процессов;

б) путем достижения степени демократических изменений, соразмерной мышлению и социально-политическому уровню народа;

в) на основе национальной идеи "будущее Узбекистана – великое государство" взгляды различных групп общества основаны на обеспечении социально - экономической стабильности, солидарности, межэтнического согласия;

г) обеспечение того, чтобы демократические процессы развивались в соответствии с такими качествами нашего народа, как уважение к закону, повиновение закону;

д) трансформация универсальных демократических принципов в жизненную необходимость гражданина страны путем достижения приоритета моральных, духовных, национальных ценностей даже в политических отношениях и т.д.

Следовательно, универсальная ценность также рассматривается как критерий универсальных ценностей, которые имеют общую ценность для всех членов общества и оказывают положительное влияние на изменения, происходящие в жизни каждого человека, на поведение, практическую деятельность, образ жизни, отношение людей к другим. При этом в системе общечеловеческих ценностей сами демократические принципы открывают широкое поле для ее формирования. Однако это не означает, что не следует делать вывод о том, что, хотя роль национальных ценностей в этой системе находится в пассивном состоянии. Потому что в системе ценностей нация, присущие ей признаки, аспекты, характеристики, территория, пространство и связанные с ней чувства, которые непосредственно влияют на процесс их формирования, занимают важное место в построении демократического общества. Соответственно, нация также является объектом любой национальной ценности, ее создателем и социальной базой, на которой покоится главная в системе национальных ценностей. Это означает, что национальные ценности постоянно совершенствуются в процессе развития от прошлого к будущему, создавая все новые и новые грани. Именно этот процесс будет иметь решающее значение в формировании справедливого и демократического общества. Верность общечеловеческим ценностям является главным принципом построения демократического общества в Узбекистане.

Общечеловеческие ценности не являются каким-то отдельным, обособленным от других аспектом духовного, социального совершенства человека. Универсальные ценности - это обобщенное выражение национальных и региональных ценностей. Верность гуманитарным идеям, демократии, социальной справедливости, стремление быть устойчивыми везде, предотвращать нарушения прав человека, защищать борьбу всех народов за национальную независимость, приглашать людей к дружбе, сотрудничеству и сочувствию, стараться везде обрести мир, умиротворение, поддерживать чистоту окружающей среды - это аспекты универсальных ценностей, которые приобретают все большее значение. важность сегодня.

Эти ценности также состоят из новых аспектов в развитии науки, техники, культуры, общественных производственных отношений, приобретенных всем человечеством, достижений в стабилизации демократии, законодательства, правосудия, рациональное использование которых также служит делу превращения нашей республики в одну из развитых стран мира. Разрешение некоторых отступлений, национальных ограничений и калондимог может привести к невероятно большим

потерям в этом отношении. Общечеловеческие ценности дают желаемый эффект только тогда, когда они связаны с местными условиями, возможностями, историческими традициями. Региональные ценности также тесно связаны с универсальными ценностями. Этот ряд ценностей встречается в странах и народах, которые жили и работали в условиях, близких друг к другу, чья история непрерывна.

Народы Центральной Азии установили тесные экономические и политические связи друг с другом на протяжении тысячелетий. Их условия жизни, язык, культура, религия, традиции были близки друг другу, что привело к формированию многих универсальных территориальных ценностей. Эти значения близки по сути, хотя и немного отличаются друг от друга в разных местах.

Пожилые люди - это люди, которые много видят, которые могут дать совет в любой работе с умом и восприятием, которые могут оказать большое воспитательное воздействие на молодежь. Уважать пожилых людей, учиться у них, перенимать жизненный опыт - значит пытаться искать новые возможности для духовного совершенствования. Уважение к родителям, прислушивание к их речи и увещеваниям также является большой духовной ценностью. Родители никогда не раскроют зло своему ребенку. Поскольку они видят большой вес, легкость в жизни, они также думают о перспективах своих детей больше, чем они сами. Иногда родительские увещевания кажутся некомпетентным детям более тяжелыми. Это следствие глубокого незнания жизни, легкомысленного взгляда на различные жизненные процессы. Дети осознают ценность родителей только тогда, когда сами становятся родителями. В этот период они упускают много возможностей для духовного совершенствования. Поэтому никогда не следует забывать о привычке уважать родителей, которые представляют собой огромную духовную ценность. Уважение к родителям присуще всем народам мира. Но в нашем регионе почитание этой ценности выше, чем в других местах. Также ценностью, характерной для всех народов нашего региона, является оказывать друг другу помощь в строительстве жилья по хашару, в ремонте жилья, гладить по лбу сирот, вдов, быть добрыми, не позволять родственникам брать их под свою защиту и оставаться униженными.

Узбекистан является суверенным демократическим государством и является главным источником государственной власти народа. Об этом говорится в статье 13 Конституции: "Республика Узбекистан основана на демократических общечеловеческих принципах, согласно которым человек, его жизнь, свобода, честь, достоинство и другие неприкосновенные права являются высшей ценностью. Демократические права и свободы защищены Конституцией и законами" **[**24]. Следовательно, в демократическом государстве народ является главным источником государственной власти и через реализацию универсальных

принципов достигает благополучия человека и общества, повышения уровня жизни всех людей.

Принятие решений на основе универсальных демократических принципов, как уже неоднократно отмечалось, является одним из самых сложных вопросов в развитии нашего общества. Это особенно сложно на пространстве бывшего Союза, которое долгое время жило в условиях усложнения тоталитарного режима, в том числе в Узбекистане, в обществе, которое так и не смогло избавиться от своих пороков. Именно этот сложный процесс, один из способов не вызвать социально-политических потрясений, принцип верховенства закона.

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ПЕДАГОГИК НЕОНОЛОГИЯ АСОСИДА ТАЛАБА ҚИЗЛАР ИЖТИМОИЙ ФАОЛЛИГИНИ ТАКОМИЛЛАШТИРИШ ОМИЛЛАРИ

Аннотация: Ушбу мақолада педагогик неонология асосида талаба-қизлар ижтимоий фаоллигини ривожлантириш учун зарур бўлган мухит ва омиллар хусусида сўз юритилган.

Калит сўзлар: неонология, ижтимоий фаоллик, ахлоқий ўзлик, омил.

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IMPROVING THE SOCIAL ACTIVITY OF STUDENT GIRLS ON THE BASIS OF PEDAGOGICAL NEONOLOGY

Abstract: This article talks about the environment and factors necessary for the development of social activity of female students on the basis of pedagogical neonology.

Key words: neonology, social activism, moral identity, factor.

Ижтимоий фаоллик шахс фаолиятининг муҳим томонларидан биридир. У шахснинг жамият ва жамоа ишларидаги иштирокида намоён бўлади; маълум даражада сиёсий ва ахлоқий ўзликни англашга асосланади. **[**1] Шундан келиб чиқиб, кузатишларимиз ва тажрибаларимизга асосланиб, бугунги кунда Олий таълим тизимида талабалар ижтимоий фаоллигини такомиллаштириш жараёнини самарали ташкил этишда бир қатор камчиликлар мавжудлиги эътироф этиб ўтиш лозим.

-ижтимоий фаолият жараёнида талабаларнинг бўш вақтларини мазмунли ва унумли сарфлаш режали амалга оширилмаётганлиги;

-модернизациялаштирилган таълим-тарбия жараёнида талабаларнинг ижтимоий жараёнларда ташаббус билан чиқиши, илмий-методик, ўқув жараёнларида замонавий педагогик ва ахборот технологиялардан фойдаланиш маданиятини таркиб топтиришга хизмат қиладиган билим, кўникма ва малакаларни мунтазам янгилаш тизимини мазмунан бойитиш лозимлиги;

-талаба ёшларни “ўз” ижтимоий тажрибасини орттириши, талабаларда маъсулият ҳиссини тарбиялаш ва ўз -ўзини фаол қарор топтириши учун шахсга йўналтирилган педагогик жараённи неонологик

технологиялар билан бойитиш, кенг кўламли ва узоқ муддатли мақсадларни амалга ошириш стратегияларини қўллаш талаб этилади.

Ижтимоий фаолликнинг масъулият ҳиссига боғлиқ йўналишларидан яна бири шахсда шаклланадиган мақсад ва идеаллардир. Мазкур мақсад ва идеаллар орқали талабалар ўз истак ва интилишларидан келиб чиқиб келажакларини прогноз қилиши, эртанги куни харитасини туза олиши, узоқ, яқинга мўлжалланган "режа"ларни амалга оширишга тайёрлик кўришини прогнозлаштириш малакасига эга бўлиши таълимнинг барча даражалари ва бўғинларида маълум маънода методологик асос вазифасини ўтайди. Методологик асос эса - муайян назария ва таълимотларнинг етарлича илмий асосланиши, шахс фаолиятини тўғри уюштириш учун асос (негиз) бўлиб хизмат қиладиган муҳим, етакчи ғоялардир. [2]

Педагогик неонология асосида талабалар ижтимоий фаоллигини ривожлантириш учун зарур бўлган прогнозлаштириш, лойиҳалаштириш ва моделлаштириш ишлари доимий, изчил, узлуксиз, аниқ тизимли бўлиб, унда тартибсизлик, узилишлар ва қўнимсизликларга йўл қўйиб бўлмайди. Ижтимоий муҳитда, таълим жараёнида қанча ўзгариш юз берса-да, ўзини сақлаб қоладиган, барча ўзгаришлар таркибида иштирок этадиган элементларига доимий компонентлар дейилади. Шундай компонентлар сирасига талабалар ижтимоий фаоллигини такомиллаштиришда муҳим ўрин тутадиган педагог ва тьютор фаолиятининг дидактик тузилмаси ётади. Мазкур тузилма контекстида педагог ва тьютор, ўқитувчи ва талаба ўртасидаги ўзаро муносабатлар ётади. Дидактик мақсадларга кўра, янгиланиб, турланиб турадиган "ўзгаришлар", мақсад доимо ўзининг англанганлиги ва шахс реал имкониятларига боғлиқлиги билан характерланади. [4]

У. Мақсудовнинг интернет мақоласида"...Ўзбекистон тажрибаси шуни кўрсатадики, биринчидан, инсон шахсининг ижтимоий фаоллиги, энг аввало, жамоада, маълум фаолият турларида шаклланади. Иккинчидан, талабалик даври ижтимоий фаоллик ҳамда турли ахлоқ нормаларини намоён қилиш учун кенг имкониятлар даври бўлгани сабабли, ёшлар орасида устувор фаолият ҳисобланган таълим жараёни муҳим омил ҳисобланади. Учинчидан, ижтимоий тасаввурлар ижтимоий борлиқ мазмунини индивидуал борлиқ билан боғловчи кўприк вазифасини ўтайди. [1]

Педагогик неонология асосида талабалар ижтимоий фаоллигини такомиллаштиришнинг қуйидаги таркибий компонентларини ишлаб чиқиш муҳим ўрин тутади:

- педагогик неонология асосида талабалар ижтимоий фаоллигини такомиллаштиришга хизмат қиладиган, илмий асосланган индикаторларини ишлаб чиқиш;

• тадрижийлик ва узлуксизлик тамойилларига асосланган аждодларимиз меросидан оқилона фойдаланиш методикасини ишлаб чиқиш ва ҳаётга татбиқ этиш;

• узлуксиз тарбия тизимида миллий ва замонавий педагогиканинг илғор ютуқларидан самарали фойдаланиш;

• ўқитиш усулларини такомиллаштириш, таълим-тарбия жараёнига индивидуаллаштириш тамойилларини босқичма-босқич татбиқ этиш:

• талаба ёшларда ўқишга соғлом, кучли ва таъсирчан мотивацияни шакллантириш;

• педагогларнинг методик таъминотини яхшилаш; [3]

Бу ўринда алоҳида эътироф этиб ўтиш жоизки, “Рақамли технология”лар ривожланаётган техноген ривожланиш шароитида таълим-тарбия жараёнининг ижтимоий мазмун-моҳиятини тарихий, миллий ёндашувлар ва аждодлар тажрибалари билан такомиллаштириш муҳим педагогик аҳамият касб этади. Шунингдек, замонавий талабларни инобатга олган ҳолда таълим-тарбияга миллий ҳамда умуминсоний, инсонпарварлик тамойилларига таяниб, [5] талабаларнинг мақсадлари, қизиқишлари ва интилишларини жамият манфаатларига мослаштира олиш ҳам алоҳида аҳамиятга эга.

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МОДЕЛЬНЫЕ ХАРАКТЕРИСТИКИ ИГРОКОВ В НАСТОЛЬНЫЙ ТЕННИС КАК ОСНОВАНИЕ ДЛЯ ОТБОРА НА ТРЕНИРОВОЧНОМ ЭТАПЕ

Аннотация: в спорте отбор проводится неоднократно. Очень важен отбор на стадии определения будущей успешной профессиональной деятельности. В настольном теннисе это отбор перспективных юных спортсменов на тренировочном этапе. Был проведен факторный анализ различных параметров отбора, в результате которого были отобраны для эксперимента наиболее информативные показатели, которые стали модельными характеристиками игроков в настольный теннис на тренировочном этапе.

Ключевые слова: отбор, настольный теннис, факторный анализ.

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MODEL CHARACTERISTICS OF TABLE TENNIS PLAYERS AS A BASIS FOR SELECTION AT THE TRAINING STAGE

Abstract. In sports, selection is carried out repeatedly. Selection at the stage of determining future successful professional activities is very important. In table tennis, this is the selection of promising young athletes at the training stage. A factor analysis of various selection parameters was carried out, as a result of which the most informative indicators were selected for the experiment, which became model characteristics of selecting table tennis players at the training stage.

Keywords: selection, table tennis, factor analysis.

ВВЕДЕНИЕ

Постоянный рост спортивных достижений предъявляет высокие требования к системе подготовки спортсменов-игровиков. Основная роль подготовки – отбор наиболее перспективных кандидатов. В связи с вышесказанным существует необходимость в своевременном повышении качества отбора и поиске талантливых спортсменов.

Отличительной чертой спортивного отбора от высокого процента иных профессий, в которых профессиональный отбор осуществляется лишь на начальном этапе производственной деятельности, является то, что в карьере спортсмена-профессионала отбор повторяется неоднократно, в течение всей многолетней подготовки [3].

Проблема отбора уже давно не находится в стадии становления, а превратилась в самостоятельную науку. Прогнозируя возможности ребенка или подростка, тренер ставит перед собой задачу создания талантливых индивидуумов с надеждой на успешную в дальнейшем спортивную специализацию.

Проблема отбора наиболее перспективных детей находится в стадии постоянного совершенствования и поиска новых разработок, вопреки многочисленным имеющимся данным на сегодняшний день. В современной системе подготовки спортсменов от игроков начальной подготовки до высшего спортивного мастерства особенным представляется этап прогнозирования их результатов в будущем [2].

Тренировочный этап углублённой специализации (иначе ТЭ(СС)) рассчитан на спортсменов, которые выполнили первый спортивный разряд или разряд кандидат в мастера спорта.

В процессе многолетней подготовки учитывают: исходный уровень, изменение показателей обследования в связи с возрастными изменениями и под влиянием спортивной тренировки, просматривается связь данных показателей и спортивных достижений. Качественный эффективный отбор является условием достижений наивысших результатов и подготовки спортивного резерва. Многообразие методов отбора постоянно расширяется, сам отбор становится более углублённым, это является следствием увеличения количества отсеиваемых спортсменов [1].

РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЙ

Цель эксперимента – определить информативные показатели подготовки игроков в настольный теннис. Принимали участие 3 теннисиста из ДЮСШ Андижана, возраст спортсменов 12–14 лет.

Измерялись следующие характеристики:

1. Силовой индекс.
2. Общая оценка уровня здоровья.
3. Перемещение в 3-х метровой зоне боком (вправо-влево) (кол-во раз) за 1 мин.
4. Имитация топ-спина справа (кол-во раз) за 1 мин.
5. Прыжки через скакалку за 45 с.
6. Прыжок в длину с места.
7. Имитация топ-спина слева (кол-во раз) за 1 мин.
8. Топ-спин справа по подрезке.
9. Топ-спин слева по подрезке.
10. Индекс массы тела.

11. Откидка со всего стола (кол-во ошибок) за 3 мин.

12. Бег на 10 м.

13. Перемещение в 3-х метровой зоне в две точки у стола (вперед-назад) (кол-во раз) за 30 сек.

14. Шкала эмоциональной стабильности-нестабильности (нейротизма) Г. Айзенка.

15. Имитация сочетания ударов накатом справа и слева (кол-во раз) за 2 мин.

16. Выполнение 10 серий игровых комбинаций на своей подаче до выигрыша очка завершающим ударом.

17. Оценка степени готовности спортсменов к риску (А.М. Шуберт).

18. Методика, направленная на определение способности спортсмена быть лидером (Е. Жариков, Е. Крушельницкий).

19. Жизненный индекс.

20. Время восстановления ЧСС.

21. Индекс Робинсона.

22. Бег на 30 м.

23. Сгибание и разгибание рук в упоре лежа за 1 мин.

24. Выполнение 10 серий игровых комбинаций на приеме подачи до выигрыша очка завершающим ударом или топ-спин ударом.

25. Диагностика мотивационной направленности личности (Т.Элерс).

Информативные показатели определялись с помощью факторного анализа. На первом этапе были определены собственные числа и степени влияния факторов на полную дисперсию выборки (таблица).

Таблица – Степень влияния каждого фактора на полную дисперсию выборки

№ фактора	Число	Влияние фактора на дисперсию, %	Накопленная степень влияния фактора, %
1	**3,89**	15,54	15,54
2	**2,89**	11,56	27,1
3	**2,65**	10,592	37,69
4	**2,22**	8,89	46,59
№ фактора	Число	Влияние фактора на дисперсию, %	Накопленная степень влияния фактора, %
5	**1,94**	7,76	54,34
6	**1,57**	6,29	60,63
7	**1,56**	6,23	66,86
8	**1,41**	5,63	72,49
9	**1,22**	4,88	77,37
10	0,95	3,81	81,18
11	0,80	3,20	84,38
12	0,76	3,03	87,41
13	0,65	2,61	90,02
14	0,54	2,15	92,16
15	0,41	1,66	93,82

16	0,36	1,45	95,27
17	0,34	1,37	96,64
18	0,25	0,99	97,63
19	0,22	0,90	98,53
20	0,13	0,50	99,03
21	0,09	0,35	99,38
22	0,07	0,27	99,65
23	0,04	0,19	299,83
24	0,03	0,12	99,95
25	0,01	0,05	100

Анализ матрицы факторных нагрузок показал, что:

– фактор 1. Морфофункциональное состояние характеризуют показатели: СИ (0,8) и общая оценка уровня здоровья (0,8);

– фактор 2. Скоростно-силовые способности характеризуют показатели: перемещение на расстояние 3 метра боком на время (1 мин.) (0,8) и выполнение имитационных движений топ-спина справа на время (1 мин). (0,7);

– фактор 3. Координационные способности характеризуют показатели: прыжки через скакалку на время (45 сек.) (0,6), прыжок в длину с места (0,5), выполнение имитационных движений топ-спина слева на время (1 мин.) (0,6), выполнение топ-спина по правой диагонали с подрезки (0,8), выполнение топ-спина по левой диагонали с подрезки (0,6);

– фактор 4. Общее физическое развитие организма характеризуют показатели:

ИМТ (0,8);

– фактор 5. Скорость движения лучезапястного сустава и предплечья характеризуют показатели: откидка со всего стола на время (3 мин), учитывается количество сделанных ошибок;

– фактор 6. Скорость характеризуют показатели: бег на расстояние 10 м (0,5), перемещение в 3-х метровой зоне в две точки у стола (вперед-назад) (кол-во раз) за 30 сек. (0,5), определение эмоциональной стабильности – (0,8);

– фактор 7. Скорость реакции характеризуют показатели: выполнение имитационных движений накатом по правой и левой диагонали (сочетание) (0,8);

– фактор 8. Скорость мышления характеризуют показатели: 10 игровых комбинаций на своей подаче до выигрыша очка завершающим ударом (0,7), готовность к риску (А.М. Шуберт) (0,8);

– фактор 9. Психоэмоциональная составляющая: проявление спортсменом лидерских качеств (0,9).

Нормативы, описанные в более ранней научной литературе и методических пособиях, не обладают высокой эффективностью оценки

подготовленности спортсменов при осуществлении отбора на тренировочном этапе.

ВЫВОДЫ

1. Путем осуществления факторного анализа выделено девять факторов, характеризующих подготовку спортсменов этапа углубленной специализации: морфофункциональное состояние организма, скоростно-силовые способности, координационные способности, общее физическое развитие организма, скорость движения пояса верхних конечностей спортсменов, скорость движений тела, скорость реакции на движущийся объект, максимальная скорость мышления за короткий промежуток времени, психоэмоциональное состояние организма спортсмена.

2. Психологический контроль в соревновательном процессе помогает осуществлять проявление таких психологических качеств, как интеллект спортсмена, эмоциональная стабильность и проявление качеств лидера.

3. Скоростно-силовые качества, скорость реакции, координация движений являются направлением развития общей и специальной физической подготовленности спортсменов.

4. Определяющими компонентами проявления высокого уровня технико-тактических способностей являются: скорость перемещений, скорость движения лучезапястного сустава и предплечья, скорость ответной реакции на движущийся объект, скорость мышления.

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О НЕКОТОРЫХ ПРОБЛЕМАХ ЗАКОНОДАТЕЛЬНОГО ПРОЦЕССА В СУБЪЕКТАХ РОССИЙСКОЙ ФЕДЕРАЦИИ

Аннотация: В статье рассматриваются проблемные вопросы законодательного процесса в субъектах Российской Федерации. При обобщении и классификации подходов к определению законодательного процесса выявлены две основных точки зрения: широкий подход - весь процесс от создания нормативного правового акта до его опубликования, узкий - деятельность законодательных органов по принятию нормативного акта. На основе анализа нормативного регулирования законодательного процесса в субъектах Российской Федерации на федеральном уровне делаются выводы о его разрозненности и отсутствии единого нормативного акта, закрепляющего основные положения законодательного процесса. Формулируются выводы о необходимости закрепления широкого подхода в нормативном регулировании регионального законодательного процесса.

Ключевые слова: законодательный процесс, законодательный процесс в субъектах Российской Федерации, законодательные органы, нормативный акт, закон.

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ABOUT SOME PROBLEMS OF THE LEGISLATIVE PROCESS IN THE SUBJECTS OF THE RUSSIAN FEDERATION

Abstract: The article deals with problematic issues of the legislative process in the subjects of the Russian Federation. When generalizing and classifying approaches to the definition of the legislative process, two main points of view are identified: a broad approach - the entire process from the creation of a regulatory legal act to its publication, a narrow one - the activities of legislative bodies to adopt a regulatory act. Based on the analysis of the regulatory regulation of the legislative process in the constituent entities of the Russian Federation at the federal level, conclusions are drawn about its fragmentation and the absence of a single regulatory act fixing the main

provisions of the legislative process. Conclusions are formulated about the need to consolidate a broad approach in the regulatory regulation of the regional legislative process.

Keywords: legislative process, legislative process in the subjects of the Russian Federation, legislative bodies, normative act, law.

Законодательный процесс лежит в основе государственного устройства каждого общества: закрепляет и формирует фундаментальные начала правовой системы, регламентируя общественные отношения. Вопрос о значении, содержании, сущности указанного процесса волновал законодателей и правоведов с самого зарождения государства. Так, титулы II и III книги первой Дигестов Юстиниана посвящены праву и законам, их происхождению и принятию[38]. А Жан-Жак Руссо в трактате «Об общественном договоре» говорил: «Законодательная власть – это сердце Государства…Не законами живо Государство, а законодательной властью»[39].

Законодательный процесс в субъектах Российской Федерации – это регламентированная государством деятельность, основанная на Конституции Российской Федерации. Основными его источниками на федеральном уровне являются Федеральный конституционный закон от 21.07.1994 № 1-ФКЗ «О Конституционном Суде Российской Федерации», Федеральный закон от 14.06.1994 № 5-ФЗ «О порядке опубликования и вступления в силу федеральных конституционных законов, федеральных законов, актов палат Федерального Собрания», Федеральный закон от 17.01.1992 № 2202-1 «О прокуратуре Российской Федерации», Федеральный закон от 21.12.2021 № 414-ФЗ «Об общих принципах организации публичной власти в субъектах Российской Федерации», Федеральный закон от 08.05.1994 № 3-ФЗ «О статусе сенатора Российской Федерации и статусе депутата Государственной Думы Федерального Собрания Российской Федерации», Федеральный закон от 17.07.2009 № 172-ФЗ «Об антикоррупционной экспертизе нормативных правовых актов и проектов нормативных правовых актов», Федеральный закон от 09.02.2009 № 8-ФЗ «Об обеспечении доступа к информации о деятельности государственных органов и органов местного самоуправления», Регламент Государственной Думы, принятый постановлением Государственной Думы Федерального Собрания Российской Федерации от 22.01.1998 № 2134-II ГД, Регламент Совета Федерации Федерального Собрания Российской Федерации от 30.01.2002 № 33-СФ.

[38] Дигесты Юстиниана / Перевод с латинского; отв. ред. Л.Л. Кофанов. Т. I. М.: Статут, 2008. 584 с. С. 7.
[39] Руссо Ж.Ж. Об общественном договоре. Трактаты / Пер. с фр. М.: «КАНОН-пресс», «Кучково поле», 1998. 416 с. С. 275.

Это далеко не исчерпывающий перечень нормативных актов, регулирующих законодательный процесс в субъектах Российской Федерации. Указы Президента Российской Федерации, постановления Правительства Российской Федерации, нормативные правовые акты субъектов Российской Федерации и иные источники регламентируют его отдельные вопросы и процедуры.

Такая разрозненность нормативного регулирования, отсутствие единого закона, закрепляющего основные положения законодательного процесса на всех этапах, терминологию, порождает множество коллизий и противоречий.

В 2009 году на парламентском семинаре «Основные задачи и проблемы совершенствования взаимодействия Совета Федерации Федерального Собрания Российской Федерации с законодательными (представительными) органами государственной власти субъектов Российской Федерации в федеральном законодательном процессе» Руководитель Аппарата Совета Федерации Владимир Свинарев заявил: «Я не преувеличиваю масштаб проблемы. Считаю, что, если нам не удастся изменить качественный уровень принимаемых законов, наша страна потеряет шанс на успешное развитие»[40].

Длительное время прошло с того момента, законодательный процесс в субъектах Российской Федерации претерпел значительные изменения, но проблема отсутствия единого подхода к пониманию основных положений среди ученых – правоведов и государственных деятелей осталась.

На уровне теории права, отраслевого права и практической деятельности отсутствует не просто единый подход к определению законодательного процесса, а целостный подход к сущности явления. Часть исследователей рассматривает законодательный процесс в широком смысле как весь процесс от создания нормативного правового акта до его опубликования. Другая позиция заключается в рассмотрении законодательного процесса исключительно как деятельности законодательных органов по принятию нормативного акта, оставляя его сущность и содержание за рамками понимания. Это лишает правовое явление присущего ему смысла, сужает до механической процедуры, позволяя реализующим законодательный процесс лицам терять из виду конечную цель своей деятельности – создание эффективных законов, максимально учитывающих интересы общества и государства.

Национальный стандарт РФ «Формирование и деятельность законодательных (представительных) органов субъектов Российской федерации. Термины и определения» закрепляет определение законодательного процесса в законодательном (представительном) органе государственной власти субъекта Российской Федерации: «Совокупность

[40] Официальный сайт Совета Федерации Федерального Собрания Российской Федерации [Электронный ресурс]: – Режим доступа: http://council.gov.ru/?special=1 (дата обращения: 10.02.2023).

установленных действующим законодательством и регламентом законодательного (представительного) органа государственной власти субъекта Российской Федерации последовательно осуществляемых процедур регистрации проектов законов субъекта Российской Федерации, внесенных субъектами права законодательной инициативы, их предварительного рассмотрения, принятия решений о вынесении на первое чтение или о возврате внесшему лицу, рассмотрения в первом чтении, регистрации и предварительного рассмотрения поступивших от субъектов права законодательной инициативы поправок к законопроектам, принятым в первом чтении, рассмотрения во втором чтении, рассмотрения в третье чтении, направления на обнародование высшему должностному лицу (руководителю высшего исполнительного органа государственной власти) субъекта Российской Федерации, повторного рассмотрения принятого закона в случае его отклонения этим лицом, а также процедуры подготовки, рассмотрения и внесения в Государственную Думу Федерального Собрания Российской Федерации в порядке законодательной инициативы проектов федеральных и федеральных конституционных законов и поправок к законопроектам, принятым Государственной Думой Федерального Собрания Российской Федерации в первом чтении, направления отзывов на законопроекты, готовящиеся Государственной Думой Федерального Собрания Российской Федерации к рассмотрению»[41]. Такое определение сводит законодательный процесс к совокупности процедур, а добровольный характер применения в данном случае стагнирует ситуацию, сохраняя разрозненность сторон и позиций. Качественного изменения применяемого законодательства можно достичь только в том случае, если будет сохранен «дух законов»: «разумность, правомерность, законность и справедливость требований»[42], как истинная цель законодательного процесса и принцип его воплощения. Указанный смысл должен быть закреплен официально законодателем как ориентир для законодательных органов субъектов Российской Федерации в реализации полномочий. О качестве принимаемых законов, являющихся отправной точкой для деятельности региональных законодателей, говорит следующее. Федеральный закон от 21.12.2021 № 414-ФЗ «Об общих принципах организации публичной власти в субъектах Российской Федерации» полностью вступил в силу 01.01.2023, федеральным законом от 06.02.2023 № 12-ФЗ в него внесены изменения, три законодательных инициативы о внесении изменений находятся на рассмотрении в

[41] Национальный стандарт Российской Федерации «Формирование и деятельность законодательных (представительных) органов субъектов Российской Федерации. Термины и определения», утвержденный и введенный в действие приказом Федерального агентства по техническому регулированию и метрологии от 14 сентября 2017 г. № 1113-ст, ГОСТ Р 57667-2017 [Электронный ресурс]: – Режим доступа: https://e-ecolog.ru/docs/Ca6lMvffTG9WJLvqbXTfn/full (дата обращения: 10.12.2022).

[42] История политических и правовых учений: Учебник для вузов / под общ. ред. акад. РАН, д.ю.н., проф. В.С. Нерсесянца. М.: Норма, 2004. 944 с. С. 370.

Государственной Думе Федерального Собрания Российской Федерации (далее – ГД ФС РФ), еще одна инициатива отклонена ГД ФС РФ, две отозваны[43].

Идея о необходимости создания единого нормативного акта, регламентирующего основные положения законодательного процесса, давно разрабатывается в академических кругах и государственных органах. Активными сторонниками издания «закона о законах»[44] в научной среде являются А.В. Мицкевич, С.В. Поленина, И.С. Самощенко, Д.А. Ковачев, Ю.А. Тихомиров, А.С. Пиголкин, И.Ф. Казьмин, Е.А. Лукьянова, С.В. Бошно. Разработкой законопроекта такого нормативного акта занимались Институт законодательства и сравнительного правоведения при Правительстве Российской Федерации, Комиссия по реализации конституционных полномочий Совета Федерации, Министерство юстиции Российской Федерации, депутаты ГД ФС РФ различных созывов[45].

Весьма точно по поводу разработки такого закона высказалась Е.А. Лукьянова в статье «Закон о законах»: «Длительность разработки проекта «закона о законах» во многом обусловлена осторожностью законодателя, тщательнейшим осмыслением и проработкой таких сложных вопросов, как толкование и разъяснение нормативных правовых актов, поскольку именно эти оперативно-эффективные способы восполнения пробелов в законодательном регулировании и устранения явных негативных явлений в правоприменительной практике могут при определенных условиях привести не только к искажению, но и к полной подмене смысла законов»[46]. Еще одна проблема, которая возникает при проработке такого закона, это слишком широкий и разнородный предмет регулирования, который охватывает нормативные правовые акты, правотворчество, законодательный процесс, планирование, реализацию и много другое, что требует тщательной проработки многими субъектами законодательного процесса. Поэтому сегодня идея так и ею и остается.

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АНАЛИЗ МОДЕЛИ ТРЕНИЯ НА ВОЗДЕЙСТВИЕ ВРАЩАЮЩЕГО ТВЕРДОГО ТЕЛА И ВЯЗКОГО ТРЕНИЯ

Аннотация. В данной статье анализируется исследование модели трения, которые рассматриваем три отдельных периода: период упругости, период упруго пластичности и период восстановления. Предназначенную для поддержки более точной процедуры проектирования систем мехатроники.

Ключевые слова. механика, влияние, трение, износ, деформация, упругость, подход, динамика, материалы, углы.

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ANALYSIS OF THE FRICTION MODEL ON THE EFFECT OF A ROTATING RIGID BODY AND VISCOUS FRICTION

Abstract. This article analyzes the models that were considered in three recent periods: the period of elasticity, the period of elastoplasticity and the recovery period. Designed to support more complex mechatronics and robotics system design procedures

Keywords. mechanics, influence, friction, wear, deformation, elasticity, approach, dynamics, materials, angles.

Изучение механического удара имеет очень долгую историю, начиная с Маклорена, Ньютона и Пуассона. Они произвели впечатляющее количество исследований для различных приложений, и для проверки теоретических подходов использовались разнообразные практические стенды.

Важным улучшением для этой технической области стало развитие новых современных областей техники, таких как автоматизированное проектирование, биомеханика. Современные датчики, высокоскоростное

получение изображений и устройства обработки, а также увеличенные компьютерные ресурсы лучше поддерживают возможность практической проверки теоретических моделей. Разнообразие приложений должно учитывать форму ударяющих тел, материалы и динамические условия, включая углы, скорости, ускорения и трение.

Трение может иметь важное значение во многих исследованиях, и, как следствие, теоретическая модель должна быть адаптирована [1]. Данное исследования рассматривало влияние трения в сочетании с другими факторами, такими как деформационное упрочнение [2], износ [3], смазка [4] и деформация [5]. Лучшие решения для приложений, связанных с ударами с трением, были предложены как обработка удара для случая плоских много тельных механических систем и использование эффективного алгоритма обнаружения контакта.

Предложенная модель трения была для того, чтобы сделать возможным правильное обнаружение проскальзывания, остановки скольжения и обратного проскальзывания. Анализируются как случаи открытого, так и закрытого контура. Во избежание использования гипотезы Ньютона предлагается кинетический коэффициент восстановления Пуассона. Используются декартовы координаты и декартовы импульсы. Конечные скорости рассчитываются уравнениями импульса для удара. Теория проверена на некоторых практических приложениях: ударе двухзвенного маятника и ударе автомобильного заднего колеса.

Для исследования, чтобы изучить воздействие составного маятника на плоскую поверхность, мы используем кулоновскую модель для случая вязкого трения. Насколько нам известно, эта фрикционная модель не использовалась для задач удара.

На рисунке 1 представлен составной маятник при ударе, где ϕ - угол удара. Это необходимо для определения трехосной инерциальной системы отсчета. Составное звено движется в плоскости, и мы обозначили ее как - плоскость. Верхняя упомянутая плоскость имеет две оси: вертикальную, обозначенную как ось (имеющую вертикальное направление вниз как положительное направление), и горизонтальную, обозначенную как ось (имеющую направление слева направо как положительное направление). Единичный вектор оси равен, а единичный вектор оси равен. Плоскость движения имеет нормальную ось, как единичный kxy yx xt yjz вектор.

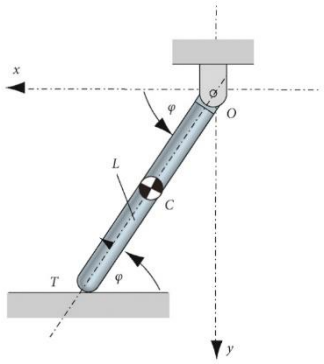


Рисунок 1 Вращающееся роботизированное звено с ударом.

Имея равномерную связь, центр масс С имеет те же координаты, что и геометрический центр. На земле закреплена точка, называемая точкой поворота *О.* Есть еще один момент *Т*- конец. Эта точка соприкасается с неподвижной плоской поверхностью. Поскольку длина вращающегося звена равна *L.* расстояние между точкой контакта Т и точкой вращения О равно *L.* а расстояние между центром масс Си точкой вращения О равно L/2. Следовательно. $r_т$ = Lcosφt + Lsinφj.(1)

Учитывая, что, как уже было сказано, маятник движется в плоскости, совершая чистое вращение вокруг точки вращения, следует, что векторы угловой скорости и углового ускорения следуют направлению – перпендикулярного этой плоскости. У нас есть только одно движущееся твердое тело, и для угловой скорости, относящейся к этому телу, стержню, мы будем использовать следующее выражением = dφ/dt =φ. гдем- угловая скорость вращающегося звена. Далее, переходя от угловой скорости к угловому ускорению кинематического элемента, будем использовать следующее выражение:» = $d^2\varphi/dt^2$ = φ, где угловое ускорение вращающегося звена равно *а.* Требуется вычислить момент инерции массы стержня, вращающегося вокруг неподвижной точки вращения О. С учетом второго момента инерции относительно центра масс одним из способов решения этой проблемы является использование теоремы о переносе. Таким образом. I_O = 1_C + m$(L/2)^2$. Масса вращающегося звена равна *m.* Существует момент, поддерживающий вращение стержня вокруг точки поворота. Этот момент определяется весом звена, действующим через его центр масс, и может быть вычислен векторным произведением вектора положения, г пересеченного в G = *mgj.* Где g- ускорение свободного падения **[**6].

Как показано выше, цель статьи состояла в том, чтобы предоставить решение, которое может поддерживать процесс проектирования робототехнических структур. Эти структуры применимы в нескольких областях, которые также были представлены выше. Можно применить метод проектирования небольшого шагающего робота, который ударяется о металлическую поверхность, причем удар также включает трение.

Таким образом в данной статье можно вывести дать анализ исследованию модели и времени столкновения происходящих в трех фазах: упругое сжатие, упругопластическое сжатие и восстановление. Предложена модель механического воздействия, предназначенную для поддержки более точной процедуры проектирования систем мехатроники и робототехники. И исследована представленая математическая модель, учитывающая вязкое трение при ударе.

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КУЛЬТУРА КЛИНИЧЕСКОЙ РЕЧИ И ПРАВИЛЬНОГО УПОТРЕБЛЕНИЯ КЛИНИЧЕСКИХ ТЕРМИНОВ

Аннотация: в данной статье рассматриваются некоторые вопросы употребления медицинских терминов и выражений, которые ввёл в обиход врач, терапевт, исследователь С.П. Боткин. Автор считает, что данная информация послужит медицинской осведомлённости студентов-медиков.

Ключевые слова: клиническая медицина, боткинская школа, инфекционные болезни, культура врачебного дела.

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CULTURE OF CLINICAL SPEECH AND CORRECT USE OF CLINICAL TERMS

Annotation: this article discusses some issues of the use of medical terms and expressions that were introduced by the doctor, therapist, researcher S.P. Botkin. The author believes that this information will serve the medical awareness of medical students.

Key words: clinical medicine, Botkin school, infectious diseases, culture of medical practice.

Непревзойдённым образцом медицинского языка была культура клинической речи и правильного пользования клиническими терминами Сергея Петровича Боткина (1832 - 1889), великого русского терапевта, профессора военно-медицинской академии. С.П. Боткин был основоположником российской терапевтической школы; клинический язык его и сейчас звучит как слово великого учителя, как поистине verba magistri.

Боткин ввёл клиническую медицину в разряд естественных наук, освободив от присущего ей чистого эмпиризма. Единство клиники, науки и постоянное стремление к совершенствованию – одна из важнейших черт боткинской школы. В формировании взглядов Сергея Петровича определённую роль сыграла его многолетняя дружба и научное сотрудничество с Сеченовым. Строго говоря, Боткин создал в России первую научную клиническую школу.

Талант, удивительное клиническое мышление, интуиция, новаторские подходы и широкий взгляд на проблему позволили сделать Сергею Петровичу множество открытий и нововведений. Он впервые стал широко использовать лабораторные исследования (биохимические, микробиологические) в практической деятельности, а также ввёл обязательное измерение температуры каждого пациента, аускультацию, перкуссию и осмотр больного.

Боткин установил различие между гипертрофией и дилатацией сердца, описал диастолический шум при стенозе левого атриовентрикулярного отверстия, отметил значение селезёнки в депонировании крови; впервые в мировой литературе дал клиническое описание атеросклероза. Сергей Петрович первым в России описал В12-дефицитную анемию, отметил возникновение приступов стенокардии при ней, описал ботриоцефальную анемию как разновидность пернициозной и указал на роль широкого лентеца в её развитии. Боткин – создатель нейрогенной теории патогенеза тиреотоксикоза, он впервые в России описал клинику микседемы. Он отметил многообразие клинических проявлений желчнокаменной болезни, описал бронхоспастический синдром при сердечной астме, впервые в истории медицины прижизненно диагностировал тромбоз воротной вены.

Отдельно стоит отметить его вклад в инфекционные болезни. Именно Боткин высказал предположение об инфекционной природе острого эпидемического гепатита, который теперь носит его имя. Он подробно описал целый ряд инфекционных болезней: сыпной, брюшной и возвратный тиф, чуму, холеру, натуральную оспу, дифтерию и скарлатину.

Столетие отделяет нас от первой профессорской лекции Боткина. Его прекрасная чистая русская речь с проникновенным творческим прогрессивным пониманием клиники внутренних болезней и по сей час имеет неувядаемое и поучительное значение для читателя-врача.

Мы приведём некоторые особенности и черты клинического языка С.П. Боткина, которые смогут послужить культуре клинической речи современного врача и студента-медика.

С.П. Боткин редко пользовался иностранными терминами, словами и выражениями. Употребляемые им иностранные клинические термины были словами известными и понятными, и действительно, трудно заменимыми одним коренным русским словом. Сюда можно отнести следующие термины: атеромоторное перерождение, атрофия, гидремичность, гипертрофия, галлюцинация, компенсация, кумуляция, метастаз, невралгия, патология, стенокардия, эксудат.

Вышли из употребления, как устаревшие, некоторые клинические термины Боткина, естественные для речи врача 100 лет назад, как например: вздох (вдох), возвышенная (температура, чувствительность),

горячительный напиток, личный нерв, ожесточение (воспаление, катара), подкожный жирный слой, серцевой (толчок, мышца).

Вполне уместны в речи современного врача такие русские клинические термины из лекции С.П. Боткина, как возврат (вместо рецидив), выздоровление (вместо реконвалесценция), выслушивание (вместо аускультации), недостаточность (вместо инсуффициенция), перерождение (вместо дегенерация), постукивание (вместо перкуссия), расширение (вместо дилатация).

Некоторые положения, защищаемые С.П. Боткиным, имеют общеметодическое значение для врачебной работы, они способны повысить культуру врачебного дела. Учитывая их учебно – воспитательное значение для студентов-медиков, мы приведём высказывания С.П. Боткина, которые в комплексе и составят то, что история медицины назовёт “Боткинской врачебной школой”.

О тернистом пути практического применения знаний у постели больного Боткин говорил своим ученикам:... “нелегко даётся это применение их к индивидуальным случаям, и каждый из нас проходит через целый ряд мучительных сомнений и ошибок, прежде чем достигнет умения правильно применять свои теоритические врачебные сведения, со спокойной совестью, без последующих нравственных пыток”.

С.П.Боткин первый описал форму “острого инфекционного паренхиматозного гепатита”, получившего в медицине название “болезнь Боткина”. Об этом важном открытии Боткин с величайшей скромностью сообщил своим ученикам: “Я пришёл постепенно к убеждению, что icterus catarhalis (катаральная желтуха), которую прежде считали за желудочно - кишечный катар с механической задержкой жёлчи, на самом деле есть только один из симптомов общего заболевания, проявляющегося не только желтухой, но и увеличением селезёнки и иногда нефритом с самостоятельным поражением печени”.

Поиск нового в науке, “чувство нового” было сильно в Боткине. Он говорил: “Современные способы исследования, наблюдения и лечения больного человека, освобождая медицину от старой рутины, открывают вместе с тем неисчерпаемые источники для разработки различных вопросов по части патологии и терапии”. Основой клиники он считал физиологию. Он был, как характеризовал его Иван Петрович Павлов, лучшим “олицитворением законного и плодотворного союза медицины и физиологии”.

Живым было в Боткине драгоценное для каждого научного работника чувство научного братства в коллективе и чувство общественника. Гениальный клиницист и клинический учитель, С.П.Боткин открыто и искренне признавал научное влияние на него наблюдений своих учеников, ординаторов клиники: “Я считаю святым долгом высказать сердечную благодарность моим неутомимым и

усердным сотрудникам по клинике в течение всех девяти лет; я тем более считаю это обязательным, что вполне сознаю влияние этих соединённых трудов на наше обоюдное развитие”

Здоровый оптимизм научного медицинского работника создал его уверенность в светлое будущее народа, и пророческими звучали его слова: “Утешительно только одно, что невежество и безнадёжность сотрутся и обязательно почувствуется значение знания, ума и таланта”.

Таким образом, медицинская терминология и знание её единиц поможет в обучении студентов медвузов. Медицинские открытия и лексика великого учёного, врача С.П. Боткина сделали свой вклад в учебно-воспитательной работе и развитии культуры клинической речи студентов-медиков.

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КРИТЕРИИ ОЦЕНКИ СОСТОЯНИЯ ЭКОСИСТЕМЫ ЭПИДЕМИЧЕСКОГО ПРОЦЕССА ИНФЕКЦИЙ, СВЯЗАННЫХ С ОКАЗАНИЕМ МЕДИЦИНСКОЙ ПОМОЩИ В ОТДЕЛЕНИЯХ НЕЙРОРЕАНИМАЦИИ АФ РНЦЭМП, ПОЗВОЛЯЮЩИЕ КЛАССИФИЦИРОВАТЬ УГРОЗУ РАЗВИТИЯ У ПАЦИЕНТОВ ВЕНТИЛЯТОР-АССОЦИИРОВАННЫХ ПНЕВМОНИЙ

Аннотация. Представлен критерий, позволяющий оценивать состояние экосистемы эпидемического процесса инфекций, связанных с оказанием медицинской помощи в отделении нейрореанимации, в основу которого положена ключевая характеристика ведущего сочлена экосистемы – резистентность к индикаторным антибиотикам популяции паразита, измеряемая индексом полирезистентности (ИПР). С помощью этого критерия установлено, что угроза развития вентилятор-ассоциированных пневмоний (ВАП) тесно связана с интенсивностью колонизации пациентов в первые три дня госпитализации резидентными для данного отделения микробными субпопуляциями с высокой резистентностью к индикаторным антибиотикам. Чем больше в структуре микрофлоры, выделяемой от пациентов, и доля подобных бактерий, тем выше шансы возникновения случаев ВАП, и наоборот.

Ключевые слова: вентилятор-ассоциированные пневмонии, нейрореанимация, индекс полирезистентности микрофлоры к антибиотикам.

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CRITERIA FOR ASSESSING THE STATE OF THE ECOSYSTEM OF THE EPIDEMIC PROCESS OF INFECTIONS ASSOCIATED WITH THE PROVISION OF MEDICAL CARE IN THE DEPARTMENTS OF NEUROREANIMATION AF RNTSEMP, ALLOWING TO CLASSIFY THE THREATS OF DEVELOPMENT IN PATIENTS OF VENTILATOR-ASSOCIATED PNEUMONIA

In the course of the research we picked a criterion which allows estimating the state of epidemic model of infections related to first aid performed in neuro-reanimation units. This criterion is based on the key characteristic of the infection ecosystem main component – resistance to indicator antibiotics in the parasite population, measured by multi-drug resistance index (MDRI). Using this criterion we have found out that the threat of ventilator-associated pneumonia (VAP) is closely connected to the intensity of colonization of patients with resident for the reanimation unit microbial subpopulations highly resistant to indicator antibiotics, in first three days of hospitalization. The more there are bacteria of such kind in the structure of microflora emitted by patients, the bigger are chances of VAP appearance – and vice versa.

Key words: ventilator-associated pneumonia (VAP), neuroreanimation, multi-drug resistance index (MDRI).

Инфекции, связанные с оказанием медицинской помощи (ИСМП) в отделениях реанимации и интенсивной терапии, являются важнейшей проблемой реаниматологии. По частоте встречаемости среди пациентов этих отделений ведущее место принадлежат вентилятор-ассоциированным пневмониям (ВАП). У пациентов с искусственной вентиляцией легких (ИВЛ) угроза ВАП возрастает в 6—20 раз [3]. При продолжительности ИВЛ от 8 до 10 суток частота развития ВАП составляет 80 %, а после двух недель осуществления ИВЛ приближается к 100 % [4, 6].

Атрибутивная летальность от ВАП достигает 30—70 % [8, 11, 12]. Значительная распространенность ВАП, сопровождающаяся высокой летальностью, а также связанные с ней увеличенные сроки лечения и значительные материальные затраты, требуют совершенствования их профилактики. Наиболее результативно эту задачу может решить система эпидемиологического надзора (ЭН), в основе которой лежат социально-экологическая концепция эпидемического процесса (ЭП) и предэпидемическая диагностика [9, 10]. Подобная система ЭН позволяет следить за ключевыми сочленами эпидемиологической экосистемы – популяцией паразита и механизмом его передачи популяции пациентов.

Для обеспечения слежения нужны критерии, в первую очередь, характеризующие популяцию паразита.

Цельисследования – поиск критериев, позволяющих оценивать состояние эко-системы ЭП ИСМП, предсказывать угрозу развития ВАП, и на основании этого формировать рекомендации по принятию управленческих решений, направленных на обеспечение биологической безопасности (ББ) реанимационной помощи пациентам с нейрохирургической травмой, геморрагическими и ишемическими инсультами.

Материалы и методы. Исследование выполнено на базе отделения нейрореанимации АФ РНЦЭМП г.Андижана на 12 коек, осуществляющего реанимационную помощь пациентам с нейротравмой, геморрагическими и ишемическими инсультами. Наблюдение осуществлялось с марта 2010 г. по декабрь 2014 г. Для оценки ББ основных процессов реализации технологии реанимационной помощи и интенсивного лечения определены соответствующие индикаторы, с помощью которых осуществляется слежение за интенсивностью микробной колонизации отдельных биотопов пациентов, ее структурой и уровнем резистентности к индикаторным антибиотикам в момент поступления в отделение, а затем в ходе лечения. У процесса ИВЛ таким индикатором являлись промывные воды бронхов; у процесса катетеризации мочевого пузыря и ухода за мочевыми катерами – моча; у процесса парентерального питания – смывы с назогастральных зондов и пробы кала пациентов; у процесса соблюдения гигиены рук персоналом – смывы с рук сотрудников до и после контакта с пациентами. В момент поступления с выбранных индикаторов отбирались пробы у всех пациентов. В последующем еженедельно аналогичному обследованию подвергались пять случайно отобранных больных с различной продолжительностью пребывания в отделении.

Всего обследовано 3 885 пациентов, из которых 2 647 – при поступлении, 1238 человек – в процессе лечения; из них на протяжении первой недели пребывания в отделении – 820 человек. Отобрано 13 907 проб, характеризующих состояние соответствующих индикаторов, в том числе 7 889 – при поступлении, 6019 проб – в процессе лечения. Рост микрофлоры обнаружен в 9 192 пробах (66,1 %), из них при поступлении – в 5029 пробах (63,7 %), в 4 163 пробах – в процессе лечения (69,2 %). Выделено 13752 культуры. Интенсивность микробной колонизации составила 149,6 случая на 100 проб, давших рост микрофлоры. При поступлении пациентов идентифицировано 7 041 культура (140,1 случая на 100 проб), и 6 711 культур – во время лечения (161,2 случая на 100 проб). Принадлежность микрофлоры к резидентным для отделения нейрореанимации субпопуляциям микроорганизмов, обладающих селективными преимуществами выживания в агрессивной больничной среде и способных вызывать манифестные формы инфекции, включая пневмонию, оценивалась индексом полирезистентности (ИПР) к десяти индикаторным антибиотикам. Перечень препаратов определялся в

зависимости от вида микрофлоры. Величина показателя рассчитывалась в процентах и отражала относительное количество антибиотиков, к которым идентифицированные бактерии обладали абсолютной или умеренной устойчивостью [7]. Величина ИПР может варьировать от 0 до 100 %.

Резистентность к антибиотикам изучена у 11 813 культур диско-дифузионным методом по МУК 4.2.1890—04 «Определение чувствительности микроорганизмов к антибактериальным препаратам». У S. aureusи Streptococcusрезистентность определялась к ампициллину, ванкомицину, гентамицину, рифампицину, офлоксацину, оксациллину, цефуроксиму, цефалексину, цефтриаксону, эритромицину. Кроме того, у S. aureusопреде-лялась метициллинрезистентность. У грамо-трицательной неферментирующей флоры и бактерий семейства Enterobacteriaceae– к ампициллину, гентамицину, тетрациклину, офлоксацину, цефуроксиму, цефалексину, цефтриаксону, эритромицину, левомицетину, карбенициллину.

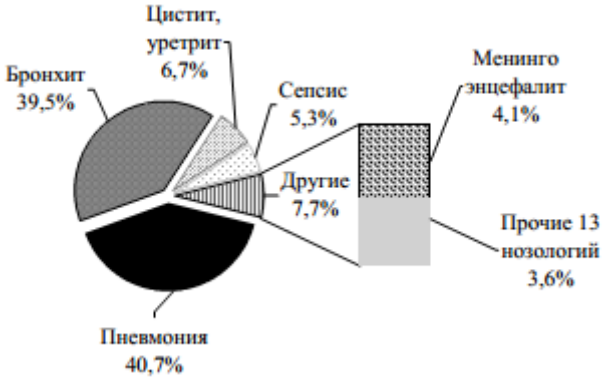


Рис. 1. Структура инфекционных осложнений, возникших у пациентов отделения нейрореанимации АФ РНЦЭМП 2016-2020 гг.

У Enterococcus– к пенициллину, ампициллину, ванкомицину, гентамицину, стрептомицину, тетрациклину, ципрофлоксацину, рифампицину, меропе-нему, офлоксацину. Результаты микробиологического мониторинга записывались в специальной электронной базе данных. Каждая такая запись представляла собой итог отдельного наблюдения за конкретным пациентом в

определенный отрезок времени его пребывания в отделении и характеризовала величину бактериального загрязнения того или иного индикатора, включая уровень резистентности выделенной микрофлоры к индикаторным антибиотикам. На всех выбывших из отделения больных (переведенных в другие отделения и умерших) заполнялась специально разработанная карта выбывших из нейрореанимации. Данная карта, кроме демографических данных, включала сведения о клиническом диагнозе, разновидностях, возникших инфекционных и соматических осложнений с указанием даты появления каждого осложнения, видах реанимационных мероприятий и их продолжительности, факте хирургической операции,

назначениях антибиотиков по видам и продолжительности их применения, исходе лечения. Информация из карт заносилась в другую электронную базу (базу клинических исходов), которая содержала записи о 3 186 пациентах. При возникновении у того или иного пациента какого-либо соматического

или инфекционного осложнения, включая пневмонию, эта информация, а также данные о продолжительности пребывания в отделении и исходе лечения, вносились и в базу результатов микробиологического мониторинга. Таким образом, обе базы оказались связанными между собой. По своему дизайну исследование являлось проспективным, в его ходе сформировано четыре группы (когорты) пациентов, различавшихся величиной ИПР к индикаторным антибиотикам у бактерий, выделенных с различных индикаторов в первые семь дней пребывания больных в отделении. Первая

группа состояла из пациентов, у которых ИПР не превышал 22 %. Во второй когорте величина этого показателя варьировала от 23 до 50 %, в третьей – от 51 до 80 %, в четвертой – составляла более 80 %. В ходе исследования предстояло оценить шансы возникновения ВАП на всем протяжении пребывания в отделении пациентов, включенных в эти группы. Частота возникновения ВАП рассчитывалась на 100 выделенных культур, для которых были определены значения ИПР. Кроме этого сравниваемые группы стратифицировались на кластеры, различавшиеся фактом возникновения ВАП, временем обследования от момента госпитализации. Статистическая обработка выполнена лицензионным программным обеспечением SPSS (версия 14). Для визуализации результатов анализа использовались контрольные карты (Шухарта и P-карты) [1, 2, 5], которые позволяли оценивать стабильность эпидемиологической экосистемы и выявлять действие особых причин, способных усиливать взаимодействие ее сочленов и переводить ЭП ИСМП в манифестную фазу развития, сопровождающуюся возникновением клинически выраженных форм инфекции, включая и ВАП.

Результаты исследования. В ходе анализа карт, выбывших в 2016—2020 гг. из отделения нейрореанимации установлено, что из 3 186 пациентов, получивших медицинскую помощь, у 1 026 (32,2 %) возникли инфекционные

осложнения. Общее количество эпизодов возникновения этих состояний составило 1 305, или 40,96 случаев на 100 выбывших больных. Структура данных осложнений представлена на рис. 1. Из рис. 1 видно, что в структуре инфекционных осложнений, возникших среди пациентов нейрореанимации, 80,2 % приходилось на инфекции органов дыхания, из них более половины – на ВАП. С помощью карты Шухарта оценена частота возникновения ВАП у пациентов сформированных когорт, а затем измерены отношения шансов возникновения этого осложнения в каждой

когорте по сравнению с оставшимися группами (рис. 2). Из карты Шухарта, представленной в левой части рис. 2 видно, что сравниваемые группы пациентов отличались выраженным разбросом по частоте возникновения ВАП. Так, две первые группы располагались под своими нижними контрольными пределами, в то

время как пациенты из четвертой группы вышли за свой верхний контрольный предел. Факт выхода за контрольные пределы указывал на действие среди пациентов этих групп особых причин. В двух первых группах они обеспечивали низкую, а в четвертой, напротив, высокую частоту возникновения ВАП. Ключевым различием данных групп являлась величина ИПР микрофлоры к индикаторным антибиотикам. Следовательно, главной отличительной характеристикой особых причин, действовавших в сравниваемых группах пациентов, являлись различия в популяции паразита. В двух первых группах в его структуре преобладали субпопуляции чувствительные, а в четвертой группе – резистентные к индикаторным антибиотикам. В правой части рис. 2 представлена диаграмма, визуализирующая доверительные интервалы отношения шансов возникновения ВАП у пациентов каждой конкретной группы по сравнению с оставшимися группами. Видно, что у пациентов первой и второй групп шансы возникновения ВАП были достоверно ниже, чем у больных из оставшихся групп. В третьей и четвертой группах ситуация была иной.

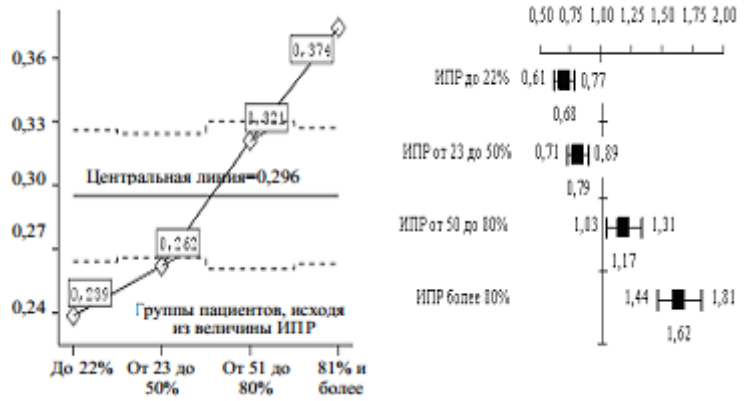


Рис.2. Контрольная карта Шухарта, иллюстрирующая дисперсию частоты возникновения ВАП в четырех группах пациентов 2016-2020 гг.

Здесь шансы развития ВАП были выше, чем у пациентов из других групп, причем эти различия оказались статистически значимыми. Таким образом, чем больше в структуре микрофлоры, выделяемой от пациентов, доля бактерий с высокой устойчивостью к индикаторным антибиотикам, тем выше шансы возникновения у таких больных случаев ВАП, и наоборот. В ходе дальнейшего исследования сравниваемые группы были разбиты на два кластера, различавшихся фактом возникновения ВАП. В первом кластере были сгруппированы больные, у которых зафиксированы

случаи ВАП. Во второй кластер попали пациенты без таких осложнений. В свою очередь, сформированные кластеры стратифицированы на четыре подгруппы в зависимости от времени микробиологического исследования от момента госпитализации пациентов в отделение. В каждой подгруппе оценивалась величина ИПР к индикаторным антибиотикам у микрофлоры, обнаруженной на индикаторах соответствующих процессов. Визуализация полученных данных выполнена с помощью карт Шухарта (рис. 3).

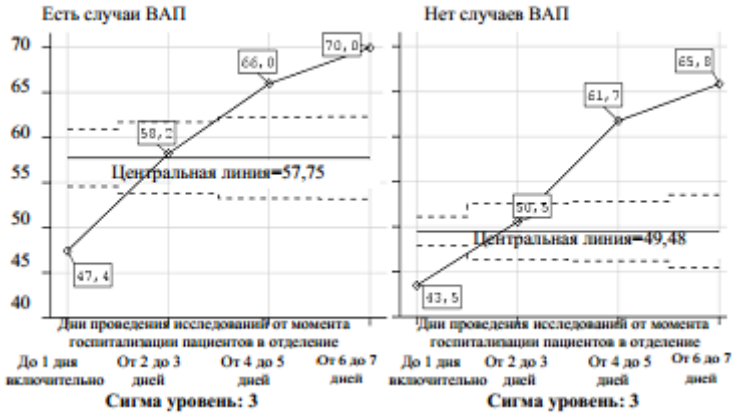


Рис. 3.Контрольные карты Шухарта, иллюстрирующие дисперсию средних значений ИПР к индикаторным антибиотикам у микрофлоры, идентифицированной от пациентов и индикаторов процессов в отделении нейрореанимации в 2016—2020 гг., стратифицированных по дням проведенных исследований от момента госпитализации пациентов в отделение и факта наличия ВАП

Из рис. 3 видно, что с увеличением времени обследования от момента госпитализации пациенты обоих кластеров демонстрировали нарастание ИПР. При этом в первый день пребывания в отделении ИПР в обеих группах пациентов располагались под своими нижними контрольными пределами, а начиная с четвертного дня лечения выходили за пределы верхних контрольных пределов. Подобное проявление дисперсии ИПР свидетельствовало о том, что в обеих сравниваемых группах пациентов действовала общая особая причина, определявшая угрозу контаминации индикаторов процессов микробными субпопуляциями, обладающих повышенной резистентностью к индикаторным антибиотикам.

Данная причина, хотя и являлась общей для обеих сравниваемых групп пациентов, но у больных с ВАП она проявлялась более мощно. В результате ИПР в каждом исследуемом периоде у пациентов данной группы был выше, чем у больных, не имевших такого осложнения. Оценка достоверности выявленных различий выполнена с помощью t-критерия для независимых выборок и критерия равенства дисперсии сравниваемых групп Ливиня. Итоги расчетов представлены в таблице. Из представленных данных видно, что у больных с ВАП ИПР в каждом

исследуемом периоде был достоверно выше, чем у пациентов, не имевших таких осложнений. Особенно существенные различия имели место на 2—3-й день госпитализации больных в отделение.

Таблица. Итоги оценки разности средних значений индекса полирезистентности к индикаторным антибиотикам микрофлоры, идентифицированной в 2016—2020 гг. у пациентов с вентилятор-ассоциированной пневмонией, по сравнению с больными, не имевшими этого осложнения, стратифицированных по дням проведения исследований от момента госпитализации пациентов

Группы дней проведения исследований от момента госпитализации пациентов в отделение	Статистики	Факт пневмонии		t-критерий равенства средних ИПР	Значимость t-критерия (2-сторонняя)	Разность средних ИПР	95% доверительный интервал разности средних ИПР	
		Да	Нет				Нижняя граница	Верхняя граница
ВСЕГО, в том числе:	N	2227	5311	10,28	0,000	8,27	6,69	9,84
	Среднее	57,75	49,48					
До 1 дня включительно	N	846	3140	3,3	0,001	3,9	1,6	6,3
	Среднее	47,4	43,5					
От 2 до 3 дней	N	548	881	4,5	0,000	7,7	4,3	11,0
	Среднее	58,2	50,5					
От 4 до 5 дней	N	422	778	2,2	0,025	4,2	0,5	7,9
	Среднее	66,0	61,7					
От 6 до 7 дней	N	411	512	2,1	0,039	4,1	0,2	8,0
	Среднее	70,0	65,8					

Таким образом, угроза развития ВАП тесно связана с интенсивностью колонизации пациентов микробными субпопуляциями, обладающими высокой резистентностью к индикаторным антибиотикам. При этом итоговое значение ИПР определялось первыми тремя днями пребывания пациентов в отделении.

Заключение. В ходе проведенного исследования выбран критерий, позволяющий оценивать состояние экосистемы АФ РНЦЭМП в отделении нейрореанимации, в основу которого положена ключевая характеристика ведущего сочлена экосистемы – резистентность к индикаторным антибиотикам популяции паразита, измеряемая индексом полирезистентности (ИПР). С помощью этого критерия показано, что угроза развития ВАП тесно связана с интенсивностью колонизации пациентов в первые три дня госпитализации резидентными для данного отделения микробными субпопуляциями, обладающими высокой резистентностью к индикаторным антибиотикам. Чем больше в структуре микрофлоры, выделяемой от пациентов, доля таких бактерий, тем выше шансы возникновения ВАП, и наоборот. Установлено, что если в первые семь дней пребывания пациентов в отделении с индикаторов процессов выделялась микрофлора с ИПР ниже 50%, то шансы развития ВАП были меньше 1 и колебались от 0,68 (ДИ 0,61-0,77) до 0,79 (ДИ 0,71-0,89). При

увеличении ИПР до 51% и более, шансы возникновения ВАП возрастали от 1,17 (ДИ 1,03-1,31) до 1,62 (ДИ 1,44-1,81).

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ИНТЕГРАЛЬНАЯ ОЦЕНКА ОКСИДАНТНО-АНТИОКСИДАНТНОГО СТАТУСА У БОЛЬНЫХ В ОТДЕЛЕНИИ НЕЙРОРЕАНИМАЦИИ РНЦЭМП АФ

Аннотация. В статье представлена сравнительная оценка сывороточной общей окислительной и общей антиоксидантной активности у реанимационных больных с тяжелой черепно-мозговой травмой, ишемическим и геморрагическим инсультами. В связи с неоднородностью исследуемых групп по ряду демографических и клинических показателей предложен новый расчетный показатель – нормализованный коэффициент оксидации, позволивший провести сравнительную оценку выраженности оксидативно-антиокислительного дисбаланса в этих группах. Показаны особенности оксидативных нарушений в исследуемых группах в остром периоде заболеваний.

Ключевые слова: инсульт, черепно-мозговая травма, оксидативный стресс.

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INTEGRATED ASSESSMENT OF OXIDANT-ANTIOXIDANT STATUS IN PATIENTS IN THE DEPARTMENT OF NEUROREANIMATION OF RNCEMPA AF

Annotation. The article presents a comparative assessment of serum total oxidative and total antioxidant activity in resuscitation patients with severe traumatic brain injury, ischemic and hemorrhagic strokes. Due to the heterogeneity of the studied groups in a number of demographic and clinical indicators, a new calculated indicator was proposed - the normalized coefficient of oxidation, which made it possible to conduct a comparative assessment of the severity of the oxidative-antioxidant imbalance in these groups. The features of oxidative disorders in the studied groups in the acute period of diseases are shown.

Keywords: stroke, traumatic brain injury, oxidative stress.

В последние несколько десятилетий произошло изменение взглядов на механизмы вторичного повреждения мозга при тяжелой черепно-мозговой травме (ТЧМТ) и инсультах. Схожесть постагрессивных реакций у больных с ТЧМТ, геморрагическим (ГИ) и ишемическим (ИИ) инсультами позволяет рассматривать их как популяцию нейрореанимационных больных со стереотипными неспецифическими процессами. В патогенезе тяжелых травматических, ишемических и геморрагических повреждений головного мозга часто выявляют нарушение баланса между скоростью образования и скоростью инактивации активных форм кислорода (АФК), что называют термином «окислительный стресс» [1,2]. Активные формы кислорода представлены химическими соединениями двух основных групп: свободные радикалы (супероксид-аниона [O2–], гидроксилиона [OH], оксида азота [NO]) и нерадикальные производные кислорода (перекиси водорода [H2o2], пероксинитрита [ONOO] и др.) [3,4]. В филогенезе животные сформировали высокоэффективные системы антиоксидантной защиты. Антиоксиданты способны нейтрализовать свободные радикалы, регулировать субстратный состав окислительных реакций, взаимодействовать с вторичными продуктами обрывать, цепные реакции пероксидации, защищая биологические мишени от окислительного разрушения [1, 4]. Существующие на рынке коммерческие тест-системы для определения общей оксидантной (окислительной) активности (ООА) в биологических средах фактически выявляют общее количество гидроперекисей ферментативными фотометрическими методами. Методы определения общей антиокислительной активности (ОАА) характеризуются значительной вариабельностью [1]. В связи со сложностью системы физиологической антиоксидации целесообразной представляется оценка ОАА как показателя, характеризующего потенциальную возможность антиоксидантного действия всех компонентов биологического образца. Такие характеристики имеют фотометрические ферментные тест-системы, основанные на определении суммарного количества инактивированных перекисей. Существует

необходимость в способе интегральной оценки окислительно-восстановительного статуса пациентов различающихся групп. Представляется целесообразным провести оценку интегрального показателя, способного отразить состояние оксидантно-антиоксидантной системы в целом при тяжелых травматических, ишемических и геморрагических повреждениях головного мозга. Материалы и методы. Обследовано 56 больных в остром периоде (с 1 по 21 сут) ТЧМТ, ИИ и ГИ, получавших лечение в отделениях реанимации и интенсивной терапии МЛПУ Городская клиническая больница № 1 и Городская клиническая больница № 29 г. Новокузнецка. В соответствии с заболеваниями больные распределены на группы: 1-я – 22 пациента с изолированной ТЧМТ (муж./жен. 18/4, средний возраст [—X±m] 41,0 ± 3,2 лет); 2-я – 17 больных с ИИ (муж./жен. – 8/9, средний возраст 56,0 ± 3,7 лет); 3-я – 17 человек с ГИ (муж./жен. 12/7, средний возраст 56,5 ± 3,2 лет). Диагноз устанавливали на основании клинико-неврологического, инструментального и лабораторного обследования. Клиническими характеристиками [–X±m] трех исследуемых групп были степень нарушения сознания по шкале комы Глазго – 7,6 ± 0,8, 9,2 ± 0,7, 8,7 ± 0,7 балла, тяжесть состояния по шкале APACHE II – 19,3 ± 0,4, 14,8 ± 0,9, 15,3 ± 1,3 балла при поступлении, летальность (абс./%) 8/36,4, 10/58,8, 9/52,9 соответственно. У 10 (45,5%) больных 1-й группы травма была закрытой, у 12 (54,5%) – открытой; ушибы головного мозга тяжелой степени отмечались у 9 (40,9%), диффузные аксональные повреждения – у 1 (4,5%), внутричерепные гематомы на фоне ушиба головного мозга – у 12 (54,6%) пострадавших. Оперативные вмешательства проводились 15 (68,2%) больным с ТЧМТ (декомпрессивная костнопластическая трепанация черепа, удаление внутричерепных гематом, очагов размозжения мозга, дренирование желудочков мозга). Основным сосудистым заболеванием у больных 2-й и 3-й групп были атеросклероз и/или артериальная гипертензия. Больные поступали в тяжелом состоянии с нарушениями сознания от сопора до комы и грубой неврологической симптоматикой. Выраженность неврологического дефицита по шкале инсульта NIH (National Institutes of Health) была в группе ИИ 18,9 ± 6,9, ГИ –

19,6 ± 7,2 балла. В этих группах оперативные вмешательства не проводились. Комплекс лечения у всех больных включал мероприятия, направленные на поддержание функций жизненно важных органов и систем (дыхания, кровообращения, метаболизма), защиту головного мозга, нормализацию его кровообращения, метаболизма, ликвороциркуляции, внутричерепной гипертензии. Все больные получали лечебное питание сбалансированными энтеральными смесями. В связи с неоднородностью исследуемых групп по демографическим и клиническим характеристикам были подобраны разные контрольные группы (КГ). Контрольную группу 1 (КГ1), которую составили 23 здоровых человека (муж./жен. 18/5; средний

возраст 40,3 ± 16,9 года), использовали для сравнения с показателями группы ТЧМТ. Контрольную группу 2 (КГ2), представленную 19 относительно здоровыми людьми (муж./жен.10/9; средний возраст 58,3 ± 12,7 года), использовали для сравнения с показателями групп ИИ и ГИ. Критериями невключения в группы было наличие сахарного диабета, декомпенсированных заболеваний сердца, выраженной сопутствующей (церебральной и/или экстрацеребраль-ной) патологии, имеющей самостоятельное клиническое значение. Исходя из задач исследования, в сыворотке венозной крови определяли показатели оксидативного статуса. Взятие крови у больных проводили на 1, 4, 7, 10, 14 и 21-е сут заболеваний во время планового клинико-лабораторного обследования пациентов, в контрольных группах – однократно. Определяли ООА по количеству перекисных соединений в плазме, ОАА – по количеству инактивированных перекисей (ферментативные фотометрические методы, тест-системы «OxyStat» и «Total antioxidative capacity» фирмы «Biomedica», Австрия) в соответствии с инструкцией к наборам. Определение ООА было адаптировано к определению на автоматическом биохимическом анализаторе «KONELAB 60i» (фирмы «Termoelectron», Финляндия); ОАА определяли в микропланшетном формате с использованием комплекта оборудования для ИФА (ридер, вошер, шейкер–инкубатор) фирмы «BioRad», США. Рассчитывали коэффициент оксидации (КО), как отношение ООА к ОАА (КО = ООА/ОАА). Для интегральной оценки состояния оксидантно-антиоксидантных систем в разнородных группах больных нами предложен новый показатель – нормализованный коэффициент оксидации (НКО), который рассчитывали как среднее суммы отношений индивидуальных значений коэффициентов оксидации (КОi) в исследуемых группах к среднему значению КО соответствующей КГ:

koi (ТЧМТ) НКОТЧМТ=∑n **[**————————]÷ n(ТЧМТ);

КО сред. (КГ1) КОi(ИИ) НКОИИ=∑n **[**————————] ÷ n(ТЧМТ);

КО сред. (КГ2) КОi(ГИ)НКОГИ=∑n **[**————————] ÷ n(ГИ).

КО сред. (КГ2)

Каждое индивидуальное значение КО в контрольной группе также было нормализовано относительно среднего значения КО, что дало возможность расчета средней величины НКО, стандартного отклонения, ошибки средней

величины, медианы и других показателей в контрольных группах для использования в статистических расчетах.

КОi (КГ1) НКОКГ1=∑n **[**————————] ÷ n(КГ1);

КОсред. (КГ1) КОi(КГ2)НКОКГ2=∑n **[**————————] ÷ n(КГ2).

КОсред.(КГ2)

где n– количество индивидуальных значений КО в соответствующих контрольных группах. Как правило, средние значения НКО в контрольных группах близки к единице. Для КГ1—X ± mбыло 0,96 ± 0,08, Me (LQ–UQ) – 0,79 (0,72–1,41), для КГ2—X ± m– 1,01 ± 0,13, Me (LQ–UQ) – 0,61 (0,47–1,65).

Для анализа результатов использовали программу Statistica 7. Достоверность различий оценивали по непараметрическому U-критерию Вилкоксона–Манна–Уитни; для выявления интенсивности связи между показателями использовали ранговый коэффициент корре-ляции Спирмена.

Результаты и обсуждение. Анализ показателей, отражающих состояние оксидантно–антиоксидантного статуса в контрольных группах, не выявил значимых различий между ними ни по одному параметру (см. таблицу). В КГ2 несколько бóльшая ООА и меньшая ОАА определялись лишь как тенденция, что согласуется с результатами других авторов. Вероятными причинами выявленных тенденций могли быть возрастные различия в уровне прооксиданта гомоцистеина (с возрастом повышается), уменьшение с возрастом уровня некоторых эндогенных физиологических антиоксидантов и меньшая антиокислительная активность плазмы у женщин [0, 0, 0]. В обеих группах контроля были определены значимые средней степени отрицательные корреляции между общими окислительной и антиокислительной активностями: в КГ1 связь ООА–ОАА: r =-0,438 при p =0,014; в КГ2 – ООА–ОАА: r =-0,397 при p =0,039. Во всех группах больных выявлены изменения показателей на этапах исследования, которые имеют ряд особенностей. Так, при ТЧМТ наблюдали динамическое увеличение ООА плазмы крови по отношению к КГ1 значимое с 7 суток и до конца периода наблюдений с пиком на 7–10 сут заболевания. Одновременно уже с 4 и по 21 сут отмечали противонаправленное по отношению к оксидантам достоверное снижение антиоксидантов, наиболее выраженное на 7–10 сут ТЧМТ и сохранявшееся далее. Динамическое увеличение ООА имело сильную обратную корреляционную связь с ОАА (r =-0,865 при p <0,0001). Коэффициент оксидации превышал нормальные значения с 4 по 21 сут более чем в 40 раз, отражая выраженное увеличение общего количества перекисей на фоне потребления и истощения систем физиологической депероксидации. В сравнении с 1 сутками исследования превышение оксидантов по отношению к антиоксидантам в группе ТЧМТ было достоверным с 7 по 21 сут (в 2,7– 4,4 раза при p <0,05). Окислительно-восстановительный дисбаланс и его связь с системной воспалительной реакцией, характерной для ТЧМТ, подробно описаны нами ранее [6]. Динамика изученных показателей при инсультах имела как общие черты, так и ряд отличий. При инсультах уже с 1 сут показатели ООА и КО были выше, а ОАА – ниже, чем в соответствующей контрольной группе. Повышение оксидативной

активности было в целом более интенсивным при ИИ в сравнении с ГИ, достоверными различия между группами становились на 7 и 21 сутки. На 4 сутки при инсультах показатели значительно не отличались от таковых в 1 сутки. При ИИ наблюдались два пика оксидативной активности на 7 и на 14–21-е сутки. При этом недостаточность антиоксидантной системы сохранялась до 14 суток. Наибольший дисбаланс ООА/ОАА по значениям КО наблюдался на 14 сутки. При ГИ выраженность оксидативного дисбаланса нарастала медленнее, но максимальные значения КО к 14-м суткам приближались к таковому группы 2. В то же время максимальные значения ООА регистрировались на 10-е сутки, а минимальные значения ОАА на 14 сутки. Как ни парадоксально, при инсультах теряются определяемые в контрольных группах и особенно выраженные в группе ТЧМТ связи между общими окислительной и антиокислительной активностями. Так, в группах 2 и 3 связи между этими показателями были слабыми и незначимыми (r =-0,163 при p =0,343 и r =-0,089 при p =0,636 соответственно). В другом исследовании в группе больных с ИИ также выявлено повышение в 2,3 раза общего количества гидроперекисей, отсутствие снижения общей антиокислительной активности и отсутствие корреляции между этими показателями в сыворотке крови, взятой в течение 48 ч от начала заболевания [9]. По-видимому, процессы генерации/инактивации АФК у больных с инсультами имеют выраженную разобщенность, а точные механизмы этого еще предстоит установить в специальных исследованиях. Сравнение показателей 1 группы с группами 2 и 3 выявило ряд тенденций. Так, в 1 сутки при ИИ показатели ООА и КО были значимо выше, а дефицит ОАА – ниже, чем при ТЧМТ. В дальнейшем при ИИ средние показатели ООА на 7, 14 и 21-е сут незначимо превышали таковые первой группы. Однако к 10 суткам этот показатель в группе ТЧМТ практически двукратно превышал значения в группе ИИ. Одновременно наблюдались существенные различия в уровне ОАА, который был существенно ниже при ТЧМТ, как по сравнению с ИИ (на 10 сут), так и с ГИ (на 7, 10 сутки). За счет большего дефицита антиокислителей при ТЧМТ в сравнении с группами 2 и 3 регистрировались более высокие значения КО с 7 сут и далее, причем на 10 сут различия были достоверными. Учитывая некоторые различия показателей контрольных групп, демографические и клинические различия в группах больных, нами был введен нормализованный коэффициент оксидации, который позволил провести сравнительную оценку выраженности оксидативного дисбаланса в различающихся группах (см. рисунок). На рисунке, отражающем динамику НКО видно, что ишемия головного мозга вызывает более быстрое и выраженное нарушение соотношения ООА/ОАА в сравнении с геморрагическим и травматическим повреждением. Так, у больных ишемическим инсультом НКО составлял в 1 сут 10,58 ± 1,61, при геморрагическом инсульте – 4,83 ± 1,41 (p <0,01 к

группе 2), а при ТЧМТ – 5,8 ± 1,75 (p <0,01 к группе 2). В дальнейшем НКО выравнивался в группах с инсультами и становился максимальным на 14 сут, составляя в группе 2 15,14 ± 6,56 (p > 0,05 к НКО

в 1 сут); в группе 2 – 13,7 ± 4,35 (p <0,05 к НКО в 1 сутки). В группе больных ТЧМТ резкий рост выраженности дисбаланса ООА/ОАА наблюдался после 4 сут, достигая максимума на 10 сут (превышение контрольных значений более чем в 50 раз) и далее постепенно уменьшался,

сохраняясь выше контрольных значений по 21 сутки. При ТЧМТ в 1, 4, 7, 10, 14, 21-е сутки уровень НКО (—X ± m) был 5,8 ± 3,5, 8,2 ± 3,9, 35,2 ± 12,3, 51,7 ± 12,0, 26,8 ± 11,9, 19,9 ± 10,8 соответственно. В литературе нам не встретилось сравнительных исследований с определением суммарного количества оксидантов и антиоксидантов и нормализованного относительно контрольных значений их соотношения при ТЧМТ и инсультах. Однако наши исследования согласуются с данными других авторов о наличии выявленных другими методами оксидативных нарушений при этих заболеваниях. Повышение окислительной активности и недостаточность систем антиоксидантного контроля показана в ряде исследований у больных с ТЧМТ и инсультами [1, 9, 11]. Выявленный нами окислительный стресс у больных с ТЧМТ с глубокой недостаточностью антиокислителей характерен и для системных воспалительных реакций, развивающихся при сепсисе, остром панкреатите, обширных ожогах, тяжелых травмах, обширных операциях, иммунных расстройствах [1, 9, 11, 13]. В сопоставимой с нашей по демографическим показателям группе ИИ было показано повышение перекисей липидов в 1,7 раза в первые 2 суток заболевания.

Одновременно было выявлено значимое повышение у больных уровней гомоцистеина (31,86 ± 7,99 при 12,59 ± 2,87 мкмоль/л в КГ), окиси азота (10,3 ± 1,84 при 19,89 ± 1,98 мкмоль/л в КГ) и снижение аскорбиновой кислоты (15,55 ± 3,14 при 10,42 ± 3,51 мг/л в КГ) [0]. Повышение уровня гомоцистеина до 16,0 ± 0,97 мкмоль/л (при 8,2 ± 0,6 мкмоль/л в КГ) было установлено в группе больных с тяжелым течением ИИ (средний возраст в группе 45,1 ± 1,0 года) на 1–10 сут от момента его развития [13]. В последние годы убедительно показана связь увеличенных уровней гомоцистеина с повышением активных форм кислорода, снижением физиологических антио-кислителей, а также его этиологическая роль в атеро- и тромбогенезе [6]. Мы предполагаем, что больший уровень гомоцистеина при ИИ может быть одним из существенных факторов значимого превышения НКО в 1 сут в группе ИИ в сравнении с группами ГИ и ТЧМТ. Более низкие значения общей антиокислительной активности в 1 сут в группах больных с инсультами по отношению к группе с ТЧМТ, вероятно связаны с возрастными и гендерными различиями. Практически во всех исследованиях повышение оксидативной активности при острых воспалительных реакциях различной

этиологии трактуются как негативные. Нами установлена «парадоксальная» закономерность у нейрореанимационных больных – большая оксидативная и меньшая антиокислительная активность коррелировали с благоприятным исходом заболеваний, что согласуется с представлением о повышенной продукции активных форм кислорода нейтрофилами, как важной части биологической реакции защиты организма

от экзогенных инфекционных и эндогенных (патологические молекулы) патогенов [11]. Коэффициенты корреляции ООА-исход в 1-ю неделю заболевания при ТЧМТ, ИИ и ГИ были соответственно: r =-0,563 (p =0,001); r

=-0,500 (p =0,029); r =-0,425 (p =0,034) при ранжировании больных: 1 – выжил, 2 – умер. В группе больных с ТЧМТ была установлена положительная значимая связь ОАА-исход: r =0,487 (p =0,006); при инсультах связь этих показателей также была положительной, но незначимой. Полученные результаты подтверждают необходимость в дополнительных исследованиях по обоснованности применения антиоксидантов в остром периоде тяжелых мозговых повреждений.

Таким образом, предложенный нами нормализованный коэффициент оксидации позволяет провести сравнительную оценку выраженности оксидативно–антиокислительного дисбаланса в неоднородных группах при проведении научных исследований. Также НКО может использоваться в клинической практике в качестве интегрального показателя окислительной эндотоксемии при различных заболеваниях и для оценки эффективности индивидуальной антиоксидантной терапии.

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НЕКОТОРЫЕ ТРЕБОВАНИЯ, ПРЕДЪЯВЛЯЕМЫЕ К АРБИТРАМ В МЕЖДУНАРОДНОМ КОММЕРЧЕСКОМ АРБИТРАЖЕ

Аннотация: В настоящей статье изучается роль и значение Руководящих принципов о конфликтах интересов в международном арбитраже – IBA Guidelines on Conflicts of Interest in International Arbitration (2014). Разбирая основные стандарты беспристрастности и независимости арбитров в международном коммерческом арбитраже, автор раскрывает суть и правовую природу данных принципов.

Ключевые слова: беспристрастность, независимость, арбитр, состав арбитража, конфликт интересов, раскрытие информации, спор, рассмотрение.

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SOME REQUIREMENTS FOR ARBITRATORS IN INTERNATIONAL COMMERCIAL ARBITRATION

Annotation: This article examines the role and significance of the IBA Guidelines on Conflicts of Interest in International Arbitration (2014). Analyzing the main standards of impartiality and independence of arbitrators in international commercial arbitration, the author reveals the essence and legal nature of these principles.

Keywords: impartiality, independence, arbitrator, arbitral tribunal, conflict of interest, disclosure, dispute, consideration.

Одним из преимуществ рассмотрения и разрешения спора в международном арбитраже является возможность сторон избирать арбитров по собственному усмотрению и желанию. Юрисдикции большинства стран мира очень либеральны в вопросах о требованиях к арбитрам. Ни одно лицо не может быть лишено возможности выступать в качестве арбитра по причине его гражданства, если стороны не договорились об ином, гласит ст. 11 Типового закона ЮНСИТРАЛ о

международном торговом арбитраже[47]. Выбор арбитра по критерию его гражданства оставлена на волю самих сторон. Беспристрастность, независимость и честность – основные требования к личности арбитра. Хотя под этими требованиями лежат весьма понятные на первый взгляд критерии, однако это весьма сложный процесс, влияющий на отвод арбитра или состава арбитража.

Исходя из лексического значения слов, беспристрастность – это свойство арбитра, принимающего решение, характеризующее отсутствие у него приверженности к одному из возможных вариантов или к одной из заинтересованных в решении сторон. Независимость – свобода арбитра в выборе правовой позиции по разрешаемому им делу, как от воли спорящих сторон, так и любого внешнего воздействия. Честность – одна из основных человеческих добродетелей, моральное качество, которое включает правдивость, принципиальность, верность принятым обязательствам, субъективную убежденность в правоте дела, искренность перед другими и перед самим собой в отношении тех мотивов, которыми человек руководствуется.

В международной арбитражной практике разработаны правила со стороны Международной ассоциации юристов (IBA) – Руководящие принципы о конфликтах интересов в международном арбитраже – IBA Guidelines on Conflicts of Interest in International Arbitration (2014)[48].

Руководящие принципы IBA по конфликтам интересов сосредоточены на том, когда арбитр должен раскрывать потенциальные конфликты, а также когда он или она просто не должны соглашаться на назначение. По большей части, они конкретно не касаются потенциальной дисквалификации арбитра. Тем не менее, Руководящие принципы, хотя и не имеют обязательной силы, стали весьма влиятельными перед лицом растущих вызовов международным арбитрам и арбитражным решениям на основе конфликтов арбитров. Руководящие принципы часто рассматриваются судами и арбитражными учреждениями как обеспечивающие соответствующие критерии для оценки беспристрастности и независимости отводимого арбитра[49].

С момента своего выпуска в 2004 году IBA Guidelines получили широкое признание в международном арбитражном сообществе. Арбитры во всем мире широко используют данные принципы при принятии решений о предполагаемых назначениях и раскрытия информации. Кроме того, стороны и их представители часто учитывают IBA Guidelines при оценке беспристрастности и независимости арбитров, арбитражные

[47] https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/ru/07-87000_ebook.pdf
[48] https://www.ibanet.org/MediaHandler?id=e2fe5e72-eb14-4bba-b10d-d33dafee8918
[49] M. Moses. The Role of the IBA Guidelines on Conflicts of Interest in Arbitrator Challenges. November 23, 2017. https://arbitrationblog.kluwerarbitration.com/2017/11/23/role-iba-guidelines-conflicts-interest-arbitrator-challenges/

учреждения и государственные суды также часто обращаются к данным рекомендациям по рассмотрению отводов арбитров. Накануне десятилетия с момента принятия IBA Guidelines на основе накопленного опыта Арбитражный комитет IBA инициировал совершенствование данных принципов и создания Подкомитета по конфликтам.

Необходимо отметить что IBA Guidelines 2004 г. были разработаны рабочей группой в составе 19 экспертов: Henri Alvarez (Канада), John Beechey (Англия), Jim Carter (США), Emmanuel Gaillard (Франция), Emilio Gonzales de Castilla (Мексика), Bernard Hanotiau (Бельгия), Michael Hwang (Сингапур), Albert Jan van den Berg (Бельгия), Doug Jones (Австралия), Gabrielle Kaufmann-Kohler (Швейцария), Arthur Marriott (Англия), Tore Wiwen Nilsson (Швеция), Hilmar Raeschke-Kessler (Германия), David W Rivkin (США), Klaus Sachs (Германия), Nathalie Voser (Швейцария), David Williams (Новая Зеландия), Des Williams (Южная Африка) и Otto de Witt Wijnen (Нидерланды).

Хотя IBA Guidelines изначально предназначалось для применения как в коммерческом, так и в инвестиционном арбитраже, но, как показало изучение наблюдались некоторые неясности по их применению к инвестиционному арбитражу. Были также и дискуссии относительно применения текста IBA Guidelines 2004г. к арбитрам, не имеющим юридическое образование. Однако, такого рода вопросы были решены следующим образом: данные руководящие принципы могут применятся как по отношению к коммерческому арбитражу, так и к инвестиционному, а также вне зависимости от того, являются ли арбитр юристом по специальности или нет.

Созданный вновь подкомитет тщательно рассмотрел ряд вопросов, которые были в поле внимания международной арбитражной практики с 2004 года, к примеру, последствия так называемых «предварительных отказов», юридические вопросы, требующие раскрытия информации, «проблемные» конфликты, независимость и беспристрастность арбитражных или административных секретарей и финансирование третьей стороны. Пересмотренные IBA Guidelines отражают выводы подкомитета по этим и другим актуальным вопросам данной сферы.

Необходимо отметить, что факт требования раскрытия информации – или раскрытие информации арбитра не означает наличия сомнения в беспристрастности или независимости арбитра. Вместе с тем, IBA Guidelines никоим образом не предназначены для того, чтобы препятствовать привлечению в качестве арбитров юристов, практикующих в юридических фирмах.

Приступая к рассмотрению спора арбитры и представители сторон часто не уверены в объеме своих обязательств по раскрытию информации, отвечающей за обеспечение критерия беспристрастности арбитра. Рост международного бизнеса, включающих в том числе крупные

корпоративные группы и международные юридические фирмы, требуют раскрытия информации. Бесспорно, что сами стороны имеют больше возможностей использовать отводы арбитрам, чтобы отсрочить арбитраж или отказать противоположной стороне в выборе арбитра по ее выбору. В то же время важно, чтобы сторонам было доступно больше информации, чтобы защитить арбитражные решения от оспаривания, основанного на предполагаемом нераскрытии, и способствовать созданию равных условий для сторон и их представителей, участвующих в международном арбитраже.

Стороны, арбитры, учреждения и суды сталкиваются со сложными решениями в отношении информации, которую арбитры должны раскрывать, и стандартов, применяемых к раскрытию информации. Кроме того, учреждения и суды сталкиваются со сложными решениями, когда после раскрытия информации подаются возражения. Существует противоречие между, с одной стороны, правом сторон на раскрытие обстоятельств, которые могут поставить под сомнение беспристрастность или независимость арбитра в целях защиты права сторон на справедливое судебное разбирательство, и, с другой стороны, необходимо избегать ненужных отводов арбитрам, чтобы защитить возможность сторон выбирать арбитров по своему выбору.

В интересах международного арбитражного сообщества, чтобы арбитражному разбирательству не мешали необоснованные отводы против арбитров, и чтобы на легитимность процесса не влияли неопределенность и отсутствие единообразия в применимых стандартах для раскрытия информации приняты IBA Guidelines, в которых перечислены конкретные ситуации с указанием того, требуют ли они раскрытия информации или дисквалификации арбитра. Такие списки, обозначенные как «Красный», «Оранжевый» и «Зеленый». Списки приложений охватывают множество различных ситуаций, которые обычно возникают на практике, но они не претендуют на то, чтобы быть исчерпывающими, и не могут быть таковыми.

IBA Guidelines отражают понимание Арбитражным комитетом IBA лучшей современной международной практики, прочно основанной на принципах международного коммерческого арбитража. Общие стандарты и списки приложений основаны на законах и прецедентном праве в различных юрисдикциях, а также на суждениях и опыте специалистов-практиков, участвующих в международном арбитраже. IBA Guidelines направлены на сбалансирование различных интересов сторон, представителей, арбитров и арбитражных учреждений, каждый из которых несет ответственность за обеспечение честности, репутации и эффективности международного арбитража.

IBA Guidelines являются уникальными в своем роде, так как при их составлении были запрошены и рассмотрены мнения ведущих

арбитражных учреждений, корпоративных юристов и других лиц, участвующих в международном арбитраже, в ходе публичных консультаций на ежегодных собраниях IBA, а также на встречах с арбитрами и практиками.

Важной чертой IBA Guidelines являются, что данные рекомендации применяются как к международному коммерческому арбитражу, так и к инвестиционному арбитражу, независимо от того, осуществляется ли представительство сторон юристами или лицами, не являющимися юристами, и независимо от того, выступают ли в качестве арбитров лица, не являющиеся профессионалами в области права.

Однако, необходимо знать, что IBA Guidelines не являются нормативно-правовым актом и не имеют преимущественную силу перед любым применимым национальным законодательством или арбитражными правилами, выбранными сторонами. Как отмечает Ch.Stampouli, поскольку Руководящие принципы не являются правовыми положениями, они не имеют обязательного характера. Они могут стать обязательными, если они приняты по соглашению сторон. Кроме того, когда арбитражный суд уполномочен сторонами решать применять или не применять Руководящие принципы, в этом случае могут иметь обязательную силу. Однако даже при отсутствии положений о Руководящих принципов арбитры часто сверяются с ними, чтобы оценить их независимость или беспристрастность, требования, обычно содержащиеся в «leges arbitrii»[50].

Вместе с тем широкое их признание в международном арбитражном сообществе способствует сторонам, практикам, арбитрам, институтам и судам в решении важных вопросов беспристрастности и независимости арбитров.

Общие стандарты беспристрастности, независимости и раскрытия информации

Избранный (назначенный) арбитр должен отвечать следующим требованиям:

1. должен быть беспристрастным и независимым от сторон в момент принятия назначения на работу и оставаться таковым до вынесения окончательного решения или окончательного прекращения разбирательства иным образом;

2. должен быть беспристрастным и независимым от сторон в момент принятия им назначения в качестве арбитра и должен оставаться таковым в течение всего арбитражного разбирательства, включая период времени для исправления или толкования окончательного решения в соответствии с соответствующими правилами, при условии, что такой срок известен или может быть легко установлен.

[50] Chrysovalantou Stampouli. The IBA Guidelines on Conflict Interest in International Arbitration. February 2016, Thessaloniki, Greece – p.9.

При этом возникает вопрос, должно ли это обязательство распространяться на период, в течение которого решение может быть оспорено в соответствующих судах. IBA Guidelines придерживается такого подхода, что это обязательство не должно распространяться подобным образом, за исключением случаев, когда окончательное решение может быть возвращено первоначальному арбитражному суду в соответствии с применимым законодательством или соответствующими институциональными правилами. Таким образом, обязанность арбитра в этом отношении прекращается, когда состав арбитража выносит окончательное решение, и любые исправления или толкования, которые могут быть разрешены в соответствии с соответствующими правилами, были внесены или истекло время для их истребования и разбирательство завершено. Если после отмены или иного разбирательства спор возвращается в тот же арбитражный суд, может потребоваться новый процесс раскрытия информации и рассмотрения потенциальных конфликтов интересов.

Вместе с тем, арбитр должен отказаться принять назначение или, если арбитражное разбирательство уже началось, отказаться продолжать действовать в качестве арбитра, если у него есть какие-либо сомнения относительно его способности быть беспристрастным или независимым.

Этот же принцип применяется, если существуют или возникли факты или обстоятельства после назначения, которые, с точки зрения разумного третьего лица, осведомленного о соответствующих фактах и обстоятельствах, могли бы вызвать обоснованные сомнения в беспристрастности или независимости арбитра. Сомнения будут оправданы, если третье лицо, зная о соответствующих фактах и обстоятельствах, могло бы прийти к выводу о том, что существует вероятность того, что на арбитра могут повлиять другие факторы, помимо существа дела, представленного сторонами при вынесении решения.

Если арбитр сомневается в своей способности быть беспристрастным и независимым, арбитр должен отклонить назначение (самоотвод). Этот стандарт должен применяться независимо от стадии разбирательства. Это основной принцип IBA Guidelines во избежание путаницы и для укрепления доверия к арбитражному процессу.

Чтобы стандарты применялись как можно более последовательно существует объективный тест на дисквалификацию. Формулировка «беспристрастность или независимость» исходит из статьи 12 Типового закона Комиссии Организации Объединенных Наций по праву международной торговли (ЮНСИТРАЛ) и использования проверки, основанной на обоснованных сомнениях в беспристрастности или независимости арбитра, как предусмотрено в статье 12(2) Типового закона ЮНСИТРАЛ. Вместе с тем, как описано в Пояснении к Общему стандарту 3(e), данный стандарт применяется независимо от стадии разбирательства.

В IBA Guidelines представлены четыре группы обстоятельств в трех цветах, аналогичных сигналам светофора:

1. Красный цвет 1 (Non-Waivable Red List);
2. Красный цвет 2 (Waivable Red List);
3. Желтый цвет (Orange List);
4. Зеленый цвет (Green List).

В списке зеленого цвета представлены возможные взаимоотношения сторон с арбитрами и арбитров между собой, а также статус арбитров само по себе. Любые ситуационные моменты, описанные в данной группе являются позволительными и не требует раскрытия информации относительного этого, в частности:

- по ранее высказанным юридическим заключениям, к примеру, если арбитр ранее выражал юридическое мнение (например, в обзорной статье или публичной лекции) по вопросу, который также возникает в арбитраже (но это мнение не сосредоточено на деле);
- фирма в ассоциации или в союзе с юридической фирмой, в которой работает арбитр, но не разделяющая значительных гонораров или других доходов с последней, оказывает услуги одной из сторон или аффилированному лицу одной из сторон, в несвязанном деле;
- арбитр связан отношениями с другим арбитром или с адвокатом одной из сторон посредством членства в той же профессиональной ассоциации, общественной или благотворительной организации или через сеть социальных сетей;
- арбитр преподает на том же факультете или в том же высшем учебном заведении, что и другой арбитр или консультантом одной из сторон, или служит должностным лицом профессиональной ассоциации, общественной или благотворительной организации с другим арбитром или консультантом одной из сторон;
- арбитр был спикером, модератором или организатором одной или нескольких конференций или участвовал в семинарах или рабочих группах профессиональной, общественной или благотворительной организации вместе с другим арбитром или консультантом сторон;
- арбитр имел первоначальный контакт со стороной или аффилированным лицом стороны (или их адвокатом) до назначения, если этот контакт ограничивается доступностью и квалификацией арбитра для работы или именами возможных кандидатов для председателя, и не рассматривал существа или процессуальные аспекты спора, ограниваясь общем пониманием дела.
- арбитр владеет незначительным количеством акций одной из сторон или аффилированного лица одной из сторон, зарегистрированного на бирже;
- арбитр и менеджер, директор или член наблюдательного совета, или любое лицо, имеющее контролирующее влияние на одну из сторон,

или аффилированное лицо одной из сторон, работали вместе в качестве совместных экспертов или в другой профессиональной сфере, в том числе в качестве арбитров по тому же делу;

- арбитр имеет отношения с одной из сторон или ее аффилированными лицами через социальные сети.

«Зеленый список» - это неисчерпывающий перечень конкретных ситуаций, в которых с объективной точки зрения не существует явного или фактического конфликта интересов. Таким образом, арбитр не обязан раскрывать ситуации, попадающие в «Зеленый список».

В желтую группу входят следующие обстоятельства:

- арбитр в течение последних трех лет выступал в качестве консультанта одной из сторон или аффилированного лица одной из сторон, либо ранее консультировал или с ним консультировалась сторона или аффилированное лицо стороны, делая назначение по несвязанному вопросу, но арбитр и сторона или аффилированное лицо стороны не имеют постоянных отношений;

- в течение последних трех лет арбитр выступал в качестве адвоката против одной из сторон или аффилированного лица одной из сторон по несвязанному делу;

- арбитр в течение последних трех лет был назначен арбитром два или более раз одной из сторон или аффилированным лицом одной из сторон;

- юридическая фирма, в которой работает арбитр в течение последних трех лет выступала в защиту или против одной из сторон или аффилированного лица одной из сторон по несвязанному делу без участия арбитра;

- арбитр в настоящее время является или работал в течение последних трех лет в качестве арбитра в другом арбитраже по связанному вопросу с участием одной из сторон или аффилированного лица одной из сторон;

- юридическая фирма в которой работает арбитр в настоящее время оказывает услуги одной из сторон или аффилированному лицу одной из сторон, не создавая существенных коммерческих отношений для юридической фирмы и без участия арбитра;

- юридическая фирма или другая юридическая организация, которая разделяет значительные гонорары или другие доходы с юридической фирмой арбитра, оказывает услуги одной из сторон или аффилированному лицу одной из сторон в арбитражном суде;

- арбитр или его фирма представляет сторону или аффилированное лицо одной из сторон в арбитраже на регулярной основе, но такое представительство не касается текущего спора;

- арбитр и другой арбитр являются юристами одной и той же юридической фирмы;

- арбитр и другой арбитр или представитель одной из сторон являются членами одной и той же коллегии адвокатов;

- арбитр в течение последних трех лет был партнером или иным образом связан с другим арбитром или любым из адвокатов в арбитраже;

- юрист в юридической фирме арбитра является арбитром в другом споре с участием той же стороны или сторон, или аффилированным лицом одной из сторон;

- близкий член семьи арбитра является партнером или сотрудником юридической фирмы, представляющим одну из сторон, но не помогающим в разрешении спора;

- между арбитром и адвокатом стороны существует тесная личная дружба;

- между арбитром и адвокатом, участвующим в арбитраже, существует вражда;

- за последние три года арбитр назначался более трех раз одним и тем же адвокатом или одной и той же юридической фирмой;

- арбитр и другой арбитр или адвокат одной из сторон в арбитраже в настоящее время действуют или действовали вместе в течение последних трех лет в качестве руководителей;

- юридическая фирма арбитра в настоящее время действует в ущерб одной из сторон или аффилированному лицу одной из сторон;

- арбитр был связан со стороной или аффилированным лицом одной из сторон в профессиональном качестве, например, бывший сотрудник или партнер;

- между арбитром и менеджером или директором или членом наблюдательного совета существует тесная личная дружба, прямая экономическая заинтересованность в арбитражном решении; а также любым лицом, имеющим контролирующее влияние, такое как контрольный пакет акций, на одну из сторон или аффилированное лицо одной из сторон, свидетеля или эксперта;

- существует вражда между арбитром и менеджером или директором или членом наблюдательного совета: стороны; юридическое лицо, имеющее прямую экономическую заинтересованность в решении или любое лицо, имеющее контролирующее влияние на одну из сторон, или аффилированное лицо одной из сторон, или свидетель, или эксперт.

- если арбитр является бывшим судьей и в течение последних трех лет слушал важное дело с участием одной из сторон или аффилированного лица одной из сторон;

- арбитр прямо или косвенно владеет акциями, которые по количеству или наименованию представляют собой существенный пакет акций одной из сторон или аффилированного лица одной из сторон, причем эта сторона или аффилированное лицо котируются на бирже;

- арбитр публично отстаивал позицию по делу, будь то в опубликованной статье, речи или иным образом;

- арбитр придерживается мнения компетентного органа в отношении спора;

- арбитр является менеджером, директором или членом наблюдательного совета либо имеет контролирующее влияние на аффилированное лицо одной из сторон, если аффилированное лицо не принимает непосредственного участия в спорных вопросах в арбитраже.

Оранжевый список представляет собой неисчерпывающий перечень конкретных ситуаций, которые, в зависимости от обстоятельств конкретного дела, могут вызвать у сторон сомнения в беспристрастности или независимости арбитра. Оранжевый список отражает ситуации, вследствие чего арбитр обязан раскрывать информацию о таких ситуациях. Во всех этих ситуациях считается, что стороны приняли арбитра, если после раскрытия информации своевременно не выдвинуто возражение.

Красный список состоит из двух частей: «Красный список 1» и «Красный список 2[51]. Эти списки не являются исчерпывающими и подробно описывают конкретные ситуации, которые, в зависимости от фактов конкретного дела, вызывают обоснованные сомнения в беспристрастности и независимости арбитра. То есть в данных обстоятельствах существует объективный конфликт интересов с точки зрения разумного третьего лица, которому известны соответствующие факты и обстоятельства. Красный список 1 включает ситуации, вытекающие из основополагающего принципа, согласно которому никто не может быть сам себе судьей. Следовательно, принятие такой ситуации не может устранить конфликт. Красный список 2 охватывает ситуации, которые являются серьезными, но не столь. Из-за их серьезности, в отличие от обстоятельств, описанных в «оранжевом списке», эти ситуации следует считать допускающими отказ, но только в том случае, если и когда стороны, осознавая ситуацию конфликта интересов, прямо заявят о своем желании, чтобы такое лицо выступало в качестве арбитра.

В группу обстоятельств Красного цвета 2 входят следующие отношения:

- арбитр дал юридическую консультацию или представил экспертное заключение по спору стороне или аффилированному лицу одной из сторон;

- арбитр ранее участвовал в споре;

- арбитр прямо или косвенно владеет акциями одной из сторон или аффилированного лица одной из сторон, причем эта сторона или аффилированное лицо является частной собственностью;

[51] Авторское обозначение.

- близкий член семьи арбитра имеет значительную финансовую заинтересованность в исходе спора;

- арбитр или близкий член семьи арбитра находится в близких отношениях с лицом, не являющимся стороной, которое может быть привлечено к ответственности со стороны проигравшей стороны в споре;

- арбитр в настоящее время представляет или консультирует одну из сторон или аффилированное лицо одной из сторон;

- в настоящее время арбитр представляет или консультирует юриста или юридическую фирму, выступающую в качестве советника одной из сторон;

- арбитр является юристом той же юридической фирмы, что и советник одной из сторон;

- арбитр является менеджером, директором или членом наблюдательного совета либо имеет контролирующее влияние в аффилированном лице одной из сторон, если аффилированное лицо принимает непосредственное участие в спорных вопросах в арбитраже;

- юридическая фирма арбитра в настоящее время имеет значительные коммерческие отношения с одной из сторон или аффилированным лицом одной из сторон;

- арбитр регулярно консультирует одну из сторон или аффилированное лицо одной из сторон, но ни арбитр, ни его или ее фирма не получают от этого значительного финансового дохода;

- арбитр состоит в близких родственных отношениях с одной из сторон, либо с менеджером, директором или членом наблюдательного совета, либо с любым лицом, имеющим контролирующее влияние на одну из сторон, либо с аффилированным лицом одной из сторон или с адвокатом, представляющим сторону;

- близкий член семьи арбитра имеет значительный финансовый или личный интерес к одной из сторон или к аффилированному лицу одной из сторон.

И обстоятельства, которые входят в красный список 1, при наличии которых арбитры не могут рассматривать спор, это:

- сторона и арбитр тождественны, или арбитр является законным представителем или сотрудником организации, являющейся стороной в арбитраже;

- арбитр является менеджером, директором или членом наблюдательного совета или имеет контролирующее влияние на одну из сторон или организацию, которая имеет прямую экономическую заинтересованность в решении, которое будет вынесено в арбитраже;

- арбитр имеет значительный финансовый или личный интерес к одной из сторон или исходу дела;

- арбитр или его или ее фирма регулярно консультируют сторону или аффилированное лицо стороны, и арбитр или его или ее фирма получают от этого значительный финансовый доход.

Красный цвет 1 описывает обстоятельства, которые обязательно вызывают обоснованные сомнения в беспристрастности или независимости арбитра. Например, поскольку никому не разрешено быть своим собственным судьей, между арбитром и стороной не может быть тождества, то есть арбитр и сторона арбитражного разбирательства не может быть одним и тем же лицом. Естественно, стороны не могут отказаться от конфликта интересов, возникающего в такой ситуации.

Подводя итоги настоящей статьи, целесообразно отметить, что стандарт беспристрастности и независимости, являющийся самой сутью арбитража, является краеугольным камнем, вокруг которого построены Руководящие принципы. Определение этих требований не приводится, но в вышеописанных списках можно наблюдать повторяющиеся ситуации, которые часто ставят под сомнение беспристрастность и независимость арбитра. Широко обсуждаемый вопрос заключается в том, могут ли стороны по своему соглашению увеличить или уменьшить этот стандарт. Руководство IBA в данном вопросе придерживается такой точки зрения, что могут существовать ситуации, когда пристрастность и зависимость недопустимы, несмотря на соглашение сторон.

Что касается дисквалификации арбитра, Руководство требует применения объективного критерия Общего стандарта (2)(b). Если арбитр считает, что он беспристрастен и независим с точки зрения разумного третьего лица, он должен согласиться с его назначением. В случае, если арбитр считает, что нет обоснованных сомнений в его беспристрастности и независимости, но есть ситуации, которые в глазах сторон могли бы вызвать соответствующие сомнения, то он обязан сообщить о них сторонам. После этого стороны несут ответственность за принятие решения о том, давать ли отвод арбитру или нет, поскольку в Руководящих принципах совершенно ясно указано, что раскрытие информации не ведет автоматически к дисквалификации.

Практическое применение Общих стандартов следует системе светофоров и разделено на Красный, Оранжевый и Зеленый список. Красный список 1 относится к ситуациям, в которых объективно отсутствует независимость арбитра и, следовательно, они подлежат применению. Красный список 2 и Оранжевый список включают ситуации, о которых следует сообщать, чтобы стороны могли оценить любой потенциальный конфликт интересов. Напротив, «Зеленый список» не требует раскрытия информации, поскольку включает обстоятельства, не вызывающие обоснованных сомнений в независимости и беспристрастности арбитра.

Руководящие принципы не являются обязательными для всех и не могут быть принудительно применены. Лишь только стороны арбитражного разбирательства могут изъявить желание соблюдать их. Однако, пока ни один арбитражный институт не принял их в качестве институциональных правил. Такая юридическая природа указанных принципов критикуется со стороны некоторых ученых, правоведов, практиков.

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АВТОМАТИЗИРОВАННАЯ СИСТЕМА АНАЛИЗА И ИНТЕРПРЕТАЦИИ ЭКГ

Аннотация: В статье выполнен обзор существующих программных продуктов для анализа и интерпретации электрокардиосигнала (ЭКГ), предложен алгоритм идентификации ЭКГ, основанный на обнаружении и временной локализации максимумов модуля вейвлет-преобразования, и нейросетевой классификатор кардиоциклов. Разработана программа для анализа и интерпретации ЭКГ.

Ключевые слова: делинеация ЭКГ, вейвлет-анализ ЭКГ, ключевые точки ЭКГ, максимумы модуля вейвлет-преобразования.

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AUTOMATED SYSTEM FOR ECG ANALYSIS AND INTERPRETATION

Abstract: The article reviews the existing software products for the analysis and interpretation of the electrocardiosignal (ECG), proposes an ECG identification algorithm based on the detection and temporal localization of the maxima of the wavelet transform module, and a neural network classifier of cardiocycles. A program for the analysis and interpretation of ECG has been developed.

Keywords: ECG delineation, ECG wavelet analysis, ECG key points, wavelet transform modulus maxima.

ВВЕДЕНИЕ

Диагностика сердечно-сосудистой системы человека принадлежит к числу важнейших задач кардиологии. Основные причины смертности людей в трудоспособном возрасте связана с сердечно-сосудистыми заболеваниями. Этим обусловлена необходимость разработки и совершенствования средств мониторинга для объективного оценивания и прогнозирования состояния сердечно-сосудистой системы. На данный момент электрокардиограмма (ЭКГ) является самым распространенным методом диагностики работы сердечно-сосудистой системы человека.

МАТЕРИАЛЫ И МЕТОДЫ

Программное обеспечение имеет основополагающее значение при построении системы электрокардиографии высокого разрешения (ЭКГ ВР). Именно алгоритмическое и программное обеспечение определяют функциональные возможности диагностики и в значительной степени правильность постановки диагноза в целом.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

В табл. 1 приведен перечень и ключевые возможности программ для анализа и интерпретации сигнала ЭКГ от ведущих мировых компаний-производителей электрокардиографов.

Можно выделить следующие общие проблемы, присущие многим диагностическим системам ЭКГ ВР [2]:

– сложность учета во время автоматического анализа ЭКГ сведений, не содержащихся в самой ЭКГ, но обязательно (часто неявно) учитываемых врачом при интерпретации ЭКГ;

– диагностические ошибки. Имеются оценки, что в коммерческих системах автоматического анализа ЭКГ от 5 до 20 процентов автоматических заключений полностью или частично не совпадают с врачебными заключениями. В зависимости от реализации, система может быть склонна делать вполне определенные ошибки (гипер- или гиподиагностика определенной группы ЭКГ- заключений) или вообще не выявлять какую-либо электрокардиографическую патологию. Вероятно, что улучшение диагностики одного класса нарушений может привести к ухудшению показателей в других классах;

– неудобный пользовательский интерфейс.

Таблица 1. Программы для анализа и интерпретации сигнала ЭКГ

Название программы	**Производитель**	**Ключевые возможности**
ECG interpretation software C [1]	Schiller (Швейцария)	Больше 100 разных вариантов интерпретации ЭКГ
Signal-Averaged ECG Software (SAECG) [2]	Schiller (Швейцария)	Анализ сигнал-усредненной ЭКГ
Heart Rate Variability (HRV) Software [3]	Schiller (Швейцария)	Анализ вариабельности сердечного ритма (ЭКГ)

Исходя из проведенного анализа существующих программных средств автоматического анализа ЭКГ, выявлены основные возможности, которыми должна обладать программа, обеспечивающая анализ и интерпретацию сигнала ЭКГ:

– загрузка ЭКГ-сигнала и отображение его на экране;

– распознавание характерных элементов ЭКГ;

– расстановка маркеров узловых точек сигнала;

– автоматическое и ручное измерение интервалов ЭКГ;

– интерпретация результатов анализа информативных параметров;

– автоматическое формирование интерпретационного сообщения.

Циклический характер сигнала ЭКГ и его спектральные составляющие, которые, в основном, появляются в хорошо известных и различимых полосах частот, сделали ЭКГ подходящим кандидатом для многоуровневого разложения с помощью вейвлет-преобразования. Поэтому в основу алгоритма делинеации сигнала ЭКГ положено математический аппарат вейвлет-анализ.

В качестве материнского вейвлет был выбран биортогональный вейвлет «bior1.5». Графики скейлинг-функции и вейвлет-функции данного вейвлета представлены на рис. 1.

Вейвлет является симметричным, имеет компактный носитель, равен первой производной от скейлинг-функции и имеет один нулевой момент. Это делает его использование очень удобным при анализе сигнала ЭКГ.

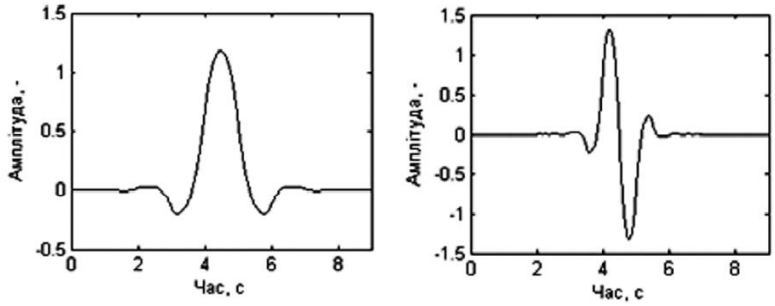


Рис. 1. Графики скейлинг и вейвлет-функции вейвлета «bior1.5»

При многоуровневом разложении сигнала (рис. 2) вычисляют коэффициенты аппроксимации A_j, которые представляют сглаженный сигнал, и коэффициенты детализации D_j, которые описывают высокочастотные колебания сигнала.

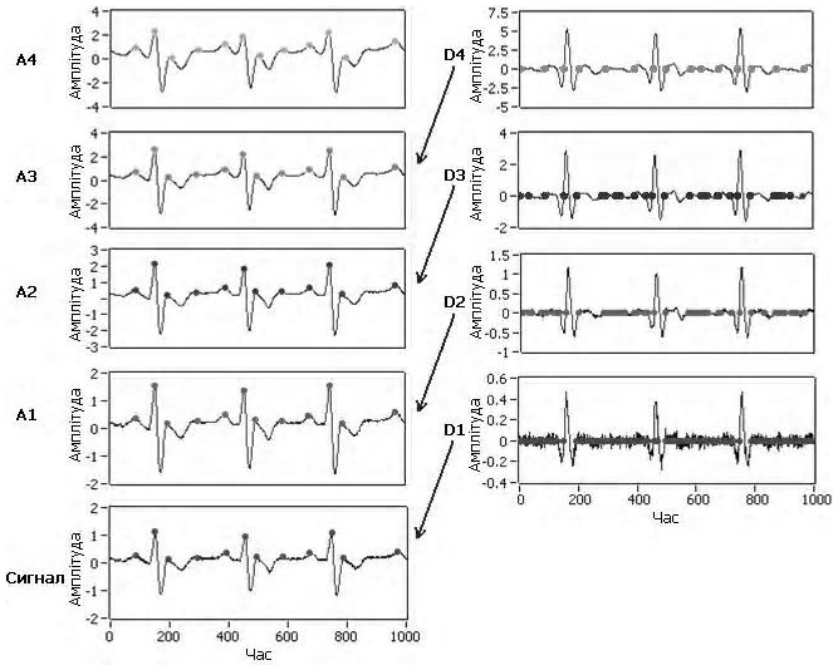


Рис. 2. Многоуровневый процесс уточнения положения пиков

На рис. 3 представлен вид главного окна программы после анализа патологической ЭКГ. На графике сигнала расставлено маркеры узловых точек и метки кардиоциклов ЭКГ; построено скаллограмму, гистограмму и ритмограму RR-интервалов, а также заполнено соответствующую таблицу вычисленными значениями показателей ВСР временной области.

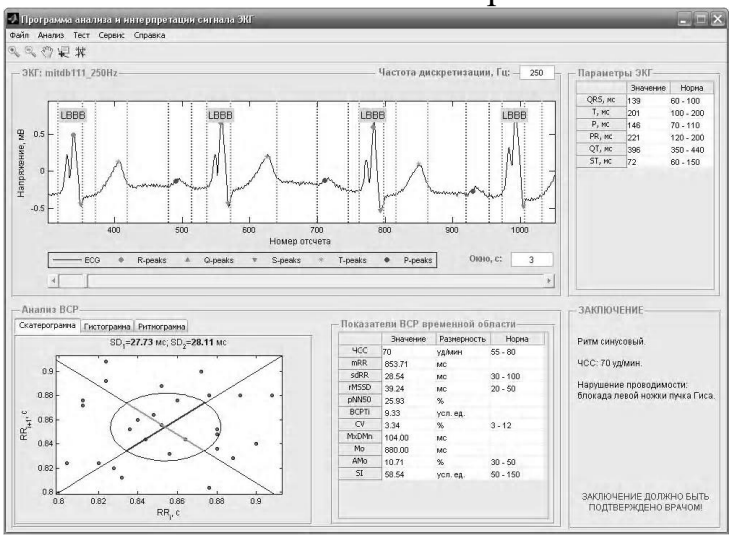


Рис. 3. Главное окно программы

ЗАКЛЮЧЕНИЕ

Выполнен обзор существующих программных продуктов для анализа и интерпретации сигнала ЭКГ. Предложен алгоритм делинеации ЭКГ, основанный на обнаружении и временной локализации максимумов модуля вейвлет-преобразования сигнала. Для классификации кардиоциклов сигнала предложено использовать нейронную сеть. В среде MATLAB (v.

7.11) разработана программа для анализа и интерпретации ЭКГ. По результатам проведенных испытаний можно сделать вывод, что программа имеет достаточную работоспособность и может использоваться по назначению.

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СОВЕРШЕНСТВОВАНИЕ КОМПЛЕКСНОЙ УЛЬТРАЗВУКОВОЙ ДИАГНОСТИКИ С ИСПОЛЬЗОВАНИЕМ СОНОЭЛАСТОГРАФИИ В ДИАГНОСТИКЕ ОПУХОЛЕЙ ЯИЧНИКОВ

Резюме: В клинической радиологической практике эластографическое исследование может быть использовано при исследовании практически всех органов и тканей. В данной статье представлена информация о том, что соноэластография при исследовании репродуктивной системы значительно повышает информативность стандартного ультразвукового исследования при дифференциальной диагностике различных опухолей, при остром и хроническом воспалении, при оценке риска преждевременных родов, при определении локализации плодного яйца и т.д.

Ключевые слова: соноэластография молочной железы, соноэластография яичников, соноэластография шейки матки.

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IMPROVEMENT OF COMPLEX ULTRASOUND DIAGNOSTICS USING SONOELASTOGRAPHY IN THE DIAGNOSIS OF OVARIAN TUMORS

Resume: In clinical radiological practice, elastographic examination can be used in the study of almost all organs and tissues. This article provides information that sonoelastography in the study of the reproductive system significantly increases the informative value of standard ultrasound in the differential diagnosis of various tumors, acute and chronic inflammation, in assessing the risk of premature birth, in determining the localization of the fetal egg, etc.

Key words: breast sonoelastography, ovarian sonoelastography, cervical sonoelastography.

Актуальность. Соноэластографическое исследование с каждым днем приобретает все большую популярность в дифференциальной диагностике доброкачественных и злокачественных образований яичников **[**3]. При эластографии папиллярных кистом яичников за основу

диагностики берется принцип, при котором высокая плотность или жесткость новообразования рассматривается как показатель его злокачественности [6]. Для доброкачественных папиллярных кистом характерен смешанный тип эластичности с преобладанием участков зеленого цвета [4]. Для рака яичников характерно наличие компонента высокой плотности (от синего до пурпурного цвета).

При соноэластографическом исследовании некоторых образований яичников, в частности, при дифференцировании эндометриоидных кист с простыми муцинозными цистаденомами или тератомы яичника с карциномой яичника, возникают определенные трудности [1]. В этих случаях можно опираться на данные стандартного ультразвукового исследования с ангиографией и допплерографией [2]. С помощью соноэластографии также удается провести дифференциальную диагностику характера содержимого в образованиях яичника: гнойное, геморрагическое, серозное или муцинозное [4].

Цель исследования. Усовершенствовать алгоритм диагностики новообразований яичников путем включения соноэластографии в комплексное ультразвуковое исследование.

Материалы и методы исследования. Данная работа была основана на анализе результатов комплексного обследования 261 пациентки для оценки возможности компрессионной соноэластографии в дифференциальной диагностике опухолей яичников.

Результаты исследования. У 128 (79%) пациенток 1 группы опухоли яичника были представлены кистозными или кистозно-солидными образованиями, с наличием жидкостного компонента. У 104 (81,2%) пациенток содержимое кистозных опухолей было серозное, у 10 (7,8%)- муцинозное, у 8 (6,2%)- геморрагическое и у 6 (4,6%) -серозно-муцинозное.

У 85,6% (89 из 104) больных образования яичников с серозным содержимым соответствовали 1 прямому типу эластограммы, картировались трехцветным сигналом со следующим порядком цветов (следуя сверху вниз экрана): синий, зеленый, красный, у 1,9% (2 из 104) наблюдений- 1 обратному типу и у12,5% (13 из 104) - 3 мозаичному типу. У 70% (7 из 10) больных с опухолями с муцинозным содержимым кистозное содержимое соответствовало 3 мозаичному типу эластограммы, у 30% (3 из 10) -1 прямому типу. Во всех 8 (100%) случаях образований с геморрагическим содержимым кистозный компонент соответствовал 1 обратному типу эластограммы, также трехцветным сигналом, но в отличие от кист с серозным содержимым, в геморрагических кистах наблюдался зеркальный артефакт, т.е. порядок цветов был обратным (следуя сверху вниз экрана): красный, зеленый, синий. Отметим, что мы не нашли объяснение данному феномену, основываясь только на гистологической картине. Вероятно, такое расхождение связано с изменением вязкоупругих

свойств жидкости, вследствие наличия крови. У 100% больных образования яичников с серозно-муцинозным содержимым, жидкостной компонент соответствовал и 1, и 3 типу эластограммы.

У 63 (72,4%) пациенток 2 группы опухоли яичника были представлены кистозными или кистозно-солидными образованиями. У 27 (42,8%) из них содержимое кистозных опухолей было серозное, у 21 (33,3%)- геморрагическое, у 12 (19%)- муцинозное и у 3 (4,7%) - серозно-муцинозное. У 88,8% (24 из 27) пацинеток ЗОЯ с серозным содержимым соответствовали 1 прямому типу эластограммы, у 11% (3 из 27) - 1 обратному типу. У 85,7% больных с опухолами с геморрагическим содержимым кистозный компонент соответствовал 1 прямому типу эластограммы, у 24% (3 из 21) -1 прямому типу. У 83,3% (10 из 12) наблюдений образования с муцинозным содержимым кистозный компонент соответствовал 3 типу эластограммы, у 16,7% (2 из 12) - 1 обратному типу. У 100% больных с ОЯ с серозно-муцинозным содержимым, жидкостной компонент соответствовал и 1, и 3 типу эластограммы.

Таким образом, у 113 (86,2%) из 131 пациенток 1 и 2 групп с серозными содержимым жидкостной компонент соответствовал 1 прямому типу эластограммы, у 5 (3,8%)-1 обратному типу, у 13 (9,9%)-3 типу эластограммы. У 26 (89,6%) из 29 пациенток с геморрагическим содержимым жидкостной компонент соответствовал 1 обратному типу, у 3 (10%)- 1 прямому типу. У 17 (77,2%) из 22 пациенток с муцинозным содержимым жидкостной компонент соответствовал 3 типу эластограммы, с неустойчивыми фокусами различной эластичности, у 3 (13,6%)-1 прямому типу и у 2 (9%)- 1 обратному типу. Следует отметить неустойчивость эластографической картины: при смещении датчика и изменению угла сканирования, цветовые локусы изменяли свой размер и положение.

Вывод. Включение качественной оценки КСЭГ в комплексное УЗИ у пациенток со ЗОЯ повышает чувствительность УЗ-метода с 71,2% до 96,5%, у пациенток с ДОЯ -с 93% до 94,5%. ДОЯ в 85,8% случаев картируются эластично- 1,2,3 и 4-ым типом эластограмм. Жидкостное содержимое серозных опухолей в 86,2% наблюдений соответствуют первому прямому типу эластограмм. Жидкостное содержимое опухолей с геморрагическим характером жидкости у 90% больных соответствует 1-му обратному типу эластограммы. При муцинозном содержимом опухолей у 77,2% пациенток получен 3-ий тип эластограммы.

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РАННЯЯ ДИАГНОСТИКА И ЛЕЧЕНИЯ ПРЕДРАКОВЫХ ЗАБОЛЕВАНИЙ ШЕЙКИ МАТКИ, АССОЦИИРОВАННЫХ С ПАПИЛЛОМАВИРУСНОЙ ИНФЕКЦИЕЙ

Аннотация. Рак шейки матки (РШМ) занимает ведущее место в структуре онкологической женской заболеваемости и смертности. В последние годы отчетливо выражена тенденция роста заболеваемости РШМ женщин в возрасте моложе 35 лет. Среди женщин репродуктивного возраста III стадия диагностируется в 28,8% случаев, IV - в 10,1%.

Ключевые слова: Рак шейки матки (РШМ),CIN – DIAG,ранняя диагностика.

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EARLY DIAGNOSIS AND TREATMENT OF PAPILLOMAVIRUS-ASSOCIATED PRECANCER DISEASES OF THE CERVICAL DISEASES

Annotation. Cervical cancer (CC) occupies a leading place in the structure of oncological female morbidity and mortality. In recent years, the upward trend in the incidence of cervical cancer in women under the age of 35 has been clearly expressed. Among women of reproductive age, stage III is diagnosed in 28.8% of cases, IV - in 10.1%.

Key words: Cervical cancer (CC), CIN - DIAG, early diagnosis.

Актуальность. Рак шейки матки (РШМ) представляет серьезную проблему в области общественного здравоохранения в Узбекистане. Согласно оценкам Международного агентства по изучению рака IARC (МАИР) за 2018 г. [1,2,5], РШМ является вторым по распространенности видом рака среди женщин в Узбекистане после рака молочной железы и третьей по частоте причиной смерти женщин от рака в Узбекистане. По оценкам за 2021 год, стандартизованный по возрасту показатели заболеваемости и смертности составляют 5,3 и 2,9 на 100.000 женщин в год соответственно. По данным национального канцер-регистра, в 2021

году в Узбекистане число первично выявленных случаев РШМ по республике составило 1827, зарегистрировано 997 случаев смерти от рака шейки матки со следующим распределением случаев по стадиям: стадия I: 12%, стадия II: 54,1%, стадия III: 23,6%, стадия IV: 5,3%. Основным этиологическим фактором развития РШМ является вирус папилломы человека (ВПЧ). ВПЧ инфекция – самое частое заболевание, передающееся половым путем (ЗППП). Рак шейки матки вызывают онкогенные типы ВПЧ. Два онкогенных типа ВПЧ, которые чаще всего вызывают рак шейки матки, – это типы 16 и 18. Вместе они вызывают примерно 70% случаев рака шейки матки во всех странах мира, к сожалению, доля заболеваемости раком шейки матки превалирует в развивающихся странах. **[**3,4].

РШМ является одним из немногих онкологических заболеваний, который можно предотвратить. Пути решения существуют. РШМ, при его диагностировании на ранней стадии, лучше поддается эффективному лечению, что увеличивает общую и безрецидивную выживаемость, повышает качество жизни больных, сокращает стоимость лечения. **[**4,6].

Основной задачей предупреждения РШМ является раннее обнаружение патологических изменений на шейке и своевременно обоснованное лечение, что является основной целью нашего исследования.

Цель. Оценить практическую значимость эффективности модифицированного красящего раствора “CIN – DIAG” в диагностике патологических изменений шейки матки.

Материалы и методы. В исследование включены 120 больных с патологическими изменениями шейки матки различной степени, ассоциированные с ВПЧ, такие как цервикальная интраэпителтальная неоплазия (CIN) и фоновые заболевания шейки матки. Возраст женщин колебался от 35 до 60 лет, средний возраст составил 40+1,5 года. Для выявления патологий эпителиальной ткани шейки матки использован модифицированный тип красящего раствора для “CIN-DIAG”, который представляет собой ватный тампон на пластиковой палочке в пластиковой пробирке, в крышке пробирки находится красящий раствор. Внешний вид красящего раствора: прозрачная жидкость коричневого цвета; Ватный тампон на пластиковой палочке. Объём красящего раствора - 2 мл ± 5 %; pH красящего раствора - в пределах 4 - 7 ед.

Раствор попадает в клетку с помощью фолиевой кислоты посредством специфичного воздействия на рецепторы клеточной поверхности. В результате специфической реакции красящего раствора с химическим веществом гистиоцита, происходит окрашивание тампона. В нормальных клетках имеется низкое содержание активного кислорода, поэтому на поверхности клеток имеется малая экспрессия рецепторов фолиевой кислоты и не происходит окрашивание тампона после реакции.

Результаты и их обсуждение. Всем исследуемым больным проводилось окрашивание шейки матки красящим раствором “CIN – DIAG”, результаты которого оценивались согласно критериям таблице 1.

Таблица 1.

Критерии оценки тестирования

Положительный результат: - патология (воспаление) - CIN1 - CIN2 - CIN3 -CIN3 (Онкологическое заболевание)	Светло-зелёный или зелёный цвет тампона Тёмно-зелёный цвет тампона Сине-зелёный, тёмно-изумрудный цвет тампона Синий цвет тампона Тёмно-серый и чёрный цвет тампона	Светло-зелёный или зелёный цвет тампона Тёмно-зелёный цвет тампона Сине-зелёный, тёмно-изумрудный цвет тампона Синий цвет тампона Тёмно-серый и чёрный цвет тампона
Отрицательный результат	Бесцветный или бежевый,светло-коричневый или коричневый цвет тампона	Бежевый,светло-коричневый или коричневый цвет тампона

Анализ результатов тестирования показал следующие результаты: CIN1 – 40 (33,3%), CIN 2– 15 (12,5%), CIN 3- 10 (8,3%), рак шейки матки - 5 (4,1%), фоновые заболевания шейки матки 35 (29,1%) и 15 (12,5%) женщины без патологических изменений, т.е. отрицательный результат.

Ниже представлен рисунок результатов окрашивания красящим раствором “CIN –DIAG”. (Рис.1).

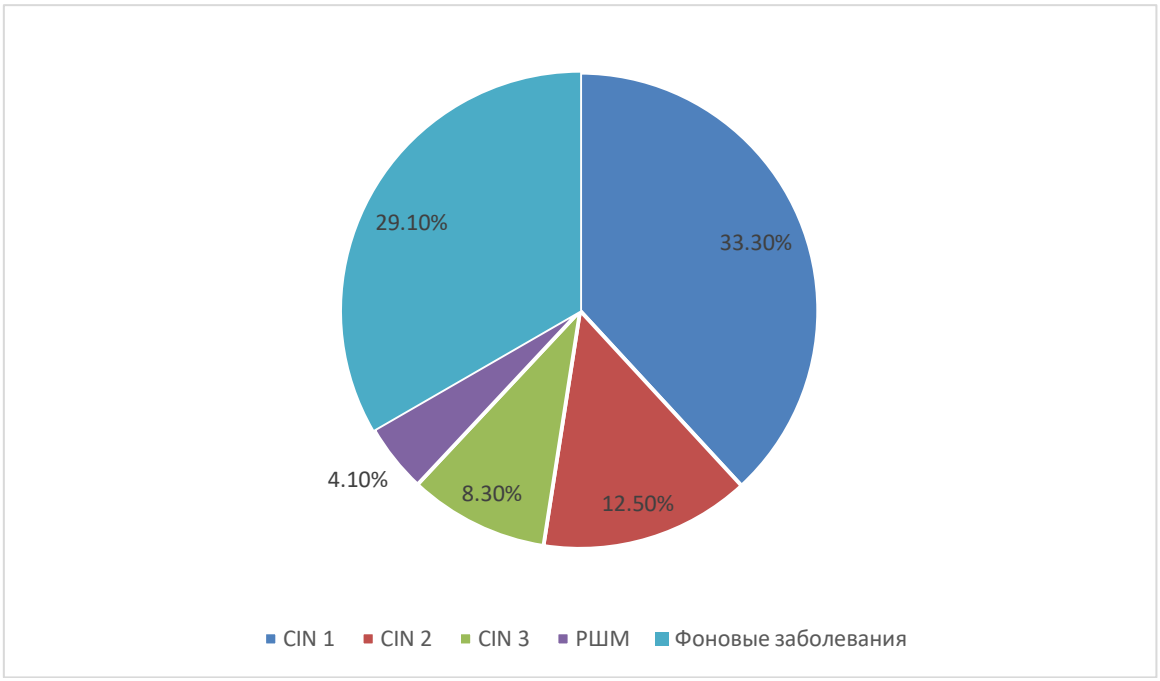


Рис.1 Результаты тестирование красящим раствором “CIN –DIAG”.

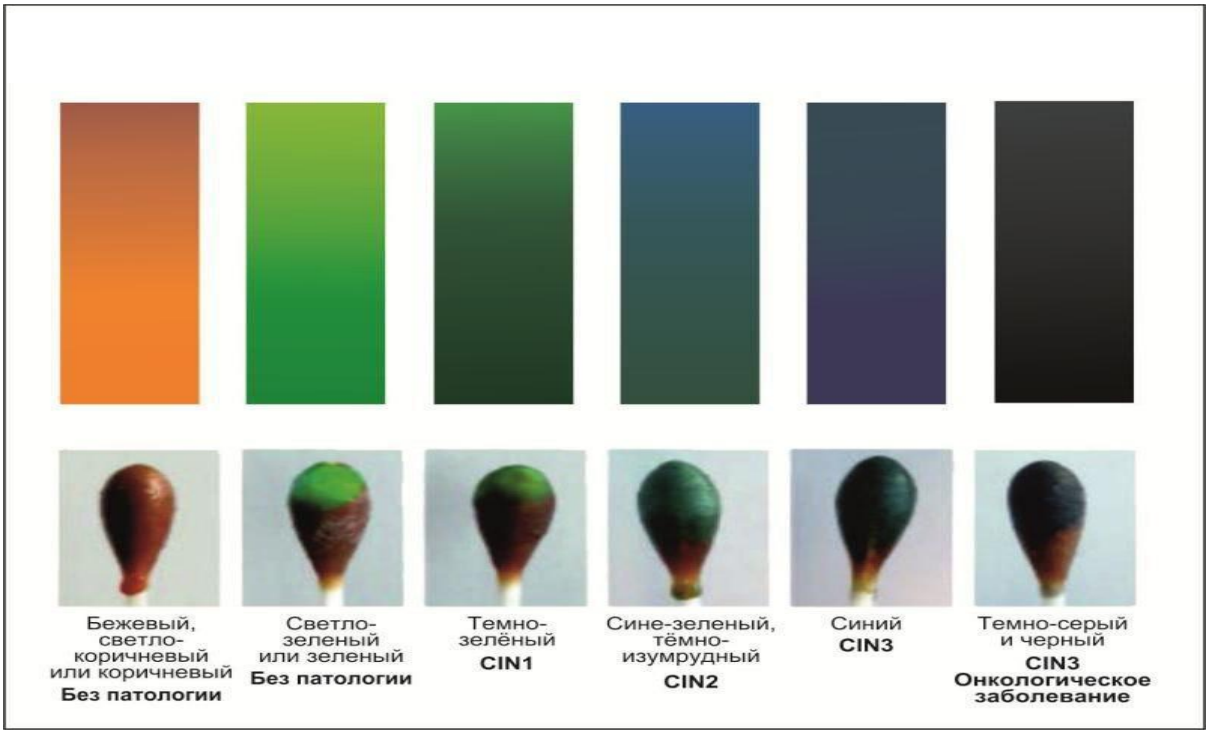


Рис.2. Результаты окрашивания в зависимости от патологий шейки матки (эталонная карта).

При CIN 1 тампон окрашивался в темно- зеленый цвет, при CIN 2 в сине-зеленый цвет, при CIN 3 в синий, а при раке шейки матки – в темно-серый и черный. (Рис.2).

Ниже представлена ВПЧ ассоциированность исследованных больных. (Рис.3).

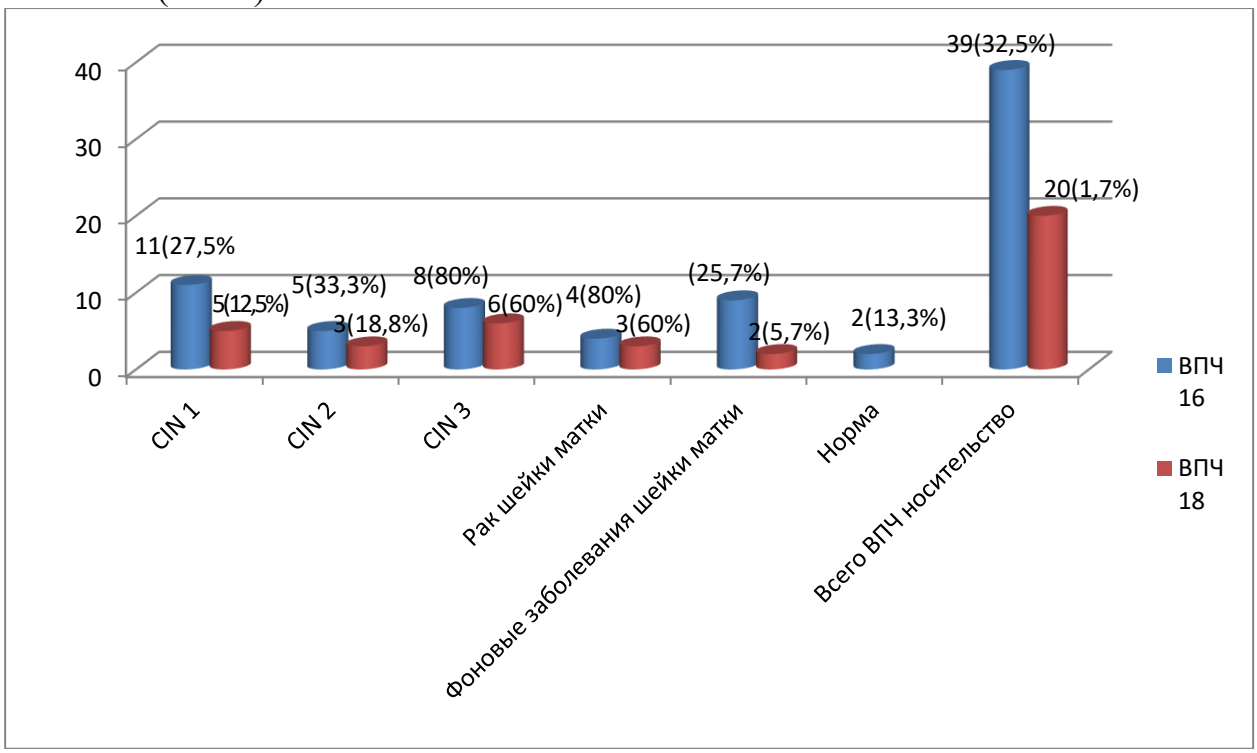


Рис 3. Распределение больных в зависимости от результатов ВПЧ тестирования.

Заключение. Таким образом, модифицированный красящий раствор “CIN –DIAG” обладает преимуществами доступности, экономичности, невысоких технических требований, безопасности и неинвазивности, в результате чего может успешно применяться в практической деятельности первичного звена и в отдаленных регионах страны.

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РАСПРОСТРАНЕНИЕ И ПРИРОДНОЕ РАСПОЛОЖЕНИЕ СТРЕКОЗ (ODANATA) В ОКРЕСТНОСТЯХ ОЗЕР АШШЫКОЛЬ И КАРАТЕРЕНГ В КАРАКАЛПАКСТАНЕ

Аннотация: В статье дается краткая характеристика вида стрекозы (odanata) вокруг озер Ашшыколь и Каратеренг в Каракалпакстане, ареалов их распространения, методов научных исследований.

Ключевые слова: Odanata, Orthetrum Cancellatum, Orthetrum Sabina, Orthetrum brunneum, Ischnura elegans, Anax Emperor, Alhagi persorum, Tamarix, Scirpus.

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DISTRIBUTION AND NATURAL LOCATION OF DRAGONFLYS (ODANATA) IN THE SURROUNDINGS OF ASHSHYKOL AND KARATERENG LAKE IN KARAKALPAKSTAN

Abstract: The article gives a brief description of the species of dragonfly (odanata) around the lakes Ashshikol and Karateren in Karakalpakstan, their distribution areas, methods of scientific research.

Key words: Odanata, Orthetrum cancellatum, Orthetrum Sabina, Orthetrum brunneum, Ischnura elegans, Anax imperator, Alhagi persorum, Tamarix, Scirpus.

Введение. Стрекозы (odanata) насчитывают в мировой фауне более 6650 видов. Древняя группа летающих насекомых. Относительно крупные насекомые, у них подвижная голова, большие глаза, (короткие усы) усы, тонкое брюшко и крылья с сетью из четырех прозрачных густых жилок. Стрекозы — активные специализированные хищники, питающиеся насекомыми, пойманными в полете. Представители отряда широко распространены по всему миру и встречаются на всех континентах, кроме Антарктиды **[**3].

Исследования проводились весной 2022 года в апреле-мае на озерах Ашшыкуль и Каратеренг на территории Республики Каракалпакстан. Окрестности Ашшыккуля и Каратеренга представляют собой естественное сочетание биотопов и антропогенных ландшафтов и состоят из пустынь, полупустынь и оазисных зон. Этом ареале произрастают верблюжья колючка (Alhagi persorum), гребенщик (Tamarix), камыш (scirpus) и другие однолетние, двухлетние, многолетние виды растений (рис. 1 а, б)

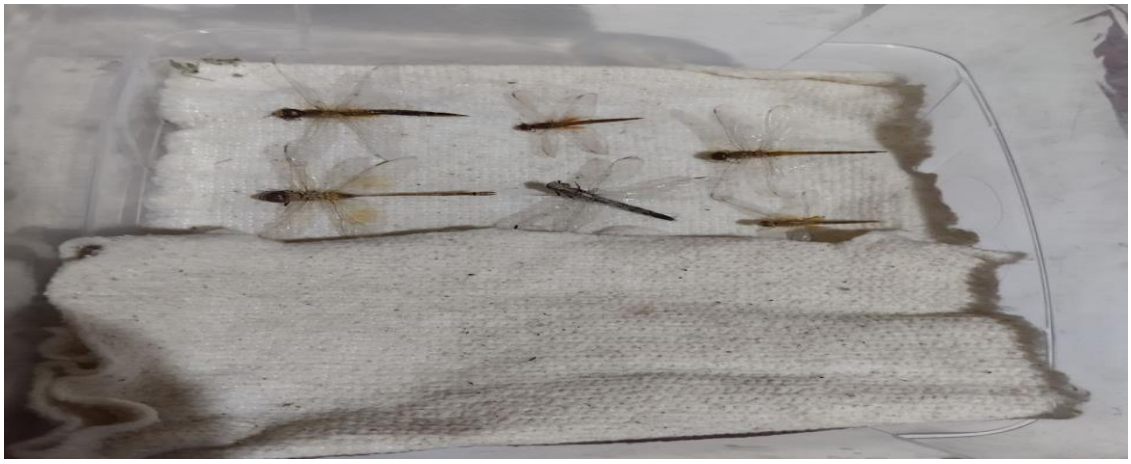
1а – рисунок Озеро каратеренгь



1б – рисунок видео с озера ашшыкуль

При сборе биоматериалов использовался учебник А. Кулмаматова «Полевой опыт зоологии беспозвоночных (Ташкент 2004)».

Сбор стрекоз (odanata) при полете видов оданата состоит из специальной деревянной ручки, железного, валинмата[52] и гладкого цилиндровидного валинмата из материала (ткани) длиной 1-1,2 метра (диаметр 5-6 см. в виде сашка реализовывались в воздушной среде. Сборка материалов с хлопковым сиденьем-наголовником в пластмассовой коробке с помощью пинцета. (Рис 2) Использованы «MBS-109 винкулярный, P122 DISSECING MICROSCOPE». Микроскопы



2а – рисунок *хлопковым сиденьем-наголовником в пластмассовой коробке*

Род: *Orthetrum* (Newman, 1833)

1. **Вид***: **Orthetrum Cancellatum* **(Linnaeus, 1758)**

Зоогеография: Этот вид широко распространен в Европе и Азии. Встречается по всему Европейскому континенту, включая острова Средиземного моря, на востоке ареал раскинулся по Средней Азии в Кашмире, Монголии, Китае, Индии и некоторых районах Узбекистана.

Длина 47-53 мм, брюшко 29-35 мм, крыло 35-41 мм, брюшная сторона уплощена. Основной сезон полета – июнь-июль **[**3].

Определенное местоположение: Каратеренг (43°13'23" N60°23'42 E)

2. **Вид**: ***Orthetrum sabina* (Drury, 1770)**

Зоогеография: распространена от юга, севера Европы, Средней Азии и севера Африки до Японии, а на юге до Австралии и Микронезии.

Orthetrum sabina стрекозы средних размеров с размахом крыльев 60-85 мм. Встречается в северной Австралии у двух видов, внешне очень похожих на Orthetrum serapiaga. Самки сходны с самцами стрекоз по форме, окраске и размерам, отличаются только половыми признаками **[**2,4].

Определенное местоположение: Каратеренг (43°13'23" N60°23'42" E), Ашшыкуль (42°30'30" N59°38'29" E).

[52] Валинмата- железное кольцо

3. **Вид: *Orthetrum brunneum* (Fonscolombe, 1837)**

Зоогеография: Средняя Азия, Армения, Беларусь, Китай, Польша, Румыния, Россия, Сербия; Распространен в Словакии, Словении, Турции, Украине и других местах.

Его крылья имеют ширину 66-70 миллиметров. Зрелых можно встретить у рек или на устойчивых мелководьях с середины июня до конца августа **[**5].

Определенное местоположение: Каратеренг (43°13'23" N60°23'42 E)

Род: ***Ischnura* (Charpentier, 1840)**

4.**Вид: *Ischnura elegans* (Vander Linden, 1820).**

Зоогеография: I.Elegans Средняя Азия, западно-центрально Палеарктический средний вид, средняя полоса Европы, Крым, западная и центральная Сибирь, Северная Африка, западная и центральная Азия.

Длина 30-34 мм, брюшко 24-29 мм, заднее крыло 16-18 мм. Голова широкая, с дорсальной стороны вдвое шире на спине **[**1, 6].

Определенное местоположение: Каратеренг (43°13'23" N60°23'42 E), Ашшыкуль (42°30'30" N59°38'29" E)

Род: ***Anax* (Leach, 1815 г)**

5. **Вид: *Anax imperator* (Leach, 1815 г)**

Зоогеография: Пересекает почти все природные зоны от Средней Азии, Скандинавского полуострова до Южной Африки, но является эндемиком в большинстве районов своего ареала. В России радиус действия ограничен только южной европейской части.

Один из крупнейших видов мощных летающих стрекоз. Грудной отдел зеленого цвета с широкими полосами. Крылья прозрачные, крупные (длина крыла 50 мм). С помощью ног они ловят летающих насекомых. Глаза большие, сложные, сине-зеленого цвета **[**6].

Определенное местоположение: Ашшыкуль (42°30'30" N59°38'29" E)

1-таблица

Виды, обнаруженные вокруг Каратеренга и Ашшыкуля

Ареал распространения	Каратеренг	Ашшыкуль
Вид	4	3
Orthetrum sabina	+	+
Orthetrum brunneum	+	-
Orthetrum cancellatum	+	-
Ischnura elegans	+	+
Anax imperator	-	+

(+) установленное местоположение, (-) неустановленное местоположение

Наконец, виды Odanata были впервые изучены в районе озер Ашшыкуль и Каратеренг. В результате исследований вокруг

Каратерengских озер выявлено 5 видов Orthetrum sabina, 3 вида Orthetrum canselatum, 3 вида Orthetrum brunneum, 1 вид Ischnura elegans, 2 вида Orthetrum Sabina.

В окрестностях Ашшыкуля было обнаружено 17, *Ischnura elegans* 2 вида A*nax imperator*.

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AGILE-МЕТОДОЛОГИЯ УПРАВЛЕНИЯ ПРОЕКТАМИ В ЭНЕРГОСБЫТОВЫХ КОМПАНИЯХ

Аннотация: Данная статья рассматривает особенности применения Agile-методология управления проектами в сфере энергосбытовой деятельности - краткосрочные решения, которые помогают справиться с самыми неотложными задачами, там, где жёсткий порядок не может быстро адаптироваться к меняющимся условиям на рынке, и возникают ситуации, когда компании надо обойти его. Особенности управления проектом, требующего быстроты, гибкости и экспериментирования –молниеносно отреагировать на внезапные изменения, а также необходимостью продолжать работу над проектом после ввода в промышленную эксплуатацию в формате поддержки и доработки продукта.

Ключевые слова: Agile-методология, планирование, проектное управление.

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AGILE IS THE METHODOLOGY OF PROJECT MANAGEMENT IN POWER SUPPLY COMPANIES

Abstract: This article examines the features of the application of Agile-project management methodology in the field of energy sales activities - short-term solutions that help to cope with the most urgent tasks, where a rigid order cannot quickly adapt to changing market conditions, and situations arise when companies need to bypass it. Features of project management, which requires speed, flexibility and experimentation – to react to sudden changes with lightning speed, as well as the need to continue working on the project after commissioning in the format of product support and refinement.

Keywords: Agile methodology, planning, project management.

Инновации требуют от человека или команды храбрости в выдвижении идей, которые могут быть осмеяны, и мужества от организации, чтобы привнести эти идеи в жизнь во внутреннем процессе и

внешнем продукте. [1] Инновации, как таковые, предполагают выход из зоны комфорта – требуют вызова личным, организационным и командным нормам корпоративного кодекса.

Суть Agile-разработки — непрерывное обучение и адаптация.

В рамках Agile-подхода к управлению проектами организации создают маленькие, но обладающие большими полномочиями кроссфункциональные команды, разбивают задачи и инициативы на модули и разрабатывают решения, быстро создавая прототипы, реагируя на пожелания клиента и адаптируясь к новым условиям. [3]

Agile-команды планируют очень многое, но этот процесс более равномерно распределен по всему проекту. Во-вторых, agile-команды прямо учитывают тот критический фактор, который упускают из виду многие не использующие agile-подход команды, — неопределенность. Важно ли планирование? Несомненно, важно. Важна ли корректировка плана по мере накопления знаний и уменьшения неопределенности? Исключительно важна. [2] Для большинства неопределенностей (отсутствия знания) единственным путем их снижения и приобретения знания является действие — выполнение каких-либо работ, создание чего-либо, моделирование чего-либо — и получение обратной связи. Подход многих руководителей проектов можно представить, как «планирование, планирование, планирование — выполнение». Agile-подход — это «планирование–выполнение–адаптация», «планирование–выполнение–адаптация». Чем выше неопределенности проекта, тем важнее применение agile-подхода для успеха.

Оценка и планирование — это не просто определение сроков или календарных графиков. Планирование, особенно непрерывное планирование итераций, — это поиск стоимости. Планирование представляет собой попытку найти оптимальное решение всеобъемлющего вопроса разработки продукта: что мы должны создать? Для ответа на этот вопрос команда анализирует функциональность, ресурсы и сроки. Ответ на данный вопрос нельзя найти одномоментно. Его ищут итерационно, шаг за шагом. Процесс планирования поддерживает такой подход, обеспечивая:

- сокращение риска;
- снижение неопределенности;
- создание условий для принятия более качественных решений;
- формирование доверия;
- распространение информации.

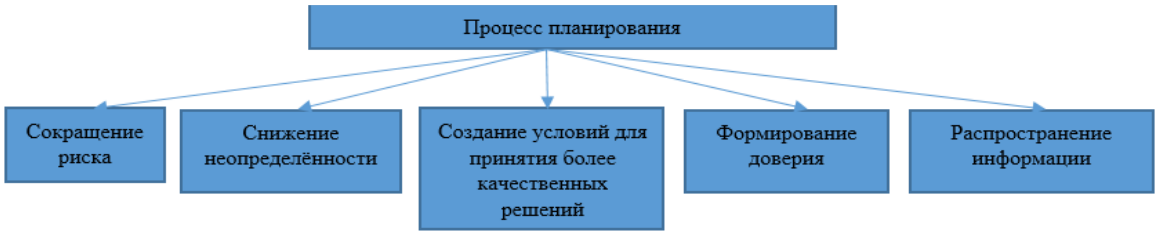


Рис.1. Процесс планирования с применением Agile-методологии

Актуальность применения Agile-методологии управления проектами в энергосбытовых компаниях обусловлена тем, что данная сфера характеризуется большим количеством изменений в части законодательства, а также потребностями в эффективном взаимодействии с клиентами и быстрой адаптации к изменениям [4].

Можно выделить следующие особенности Agile-проектов в энргосбытовой деятельности:

- преобладающая доля стоимости человеческих ресурсов в структуре себестоимости продукта;
- высокая динамика изменений внешней среды;
- команда, работающая над проектом, продолжает свою работу над продуктом после сдачи в формате поддержки и доработки продукта;
- высокий уровень вовлечённости и влияния стейхолдеров;
- изменения в соответствии с действующим законодательством;
- возможен поэтапный (модульный) запуск;
- неопределённость финального результата.

Таким образом, при определении agile-подхода к планированию можно выделить следующие особенности:

- подход фокусируется на планировании, а не на плане;
- поощряет изменения;
- приводит к составлению планов, легко поддающихся изменению;
- распределяет процесс планирования по всему сроку осуществления проекта [2].

Agile-процессы строятся на признании уникальных способностей (и недостатков) отдельных людей и их использовании для извлечения выгоды вместо попыток сделать всех одинаковыми.

Agile-команды считают работающую программу более ценной, чем полный пакет документации, потому что она ведет к получению стабильной, последовательно улучшаемой версии проекта в конце каждой итерации. Такой подход позволяет быстро и часто получать обратную связь от потребителей относительно продукта и процесса. По мере улучшения разработанной программы с каждой итерацией ее можно демонстрировать потенциальным или реальным пользователям. Их отзывы и замечания учитываются в процессе разработки, что позволяет команде

всегда работать над наиболее ценными функциями и гарантирует удовлетворение ожиданий пользователей.

В настоящее время роль проектного управления в жизни крупного энергохолдинга крайне значима, что направлено прежде всего на выработку единой консолидированной позиции и реализацию поставленных задач.

Применение Agile-методологии управления проектами в энергосбытовых компаниях особенно эффективно в направлении обслуживания клиентов и реализации модели клиентоцентричности, которая включает целенаправленные действия по реализации принципов клиентоцентричности: инфраструктура обслуживания; требования к внешней и внутренней организации обслуживания; техническое оснащение и программное обеспечение для ведения клиентской базы, регистрации, обработки обращений Клиентов и формирования отчётов, а также осуществления расчётов.

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СОВРЕМЕННЫЕ ПРЕДСТАВЛЕНИЯ ОБ ЭТИОЛОГИИ И ПАТОГЕНЕЗЕ ПОСЛЕОПЕРАЦИОННЫХ КОГНИТИВНЫХ РАССТРОЙСТВ, ПОСЛЕОПЕРАЦИОННОМ ДЕЛИРИИ, МЕТОДАХ ДИАГНОСТИКИ, ПРОФИЛАКТИКИ И ЛЕЧЕНИЯ (ОБЗОР ЛИТЕРАТУРЫ)

Аннотация. Течение послеоперационного периода у пациентов, перенесших обширные операции на брюшной полости, нередко осложняется различными вариантами нарушения сознания. Спектр их варьирует от послеоперационной когнитивной дисфункции (ПОКД) до возникновения делирия. Послеоперационная когнитивная дисфункция и делирий чаще наблюдаются у пациентов старческого возраста. Количество людей пожилого и старческого возраста неуклонно увеличивается, они составляют 25-30 % пациентов, которым проводятся полостные операции. Социоэкономические последствия когнитивных нарушений чрезвычайно глубоки, снижение ментальных функций ассоциируется с потерей независимости, ухудшением качества жизни и приводит к смерти. В послеоперационных палатах и отделениях реанимации, как правило, приходится сталкиваться с послеоперационным делирием (ПД), который связан с увеличением смертности, продолжительности госпитализации, расходов на лечение.

Ключевые слова: послеоперационные когнитивные расстройства, послеоперационный делирий, профилактика, лечение.

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MODERN CONCEPTS ON THE ETIOLOGY AND PATHOGENESIS OF POSTOPERATIVE COGNITIVE DISORDERS, POSTOPERATIVE DELIRIA, METHODS OF DIAGNOSIS, PREVENTION AND TREATMENT (REVIEW OF LITERATURE)

Annotation. The course of the postoperative period in patients undergoing extensive abdominal surgery is often complicated by various types of impaired consciousness. Their spectrum varies from postoperative cognitive dysfunction (POCD) to delirium. Postoperative cognitive dysfunction and delirium are more common in elderly patients. The number of elderly and senile people is steadily increasing; they make up 25-30% of patients who undergo abdominal surgery. Socioeconomic consequences of cognitive impairments are extremely deep, the decline in mental functions is associated with the loss of independence, deterioration in the quality of life and leads to death. In postoperative wards and intensive care units, as a rule, one has to deal with postoperative delirium (PD), which is associated with an increase in mortality, duration of hospitalization, and treatment costs.

Keywords: postoperative cognitive disorders, postoperative delirium, prevention, treatment

Нарушения сознания в послеоперационном периоде у пожилых пациентов описываются исследователями на протяжении столетия, причем на анестезию ссылаются как на возможную причину этих проблем. В 1955 г. P. D. Bedford опубликовал ретроспективный пятилетний обзор 1193 пожилых пациентов, которые перенесли хирургические вмешательства под общей анестезией. Он обнаружил, что приблизительно у 10 % пожилых пациентов развивались когнитивные расстройства. У большинства этих пациентов проблемы были не сильно значимыми (небольшие затруднения с письмом и чтением, нарушение концентрации, трудности при самостоятельном совершении покупок, нарушение памяти, невозможность сконцентрироваться на выполняемой работе). P. D. Bedford также описал 18 случаев (1,5 %), в которых у пациентов развилась тяжелая деменция, сохранявшаяся до самой смерти. На основании своих наблюдений он сделал заключение, что когнитивные проблемы развиваются вследствие воздействия анестетиков и гипотонии во время операции, следовательно, операции у пожилых должны проводиться лишь в случаях острой необходимости.

Пожилые люди — наиболее быстро растущий сегмент населения. Пациенты старшего возраста составляют 25-30 % пациентов, которым проводятся обширные операции. Социоэкономические последствия когнитивных нарушений чрезвычайно глубоки, снижение ментальных функций ассоциируется с потерей независимости, ухудшением качества жизни и приводит к смерти.

К послеоперационным когнитивным расстройствам относят ПОКД и ПД.

Послеоперационная когнитивная дисфункция — когнитивное расстройство, развивающееся в раннем и сохраняющееся в позднем послеоперационном периоде, клинически проявляющееся в виде трудности концентрации внимания, нарушений памяти и других высших корковых функций (мышления, речи и т. п.), подтвержденное данными нейропсихического тестирования. При появлении и сохранении когнитивной дисфункции в течение семи дней послеоперационного периода ведут речь о ранней ПОКД, при более длительном сроке следует диагностировать позднюю ПОКД. Послеоперационная когнитивная дисфункция характеризуется умеренными изменениями личности, эмоциональной нестабильностью после анестезии и операции и ухудшением познания (провалы краткосрочной памяти, трудности с концентрацией, снижение скорости реакции). Пациенты могут жаловаться на забывчивость или путаницу в днях или времени. Познание включает в себя разнообразный спектр способностей, в том числе обучение и память, словесные способности, восприятие, внимание, исполнительные функции и абстрактное мышление.

В послеоперационных палатах и отделениях реанимации, как правило, приходится сталкиваться с ПД. **G. L. Bryson** и соавторы пишут, что ПД развивается в течение 24 часов после операции или с интервалом в один или несколько дней после промежутка ясного сознания. Делирий, который развивается непосредственно после выхода из общей анестезии, обычно проходит в течение нескольких минут или часов. Этот тип делирия наиболее характерен для детей, хотя может встречаться в любой возрастной группе. Делирий, который развивается после интервала ясного сознания, как правило, начинается между вторым и седьмым послеоперационными днями и обычно продолжается от нескольких часов до нескольких дней, но симптомы могут сохраняться в течение нескольких недель или месяцев.

С. В. Иванов выделяет ряд особенных признаков, характерных для ПД: кратковременность (от нескольких часов до двух-трех суток), колебания глубины нарушения сознания и галлюцинаторно-бредовой симптоматики в течение суток. В первой половине дня оглушение с явлениями психомоторной заторможенности, неполной ориентировкой в месте и времени, а к вечеру и в первой половине ночи, по мере усугубления помрачения сознания, нарастает психомоторное возбуждение с вербальными и зрительными галлюцинациями.

Определение делирия. Классическим психиатрическим определением делирия является следующее: «Делирий (лат. *Delirium:* безумие, помешательство) — вид помрачения сознания, клинически проявляющийся наплывом зрительных галлюцинаций, ярких чувственных

парейдолий (парейдолия — это разновидность зрительных иллюзий, заключающаяся в формировании иллюзорных образов, в качестве основы которых выступают детали реального объекта, например, фигуры людей и животных в облаках, изображение человека на поверхности луны) и резко выраженным двигательным возбуждением. Развитие делирия свидетельствует о наличии соматического заболевания, инфекции или интоксикации».

Международная статистическая классификация болезней и проблем, связанных со здоровьем, 10-го пересмотра, принятая 43-й Всемирной ассамблеей здравоохранения, дает следующее описание делирия: экологически неспецифический органический церебральный синдром, характеризующийся одновременным нарушением сознания и внимания, восприятия, мышления, памяти, психомоторного поведения, эмоций, цикличности сна и бодрствования. Длительность состояния варьируется, и степень тяжести колеблется от средней до очень тяжелой. Включены: острый (-ое) (-ая) или подострый (-ое) (-ая): мозговой синдром, состояние спутанности сознания (неалкогольной этиологии), инфекционный психоз, органическая реакция, психоорганический синдром.

Факторы риска. Факторов, связанных с увеличением вероятности развития ПД, много: сенсорная депривация (зрительная и слуховая), лишение сна, социальная изоляция, ограничение физической активности, наличие катетеров и дренажей, полипрагмазия, использование психоактивных веществ, сопутствующие заболевания, тяжелые болезни (особенно инфекционные, переломы, инсульт), нарушения температуры тела (лихорадка или гипотермия), гиповолемия, гипоалиментация, низкий уровень альбумина в сыворотке крови.

R. D. Sanders и соавторы разделили факторы риска развития ПД на модифицируемые и немодифицируемые. Факторы, на которые нельзя повлиять: возраст, когнитивный дефицит до операции, деменция, депрессия, сопутствующая патология (например, почечная недостаточность), тип (тяжесть) операции, генетические факторы (например, четвертая аллель аполипопротеина Е4). Факторы, на которые можно повлиять: инфекция и воспаление, метаболические нарушения, назначения препаратов, боль и дискомфорт (например, мочевой катетер), нарушения сна.

Нарушение сна, на которое влияет нахождение пациента в ОРИТ (освещение помещения в ночное время, круглосуточные процедуры и мероприятия, разговоры медперсонала, незнакомая обстановка, отсутствие привычных вещей, ограничение движения), приводит к развитию делирия. Тяжелая депривация сна повышает вероятность развития делирия в десять раз. Пожилые пациенты особенно восприимчивы к сенсорной депривации и нарушению сна. К. А. Попугаев, И. А. Савин и соавторы при анализе литературы отметили тесную связь делирия с диссомнией. При делирии

всегда наблюдаются нарушения сна, но что в этой ситуации является причиной, а что следствием — не выяснено. Сон и бодрствование сменяются с циркадной периодичностью, эти процессы регулируются ретикулярной формацией, ядрами гипоталамуса и базальными отделами лобных долей. При повреждении этих структур всегда развивается делирий.

Молодые люди кажутся наиболее уязвимыми к возникновению делирия, но у пожилых пациентов (старше 60 лет) ПД более распространен. Три больших групповых исследования показали, что ПД встречается примерно у 5-21 % взрослых пациентов (диагностированы с использованием шкал ажитации и седации).

Виды делирия. Проявления ПД разнообразны и могут меняться, пациенты могут проявлять гиперактивность, гипоактивность, а также встречаются смешанные гипер- и гипоактивные варианты. У гиперактивных пациентов увеличена психомоторная активность, речь ускорена, они раздражены, беспокойны, дезориентированы во времени, агрессивны по отношению к персоналу. Все эти признаки очевидны для персонала и быстро выявляются. Гипоактивные пациенты, напротив, обычно проявляют спокойствие в сочетании с невнимательностью, снижение двигательной активности и испытывают трудности при ответе на простые вопросы относительно ориентации. Гипоактивный делирий может быть ошибочно принят за депрессию, что может иметь фатальные последствия.

Вопреки мнению многих врачей, P. Pandharipande и J. F. Peterson в своих работах показали, что гипоактивный делирий встречается чаще, чем гиперактивный. Авторы проанализировали распространенность различных форм делирия у реанимационных пациентов и получили следующие результаты: 1,6 % — гиперактивный, 43,5 % — гипоактивный и 54,1 % — смешанный. Гипоактивный делирий может ввести в заблуждение врачей относительно ментального статуса пациента, так как они не привлекают внимания персонала. Эти пациенты выглядят спокойными, хотя ощущают чувство тревоги и галлюцинации, но не могут выразить себя адекватно. Таким образом, гипоактивный делирий часто остается нераспознанным. Вероятно, в связи с этим терапия таким пациентам назначается поздно или вовсе не проводится, тогда как последствия гипоактивного делирия гораздо хуже.

С одной стороны, делирий характеризуется острым началом и сменой клинической картины, что нехарактерно для психиатрических заболеваний, таких как деменция, психоз или тревожно-депрессивные состояния, с другой стороны, делирий протекает в различных вариантах. Субсиндромный делирий не удовлетворяет всем критериям делирия по DSM-IV. Даже легкие формы делирия ассоциируются с осложнениями.

Поведение делириозных пациентов может драматически изменяться в течение часов и даже минут, что часто вводит в заблуждение медицинских работников относительно ментального статуса пациента.

Патофизиология делирия. В настоящее время о патофизиологии делирия известно немного. Наиболее широко распространена теория, базирующаяся на дисбалансе нейротрансмитерных систем, преимущественно дисбалансе допамина и ацетилхолина.

Более ста лет назад клиницисты заметили, что препараты с антихолинергическими свойствами могут вызывать острую и хроническую когнитивную дисфункцию. Механизм связывали с прямым угнетением холинергической активности и, как следствие, изменением нейротрансмиссии, приводящей к относительному избытку допамина в центральной нервной системе (ЦНС). Антипсихотики, которые являются антагонистами центральных допаминовых рецепторов, могут противодействовать когнитивным эффектам антихолинергических препаратов, что дополнительно поддерживает антихолинергическую гипотезу.

Многие известные препараты, такие как трициклические антидепрессанты и антигистаминные имеют центральную антихолинергическую активность. Недавно было показано, что многие препараты, считавшиеся не обладающими антихолинергической активностью и широко использующиеся в ОРИТ, такие как Н2-блокаторы, опиаты, фуросемид, дигоксин, глюкокортикоиды и бензодиазепины, имеют центральные антихолинергические свойства.

Серотонин, являясь ингибитором кортикального ацетилхолина, и взаимодействуя с допаминергической и холинергической системами, особенно в субкортикальных структурах, играет роль в нарушении циркадных ритмов, а при делирии всегда нарушается циркадный ритм «сон — бодрствование». Серотониновый синдром, вследствие избытка агонистов серотонина, может наблюдаться не только после приема селективных ингибиторов обратного захвата серотонина, но и при приеме различных других препаратов и их комбинаций. Даже однократный прием селективных ингибиторов обратного захвата серотонина в терапевтической дозе может вызвать синдром, который манифестирует изменением ментального статуса, гиперактивностью и нейромышечными аномалиями.

Г-аминомасляная кислота вносит свой вклад при развитии печеночной энцефалопатии, вероятно при посредничестве недостатка аминокислот с разветвленной цепью и избытка ароматических аминокислот, которые действуют в качестве ложных нейротрансмиттеров. Избыточная активность у-аминомасляной кислоты хорошо известна и возникает после резкого прекращения хронического употребления алкоголя или отмены бензодиазепинов и опасна развитием делирия. Седативные препараты, которые стимулируют такие рецепторы у-

аминомасляной кислоты, как бензодиазепины и, вероятно, пропофол, ухудшают когнитивные функции и могут вызвать делирий. Могут ли эти препараты вызвать нейрокогнитивный дефицит спустя длительное время после их применения — неизвестно. Норадренергическая гиперфункция может привести к панической атаке и галлюцинациям. Глутамат, известный нам по «синдрому китайского ресторана», который развивается при приеме пищи с большим содержанием глутамата натрия, изменяет нормальную нейротрансмиссию и приводит к спутанности сознания.

Профилактика делирия. Исследования ПД преимущественно сосредоточены на выявлении и лечении факторов риска перед операцией]. Многочисленные зарубежные исследования показали, что гериатрическая консультация в предоперационном периоде, как можно более раннее оперативное лечение, эффективные стратегии обезболивания и обучение персонала может уменьшить число и серьезность последствий ПД у пожилых пациентов с переломами. В большинстве из этих исследований у многих пациентов было выявлено снижение когнитивной функции до операции. K. B. Bjorkelund и соавторы изучили многофакторный подход для предотвращения развития ПОКД у пожилых пациентов с переломом бедра. Предоперационная подготовка: среднее АД более чем 90 мм рт. ст., переливание донорских эритроцитов, чтобы содержание гемоглобина было не менее 10 г/дл, адекватное обезболивание, увеличение объема вводимой жидкости, нормотермия и недопущение полипрагмазии. Интраоперационно проводилась спинальная анестезия с седацией пропофолом, а послеоперационное обезболивание проводилось парацетамолом и, при необходимости, опиоидными аналгетиками. Этот многофакторный подход привел к сокращению частоты развития ПД на 35 %.

Некоторые исследователи пытались применить галоперидол с целью профилактики делирия. В рандомизированном плацебо-контролируемом исследовании **K. J. Kalisvaart** и соавторы сравнивали галоперидол с плацебо для профилактики ПД у пожилых пациентов, оперированных по поводу перелома бедра. Это исследование не выявило снижения случаев возникновений ПД, хотя тяжесть и продолжительность делирия снизилась.

S. K. Inouye и соавторы исследовали 852 пожилых пациентов, к которым применили мультикомпонентный протокол, состоящий из нескольких протоколов, предназначенных для того, чтобы свести к минимуму воздействие факторов риска развития делирия. В этих протоколах точно предписаны действия для переориентации пациентов и когнитивной стимуляции: нефармакологический протокол сна, ранняя мобилизация и физические упражнения, раннее удаление катетеров, которые приводят к физическим ограничениям, использование очков, увеличительных линз и слуховых аппаратов, ранняя коррекция

дегидратации. Применение протоколов существенно снизило количество делириев (15 % в обычной группе против 9,9 %).

Эти результаты были подтверждены в рандомизированных исследованиях, изучающих эффективность многокомпонентных программ профилактики делирия у послеоперационных и гериатрических больных.

Лечение делирия. Лечение делирия основывается на фармакологических и нефармакологических мероприятиях. К нефармакологическим мероприятиям относят своевременное выявление и коррекцию потенциальных причин и состояний, которые провоцируют делирий. Нефармакологическая стратегия составляет большую часть в лечении делирия и может рассматриваться как продолжение набора антиделириозных мер на протяжении всего пребывания пациента в стационаре. Это включает, например, предотвращение препятствия сну и назначения нескольких психоактивных препаратов, активизацию, поддержку ориентации (очки, слуховые аппараты), достаточную объемную нагрузку и целевое управление седацией и болью. Провести коррекцию всех факторов можно не всегда. К некорригируемым факторам относится, например, предшествующая критическому состоянию деменция или старческий возраст. Однако на большинство факторов все же можно повлиять. Это гомеостатические нарушения, инфекционные осложнения, болевой синдром и все ятрогенные факторы. Следует ограничить седацию пациента и уменьшить использование бензодиазепинов.

В настоящее время эффективность всех препаратов, используемых для купирования делирия, не превышает уровня доказательности С. На протяжении многих лет фармакологическое лечение делирия с таким психотическим синдромом, как галлюцинации типично проводится галоперидолом. В большинстве руководств он остается препаратом первой линии, альтернативой служат оланзапин и рисперидон.

Основным механизмом действия галоперидола является блокада дофаминергических рецепторов. Но, как известно, галоперидол обладает значительным количеством побочных эффектов. В исследовании 2002 г., проведенном R. P. Pate1 и соавторами, наиболее часто упоминаемыми побочными эффектами галоперидола были: избыточная седация, экстрапирамидные симптомы, злокачественный нейролептический синдром, удлинение интервала QT с переходом в трепетание (мерцание) желудочков, респираторные осложнения, дистонии и усиление бреда. Считается, что при пероральном применении галоперидола чаще развиваются эстрапирамидные расстройства, чем при внутривенном. В целом, потенциальные побочные эффекты галоперидола, казалось, превышают таковые у атипичных нейролептиков, но последние данные о таких неблагоприятных последствиях, развивающихся при применении атипичных нейролептиков, как экстрапирамидные расстройства, злокачественный нейролептический синдром, поздняя дискинезия,

повышение уровня глюкозы и холестерина, тромбоэмболия, поставили под сомнение профиль безопасности как типичных, так и атипичных антипсихотических препаратов, особенно у пожилых пациентов. T. D. Girard и соавторы опубликовали данные рандомизированного плацебо-контролируемого исследования 101 пациента на ИВЛ, в котором изучалась целесообразность, эффективность и безопасность применения антипсихотических препаратов для лечения делирия в ОРИТ. Пациенты с делирием получали галоперидол, зипразидон или плацебо. Первичные конечные точки, такие, как количество дней без делирия, были схожими во всех группах. Также они не нашли разницы в количестве дней без ИВЛ, продолжительности пребывания в стационаре и смертности.

В исследовании J. W. Devlin и соавторов другой психоактивный препарат — кветиапин (quetiapine), добавленный к галоперидолу, — показал быстрое разрешение делирия, уменьшение ажитации, большую частоту выписки и реабилитации. Будущие исследования должны оценить эффект кветиапина на смертность, влияние на когнитивную функцию после перевода из ОРИТ.

Подход к лечению делирия ингибиторами холинэстеразы основывается на теории дисбаланса между допамином и ацетилхолином. В то время как предыдущие исследования предлагали возможность успешного лечения делирия ингибиторами холинэстеразы, в более поздних исследованиях это не подтвердилось. A. W. Oldenbeuving и соавторы исследовали ривастигмин для лечения тяжелого и персистирующего делирия в пилотном исследовании 17 пациентов после инсульта. У 16 пациентов уменьшались проявления делирия, но из-за небольшого размера выборки это исследование не может считаться доказательным. Аналогично, R. Overshott и соавторы не смогли показать каких-либо существенных улучшений в лечении делирия в пилотном исследовании, где сравнивали ривастигмин с плацебо. Количество пациентов было слишком мало для вынесения серьезных выводов. Преимущества ривастигмина для лечения делирия в ОРИТ изучались M. M. van Eijk и соавторами в мультицентровом двойном, слепом и плацебо-контролируемом исследовании. Это исследование было остановлено после включения 104 пациентов из запланированных 440. Смертность в группе ривастигмина была выше, чем в группе плацебо. Кроме того, продолжительность делирия была больше в группе, получавшей ривастигмин. Хотя данное исследование не предлагает новых решений для лечения делирия, его публикация важна, так как демонстрирует критические возможности в фармакологической терапии делирия.

Бензодиазепины могут быть полезными при лечении делирия, вызванного резкой отменой алкоголя. При делирии, не связанном с отменой алкоголя, бензодиазепины, особенно лоразепам, должны использоваться с осторожностью, так как сами являются фактором риска

развития делирия. Бензодиазепины рекомендуется применять лишь для коррекции судорог и лечения делирия, развившегося вследствие отмены алкоголя.

В последнее время немало публикаций о применении агонистов a_2-адренорецепторов в анестезиологии и отделениях интенсивной терапии. Агонисты a_2-адренорецепторов имеют ряд полезных свойств, что делает их полезными в периоперационном периоде. Они обладают центральным симпатолитическим действием, тем самым улучшая стабильность гемодинамики в ответ на интубацию трахеи и хирургический стресс, уменьшая потребность в опиоидах, а также имеют седативный, анксиолитический и обезболивающий эффекты. Кроме того, агонисты a_2-адренорецепторов имеют преимущества в профилактике и лечении периопераціоной ишемии миокарда.

Клофелин — альфа2 агонист, который используется более 35 лет. Сначала его использовали для лечения заложенности носа, а в последующем для лечения гипертонии. В последнее время он также применяется в качестве компонента премедикации перед анестезией как седативное и анксиолитическое средство [84]. Кроме седативного и анксиолитического действия клонидин имеет и ряд других свойств, которые делают его полезным для применения в анестезиологии.

При применении у пациентов с высоким коронарным риском агонисты а2-адренорецепторов оказывают антиишемическое действие. В противоположность агонистам В-адренорецепторов, которые оказывают антиишемический эффект непосредственно в адренергических рецепторах сердца, агонисты a_2-адренорецепторов снижают уровень катехоламинов из-за их воздействия на ЦНС, не вызывая отрицательного инотропного действия. A_2-адренергические агонисты снижают изменчивость гемодинамики во время анестезии, что может оказывать антиишемический эффект в периоперационном периоде и быть эффективным для лечения послеоперационной ишемии миокарда.

Особый интерес представляет снижение периоперационного симпатического тонуса, особенно у пациентов, подверженных риску заболевания коронарной артерии. С помощью небольшой пероральной дозы клонидина (2 мкг/кг) в качестве премедикации было показано, что появление новых интраоперационных ишемических событий в виде отклонений ST-сегмента сократилось примерно на треть у пациентов, перенесших операции аортокоронарного шунтирования.

Другое свойство агонистов a_2-адренорецепторов, которое может быть полезно в анестезиологии — влияние на терморегуляционный ответ. После назначения клонидина в премедикацию пациентов было показано, что клонидин притупляет реакцию терморегуляции к изменениям температуры тела, уменьшает послеоперационный озноб и повышает порог потоотделения.

Еще один препарат агонист a_2-адренорецепторов, который применяется для седации пациентов — это дексмедетомидин. Он применяется в США с конца 1999 г. для послеоперационной седации в интенсивной терапии, если необходимо проводить седацию до 24 часов. В двойном слепом, мультицентровом, рандомизированном, контролируемом исследовании MIDEX (midazolam vs dexmedetomidine) R. R. Riker и соавторы сравнили дексмедетомидин с мидазоламом для продленной седации у пациентов на ИВЛ. Непрерывная седация дексмедетомидином, по сравнению с мидазоламом, привела к снижению распространенности делирия в ОРИТ. Кроме того, у пациентов, которым проводилась непрерывная седация дексмедетомидином было отмечено больше дней без делирия во время лечения. Такие побочные эффекты, как брадикардия, чаще встречались в группе продленной седации дексмедетомидином, а тахикардия — в группе с мидазоламом. Во втором многоцентровом, рандомизированном, двойном слепом исследовании PRODEX (propofol vs dexmedetomidine), в котором сравнивали пропофол и дексмедетомидин для седации пациентов на ИВЛ в ОРИТ, участвовали 31 европейский центр и два российских. В этом исследовании дексмедетомидин не уступал пропофолу в поддержании седативного эффекта. В группе дексмедетомидина продолжительность ИВЛ была меньше, а способность пациентов общаться — лучше. В группе пациентов, получавших пропофол, чаще встречалась полинейропатия, а брадикардия, как и в предыдущем исследовании, — в группе дексмедетомидина. В другом исследовании, где проводился BIS-мониторинг в ОРИТ, дексмедетомидин снижал потребность в пропофоле и улучшал гемодинамическую стабильность.

В крупном исследовании SEDCOM (Safety and Efficacy of Dexmedetomidine Compared With Midazolam Study Group), являющемся частью исследования безопасности и эффективности дексмедетомидина в сравнении с мидазоламом, была проанализирована связь (в зависимости от выбранного препарата) с продлением необходимости ИВЛ, продолжительностью пребывания в ОРИТ и длительностью делирия. Исследование не выявило никакой разницы между дексмедетомидином и мидазоламом во времени наступления целевого уровня седации при ИВЛ. В сопоставимых уровнях седации пациенты, получавшие дексмедетомидин, проводили меньше времени на ИВЛ, реже демонстрировали делирий, реже встречалась тахикардия и артериальная гипертензия. Наиболее заметным побочным эффектом дексмедетомидина была брадикардия.

В открытом рандомизированном проспективном исследовании по оценке эффективности и безопасности применения дексмедетомидина при кратковременной контролируемой седации и лечении делирия в раннем послеоперационном периоде у 28 пациентов, перенесших операции на сердце или магистральных сосудах в условиях общей анестезии, было установлено, что дексмедетомидин обеспечивает дозозависимый уровень

седации и ретроградной амнезии при сохранном вербальном контакте с пациентом. Эти же авторы провели другое исследование с целью сравнить эффективность дексмедетомидина и пропофола при кратковременной контролируемой седации и анальгезии в раннем послеоперационном периоде у кардиохирургических больных. В открытом рандомизированном проспективном сравнительном исследовании 55 пациентов, перенесших операции на сердце или магистральных сосудах в условиях общей анестезии, авторы сравнивали длительность пробуждения и ИВЛ. Дексмедетомидин вызывал меньший уровень седации, в большей степени обеспечивал анксиолизис и возникновение ретроградной амнезии, оказывал самостоятельное анальгезирующее действие и меньший делириогенный эффект, позволял уменьшить время пребывания в ОРИТ.

M. C. Reade с соавторами провели пилотное исследование, в котором 20 пациентов с делирием на ИВЛ были рандомизированы в две группы. В одной группе седация проводилась галоперидолом от 0,5 до 2 мг/час в виде постоянной в/в инфузии, а в другой — дексмедетомидином от 0,2 до 0,7 мг/кг/час. В группе дексмедетомидина время пребывания в ОРИТ было значительно меньше. Авторами были получены интересные результаты, показывающие, что использование дексмедетомидина для лечения ПД является перспективным. К сожалению, число наблюдений в этом исследовании невелико и для формирования окончательных выводов требуются дополнительные исследования.

Несмотря на то, что лечению ПД посвящено большое количество работ, вопрос о том, как правильно лечить делирий, до сих пор остается открытым. Таким образом, проблема лечения ПД, и в частности того, какой препарат или комбинация препаратов является оптимальной, все еще остается актуальной.

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СОВЕРШЕНСТВОВАНИЕ ПАТОГЕНЕТИЧЕСКОГО И КОМБИНИРОВАННОГО ЛЕЧЕНИЯ ЖЕЛЕЗОДЕФИЦИТНОЙ АНЕМИИ ПРЕПАРАТАМИ, УСИЛИВАЮЩИМИ ЭРИТРОПОЭЗ

Резюме: У пациентов, изученных в этой статье, результаты частного исследования показывают важность параметров эритроцитов периферической крови, метаболизма железа, содержания эритропоэтина и надлежащей оценки эритроидных зародышей костного мозга, С-реактивного белка, гепсидина, ферритина в качестве диагностических и прогностических факторов основного заболевания.

При наличии онкологического процесса были сформулированы критерии дифференциальной диагностики анемии, введено понятие "коэффициент красной крови" в качестве вновь рассчитываемого гематологического показателя, доказана важность его применения. Количество гемоглобина в ретикулоцитах, содержание С-реактивного белка и гепсидина у онкогинекологических пациентов значительно возросло.

Ключевые слова: эритропоэз, железодефицитная анемия, комбинированное лечение.

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IMPROVEMENT OF PATHOGENETIC AND COMBINED TREATMENT OF IRON DEFICIENCY ANEMIA WITH DRUGS THAT ENHANCE ERYTHROPOIESIS

Resume: In the patients studied in this article, the results of a private study show the importance of peripheral blood erythrocyte parameters, iron metabolism, erythropoietin content and proper evaluation of erythroid bone marrow embryos, C-reactive protein, hepcidin, ferritin as diagnostic and prognostic factors of the underlying disease.

In the presence of an oncological process, criteria for the differential diagnosis of anemia were formulated, the concept of "red blood coefficient" was introduced as a newly calculated hematological indicator, and the importance

of its application was proved. The amount of hemoglobin in reticulocytes, the content of C-reactive protein and hepcidin in oncogynecological patients increased significantly.

Key words: erythropoiesis, iron deficiency anemia, combined treatment.

Введение. Анемия – одно из наиболее частых патологических состояний органов кроветворения у больных **[**2,6]. Основным лабораторным критерием анемии является концентрация гемоглобина ниже нормы. В связи с этим необходимо напомнить, что нормативные значения гемоглобина у больных имеют четкие возрастные особенности **[**5,7].

В подростковом возрасте и старше в нормативных значениях гемоглобина появляются половые различия: у девушек нижней границей нормы считают концентрацию гемоглобина 120 г/л, у юношей – 130 г/л **[**1,4]. Особо следует подчеркнуть, что любые случаи снижения уровня гемоглобина, в т. ч. сопровождающиеся нормальным и даже повышенным количеством эритроцитов в гемограмме, однозначно должны трактоваться как анемия **[**3,8].

Цель исследования. Оптимизация эффективности лечения анемий при хронических заболеваниях с помощью усиливающей эритропоэза.

Материалы и методы исследования. В исследование включены данные, полученные при обследовании и лечении 50 больной и 20 практически здоровых женщин (контрольная группа). Большая часть - это пациентки с заболеваниями женской репродуктивной системы, которые принципиально разделены на пациенток без и с наличием онкологического процесса.

Результаты исследования. При анемиях, связанных с гинекологической патологией, у ряда больных (67%) выявили неадекватно низкую продукцию эритропоэтина степени тяжести анемии (О/П log ЭПО = 0,89 ± 0,1, p <0,05), увеличение содержания гепцидина выше нормальных значений (108,75 ± 40,08 нг/л). Полученные данные свидетельствуют, что у части пациенток при заболеваниях шейки матки, яичников, миоме матки железодефицитная анемия имеет признаки анемии хронических болезней, характеризуется снижением количества эритроцитов и увеличением СОЭ.

У онкогинекологической больной анемии обусловлены снижением продукции эритроцитов, являются гипохромными, характеризуются высокими значениями СОЭ, неадекватно низкой продукцией эритропоэтина в ответ на гипоксию (г (НЬ - ЭПО) = 0,65, log (ЭПО) = 0,01 х НЬ - 0,06). Снижение концентрации гемоглобина определено у 51% онкогинекологических больных при первичном обследовании. Тяжесть анемии не зависит от наличия хронической кровопотери, связана со стадией заболевания (г = 0,8, p <0,001). Особенности анемии при злокачественных заболеваниях женской репродуктивной системы -

меньшая связь с уровнем СОЭ (r = 0,26, p = 0,05) и более выраженная гипохромия (r (НЬ -МСН) = 0,40, p <0,01) по сравнению с онкологическими заболеваниями негинекологического профиля, наличие кровопотери в виде кровянистых выделений и маточных кровотечений в дебюте заболевания (в 36%), низкое содержание ферритина сыворотки (34,3 ± 16,5 мкг/л), нехарактерное для АЗН.

При злокачественных заболеваниях женской репродуктивной системы анемии выявлены чаще (p <0,001), чем при доброкачественных, наиболее характерны высокие значения СОЭ (у 67,8% больных, p < 0,001) в сочетании с низкими показателями количества эритроцитов. Введено понятие «коэффициента красной крови», определены нормальные его значения (7,79 - 28,47). Выявлено снижение ККК у ряда больных при наличии злокачественного заболевания женской репродуктивной системы, обратная связь со стадией опухоли (p <0,05), уменьшение у больных с неблагоприятным исходом заболевания (4,4 ± 2,0, p < 0,01), по сравнению со стойкой ремиссией. При анемии злокачественных новообразований значения ККК меньше нормы (0,51 - 6,15). Для дифференциальной диагностики анемии при гинекологических и онкогинекологических заболеваниях, помимо стандартных эритроцитарных показателей, наиболее применимо исследование ККК, содержания гемоглобина в ретикулоцитах (p < 0,001), СРБ (повышение выше 8 мг/л достоверно чаще, p < 0,01), гепцидина, содержание которого выше (233,33 ± 158,45 нг/л, p < 0,05), чем у гинекологических больных.

Доказана эффективность использования железосодержащих препаратов в течение первого месяца у пациенток с анемией, связанной с доброкачественными заболеваниями женской репродуктивной системы. Прирост концентрации гемоглобина при лечении железодефицетной анемии не зависит от тяжести анемии, ниже 30 г/л в первый месяц терапии при наличии сочетаний патологии женской репродуктивной системы и желудочно-кишечного тракта, выраженной гипохромии эритроцитов (19,1 ± 4,3 чг, p < 0,05) и снижении процентного содержания эритрокариоцитов в костном мозге (18,4 ± 7,6 %, p < 0,05). Через неделю после начала лечения выявлен статистически значимый прирост дельты гемоглобина, фракции незрелых ретикулоцитов, количества ретикулоцигов со средней флуоресценцией (p < 0,01), которые могут являться ранними маркерами эффективности лечения железо дефицитной анемии при гинекологической патологии.

У онкогинекологических больных выявлено снижение концентрации гемоглобина на всех этапах противоопухолевого лечения. Отсутствие нормализации показателей гемоглобина и количества эритроцитов после окончания лечения основного заболевания в сочетании с высоким значением СОЭ является плохим прогностическим признаком и требует более тщательного обследования и диспансерного наблюдения, так как

является признаком неполной ремиссии или раннего рецидива злокачественной опухоли женской репродуктивной системы.

У больных со злокачественными опухолями женской репродуктивной системы при концентрации гемоглобина 70 - 90 г/л необходимо индивидуально оценить необходимость в трансфузии эритроцитов и рассмотреть возможность применения рч-ЭПО, а при снижении гемоглобина ниже 70 г/л в связи с доказанным ухудшением их С5лбъективного состояния показана заместительная гемотрансфузионная терапия. Подтверждена эффективность использования препаратов рч-ЭПО в сочетании с пероральными препаратами железа у онкогинекологических больных с анемией. Данная схема антианемической терапии может быть рекомендована пациенткам с содержанием гемоглобина 90 - 110 г/л, на всех этапах противоопухолевого лечения с учетом запланированного его объема.

Вывод. Результаты работы показывают важность правильной оценки эритрощггарных показателей периферической крови, обмена железа, содержания ЭПО и эритроидного ростка костного мозга, исследования СРБ, гепцидина, ФРТ, как диагностических и прогностических факторов течения основного заболевания.

Сформулированы критерии дифференциальной диагностики анемии при наличии онкологического процесса, введено понятие «коэффициента красной крови», как нового расчетного гематологического показателя, доказана значимость его использования. Выявлено достоверное увеличение содержания гемоглобина в ретикулоцитах, частоты превышения СРБ и содержания гепцидина у онкогинекологических больных.

Доказана эффективность использования препаратов железа при лечении ЖДА, связанной с гинекологическими заболеваниями, составлен протокол лечения ЖДА. Определены «прогностические признаки» низкого прироста НЬ в данной группе. Выявлены ранние маркеры эффективности терапии препаратами железа при гинекологических заболеваниях: фракция незрелых ретикулоцитов (1№), количество ретикулоцитов со средней флуоресценцией (МРИ), дельта гемоглобина (Э-НЬ), рост которых доказан после первой недели терапии.

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СИНДРОМ ГИЙЕНА — БАРРЕ ВСТРЕЧАЕМОСТЬ И ОБЗОР КЛИНИЧЕСКИХ СЛУЧАЕВ В ОТДЕЛЕНИИ НЕЙРОРЕАНИМАЦИИ РНЦЭМП АФ

Цель статьи: представление клинических случаев пациентов с синдромом Гийена — Барре (СГБ), проходивших лечение в отделении нейрореанимации РНЦЭМП АФ.

Основные положения. С февраля по октябрь 2022 г. в отделениях нейрореанимации и неврологии РНЦЭМП АФ наблюдались 5 пациентов с СГБ. Больные поступили в клинику с различными входящими диагнозами: инсультом (в 2 случаях), синдромом вертебробазилярной недостаточности, дорсопатией поясничного отдела позвоночника с нарушением чувствительности, отеком Квинке. У 4 из 5 пациентов зафиксирован предшествующий инфекционный процесс. Четверо были выписаны из отделения в состоянии средней тяжести с сохраняющимися явлениями тетрапареза. Один пациент умер в результате осложнений течения заболевания. В процессе лечения 4 больным понадобился перевод на искусственную вентиляцию легких, а также 4 из 5 пациентов получили терапию внутривенным иммуноглобулином G.

Заключение. Несмотря на относительную редкость данного заболевания, важно подчеркнуть необходимость настороженности в отношении СГБ. Особое внимание стоит уделять пациентам молодого возраста, поступающим с клинической картиной восходящего пареза.

Ключевые слова: синдром Гийена — Барре, восходящий парез, периферические нервы, тетрапарез, иммуноглобулин G.

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GUILLAIN-BARRET SYNDROME OCCURRENCE AND REVIEW OF CLINICAL CASES IN THE DEPARTMENT OF NEUROREANIMATION OF RNCEMPA AF

Purpose of the work: To describe clinical cases of Guillain-Barre syndrome (GBS) treated at the Neuroresuscitation Department, Republic Research Emergence centre Andijan branch.

Key Points: Between February and October 2022, five patients with GBS were treated and observed at the Neuroresuscitation and Neurology Departments of Republic Research Emergence centre Andijan branch. At the time of hospitalization, these patients had different admission diagnoses, including stroke (2 cases), vertebrobasilar insufficiency, lumbar dorsopathy with associated sensory disturbances, and Quincke's edema. Four out of these five patients had a prior infection. Four of the patients were discharged in moderately severe condition with persistent signs of quadriparesis. One patient died due to complications of the disease. During treatment, four patients required mechanical ventilation; four out of the five patients received intravenous immunoglobulin G.

Conclusion: Despite the relatively low prevalence of GBS, it is important to emphasize that specialists should remain alert to this condition. Special attention should be paid to young patients who are brought to the hospital with clinical signs of ascending paresis.

Keywords: Guillain-Barre syndrome, ascending paresis, peripheral nerves, quadriparesis, immunoglobulin G.

Синдром Гийена — Барре (СГБ) — совокупность клинических проявлений, характеризующихся развитием острой воспалительной полирадикулоневропатии, что ведет к слабости и замедлению рефлексов. Заболевание впервые описано французским неврологом J.B.O.Landry в 1859 г. Данный синдром достаточно редок: его частота составляет 1–2:100 000 населения [12]. Мужчины обычно болеют чаще женщин в соотношении 1,1–1,7:1. СГБ заболевают люди в возрасте от 2 месяцев до 95 лет, но в целом с увеличением возраста отмечена тенденция к

возрастанию заболеваемости: у людей до 18 лет она составляет 0,8:100 000 населения, а в возрасте старше 60 лет — 3,2:100 000. Часто отмечают два пика заболеваемости: в возрасте 15–35 лет и 50–75 лет [1, 23]. Частота встречаемости подтипов СГБ в разных странах различна. В Европе и Северной Америке острая воспалительная демиелизирующая полирадикулопатия (полинейропатия) составляет 85–90% случаев, а в Китае и Японии чаще регистрируют острую моторную аксональную нейропатию [23]. СГБ признан постинфекционным иммуноопосредованным заболеванием, поражающим периферические нервы. В анамнезе пациенты с СГБ нередко отмечают перенесенную инфекцию *Campylobacter jejuni* (32% случаев, в Китае — до 60%), реже — *Cytomegalovirus* (15%), вирус Эпштейна — Барр (10%), *Mycoplasma pneumoniae* (5%) [10, 22, 24].

С точки зрения способности служить триггером развития СГБ наиболее изучена бактерия *C. jejuni* [15, 17]. По современным представлениям, способность *C. jejuni* инициировать аутоиммунный процесс обусловлена феноменом молекулярной мимикрии. Иммунные реакции, направленные против липополисахаридных антигенов капсулы *C. jejuni*, приводят к образованию антител, которые перекрестно реагируют с ганглиозидами GM1 миелина, в результате этого происходит иммунологическое повреждение периферической нервной системы [9,16,19,22]. Кроме того, провоцирующими агентами могут быть вирусы простого и опоясывающего герпеса, гриппа, Коксаки, гепатита В, а также вакцинация (против гриппа, иногда против краснухи, паротита, кори, бешенства), хирургические вмешательства и травматическое повреждение периферических нервов [20]. В медицинской литературе описаны случаи СГБ при лимфопролиферативных заболеваниях, системной красной волчанке, вирусном гепатите Е, гипотиреозе [2]. Предположительно, многие из идентифицированных инфекционных агентов индуцируют выработку антител, которые перекрестно реагируют с определенными ганглиозидами и гликолипидами миелина в периферической нервной системе [14]. Прием лекарственных препаратов (фторхинолонов, стрептокиназы, каптоприла, золота) также может предшествовать развитию СГБ [4, 7].

Описание клинических случаев

Учитывая редкость СГБ, вследствие которой далеко не каждый врач сталкивается с данным заболеванием, представляет интерес непосредственный клинический опыт диагностики и лечения СГБ.

С февраля по октябрь 2022 г. в отделениях нейрореанимации и неврологии РНЦЭМП АФ наблюдались 5 пациентов с данным синдромом. Диагноз был впервые установлен в нашем учреждении. По данным мировой статистики распределения пациентов с СГБ по половому признаку, отношение мужчин и женщин составляет 1,5:1,0 с

преобладанием мужчин, главным образом среди пожилых пациентов [5]. Среди наблюдаемых нами больных были 4 женщины и 1 мужчина. Из них двое были госпитализированы в отделение нейрореанимации, остальные — в отделение неврологии с последующим переводом в нейрореанимацию. Двое пациентов были доставлены бригадой скорой медицинской помощи с входящим диагнозом инсульта, один пациент — с синдромом вертебробазилярной недостаточности, один — с дорсопатией поясничного отдела позвоночника с нарушением чувствительности, одна пациентка госпитализирована с отеком Квинке. Четверо были выписаны из отделения в состоянии средней тяжести с сохраняющимися явлениями тетрапареза: садились в кровати самостоятельно, ходили и вставали с посторонней поддержкой, сохранялись нарушения чувствительности по полинейропатическому типу. Один пациент умер: течение заболевания осложнилось аспирационной пневмонией, острым гнойным пансинуситом, множественными язвами двенадцатиперстной кишки с развитием сепсиса и полиорганной недостаточности. Как указано выше, существуют определенные триггерные факторы, которые обычно предшествуют началу болезни. В типичном случае пациент с СГБ жалуется на нарастающую симметричную мышечную слабость в нижних конечностях, причем слабость в проксимальных мышцах начинается раньше, чем в дистальных; на нарушения чувствительности в виде парестезий и онемение (нарушения чувствительности часто предшествуют развитию слабости). Характерно распространение слабости и парезов снизу вверх (восходящий парез). При этом симптомы развиваются после перенесенной за 2–4 недели до этого респираторной или желудочно-кишечной инфекции [5]. Согласно общепризнанной теории о связи инфекционных агентов и СГБ, в наших клинических случаях заболеванию 4 пациентов предшествовал инфекционный процесс: один накануне перенес вирусную инфекцию с гипертермией и катаральными явлениями, второй за 5 дней до госпитализации был выписан из стационара, где лечился от внебольничной двусторонней нижнедолевой пневмонии. У третьего пациента за 2 недели до ухудшения отмечали катаральные явления, после чего появились боль в поясничном отделе позвоночника, онемение стоп и кистей. Одна пациентка за 3 недели до госпитализации перенесла острую респираторную вирусную инфекцию. У одного больного не прослеживаются пусковые факторы заболевания. У двух обследованных нами пациентов наблюдали классическое проявление синдрома восходящего пареза. Ведущие клинические синдромы: тетрапарез, ослабление или отсутствие сухожильных рефлексов и нарушение глубокой и поверхностной чувствительности по полинейропатическому типу с прогрессированием симптомов снизу вверх. В данных случаях диагноз был установлен сразу в приемном отделении, и пациентов госпитализировали в нейрореанимацию. В других случаях СГБ сначала не был столь очевиден.

Пациент С., 31 года, без преморбидного фона, поступил в стационар с минимальными неврологическими проявлениями в виде гипестезии. Жаловался на головокружение, слабость, тошноту, нарушение походки, онемение в дистальных отделах конечностей по типу «перчаток» и «носков». Симптомы возникли остро в день госпитализации. В анамнезе — удаление невриномы в крестцовом отделе позвоночника. При осмотре — атактическая походка, в позе Ромберга — неустойчивость. Был консультирован психотерапевтом с целью исключения аггравации. Через неделю после возникновения симптомов наросла выраженность неврологических проявлений: появились жалобы на слабость в руках, ком в горле, онемение языка и конечностей. У пациента развились тетрапарез, бульбарные нарушения, нарушения чувствительности по полинейропатическому типу, вследствие чего его перевели в отделение нейрореанимации с диагнозом СГБ.

Пациентка В., 20 лет, поступила с аллергической реакцией по типу отека Квинке: с жалобами на отечность, зуд кожи лица, чувство неловкости при глотании на фоне потребления алкоголя накануне. При осмотре язык увеличен, ярко-бордового цвета. В анамнезе — холодовая крапивница, принимает лоратадин. Назначены хлоропирамин (Супрастин), преднизолон, эпинефрин подкожно. На третий день госпитализации появились жалобы на двоение в глазах, головокружение, нарушение глотания и чувствительности в нижних конечностях, после чего больную перевели в отделение нейрореанимации. В неврологическом статусе: анизокория OD < OS, фотореакции снижены, сходящееся косоглазие за счет OS, ограничение движения OS по горизонтали; легкая сглаженность левой носогубной складки, грубая дизартрия, парез и атрофия мышц языка, дисфония, парез мягкого неба, увуля отклонена влево, глотание сохранено; сухожильные рефлексы с рук D = S, средней живости; в ноге коленные рефлексы не вызываются, ахилловы — средней живости; мышечный тонус сохранен D = S, координаторные пробы выполняет нечетко левой рукой; выявляется рефлекс Бабинского слева, гипестезия кистей и стоп; красный дермографизм. В перечень вероятных заболеваний при дифференциальной диагностике были включены опухоль головного мозга, ботулизм, нейроинфекция. После их исключения был установлен диагноз: «Острая краниальная демиелинизирующая полимиелорадикулопатия (вариант Ландри)». Для дальнейшего лечения по ее настоятельной просьбе пациентка переведена в другое лечебное учреждение. Симптомы третьего пациента в первые сутки были расценены как полинейропатия неясного генеза, вялый дистальный тетрапарез. В связи с прогрессированием неврологических симптомов на 2-е сутки пациент был переведен в отделение нейрореанимации с диагнозом «острая демиелинизирующая полинейропатия».

Обновленные диагностические критерии классического СГБ включают [6]:

• прогрессирующую двигательную слабость с вовлечением более чем одной конечности;

• арефлексию или выраженную гипорефлексию;

• наличие в 1 мкл ликвора не более 50 моноцитов или 2 гранулоцитов.

Дополнительные признаки, подтверждающие диагноз СГБ:

• первоначальное отсутствие лихорадки;

• прогрессирование в течение нескольких дней/недель;

• начало восстановления неврологических функций через 2–4 недели после прекращения прогрессирования симптомов;

• сравнительно симметричная мышечная слабость;

• умеренные признаки сенсорных нарушений, симптомы поражения черепных нервов;

• повышение содержания белка в спинномозговой жидкости (СМЖ) спустя одну неделю после появления

симптомов;

• замедление скорости нервной проводимости или пролонгация F-волн;

• автономная дисфункция.

Помимо физикальных данных, в диагностике СГБ большое значение имеют лабораторные методы исследования, среди которых необходимо выделить исследование СМЖ. При анализе ликвора к числу диагностических критериев, подтверждающих СГБ, принято относить следующие три показателя:

• повышенное содержание белка;

• повышение концентрации альбумина;

• отсутствие сопутствующего нарастания цитоза.

Именно отсутствие повышенного числа клеточных элементов в ликворе традиционно считают основным показателем, обеспечивающим врачей «ценными негативными результатами».

Следует сказать, что при анализе СМЖ только у 2 из 5 наблюдаемых нами пациентов были отмечены классические диагностические критерии, подтверждающие СГБ. Результаты электронейромиографии (ЭНМГ) пораженных мышц при СГБ позволяют выявить денервационный тип ЭНМГ-кривой. Изменения нервной проводимости, согласующиеся с демиелинизацией, представляют конкретные доказательства для установления диагноза классического СГБ. К сожалению, при остром течении СГБ результаты электродиагностических исследований могут быть совершенно нормальными, что не исключает данный диагноз [3, 21].

В нашем учреждении пациентам ЭНМГ не проводили. Такие исследования, как МРТ и КТ позвоночника, более полезны скорее для

исключения других патологических состояний, например механических причин миелопатии, чем для диагностики СГБ. Согласно данным литературы [2], приблизительно у 25% пациентов развивается дыхательная недостаточность, вызывающая необходимость ИВЛ. В нашем учреждении 4 из 5 больных (80%) понадобился перевод на ИВЛ, в последующем течение заболевания у них осложнилось развитием внутрибольничной пневмонии, в 3 случаях — аспирационной. Согласно The American Academy of Neurology guideline on Guillain — Barré Syndrome (2015), сейчас для лечения СГБ применяют внутривенное введение IgG и плазмаферез, эффективность которых примерно одинакова. В стационаре плазмаферез рекомендуют начинать не позже чем через 4 недели от появления неврологических симптомов (уровень А, класс II), в то время как внутривенное введение IgG — не позже 2 недель от начала заболевания (уровень А, класс II). При этом назначение внутривенного Ig после плазмафереза не отличается какими-либо преимуществами (уровень А, класс I) [5, 13]. По сравнению с исключительно симптоматической терапией плазмаферез способствует более быстрому выздоровлению. Несмотря на небольшое повышение риска рецидива в течение первых 6–12 месяцев, при оценке через год после начала заболевания полное выздоровление и меньшую вероятность резидуальной слабости чаще наблюдали у пациентов, получивших плазмаферез [18].

Прием кортикостероидов не улучшает исходы заболевания, вследствие чего их не рекомендуют для лечения СГБ (уровень А, класс I). Четыре из пяти пациентов получили терапию внутривенным IgG. Трем больным был назначен препарат И. Г. Вена (IgG человека нормальный). Один пациент получал препарат Иммуновенин (IgG человека нормальный). В настоящее время разрабатывают новые способы лечения СГБ (с помощью интерферона β1a, нейротрофического фактора мозга). Исследования новых способов терапии были небольшими и не показали их значимого преимущества перед плацебо. При сравнении эффективности фильтрации СМЖ и плазмафереза статистически значимых отличий также не получено. Привлекает внимание бо’льшая эффективность лечения полигликозидом, выделенным из китайского растения трехкрыльника (*tripterygium*), чем кортикостероидами, но для подтверждения этого результата необходимы дальнейшие изыскания [11]. В 2011 г. A. M. Fitzpatrick и соавт. провели небольшое открытое исследование, в котором пациенты с СГБ в дополнение к внутривенному введению Ig получали экулизумаб. В целом у некоторых больных наблюдали небольшой положительный эффект терапии, чаще при исходно высоком уровне двигательной функции. Действие экулизумаба дополняет эффект внутривенного введения Ig и не зависит от него [8].

Заключение. Подводя итог описанию клинических случаев, еще раз хочется подчеркнуть необходимость настороженности в отношении

синдрома Гийена — Барре (СГБ), несмотря на относительную редкость данного заболевания. Особое внимание стоит уделять пациентам молодого возраста, поступающим с клинической картиной восходящего пареза. Несмотря на новые способы лечения, СГБ остается тяжелым заболеванием, при котором около 25% больных необходима ИВЛ в течение длительного времени: от нескольких дней до нескольких месяцев, около 20% пациентов по-прежнему не в состоянии ходить через 6 месяцев, а 3–10% умирают.

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ИСПОЛЬЗОВАНИЕ ИГР ПРИ ОБУЧЕНИИ ИНОСТРАННОМУ ЯЗЫКУ В ВУЗЕ

Аннотация: Овладение иностранным языком в вузе подразумевает формирование у студентов ряда компетенций. В частности, выпускники должны быть способны к коммуникации в устной и письменной форме на иностранном языке и решать задачи межличностного и межкультурного взаимодействия. Следовательно, студенты должны обладать определенными знаниями (например, знаниями языковых средств) и умениями (использовать формулы речевого общения, формулирования своей точки зрения и т. п.), а также уметь соотносить языковые средства с конкретными ситуациями межкультурного речевого общения.
Ключевые слова: студенты, методы, активный, коммуникационные технологии.

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THE USE OF GAMES IN TEACHING A FOREIGN LANGUAGE AT THE UNIVERSITY

Annotation: Mastering a foreign language at a university implies the formation of a number of competencies in students. In particular, graduates should be able to communicate orally and in writing in a foreign language and solve problems of interpersonal and intercultural interaction. Therefore, students must have certain knowledge (for example, knowledge of language means) and skills (use the formulas of verbal communication, formulate their point of view, etc.), as well as be able to correlate linguistic means with specific situations of intercultural speech communication.
Keywords: students, methods, active, communication, technologies.

Весь период обучения иностранному языку в вузе требует использования рациональных и эффективных подходов и технологий, форм и методов обучения. В этом контексте принято говорить о применении новых информационно-коммуникационных технологий, активных методов обучения, дифференцированного подхода. Однако

«базовым элементом» являются методы и приемы обучения иностранному языку, которые преподаватель использует в аудитории, непосредственно работая со студентами. Знание и владение студентами языковыми средствами, применение их в коммуникации зависит от того, насколько эффективно этот материал был представлен, закреплен, отработан.

Методом, который позволяет: а) мотивировать учащихся на изучение

предмета, б) способствует развитию языковой и речевой компетенции, в) способствует более быстрому и прочному усвоению материала, является

игра. Является ли использование игр в студенческой аудитории оправданным? И если да, то какие игры будут в лучшей мере способствовать развитию языковых умений?

В современной науке игры рассматриваются как метод, который может с эффективностью использоваться при обучении иностранному языку как детей, так и взрослых. Уместно будет привести классификации игр, которые позволят сориентироваться, какие игры могут способствовать развитию определенных языковых навыков.

Так, М. Ф. Стронин выделяет следующие виды игры: 1. Лексические. 2. Грамматические. 3. Фонетические. 4. Орфографические. 5. Творческие.

Первые четыре могут быть отнесены к так называемым языковым, целью которых является формирование соответствующих навыков. Творческие игры носят комплексный характер, подразумевают творческое применение усвоенных знаний и навыков в игровой ситуации. Существуют и другие классификации игр. А. В. Конышева делит игры согласно их цели на языковые и речевые (коммуникативные). Е. В. Душина говорит о лингвистических играх и делит их на некоммуникативные, предкоммуникативные и коммуникативные, в зависимости от формируемых

компетенций. Очевидно, что во всех классификациях речь идет о

1) играх, в процессе которых идет усвоение материала (новых лексических единиц, грамматических конструкций), отработка отдельных языковых навыков (фонетического, грамматического) и о

2) играх, направленных на перенос изученного материала и отработанных навыков в нестандартные ситуации, в коммуникацию в рамках игры. При этом важно учитывать принцип дидактической последовательности: сначала выполняются задания на заучивание, на воспроизведение (в том числе и по образцу), а затем на творческое применение изученного материала.

Для игр, речь о которых пойдет в статье, мы предлагаем название «словесные игры» – все они связаны со словом, его правописанием, значением, сочетаемостью с другими словами (в терминологии Стронина сюда могут быть отнесены и лексические, и орфографические игры). Словесные игры позволяют обучающимся:

расширять словарный запас, знакомясь с новыми лексическими единицами;

прочнее усваивать уже знакомые лексические единицы;

отрабатывать правописание слов;

активизировать речемыслительную деятельность;

знакомится с сочетаемостью лексических единиц, устойчивыми выражениями, фразеологизмами.

К словесным играм можно отнести следующие:

1. Анаграммы
2. Кроссворды
3. Поиск слов среди буквенного хаоса (Wordsearch)
4. «Виселица» (Hangman)
5. «Балда» (словесная игра, в которой необходимо составлять слова с помощью букв, определенным образом добавляемых на квадратное игровое поле).
6. «Слова» (составление более коротких слов из одного длинного, зачастую на время).
7. «Unscramble» (составление слова из имеющегося набора букв).
8. Wordchain (составление списка слов путем замены одной буквы в каждом последующем слове, возможно с опорой на дефиниции).
9. Конструктор (составление слов из морфем, представленных на отдельных карточках).
10. «Одна буква – много слов» (учащиеся называют известные им слова на определенную букву алфавита).
11. «Последняя буква» (назвать слово, начинающееся с последней буквы предыдущего; стоит отметить, что в английском языке, с учетом непроизносимой -e на конце слова, может быть предложено начинать слово с последнего звука предыдущего).
12. «Пропавшие буквы» (угадать слово только по гласным/согласным).
13. Hot Chair (угадать слово по его определению, синонимам, антонимам и т. д.) и другие.

Некоторые из игр предполагают групповую работу, командное соревнование (например, Hot Chair, Конструктор и др.), некоторые – работу в парах; такие игры как «Виселица», «Анаграммы», «Wordchain» уместно проводить фронтально, представляя материал на доске.

Как показал опрос студентов 1 курса нескольких факультетов ОмГУ им. Ф. М. Достоевского, большинству учащихся нравится играть в подобного рода игры; 100 % студентов разгадывали кроссворды в процессе обучения английскому языку, с анаграммами, «Wordchain» знакомо гораздо меньшее количество студентов. В целом учащиеся считают использование игр на занятиях английского языка «интересным, эффективным методом, позволяющим лучше запоминать материал». На

этом же этапе можно поиграть и в «виселицу»; обычно студенты активно думают, предлагают варианты, не желая, чтобы игра закончилась проигрышем. Преподавателю можно посоветовать не «брать весь удар» по составлению игры на себя, а делегировать часть работы студентам – например, по выбору лексических единиц в игру в рамках темы. Таким образом, они чувствуют себя вовлеченными, ответственными за правильность презентации материала, за успех игры. И в таком случае использование игры на занятии по иностранному языку на самом деле становится эффективным приемом.

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ФОРМИРОВАНИЯ СИСТЕМЫ ЦИФРОВОГО МАРКЕТИНГА В МАЛОМ ПРЕДПРИНИМАТЕЛЬСТВЕ

Аннотация: В статье анализируются концепции маркетинга для предприятий малого и среднего бизнеса, изучается степень их цифровизации.

Ключевые слова: цифровая трансформация, развитие бизнеса, малое предпринимательство.

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FORMATION OF A DIGITAL MARKETING SYSTEM IN SMALL BUSINESS

Abstract: The article analyzes the concepts of marketing for small and medium-sized businesses, examines the degree of their digitalization.

Key words: digital transformation, business development, small business.

Глобализация мировой экономики и усиление конкуренции на международном уровне требуют развития цифровых технологий и расширения их использования.
В результате ускоряется использование цифровых инструментов в продвижении и размещении товаров и услуг. Расходы на цифровой маркетинг во всем мире, включая настольные и портативные компьютеры, а также мобильные устройства, в 2020 году составили примерно 378

миллиардов долларов США. Согласно прогнозам экспертов, цифровой маркетинг будет расти со среднегодовым темпом роста 15,5%, в то время как поисковая вырастет на 12,2%. На долю мирового рынка цифровой рекламы и маркетинга приходится 40,9%[53].Во всем мире малый бизнес рассматривается как важная основа эффективного функционирования и развития национальной экономики и определяет тенденции и перспективы развития цифрового маркетинга в этой сфере.

В Узбекистане за последние годы создана целая система программ и учреждений, направленных на стимулирование малого бизнеса и частного предпринимательства, организации современных гибких производств, направленных на выпуск конкурентоспособной продукции, востребованной на внешнем рынке[54]. В Стратегии развития Нового Узбекистана на 2022-2026 годы определены такие задачи, как «…создание условий для организации предпринимательской деятельности и формирования постоянных источников доходов населения, доведение доли частного сектора в валовом внутреннем продукте до 80 процентов, в экспорте до 60 процентов»[55].

По вопросам определения тенденций развития маркетинговой деятельности в малом бизнесе были достигнуты ряд научных результатов: исследованы закономерности и особенности формирования сервисной экономики в условиях глобализации мировых рынков (Harvard University, США); предложили новую концептуальную основу маркетинга на цифровых бизнес-платформах (World Association of Internet Marketers), при одновременном снижении транзакционных издержек для пользователей и производственных затрат, доказано что цифровой маркетинг является неотъемлемой частью предпринимательского маркетинга и обоснована целесообразность включения в образовательные программы курсов по «Digital Entrepreneurial Marketing» (Netherlands Institute of Marketing, Нидерландия), доказали возможность увеличения клиентов за счёт платформы электронной коммерции и социальных сетей (China Marketing Research Association, Китай), разработаны теоретическое определение и практическое решение цифрового маркетинга для смешанной бизнес-модели этнических предприятий и стратегии формирования рынка (International Public Relations Association); усиление маркетинговых исследований, направленных на повышение эффективности цифрового маркетинга в сфере малого бизнеса (World Federation of Advertisers, Бельгия), в рамках национальной политики обоснована целесообразность развития информационного и программного обеспечения

[53] https://www.statista.com/outlook/dmo/ecommerce/electronics/consumer-electronics/worldwide#revenue
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автоматизированных систем в маркетинге предприятий (Академия маркетинга и социально-информационных технологий, Российская Федерация).

В современной экономике роль маркетинга, как стратегического инструмента, значительно возрастает, и умение хозяйствующих субъектов реагировать на вызовы рынка позволяют им устойчиво развиваться.

В настоящее время среди ученых разных стран отсутствует единый подход к определению понятия «предпринимательство», в связи с этим продолжается научная дискуссия. В широком смысле предпринимательство рассматривается как специфический фактор, связанный с общественным воспроизводством, который способствует осуществлению воспроизводственных процессов путем создания новых наиболее эффективных комбинаций производства и сбыта.

Французский экономист Жан Батист Сэй рассматривал понятия «предпринимательство» и «предприниматель», на базе учения А. Смита и Д. Рикардо. По теории, которую создал Сэй, в процессе производства товара в этом процессе в равных долях участвуют труд, земля и капитал, являясь источниками богатства общества, что находит выражение в заработной плате, ренте и получаемой прибыли.

Экономиста Йозефа Шумпетера можно назвать новатором в области изучения теории предпринимательства. Шумпетер изучал предпринимательство как деятельность, а предпринимателя считал ключевой фигурой рыночных отношений, основной производительной силой экономического развития.

Говоря о современных взглядах ученых на сущность предпринимательства, отметим, что П.Д. Половинкин, М.Л. Лезина определяют предпринимательство в качестве стратегического ресурса национальной экономики, который задает вектор развития страны, способствует повышению уровня жизни ее жителей, обеспечивает стране ряд конкурентных преимуществ и помогает решать глобальные проблемы человеческой цивилизации. В данном контексте предпринимательство является таким же национальным ресурсом, как наука, трудовые и природные ресурсы. На рис. 1. обобщим мнения ученых о роли цифрового маркетинга в малом бизнесе.

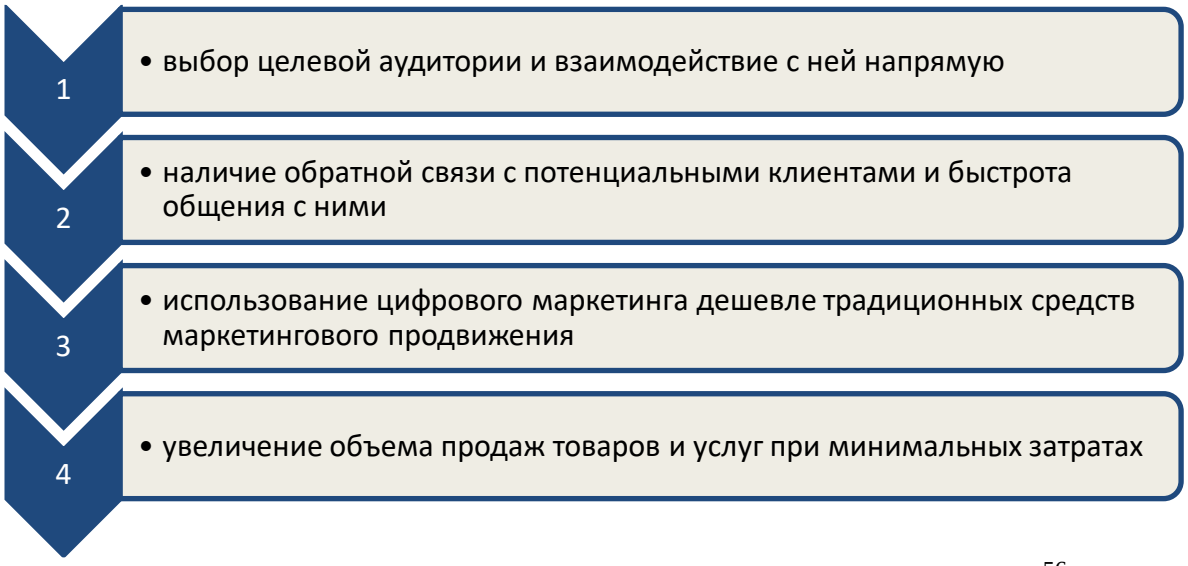


Рис. 1. – Роль цифрового маркетинга в малом бизнесе.[56]

Обобщая мнения различных ученых о важной роли цифрового маркетинга в малом бизнесе, рассмотрим методологию его формирования для малого бизнеса Узбекистана.

Бурное развитие цифрового маркетинга в Узбекистане стало катализатором формирования новых возможностей для реализации эффективной маркетинговой политики предприятий малого бизнеса, который предоставляет широкий спектр инструментов для донесения коммерческой информации до целевой аудитории с использованием IT-технологий.

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СОВРЕМЕННЫЙ ЭТАП РАЗВИТИЯ НАУКИ О ЯЗЫКЕ

Аннотация. Современный этап развития науки о языке ставит перед исследователями задачу – заново рассмотреть эти вопросы на основе современных методов, одним из которых является метод изучения языковых материалов как своеобразной системы. Это объясняется тем, что язык и его ярусы представляются как целая система, в том числе и лексика с её пластами, совокупностью которых она является. Каждый пласт лексики представляется системой в силу того, что каждое слово и соответственно каждое понятие занимает в этой системе определенное место, очерченное отношениями к другим словам и понятиям.

Ключевые слова. Метод, термин, место, понятия, отнашения, система.

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THE PRESENT STAGE OF THE DEVELOPMENT OF THE SCIENCE OF LANGUAGE

Annotation. The current stage in the development of the science of language sets the task for researchers to reconsider these issues on the basis of modern methods, one of which is the method of studying language materials as a kind of system. This is explained by the fact that the language and its tiers are presented as a whole system, including vocabulary with its layers, the totality of which it is. Each layer of vocabulary is represented by a system due to the fact that each word and, accordingly, each concept occupies a certain place in this system, outlined by relationships to other words and concepts.

Keywords. Method, term, place, concepts, relationships, system.

Лексическая система языка является не только наименее исследованной, но и достаточно сложной по своей организации и структуре. Эта система включает в себя такое большое количество связанных самыми различными отношениями элементов, что их системность представляется трудновообразимой или зачастую даже ставится под сомнение. В ней существуют нерегулярные явления, для описания которых требуется большое количество правил, тесно связанных и с внешними, экстралингвистическими факторами. Вся эта сложность характерна и для микросистемы терминов родства и она ещё больше

усиливается при проведении сопоставительного изучения на материале языков разного грамматического строя.

Как известно, термины родства в любом языке семантически различны. Они делятся на: а) термины кровного родства; б) термины некровного родства.

В предлагаемом исследовании подвергаются изучению значения первой группы - термины кровного родства и их выражение.

Значения терминов кровного родства, в свою очередь, представляют две разновидности: 1) значения вертикальной линии родства {"отец", "мать", "дед", "бабушка", "дети, дитя", "сын", "дочь", "внук", "внучка", "правнук", "правнучка" и т.д.); 2) значения горизонтальной линии родства {"братья", "сестры", "дядя", "тётя", "двоюродные братья", "двоюродные сестры"). Сопоставительное изучение словарных материалов узбекского и английского языков и их отношения имеет большое теоретическое и практическое значение для дальнейшего развития сравнительно-типологического исследования разноструктурных языков, а также способствует выявлению новых языковых фактов в рассматриваемых языках.

В настоящее время при сопоставительном изучении языков разного грамматического строя, а также языков одного грамматического строя все шире применяется системный метод, который можно считать одним из современных методов лингвистических исследований. Вместе с тем, необходимо отметить, что при изучении некоторых ярусов языка данный метод не всегда бывает одинаково результативным. В частности, системный метод не всегда удобен при изучении словарных материалов языка, так как лексический материал труднее поддается системному изучению, чем материал других ярусов языка.

В современной лингвистике большое внимание уделяется осмыслению и изучению языка как системы. Одним из основных принципов в языкознании становится системный подход к изучению языка и его уровней. Многообразие подходов к восприятию системности языка, прежде всего, свидетельствует о сложности, многомерности, многоаспектности, противоречивости и вариативности самой системы языка, его уровней и единиц.

Особенности системно-семантической организации терминологической лексики определяют специфику сопоставительно-типологического исследования терминологии как системы отражения понятийной структуры определённой отрасли науки, которой изначально свойственна системная ориентированность и строгая структурная и компонентная организация. Специфика выражения определённой системы научных понятий обусловливает особенности функционирования терминологии в лексике как особой семасиологической системе. Термин отражает понятия сфер науки.

Исследование и анализ фактического материала показал, что в лексике английского и узбекского языков действуют следующие тенденции и закономерности: массовое словообразование в области нейтральной и особенно терминологической лексики; процесс заимствования терминов; калькирование; регенерация архаизмов; уточнение терминологии; наличие синонимов; рост антонимических рядов; активизация суффиксального и аффиксального словообразования; увеличение аналитических способов в терминообразовании; самообогащение языка путём переосмысления, синонимии и антонимии.

Всё это свидетельствует об интенсивной эволюции узбекской и английской терминологической системы. В английском языке, например, одно понятие может употребляться как существительное и как глагол. Это грамматическое явление в лингвистике называется конверсией, т.е. способом словообразования посредством изменения парадигмы слова, который почти не наблюдается в узбекском языке. Применение метода компонентного анализа к исследованиям лексико-семантических групп словарных единиц (лексико-семантическое поле) является наиболее экономным и поэтому наиболее оправданным. В самом деле, уже само семантическое поле (лексико-семантическая группа) выделяются на основе какого-либо семантического компонента. Так, например, все термины родства объединяются в одно лексико-семантическое поле на основе семы «родства», которая является интегральной, ведущей в семантических структурах. Системный метод лингвистических исследований иногда сопутствует синхронно-сопоставительному методу, что удобно и плодотворно и при изучении системы терминов родства языков разного и одинакового грамматического строя. Многие термины родства носят интернациональный характер. Исследователи терминологи свидетельствуют, что некоторые термины появились тогда, когда языки земного шара еще не успели объединиться в определенные языковые семьи. Например, atta, ette, alle со значением "отец", ana, ama, атта со значением "мать" употребляются и в отдельных языках индоевропейского происхождения. Кроме этого, следует отметить, что большинство терминов родства являются полифункциональными и полисемантичными, что характерно проследить для терминов родства узбекского и английского языков.

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ЦИФРОВАЯ ТРАНСФОРМАЦИЯ В ОРГАНИЗАЦИОННОМ УПРАВЛЕНИИ

Аннотация. В статье рассматриваются перспективы развития цифровых технологий управления процессами внутри организации на примере отдельных отраслей и профессий.

Ключевые слова: цифровая экономика, аутсорсинг, информационные технологии, профессии будущего, организационное управление.

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DIGITAL TRANSFORMATION IN ORGANIZATIONAL MANAGEMENT

Abstract: the article discloses prospects of development of digital technologies in organizational management by the cases of certain professions.

Keywords: digital economy, outsourcing, information technologies, jobs of the future, organizational management.

В современных условиях развития общества всё большее значение приобретает использование новых инструментов управления организационными процессами. Цифровизация и глобализация ускоряют процесс трансформация экономики, на цифровом рынке появляются компании предлагающие активное применение цифровых технологий, в том числе искусственного интеллекта, платформ удалённого доступа в организации управленческого процесса.

В Республике Узбекистан благодаря развитию цифровой экономики повышается спрос на компании, предлагающие консалтинговые услуги в организационном управлении. Трансформация инновационной системы предоставления услуг предполагает рост числа занятых в этой области профессионалов, увеличение количества сервисных компаний-

поставщиков, борьбу с коррупцией и повышение эффективности экономики в целом.

Крупнейшие аутсорсинговые контракты в развитых странах присутствуют в таких сферах, как медиапланирование, информационные технологии [1]. К примеру, для банковской сферы стала привычной передача IT-функций на аутсорсинг. Банк предоставляет провайдерам денежные средства и проектные документы для обеспечения в сфере медиа, расширения сети коммерческих банков по всей стране. От кредитных учреждений не отстают государственные корпорации и крупные перерабатывающие компании: «ЛУКОЙЛ» передаёт на аутсорсинг проведение рекламных акций. Увеличивается число компании, предлагающих аутсорсинг логистических функций с использованием специальных систем удалённого доступа. Таким образом, происходит трансформация управления человеческими ресурсами. Сотрудники компании могут быть фрилансерами (фактически работать дома) или одновременно оказывать услуги другим фирмам. Степень свободы работников существенно возрастает, временные затраты на выполнение функций сокращаются, график становится более гибким [3].

Пример использование аутсорсинга на государственной службе. В Республике Узбекистан планируется значительное сокращение численности сотрудников в государственных учреждениях[57].Ожидаемая экономия бюджета от этих сокращений составляет 1,5 трлн сумов за счет сокращения персонала и 70 млрд сумов за счет освободившихся транспортных средств.

Предлагается введение системы оплаты труда служащих на конкурентной основе. Чтобы добиться хороших результатов оптимизации в короткие сроки, целесообразно одновременно с сокращением госслужащих составить перечень функций, выполняемых органами государственной власти, и определить, какие из них можно передать внешним исполнителям. Речь идёт, например, о бухгалтерских функциях, кадровом учёте, государственных закупках. Юридические отделы министерств также можно объединить, поскольку сегодня это направление существует только гипотетически.

IT-бухгалтерия. Существует мнение, что профессия бухгалтера со временем уйдёт в прошлое. Однако, уже сегодня прогнозируется прирост рынка обслуживания фирм сторонними бухгалтерскими организациями. Но конкуренцию выдерживают только те аутсорсеры, которые предлагают технологические инновации и гибкий сервис.

Сегодня они не считают проблемой оказание услуг онлайн, расширение спектра услуг и линейки тарифов. Бухгалтерская компания-

[57] https://upl.uz/policy/31034-news.html Указ ПП Республики Узбекистана от 3.04.2021 года «Об оптимизации структуры и сокращении численности штатных единиц органов государственной власти и управления»

аутсорсер будущего, по нашему мнению, окажется IT-компанией. В г. Ташкенте можно было бы продвигать идею Saas (Software as a Service) – программного обеспечения как услуги. Первой такой формат предложила компания ООО «SDQ MANAGEMENT ADVISORY GROUP». Она предоставляет клиентам доступ к разным системам ведения бухучёта путём продажи подписки на сервисы.

Инкассация. Эта сфера всегда отличалась консерватизмом и высокими требованиями к безопасности. Однако со временем инкассация стала автоматизированной. Благодаря использованию цифровых технологий (автоматические депозитные машины, онлайн-инкассация) организация, оказывающая соответствующие услуги, может сэкономить значительное количество средств. Не случайно коммерческие банки отказываются от использования собственных инкассационных служб и обращаются в частные аутсорсинговые компании, которые получают возможность создавать рынок с нуля. «Стратегия диверсификации предполагает присутствие новой торговой марки на новом рынке» [6]. Использование цифровых технологий позволит банковской сфере смогут оптимизировать затраты.

Банковское дело. В нём всё чаще используются технологии искусственного интеллекта и платформенных решений. Вероятно, со временем количество посредников между банком и клиентами будет сведено к нулю.

Некоторые финансовые организации могут считать это проблемой: если необходимость в содержании физического офиса отпадёт, цена депозита (кредита) упадёт. Зато для клиентов, использующих онлайн-услуги, введение банками системами аутсорсинга окажется выгодным. Примером может стать «Тинькофф-банк», позиционирующий себя как онлайн-банк.

Таким образом, применение цифровых технологий в управлении организационными процессами в настоящее время представляется целесообразным. Один из самых перспективных инструментов – аутсорсинг функций и услуг. Профессии будущего невозможно представить без дистанционных технологий, быстрого обмена данными. Экономика Республики Узбекистан, по нашему мнению, располагает достаточным цифровым ресурсом, чтобы это направление развивалось ещё быстрее.

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ПОЛУЧЕНИЕ И ИЗУЧЕНИЕ СВОЙСТВА ИНТЕРПОЛИМЕРНЫХ КОМПЛЕКСОВ

Аннотация. В статье говорится о проведении исследований по получению суспензии и изучению ее свойств интерполимерного комплекса с фосфогипсом, полученного на основе натриевой соли карбоксиметилцеллюлозы и мочевиноформальдегидной смолы и фосфогипса в качестве наполнителя. Представлены результаты научных исследований по использованию полученной интерполимерной суспензии в качестве экрана при экономии поливной воды.

Ключевые слова: фосфогипс, натрейвая соль карбоксиметилцеллюлозы (Na – КМЦ), мочевина-формальдегидная смола (МФС), интерполимерные комплексы (ИПК), водопронецаемость, поливная вода.

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OBTAINING AND STUDYING THE PROPERTIES OF INTERPOLYMER COMPLEXES

Annotation. The article talked about conducting research on obtaining a suspension and studying its properties of an interpolymer complex with phosphogypsum obtained on the basis of the sodium salt of carboxymethylcellulose and urea-formaldehyde resin and phosphogypsum as a filler. The results of scientific research on the use of the obtained interpolymer suspension as a screen for saving irrigation water are presented.

Keywords: phosphogypsum, sodium salt of carboxymethylcellulose (Na – CMC), urea-formaldehyde resin (MFS), interpolymer complexes (IPC), water permeability, irrigation water.

В настоящее время все более широкое применение находят полимерные композиционные материалы на основе реакционноспособных полимеров, что предопределяет интерес к изучению, как химизма, так и

кинетики их структурирования [1]. С этих позиций наиболее переспективными являются продукты, получаемые из нестехиометричных интерполимерных комплексов (ИПК+МФС)) на основе интерполимерных комплексов (ИПК(МФС+КМЦ)) и мочевиноформальдигедных смол (МФС) с дисперсными наполнителями [2,3,4].

ИПК занимает одно из ведущих мест среди полимеров по разнообразию получаемых на их основе материалов [5]. Это обусловленно широкими возможностями модификации этого композита путем варьирования их соотношения составляющих компонентов, которые существенно влияют на технологические и эксплуатационные свойства получаемого материала [6,7].

Интерполимерные материалы представляют собой новый класс композиционных материалов, обладающие уникальными свойствами: высокой сорбционной способностью к улучшению агрофизических свойств почв, в качестве гидрогелей, с помощью которого создается противофильтрационный экран на поверхности и глубине почв, получая экономию оросительной воды [8,9].

Целью данной работы явилось создание противофильтрационных экранов с помощью ИПК для повышения эффективности использования экономии поливной воды и улучшения условий развития хлопчатника [10].

Отметим, что известные способы уменьшения фильтрации воды с созданием противофильтрационных экранов с добавками ПАВ, органоминеральных веществ и другие оказались экономически нецелесообразными и не нашли широкого применения [11].

Предлагаемый нами новый интерполимерный комплекс на основе (МФС+Na-КМЦ), благодаря своей растворимости в нейтральных и слабощелочных средах, а также длительной устойчивости растворов при хранении, дает возможность готовить в одной емкости растворы, содержащие и МФС, и КМЦ [12]. Кроме того, ИПК можно получить и в сухом виде (в виде порошка), который хорошо растворяется в воде и удобен при хранении и транспортировке. Перед нанесением на почву для увеличения водостойкости пленки ИПК, pH-раствора снижается до 2,5-3, и тогда на почве образуется водонерастворимый ИПК. С практической точки зрения применение ИПК в сельском и водном хозяйствах имеет огромное значение, так как поликомплексы имеют важнейшее преимущество перед любыми известными полимерами ввиду их высоких закрепляющих свойств против эрозии [13,14].

В связи с этим, для создания внутрипочвенного экрана преподавателями кафедры «Химия» Чирчикский государственный педагогический университет(ЧГПУ) был разработан агрегат, обеспечивающий получение экрана на глубине 30-35 см, с применением ИПК. Агрегат состоит из навесного плужного устройства, которой навешивается на пропашной трактор. С нижней стороны каждого отвала

плужного устройства приварены трубки диаметром 15 мм, с установленными 2-3 опрыскивателями. Водный раствор ИПК подается через шланги высокого давления подключенный к емкости, установленный на тракторе [3,17с.].

В 2018 - 2020 гг. нами проведены деляночные опыты на полях фермерских хозяйств Шаватского и Ханкинского туманов Хорезмского вилоята, в условиях легкосуглинистых почв. Площадь опытного участка составляла 0,5 га, контрольного – 0,5 га.

В результате полевых исследований было установлено, что для поддержания предполивной влажности в слое с глубиной 0-0,7 м 0,65-0,65-0,65 наименьшей влагоемкости (НВ) проведены три полива по схеме 1-2-0 на опытном и четыре полива по схеме 1-2-1 на контрольных участках. Межполивные периоды по фазам вегетации составили соответственно 33-35 и 23-25 дней. Режимы полива хлопчатника, параметры элементов техники полива и КПД полива представлены в таблице 1.

Из таблицы 1 видно, что при поливах хлопчатника на полях с противофильтрующим экраном, глубинная фильтрация уменьшается на 18-20 %, по сравнению с контрольной. Резкое увеличение влажности почвы отмечено при поливе большими нормами на контрольном участке.

Во время полива хлопчатника сбросы поливной воды отсутствовали. При поливных нормах брутто на опытном участке 1000-1040 м^3/га и на контрольном - 1200÷1250 м^3/га, на увлажнение слоя почвы, расположенного ниже расчетного, расходовалось соответственно от 180 до 200 м^3/га и от 400 до 420 м^3/га.

Таблица 1.

Режимы и параметры техники полива КПД полива хлопчатника на опытном и контрольном участке (длина борозды 100 м)

Номер полива	Расход воды, л/с	Время, час			Поливные нормы		КПД, %	Потери, %	
		добегания	До увлажнения	Всего	Брутто м^3/га	Нетто, м^3/га	брутто	На испарения	На фильтрацию
Опытный участок									
1	0,9 0,45	2,35	5,72	8,07	1040	880	84,6	0,30	15,1
2	0,85 0,45	2,44	5,55	7,99	1015	825	81,2	0,23	18,57
3	0,85 0,40	2,38	5,68	8,06	954	760	79,6	0,28	20,12
Контрольный участок									
1	0,9 0,45	2,79	6,28	9,25	1222	850	69,6	0,33	30,17
2	0,85 0,45	3,12	6,25	9,37	1214	810	66,7	0,25	33,05
3	0,85	3,05	6,19	9,24	1126	780	69,3	0,27	30,43

	0,40								
4	0,80 0,40	3,16	6,08	9,24	1102	715	64,9	0,26	34,84

Оросительная норма на опытном участке составляла 3000 м^3/га, на контрольном – 4765 м^3/га, урожайность хлопка- сырца был равен 15 ц/га и 8 ц/га, соответственно. Соблюдение оптимального режима полива на полях с противофильтрующим экраном позволит получить от реализации хлопка на 15 млн. сум/га больше, чем в контрольном варианте. Уменьшение глубинной фильтрации при поливах хлопчатника позволило сэкономить 633 м^3/га воды за три полива и на величину нормы четвертого полива.

Следует отметить, что предлагаемый вариант при сравнении результатами опытов по изучению режимов полива почвы с противофильтрующим экраном на поверхности отличается меньшей трудоемкостью и большей эффективностью.

Проведены фенологические наблюдения в период вегетации. Посев хлопчатника на опытных вариантах и контроле были проведены 20 и 25 апреля соответственно в 2019-2020 гг. Из наблюдений выяснено, что на всех вариантах опытного участка по всем показателям превосходит данные контрольного поля и урожайность хлопка – сырца была выше на 10 ц/га, чем на контроле.

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МЕТОД ОЦЕНКИ СИСТЕМЫ ВНУТРЕНЕГО КОНТРОЛЯ В ХОДЕ АУДИТА ОТЧЕТА О ДВИЖЕНИИ ДЕНЕЖНЫХ СРЕДСТВ

Аннотация: в статье рассмотрена методика анализа системы внутреннего контроля организации. Анализ системы внутреннего контроля разбит на два этапа, а именно в целом по предприятию и точечно по методике и способам составления отчета о движении денежных средств. Представлена таблица с оценкой системы внутреннего контроля.

Ключевые слова: аудит, отчетность, отчет о движении денежных средств, система внутреннего контроля, методика оценки системы внутреннего контроля организации.

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INTERNAL CONTROL ASSESSMENT METHOD DURING THE AUDIT OF THE STATEMENT OF CASH FLOW

Annotation: the article considers the methodology for analyzing the internal control system of an organization. The analysis of the internal control system is divided into two stages, namely, as a whole for the enterprise and point by point according to the methodology and methods for compiling a cash flow statement. A table with an assessment of the internal control system is presented.

Key words: audit, cash flow statement, internal control system, methodology for assessing the organization's internal control system.

Система внутреннего контроля – совокупность специальных процедур, которые были введены руководством для оперативного выявления и устранения как случайных, так и умышленных искажений в учете и отчетности организации.

Анализ системы внутреннего контроля можно разбить на два этапа:

1. Оценка системы внутреннего контроля в целом по организации.

2. Оценка системы внутреннего контроля при составлении отчета о движении денежных средств.

Для оценки системы внутреннего контроля в целом по организации необходимо проанализировать контрольную среду, а именно оценить созданную на предприятии культуру честности и этического поведения, для этого необходимо ответить на ряд вопросов:

1. Информированность руководства и персонала о принципе честности и этических ценностях: наличие этического Кодекса, иного аналогичного документа; порядок ознакомления с ним сотрудников;

2. Определяет ли руководство уровни компетентности для определенных должностей и требования к ним: наличие справочника квалификаций, уровня знаний для каждой позиции;

3. Философия и стиль управления руководства: подход к принятию на себя рисков, управление ими, отношение к персоналу, занятому в сфере контроля и бухучета, отношение к обработке информации, отношение к процессу составления отчетности, реакция на результаты контрольных мероприятий;

4. Организационная структура: выделено ли специальное лицо или же подразделение по системе внутреннего контроля или службе внутреннего аудита.

Для оценки системы внутреннего контроля при составлении отчета о движении денежных средств необходимо проанализировать: контрольную среду, риски организации, информационную систему и информационное взаимодействие (таблица 1).

Таблица 1. – Оценка системы внутреннего контроля при составлении отчета о движении денежных средств.

	Факторы и аудиторские процедуры	Описание аудиторских процедур
Контрольная среда:		
Цель: оценить, насколько руководством и ЛОКУ создана культура честности и этического поведения в организации, обеспечивает ли контрольная среда надлежащую основу для функционирования надежной СВК		
1	Установлено ли четкое распределение полномочий и ответственности	Регламенты по документообороту, распределение полномочий между МОЛ и распорядителями денежных средств
Процесс оценки рисков организации:		
Цель: установить, применяется ли аудируемым лицом надлежащая система по оценке ее бизнес-рисков и выработке мер в ответ на выявленные риски		
1	Выявляет ли аудируемое лицо бизнес-риски, значимые для целей финансовой отчетности, как их оценивает и как принимает решение о мерах по снижению значительных рисков (формализованный процесс (описать) / прямое личное участие руководства, не оформленное в	Есть ли у организации формализованный процесс оценки рисков, принимает ли прямое участие руководство организации при оценке бизнес-рисков?

	формализованный бизнес-процесс)	
2	Какие риски руководство считает значимыми для деятельности и финансовой отчетности в текущем периоде	Непрерывность деятельности; нехватка финансирования; волатильность курсов валют; низкая квалификация бухгалтерского персонала;
Информационная система и информационное взаимодействие:		
Цель: получить понимание информационной системы, включая соответствующие бизнес-процессы, относящиеся к подготовке отчетности		
1	Информационные системы, используемые при подготовке бухгалтерской отчетности	Описать непосредственно бухгалтерские программы и иные программные системы, из которых информация попадает в бухгалтерскую программу
2	Есть ли лицензии на программное обеспечение	Да/нет
3	Стандартное ли программное обеспечение или доработанное специалистами аудируемого лица	стандартное/доработанное/самостоятельно разработанное
4	Применяется ли система разграничения доступов и полномочий для входа в бухгалтерскую систему и внесения записей в нее	Наличие системы паролей
5	Были ли в течение проверяемого периода сбои в бухгалтерской системе	Необходимо описать при наличии
6	Обеспечивается ли систематическое резервное копирование информации из бухгалтерской системы	Да/нет
7	Как организован процесс подготовки бухгалтерской отёчности, в том числе раскрытий	Необходимо описать каким образом происходит процесс подготовки отчетности
8	Как организован контроль в отношении нестандартных бухгалтерских записей по учету разовых, необычных операций или корректировок	Запрос пояснений у ответственных лиц по учету нестандартных записей
9	Порядок информирования о функциях и обязанностях, связанных с финансовой отчетностью, в том числе в части системы внутреннего контроля	Установлены ли внутренние регламенты или открытые каналы обмена информацией

Данный анализ позволит аудитору сделать предварительную оценку системе внутреннего контроля, а именно оценить ее эффективность.

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ПРОИСХОЖДЕНИЕ МАЛОГО НАРОДА БЕСЕРМЯНЕ

Аннотация: происхождение и развитие народа бесермяне и анализ их схожести с народами Волжской Булгарии и Чувашии, ареал их расселения и развития на территории Удмуртии

Ключевые слова: Бесермяне, Удмуртия, Волжская Булгария, Арская земля, Северные Удмурты, кипчаки, казанское ханство.

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ORIGIN OF THE SMALL NATION OF THE BESERMIANS

Abstract: the origin and development of the Besermyane people and the analysis of their similarity with the peoples of Vozhskaya Bulgaria and Chuvashia, the area of their settlement and development on the territory of Udmurtia

Keywords: Besermyans, Udmurtia, Volga Bulgaria, Arsk land, Northern Udmurts, Kipchaks, Kazan Khanate.

Бесермяне — финно-угорский народ, в основном проживающий в Удмуртии (около 10 поселений мононациональны). Говорят, на бесермянском наречии удмуртского языка, который относится к финно-угорской группе уральских языков. Бесермяне упоминаются в числе жителей Волжской Булгарии под названием берсула. С началом монголо-татарского нашествия берсула вынуждены были переселиться в бассейн р. Чепцы, изменив название на бесермяне. Есть две основные гипотезы происхождения бесермян. Согласно первой, этот народ имеет тюркское происхождение, по второй — удмуртское. Генетические данные указывают на смешанное удмурто-тюркское происхождение бесермян Единственной на сегодняшний день приемлемой этимологией самоназвания бесермян (*бесерман*) является гипотеза о том, что оно происходит от тюркского слова **busurman* / **büsürmen*, которое, в конечном итоге, восходит к арабской лексеме, означающей «мусульманин» **[**1]. Усвоение данного этнонима бесермянами в качестве самоназвания

неразрывно связано с некоторыми особенностями их этнической истории. Согласно выдвинутой В. В. Напольских гипотезе, *бесерменами* ещё в XIV–XV вв. русские источники именовали часть населения бывшей Волжской Булгарии, отличную по своей этноконфессиональной принадлежности от прочих групп населения этого края. В. В. Напольских предположил, что под этим именем скрывалась какая-то часть потомков волжских булгар, исповедовавшая ислам, но первоначально отличавшаяся по некоторым своим этническим признакам от другой части мусульманского населения бывшей Волжской Булгарии и позднее Казанского ханства, которую русские источники именуют *татарами*. В ходе постепенной кипчакизации населения этого региона, происходившей в XIV–XV вв., *бесермены* в большинстве своем слились с *татарами* и послужили одним из компонентов в формировании казанско-татарской народности. По предположению В. В. Напольских, некоторая часть булгарских *бесермен* вошла в том числе и в состав так называемых каринских (чепецких) татар. Происхождение этой последней группы татарского народа следует, по всей видимости, выводить из Заказанья (района г. Арска). Не позднее второй половины XV в. предки чепецких татар, возглавляемые арскими татарскими князьями, переселились из района Арска в бассейн р. Чепцы, где их новым центром стало с. Карино, расположенное в низовьях реки. Следует полагать, что при этом переселении арских князей сопровождало и подвластное им население, среди которого, помимо собственно татар, были и южноудмуртские группы (предки бесермян). Не случайно, поэтому наречие бесермян, давно живущих среди северных удмуртов, по многим своим отличительным особенностям сближается с южноудмуртскими диалектами, носители которых до сих пор живут в отдельных районах Заказанья **[**Уже в первой половине XVI в. среди подчиненного каринским князьям населения наряду с *арянами* (видимо — предки чепецких татар, выходцы из Арской земли), *вотяками* (северные удмурты), русскими документами упоминаются *чуваша* или *чуваша арские*. П. Н. Луппову на основе скрупулезного анализа русских письменных источников XVI–XVII вв. удалось убедительно показать, что этими названиями в них именовались предки бесермян. Среди существующих на сегодняшний день гипотез о происхождении этнонима *чуваш* наиболее обоснованной, на мой взгляд, является та, что возводит данный этнический термин к общетюркскому нарицательному слову со значением «мирный, тихий, спокойный, смирный». Такая трактовка, кроме прочего, хорошо согласуется с мирным, неагрессивным характером и поведением чувашей, отличавшим в историческое время этот народ от их воинственных соседей-марийцев. Наиболее же вероятным предположением о происхождении поволжско-тюркского названия марийцев (тат. *чирмеш*, чув. *çармăс*) выглядит гипотеза о его связи с тюркским корнем **čer-* ‘сражаться, воевать’. Из

этого же поволжско-тюркского источника происходит, по-видимому, и старое русское название марийцев — *черемисы*. Горной стороны (предки нынешних чувашей), а также немусульманское население Заказанья, Арской земли — *чуваша арские*. Население этого последнего района в этническом плане и в волжско-булгарскую, и в золотоордынскую эпохи, и в эпоху Казанского ханства было в этническом плане весьма пёстрым. Наряду с булгарским и кипчакским населением, исповедовавшим ислам, здесь проживали и тюркоязычные немусульманские группы, говорившие, вероятно, на языке, близком современному чувашскому, а также предки южных удмуртов и бесермян. Всю совокупность этого подвластного и платившего подати попеременно Волжской Булгарии, Золотой Орде и Казанскому ханству мирного земледельческого населения булгары и кипчаки именовали *«чувашами»*. Переселившись на Чепцу, предки бесермян принесли туда с собой и это свое старое название. П. Н. Луппов, исследуя проблему происхождения бесермян, обнаружил, что в русских архивных документах начала XVII в., касающихся населения Каринского стана Вятской земли, наименование *чуваши* иногда начинает чередоваться с названием *бесермяне*, причем в случаях, когда речь явно идет об одних и тех же людях. К середине XVII в. такое чередование этих названий значительно учащается, а во второй половине столетия термин *бесермяне* постепенно вытесняет из обращения термин *чуваши* [9]. Каким же образом этнический термин, бывший еще в XIV–XV вв. названием какой-то особой группы потомков волжских булгар, мусульман по вероисповеданию (см. выше), к концу XVII в. стал обозначать особую пермоязычную этническую группу (более того — стал её самоназванием!), населявшую бассейн р. Чепцы, которая, к тому же, по-видимому, никогда ислам не исповедовала? Одним из возможных объяснений причин этого феномена является толкование происхождения самоназвания бесермян, которое было предложено В. В. Напольских. По его мнению, еще на территории Арской земли булгары-*бесермены* вполне могли иметь весьма тесные контакты с некоторыми южными группами удмуртов, кои были древними жителями этих мест. Не исключено, что какая-то часть южных удмуртов, находившаяся с бесерменами в особо тесном контакте, переняла у господствующей группы определенные черты материальной и духовной культуры, а также этноним, начав называть себя словом *бесерман*. Переселившись на Чепцу вместе с арскими татарами, эта группа южных удмуртов принесла сюда и свое самоназвание. Не отрицая правдоподобности и неплохой аргументированности этой гипотезы, я всё же возьму на себя смелость предложить свою, которая, на мой взгляд, не столько противостоит гипотезе В. В. Напольских, сколько уточняет и дополняет её. Нужно подчеркнуть, что особо тесные связи в давнем и недавнем прошлом предков бесермян с тюрками-мусульманами, вообще говоря, несомненны. Об этом свидетельствуют многочисленные явления

языка бесермян, их традиционной материальной и духовной культуры. Весьма вероятно, также, что до переселения на Чепцу предки бесермян имели длительные и тесные контакты с мусульманами Арской земли, которых русские источники XIV—XV вв. именовали *бесерменами.* Однако все эти обстоятельства ещё не объясняют причин усвоения бесермянами своего нынешнего самоназвания. По-видимому, желая утвердить в своём сознании и сознании соседей своё отличие от местных старожилов — северных удмуртов, предки бесермян стали всячески подчеркивать то, что они являются выходцами из Заказанья, из земли, где живут *бесермены* (т. е. мусульмане). По свидетельству Сигизмунда Герберштейна, ещё в первой половине XVI в. казанские татары предпочитали называться *besermani* **[**11].

Широко известно, что многие казанские татары вплоть до конца XIX в. считали название *татары* обидным, предпочитая именовать себя *казанцами, булгарами* и, в частности, *мусульманами.* Активные связи, которые каринские татары (а через них — и бесермяне) поддерживали с Казанью и окрестными землями, должны были весьма способствовать долгому сохранению среди бесермян и их соседей исторической памяти о южном, заказанском, *«бесерменском»* происхождении этого народа.

Таким образом, предлагаемая здесь гипотеза, с одной стороны, ещё раз подчеркивает тесную связь происхождения предков бесермян с Заказаньем, Арской землей, а с другой стороны, указывает на возможное длительное сохранение этой связи в исторической памяти бесермян и их соседей.

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ОСНОВЫ ЗООЛОГИЧЕСКОЙ СИСТЕМАТИКИ

Аннотация.В статье рассматривается история возникновения зоологической систематики. Зоологическая систематика изучает разнообразие животных организмов, и часть биологической систематики.

Ключевые слова: наука, систематика, таксономия, вид, ареал, условия, среда.

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BASICS OF ZOOLOGICAL SYSTEMATICS

Annotation. The article deals with the history of the emergence of zoological systematics. Zoological systematics studies the diversity of animal organisms, and part of biological systematics.

Key words: science, systematics, taxonomy, species, area, conditions, environment.

Животный мир отличается большим своим разнообразием. В настоящее время на Земле насчитывается около 2 млн видов животных. Важнейшей задачей зоологии является создание системы животного мира. Решением ее занимается одна из отраслей этой науки - систематика (таксономия), которая разрабатывает теорию и практику классификации и определения животных [2].

Естественная система животного мира строится на основе всестороннего изучения животных, что позволяет выявить черты сходства и различия между ними, доказать их исторические связи и установить степень родства. Основной таксономической единицей в систематике является вид (species) - реально существующая категория. Вид — это обособленная группа сходных особей, обитающих на определенном ареале, свободно скрещивающихся между собой и дающих потомство [3].

У особей одного вида, населяющие различные территории ареала, находящихся в неодинаковых условиях среды, возникает изменчивости, т. е. эти особи приобретает своеобразные черты. Такие группы особей вида, называются подвидами. Подвиды в отличие от видов связаны друг с другом переходными формами, которые обладают признаками промежуточного характера.

Впервые система животных была разработана в IV в. до н. э. Аристотелем, который описал более 450 форм, разделив их на 2 большие группы — животных, снабженных кровью (позвоночные), и бескровных (беспозвоночные). Животные с кровью в свою очередь были разделены им на группы, приблизительно отвечающие современным классам. В отношении беспозвоночных система Аристотеля была менее совершенна. Так, из современных типов он более или менее правильно выделял лишь членистоногих.

В 1693 английский биолог Дж. Рей ввёл основное понятие систематики — Вид, а в 1735 шведский натуралист К. Линней широко использовал это понятие для классификации животных и растений. Линней улучшил систему животных введением соподчинённых таксономических категорий (вид, род, отряд, класс).

Система Линнея была несовершенна; например, он объединил в искусственную группу зоофитов (*Zoophyta*) — животно-растений — простейших, кишечнополостных, иглокожих и головоногих моллюсков. Значительный шаг вперёд в построении системы животных сделали французские учёные Ж. Ламарк и Ж. Кювье. В «Системе беспозвоночных» (1801) и в «Философии зоологии» (1809) Ламарк разделил всех животных на беспозвоночных и позвоночных. Среди первых он различал классы инфузорий, полипов, лучистых (кишечнополостные и иглокожие), червей, насекомых, паукообразных, ракообразных, кольчецов, усоногих и моллюсков. Кювье в труде «Царство животных и классификация его по принципу строения» (т. 1—4, 1817) установил 4 главные ветви, которым французский зоолог А. Бленвиль (1825) придал значение типов: лучистые (*Radiata*), членистые (*Articulata*), моллюски (*Mollusca*) и позвоночные (*Vertebrata*) [1].

Впервые двойное (бинарное) название ввел великий шведский ученый К. Линней еще в XVIII в. В соответствии с правилом бинарной номенклатуры каждому виду присваивается название, состоящее из двух слов, первое означает род, второе - собственно вид. Например, различные виды кошек составляют один род Felis. Отдельные же виды этого рода будут называться уже двумя словами: например, кот лесной - Felis silvestris, кот степной - F. libyca, кот камышовый - F. chaus и др. После названия вида животного обычно указывается фамилия (полностью или сокращенно) ученого, впервые описавшего данный вид, и год, когда это

было сделано. Например, собака домашняя Canis familiaris L., 1758., в данном случае L. — это К. Линней [3].

В зоологической систематике принято именовать различные виды животных на латинском (или латинизированном греческом) языке, что делает эти названия интернациональными.

В современной систематике животных используются следующие таксономические группы или таксоны. Близкие виды объединяются в род (genus), близкие роды - в семейство (familia), семейства - в отряд (ordo), отряды - в класс (classis), классы - в тип (phylum). Типы образуют царство (regnum) животных. Часто устанавливаются промежуточные категории - подрод (между родом и видом), подсемейство (между семейством и родом), подотряд (между отрядом и семейством), подкласс (между классом и отрядом), подтип (между типом и классом). Кроме того, выделяют надсемейства (между семейством и подотрядом), надотряд (между отрядом и подклассом), надкласс (между классом и подтипом). Тип подразделяется на следующие основные категории: тип- подтип-надкласс-класс-подкласс-надотряд-отряд-подотряд - надсемейство-семейство-подсемейство-род-подрод-вид-подвид [2].

Таким образом, зоологическая систематика, *объединяя и разделяя животных в зависимости от степени сходства в строении по видам, родам, типам положила начало представлению о мере родства всего живого мира.*

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СОВРЕМЕННЫЕ АСПЕКТЫ ДИАГНОСТИКИ И ЛЕЧЕНИЯ ЭХИНОКОККОЗА ПЕЧЕНИ

Аннотация. В настоящее время заболеваемость эхинококкозом не имеет тенденции к снижению. В Республике Узбекистан эта патология ежегодно выявляется у 6-9 человек на 100000 населения [5]. Реализация программы широкого использования безопасных и эффективных методов лечения эхинококкоза напрямую зависит от его ранней диагностики [1,2]. Несмотря на все преимущества ультрасонографии как скринингового метода при диагностике и визуализации эхинококковых кист печени, остаются еще нерешенные и спорные вопросы дифференциальной диагностики в первую очередь с другими очаговыми поражениями печени [3,4]. Эхинококкоз - тяжелое паразитарное заболевание, которое чаще всего поражает печень и легкие, реже наблюдается поражение других органов [3]. Немало важным вопросом является определение роли и места малоинвазивных вмешательств в лечении этой категории пациентов.

Ключевые слова: эхинококкоз, скрининговый метод, иммунная система лечение.

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MODERN ASPECTS OF DIAGNOSIS AND TREATMENT OF ECHINOCOCCOSIS OF THE LIVER

Abstract. Currently, the incidence of echinococcosis does not tend to a decrease. In the Republic of Uzbekistan, this pathology is detected annually in 6-9 people per 100,000 population [5]. The implementation of the program of the widespread use of safe and effective methods of treating echinococcosis directly depends on its early diagnosis [1,2]. Despite all the advantages of ultrasonography as a screening method in the diagnosis and visualization of echinococcal liver cysts, unresolved and controversial issues of differential diagnostics remain, primarily with other focal liver lesions [3,4]. Echinococcosis - a serious parasitic disease that most often affects the liver and

lungs, is less often damaged by other organs [3]. A lot of important issue is to determine the role and place of minimally invasive interventions in the treatment of this category of patients.

Key words: echinococcosis, screening method, immune system, treatment.

Цель работы. Оптимизация тактики лечения эхинококкоза печени путем совершенствования клинико-диагностических методов исследования.

Известно, что иммунные сдвиги при эхинококковой болезни развиваются в ответ на антигенную стимуляцию организма хозяина продуктами экзометаболизма ларвоцисты. При это иммунологические расстройства, как правило, не связаны с дефектами собственно иммунной системы, а вызваны адекватному ответу вследствие биологической приспособленности паразита. В связи с этим следует отметить, что гидатидозная мембрана является своеобразным биологическим фильтром, через который происходит ультрафильтрация специфических полисахаридов, глицидов и глобулинов эхинококковой жидкости, многие из которых являются антигенами [6]. При этом характер иммунного ответа, индуцированного возбудителем EG обусловлен его морфологическими (сложность антигенного состава) и биологическими (размеры кисты, специфика паразитарного цикла) особенностями. Исследователи отмечают, что факторами,

угнетающими силу иммунного ответа хозяина на инвазию паразитов являются: потеря или сброс поверхностных антигенов при их контакте со специфическими антителами; выделение иммуносупрессирующих соединений, подавляющих преимущественно специфический Т-клеточный иммунитет [7]; разрушение белков системы комплемента, участвующих в цитолитической атаке против паразитарных организмов, а также присвоение, адсорбция на оболочке паразита собственных белков хозяина, «экранирующих»его от иммунной системы носителя [4].При этом существует мнение, что способность возбудителя подавлять или искажать иммунный ответ хозяина-носителя следует относить к факторам патогенности [3], т.к. степень тяжести формирующегося иммунодефицитного состояния коррелирует с его вирулентностью [6].Иммунологическая диагностика эхинококкоза, как и других паразитарных заболеваний,основана на выявлении и определении количества циркулирующих в организме больного антигенов паразита, либо паразитарных антител и их комплексов [5]. Для выявления антител пользуются методами, основанными на феномене иммунопреципитации, а циркулирующих антигенов - иммуноаглютинации [4]. Ультрасонография может быть не только скрининговым методом диагностики кистозных образований печени, но и является высоко информативным методом для дифференциальной диагностики большинства форм и стадий ЭК, с

чувствительностью до 98% и специфичностью до 74%. Выбор оптимальной тактики лечения больных с ЭП должен основываться по основным диагностическим критериям: количество и локализация кист, их состояние и размер, в зависимости от которых вероятность применения пункционнодренирующих вмешательств В настоящее время существует три способа лечения эхинококкоза: химиотерапия, хирургическое лечение (через традиционный или лапароскопический доступы) и чрескожные вмешательства, которые дифференцированно применяются в зависимости от стадии заболевания [5]. При выборе хирургического лечения хирург должен решить, как минимум три вопроса: способ удаления кисты, отношение к фиброзной капсуле и способ ликвидации остаточной полости. ной полости кисты [7]. В хирургии эхинококкоза ни что не вызывает столько споров и не имеет столько разногласий, как отношение к фиброзной капсуле кисты. Ряд исследователей находили в фиброзной капсуле сколексы, проникающие из гидатид во внутреннюю ее толщу и на ее наружную поверхность. Следовательно, по их мнению, любой вариант эхинококкэктомии без удаления фиброзной капсулы являлся нерадикальной операцией [5]. Изучение литературы показало, что на современном этапе хирургическое лечение кист основывается преимущественно на органосберегающих принципах. В большинстве случаев фиброзная капсула не удаляется, что дает возможность провести операции с меньшей травматичностью, так как иссечение фиброзной капсулы или резекция печени нередко сопровождаются ранением печеночных протоков и сосудов и высокой послеоперационной летальностью [7]. Не до конца решена проблема разработки показаний по применению малоинвазивных методов лечения. Не решены вопросы применения эффективных способов антипаразитарной обработки эхинококковых кист и способов ликвидации остаточной полости при различных вариантах эхинококкоза.

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ОЦЕНКА СРАВНИТЕЛЬНЫХ ХАРАКТЕРИСТИК СОВРЕМЕННЫХ ШОВНЫХ МАТЕРИАЛОВ В ПРОФИЛАКТИКЕ ОСЛОЖНЕНИЙ ПРИ ХИРУРГИЧЕСКИХ РАНАХ В ПРАКТИКЕ АБДОМИНАЛЬНОЙ ХИРУРГИИ

Резюме: В данной статье предусмотрено, что оперативная методика наложения однорядного непрерывного шва выполняется с учетом построенной биомеханической модели, рассчитаны оптимальные характеристики, под углом 30-45 градусов к разрезу в плоскости апоневроза с захватом брюшины и мышечно-скелетного слоя; расстояние между швами составляет 8-10 мм; расстояние

В статье подчеркивается, что способ ушивания лапаротомной раны непрерывным швом через все слои с использованием современных синтетических рассасывающихся шовных материалов позволяет сократить время хирургического вмешательства, а также уменьшить количество осложнений от лапаротомной раны в раннем и позднем периоде после операции.

Ключевые слова: шовные материалы, травма, раны, абдоминальная хирургия.

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EVALUATION OF COMPARATIVE CHARACTERISTICS OF MODERN SUTURE MATERIALS IN THE PREVENTION OF COMPLICATIONS IN SURGICAL WOUNDS IN THE PRACTICE OF ABDOMINAL SURGERY

Resume: This article provides that the operative technique of applying a single-row continuous suture is performed taking into account the constructed biomechanical model, optimal characteristics are calculated, at an angle of 30-45 degrees to the incision in the plane of aponeurosis with the capture of the peritoneum and musculoskeletal layer; the distance between the sutures is 8-10 mm; the distance

The article emphasizes that the method of suturing a laparotomy wound with a continuous suture through all layers using modern synthetic absorbable suture materials reduces the time of surgical intervention, as well as reduces the

number of complications from a laparotomy wound in the early and late period after surgery.

Keywords: suture materials, trauma, wounds, abdominal surgery.

Актуальность. Для создания благоприятной среды для современной хирургии и обладания высокими физико-механическими свойствами, способностью к биологическому разложению, гладкой поверхностью с диаметром, низкой реакционной способностью, отсутствием токсических, аллергогенных, тератогенных эффектов благоприятны антибактериальные свойства швейных материалов [3,6].

В настоящее время в хирургии используются шовные материалы длительного воздействия, которые позволяют дифференцированно срастать ткани с учетом особенностей их структуры и периодов обновления [1,9].

Появление новых швейных материалов в современной хирургии формирует новые технологические требования к исследованию атравматичных хирургических игл: это уменьшение диаметра проколотого канала, сопротивления, качества фиксации нити в ушке иглы и т.д.

Существующие стандартизированные методы исследования шовных материалов [7] и хирургических игл [4] определяли только их основные технические характеристики, которые не отражали механические и реологические свойства, важные для практического использования в хирургии [2].

Характеристики отдельных современных швейных материалов и атравматичных игл позволяют дифференцированно использовать однорядный непрерывный шов в абдоминальной хирургии [8].

В Узбекистане на сегодняшний день отсутствуют единые разумные стандарты оперативных методик наложения межорганных анастомозов и зашивания лапаротомных ран. Преобладают традиционные подходы к наложению непрерывных многорядных узловых швов с использованием нерассасывающихся намоточных шовных материалов [5], что сопровождается высоким процентом осложнений после операции: эвентрация - 0,33,0% [2]; грыжи после вентральных операций - 2,0-15,9% [10]. Для предотвращения этих осложнений после операции и инфекций в области хирургического вмешательства совершенствуются новые шовные материалы с антибактериальными свойствами (антибактериальное покрытие Irgasare) и фиксированными циклами рассасывания, а также методы хирургического наложения швов в абдоминальной хирургии [4].

Их широкому применению в абдоминальной хирургии препятствует консерватизм региональных хирургических школ и недостаточное теоретическое научное обоснование эффективности этой методики.

Биомеханическая модель однорядного непрерывного шва не представлена с расчетом его оптимальных характеристик. Достаточные

морфологические клинические обоснования и опыт в использовании рассасывающихся и нерассасывающихся шовных материалов и методик однорядного непрерывного наложения швов [5].

Поэтому в современной хирургии актуален поиск оптимальных методов ушивания хирургических лапаротомных ран с использованием петлевых шовных материалов с антибактериальным покрытием и условий для введения рассасывающих и интерстициальных и билиодигестивных анастомозов в абдоминальной хирургии. [8].

Таким образом, разработка единой концепции профилактики инфекций в области хирургического вмешательства в абдоминальной хирургии, основанной на клинически рандомизированных и экспериментальных исследованиях с использованием современных шовных материалов и технологий однолинейного непрерывного наложения швов, является актуальной проблемой.

Цель исследования. Целью исследования является изучение оценки сравнительных характеристик современных шовных материалов в профилактике осложнений при хирургических ранах в практике абдоминальной хирургии

Материалы и методы исследования. Для решения этих задач был проведен ретроспективный анализ диагностических и терапевтических манипуляций у 150 госпитализированных пациентов с хирургическим вмешательством, на основе которого был разработан алгоритм диагностики и лечения с использованием малоинвазивных методов. В них оценивалась эффективность применения современных швейных материалов.

Для проведения исследования, в зависимости от применяемых методов диагностики и лечения, нами были сформированы, стандартизованные по возрасту и полу, 2 группы пациентов основная (п = 98) и сравнения (п = 30)

Результаты клинического исследования. Мы видели, что современные хирургические рассасывающиеся шовные материалы с антибактериальным покрытием у обследованных пациентов сохраняли оптимальные механические свойства в агрессивных биологических средах Visryl Plus, PDS Plus, vitro в течение 30 дней, что позволило использовать их для наложения серии непрерывных межгалактических и билиодигестивных анастомозов в абдоминальной хирургии.

У обследованных нами пациентов мы наблюдали, что однорядный непрерывный шов апоневроза способен надежно удерживать края апоневроза передней брюшной стенки в течение 90 дней благодаря сохранению длительно впитывающейся хирургической нити PDS Plus 1 strength с новым кольцом.

У этой группы пациентов применение современных синтетических рассасывающихся шовных материалов с антибактериальным покрытием

при зашивании лапаротомных ран и применении межорганных анастомозов уменьшает местные воспалительные и аллергические реакции макроорганизма на нить, а также создает благоприятные условия для регенерации тканей и заживления ран. Светодиод к первичному напряжению.

Мы наблюдали, что использование динамического биомеханического моделирования швов на апоневроз передней стенки брюшной полости с учетом эластичности апоневроза и экспериментально полученных значений хирургической нити у пациентов с использованием современных шовных материалов позволило нам рассчитать оптимальные характеристики однорядного непрерывного шва, а также выберите дифференцированный хирургический шовный материал.

В ходе наших обследований мы отметили, что использование усовершенствованной концепции профилактики инфекций в области хирургического вмешательства у наших пациентов снизило риск послеоперационных гнойно-септических осложнений с 14,2 до 1,6%.

Вывод. Результаты наших исследований напрямую связаны с практической медициной. Принимая во внимание оптимальные характеристики непрерывного шва, индивидуальные особенности каждого пациента и различные показания к использованию современных синтетических рассасывающихся шовных материалов, процент имплантационной инфекции у хирургических пациентов в абдоминальной хирургии снизился благодаря дифференцированному использованию современных хирургических шовных материалов с антибактериальным покрытием.

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КОНЦЕПЦИИ АНАЛИЗА ФИНАНСОВЫХ РЕЗУЛЬТАТОВ ДЕЯТЕЛЬНОСТИ ОРГАНИЗАЦИИ В СОВРЕМЕННОЙ ЭКОНОМИКЕ

Аннотация. В статье рассматриваются различные взгляды и концепции ведущих экономистов относительно анализа финансовых результатов деятельности организации, обозначены преимущества отдельных методологических подходов к анализу, на основе исследования существующих методик анализа прибыли и рентабельности обоснованы наиболее существенные направления анализа финансовых результатов деятельности организации в современной экономике.

Ключевые слова. Финансовый результат, прибыль, рентабельность, методология, методика анализа, показатели.

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CONCEPTS OF ANALYSIS OF FINANCIAL RESULTS OF THE ORGANIZATION'S ACTIVITIES IN THE MODERN ECONOMY

Annotation. The article discusses various views and concepts of leading economists regarding the analysis of financial results of an organization, identifies the advantages of individual methodological approaches to analysis, based on the study of existing methods of profit and profitability analysis, the most significant areas of analysis of financial results of an organization in the modern economy are substantiated.

Keywords. Financial result, profit, profitability, methodology, analysis methodology, indicators.

Различные взгляды и концепции ведущих экономистов относительно анализа финансовых результатов деятельности организации обуславливают разные методологические подходы к исследованию прибыли и рентабельности и соответствующие методики их анализа. Для обоснования основных направлений анализа финансовых результатов деятельности организации в современной экономике рассмотрим существующие методологические и методические аспекты анализа в этой области, их преимущества и аналитические возможности.

Прибыль — это экономическая категория, отражающая чистый доход бизнеса, созданный в ходе предпринимательской деятельности, который является основным источником самофинансирования и дальнейшего развития. В то же время прибыль является положительным результатом деятельности компании. Отрицательный результат его деятельности называется убытком.

Финансовый результат — это обобщающий показатель анализа и оценки эффективности (неэффективности) функционирования хозяйствующего субъекта на определенных этапах (stages) его формирования.

Финансовый результат завершает цикл деятельности организации, связанный с производством и реализацией продукции, а время является необходимым условием для развития ее деятельности. Высокие значения финансовых результатов деятельности компании обеспечивают пополнение государственного бюджета налоговыми отчислениями, способствуют повышению инвестиционной привлекательности предприятия, его бизнеса в производственной и финансовой сфере. [6]

Получение финансового результата каждой организации означает, что компания признает результаты своей деятельности. Затем финальный финансовым результатом предприятия будет баланс прибыли от продажи и затрат, понесенных на ее приобретение.

Конечным финансовым результатом деятельности для государства коммерческого предприятия будет налог, включенный в его состав.

Владелец, инвестор, конечный финансовый результат, часть прибыли после налогообложения - в его пользу.

Прибыль, остающаяся после уплаты налогов и дивидендов для собственников, заинтересованность кредиторов в чистом конечном финансовом результате предприятия для промышленного и социального развития. [7]

Основные документы, являющиеся источниками формирования показателей прибыли и финансовых результатов:

1. бухгалтерский баланс предприятия - применяется при расчёте показателей рентабельности, позволяющие понять эффективность использования имеющихся активов для получения прибыли;

2. отчёт о финансовых результатах и приложений к нему – отражает основные доходы, расходы и различные финансовые результаты организации.

Формирование составляющих финансовой отчётности регулируется Налоговым Кодексом РФ, ФЗ «О бухгалтерском учете», Положениями бухгалтерского учёта, учётной политикой и инструкциями организации.

Анализ финансовых результатов организации может проводиться разными методами и в разной последовательности. Методы имеют как отличительные, так и сходные элементы анализа, но все они являются направленными на решение задач, представленных в таблице 1.

Таблица 1 – Задачи при проведении анализа финансовых результатов

Задачи	Результат
Регулярный контроль выполнения планов реализации продукции и получения прибыли	Помогает избежать неправильности планирования производства и реализации продукции
Определение воздействия объективных и субъективных факторов на финансовые результаты	Вовремя обнаруженный фактор позволяет избежать или минимизировать потери
Выявление резервов увеличения размера прибыли и рентабельности	Расширение продукции позволяет увеличить рынок сбыта, тем самым увеличить прибыль предприятия
Оценка работы предприятия по использованию возможностей увеличения прибыли и рентабельности	Позволяет рассчитать понесенные затраты и прогнозировать прибыль/убытки
Разработка мероприятий по использованию выявленных резервов	Каждая компания принимает собственные решения по применению выявленных резервов

В рамках методологии анализа А.Д. Шеремета предлагается анализировать прибыль и рентабельность в следующем порядке:

1. Формируется ряд показателей, в которых проявляются финансовые результаты организации: валовая прибыль, прибыль от продаж (убыток), прибыль(убыток) от обычной деятельности, прибыль (убыток) от продаж и прочей внереализационной деятельности, прибыль

до налогообложения (убыток), чистая прибыль (нераспределенная прибыль за отчетный период). [5]

2. На предварительном этапе проводится анализ относительных абсолютных параметров прибыли, например, относительно прибыли от продаж, выручки - с точки зрения рентабельности продаж.

3. Затем проводится более глубокий анализ путем изучения факторов, влияющих на прибыльность организации: себестоимость продукции, элементы затрат, цены на продукцию, количество и качество продукции, структурные изменения в составе продукции.

4. Оценивается влияние инфляции на прибыль от продаж продукции.

5. Изучают качество прибыли – общую характеристику структуры источников формирования прибыли.

6. Анализируется рентабельность имущества (активов) организации.

7. Проводится маржинальный анализ прибыли и рентабельности.

Использование и применение всех форм отчётности организации является достоинством данной методики. Недостатком является отсутствие анализа банкротства организации и прогноза финансовой деятельности. Согласно методическим указаниям, Савицкой Г.В., порядок проведения анализа выглядит следующим образом:

1. Изучается состав прибыли организации, динамика и выполнение плана за отчётный период.

2. Проводится факторный анализ прибыли от продажи в общем по предприятию, а также по отдельным направлениям работы организации.

3. Определяется состав и структура прочих доходов и расходов и выявляется влияние факторов на изменение их изменение.

4. Затем анализируются показатели рентабельности предприятия: рентабельность продаж, рентабельность операционной деятельности, рентабельность совокупных активов. Кроме того, проводится факторный анализ показателей рентабельности, в общем по организации и по каждому виду деятельности отдельно. [3]

Преимуществом методики Савицкой В.Г. является возможность проведения детального расчёта рентабельности и подробного анализа показателей, а также возможность проведения сравнительного анализа по разным отчётным периодам организации, а также сравнение показателей конкурентов. Недостатком является трудоёмкость методики, для анализа необходим расчёт множества показателей.

На основе проведённого обзора можно отметить, что универсальной методики анализа не существует. Наиболее комплексными являются методики Савицкой Г.В. и Шеремета А.Д., так как существует системный подход к оценке финансового положения, есть возможность определить причины его ухудшения, у Ефимовой О.В. добавляется исследование маржинальной прибыли. Организациям, которые стремятся к увеличению темпов экономического роста важно переходить на современные методы

учёта затрат и калькулирования себестоимости продукции, которые предполагают применение CVP-анализа.

Анализ финансово-хозяйственной деятельности организации должен быть проведен с целью предоставления подробной информации о финансовых результатах организации за конкретный отчетный период и динамике. Эти показатели необходимы для оценки управленческих решений и правильности решений на будущее, направленных на развитие организации и главную цель достижения любой организации – получение прибыли.

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ОСОБЕННОСТИ ПРИМЕНЕНИЯ КВЕСТ-ТЕХНОЛОГИЙ НА УРОКАХ ХИМИИ

Аннотация. В настоящее время педагоги успешно используют квест- технологии при организации классных и внеклассных мероприятий и с осторожностью в процессе обучения несмотря на большой ее потенциал. Целью данной статьи является определение положительных и отрицательных сторон применения квестов на уроках химии.

Ключевые слова: образовательная технология, интерактивные технологии, образовательный квест, технологическая карта образовательного квеста, организация урока химии.

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FEATURES OF THE USE OF QUEST TECHNOLOGIES IN CHEMISTRY LESSONS

Annotation. Currently, teachers successfully use quest technologies in organizing classroom and extracurricular activities and with caution in the learning process despite its great potential. The purpose of this article is to determine the positive and negative aspects of the use of quests in chemistry lessons.

Keywords: educational technology, interactive technologies, educational quest, technological map of educational quest, organization of chemistry lesson.

На современном этапе развития образовательной системы появляются новые технологии и деятельностные формы взаимодействия с обучающимися, в основе которых лежит их активизация и включение в образовательный процесс [1]. Наиболее востребованными становятся интерактивные формы, позволяющие задействовать всех участников образовательного процесса, реализовать их творческие способности, воплощать имеющиеся знания и навыки в практической деятельности [2]. К таким формам организации образовательной деятельности относятся интерактивная игра, мастер-класс, проектная деятельность, создание проблемных ситуаций, экспериментирование и многое другое [3]. Все эти

формы могут существовать как отдельно взятые элементы, а могут сочетаться между собой и варьироваться педагогом при планировании учебных занятий [4]. Особенно хорошо они сочетаются в квест-технологии, или как еще называют образовательный квест, который пользуется популярностью у подростков и взрослых благодаря неординарной организации образовательной деятельности и захватывающего сюжета [5].

Квест (англ. Quest) - «поиск, предмет поисков, поиск приключений». В мифологии и литературе понятие «квест» изначально обозначало один из способов построения сюжета - путешествие персонажей к определенной цели через преодоление трудностей [6].

В образовательном процессе квест – это специальным образом организованный вид исследовательской деятельности, для выполнения которой обучающиеся осуществляют поиск информации по указанным адресам, включающий и поиск этих адресов или иных объектов, людей, заданий и пр [7].

Задачи могут быть различными по своему содержанию и наполнению: творческие, активные, интеллектуальные и т.п. [8]. Особенно значимо, что квесты могут проходить как в закрытом пространстве, так и на улице, на природе, охватывая все окружающее пространство [9]. Например, квесты в замкнутом помещении, в классе; квесты в музеях, внутри зданий, в парках; квесты на местности (городское ориентирование - «бегущий город»); квесты на местности с поиском тайников (геокэшинг) и элементами ориентирования (в т.ч. GPS) и краеведения; смешанные варианты, в которых сочетается и перемещение участников, и поиск, и использование информационных технологий, и сюжет, и опережающее задание – легенда. [1,10,11].

При подготовке и организации образовательных квестов необходимо определить цели и задачи, которые ставит перед собой организатор, учитывая категорию участников (дети, родители), то пространство, где будет проходить игра и написать сценарий. [12]. Самое главное - заинтересовать участников. Детей заинтриговать значительно легче, чем взрослых (родителей, педагогов), поэтому очень важно продумать этот момент, чтобы родители стали партнерами и активными участниками, т.к. это является одной из главных задач, которая прописано в «Законе об образовании» [13].

Структура образовательного квеста может быть следующей [14]:

1. Введение (в котором прописывается сюжет, распределяются роли).
2. Задания (этапы, вопросы, ролевые задания).
3. Порядок выполнения (бонусы, штрафы).
4. Оценка (итоги, призы).

Педагогу, разрабатывающему квест, необходимо определить: - цели и задачи квеста; - целевую аудиторию и количество участников; - сюжет и

форму квеста, написать сценарий; - определить необходимое пространство и ресурсы; - количество помощников, организаторов; - назначить дату; - как заинтриговать участников [2,15,16]

Таким образом, образовательный квест, как вид интерактивных технологий, позволяет решить следующие задачи: - *образовательную* - вовлечение каждого ребёнка в активный познавательный процесс (организация индивидуальной и групповой деятельности школьников, выявление умений и способностей работать самостоятельно по какой-либо теме); - *развивающую* - развитие интереса к предмету, творческих способностей, воображения учащихся; формирование навыков исследовательской деятельности, умений самостоятельной работы с информацией, расширение кругозора, эрудиции, мотивации; - *воспитательную* - воспитание личной ответственности за выполнение задания, воспитание уважения к культурным традициям, истории, краеведению, здоровьесбережение и здоровьесозидание [17].

Следовательно, использование квестов позволяет уйти от традиционных форм обучения детей и значительно расширить рамки образовательного пространства.

В настоящее время наибольший интерес вызывают исследования междисциплинарного характера и содержание современного школьного естественнонаучного образования должно отражать ведущую тенденцию современной науки – её интегративный характер [18].

С целью активизации учебно-познавательной деятельности учащихся необходимо придавать урокам эмоциональную окраску. [19].

В практической части работы представлены концептуальные основания отбора содержания и конструирования комплекса квеста, рассмотрена теоретическая модель их решения, основанная на соотнесении с учебными целями, предложены методические приемы их использования на различных этапах образовательного процесса, эффективность которых проверена экспериментально. [20].

Таким образом, результаты исследования можно использовать:

- на уроках для решения теоретических и практических задач как на этапе актуализации знаний, так и при любой форме контроля;
- для дальнейших исследований (например, «Разработка сборника интегрированных заданий для организации урочной и внеурочной деятельности по учебному курсу предметов естественнонаучного цикла в форме квест», WEB-квест на уроке химии),
- при проведении часов факультативного курса «Волшебный мир химии»,
- в качестве внеклассного мероприятия в рамках методической недели «Посвящение в химики» так и, на уроке химии по теме «Жесткость воды», «Алюминий».

Итак, решение различных теоретических, практических и экспериментальных задач по химии – это важная сторона овладения знаниями основ химической науки. Использование нестандартных методов и приемов позволяет упростить задания по химии, а также увидеть с другой, более доступной позиции.

Образовательный квест – это совершенно новая форма обучающих и развлекательных программ, с помощью которой дети полностью погружаются в происходящее, получают заряд положительных эмоций и активно включаются в деятельность, ведь что может быть увлекательнее хорошей игры? Живой квест не только позволяет каждому участнику проявить свои знания, способности, но и способствует развитию коммуникационных взаимодействий между игроками, что стимулирует общение и служит хорошим способом сплотить играющих. В квестах присутствует элемент соревновательности, а также эффект неожиданности (неожиданная встреча, таинственность, атмосфера, декорации). Они способствуют развитию аналитических способностей, развивают фантазию и творчество, т.к. участники могут дополнять живые квесты по ходу их прохождения.

В качестве примера рассмотрим структуру квеста в рамках урока химии по теме «Жесткость воды».

При работе на уроке учащиеся исследуют свою тему в мини-группах, выполняют задания квеста, созданного учителем.

Занятие включает в себя несколько этапов: 1. На мотивационно-ориентировочном этапе осуществляется актуализация знаний, задается исходная ситуация, выбирается маршрут «Актуализация»: В начале занятия проводится подготовительная работа, беседа по вопросам темы, задается исходная ситуация, осуществляется погружение в тему. Это помогает учащимся настроиться на продуктивную деятельность.

Ученикам раздаются карточки с письмом жителя города Чирчик, суть её проблемы: не так давно, она приобрела новую бытовую технику как то: стиральная машина, утюг с системой отпаривания и электрический чайник. Однако радость обновкам длилась не долго. Буквально через две недели эксплуатации приборы стали выходить из строя. Все началось с безобидного светло-серого налёта на дне чайника, фото которого нам любезно предоставила жительница, и вы можете его видеть на слайде. В магазине ей лаконично ответили, что вся техника качественная, а виновата женщина сама. В чем же причина поломки, и что, с химической точки зрения представляет из себя этот серый налёт?

Учащимся предлагается разобраться в данной ситуации, составить план исследования, собрать как можно больше информации, выполняя задания и отвечая на вопросы маршрутной карты квеста. Задания призваны(нацелены) вызвать интерес и побудить к исследовательской деятельности.

Квест предполагает ведение учениками группового исследования предложенных металлов по нескольким направлениям:

- Жесткость воды и механизмы её образования в природе,
- Виды жесткости,
- Способы устранения временной и постоянной жёсткости,
- Ионообменные реакции как способ устранения жесткости.

Для этого учащиеся разбиваются на группы.

2. Исследовательская деятельность. Каждая группа выполняет собственное исследование, осуществляет поиск и сбор материала, стараясь выполнить все задания и ответить на максимальное количество вопросов.

Далее каждому путешественнику предстоит побывать на станциях, выполняя различные задания квеста. Задания представляют собой отдельные блоки вопросов, и текст о том, где можно получить необходимую информацию. Вопросы сформулированы так, чтобы ученик был вынужден произвести отбор материала, выделив главное из той информации, которую он находит. На этом этапе выполнения задания формируются исследовательские навыки. Работа над темами должна обобщать, углублять знания учащихся, расширять их кругозор.

Всю собранную информацию в виде текстовых документов, фотографий, схем, таблиц, картинок учащиеся систематизируют в своих тетрадях для последующей обработки.

Учитель выступает в роли организатора процесса учения и консультанта, руководит самостоятельной деятельностью учащихся, оказывает им нужную помощь и поддержку.

3. Заключительный этап. По окончании работы с квестом ребята в своей тетради отмечают данные в таблице по своему вопросу. Таким образом в конце урока создают таблицу «Виды жесткости воды».

4. Подведение итогов урока. 1) При подведении итогов урока учитель предлагает учащимся ответить на вопросы и провести самооценку.

2) В качестве домашнего задания предлагает ученикам оформить собранную входе исследования информацию в виде ответа на письмо, учитывая рекомендации.

5. Оформление результатов исследования. При оформлении результатов деятельности происходит осмысление проведенного исследования. Работа на данном этапе предусматривает отбор самой значимой информации из накопленного материала.

В заключение хочется сказать, что, конечно, такие уроки интересны и понятны учащимся, их можно проводить (например, в качестве обобщающих после изучения тем или уроков-исследований). Но ни для кого не секрет, что разработка подобного рода уроков требует большой подготовки именно от учителя, так как в его задачи входит не только создать квест, но и отобрать полезную информацию в Интернете. Это удел

энтузиастов. И хорошо, когда на помощь приходят коллеги – единомышленники.

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РЕСПИРАТОРНАЯ ПОДДЕРЖКА ПРИ ГИПОКСЕМИЧЕСКОЙ ОСТРОЙ ДЫХАТЕЛЬНОЙ НЕДОСТАТОЧНОСТИ – ПРИМЕНЕНИЕ ВЫСОКОПОТОЧНОЙ ОКСИГЕНАЦИИ, СТРАТЕГИЯ И ТАКТИКА НА ОСНОВЕ ОЦЕНКИ БИОМЕХАНИКИ ДЫХАНИЯ

Высокопоточная назальная оксигенация позволяет обеспечить доставку увлажненной и подогретой кислородно-воздушной смеси с фракцией вдыхаемого кислорода от 21 до 100% и величиной потока до 80 л/мин. Высокопоточная оксигенация имеет определенные преимущества перед неинвазивной вентиляцией легких. Как показывают результаты недавних исследований, высокопоточная оксигенация не менее эффективна, чем традиционная оксигенотерапия, а в ряде ситуаций более комфортна для пациента и может эффективно использоваться на различных этапах лечения острого респираторного дистресссиндрома.

Ключевые слова: высокопоточная оксигенация, острый респираторный дистресс-синдром, неинвазивная вентиляция легких.

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RESPIRATORY SUPPORT IN HYPOXEMIC ACUTE RESPIRATORY INSUFFICIENCY - USE OF HIGH FLOW OXYGENATION, STRATEGY AND TACTICS BASED ON ASSESSMENT OF RESPIRATORY BIOMECHANICS

High-flow oxygen therapy (HFO) delivers humidified and warm oxygen-air mixture to the airways with inspiratory oxygen fraction of 21 — 100% and flow rate up to 80 L/min. High-flow oxygen therapy is characterized by several

advantages over traditional oxygen therapy. According to some recent studies, high-flow oxygenation is no less effective than traditional oxygen therapy. Moreover, this approach is more comfortable compared with non-invasive ventilation in some situations and may be used efficiently for the management of acute respiratory distress syndrome.

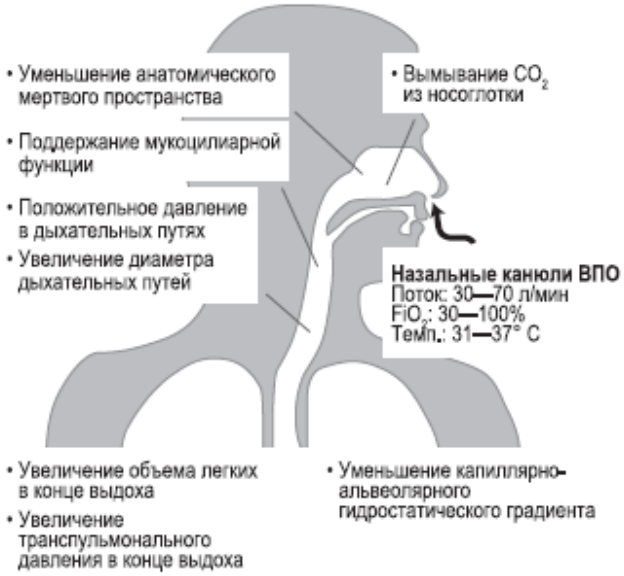
Keywords: High-flow oxygen therapy, acute respiratory distress syndrome, non-invasive ventilation.

Кислородотерапия является средством первого ряда для лечения гипоксемической дыхательной недостаточности, однако эффективность этой методики ограничена, особенно при необходимости наращивания фракции вдыхаемого кислорода. Следует также учитывать, что при использовании стандартной маски или носовых канюль фракция вдыхаемого кислорода, как правило, не превышает 40% за счет «примешивания» окружающего воздуха. Ограничены также возможности подогрева дыхательной смеси и поддержания положительного давления в конце выдоха, что снижает клиническую эффективность метода [1]. Альтернативой в таких случаях является инвазивная искусственная вентиляция легких (ИВЛ). Данный метод сам по себе является жизнеспасающим, но при этом не лишен ряда недостатков. К наиболее частым осложнениям ИВЛ относят вентилятор-ассоциированную пневмонию и трахеобронхит, баро-, волюмо-, оксигено- и ателектотравму [2—5]. В качестве еще одного метода респираторной терапии может выступать неинвазивная вентиляция легких (НИВЛ). Данная методика хорошо зарекомендовала себя в лечении декомпенсации хронической обструктивной болезни легких (ХОБЛ), некардиогенного и кардиогенного отека легких [6—12]. К факторам, ограничивающим ее активное применение, можно отнести трудоемкость метода, а в ряде ситуаций — дискомфорт для пациента. В начале XXI века для респираторной поддержки пациентов в критическом состоянии начали рассматривать еще менее инвазивную методику — высокопоточную оксигенацию (ВПО) [6, 12, 13]. Последняя имеет ряд преимуществ перед стандартной оксигенотерапией и НИВЛ в лечении артериальной гипоксемии, не вызывает существенного дискомфорта у больного и обеспечивает величину инспираторного потока, близкую к потребностям пациента с дыхательной недостаточностью (40—60 л/мин) [14, 15].

Возможности применения ВПО в терапии острого респираторного дистресс-синдрома (ОРДС) являются в настоящее время предметом повышенного интереса со стороны врачей-анестезиологов-реаниматологов и требуют активного изучения. На данный момент нет четких алгоритмов по применению ВПО при ОРДС, не определены оптимальные показания для использования данной методики у этой категории больных, что побудило авторов к написанию обзора.

Высокопоточная оксигенация: ключевые принципы Высокопоточная назальная оксигенация позволяет обеспечить доставку увлажненной и подогретой кислородновоздушной смеси с фракцией вдыхаемого кислорода от 21 до 100% и величиной потока до 80 л/мин. Методика ВПО включает различные системы для эффективного увлажнения и согревания газовой смеси [13]. Принципиальными особенностями ВПО являются возможности пошаговой регуляции скорости потока и температуры, а также точность установки фракции вдыхаемого кислорода. Современные системы ВПО располагают специальными дыхательными контурами из полупроницаемого материала, не допускающего образования конденсата, а также оригинальными носовыми или трахеостомическими канюлями. При этом максимальный поток, тип увлажнения и дизайн носовых канюль варьируют в зависимости от модели устройства. На сегодняшний день оборудование для высокопоточной кислородотерапии представлено несколькими производителями [13, 14]. Кроме того, ВПО стала появляться в качестве дополнительной опции на аппаратах ИВЛ [15].

Рис. 1. Физиологические эффекты высокопоточной оксигенации.



Основные эффекты высокопоточной назальной оксигенации Основными положительными эффектами ВПО являются соответствие величины потока аппарата на вдохе потоку в дыхательных путях пациента с дыхательной недостаточностью и возможность повышения фракции кислорода на вдохе. К физиологическим эффектам ВПО относится и уменьшение мертвого пространства дыхательных путей, что обеспечивается за счет высокого потока кислородновоздушной смеси (эффект вымывания, washout effect). Более того, высокий поток обеспечивает динамический рост давления в дыхательных путях на выдохе (эффект положительного давления в конце выдоха, ПДКВ), что способствует расправлению спавшихся альвеол и вовлечению их в

газообмен [16, 17]. Повышение ПДКВ на фоне высокопоточной назальной оксигенации ограничено 2—7 см вод. ст., поэтому оно не сопровождается нарушениями гемодинамики [13, 18, 19]. Поток газовой смеси с температурой от 31 °С и выше дает возможность дополнительного согревания и увлажнения слизистой дыхательных путей, что благоприятно влияет на газообмен и переносимость пациентом процедуры. Благодаря оригинальной методике постоянного испарения влаги в контуре обеспечивается оптимальная влажность подаваемой смеси. Таким образом, подогрев и адекватное увлажнение смеси способствуют улучшению клиренса слизистого секрета, что уменьшает бронхообструкцию и препятствует дальнейшему ателектазированию. Следует также отметить, что создание высокого потока сводит к минимуму «примешивание» окружающего воздуха, позволяя обеспечить стабильную и управляемую фракцию вдыхаемого кислорода, вплоть до 100% [20, 21]. Описанные эффекты позволяют улучшить элиминацию углекислого газа (CO2), снизить частоту дыхания и стабилизировать показатели оксигенации (рис. 1). Более того, показано, что методика ВПО достаточно проста в использовании и не сопровождается серьезными временными затратами со стороны персонала, а также легче переносится пациентами [14].

Таблица. Сравнение стандартной кислородотерапии, высокопоточной оксигенации и неинвазивной вентиляции легких

Показатель	Стандартная оксигенотерапия	Высокопоточная оксигенация	Неинвазивная вентиляция легких
Увлажнение и подогрев дыхательной смеси	+	+++	++*
Увеличение потока газовой смеси и FiO_2	+	+++	++
Положительное давление в дыхательных путях	+**	++	+++
Клиническая эффективность	+	++	++
Стабильность положения назальных канюль	+	++	Не применимо
Улучшение клиренса мокроты	-	++	+
Легкость использования	+++	++	+
Минимизация риска повреждения кожи лица и слизистой носоглотки	+	++	+
Комфорт для больного	++	+++	+
Нагрузка на медперсонал	+	++***	+++
Снижение риска клаустрофобии	+++	+++	+
Сохранение возможности приема жидкости и пищи, а также общения	+++	+++	+****

Примечание. * — при наличии увлажнителя в дыхательном контуре; ** — при использовании масок с дополнительной емкостью для создания положительного давления в конце выдоха; *** — необходимость в подаче дистиллированной воды, регуляция параметров высокопоточной оксигенации; **** — возможно при использовании назальной маски.

Простота использования метода и «дружелюбный» интерфейс минимизируют потенциальную возможность ошибок в результате человеческого фактора. Основные противопоказания к ВПО включают нарушение сознания, высокий риск аспирации и обструкцию носовых ходов (травма, кровотечение, операция) [17, 20, 22]. Проведение ВПО

может быть крайне опасным у пациентов с переломом основания черепа в связи с риском пневмоцефалии и менингита [17]. Кроме того, у пациентов с ХОБЛ при использовании ВПО с высокой фракцией кислорода возможно развитие респираторного ацидоза вследствие снижения частоты дыхательных движений и гиповентиляции [17, 22]. К специфическим, но достаточно редким проблемам проведения ВПО относят раздражение, дискомфорт и заложенность слизистой носоглотки, ощущение избыточного тепла, нарушения обоняния, дополнительный шумовой эффект и аэрофагию [17]. Определенную озабоченность вызывают вопросы инфекционной безопасности применения ВПО. В ходе ряда исследований оценена степень бактериального загрязнения окружающей среды на фоне использования высокопоточных носовых канюль по сравнению с обычной кислородной маской у пациентов с пневмонией. Результаты показали, что использование ВПО не ассоциировалось с ростом контаминации окружающей среды грамотрицательными или иными бактериями [13, 23]. Преимущества стандартной кислородотерапии, высокопоточной назальной оксигенации и НИВЛ [22—24] суммированы в таблице.

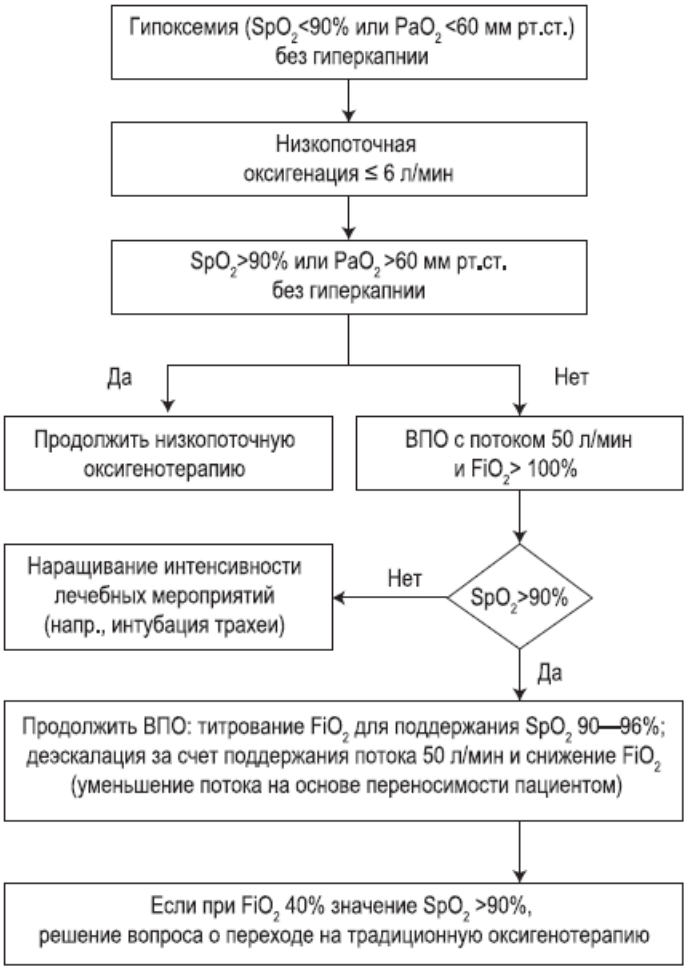
Высокопоточная оксигенация в лечении ОРДС. С момента первого описания ОРДС в 1967 г. прошло более полувека, однако данное состояние до сих пор является одной из ключевых проблем в отделении интенсивной терапии (ОИТ) и сопровождается высокой летальностью [25, 26]. Исход лечения ОРДС зависит от многих факторов, из них решающее значение имеют следующие: в какой стадии ОРДС начато лечение и насколько оно эффективно, какие еще органы и системы поражены, насколько устранима причина, вызвавшая ОРДС [5]. Большую роль играет и проведение респираторной поддержки, необходимой для обеспечения адекватного газообмена в легких, уменьшения работы дыхания, расправления спавшихся альвеол и поддержания нестабильных альвеол в раскрытом состоянии во время выдоха [5, 20, 25, 27].

Использование ВПО на начальных этапах лечения ОРДС Возможность применения ВПО как стартовой терапии гипоксемической дыхательной недостаточности, в том числе ОРДС, активно обсуждается в медицинской литературе последних лет [28—30]. Однако стоит учитывать, что нарушение сознания, полиорганная недостаточность и шок являются противопоказаниями к использованию данного метода. Кроме того, одна из опасностей использования ВПО на начальных этапах лечения гипоксемической дыхательной недостаточности заключается в возможной задержке необходимой интубации трахеи, что, в свою очередь, может ухудшить результат лечения больного [29]. Наличие четких критериев для начала ИВЛ облегчает принятие такого решения. Следует также иметь в виду, что, если в течение первого часа от начала ВПО у пациента с гипоксемической дыхательной недостаточностью не отмечено

существенного клинического улучшения, риск дальнейшей неэффективности подобного лечения становится очень высоким [30]. В качестве факторов риска неэффективности ВПО при ОРДС отмечены отсутствие улучшения оксигенации, сохраняющееся тахипноэ, а также участие вспомогательной мускулатуры в акте дыхания [30]. В числе нереспираторных предикторов неудачного проведения ВПО, как правило, выделяют потребность в вазопрессорах, тахикардию, тяжесть исходного заболевания, а также полиорганную недостаточность [27—29]. Кроме того, ВПО становится неэффективной при большом объеме плеврального выпота, когда приоритетом в лечении дыхательной недостаточности становится плевральная пункция [31].

Имеющиеся на данный момент исследования относительно эффективности ВПО при гипоксемической дыхательной недостаточности противоречивы. Так, J. Frat и соавт. в своем многоцентровом исследовании, в которое включены преимущественно пациенты с пневмонией, показали, что ВПО не снижает риск интубации по сравнению с традиционной оксигенотерапией и НИВЛ (38, 47 и 50% соответственно, p=0,18) [24]. Это может объясняться ограниченными возможностями мобилизации альвеол у этой категории больных и отсутствием у них выраженных нарушений механики дыхания. Тем не менее в подгруппе пациентов с PaO2 /FiO2, равном или менее 200 мм рт.ст., частота интубации трахеи и количество дней без ИВЛ к 28 -м суткам исследования были статистически значимо ниже на фоне ВПО. Кроме того, ВПО сопровождалась большим комфортом, снижением выраженности дыхательной недостаточности и уменьшением тахипноэ по сравнению с НИВЛ и традиционной оксигенотерапией [24].

Рис. 2. Коррекция гипоксемии с использованием высокопоточной оксигенации (модифицировано из статьи T. Renda и соавт. [29]).

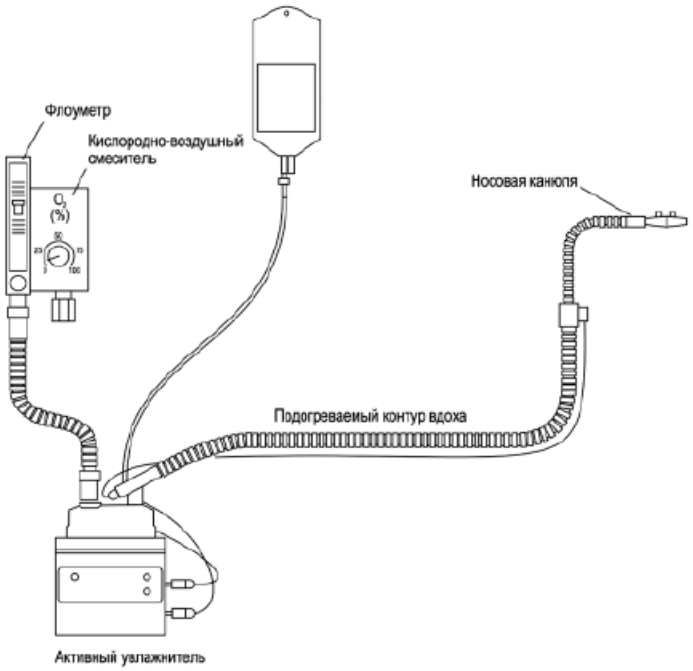


Анализируя результаты последних статей и обзоров, можно отметить, что применение ВПО у пациентов с дыхательной недостаточностью различного генеза снижает частоту интубации по сравнению со стандартной кислородотерапией и НИВЛ, не влияя при этом на длительность пребывания в ОИТ и летальность [29—32]. Так, использование ВПО снижает частоту интубации только по сравнению с традиционной оксигенотерапией, при этом степень комфорта пациентов при ВПО выше, чем при традиционной кислородотерапии и при НИВЛ [29]. Интересно отметить, что даже в тех исследованиях, в которых на фоне применения ВПО не получено статистически значимого снижения частоты интубации трахеи, авторы отмечают безопасность ВПО. Так, R. Parke и соавт. показали, что подавляющее большинство пациентов из группы ВПО хорошо переносили эту методику [22]. В настоящее время нет однозначного мнения относительно оптимального алгоритма выбора первичных настроек ВПО и последующей их коррекции у больных с дыхательной недостаточностью различного генеза. Рабочий алгоритм коррекции гипоксемии с использованием ВПО представлен на рис. 2. Как

указано выше, аппараты для ВПО имеют простой и информативный интерфейс, при этом врач при проведении ВПО корректирует только три параметра: температуру, скорость потока и фракцию вдыхаемого кислорода (рис. 3). На данный момент нет четких рекомендаций по выбору температуры для согревания кислородно-воздушной смеси. В то же время показано, что применение более низкой температуры (31—34 °С) ассоциируется с большим комфортом для пациентов с ОРДС по сравнению с температурой 37 °С [33]. В любом случае подбор температуры носит строго индивидуальный характер, с учетом ощущений конкретного пациента. Что касается устанавливаемой скорости потока, продемонстрировано, что в подгруппе пациентов с выраженной дыхательной недостаточностью больные лучше переносили максимальный поток 60 л/мин, при этом пациенты с ОРДС легкой степени не испытывали дискомфорта и при более низком потоке [33]. Таким образом, при ОРДС легкой степени тяжести допустимо начинать ВПО со скорости потока 20—30 л/мин с последующим увеличением последней в зависимости от показателей газообмена и состояния больного. В то же время у пациентов с более выраженной гипоксемией, вероятно, стоит начинать процедуру с более высоких цифр потока (50—60 л/мин) для развития максимального эффекта ПДКВ [34]. При выборе оптимальной фракции вдыхаемого кислорода у пациентов с ОРДС необходимо учитывать потенциальный вред от применения высокой концентрации кислорода, при этом следует подбирать минимальные значения, необходимые для достижения уровня SpO2 92—97% [27, 35]. Адекватной оксигенации следует добиваться прежде всего за счет увеличения скорости потока, а не фракции вдыхаемого кислорода. Подбор этих двух переменных должен строиться на принципах подбора ПДКВ и FiO2, описанных в рамках концепции респираторной поддержки у пациентов с ОРДС [5, 7, 27].

Использование ВПО в ходе индукции анестезии у пациентов с ОРДС. В случае неэффективности стартовой консервативной терапии пациентам с ОРДС требуется обеспечение инвазивной вентиляции легких, при этом одним из критических моментов может стать сам процесс интубации трахеи с обеспечением седации и миорелаксации [36—40]. В этом плане перспективным видится направление по использованию ВПО на этапе преоксигенации. За счет поддержания высокого потока, возможности использования 100% кислорода, а также отсутствия необходимости прекращать оксигенацию во время ларингоскопии риск десатурации может быть минимизирован [41].

Рис. 3. Схема проведения высокопоточной оксигенации.



В настоящее время лишь в нескольких исследованиях проведено сравнение эффективности преоксигенации при помощи ВПО и лицевой маски у пациентов с гипоксемической дыхательной недостаточностью. Так, в исследовании M. Simon и соавт. у пациентов группы традиционной преоксигенации через минуту после индукции анестезии при переводе на ИВЛ у больных с гипоксемией наблюдалась более выраженная десатурация, чем у пациентов группы ВПО, у которых период ларингоскопии и интубации прошел без выраженного снижения уровня SpO2 [40]. В то же время ряд авторов уже продемонстрировали эффективность ВПО для преоксигенации у пациентов с интактными легкими. Так, A. Patel и S. Nourei показали, что преоксигенация при помощи ВПО позволяла избежать снижения уровня SpO2 менее 90%, несмотря на апноэ средней продолжительностью 17 мин [42]. Кроме того, применение ВПО во время экстренной интубации у пациентов ОИТ без признаков значимой гипоксемии (PaO2 /FiO2 более 200 мм рт.ст.) ассоциируется с меньшей частотой десатурации (менее 90%), а также с меньшей частотой осложнений в ходе выполнения интубации трахеи [29].

Применение ВПО в период прекращения ИВЛ при ОРДС. Этап прекращения респираторной поддержки остается одним из ключевых аспектов ведения пациентов с ОРДС. Несмотря на улучшение состояния пациента и разрешающуюся дыхательную недостаточность, на этом этапе возможно развитие эпизодов гипоксемии и/или гиперкапнии, не менее клинически значимых, чем при манифестации ОРДС. В этих обстоятельствах нередко возникает потребность в реинтубации трахеи и

продолжении инвазивной ИВЛ, особенно у пациентов высокого риска. Потребность в реинтубации остается серьезной проблемой отлучения от ИВЛ, встречающейся в 10—20% случаев ОРДС [43], и ассоциируется с ростом количества осложнений и повышением летальности (до 50% при необходимости реинтубации) [36]. В связи с этим, как показано в недавних исследованиях развития гипоксемической дыхательной недостаточности, в том числе у послеоперационных больных, необходимость поддержания адекватного газообмена после прекращения ИВЛ на фоне сохраняющейся гипергидратации легких требует дальнейшего поиска мер терапии, включая использование ВПО [30, 44]. В последнее время опубликован ряд работ, посвященных методам респираторной поддержки в постэкстубационном периоде. К таким методам относятся ВПО, НИВЛ и традиционная оксигенотерапия [34]. В недавнем рандомизированном исследовании G. Hernandez и соавт. продемонстрировали, что применение ВПО по сравнению с традиционной оксигенотерапией способно снизить риск повторного перевода на ИВЛ у пациентов с клиникой дыхательной недостаточности в постэкстубационном периоде (4,9% по сравнению с 12,2%, p=0,004) [13]. Данное исследование включало широкий спектр пациентов с преобладанием больных хирургического профиля, с низким риском развития постэкстубационной острой дыхательной недостаточности. Более того, доля пациентов с ОРДС в этой работе невелика, что указывает на необходимость проведения дальнейших исследований. Эти же авторы оценили эффект ВПО по сравнению с НИВЛ у пациентов высокого риска в постэкстубационном периоде, показав схожее влияние обеих методик на частоту реинтубации при меньшем количестве осложнений, связанных с применением ВПО [45]. При этом одной из причин более выраженной гипоксемии у больных группы НИВЛ было раннее прекращение сеансов респираторной поддержки на фоне нарастающего дискомфорта у пациента [45]. S. Maggiore и соавт. в своем двуцентровом исследовании с участием пациентов смешанного профиля показали, что превентивное использование ВПО в раннем постэкстубационном периоде у больных с PaO2 /FiO2 менее 300 мм рт.ст., находившихся на ИВЛ не менее 24 часов, сопровождается улучшением оксигенации, уменьшением дискомфорта, а также снижением частоты реинтубации по сравнению с применением кислородной маски с клапаном Вентури [46]. Следует отметить, что в эту работу включены преимущественно пациенты с пневмонией и с травмой, что указывает на необходимость проведения дальнейших исследований у больных с ОРДС. После принятия решения о прекращении ИВЛ и экстубации целесообразно начинать ВПО с достаточно высокой скоростью потока газовой смеси (50—60 л/мин) с учетом индивидуальной переносимости. Фракция вдыхаемого кислорода также подбирается индивидуально для достижения адекватной оксигенации. При стабильном состоянии пациента показано

постепенное снижение фракции вдыхаемого кислорода с последующим поэтапным снижением скорости потока кислородно-воздушной смеси (пошагово по 3—5 л/мин в течение 2—4 часов). В отсутствие признаков нарастания дыхательной недостаточности, а также при фракции вдыхаемого кислорода менее 40% и скорости потока не более 15—20 л/мин возможно прекращение ВПО [29].

Отсутствие эффекта от ВПО в раннем постэкстубационном периоде, как правило, является показанием для реинтубации и продолжения ИВЛ. Критерии повторного перевода на ИВЛ пациентов, получающих ВПО, не отличаются от стандартных. К ним относятся развитие тахипноэ, участие в акте дыхания вспомогательной мускулатуры, неспособность самостоятельно откашливать трахеальный секрет, уровень SpO2 менее 90%, а также нестабильность гемодинамики и ухудшение неврологического статуса [47]. Важным вопросом является и прекращение респираторной поддержки у пациентов с трахеостомой. Несмотря на снижение работы дыхания, риск инфекционных осложнений и невозможность в полной мере самостоятельно санировать мокроту усложняют их перевод на спонтанное дыхание. Применение ВПО как переходного этапа между ИВЛ и спонтанным дыханием имеет определенные клинические перспективы, однако информация на эту тему ограничена и носит противоречивый характер. Так, L. Corley и соавт., сравнивая эффекты высокопоточной и низкопоточной оксигенации у пациентов с трахеостомой и осложненным течением послеоперационного периода в кардиохирургии, отметили улучшение PaO2 / FiO2 на фоне применения ВПО и связали это с возможностями более точного дозирования фракции вдыхаемого кислорода [19]. Напротив, T. Stripoli и соавт. показали, что применение ВПО у больных с трахеостомой не имело существенных преимуществ по сравнению с традиционной кислородотерапией на этапе отлучения от респиратора [48]. Согласно данной работе, применение ВПО не сопровождалось улучшением нейрореспираторного драйва, снижением работы дыхания, а также улучшением газообмена по сравнению с пациентами контрольной группы. Снижение преимуществ ВПО при дыхании через трахеостому может объясняться устранением одного из благоприятных эффектов методики при этом способе ее проведения — улучшения элиминации CO2 за счет вентиляции назофарингеального мертвого пространства. Ранее показано, что наличие трахеостомы само по себе позволяет снизить нейрореспираторный драйв на 30% за счет снижения сопротивления в дыхательных путях и анатомического мертвого пространства [49]. Заключение Учитывая физиологические предпосылки, а также результаты клинических исследований, можно заключить, что высокопоточная оксигенация через назальные канюли претендует на место важного компонента респираторной поддержки пациентов с легким и умеренным

острым респираторным дистресс-синдромом. Применение этой методики обосновано не только на начальных этапах ведения пациентов с острым респираторным дистресс-синдромом, но и на стадии прекращения искусственной вентиляции легких. Требуется проведение дальнейших крупных многоцентровых исследований по применению высокопоточной оксигенации.

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ОЦЕНКА ЭФФЕКТИВНОСТИ ПРИМЕНЕНИЯ АНТИРЕФЛЕКСИВНОЙ ЭНДОТРАХЕАЛЬНОЙ ТРУБКИ В ОТДЕЛЕНИИ ИНТЕНСИВНОЙ ТЕРАПИИ

Цель исследования: оценить эффективность применения антирефлексивной эндотрахеальной трубки при продленной искусственной вентиляции легких (ИВЛ) в отделении интенсивной терапии. Дизайн исследования. У 38-ми пациентов интенсивной терапии, находящихся на продленной ИВЛ, по данным объёма минутной вентиляции легких и динамики уровня парциального напряжения углекислого газа крови (PaCO2), а также оценки неврологического статуса (либо уровня седации), гемодинамики, температуры тела изучена эффективность применения антирефлексивной эндотрахеальной трубки. Результаты исследования. Проведение ИВЛ с помощью антирефлексивной эндотрахеальной трубки обеспечивает уменьшение раздражения в зоне контакта слизистой оболочки трахеи и надувной манжетки в результате возможности орошения слизистой оболочки раствором лидокаина. Использование антирефлексивной эндотрахеальной трубки обеспечивает респираторный комфорт пациенту и достоверно реже сопровождается гипервентиляцией.

Ключевые слова: антирефлексивная эндотрахеальная трубка, интубация трахеи, продленная искусственная вентиляция легких, слизистая, трахеи.

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EVALUATION OF THE EFFICACY OF THE ANTI-REFLEXIVE ENDOTRACHEAL TUBE IN THE ICU

The aim of the study was to evaluate the effectiveness of the use of an antireflexive endotracheal tube during prolonged artificial lung ventilation (ALV) in the intensive care unit. Study design. In 38 intensive care patients on prolonged mechanical ventilation, according to the volume of minute ventilation of the lungs and the dynamics of the level of partial tension of blood carbon dioxide (PaCO2), as well as assessing the neurological status (or the level of sedation), hemodynamics, body temperature, the effectiveness of the use of antireflexive endotracheal tube. Research results. Conducting mechanical ventilation using an antireflexive endotracheal tube reduces irritation in the contact zone of the tracheal mucosa and the inflatable cuff as a result of the possibility of irrigating the mucosa with a solution of lidocaine. The use of an antireflexive endotracheal tube provides respiratory comfort to the patient and is significantly less often accompanied by hyperventilation.

Key words: antireflexive endotracheal tube, tracheal intubation, prolonged mechanical ventilation, tracheal mucosa.

Введение. Интубация трахеи — одна из наиболее частых манипуляций, выполняемых во время анестезии и в интенсивной терапии. Основной целью интубации трахеи вляется восстановление и поддержание проходимости верхних дыхательных путей. Первое описание введения человеку трубки в трахею для проведения вентиляции легких с помощью кожаных мехов принадлежит Парацельсу (1493–1541). Н. И. Пирогов (1847) с целью подержания проходимости верхних дыхательных путей в эксперименте вводил трубку в просвет трахеи. В 1858 году этот эксперимент повторил Дж. Сноу. Интубационная трубка для наркоза впервые была применена 5 июля 1878 году шотландским хирургом У. Макьюеном. Поскольку местная анестезия тогда не применялась, введение интубационной трубки вызвало у пациента приступ сильного кашля. Однако после ингаляции паров хлороформа кашель прекратился, и операция прошла успешно. В 1919 году Айван Мейджил модифицировал интубационную трубку, сделав её из отрезка красного резинового шланга изогнутой и со скошенным срезом. Эта трубка, в дальнейшем получившая имя автора, применялась более 40 лет, пока не появились трубки, изготовленные из биологически инертных пластмасс. С именем Артура Гведела связано дальнейшее усовершенствование интубационных трубок использование раздуваемой манжетки. Гведел начал разработку интубационных трубок с манжетами для повышения безопасности эндотрахеального наркоза. Первые манжетки, которые приклеивались на трубки, изготовлялись из каучука, презервативов, хирургических перчаток. После ряда экспериментов на животных Гведел пришел к выводу, что

раздуваемая манжетка должна находиться ниже голосовых связок. Для более наглядной демонстрации достоинств трубки с манжетами А. Гведел, используя собственную любимую собаку, после анестезии и интубации трахеи погрузил животное в аквариум с водой. Дыхание собаки осуществлялось через интубационную трубку. После окончания эксперимента собаку вытащили из аквариума и экстубировали. Чувствовало себя животное достаточно хорошо. После этой публичной демонстрации интубационные трубки с манжетами получили широкое распространение [1]. Несмотря на длительность применения интубации трахеи, как основного метода обеспечения проходимости дыхательных путей в клинической практике, надежной альтернативы ей так и не найдено. Интубация трахеи является сложной и ответственной манипуляцией, а трудности и опасности, которые её сопровождают, весьма разнообразны. В их число входят побочные эффекты, связанные с развитием рефлекторных патофизиологических реакций, вызванных раздражением слизистой гортани и трахеи интубационной трубкой [14].

Эти патофизиологические реакции могут иметь различную степень выраженности, а последствия их могут быть как незначительными, так и очень грозными, в зависимости от степени компенсаторных возможностей организма пациента [2, 12, 13]. Существует множество способов профилактики и устранения рефлекторных реакций. Среди них наиболее распространена медикаментозная профилактика (премедикация), различные методы местной анестезии слизистой оболочки гортани и трахеи, как наиболее эффективные и патогенетически обоснованные. К методам местной анестезии относятся применение ингаляторов и различных спреев, содержащих местный анестетик, посредством распыления per os; использование гидрофильных мазей, содержащих местные анестетики для смазывания манжетки эндотрахеальной трубки; местная анестезия после прокола перстне-щитовидной мембраны по методу «Bonica».

У всех перечисленных методов имеется один общий недостаток — они не могут достаточно хорошо устранить рефлекторную импульсацию на протяжении длительного времени. Их эффективность ограничена сроком действия местного анестетика и, следовательно, ни один из них не может быть применен после интубации трахеи. Вместе с тем все эти методы имеют и собственные недостатки. Так, применение аэрозолей per os не обеспечивает доставку необходимого количества местного анестетика в подсвязочное пространство. Обработка манжетки интубационной трубки мазями с местным анестетиком практически не даёт эффекта из-за замедления всасывания через слизистую оболочку трахеи. К тому же невозможно точно контролировать общую дозу введенного препарата. Метод «Bonica» инвазивен и может сопровождаться ранением пищевода и кровеносных сосудов, инфицированием в месте

пункции и подлежащих тканях шеи [3]. Одним из эффективных методов решения данной проблемы явилось совершенствование моделей интубационных трубок. В 2001–2002 годах были разработаны и запатентованы В. А. Перваком модели, использование которых позволяет вводить местные анестетики и другие препараты непосредственно в зону контакта пневматической манжетки и слизистой оболочки трахеи после её интубации. Предложенная эндотрахеальная трубка нового типа относится к антирефлексивной (изобретение № 2150300 от 10 июня 2000 года) [8]. И получила широкое практическое распространение, но не была лишена недостатков в результате чего автором была предложена новая конструкция герметизирующей манжетки для эндотрахеальной трубки (изобретение № 2219965 от 27 декабря 2003 года) [6]. Имеются диссертации и исследования, позволяющие дать клиническую оценку эффективности использования новой конструкции герметизирующей манжетки во время общей анестезии при проведении различных оперативных вмешательств [4, 5]. По данной теме опубликовано более 10-ти работ, в том числе и 2 международные публикации о заявках на изобретение [7, 9]. Однако в доступной литературе отсутствуют сведения об эффективности применения антирефлексивных эндотрахеальных трубок у пациентов, которым проводится продленная респираторная поддержка в условиях отделения реанимации и интенсивной терапии. Проведение искусственной вентиляции лёгких (ИВЛ) через эндотрахеальную трубку в отделении интенсивной терапии нередко осложняется рефлекторными реакциями на эндотрахеальную трубку. Наиболее часто рефлекторные реакции проявляются гипервентиляцией, артериальной гипертензией, тахикардией, двигательным возбуждением [10, 11]. Это определяет необходимость глубокой седации пациентов, даже с расстройствами сознания. Применение антирефлексивной эндотрахеальной трубки, возможно, позволит контролировать эти реакции, не прибегая к дополнительной седации, обеспечит респираторный комфорт интубированных пациентов. Проверка этой гипотезы и была целью исследования. *Цель исследования:* оценить эффективность применения антирефлексивной эндотрахеальной трубки при продленной ИВЛ в отделении интенсивной терапии. *Материалы и методы исследования.* Дизайн исследования — двойное слепое проспективное, клиническое, рандомизированное. Обследовано 38 пациентов мужского пола, проходивших лечение в отделении анестезиологии и реанимации Городской клинической больницы № 2 г. Владивостока. Параметры исследовались в течение первых суток проведения ИВЛ.

Критерии включения в исследование — пациенты с черепно-мозговой травмой: ушибом головного мозга легкой и средней степени, острым нарушением мозгового кровообращения (ОНМК); пациенты с сочетанной травмой, а также пациенты после длительных оперативных

вмешательств различного рода, которым была показана продленная ИВЛ. Критерии исключения: уровень сознания пациентов менее 12-ти баллов по шкале ком Глазго, либо R 2–4 по шкале Ramsay, сахарный диабет, отсутствие хронических обструктивных заболеваний легких в анамнезе, гипертермия, как возможная причина одышки и, как следствие, нарастание минутной вентиляции легких, физический статус класса ASA IV. Больные были случайным образом разделены на две группы, имеющие различия по типу применяемой эндотрахеальной трубки. Схема анестезиологического пособия и режимы ИВЛ по группам были идентичными. 20 человек составила опытная группа, в которой применялось орошение слизистой трахеи 1 мл 2 % раствора лидокаина каждые 60 мин. (Данная дозировка рекомендована В. А. Перваком — изобретателем антирефлексивной эндотрахеальной трубки. В научных работах имеются данные, что при использовании лидокаина в такой дозировке токсическая концентрация местного анестетика в плазме не достигается). 18 человек составила контрольная группа, в которой орошение слизистой трахеи растворами местных анестетиков не производилось. Общая характеристика групп представлена в таблице 1.

Общая характеристика групп (M ± m)

Показатели	Контрольная группа (n = 18)	Опытная группа (n = 20)
Возраст (лет), пол	66,5 ± 4,3	67,6 ± 5,1
Масса тела (кг)	74,2 ± 4,1	75,3 ± 3,8
Физический статус по ASA, % ASA II ASA III	 50 50	 45 55
Черепно-мозговая травма	8	10
Сочетанная травма	3	2
ОНМК	2	3

В качестве критерия адекватности местной анестезии слизистой трахеи и отсутствия реакции на интубационную трубку использовался объём минутной вентиляции легких (МВЛ) и уровень парциального напряжения углекислого газа крови (PaCO2). Нормальным уровнем МВЛ считается показатель 6–8 л/мин; нормальный уровень PaCO2 — 40–45 мм рт. ст. Всем пациентам проводилась адекватная анальгезия и своевременная санация трахеобронхиального дерева. У всех пациентов температура тела была в пределах 36,0–36,9 °С. Каждые 6 часов осуществлялась оценка неврологического статуса (либо уровня седации), измерение артериальногшо давления (АД), частоты сердечных сокращений (ЧСС), температуры тела, уровня МВЛ и PaCO2. Уровень PaCO2 измеряли аппаратом Radiometer ABL 800. Для математических вычислений,

полученных данных применяли метод статистической обработки с проверкой изменений в исследуемых группах по критерию Стьюдента. Все полученные во время исследования математические данные подвержены компьютерной обработке на P4 Windows 7 с помощью программы Statistica for Windows в выражении M ± m и P, где M — среднеарифметическое, m — ошибка среднего числа, P — статистические различия по сравнению с контрольной группой.

Результаты исследований и их обсуждение. У всех пациентов регистрация параметров производилась 4 раза в сутки. Таким образом, за все время наблюдений в опытной группе (20 человек) количество измерений составило 80 (n = 80), в контрольной группе (18 человек) — 72 (n = 72). Как видно из табл. 1, в контрольной группе средний показатель PaCO2 (39,14 ± 0,7) был статистически ниже ($p < 0,05$), чем в опытной группе (42,4 ± 0,932), т. е. пациенты, которым не применялась местная анестезия слизистой оболочки трахеи, пребывали в умеренной гипервентиляции. У пациентов опытной группы за все время наблюдения не отмечено случаев системных проявлений местного анестетика (лидокаина). Также наблюдалось статистически значимое ($p < 0,05$) увеличение МВЛ в контрольной группе по сравнению с опытной: 9,5 ± 0,294 и 8,07 ± 0,2268 л/мин соответственно (табл. 2).

Результаты исследования

Группы	Показатели			
	$PaCO_2$	МВЛ	АД ср. мм рт. ст.	ЧСС уд/мин
Опытная группа (n = 80)	42,4 ± 0,932*	8,07 ± 0,2268*	96 ± 0,24*	84 ± 0,32*
Контр. группа (n = 80)	39,14 +/- 0,7	9,5 +/- 0,294	106 +/- 0,3	92 +/- 0,5

Учитывая, что исходно пациенты в двух группах не имели различий в неврологическом статусе и уровне седации, можно сделать вывод о том, что орошение слизистой оболочки трахеи раствором местного анестетика позволяет добиться большего респираторного комфорта больных опытной группы

Выводы

1. Появился опыт применения антирефлексивной эндотрахеальной трубки типа Pervak не только во время общей анестезии, но и в отделении реанимации и интенсивной терапии.

2. Проведение ИВЛ с помощью антирефлексивной эндотрахеальной трубки обеспечивает уменьшение раздражения в зоне контакта слизистой оболочки трахеи и надувной манжетки в результате возможности орошения слизистой оболочки раствором лидокаина.

3. Использование антирефлексивной эндотрахеальной трубки обеспечивает респираторный комфорт пациенту и достоверно реже сопровождается гипервентиляцией.

4. При использовании лидокаина в дозировке, рекомендованной изобретателем антирефлексивной эндотрахеальной трубки, не отмечалось системных проявлений действия местного анестетика.

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РОЛЬ РАДИОЛОГИЧЕСКИХ ИССЛЕДОВАНИЙ ПРИ ДИАГНОСТИКЕ НАРУШЕНИЙ В БИЛИАРНОМ ТРАКТЕ

Аннотация. Билиарные дисфункциональные расстройства относят к функциональным расстройствам органов пищеварения, среди которых выделяют различные устойчивые сочетания хронических рецидивирующих гастроинтестинальных симптомов, не объясняемых до настоящего времени структурной, органической или известной биохимической патологией. Конечным нарушением такой дисфункции является нарушение оттока желчи и/или панкреатического секрета в двенадцатиперстную кишку.

Ключевые слова. Радиология, УЗИ, эхография, МРТ, диагностика, нарушение, билиарный тракт.

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THE ROLE OF RADIOLOGICAL STUDIES IN THE DIAGNOSTICS OF DISORDERS IN THE BILIARY TRACT

Annotation. Biliary dysfunctional disorders are classified as functional disorders of the digestive system, among which there are various stable combinations of chronic recurrent gastrointestinal symptoms that are not explained to date by structural, organic or known biochemical pathology. The ultimate disorder of such dysfunction is a violation of the outflow of bile and / or pancreatic secretions into the duodenum.

Keywords. Radiology, ultrasonography, echography, MRI, diagnostics, disorder, biliary tract.

Актуальность. Заболевания желчного пузыря (ЖП) и желчевыводящих путей (ЖВП) представляют важную клиническую проблему. Среди больных терапевтических стационаров пациенты с заболеваниями желчного пузыря составляют около 25%, а среди пациентов гастроэнтерологических отделений – более 70%. При циррозе поражаются многие органы и системы, начиная от пищеварительной, заканчивая иммунной и центральной нервной. Позднее обращение за врачебной помощью у таких больных регистрируется в 20–50% наблюдений. Цирроз печени в силу своей тяжести воздействия на весь организм оставляет за гранью интереса больного состояние желчного пузыря и желчных протоков. Своевременная диагностика заболеваний органов билиарной зоны может изменить тактику ведения пациента, сохранив приемлемое качество жизни на больший промежуток времени.

Цель исследования. Целью проведенной работы стал поиск корреляции между наличием и видом нарушений билиарного тракта при циррозе печени, а также оценка эффективности различных методов медицинской визуализации в установлении наличия и вида нарушений билиарного тракта.

Материалы и методы. В настоящей публикации приведены результаты комплексного стационарного клинического обследования 78 пациентов с циррозом печени. Больных с циррозом в стадии А 24 человек, в стадии В – 28, в стадии С – 26. Вирусную этиологию заболевания имели 39 (50,0%) пациентов. Возраст обследованных варьировал от 18 до 72 лет, составив в среднем 47,2±9,1 года. Максимальный средний возраст зарегистрирован у больных с циррозом стадии В – 68,1±7,5 года, а наименьший – 34,7±5,1 года – у больных с циррозом стадии С. Среди пациентов было 62 (79%) мужчины.

Состояние билиарного тракта оценено у всех пациентов по показателям фракционного дуоденального зондирования, данным динамического УЗИ, КТ и МРТ внепеченочных ЖВП с определением диаметра общего желчного протока до и после приема желчегонных завтраков. Эхография выполнялась на аппаратах «Sonoline600/Versa-Pro» («Siemens», Германия), «Sonoline-6600» («Medison», Южная Корея) и «Sequoia-512» («Acuson», США) с использованием мультичастотных конвексных трансдюсеров 2–5 МГц и линейного трансдюсера 5–8 МГц, утром, натощак. СКТ выполнена на аппаратах «PQ–2000» («Picker», США) и «AVPS» («Philips», Германия). МРТ проводилась на аппарате «Polaris Vista» («Picker», США) с напряженностью внешнего магнитного поля 1,0 Т. Данные обследований были проанализированы и подвергнуты статистической обработке.

Результаты. Нарушения в желчевыводящих протоках в основном проявлялись клинически как рецидивирующие приступы болей в области правого подреберья и/или эпигастрия, которые в большинстве случаев носили умеренный характер, и диспептические явления. С помощью эхографии проводили исследование фракции выброса желчного пузыря. При оценке сократительной способности пузыря снижение фракции выброса ниже 49% расценивалось как гипокинезия, при повышении ее уровня более 75% – как гиперкинезия. По данным исследования фракции выброса ЖП у 92 (59,4%) больных с циррозом выявлена гиперкинетическая дискинезия ЖП. Средний показатель фракции выброса у них составил 84,4±8,2%. У 36 (23,2%) больных с циррозом верифицирована гипокинезия ЖП. Средний показатель фракции выброса в этой группе оказался на уровне 24,8±7,3%. Определена прямая корреляционная зависимость между наличием моторно-кинетических нарушений ЖП в виде его гиперкинезии и стадией цирроза (r=0,466; p=0,037). Достоверной корреляционной зависимости между возникновением гипокинезии ЖП и стадией цирроза отмечено не было (r=0,350, p=0,411).

При УЗИ билиарного тракта у большинства пациентов с циррозом обнаружены признаки воспалительных изменений ЖП: неравномерное утолщение и акустическое уплотнение стенки пузыря, появление негомогенного содержимого в нем. У 12 (16,1%) больных циррозом печени утолщение стенки ЖП сочеталось с негомогенным содержимым, у 15 (18,7%) – с утолщением стенок ЖП. У 28 (29,7%) больных были отмечены деформации в области шейки ЖП, у 30 (39,3%) – деформации тела ЖП (табл. 1). Из данных, приведенных в таблице 1, видно, что у пациентов с циррозом А наиболее часто выявляемыми изменениями были деформация пузыря, уплотнение и утолщение его стенок, повышение акустической плотности паравезикальных тканей. У пациентов с циррозом В самыми частыми признаками были уплотнение стенок пузыря, его деформация и утолщение стенок. Среди пациентов с циррозом С первые три места по частоте выявляемости заняли те же признаки, что и у больных с циррозом В. Отличительными признаками больных с циррозом С стали чаще регистрируемые осадок в желчи и конкременты. Учитывая наличие УЗ-признаков, характерных для воспалительных изменений ЖП, у 19 (25,2%) пациентов с циррозом был диагностирован хронический бескаменный холецистит. КТ органов брюшной полости была проведена 94 пациентам с циррозом печени. Данные обследования приведены в таблице 2. Данные таблицы 2 демонстрируют, что наиболее часто у больных с циррозом А и В и С выявлялись повышение плотности паравезикальных тканей и утолщение стенок пузыря. Особенных отличий среди обследованных в структуре патологических изменений установлено не было. Статистически

достоверные различия в частоте обнаружения изменений установлены лишь между больными стадиями А и С.

Таким образом, установлено, что изменения в билиарном тракте у больных циррозом формируются статистически достоверно чаще, чем в популяции пациентов без заболеваний печени ($p<0,06$). В выявлении изменений в билиарном тракте, в настоящем исследовании стал метод эхографии. Он же является и методом выбора. В целом же изменения в желчном пузыре и в билиарном тракте (хронический холецистит, желчекаменная болезнь, хронический панкреатит, полипоз желчного пузыря, изменения после холецистэктомии) присутствовали приблизительно у 60% больных циррозом. Это было достоверно чаще, чем в популяции пациентов без заболеваний печени ($p<0,04$).

Вывод. Возможности лучевой диагностики в оценке наличия изменений в желчном пузыре и в билиарном тракте представляют значительный клинический интерес. Заболевания, при которых происходят нарушение желчеоттока и фиброзирование ложа желчного пузыря, немногочисленны. Для клинициста важно не только определить наличие изменений, но и установить как можно более точно их этиологический момент. В этом отношении разные методы лучевой диагностики имеют неодинаковую эффективность.

Таким образом, в качестве метода лучевой диагностики, показавшего наибольшую эффективность в выявлении изменений в билиарном тракте, в настоящем исследовании стал метод эхографии. Он же является и методом выбора. В целом же изменения в желчном пузыре и в билиарном тракте (хронический холецистит, желчекаменная болезнь, хронический панкреатит, полипоз желчного пузыря, изменения после холецистэктомии) присутствовали приблизительно у 60% больных циррозом. Это было достоверно чаще, чем в популяции пациентов без заболеваний печени ($p<0,04$).

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АСПЕКТЫ ОРГАНИЗАЦИИ ПИТАНИЯ СТУДЕНТОВ И СОТРУДНИКОВ В ОРГАНИЗАЦИЯХ ВЫСШЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ

В публикации рассмотрены некоторые особенности организации питания обучающихся и сотрудников вузов, расположенных в субъектах России, входящих в Центральный федеральный округ (ЦФО).

Ключевые слова: высшее профессиональное образование; высшие учебные заведения; Центральный федеральный округ; социальная инфраструктура вузов; организация питания студентов и сотрудников.

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ASPECTS OF STUDENT CATERING AND EMPLOYEES IN ORGANIZATIONS OF HIGHER PROFESSIONAL EDUCATION

The publication discusses some of the features of catering for students and employees of universities located in the subjects of Russia that are part of the Central Federal District (CFD).

Keywords: higher professional education; higher educational institutions; Central Federal District; social infrastructure of universities; catering of students and employees.

Ретроспективный анализ вопросов организации питания в российской системе высшего профессионального образования (ВПО) показал, что «первые учебные заведения Петербурга предполагали пенсионерскую систему, при которой ученики не только обучались, но и жили при учебном заведении, т.е. первые студенческие столовые появились в столице еще в XVIII веке. Общий стол для пажей существовал в Кадетском корпусе, причем на каждого воспитанника отпускалось по

одному рублю в день, что позволяло включать в меню не менее шести блюд. При возведении корпусов Медико-хирургической академии в Санкт-Петербурге в 1799 году в главном здании с самого начала наряду с библиотекой и конференц-залом предполагались кухня и столовая.….За казенный счет питались воспитанницы Смольного института…..В XX в. с появлением новых учебных заведений проблема студенческого питания стала значимой. Так, в царской России к началу Первой мировой войны было четыре первоклассных императорских университета; в 1894 г. число учащихся в университетах России составляло чуть менее 14 тыс.; в 1914 г. в России (с учетом Польши, входившей в состав Российской империи) было уже 127 тыс. студентов» [18].

Особенно ускорился процесс создания вузов в период бурной индустриализации страны. При этом, в каждом вузе была своя столовая с доступными по студенческим доходам ценами. Как отмечает исследователь, «стипендия в СССР, в зависимости от вуза, была 35-50 рублей, потом, к концу существования СССР, повысилась до 62 рублей (т.н. повышенная равнялась 75 рублям); обед из трех блюд стоил 40 копеек, булочка 7-12 копеек» [24].

В н.в. организация питания обучающихся и сотрудников в высших учебных заведениях – обязательное лицензионное требование при разрешении на образовательную деятельность. Это обусловлено значимостью вопросов доступности (ценовой и территориальной) полноценного питания в организациях ВПО. Так, в соответствии с рекомендациями, количество мест на предприятиях питания при вузах должно составлять примерно 20% от числа студентов очной формы обучения. С учетом того, что максимальное расстояние до объекта питания должно составлять не более 500 метров, пункты питания (доготовочные и раздаточные) должны быть рассредоточены и приближены к основному потребителю, специфику обслуживания которого предопределяют короткие перерывы между занятиями [17].

Поэтому в любом вузе обязательно наличие объекта общественного питания, перед деятельностью которого стоят основные задачи:

1. Обеспечить учащихся качественным питанием (достаточный ассортимент готовых к употреблению блюд и напитков). Также необходимо организовать диетическое питание (если нет специализированного предприятия, то в меню со свободным выбором необходимо выделить отдельным блоком диетические блюда).

2. Стоимость обедов должна быть сравнительно невысокой.

3. Содержание пунктов общественного питания должно покрывать все произведенные расходы, то есть находиться на самоокупаемости [1, 9, 13, 23].

Как показывает практика, в вузах эти задачи решаются по-разному:

• передача в аренду помещений с обременением по организации питания (иногда в договоре аренды прописываются основные требования по меню, ценам, уровню обслуживания);

• организация питания с привлечением другой фирмы на условиях аутсорсинга. Так, первыми крупными компаниями, решившими организовать современное питание для обучающихся, стали Subway и корпорация “Ростик Групп”. Subway открыла небольшую точку в МГТУ им. Баумана, а “Ростик Групп” совместно с администрацией – фуд-корт “Ресторанный дворик” (концепции “Ростик'с”, “Планета Суши” и “Патио Пицца”) в МГИМО, инвестиции в последний проект составили около $1 млн. Общая площадь ресторанного дворика, включая рабочие помещения, составляет около 700 кв. м. При этом, в МГИМО продолжает работать и университетская столовая, управляемая “Ростик Групп” [6];

• создание подразделения внутри вуза, которое занимается приготовлением и реализацией продуктов питания. Если в технических вузах питание организуют арендаторы, то в экономических организация питания осуществляется их структурными подразделениями [20].

В ряде организаций ВПО, расположенных в областях Центрального федерального округа, собственники и менеджмент по-разному подходят к вопросам организации питания студентов и сотрудников (табл.1-2).

Мы согласны с мнением о том, что вопросам организации питания студентов и сотрудников вузов нужна господдержка [2]. Полагаем, что в качестве основных мер государственной поддержки возможно рассматривать:

1) Осуществление целенаправленной работы по сохранению здоровья студенческого контингента. В этой связи, актуальным мероприятием, реализуемым в учреждениях ВПО, может являться организация функционального питания, как эффективной формы компенсации алиментарной недостаточности и её последствий среди учащейся молодежи. При данном подходе «коррекция дефицита пищевых веществ в рационах студентов будет решаться посредством внедрения на предприятиях общественного питания блюд, дополнительно обогащенных физиологически функциональными добавками или их смесями, что даст возможность составлять завтраки, обеды, рационы различной профилактической направленности» [14];

Таблица 1 – Обзор особенностей организации питания студентов и сотрудников в ряде государственных вузов и их структурных подразделениях, расположенных в ЦФО

Типы предприятий питания	*Название вуза*	*Организатор питания*	*Краткая характеристика*
Комбинат питания (все типы предприятий питания)	РЭУ им. Г.В. Плеханова	Собственное структурное подразделение вуза	Наличие ресторана, банкетного зала, стола заказов кулинарной продукции; широкий ассортимент блюд, в т.ч. лечебно-профилактического и диетического назначения
Комбинат социального питания (столовая, кафе, буфеты в учебных корпусах и общежитиях)	МФТИ (г. Долгопрудный)	Собственное структурное подразделение вуза, работающее без выходных дней	Широкий ассортимент блюд, в т.ч. лечебно-профилактического и диетического назначения
Комбинат питания «Политехнический» (столовые и буфеты в помещениях вузах и других ОУ г. Владимира)	Владимирский госуниверситет им. А.Г. и Н.Г. Столетовых	Собственное структурное подразделение вуза	Прием заказов на банкетное обслуживание и кулинарную продукцию; широкий ассортимент блюд, в т.ч. лечебно-профилактического и диетического назначения
Учебно-производственный комбинат общественного питания	Брянский государственный аграрный университет		
Столовая и буфеты (в помещениях вуза)	Тверской государственный университет	Структурное подразделение вуза	Прием заказов на банкетное обслуживание и кулинарную продукцию; широкий ассортимент блюд, в т.ч. лечебно-профилактического и диетического назначения; буфетная продукция
	ВГИК им. С.А. Герасимова; РАМ им. Гнесиных	Арендатор помещения	
Столовая	Филиал МГУТУ им. Разумовского в г. Волоколамске	Арендатор помещения	Наличие комплексных обедов; буфетная продукция
	Сергиев-Посадский институт игрушки –	Арендатор помещения; наличие отдельного	

	филиал ВШНИ Сергиев-Посадский филиал ВГИК им. С.А. Герасимова	входа, предполагающего обслуживание и сторонних посетителей	
Буфет-бистро	Филиал МГУТУ им. Разумовского в г. Вязьме; Филиал МПГУ в г. Покрове	Арендатор помещения	Блюда быстрого приготовления и буфетная продукция

Таблица 2 – Обзор особенностей организации питания студентов и сотрудников в ряде негосударственных вузов и их структурных подразделениях, расположенных в ЦФО

Типы предприятий питания	*Название вуза*	*Организатор питания*	*Краткая характеристика*
Столовая и буфеты (в помещениях вуза)	Московский гуманитарный университет	Собственное структурное подразделение вуза + арендаторы	Широкий ассортимент блюд, в т.ч. лечебно-профилактического и диетического назначения
Столовая	Филиалы Российского университета кооперации в гг. Владимире и Смоленске	Столовые облпотребсоюзов	Наличие комплексных обедов и блюд диетического назначения; буфетная продукция
Буфет-бистро	Северо-Западный институт туризма (филиал РМАТ); Филиал МФЮА в г. Сергиев Посад	Арендатор помещения	Блюда быстрого приготовления и буфетная продукция
Помещение для приема пищи	Среднерусский гуманитарно-технический институт (Обнинск); Филиал МФЮА в г. Чехове	Помещение вуза, переданное в аренду или на условиях договора о сотрудничестве оператору питания	Торговые автоматы; печь-СВЧ; кулер с водой

2) Обеспечение доступности питания для различных категорий студентов и сотрудников. В этой связи, значимыми являются предложения о разработке (с последующим мониторингом) проектов по поддержке

обучающихся с низким уровнем дохода путем выдачи им ваучеров и организации их питания по месту учебы, а также по обеспечению доступности питания лиц с ограниченными возможностями [21, 23];

3) Широкое применение современных методов организации производства, управления и обслуживания, которые обеспечивают эффективность деятельности предприятий вузовского питания. Так, для учреждений ВПО, где число обучающихся и сотрудников составляет более 5 тыс. чел., территориально сконцентрированных, «целесообразно организовать фабрику-заготовочную, которая будет обеспечивать доготовочные предприятия питания (или раздаточные) полуфабрикатами и готовыми к потреблению продуктами» [23], либо пользоваться услугами крупных операторов системы школьного питания [7,8,11]. Также возможным является развитие новых типов предприятий питания (например, локальных мини-кафетериев), в которых можно было бы быстро перекусить студентам и сотрудникам [5,16,19]. В целях обеспечения эффективности предприятий общественного питания при образовательных учреждениях целесообразным является проведение семинаров-тренингов по вопросам применения новых технологий, управления качеством приготовляемой продукции, культуре обслуживания [4, 12, 20, 21, 22, 23];

4) Повышение значимости и престижа работы в организациях вузовского питания. Как отмечает исследователь, «недостаточно прослеживается и содержание кадровой политики на предприятиях питания вузов в части подбора, подготовки и переподготовки кадров. Низкая средняя заработная плата работников при устаревшей технологии производства и реализации блюд приводит к высокому уровню текучести кадров и низкой производительности их труда» [21]. Аналогичные мнения о непрестижности работы в организациях общепита и торговли содержатся и в работах других исследователей [3,10,15,25]. В этой связи, значимым является проведение конкурсов профмастерства, возможность привлечения на работу выпускников профильных кафедр вуза, разработка руководствами вузов критериев премирования сотрудников, совершенствование материально-технической базы объектов питания.

Обобщая представленную информацию, отметим, что вопросы организации питания студентов и сотрудников вузов в контексте приоритетов формирования здоровой нации и демографической политики требуют пристального внимания, как со стороны органов исполнительной власти всех уровней, так и руководства, и собственников высших учебных заведений России.

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СОВРЕМЕННЫЕ ОСОБЕННОСТИ ПНЕВМОНИЙ У ДЕТЕЙ

Аннотация: Острые респираторные инфекции — одни из наиболее часто встречающихся заболеваний среди детей и подростков во всем мире. пневмонии, вызванные инфекционными агентами, являются опасными заболеваниями нижних дыхательных путей, которые могут приводить к летальному исходу. сохраняющийся высокий уровень заболеваемости и смертности обусловливает актуальность проблемы. в статье изложены критерии диагностики внебольничной пневмонии (вп) и показатели тяжелого течения вп у младенцев и детей старшего возраста по воз, а также рентгенологические признаки вп и современные эпидемиологические данные.

Ключевые слова: внебольничная пневмония; дети; Streptococcus pneumoniae; инвазивная пневмококковая инфекция.

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MODERN FEATURES OF PNEUMONIA IN CHILDREN

Abstract: Acute respiratory infections are among the most common diseases among children and adolescents worldwide. Pneumonias caused by infectious agents are dangerous diseases of the lower respiratory tract that can be fatal. the continuing high level of morbidity and mortality determines the urgency of the problem. The article presents the criteria for diagnosing community-acquired pneumonia (CAP) and indicators of severe CAP in infants and older children according to WHO, as well as radiographic signs of CAP and modern epidemiological data.

Keywords: community-acquired pneumonia; children; Streptococcus pneumoniae; invasive pneumococcal infection.

ВВЕДЕНИЕ

Острые респираторные инфекции (ОРИ) относятся к наиболее распространенным заболеваниям среди детей и подростков. Особую

опасность представляют заболевания нижних дыхательных путей инфекционной этиологии. К ним относятся пневмонии и бронхиолиты.

До настоящего времени диагностика пневмонии представляет определенные трудности, так как такие ведущие симптомы пневмонии по рекомендации ВОЗ [3], как лихорадка, тахипноэ, диспноэ, участие в акте дыхания вспомогательной мускулатуры, могут встречаться и при других заболеваниях, например бронхиолитах. Гипердиагностика пневмонии приводит к избыточному назначению антибиотиков (АБ), тогда как неверная трактовка респираторных симптомов и поздняя диагностика пневмонии отсрочит назначение АБ и может стать причиной летального исхода [2].

МАТЕРИАЛЫ И МЕТОДЫ

Согласно рекомендациям ВОЗ [3] наиболее специфичными симптомами ВП являются следующие.

1. Тахипноэ, частота дыхательных движений в минуту:

• возраст 0–2 мес.: > 60, возраст 2–12 мес.: > 50, возраст 1–5 лет: > 40, возраст > 5 лет: > 20.

2. Втяжение уступчивых мест грудной клетки, что свидетельствует об избыточной работе дыхательной системы.

3. Отказ от питья и центральный цианоз. Показателями тяжелого течения ВП [1] у младенцев являются:

• $SatO_2$ < 92 %, цианоз;

• тахипноэ > 60 дыханий в минуту;

• затрудненное дыхание;

• апноэ, кряхтящее дыхание;

• отказ от еды.

Показателями тяжелого течения ВП у детей старше года являются:

• $SatO_2$ < 92 %, цианоз;

• тахипноэ > 50 дыханий в минуту;

• затрудненное дыхание;

• кряхтящее дыхание;

• симптомы дегидратации.

Учащенное дыхание у детей с пневмониями является маркером респираторного дистресса и статистически значимо ассоциируется с гипоксемией. Для оценки тяжести ВП и выраженности дыхательной недостаточности у детей должно быть выполнено измерение оксигенации крови с помощью пульсоксиметра. Необходима госпитализация больных с ВП и насыщение крови кислородом ($SatO_2$) < 90–92 % при дыхании комнатным воздухом. Гипоксемия — установленный фактор риска

неблагоприятного исхода у детей и является независимым фактором, ассоциирующимся с краткосрочной смертностью при пневмонии [2].

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Этиологическая структураВПпредставлена в таблице 1 [4].

Таблица 1

Этиологическая структура внебольничной пневмонии представлена в таблице 1

< 7 дней	7 дней – 6 мес.	6 мес. – 5 лет	> 5 лет
E. coli *S. agalactiae* *L. monocytogenes*	*E. coli* *S. agalactiae* *L. monocytogenes* *S. aureus* *C. trachomatis* Вирусы	*S. pneumoniae* 70–88 % *H. influenzae mun b* < 10 % *M. pneumoniae* 15 % *C. pneumoniae* 3–7 % РС-вирус Вирус гриппа Вирус парагриппа Риновирус Аденовирус	*S. pneumoniae* 35–40 % *M. pneumoniae* 23–44 % *C. pneumoniae* 15–30 % *H. influenzae mun b* — редко Вирусы

Ведущим этиологическим фактором внебольничной пневмонии у детей старше 1 мес. Является *S. pneumoniae* [4].

Фактором патогенности *S. pneumoniae* является капсульный полисахарид, который обеспечивает подавление комплиментзависимой бактериолитической активности крови и фагоцитарной активности лейкоцитов. Капсульный полисахарид является основным антигеном, к которому вырабатываются антитела при заболевании пневмококковой инфекцией или здоровом носительстве пневмококка. На основании особенностей химического строения и антигенных свойств полисахаридной капсулы в настоящее время известно более 93 серотипов *S. pneumoniae* [2]. Генетически серотипы существенно различаются. Поскольку капсулярные различия серотипов связаныс распространенностью, склонностью вызывать инвазивное заболевание и даже летальные исходы, то каждый серотип теоретически можно рассматриватькак отдельный возбудитель.

ЗАКЛЮЧЕНИЕ

Все дети, имеющие бактериемическую ВП, лихорадили выше 38,5 °С, из них у 60 % детей лихорадка достигала высоких значений (более 39 °С). Осложненное течение ВП встречалось только у детей с бактериемической пневмонией (у 1 больного — пиопневмоторакс, у 2 — экссудативный плеврит, у 1 — отек легких). По данным разных исследований, частота бактериемии у детей с ВП может варьировать от 1,6 до 10,6 % и выше [11]. Большой разброс может быть связан с различным дизайном исследований. В нашем исследовании столь высокая частота выявления ИПИ (34 %), возможно, связана с госпитализацией детей в более тяжелом состоянии в специализированное пульмонологическое отделение.

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ПРЕПОДАВАНИЕ ТЕМЫ “ФИЗИКО-ХИМИЧЕСКИЕ СВОЙСТВА МИНЕРАЛОВ” НА ОСНОВЕ ИНТЕРАКТИВНЫХ ОБРАЗОВАТЕЛЬНЫХ МЕТОДОВ

Аннотация: В данной статье описывается преподавание минералогии, кристаллографии и кристаллохимии на тему физико-химических свойств минералов на основе интерактивных методов обучения. С помощью ключевых слов и словосочетаний, относящихся к данной науке, раскрывается содержание и суть темы с использованием «Синквейна», «Кубической стратегии», «Синквейна» и интерактивных методов работы в малых группах.

Ключевые слова: образовательная система, интерактивная концепция, проблемное обучение, мозговой штурм, цвет минералов, чархпалак, псевдохроматика, идиохроматика, аллохроматика, педагогическая технология, технологический подход, креативное мышление, синквейн, кубическая стратегия.

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TEACHING THE TOPIC “PHYSICAL AND CHEMICAL PROPERTIES OF MINERALS” ON THE BASIS OF INTERACTIVE EDUCATIONAL METHODS

Abstract: This article describes the teaching of mineralogy, crystallography and crystal chemistry on the topic of physical and chemical properties of minerals based on interactive teaching methods. With the help of keywords and phrases related to this science, the content and essence of the topic is revealed using "Sinkwine", "Cubic Strategy", "Sinkwine" and interactive methods of work in small groups.

Keywords: educational system, interactive concept, problem-based learning, brainstorming, mineral color, charhpalak, pseudochromatic, idiochromatic, allochromatic, pedagogical technology, technological approach, creative thinking, cinquain, cubic strategy.

В настоящее время при совершенствовании системы образования в нашей республике большое внимание уделяется подготовке зрелых, всесторонне развитых, самостоятельно мыслящих, желающих, самоотверженных и инициативных кадров. С учетом этого в системе образования широко используются интерактивные методы.

Интерактивные методы означают методы, которые активизируют учащихся и побуждают их мыслить независимо, при этом учащийся находится в центре образовательного процесса. При использовании этих методов учитель поощряет активное участие учащегося. Учащийся вовлечен в процесс на протяжении всего процесса.

Понятие интерактивного выражается в английском языке как «interact» («интерактивный» по-русски), а со словарной точки зрения оно означает «inter» — взаимный, «act» — действовать.

А интерактивное обучение – это обучение, основанное на организации взаимодействия учащихся с целью приобретения знаний, умений, компетенций и определенных нравственных качеств.

Сегодняшние «Кейсы» (или «Учебные кейсы»), «Творческая работа», «Проблемное обучение», «Мозговой штурм», «Бумеранг», «Зиг-заг», «Лестница», «Рыбный скелет», Интерактивные методы обучения такие так как широко используются «ВВВ», «диаграмма Венна», «Т-таблица», «Вставка» и «Кластер».

Интерактивные методы обучения применимы практически ко всем предметам. В данной статье созданы образовательные модели по теме «Физико-химические свойства минералов», разработаны указанные цели на основе «Таксономии Блума», а также с использованием интерактивных методов «Кубическая стратегия» и «Синквейн» на примере фраза «Идиохроматика, Псевдохроматика, Аллохроматика» по теме, тема используется в учебном процессе, раскрыто содержание и сущность. Кроме того, при преподавании данного предмета было показано использование метода работы в малых группах.

1. Синквейн – интерактивный метод способствует развитию мыслительных способностей учащихся на основе различного подхода к проблеме в процессе распространения и обобщения информации.

1. ___ существительное (кто, что);
2. ___ ___ качество (как, что);
3. ___ ___ ___ глагол (задача, функция);
4. ___ ___ ___ ассоциация (воображение, что пришло в голову)
5. ___ ___ синоним существительного (сходство)

Например, мы создаем синквей для слов «Идиохроматический», «Псевдохроматический», «Аллохроматический».

1. Идиохроматический….
2. Цвет минерала
3. По химическому составу

4. Красный рубин, желтый минерал серы

5. Изумруд Be_3Al_2 [Si_6O_{18}]

Теперь студенты составляет синквейн синклиналь для слов «Псевдохроматический», «Аллохроматический».

1. Псевдохроматический 2..... 3..... 4..... 5.....	1. Аллохроматический 2..... 3..... 4..... 5.....

2. Использование стратегии кубика.

А) «Определить». Греческое слово «идиос» означает собственный. Цвет многих встречающихся в природе минералов определяется химическими элементами, из которых они состоят, и тем, как их атомы, ионы и молекулы связаны друг с другом. Например: $FeO{\bullet\bullet}Fe_2O_3$ – черный для магнетита, FeS_2 – соломенно-желтый для пирита, HgS – красный для киновари. Эта специфическая окраска минералов называется идиохроматической окраской и вызывается она разными причинами.

Б) «Сравнить». Аллохроматический цвет. В переводе с греческого "аллос" означает "внешний, разный". Один и тот же минерал в природных условиях может встречаться разных цветов и оттенков. Например: кварц (SiO_2) бывает разного цвета, его прозрачная бесцветная разновидность - горный хрусталь, а его фиолетовая разновидность – аметист., золотисто-желтый цвет называется цитрином, темный прозрачный цвет – морионом. Аналогичная поваренная соль — галит (NaCl) — может быть белой, серой, коричневой, розовой и иногда синей.

В) «Ассоциация». Изменение цвета некоторых прозрачных минералов называется «псевдохроматизмом». Греческое слово «псевдо» означает подделка. Отражение света, падающего на поверхность минерала от внутренних поверхностей трещин плоскости его соединения, иногда от поверхности некоторых примесей, вызывает псевдохроматические окраски. Это явление мы можем наблюдать в плывущей по воде пелене керосина, нефти или нефти, которая переливается различными «радужными цветами». Это связано с разделением света, отраженного от нижней (отделенной от воды) и верхней (замкнутой воздухом) поверхностей прозрачной масляной пленки на другие цвета.

«Анализ». Цвет минералов, образовавшихся в результате природных процессов, отличается друг от друга в зависимости от их происхождения.

3. В процессе обучения студентов большое значение имеет метод работы в малых группах. То есть обсуждение и оценка является важным фактором. На заключительном этапе группы предоставят информацию о результатах работы. Для этого каждая группа назначает своего капитана. При необходимости мнения, высказанные по результатам деятельности, фиксируются педагогом. Важно разъяснить обоснование решения

проблемы в группе. Если есть достаточно времени, группы также могут задавать друг другу вопросы, аргументируя тот или иной момент. Результаты работы в малых группах оценивает педагог. При этом правильное и точное выполнение деятельности, затрат времени является главным критерием. Рассмотрим преимущества и недостатки метода работы в малых группах.

Преимущества работы в малых группах:

• приводит к лучшему усвоению содержания обучения;

• улучшает коммуникативные навыки;

• есть возможность сэкономить время;

• вовлечены все студенты;

• Будет доступна самооценка и взаимооценка.

Недостатки метода работы в малых группах:

• поскольку есть слабые ученики, сильные ученики также могут получить низкие оценки;

• возможность контролировать всех учащихся будет низкой;

• может возникнуть негативная межгрупповая конкуренция;

• внутри группы может возникнуть конфликт.

Ниже представлено применение метода «Работа в малых группах» при обучении предмету «Физико-химические свойства минералов»:

1. Определено направление деятельности. Взаимосвязанные вопросы определяются темой:

- Какие бывают виды минерального блеска?

- Стекловидный, алмазоподобный, маслянистый, перламутровый, шелковистый, восковой. Расположите по зеркальному блеску следующие минералы кальцит, алмаз, галенит, кварц молочный, слюда, гипс, тальк, серпентин.

2. Определяются малые группы. Учащихся можно разделить на группы по 3-6 человек: каждая группа дает себе название (например, «Геолог», «Минеролог» и т. д.)

3. Небольшие группы начинают выполнять задание.

Пишут свои мысли по заданному вопросу на листе бумаги (например, минералы по блеску делятся на металлические, полуметаллические, зеркальные)

4. Учитель дает четкие указания и направляет (на что обратить внимание при поиске решения задачи).

5. Небольшие группы делают презентацию (каждая группа объясняет написанную на листах информацию по решению задачи на доске).

6. Обсуждаются и анализируются выполненные задания (в обсуждении и анализе могут участвовать все учащиеся).

7. Оценивается деятельность малых групп (оцениваются учащиеся группы и деятельность малой группы в целом. Активно участвующие учащиеся поощряются)

В заключение можно сказать, что хороший эффект дает использование интерактивных методов обучения, основанных на обеспечении активности учащихся в процессе обучения. Используемые выше интерактивные методы обучения приводят к лучшему усвоению обучающимся содержания обучения и совершенствованию коммуникативных навыков. Самое главное, будет возможность с экономить время.

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Узбекистан

АНАЛИЗ ВЛИЯНИЯ ИННОВАЦИОННОГО РАЗВИТИЯ НА ЭФФЕКТИВНОСТЬ КЛЮЧЕВЫХ ПОКАЗАТЕЛЕЙ АКЦИОНЕРНЫХ ОБЩЕСТВ РЕСПУБЛИКИ УЗБЕКИСТАН

Аннотация. В данной статье рассматриваются ключевые показатели эффективности деятельности акционерных обществ республики Узбекистан. Также анализируется влияние инновационного развития на эффективность ключевых показателей акционерных обществ республики Узбекистан.

Ключевые слова: электронная торговля, электронная коммерция, цифровая экономика, онлайн-сервис, интернет, бизнес, технология, потребитель, организация, рынок, компьютер, доход, товар.

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ANALYSIS OF THE IMPACT OF INNOVATIVE DEVELOPMENT ON THE EFFICIENCY OF KEY INDICATORS OF JOINT STOCK COMPANIES OF THE REPUBLIC OF UZBEKISTAN

Annotation: This article discusses the key performance indicators of joint-stock companies of the Republic of Uzbekistan. The impact of innovative development on the effectiveness of key indicators of joint-stock companies of the Republic of Uzbekistan is also analyzed.

Key words: e-commerce, e-commerce, digital economy, online service, internet, business, technology, consumer, organization, market, computer, income, product.

Вступление Узбекистана на путь инновационного развития поставило перед предприятиями реального сектора экономики ряд проблем, главными из которых являются развитие современных организационно-правовых форм хозяйствования, реформирование системы управления производством и введение распространенных в мировой практике методов и инструментов управления, позволяющих

максимизировать их прибыль, внедрять последние достижения науки и техники, а также сглаживать причины конфликтов всех участников деятельности предприятия.

В целях дальнейшего обеспечения эффективности деятельности государственных предприятий, их сокращения в экономике, устранения чрезмерного вмешательства государственных органов в их деятельность, а также повышения мотивации и ответственности членов органов управления предприятий, в рамках принятой Стратегии[58] планируется осуществить следующие меры:

Во-первых, сократить количество государственных предприятий путем определения критериев владения государственными предприятиями, ограничения участия государства в сферах, где и так развита конкуренция и успешно функционирует частный сектор;

Используя принцип «продай или объясни», при отсутствии обоснований по сохранению государственного предприятия, оно подлежит ликвидации, преобразованию либо реализации.

Во-вторых, будет обновлена нормативно-правовая база в сфере приватизации, управления и реформирования предприятий с государственным участием путем принятия нового Закона Республики Узбекистан «Об управлении государственным имуществом» и Закона «О приватизации» в новой редакции.

В настоящее время данные проекты разработаны при содействии международных финансовых институтов (ЕБРР, Всемирного банка, АБР) и зарубежных экспертов. До конца текущего года Агентством будут приняты меры по их внесению в Законодательную палату Олий Мажлиса Республики Узбекистан.

В-третьих, государство не будет создавать новые предприятия без надлежащего обоснования, при этом, все действующие государственные унитарные предприятия будут поэтапно преобразованы в другие организационно-правовые формы, в которых ведут деятельность частные юридические лица.

В-четвертых, будет отменена практика предоставления эксклюзивных льгот и преференций, а также государственных гарантий для финансирования инвестиционных и инфраструктурных проектов государственных предприятий, что послужит созданию равных прав и условий функционирования государственных предприятий и предприятий частного сектора.

[58] Постановление Кабинета Министров Республики Узбекистан от 29 марта 2021 г. № 166 «Об утверждении стратегии управления и реформирования предприятий с государственным участием на 2021 - 2025 годы»

В-пятых, будут внедряться современные методы корпоративного управления и отменено специальное право участия государства в деятельности предприятия, или так называемая - «золотая акция».

В-шестых, деятельность органов управления и контроля предприятий с государственным участием будет организована в соответствии с лучшей практикой корпоративного управления, в частности:

- с 1 января 2022 года кандидаты в Наблюдательные советы предприятий с государственным участием будут избираться на основе конкурса;

- доля независимых членов Наблюдательных советов к 2025 году будет доведена до 30 процентов;

- при наблюдательных советах будут созданы специальные комитеты по аудиту, по назначениям и вознаграждениям, по стратегии и инвестициям с упразднением ревизионных комиссий;

- исполнительный орган также будет формироваться на конкурсной основе со сроком полномочий до трех лет.

- оценка деятельности членов Наблюдательного совета будет связана с показателями внедрения принципов корпоративного управления, а деятельность исполнительного органа - ключевыми показателями эффективности (КПЭ).

При этом, низкая оценка деятельности исполнительного органа, будет основанием расторжения трудовых договоров.

В-седьмых, обеспечение прозрачности и раскрытия информации о деятельности предприятий с государственным участием путем установления требований:

- о наличии корпоративного веб-сайта и раскрытие соответствующей информации, имеющей значение для государства и общественности;

- соблюдение всех процедур прозрачности процесса осуществляемых корпоративных закупок;

Осуществляемая в настоящее время в Узбекистане государственная научная и техническая политика страны направлена на концентрацию усилий, доступных ее научно-техническому потенциалу для решения социально-экономических проблем в условиях перехода к социально ориентированной рыночной экономике. Для экономического подъема одной из задач Узбекистана на ближайшие годы является переход на инновационный путь развития. Реализация инновационной политики в республике тесно связана с изменением в структуре ведущих отраслей экономики, несущей научно-технический прогресс, и обеспечением масштабных качественных изменений в экономике.

Главным фактором экономического роста и повышения уровня жизни населения является широкое внедрение в экономику страны инновационных продуктов и технологий. Развитие инновационной

деятельности является одним из ведущих направлений развития экономики современного Узбекистана. Правительство Узбекистана ведет активную и целенаправленную работу по государственной поддержке инновационного предпринимательства в стране.

Проводимая активная работа в данном направлении даёт свои конкретные результаты. В 2019 году объем освоения инвестиций составил 220,7 трлн сумов, превысив утвержденные годовые прогнозные показатели в 2 раза, а удельный вес инвестиций в основной капитал в структуре ВВП увеличился с 30 % в 2018 году до 36,2 % в 2019. Значительный прирост показателей инвестиционной деятельности обусловлен увеличением притока и освоения зарубежных инвестиций в размере 13,3 млрд. долларов США.

Доля освоенных прямых иностранных инвестиций в общем объеме выросла до 37 % против 10,5 % в 2018 году. Ключевыми зарубежными партнерами по привлечению в Узбекистан иностранных инвестиций стали Российская Федерация, КНР и Германия. Согласно докладу ООН по торговле и развитию (ЮНКТАД), по росту объёмов иностранных инвестиций Узбекистан занял лидирующую позицию среди стран Центральной Азии: если в странах Центральной Азии рост объемов иностранных инвестиций составил в среднем 8–10 %, то в Узбекистане данный показатель по сравнению с показателями 2018 года вырос в 3,2 раза.

В 2020 и последующих годах будет продолжена работа по активному привлечению прямых иностранных инвестиций, диверсификации их направлений для реализации проектов в приоритетных направлениях таких, как сфера туризма, электроэнергетика, химическая отрасль, производство электротехнической продукции, IT-технологии, легкая промышленность, сельское хозяйство. У нас в Узбекистане пока отсутствует широкомасштабное развитие на экстенсивных факторах экономического роста, пока еще слаб предпринимательский интерес к инновациям. По сути, на практике установлен приоритет имитационных схем освоения тех или же других новшеств, созданных в развитых государствах Запада и Европы.

Инноваторский потенциал при этонм понимается только как способность предприятий к восприятию зарубежных новых идей и имитации новых технологий, завезённых извне. Большая часть всех изобретений ориентирована на поддержание или незначительное усовершенствование существующих, в основном устаревших видов и технологий.

Республика Узбекистан располагает существенным сравнительным преимуществом, которое заключается в том, что достигнутое развитие отраслей с высокой добавленной стоимостью происходит не только за счет общего состояния технологии или промышленности, но и за счет наличия

фактического качественного человеческого капитала. Принадлежащей экономической и правовой поддержке государства, существующий научный сектор способен осуществлять производство продукции, которое было бы выгодным и направлено на обеспечение экономической безопасности страны.

В Стратегии действий по пяти приоритетным направлениям развития Республики Узбекистан в 2017-2021 годах определены конкретные задачи по развитию инновационного потенциала промышленных предприятий страны[59]. В Узбекистане созданы и действуют мощные, а в ряде случаев уникальные промышленные предприятия, представляющее практически все отрасли экономики – от тяжелой до легкой промышленности, от переработки сельскохозяйственной продукции до наукоемких производств. Они в своей деятельности используют все известные факторы производства – землю, природные и трудовые ресурсы, технику и технологию, инвестиции, современную информационную систему, которых современная наука называет производственным потенциалом или национальным богатством страны. Это богатство или потенциал, как известно, создается трудом многих поколений, усилиями всего общества. Задача предприятий заключается в бережном отношении и эффективном использовании этого богатства. Любое отклонение от этого принципа хозяйствования – прямой путь к расточительству, бесхозяйственности и снижению эффективности общественного производства. И предприятие здесь – не исключение.

Современный этап экономического и социального развития Узбекистана характеризуется усилением конкуренции между предприятиями, одним из главных инструментов которой являются цена и качество продукции. При этом конкурентное преимущество предприятия в преобладающей части обуславливается достаточным разнообразием предлагаемых им видов продукции и услуг. Поэтому разработка методического подхода к формированию оптимальной структуры производства, позволяющей предприятию использовать конкурентные преимущества по производству и реализации, представляет большой теоретический и практический интерес.

Проводимые в Республике Узбекистан структурные реформы направлены на скорейшее развитие промышленного сектора экономики. Однако расчёты и проведённые исследования показывают, что промышленность республики развивается в основном экстенсивным путём. Но, исходя из зарубежного опыта, развитие промышленности чаще происходит интенсивным путём, т.е. развитие обеспечивается внедрением инноваций.

[59] Указ Президента Республики Узбекистан № 4947 «О Стратегии действий по дальнейшему развитию Республики Узбекистан» от 7 февраля 2017 года // Народное слово. – Ташкент, 2017 г., 8 февраля.

Стоимость валовой промышленной продукции Республики Узбекистан с 2000 по 2017 годы постоянно росла. В 2017 году по сравнению с 2000 годом она увеличилась на 140692,8 млрд. сум. или в 18,3 раза. Начиная с 2018 года наблюдается ускорение роста. Это произошло по причине привлечения большого объёма инвестиций в отрасль на основе программ перспективного развития промышленного сектора, отмеченные задачами Стратегии действий по пяти приоритетным направлениям развития страны в 2017-2021 годах, введение в строй новых производственных объектов и др.

В данных условиях, проведение научно-исследовательских и опытно-конструкторских работ в промышленности приведёт к внедрению инноваций в отрасли и росту объёма валовой продукции. В нижеследующем рисунке 2.1 представлены динамика проведённых в промышленности научно-исследовательских и опытно-конструкторских работ за 2000-2018 годы и прогнозные значения на 2019-2023 годы.



Рисунок 2.1 Динамика затрат на научно-исследовательские и опытно-конструкторские работы в промышленности Республики Узбекистан за 2000-2019 годы и прогнозные значения на 2020-2023 годы, (млн. сум)[60]

Величина затрат на научно-исследовательские и опытно-конструкторские работы в промышленности в прогнозном периоде ежегодно составляет в среднем более 1,29 тлрн. сумов. В 2023 году объём затрат на научно-исследовательские и опытно-конструкторские работы по отношению к 2010 году увеличится в 15,6 раз и составит 1901533,1 млн. сум. До некоторых пор показателями результативности научных исследований и

[60] Г.Ш.Карабаева Возможности и перспективы инновационного развития в постпандемический период//“Iqtisodiyot va innovatsion texnologiyalar” ilmiy elektron jurnali. № 1, yanvar-fevral, 2021 yil

разработок в рамках отдельных предприятий, являлось количество патентов и лицензий.

С приходом пандемии мы наблюдали постепенный спад экономической активности, повышенный спрос на продовольственные товары и товары первой необходимости, рост кредитных вложений и объем денежной массы, девальвацию национальной валюты. Понятно, что карантинные ограничения негативно отразились на всех отраслях экономики снижением темпов их роста. В 2021-2023 годах прогнозируется постепенное восстановление темпов роста отраслей экономики до докризисных значений. При этом принимаем во внимание, что в условиях продолжающейся пандемии неопределенность остается еще высокой.

В современных условиях, учитывая существующую тенденцию сокращения по ряду причин склонности к патентованию результатов НИОКР большинством предприятий, использование данного показателя в оценке инновационного потенциала вызывает сомнение в соответствии с реалиями.

Как видно, роль и место любого предприятия в национальной экономике определяется не только объемами выпускаемой продукции, величиной получаемой прибыли или дохода, но и в какой мере оно участвует в обеспечении занятости населения. Обеспечивая занятость людей, предприятие, кроме своих непосредственных производственных функций, способствует снижению безработицы, а, следовательно, росту трудовой активности и снижению социального напряжения.

Понятно, что все здесь зависит не только от самого предприятия, поскольку оно функционирует в контакте с другими предприятиями, выступающими в роли поставщиков сырья, материалов, оборудования и других средств производства или потребителей продукции, или изделий в качестве комплектующих или окончательного завершения стадии производства. И здесь любой сбой, в том числе несвоевременная поставка сырья, материалов и оборудования, несвоевременная оплата, просроченная задолженность и прочие нарушения хозяйственных правил и обязательств приводит к ухудшению экономического положения предприятия, к его несостоятельности.

Поэтому призывы о необходимости эффективной и рентабельной работы предприятий могут остаться на уровне лишь призывов, пока все предприятия не научатся не только организации хорошо налаженного производства, но и работать в режиме строго выполнения своих обязательств как перед партнерами, так и государством. Таким образом, для инновационного развития промышленности необходимо проведение научно-исследовательских работ в наукоёмких направлениях промышленных отраслей. Это, в свою очередь, в итоге приведёт к повышению объёма валовой промышленной продукции.

Хорошо известно, что инновации являются одним из основных факторов интенсивного экономического роста. Не случайно наиболее развитые страны (Швейцария, 63,9 тыс. долл. ВВП на душу населения по ППС, США - 57,6 тыс. долл., Сингапур - 87,8 тыс. долл., Нидерланды - 50,5 тыс. долл., Ирландия - 71,5 тыс. долл, и др.) возглавляют список стран с наиболее высокими индексами конкурентоспособности, по оценкам экспертов Всемирного банка за 2019 год.

Глобальный инновационный индекс Узбекистана составляет около 30 баллов (по 100-балльной шкале), а республика занимает позицию в пределах 80-90-го места в рейтинге стран ВЭФ по индексу глобальной конкурентоспособности. Разрыв со средней оценкой данного индекса для стран-лидеров (57,8) составляет около 2 раз. По другим индикаторам инновационного развития разрывы еще более значительны: по количеству статей в международных научных журналах (на млн. населения) - почти в 400 раз, по экспорту высокотехнологичной продукции (в структуре экспорта) Узбекистан отстает в 4,5 раза. Аналогичная картина складывается и по индикаторам патентной активности, числу инновационных малых предприятий, доле инновационной продукции в объеме выпуска отраслей и секторов экономики, присутствия инновационных товаров на рынке и другим показателям инновационной активности.

Сопоставление показателей условий и факторов инновационного развития в Узбекистане с мировыми ориентирами позволяет сделать вывод: основными факторами, препятствующими переходу к инновационной экономике в Узбекистане, являются неразвитость институтов и недостаточное финансирование науки и новых технологий в республике.

Мировой опыт показывает, что одним из наиболее эффективных способов инновационного развития экономики и повышения ее конкурентоспособности является интеграция партнерских и вспомогательных предприятий той или иной отрасли, всех участников цепочки по созданию добавленной стоимости.

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ВЫБОР ОПТИМАЛЬНЫХ МОДЕЛЕЙ ПРОГНОЗА ОБЪЁМОВ ПЕРЕВОЗОК ГРУЗА ПРИ ПЛАНИРОВАНИИ И УПРАВЛЕНИИ АВТОМОБИЛЬНЫМ ТРАНСПОРТОМ

Аннотация. В статье рассматриваются вопросы выбора оптимальных моделей прогноза при планировании и управлении транспортом. Выбор оптимальных моделей прогноза на исследуемые периоды времени по автомобильному транспорту осуществлён в двух вариантах: в первом варианте модели прогноза построены по ряду динамики, во втором многофакторные модели прогноза. Сопоставление результатов этих вариантов выбора оптимальной модели позволило установить, что прогнозирование по многофакторной модели дает результаты более близкие к реальным.

Ключевые слова: многофакторное моделирование, регрессионный анализ, факторы, прогнозирование, временной ряд, оптимальная модель, среднеквадратичная ошибка.

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SELECTION OF OPTIMAL MODELS FOR FORECASTING CARGO TRANSPORTATION VOLUMES IN THE PLANNING AND MANAGEMENT OF ROAD TRANSPORT

Abstract: The article discusses the issues of choosing optimal forecast models for transport planning and management. The choice of optimal forecast models for the studied periods of time for road transport is carried out in two variants: in the first variant, forecast models are built according to a number of dynamics, in the second, multifactorial forecast models. Comparing the results of these options for choosing the optimal model allowed us to establish that forecasting using a multifactor model gives results closer to real ones.

Keywords: multifactor modeling, regression analysis, factors, forecasting, time series, optimal model, root-mean-square error.

Введение

Необходимость решения актуальных задач планирования и управления экономикой республики обусловливает использование математических методов анализа экономики и информационно-коммуникационных технологий. Одна из таких задач - разработка методов непосредственного участия квалифицированных специалистов в процессе анализа вариантов плана с помощью информационно-коммуникационного технологий. Её решение требует углубления достаточно точных математических моделей экономических процессов и сферы применения информационно-коммуникационных технологий.

Наиболее часто в экономике применяют методы прогнозирования и математического программирования. Прогнозные расчёты, выполняемые компьютерными технологиями и экономико-математическими методами, многовариантны, что позволяет наилучшим образом решать важные вопросы управления транспортом. Современные компьютерные технология обладают большой оперативной памятью, высокой скоростью обработки данных, в течение небольшого отрезка времени производят необходимый расчет по математической модели, выдавая ответ в удобной для дальнейшего анализа форме. В свою очередь, быстрота ответа компьютерной технологии зависит от уровня математической разработки блоков прогнозных систем, т. е. внутреннего алгоритмического и программного обеспечения системы.

Одна из актуальных задач, стоящих перед экономистами, заключается в разработке методов экономической оценки степени достоверности прогнозной информации, характеризующей развитие отрасли. Эти методы должны гарантировать достоверность результатов, обеспечить целесообразность использования прогнозной информации в процессе планирования и совершенствования данной отрасли экономики **[**1].

Для составления оптимального плана целесообразно использовать прогнозную информацию, которая эквивалентна дополнительным капитальным вложениям, направляемым на устранение последствий неопределенности исходной информации. Однако использовать можно только ту прогнозную информацию, которая в результате проверки оказалась достаточно достоверной в сравнении с фактическими данными.

Методология

Выбор оптимальных моделей прогноза грузовых перевозок на исследуемые периоды времени на автомобильном транспорте осуществлен в двух вариантах для установления достоверности полученных результатов прогноза **[**2]. Таким образом, в первом варианте модели прогноза построены по ряду динамики с использованием метода экспоненциального сглаживания, во втором - многофакторные модели прогноза.

ПЕРВЫЙ ВАРИАНТ. При прогнозировании объёма перевозок грузов методом экстраполяции главное место занимает подбор функции $y(t)$,которая бы наилучшим образом аппроксимировала временой ряд. От правильности этого выбора в значительной степени зависит, насколько построенная модель будет адекватна изучаемому явлению.

Для выделения общей тенденции исследуемых показателей в работе использованы три функции: прямая y=a_0+a_1 t, полином второй степени $y = a_0 + a_1 t + a_2 t^2$ и степенная $y = a_0 * a_1^t$.

Параметры прогнозирующих функций рассчитывается методом наименьших квадратов, широко распространенным в экономических исследованиях. Выбор наилучшей функции производили по следующим критериям:

- среднее абсолютное отклонение
- среднеквадратичное отклонение
- коэффициент вариации
- индекс корреляции

При помощи стандартной программы построены следующие расчётные модели для показателя: “объем перевозок грузов” (таблица 1)

Таблица 1

Расчетные модели прогнозирования объема перевозок грузов

Показатель	Модели	Критерии			
		|A|	σ	υ, %	R^2
Объем перевозок грузов	Y_{Q_t}= 144,02 + 12,245t Y_{Q_t}= 126,822+12,245t + 0,469t^2 Y_{Q_t}= 2,0941 * 0,0397^t	0,001 0,001 1,78	16,37 4,32 6,07	11,37 3,0 4,2	0,9464 0,9969 0,9939

После анализа по критериям выбраны следующие модели прогноза для показателя: “объем перевозок грузов” (таблица 2)

Таблица 2

Модели прогноза объем перевозок грузов автомобильного транспорта

Показатели	Модели	Средняя квадратическая ошибка	
		%	Услов. ед.
Объем перевозок грузов	Y_{Q_t} =126,822 + 12,245t + 0,469t^2	3,0	4,32

Средняя ошибка аппроксимации объема перевозок грузов составила 3,0 процента. Однако трендовые методы не всегда дают приемлемые результаты. Видимо, выравнивая фактические данные с помощью экспоненциального сглаживания, невозможно проследить и учесть влияние факторов, определяющих и формирующих уровень объема

грузовых перевозок, поскольку все они сливаются в один собирательный фактор - время.

ВТОРОЙ ВАРИАНТ. Для построения моделей объёма перевозок грузов использовался многошаговый регрессионный анализ, суть которого заключается в том, что на каждом из последовательных этапов статистически незначимые факторы отсеиваются в соответствии с t - критерием.

При построении многофакторной модели перевозки грузов можно ограничиться прямолинейной зависимостью (связью), так как линейные модели просты и требуют относительно небольшого объёма вычислений, методика их решения довольно хорошо разработана. Автомобильный транспорт осуществляет перевозки грузов по плану перевозок, который является основной для разработки остальных разделов техтрансфинплана. Естественно, возникает вопрос: как определить, что выбранный вариант плана перевозок обеспечит наиболее полное и рациональное использование парка подвижного состава, получение наилучших значений основных технико-эксплуатационных показателей, максимальной прибыли и рентабельности?

Эффективность решения этой задачи во многом зависит от точности, а степень точности, в свою очередь, определяет размер потерь, которые по несут автотранспортные предприятия, отрасль и вся экономика в целом.

Существующие методики анализа и планирования работы автомобильного транспорта построены на предположении о функциональных связях и изолированном влиянии каждого отдельного рассматриваемого фактора. Поэтому при моделировании объёма перевозок грузов автомобильного транспорта республики основными переменными были приняты следующие технико-эксплуатационные показатели:

$А_{сс}$ - среднесписочное количество автомобилей, ед;

$АД_{Э}$ - автомобиле-дни в эксплуатации, тыс, маш.дн.;

$q_{ср}$- средняя грузоподъемность, т.;

$l_{сс}$- среднесуточный пробег, км;

l_{er}- средняя длина ездки с грузом, км;

$\alpha_{в}$- коэффициент выпуска автомобиля на линию;

β- коэффициент использования пробега;

γ- коэффициент использования грузоподъёмности;

$Т_{н}$- средняя продолжительность работы автомобиля на линии,ч;

$V_{э}$- эксплуатационная скорость, км/ч.

При построении многофакторных моделей для прогнозирования объёме перевозок грузов автомобильного транспорта республики использован метод направленного отбора факторов-аргументов, который даёт хорошие результаты [2,4].

Для автотранспорта на основе этой методики при прогнозировании объёма перевозок грузов получены 3 модели, отвечающие всем экономико-математическим требованиям [3].

$У_Q$=-898,07+709,1α_B+681,63β+225,02γ-3,55$V_Э$+0б843l_{er}+4,144l_{cc};

$У_Q$=-1010,86+0,045$АД_Э$+312,28β+172,93γ+25,32$T_н$+21,437$V_Э$-4,55l_{er};

$У_Q$=-714,14+0,034 $АД_Э$+216,89β+66,65γ+7,454$V_Э$-1,86l_{er}+2,06l_{cc};

Здесь довольно высокий коэффициент множественной корреляции: от 0,9971 до 0,9996, т.е. от 99,4 до 99,9% объёма перевозок автомобильным транспортом зависит от факторов, которые вошли в рассматриваемые модели.

Для оценки каждой из этих моделей необходимо рассчитать значения частных коэффициентов t - Стьюдента. Чтобы обосновать достоверность выводов, определяют остаточную дисперсию $\sigma^2_{ост}$, т.е. вариацию величины признака, обусловленную факторами, не лежащими в основе группировки. Для каждой модели рассчитывают: критерий Фишера (F) и сравнивают с табличным ($F_{табл}$); коэффициент множественной корреляции R; среднеквадратичную ошибку; коэффициент множественной детерминации R^2; критерий Стьюдента t_R, который также сравнивают с табличным.

Если значения частных коэффициентов регрессии t_R не удовлетворяют табличным, то из модели исключается фактор-аргумент с наименьшим значением коэффициента при условии, что остаточная дисперсия не увеличивается [5].

Такова методика оценки достоверности каждой многофакторной модели, которая была заложена в алгоритм программы в компьютерных технологии. Перечисленные величины для трёх моделей приведены в табл. 3.

Таблица 3

Характеристики построенных моделей объёма перевозок автомобильного транспорта

Статистические характеристика уравнения регрессии	Модель		
	1-я	2-я	3-я
$t_{АДэ}$		1188,8	907,45
t_{α_B}	67,26		
$t_β$	10,56	11,31	8,04
$t_γ$	2,41	5,27	2,8
$t_{T_н}$		15,89	
$t_{v_э}$	2,32	225,61	38,79
$t_{l_{er}}$	1,82	2,68	2,42
$t_{l_{cc}}$	368,74		17,38
$\sigma^2_{ост}$	48,0	9,3	6,8
F	113,73	589,09	808,97

$F_{таба.}$	6,04	6,04	6,04
R	0,9971	0,9994	0,9996
R^2	99,4	99,9	99,9
σ_R	0,003	0,0006	0,0004
t_R	342,2	1768,3	2427,9

Наименьшее значение $\sigma^2_{ост}$ имеет модель 3, у неё выше всех значение коэффициента множественной корреляции R=0,9996 и t_R=2427,914. Остальные модели также отвечают всем требованиям и могут быть приняты для анализа (тем более, что в них вошли разные факторы-аргументы**)**.Лишь в модели 1 частные значения коэффициента $t_{l_{er}} = 1{,}82$ не удовлетворяют табличным при 5%-ном уровне значимости (табл.3), в целом же модель пригодна для практических целей.

Для статистического анализа возьмём модель 2, у которой коэффициент множественной детерминации R^2=о,998, т.е. 99,8% объёма перевозок грузов автотранспорта зависит от факторов

$$АД_Э, \beta, \gamma, T_Н, l_{er}, v_э:$$

$АД_Э$ - автомобиле - дни в эксплуатации, характеризует организацию технического обслуживания и ремонта автомобилей, обеспеченность предприятий водителями, качество планирования перевозок;

β - коэффициент использования пробега, характеризует взаимное расположение автотранспортного предприятия, грузообразующих и поглощающих пунктов, степень внедрения рациональных маршрутов, организацию перевозок грузов;

γ - коэффициент использования грузоподъёмности, отражает род и величину партий перевозимого груза, тип и грузоподъёмность подвижного состава;

$T_Н$ - время в наряде, учитывает влияние факторов, не вошедших в модель $l_{сс}$, v_t, t_{n-p};

l_{er}- среднее расстояние перевозки грузов, отражает уровень управления перевозками, качество разработанных маршрутов, географию размещения клиентуры и рациональное её закрепление за автотранспортными предприятиями;

$v_э$ - эксплуатационная скорость, учитывает простой на линии.

По коэффициентам регрессии выявляют факторы, оказывающие наибольшее влияние на объём перевозок. Так, если $АД_Э$ увеличить на 100 дней, то объём перевозок Q возрастёт на 4,5 тыс. тонн. Увеличение β всего на 0,01 позволит увеличить Q на 3,12 тыс. т; увеличение γ на 0,01 повысит Q на 1,73 тыс.т. При увличении $T_Н$ на 1час Q возрастёт на 25,32 тыс. т. При росте $V_Э$ на 0,1 км/ч Q увеличится на 2,1 тыс. т., а при сокращении l_{er} на 0,1 км Q возрастёт на 0,45 тыс. т.

Зная параметры модели для прогноза объёма перевозок грузов, а также значения факторов, можно рассчитать уровень развития

автомобильного транспорта на перспективу. Для решения этой задачи прогнозные значения указанных факторов определены методом экспоненциального сглаживания [6,7].

Ниже приведены модели прогноза каждого показателя (факторов):

- $X_{АДэ}$= 5482,27 + 237,3t + 14,5 t^2;
- X_{α_B} = 0,658 + 0,008 t;
- X_{β}= 0,562 + 0,003 t;
- X_{γ}= 1,052 + 0,00053t + 0,00014 t^2;
- $X_{T_н}$ = 9,918 + 0,053 t;
- $X_{l_{er}}$ =18,19 + 0,064 t;
- $X_{l_{cc}}$ =202,4 + 3,375 t;
- $X_{v_э}$ =20,41 + 0,202 t;

Подстановка прогнозных значений факторов в уравнения регрессии определяют общую тенденцию развития автомобильного транспорта республики. Средняя ошибка аппроксимации для объёма перевозок грузов автомобильного транспорта составила 2%. Это свидетельствует о высокой достоверности результатов прогнозирования.

Результаты. Использование прочих методов прогнозирования, несмотря на их простоту, приводит к худшим результатам. Об этом свидетельствует сравнение прогноза объема перевозок грузов автомобильным транспортом, полученного методом многофакторного прогнозирования и по ряду динамики с использованием метода экспоненциального сглаживания. Табл.4

Таблица 4

Выбор оптимальной модели для прогнозирования объема перевозок грузов автомобильным транспортом (у.е.)

Фактический	Метод прогнозирования		Разница между прогнозными и фактическими значениями	
	I вариант	II вариант	I вариант	II вариант
293,7	296,2	294,1	2,5	0,4
328,6	318,3	326,0	-10,3	2,6
343,5	341,3	343,5	-2,2	-
359,3	365,3	363,2	6,0	3,9
372,0	390,2	386,0	18,2	14,0
			σI =11,0	σII =7,4

Основываясь на том, что наилучшее приближение к исходным данным даёт функция, имеющая наименьшее квадратичное отклонение (σ) для каждого случая прогнозирования объема перевозок грузов, определяем.

$$\sigma = \sqrt{\frac{\sum_{i=1}^{n}(y_i - \hat{y}_i)}{n-1}}$$

Сопоставление результатов двух вариантов выбора оптимальной модели позволило установить, что прогнозирование объема перевозок грузов автомобильного транспорта по многофакторной модели дает результаты более близкие к реальным [8]. Это подтверждено при приложении построенных моделей к фактическим отчетным данным (таблица 4).

Заключение. Метод многофакторного прогнозирования является, на наш взгляд, наиболее совершенным. Позволяя учесть изменения во времени и факторных признаков, и параметров модели даже в том случае, когда они имеют довольно сложное развитие, он дает хороший результат, а плановым органам-надежный инструмент для определения перспектив развития основных показателей автомобильного транспорта.

Экономико-математические модели, основанные на корреляционно - регрессионных уравнениях для решения прогнозных задач по определению объёма перевозок грузов автомобильного транспорта, позволяют обосновать качество разрабатываемых перспективных планов на основе полного анализа взаимосвязанных между собой факторов, влияющих на формирование плана отрасли. Предложенная методика прогнозирования (многофакторная модель) позволяет более точно оценить влияние технических и организационных факторов на уровень объёма перевозок грузов, выявить характер связи и соотношения между факторами, что, в свою очередь, даёт возможность осуществить направленный поиск сочетаний технических и организационных факторов, определить резервы производства и составить конкретный план мероприятий по вовлечению этих резервов в производство.

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МЕТОДОЛОГИЯ БУХГАЛТЕРСКОГО УЧЕТА И АУДИТА ОСНОВНЫХ СРЕДСТВ

Актуальность исследуемых вопросов обусловлена особым местом сельскохозяйственной отрасли в отечественной экономике, теснотой связи всех участников агропродовольственного рынка и необходимостью совершенствования бухгалтерского учета и финансового контроля. Рассмотрены роль и значение контроля достоверности данных бухгалтерского учета в отношении объектов основных средств, известные методики аудита бухгалтерского учета объектов основных средств; описан механизм проведения аудиторской проверки. Представлены результаты аудиторской проверки объектов основных средств в организации, относящейся к агропромышленному комплексу Омской области. Обобщены результаты исследования и сформулированы выводы о достоверности рассматриваемой бухгалтерской информации. Разработан и представлен ряд аудиторских документов, позволяющих провести проверку и выявить ошибки в ведении бухгалтерского учета.

Ключевые слова: аудит, объект основных средств, бухгалтерский учет, сельское хозяйство, агропромышленный комплекс (АПК), отчетность.

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METHODOLOGY OF FINANCIAL ACCOUNTING AND AUDIT OF FIXED ASSETS.

The research is relevant due to a special role of agriculture in domestic economy, close connections among all participants of the agricultural market and the need for improvement of accounting and financial control under modern

economic conditions. This article describes the role and importance of control (audit) and re- porting on the accounting reliability concerning the fixed assets items. Generalizations of a well-known auditing procedures and techniques for accounting of fixed assets have been done. The article shows the mechanism for the audit of fixed assets. It submits the auditing results to obtain a comprehensive picture of fixed assets which are used by an organization of agroindustrial complex in Omsk region. The results of research and findings con-cerning accounting reliability have been presented. This article contains a series of auditing documents related to the topic that can be used for detecting and fixing accounting mistakes.

Keywords: audit, fixed assets item, accounting, agriculture, agro-industrial complex (AIC), accounting report.

Введение

В связи с переходом к рыночным отношениям в экономике России происходят существенные изменения не только на микроэкономическом уровне, но и на макроэкономическом. Одним из значимых элементов рыночных отношений является финансовый контроль. Он может быть государственным и независимым. Последний носит название «аудит». Аудит направлен на обеспечение контроля достоверности информации, отражаемой в бухгалтерской и налоговой отчетности. Одним из условий успешной деятельности организаций является наличие у них собственного имущества, большую часть которого составляют объекты основных средств, образующие производственнотехническую базу. Кроме того, объекты основных средств – наиболее дорогостоящие и долго действующие активы. Все вышесказанное обусловливает необходимость периодической проверки и контроля учета наличия, сохранности, движения объектов основных средств и начисления амортизации по ним как одной из наиболее весомых и значимых статей бухгалтерской отчетности.

Проведению аудита фактов хозяйственной жизни, связанных с объектами основных средств, посвящены труды Е.Р. Баханьковой, Л.И. Ерохиной, С.А. Касьяновой, Е.М. Мерзликиной, Н.Г. Николаенко, В.И. Подольского, А.А. Савина, М.В. Черновой и др.

Целью исследования является представление методики аудиторской проверки экономической целесообразности и документальной обоснованности достоверности отражения операций с объектами основных средств в ООО «Агрокомплекс «Ударный» (г. Омск).

Результаты исследования

Аудиторская проверка экономической целесообразности и документальной обоснованности достоверности отражения операций с основными средствами (далее – ОС) в АПК проведена на примере хозяйственной деятельности ООО «Агрокомплекс «Ударный».

Исследуемая организация развивает два отраслевых направления – животноводство и растениеводство. Агрохолдинг включает молочный завод и четыре животноводческих хозяйства с современным оборудованием и программным обеспечением.

Несмотря на финансовые проблемы, вызванные последствиями экономических санкций США и Евросоюза 2014–2015 гг., руководство данной сельскохозяйственной организации сумело не только сохранить «докризисный» объем продаж, но и улучшило финансовые показатели за счет эффективной антикризисной политики (диверсификации агробизнеса, квалифицированного менеджмента и грамотного управления персоналом).

Приступая к аудиторской проверке, следует обратить внимание на то, что для эффективного проведения аудита в установленные сроки необходимо тщательно продумать и составить план работ. Требования по планированию аудита установлены Федеральным стандартом аудиторской деятельности № 3 «Планирование аудита» [1]. Планирование проводится в соответствии с принципами комплексности, непрерывности и оптимальности. Основные этапы планирования аудита представлены на рис.

В целом планирование аудита – отправная точка всех последующих действий по отношению к проверяемому экономическому субъекту. По окончании подготовительной работы можно перейти к непосредственной проверке оговоренного участка учета. Приступая к проведению аудита, необходимо помнить о том, что он осуществляется в соответствии с разработанным графиком в плане и программе аудита. Кроме того, все процедуры, проводимые аудитором, и сделанные им выводы должны быть обоснованными и оформленными в рабочих документах [2].

Источниками информации при проведении проверки достоверности учета объектов основных средств выступают следующие документы ООО «Агрокомплекс «Ударный»: приказы; распоряжения; договоры; учетная политика; инвентаризационные документы (инвентарная карточка учета объекта ОС, инвентарная книга учета объектов ОС); акты; анализ счетов 01, 02, 08; оборотно-сальдовые ведомости по счетам 01, 02, 08; отчеты по ОС; бухгалтерский баланс; отчет о финансовых результатах; налоговые декларации.

Проверку бухгалтерского учета объектов основных средств в исследуемой организации целесообразно начать с аудита документооборота, который осуществляется по формальным признакам. Для этого необходимо проверить первичные документы по учету объектов ОС на предмет соответствия формам первичной учетной документации, утвержденным Постановлением Госкомстата, так как в учетной политике ООО «Агрокомплекс «Ударный» закреплено, что в организации используются унифицированные формы первичных документов, а самостоятельно разработанные формы отсутствуют [3].

Аудит проведен выборочно, для чего запрошены из всей совокупности первичных документов по три экземпляра каждой формы. Выбор обусловлен тем, что только три объекта основных средств поступили в организацию в исследуемом периоде. Кроме того, существуют различия относительно места эксплуатации, материально ответственных лиц, срока эксплуатации и стоимости данных ОС. Исследуемые объекты представлены в табл. 1.

Таблица 1

Рабочий документ аудитора. Проверка состава основных средств, поступивших в ООО «Агрокомплекс «Ударный» в 2014 г.

Объект основных средств	Инвентарный номер	Подтверждающий документ	Дата
Легковой автомобиль LADA PRIORA 217230	00000011	Договор купли-продажи	10.04.2014
Вал ведущий СМК-447	00000012	Товарная накладная № 146	27.08.2014
Шестерня разъемная СМК-325.04.010	00000013	Товарная накладная № 50	26.11.2014

В ООО «Агрокомплекс «Ударный» учет основных средств оформляется в первичных документах непосредственно в момент совершения операции. Для последующего учета и контроля фактов хозяйственной жизни работники бухгалтерской службы используют систему синтетических и аналитических документов, а также промежуточные формы отчетности (отчеты по основным средствам) [4].

Стоит отметить, что имеющиеся реквизиты заполнены верно, без подчисток и помарок; присутствует дата принятия объектов основных средств к учету, первоначальная стоимость ОС, а также имеются подписи членов комиссии по приему-передаче ОС, каждому документу присвоен свой собственный порядковый номер. В результате визуального осмотра инвентарных карточек можно отметить следующее: инвентарные карточки составлены на отдельный инвентарный номер объекта ОС; инвентарные номера в карточках соответствуют инвентарным номерам в актах приемапередачи ОС; все имеющиеся данные идентичны данным в первичных документах; не заполнены некоторые реквизиты. Так как инвентарные карточки на бумажном носителе в организации отсутствуют, а для проверки были получены их копии, хранящиеся в электронном виде, исследуемые карточки не имеют некоторых реквизитов. Данные карточек группируются в инвентарной книге, в которой также отсутствуют некоторые реквизиты (лицо, ответственное за ведение книги). Результаты формальной проверки каждого отдельно взятого первичного документа исследуемой организации по учету объектов основных средств отражены в табл. 2.

Таблица 2

Рабочий документ аудитора. Результаты аудита документооборота в части основных средств в ООО «Агрокомплекс «Ударный», 2014 г.

Документ	Замечания аудитора
Первичные документы	
Акт о приеме-передаче легкового автомобиля LADA PRIORA217230 № 00000001; акт о приеме-передаче вала ведущего СМК-447 № 00000002; акт о приеме-передаче шестерни разъемной СМК-325.04.010 № 00000003; товарная накладная № 146;товарная накладная № 50; договор купли-продажи № 55 АГ 014765/3 (Легковой автомо-биль LADA PRIORA 217230)	Реквизиты заполнены не до конца: 1) во всех актах отсутствует отметка об открытии инвентарной карточки учета ОС или записи в инвентарной книге; 2) в акте № 00000003 отсутствует печать; 3) в акте № 00000002 и № 00000003 отсутствует реквизит «основание для составления акта»; 4) во всех актах отсутствует информация об организации-сдатчике. В накладных не выделена сумма налога на добав- ленную стоимость (далее – НДС)
Регистры аналитического учета	
Инвентарная карточка учета объекта ОС № 00000011; инвентарная карточка учета объекта ОС № 00000012; инвентарная карточка учета объекта ОС № 00000013	Не заполнены реквизиты: 1) организация-изготовитель; 2) документ о вводе в эксплуатацию; 3) дата выпуска. Пустые строки не прочеркнуты
Инвентарная книга учета объектов основных средств	Отсутствует реквизит: лицо, ответственное за веде-ние книги
Оборотно-сальдовая ведомость по счетам 01,02,08 за 2014 г.; анализ счетов 01, 02, 08 за 2014 г.	Недостатки не выявлены
Регистры синтетического учета	
Отчет по основным средствам за 2012–2014 гг.	Недостатки не выявлены
Отчетность	
Бухгалтерский баланс	Недостатки не выявлены

Положительным является тот факт, что данные, содержащиеся в актах приема-передачи ОС, инвентарных карточках, полностью соответствуют сводным данным отчета по основным средствам (табл. 3). Исходя из информации, представленной в инвентарных карточках, ремонт объектов основных средств в ООО «Агрокомплекс «Ударный» в 2014 г. не проводился.

Таблица 3

Рабочий документ аудитора. Сопоставление данных документов учета объектов ОС, поступивших в ООО «Агрокомплекс «Ударный» в 2014 г.

Наименование ОС	Инвентарный номер	Первоначальная стоимость, руб.		
		Акт приема-передачи ОС	Инвентарная карточка	Отчет по ОС за 2014 г.
Легковой автомобиль LADA PRIORA 217230	00000011	100000,00	100000,00	100000,000
Вал ведущий СМК-447	00000012	41674,00	41674,00	41674,00
Шестерня разъемная СМК-325.04.010	00000013	43500,00	43500,00	43500,00

В процессе проведения аудита важным является подтверждение совпадения необходимых реквизитов во всех документах по учету объектов основных средств. Результаты проверки отражены в табл. 4, проанализировав которую можно сделать вывод о том, что во всех документах ООО «Агрокомплекс «Ударный» по учету основных средств сопоставляемые данные идентичны. Исключением является реквизит «Ответственное лицо» по легковому автомобилю, так как он присутствует только в акте приемапередачи основных средств и инвентарной карточке и отсутствует в инвентарной книге и отчете по основным средствам за 2012–2014 гг.

Таблица 4

Рабочий документ аудитора. Проверка сквозного совпадения реквизитов в документах по учету объектов ОС, поступивших в 2014 г.

Критерий	Значение критерия	Документальное оформление. Наличие (+), отсутствие (–) характеристики			
		Акт о приеме-передаче	Инвентарная карточка	Инвентарная книга	Отчет по ОС за 2012–2014 гг.
Наименование объекта ОС	Легковой автомобиль LADA PRIORA 217230	+	+	+	+
Инвентарный номер	00000011	+	+	+	+
Структурное подразделение	Заводоуправление	+	+	+	+
МОЛ	Сазыкин П.И.	+	+	–	–
Срок полезного использования	60 мес.	+	+	+	+

Остальные объекты основных средств (вал ведущий СМК-447, шестерня разъемная СМК-325.04.010) не нашли отражения в табл. 4, так как их характеристики идентичны во всех исследуемых документах.

Стоит акцентировать внимание на том, что с заведующей центральным складом заключен договор о полной материальной ответственности. Договоры с другими материально ответственными лицами предоставлены организацией не были.

Далее, согласно программе аудита, следует перейти к проверке правильности отражения в учете поступления объектов ОС. Основной задачей, лежащей перед аудитором, является проверка достоверности записей на счетах бухгалтерского учета. Синтетический учет наличия и поступления объектов ОС в ООО «Агрокомплекс «Ударный» осуществляется на счетах 01, 08. В 2014 г. на основании анализа счета 08 и оборотно-сальдовой ведомости по счету 08 должны быть сделаны следующие проводки (рис. 2).

На основании счетов-фактур нужно отразить сумму входящего НДС:

4) Дебет 19 Кредит 60 – (100 · 118 % – 100 = 18) 18 тыс. руб. – учтен НДС по затратам на приобретение легкового автомобиля LADA PRIORA 217230;

5) Дебет 19 Кредит 60 – (41,67 · 118 % – 41,67 = 7,5) 7,5 тыс. руб. – учтен НДС по затратам на приобретение вала ведущего СМК-447;

6) Дебет 19 Кредит 60 – (43,50 · 118 % – 43,50 = 7,83) 7,83 тыс. руб. – учтен НДС по затратам на приобретение шестерни разъемной СМК-325.04.010.

Наличие таких данных в учете ООО «Агрокомплекс «Ударный» невозможно проверить, так как отсутствуют счета-фактуры, а в накладных сумма НДС не выделена.

После введения объекта основных средств в эксплуатацию на основе анализа счета 01 и оборотно-сальдовой ведомости по счету 01 должны быть сделаны бухгалтерские записи:

1) $Д_т$ 01 $К_т$ 08 – 100,00 тыс. руб. – введен в эксплуатацию легковой автомобиль LADAPRIORA 217230;

2) $Д_т$ 01 $К_т$ 08 – 41,67 тыс. руб. – введен в эксплуатацию вал ведущий СМК-447;

3) $Д_т$ 01 $К_т$ 08 – 43,50 тыс. руб. – введена в эксплуатацию шестерня разъемная СМК- 325.04.010.

При этом дебетовое сальдо по состоянию на 01.01.2014 г. составит 2005,93 тыс. руб. Оборот по дебету за 2014 г. будет равен 185,17 тыс. руб. при отсутствии оборота по кредиту. Таким образом, сальдо на 31.12.2014 г. составит 2191,1 тыс. руб.

В ходе ознакомления с рабочим планом счетов исследуемой организации и карточкой счетов 01, 02, 08, было установлено, что для счетов 01 «Основные средства», 02 «Амортизация основных средств» не

предусмотрены субсчета, а счет 08 «Вложения во внеоборотные активы» имеет один субсчет 08-4 «Приобретение объектов основных средств».

*Дт*08 «Вложения во внеоборотные активы»*Кт*	
Сальдо на 01.01.2014 г. – 84,65 тыс. руб.	
1. *Дт* 08 *Кт* 60 – 100,00 тыс. руб. – приобретен легковой автомобиль LADA PRIORA 217230	1. *Дт* 01 *Кт* 08 – 100,00 тыс. руб. – введен в эксплуата-цию легковой автомобиль LADA PRIORA 217230
2. *Дт* 08 *Кт* 60 – 41,67 тыс. руб. – приобретен вал веду-щий СМК-447	2. *Дт* 01 *Кт* 08 – 41,67 тыс. руб. – введен в эксплуатацию вал ведущий СМК-447
3. *Дт* 08 *Кт* 60 – 43,50 тыс. руб. – приобретена шестерня разъемная СМК-325.04.010	3. *Дт* 01 *Кт* 08 – 43,50 тыс. руб. – введена в эксплуата-цию шестерня разъемная СМК-325.04.010
Оборот за 2014 г. – 185,17 тыс. руб.	*Оборот за 2014 г. – 185,17 тыс. руб.*
Сальдо на 31.12.2014 г. – 84,65 тыс. руб. *	

*Сальдо на 31.12.2014 г., рассчитанное аудитором, имеет незначительное отклонение от суммы, указанной в документах ООО «Агрокомплекс «Ударный» ввиду арифметического округления. *Рис. 2.* Корреспонденция счетов по счету 08 «Вложения во внеоборотные активы» в ООО «Агрокомплекс «Ударный» за 2014 г.

Кроме собственных ООО «Агрокомплекс «Ударный» имеет арендованные объекты основных средств. Право собственности на такие объекты основных средств подтверждается договором аренды промышленно-производственного комплекса, срок действия которого – календарный год (23 октября 2014 г. – 23 сентября 2015 г.). Подробный перечень получаемого по договору имущества представлен в акте приема-передачи в аренду промышленно-производственного комплекса.

В ООО «Агрокомплекс «Ударный» учет арендованных объектов основных средств на счетах бухгалтерского учета не ведется, хотя по общепринятым правилам для отражения фактов хозяйственной жизни, связанных с таким имуществом, применяются забалансовые счета 001 «Арендованные основные средства», 010 «Износ основных средств» [5]. Выбытия основных средств в ООО «Агрокомплекс «Ударный» в 2014 г. не происходило.

Проверка обеспечения сохранности объектов основных средств осуществляется посредством инвентаризации. Несмотря на то, что в учетной политике ООО «Агрокомплекс «Ударный» закреплено ежегодное проведение инвентаризации имущества, в 2014 г. инвентаризация документально не оформлена. Отсутствуют первичные документы – инвентаризационные описи (ИНВ-1 «Инвентаризационная опись основных средств», ИНВ-10 «Акт инвентаризации незаконченных ремонтов основных средств», ИНВ-18 «Сличительная ведомость результатов

инвентаризации основных средств»), а также решения руководства по итогам проведения инвентаризации. Следовательно, проверка сохранности объектов основных средств в рассматриваемом экономическом субъекте невозможна.

Важным направлением проведения аудита ОС является проверка правильности начисления амортизации. Аудитору необходимо убедиться в арифметической правильности итогов ведомости начисления амортизации. Ведомость начисления амортизации в ООО «Агрокомплекс

«Ударный» отсутствует. Расчет амортизационных отчислений производится в программе 1С автоматически, а документами, подтверждающими начисление амортизации, служат:

– отчет по основным средствам по документу «Начисление амортизации и погашение стоимости за декабрь 2014 г.»;

– анализ счета 02 за декабрь 2014 г.;

– оборотно-сальдовая ведомость по счету 02 за декабрь 2014 г.

Начисление амортизации по поступившему основному средству согласно ПБУ 6/01 начинают проводить с первого числа месяца, следующего за месяцем ввода его в эксплуатацию [6]. Воспользуемся аудиторской процедурой «пересчет» и начислим амортизацию по следующим объектам основных средств, относящихся к разным подразделениям организации:

– легковой автомобиль LADA PRIORA 217230 (дата ввода в эксплуатацию 11.04.2014 г.);

– вал ведущий СМК-447 (дата ввода в эксплуатацию 27.08.2014 г.).

Расчет суммы амортизационных отчислений по легковому автомобилю LADA PRIORA 217230 за 2014 г.:

1) 100 % / 60 ≈ 1,66667 % – месячная норма амортизации;

2) 100000 · 1,66667% / 100 % = 1666,67 руб. – ежемесячная сумма амортизационных отчислений;

3) 1666,67 · 8 = 13333,36 руб. – сумма амортизации, начисленная за 2014 г. Расчет суммы амортизационных отчислений по валу ведущему СМК-447 за 2014 г.:

1) 100 % / 60 ≈ 1,66667 % – месячная норма амортизации;

2) 41674 · 1,66667 % / 100 % = 694,57 руб. – ежемесячная сумма амортизационных отчислений;

3) 694,57 · 4 = 2778,28 руб. – сумма амортизации, начисленная за 2014 г.

Сумма начисленной за 2014 г. амортизации по рассматриваемым объектам основных средств отражена в бухгалтерском учете ООО «Агрокомплекс «Ударный» в следующих бухгалтерских записях:

1) $Д_т$ 26 $К_т$ 02 – 13333,36 руб. – начислена амортизация по легковому автомобилю LA- DA PRIORA 217230;

2) $Д_т$ 20 $К_т$ 02 – 2778,28 руб. – начислена амортизация по валу

ведущему СМК-447;

3) $Д_т$ 20 $К_т$ 02 – 234311,08 руб. – начислена амортизация по прочим основным средствам, относящимся к основному производству;

4) $Д_т$ 23 $К_т$ 02 – 5084,76 руб. – начислена амортизация по прочим основным средствам, относящимся к вспомогательным производствам;

5) $Д_т$ 25 $К_т$ 02 – 30964,48 руб. – начислена амортизация по прочим основным средствам общепроизводственного назначения;

6) $Д_т$ 26 $К_т$ 02 – 9709,68 руб. – начислена амортизация по прочим основным средствам общехозяйственного назначения.

При этом кредитовое сальдо по счету 02 «Амортизация основных средств» на 01.01.2014 г. равно 317404,16. руб. Оборот по кредиту за 2014 г. составит 296181,64 руб. при отсутствии дебетового оборота. Следовательно, кредитовое сальдо на 31.12.2014 г. равно 613585,80. руб.

По итогам аудиторской проверки можно сделать вывод о том, что в ООО «Агрокомплекс

«Ударный» начисление амортизации по объектам основных средств производится в соответствии с требованиями учетной политики линейным методом. Аудируемая организация верно определяет срок полезного использования объектов основных средств, учитывая пределы, установленные законодательством для определенных амортизационных групп.

Пересчетом подтверждена достоверность итоговых сумм начисления амортизации объектов основных средств за 2014 г., что означает, что дата начала начисления амортизации была выбрана исследуемым экономическим субъектом правильно.

Начисленная амортизация по ведущему валу, используемому в основном производстве, списывается на счет 20 «Основное производство», по легковому автомобилю общехозяйствен ного назначения – на счет 26 «Общехозяйственные расходы». Списание амортизации на счета затрат в ООО «Агрокомплекс «Ударный» в отчетном периоде (2014) произведено верно.

Объекты основных средств, по которым не начисляется амортизация, начисляется ускоренная амортизация и которые вносятся в качестве вклада в уставный капитал, обнаружены в ходе аудита не были.

С помощью пересчета, произведенного аудитором, была проведена проверка правильности расчета амортизации и остаточной стоимости объектов основных средств ООО «Агрокомплекс «Ударный» в целях определения достоверности расчета налоговой базы по налогу на имущество организаций. Также была исследована полнота включения суммы начисленной амортизации ОС в себестоимость готовой продукции, а, следовательно, правильность формирования налоговой базы по налогу на прибыль. НДС по объектам основных средств не подвергался

отдельной проверке в связи с документальной налоговой проверкой ООО «Агрокомплекс «Ударный» по НДС в 2015 г.

Согласно программе проведения аудита, далее необходимо рассмотреть отражение всех фактов хозяйственной жизни за 2014 г., связанных с объектами основных средств, в регистрах аналитического и синтетического учета, отчетности. С помощью процедуры прослеживания проводится проверка соответствия показателей следующих документов:

– формы бухгалтерской отчетности по основным средствам;
– анализ счета;
– оборотно-сальдовая ведомость.

Результаты сверки показателей, представляющих собой общие суммы остатков на начало и конец отчетного периода (2014), оборотов за период по всем основным средствам в разрезе дебета и кредита соответствующих счетов могут быть оформлены рабочим документом по форме, представленной в табл. 5.

Таблица 5

Рабочий документ аудитора. Сверка показателей регистров учета и отчетности за 2014 г. в ООО «Агрокомплекс «Ударный», тыс. руб.

Регистр	Остаток на начало периода		Оборот за период		Остаток на конец периода	
	Дебет	Кредит	Дебет	Кредит	Дебет	Кредит
Оборотно-сальдовая ведомость по счету 01	2005,92	–	185,17	0	2191,10	–
Анализ счета 01	2005,92	–	185,17	0	2191,10	–
Оборотно-сальдовая ведомость по счету 02	–	317,40	0	296,18	–	613,59
Анализ счета 02	–	317,40	0	296,18	–	613,59
Отчет по основным средствам за 2014 г.	2005,92	317,40	185,17	296,18	2191,10	613,59

В ходе проверки установлено, что показатели регистров синтетического, аналитического учета объектов основных средств и отчетности тождественны.

Завершающим этапом всей аудиторской проверки является сверка данных регистров синтетического учета (отчет по основным средствам) и годовой бухгалтерской отчетности. В результате такого сравнения определено, что суммарная остаточная стоимость всех объектов основных средств в отчете по основным средствам аудируемой организации за 2014 г. (1577513,11 руб. ≈ 1577,51 тыс. руб.) соответствует числовому значению показателя по статье

«Основные средства» в бухгалтерском балансе за 2014 г.

Заключение

В рамках статьи невозможно отразить механизм формирования мнения аудитора по результатам проверки. В целом при проведении аудита операций с объектами основных средств в ООО «Агрокомплекс «Ударный» не обнаружены всеобъемлющие ошибки, касающиеся оценки, классификации объектов основных средств или раскрытия информации о них в бухгалтерском учете и отчетности. Однако из-за наличия некоторых недочетов в ведении учета аудируемой организацией (отсутствие документального оформления инвентаризации, неполное заполнение первичных документов и регистров аналитического учета и так далее) возникают сомнения в уместности, правильности, полноте раскрытия информации в бухгалтерской отчетности исследуемого экономического субъекта. Следовательно, аудиторское заключение должно быть модифицированным и содержать мнение аудитора с оговоркой.

Таким образом, в процессе аудиторской проверки операций с объектами основных средств в ООО «Агрокомплекс «Ударный» выявлены некоторые ошибки, касающиеся оформления первичных учетных документов либо отсутствия части документов, а также своевременности проведения инвентаризации. Положительным является тот факт, что обнаруженные ошибки носят существенный, но не всеобъемлющий характер, оказывая незначительное влияние на достоверность бухгалтерской отчетности аудируемого лица.

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ОЦЕНКИ ЕСТЕСТВЕННО-НАУЧНОЙ ГРАМОТНОСТИ В ПРЕПОДАВАНИИ ХИМИИ НА ОСНОВЕ ТРЕБОВАНИЙ МЕЖДУНАРОДНОЙ ПРОГРАММЫ (PISA)

Аннотация. Сегодняшней день современная школа нуждается в модернизации. Обществу требуются люди, умеющие быстро адаптироваться к изменениям, происходящим в мире. В новых обстоятельствах процесс обучения в школе должен быть ориентирован на развитие компетентностей, способствующих реализации концепции «образование через всю жизнь». Установлено, что предпосылкой развития компетентности является наличие определённого уровня функциональной грамотности. Компетентностный подход выдвигает на первое место не информированность учащегося, а умение решать проблемы, возникающие в познании, во взаимоотношениях людей, в профессиональной жизни, в личностном самоопределении. Ядром данного процесса выступает функциональная грамотность, так как под ней понимают «способность человека решать стандартные жизненные задачи в различных сферах жизни и деятельности на основе прикладных знаний».

Ключевые слова. Модернизация, школа, компетентность, концепции, грамотность, развитие, задачи, деятельность.

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ASSESSMENT OF SCIENTIFIC LITERACY IN TEACHING CHEMISTRY BASED ON THE REQUIREMENTS OF THE INTERNATIONAL PROGRAM (PISA)

Annotation. Today's modern school needs modernization. Society needs people who are able to adapt quickly to the changes taking place in the world. In the new circumstances, the learning process at school should be focused on the development of competencies that contribute to the implementation of the concept of "education through life". It is established that the prerequisite for the

development of competence is the presence of a certain level of functional literacy. The competence approach puts in the first place not the awareness of the student, but the ability to solve problems arising in cognition, in people's relationships, in professional life, in personal self-determination. The core of this process is functional literacy, since it is understood as "the ability of a person to solve standard life tasks in various spheres of life and activity based on applied knowledge."

Keywords. Modernization, school, competence, concepts, literacy, development, tasks, activities.

В последние годы система узбекского образования, как и в целом в мире, претерпевает серьезные изменения, новый компетентный подход связан с необходимостью непрерывного самообразования молодых людей, овладением новыми информационными технологиями, умением сотрудничать и работать в группах. Эти изменения требуют некоторого пересмотра как содержания обучения, так и подходов к выявлению его эффективности.

Упомянутые изменения учитывались пи разработке нового стандарта [1] основного общего образования, который ориентирован не только на конкретные знания, но и на деятельностный характер образования. Поскольку основное общее образование – завершающая ступень обязательного образования в Республики Узбекистане, то одним из базовых требований к его содержанию является достижение выпускниками высокого уровня функциональной грамотности [5].

Наряду с имеющимися в российской школе традициями формирования высокообразованного человека необходимо развивать его компетентность – способность результативно действовать в нестандартных ситуациях. Иными словами, человек должен уметь проявить свою образованность в конкретной жизненной ситуации [2].

Рассматриваемые изменения в образовании нашли отражение в программе международного исследования PISA *(Programme for International Student Assessment)*, основной целью которого является оценка подготовленности учащихся 15-летнего возраста к активному участию в жизни общества, т.е. их функциональной грамотности. В исследовании PISA 2003–2005 гг. [2] под естественно-научной грамотностью понимается «способность использовать естественно-научные знания для выделения в реальных ситуациях проблем, которые могут быть исследованы и решены с помощью научных методов, для получения выводов, основанных на наблюдениях и экспериментах [4]. Эти выводы необходимы для понимания окружающего мира и тех изменений, которые вносит в него деятельность человека, и для принятия соответствующих решений» [3].

Таким образом выявляется степень развития у учащихся умений использовать знания в ситуациях, близких к реальным. В дальнейшем

подобные навыки будут способствовать активному участию выпускника школы в жизни общества, помогут ему приобретать новые знания.

Выполняя задания данного исследования, учащиеся должны были продемонстрировать: умения описывать, объяснять и прогнозировать естественно-научные явления; умения интерпретировать научную аргументацию и выводы, с которыми они могут встретиться в средствах массовой информации; понимание методов научных исследований, выявление вопросов и проблем, которые могут быть решены с помощью научных методов [5,6].

Одной из характеристик заданий для оценки естественно-научной грамотности являются ситуации, в которых раскрываются различные проблемы. Предлагаемые учащимся ситуации в заданиях были связаны с повседневной жизнью людей, сохранением здоровья, использованием естественно-научных знаний для развития техники, с проблемами окружающей среды [7].

Анализируя результаты исследования, специалисты Центра оценки качества образования РФ под руководством Г.С.Ковалевой выявили значительные недостатки в умениях российских учащихся применять полученные в школе знания и умения в контексте жизненных ситуаций [1]. На основе детального анализа полученных результатов были сделаны выводы о том, что в практике обучения российские учащиеся не встречаются с заданиями [8]:

• содержащими большой объем как текстовой информации, так и информации, предъявляемой в виде таблиц, диаграмм, графиков, рисунков, схем;

• составленными на материале разных предметных областей, для правильного выполнения которых надо интегрировать разнообразные знания, использовать общеучебные умения, отбирать и использовать адекватные описываемой ситуации способы размышления, анализа, обоснований, коммуникаций и т.п.;

• в которых не ясно, к какой области знаний надо обратиться, чтобы определить способ действий или найти информацию, необходимые для постановки и решения проблемы;

• требующими привлечения дополнительной информации (в том числе выходящей за рамки описанной в тексте задания ситуации) или, напротив, содержащими избыточную информацию и «лишние данные»;

• комплексными или структурированными, состоящими из нескольких взаимосвязанных вопросов: каждый вопрос проверяет овладение отдельным знанием или умением, а группа вопросов – некоторой их совокупностью. По мнению разработчиков, именно такой подход в большей степени отражает сложность реального мира и позволяет уменьшить время на введение учащихся в рассматриваемую проблему [9].

В результате были выделены следующие признаки этих заданий [10,11]:

• условие представлено в неявном виде, содержит информацию, которая не требуется для ответа на вопрос;

• в условии много лишних деталей, в то же время отсутствует часть необходимой информации, в некоторых случаях эта информация может содержаться в вопросе;

• необходимая информация представлена в разных форматах (текст, графики, таблицы, справочники, собственные знания);

• необходимая информация задана не в логике отнесения ее к конкретному предмету (учебному или научному), а в логике к конкретной жизненной ситуации (условие взято из жизни, а не из учебника);

• форма ответа не задана (или задана в неявном виде).

Данные признаки демонстрируют существенные отличия таких задач от тех, которые наши учащиеся привыкли решать на уроках. И самое главное отличие состоит в том, что их решения не укладываются в рамки привычных алгоритмов [12].

Чтобы решить задачу в исследовании PISA, необходимо применить (а значит, владеть ими) следующие общеучебные умения [13,14]: - дифференцировать, вычленять искомую информацию; - производить поиск информации в разных местах: в тексте вопроса, опираясь на свои знания или собственный опыт; - выделять в задании собственно вопрос и дополнительную информацию, переструктурировать вопрос, изменять его форму; - • отбирать информацию, необходимую для принятия решения; - распорядиться отобранной информацией, чтобы получить ответ; - перевести задачу в относительно стандартный вид; - разработать программу действий для поиска решения; - проводить постоянный мониторинг результатов при выполнении программы (постоянная проверка хода выполнения действий); - удерживать в памяти вопрос как критерий правильности программы; - при выполнении действий понимать, что получается, отбрасывать ненужные результаты, производить их проверку; - восстановить связи вопрос–результат и преобразовать результат в ответ; - разработать дизайн ответа и его оформление; - учесть адресность вопроса.

Данные общеучебные умения и навыки развиваются при обучении решению творческих задач [15, 16]. Творческие задачи в школьной практике используются довольно редко, требуют достаточно высокой квалификации педагога и дополнительного учебного времени. Однако вводить постепенно элементы таких заданий в повседневную практику, на наш взгляд, вполне возможно.

Представляется важным разработка таких обучающих и контролирующих задач, их типология, отработка методики их

использования на уроках химии в основной школе. Ниже приведены примеры творческих задач [17].

Если спросить у разных людей, из чего состоит организм человека, то, вероятнее всего, получишь различные ответы [18]. В одних ответах прозвучат биологические термины с упоминанием внутренних органов, костей и т.п [19]. В других, возможно, разговор пойдет о таких мелких «деталях», как белки, жиры, углеводы, а также нуклеиновые кислоты. Химики, скорее всего, сразу подумают об атомах и молекулах, т.е. о химических элементах и их соединениях [20]. Всем химикам известно, что организм человека представляет собой не смесь химических элементов, а смесь химических соединений, многие из которых весьма сложны.

Задание № 1. Прочитайте отрывок из знаменитой «Собаки Баскервилей» А. Конан - Дойла и ответьте на следующие за ним вопросы. «...Да! Это была собака, огромная, черная, как смоль. Но такой собаки еще никто из нас, смертных, не видывал. Из ее отверстой пасти вырывалось пламя, глаза метали искры, по морде и загривку мерцал переливающийся огонь. Ни в чьем воспаленном мозгу не могло возникнуть видение более страшное, более омерзительное, чем это адское существо, выскочившее на нас из тумана... Страшный пес, величиной с молодую львицу. Его огромная пасть все еще светилась голубоватым пламенем, глубоко сидящие дикие глаза были обведены огненными кругами. Я дотронулся до этой светящейся головы и, отняв руку, увидел, что мои пальцы тоже засветились в темноте. — Фосфор, — сказал я».

Вопрос 1. Фосфор бывает белый, красный и черный. О каком фосфоре идет речь в отрывке? Объясните, почему вы так считаете.

Вопрос 2. В этом отрывке Артур Конан Дойл допустил существенную химическую ошибку. Он не учел химических свойств фосфора и его соединений. Проанализируйте содержание отрывка. Почему описанное в нем явление маловероятно? Назовите не менее двух причин.

Задание № 2. Говорят, что дыма без огня не бывает, но у химиков возможно всё! Если смешать при комнатной температуре два бесцветных газа – аммиак (пары нашатырного спирта) и хлороводород (пары соляной кислоты), то сейчас же появится густой белый дым.

Вопрос - как можно объяснить это явление? Ответ поясните, написав уравнение реакции.

Задание № 3. Это таинственное явление можно наблюдать по ночам на болотах и кладбищах – светящиеся огоньки. С давних времён они вселяли в людей страх и ужас. Считалось, что блуждающие огни заманивали заблудившихся людей в болотную трясину, где они погибали.

Вопрос - какое объяснение дает современная наука этому явлению?

Интерпретировать научную информацию:

Задание № 1. Дан ряд формул, который составлен по определенному правилу. Догадайтесь, в чем состоит это правило, и допишите недостающие формулы.

а) Na_2O, MgO, Al_2O_3,...,...,...,...; б) BeO, MgO, CaO,...,....

Задание № 2. Установите соответствие между формулой вещества и реагентами, с каждым из которых это вещество может взаимодействовать.

ФОРМУЛА ВЕЩЕСТВА: РЕАГЕНТЫ:

А) $ZnBr_{2\ р\text{-}р}$ 1) S, H_2, H_2O

Б) $SO_2$2) NaOH, O_2, $Ba(OH)_2$

В) Na 3) $AgNO_3$, KOH, Mg

Г) HCl 4) Ca, CaO, Hg

5) Cu, $KMnO_4$, NaOH

Проводить учебное исследование:

Задание № 1. «В вашем распоряжении имеются – порошки железа и серы, вода, химические стаканы, шпатели, фильтровальная бумага, магнит. Подумайте и проведите серию простейших опытов, посредством которых можно ответить на *вопрос*: изменяться свойства веществ после смешивания или нет?

Задание № 2. С помощью качественных реакций определите, в какой из выданных вам пробирок находятся растворы: хлорида аммония, хлорида бария, хлорида алюминия.

Демонстрация коммуникативных умений (аргументированно, четко и ясно формулировать выводы, доказательства)

Для разделения смеси, состоящей из простых и/или сложных веществ, используют разные методы. Далее представлена схема разделения смеси веществ.

Задание 3. а) Предложите варианты состава смеси, которую можно разделить в соответствии с предложенной схемой разделения:

б) Данную схему можно использовать для описания процесса очистки природной воды. Составьте рассказ, описывающий процесс очистки питьевой воды согласно схеме, учитывая, что он предназначен для учащихся начальной школы. Учтите, что некоторые термины нуждаются в пояснениях.

Как показывает опыт педагогической деятельности, ученик может знать существо вопроса, но поделиться своими знаниями с окружающими не в состоянии, т.е. его коммуникативная компетентность не сформирована. С одной стороны, хорошо известно, что глубокое понимание предмета формируется тогда, когда ты можешь об очень сложном рассказать доступным собеседнику языком. С другой – условия задачи заданы неопределенно: при решении учащемуся приходится опираться на свой жизненный опыт, привлекать знания, полученные на

других предметах естественно-научного цикла, высказывать предположения и принимать или отвергать их.

Опыт использования подобных задач на уроках химии в 8-м классе показывает, что рассмотренные и подобные им задания способствуют формированию у учащихся естественно-научной грамотности.

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РЕСПИРАТОРНАЯ ПОДДЕРЖКА ПРИ ТЯЖЕЛОЙ ПНЕВМОНИИ

Цель. Улучшить результаты лечения синдрома острого повреждения легких у пациентов с тяжелым течением внебольничных пневмоний вирусно-бактериальной этиологии путем оптимизации респираторной поддержки. Материал и методы. Проведено комплексное обследование 216 пациентов с тяжелым течением внегоспитальной вирусно-бактериальной пневмонии, которые находились на лечении в отделении реанимации и интенсивной терапии (ОРИТ) УЗ «Городская клиническая больница скорой медицинской помощи» г. Минска в 2009-2013 гг. Результаты. Установлено, что 74,6% пациентов с острым повреждением легких вирусно-бактериальной этиологии, которым потребовалась респираторная поддержка, имели избыточную массу тела/ожирение. У пациентов с ожирением I и III степени выявлены самые низкие показатели респираторного индекса – 114,3 мм рт. ст. у пациентов с I степенью ожирения (3,25 балла по шкале LIS) и 125,2 мм рт. ст. у пациентов с III степенью ожирения (2,25 балла по шкале LIS. У пациентов с ИМТ > 30 кг/м2 применялась ранняя неинвазивная вентиляция легких, ранний перевод на искусственную вентиляцию легких (если PaO2 /FiO2 < 175 мм рт. ст. после 1 часа проведения НИВЛ) с соблюдением принципиальных положений «безопасной» ИВЛ и проведение маневра «рекруитмента» сразу после интубации для предотвращения/ устранения ателектазов, что положительно сказывалось на восстановлении оксигенации и привело к снижению продолжительности пребывания на искусственной вентиляции легких, в целом в ОРИТ и к снижению летальности. Заключение. Предложенная концепция респираторной поддержки позволила эффективно протезировать функцию органов дыхания, снизив летальность в 3 раза. Данный метод отличался дифференцированным подходом к выбору режима вентиляции с учетом тяжести повреждения альвеолярно-капиллярной мембраны и сопутствующих заболеваний (избыточная масса тела/ожирение).

Ключевые слова: острое повреждение легких, искусственная вентиляция легких, внегоспитальная пневмония, ожирение.

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RESPIRATORY SUPPORT FOR SEVERE PNEUMONIA

Objectives. To improve the treatment results of an acute lung injury syndrome in patients with severe community-acquired pneumonia of viral and bacterial etiology by optimization of the respiratory support. Methods. Complex examination of patients (n=216) with a severe community-acquired, viral and bacterial pneumonia who were treated in the intensive care unit (ICU) of Minsk City Emergency Hospital (2009-2013 yrs) has been conducted. Results. It was established that 74,6% of patients with an acute lung injury of viral and bacterial etiology needed in respiratory support had excess body weight/obesity. The lowest parameters of the respiratory index: 114,3 mm Hg in patients with the 1st degree of obesity (3,25 points by LIS Scale) and 125,2 mm Hg in patients with the 3rd degree (2,25 points by LIS Scale) have been revealed in patients with the 1st and 3rd degree of obesity. In patients with body mass index (BMI) > 30 kg/m2 an early non-invasive lung ventilation (NILV) was applied, the early application of artificial lung ventilation (ALV) (if PaO2 /FiO2 < 175 mm Hg one hour after NILV) with the compliance of principal postulates of "safe" ALV and performing "recruitment" maneuver immediately after intubation to prevent/eliminate atelectasis, that had a positive impact on the restoration of oxygenation and resulted in reduction of the artificial lung ventilation time and lethality rate in the intensive care unit. Conclusions. The proposed concept of the respiratory support allowed making effective prosthesis of the respiratory organs function having lowered lethality in 3-folds. This method is characterized by the differentiated approach to the regimen choice of ventilation taking into the account severity of alveolar and capillary membrane injury and the accompanying diseases (excess body mass /obesity).

Keywords: acute lung injury, mechanical ventilation, community-acquired pneumonia, obesity.

Введение. Повышение качества оказания помощи пациентам с тяжелым течением внебольничной вирусно-бактериальной пневмонии является одной из приоритетных задач здравоохранения во всем мире [1, 2]. Отличительной чертой таких пневмоний является развитие у ряда

пациентов острого повреждения легких (ОПЛ) и его наиболее тяжелой формы острого респираторного дистресс-синдрома (ОРДС), требующих перевода в отделения реанимации и интенсивной терапии (ОРИТ) и длительной респираторной поддержки [3, 4, 5]. ОПЛ/ОРДС являются формами одного и того же процесса, который характеризуется острым началом, рефрактерной к оксигенотерапии гипоксемией, двухсторонней инфильтрацией и отеком легких при отсутствии признаков левожелудочковой недостаточности [6]. В основе развития этого синдрома лежит генерализованное воспаление с преимущественным поражением альвеолярно-капиллярной мембраны. Повреждение клеточных мембран с последующим лизисом клеток ведет к увеличению проницаемости альвеолярно-капиллярной мембраны с избыточным накоплением белка и воды в интерстициальном пространстве, а затем и в просвете альвеол. Синдром ОПЛ отличается от ОРДС степенью гипоксемии [7, 8]. Частота возникновения ОПЛ/ОРДС достигает 75 случаев на 100 000 населения в год. Несмотря на то, что в последнее десятилетие имеется тенденция к снижению летальности от ОПЛ/ОРДС, она по-прежнему остается достаточно высокой, составляя в среднем 40- 60%, а на фоне присоединения сепсиса и/или развития синдрома полиорганной дисфункции достигает 70% и выше [9, 10]. Постоянно проводится работа по оптимизации интенсивной терапии этого синдрома. Введение концепции «безопасной» ИВЛ и «консервативной» инфузионной терапии, активное применение методов кинетической терапии (регулярное поворачивание пациента), использование пронпозиции (вентиляция в положении на животе) и экстракорпорального мембранного оксигенатора улучшило результаты лечения этой категории пациентов, но даже в самых крупных медицинских центрах мира уровень летальности так и не опустился ниже 25,5% [11]. Таким образом, несмотря на достигнутые успехи в понимании патогенеза ОПЛ/ОРДС, методы лечения этого состояния остаются ограниченными и в значительной степени состоят из поддерживающих мероприятий. Для эффективной профилактики развития и лечения ОПЛ/ОРДС необходимо учитывать специфические предрасполагающие факторы, которые способствуют развитию этого синдрома [12]. Отмечено, что в 2009 г. среди пациентов с тяжелым течением внебольничных пневмоний, осложнившихся развитием ОПЛ/ ОРДС и потребовавших перевода в ОРИТ и длительной респираторной поддержки, преобладали пациенты с избыточной массой тела/ ожирением [13].

Цель исследования. Улучшить результаты лечения синдрома острого повреждения легких у пациентов с тяжелым течением внебольничных пневмоний вирусно-бактериальной этиологии путем оптимизации респираторной поддержки.

Материал и методы. Проведено комплексное обследование 216 пациентов с тяжелым течением внегоспитальной вирусно-бактериальной пневмонии, которые находились на лечении в ОРИТ УЗ «Городская клиническая больница скорой медицинской помощи» г. Минска в 2009-2013 гг. Критерии включения пациентов в исследование были следующие: острое начало заболевания (подъем t>38ºС), время от начала заболевания (гипертермии) до поступления в стационар не более 5 суток, двухсторонняя полисегментарная инфильтрация на рентгенограмме органов грудной клетки, отсутствие признаков левожелудочковой недостаточности. Для оценки степени тяжести повреждения легких рассчитывали респираторный индекс (RI). RI = PaO2 /FiO2, где: – PaO2 – напряжение кислорода в артериальной крови; – FiO2 – концентрация кислорода во вдыхаемой воздушной смеси, выраженная в десятых долях. При значении RI200 мм рт.ст. констатировали наличие ОПЛ, при значении RI 200 мм рт.ст. – ОРДС. Для объективной оценки степени тяжести повреждения легких использовали шкалу Lung Injury Score (LIS), предложенную J. Murray (1988 г.). По данной шкале в баллах учитываются 4 показателя: степень инфильтрации легочной ткани по данным рентгенографии грудной клетки, торакопульмональная податливость (комплайнс), респираторный индекс (RI), уровень положительного давления в конце выдоха (ПДКВ). Всем пациентам рассчитывали индекс массы тела (ИМТ) по формуле Кетле, который равен отношению массы тела в килограммах к квадрату роста в метрах. Избыточную массу тела регистрировали, согласно определению ВОЗ, при ИМТ 25 кг/м2, ожирение при ИМТ 30 кг/м2. Определение газов артериальной крови (PaO2**)** для расчета RI, лактата осуществляли на газоанализаторе (аппарат Statprofile CCX, “NovaBiomedical”, США) на момент поступления пациента в ОРИТ, после перевода на ИВЛ и далее ежедневно и по мере необходимости.

Таблица 1 Количество пациентов, нуждавшихся в ИВЛ в зависимости от ИМТ, RI и оценки степени тяжести повреждения легких по шкале LIS

	Количество пациентов, абс., %* (n=216)	Количество пациентов, переведенных на ИВЛ, абс., % (n=59)	RI, (PO_2/FiO_2)		LIS, баллы (для пациентов на ИВЛ)	
			Me	25%-75%	Me	25%-75%
Недостаточная масса	2 (0,9%)	–				
Норма	55 (25,5%)	15 (25,4%)	151	114,1-178,5	1,75	1,5-2,0
Избыточная масса тела	79 (36,6%)	17 (28,8%)	140	113,0-225,0	2,25	2,0-2,5
Ожирение 1 степени	47 (21,8%)	18 (30,5%)	114,3	86,7-211,0	3,25	3,0-3,5
Ожирение 2 степени	21 (9,7%)	4 (6,8%)	136	91,0-201,4	3,0	2,75-3,25
Ожирение 3 степени	12 (5,5%)	5 (8,5%)	125,2	103,4-172,0	2,25	2,0-2,5

Результаты представлены в виде медианы и процентилей – Me (25%-75%), средней и стандартного отклонения (mean, SD). Проверка нормальности распределения полученных результатов проводилась при

помощи W-теста Шапиро-Уилка. Достоверность различий оценивалась с помощью U-теста Манна-Уитни. Различие сравниваемых показателей признавалось достоверным при значении $p<0,01$.

Результаты. С целью установления наличия/отсутствия зависимости между тяжестью повреждения легких, необходимостью проведения искусственной вентиляции легких (ИВЛ) и ИМТ у данной категории пациентов нами была произведена оценка степени повреждения альвеолярно-капиллярной мембраны по респираторному индексу и шкале LIS. Результаты представлены в таблице 1. Респираторная поддержка потребовалась 59 (27,3%) пациентам. Из них женщины составили – 19 (32,2%), мужчины 40 (67,8%). Средний возраст пациентов составил 48,2 (SD=12,3) года. Самый высокий процент перевода на ИВЛ был у пациентов с ожирением I степени – 18 (38,3%) из 47 и с ожирением III степени – 5 (41,7%) из 12. Среди пациентов с массой тела в пределах физиологической нормы 27,3% пациентов было переведено на ИВЛ. Среди пациентов с избытком массы тела и ожирением II степени, количество переведенных на ИВЛ было сопоставимо и составило, соответственно, 17 (21,5%) из 79 и 4 (19%) из 21. Таким образом, основную массу пациентов с острым повреждением легких вируснобактериальной этиологии, которым потребовалась ИВЛ, составили лица с избыточной массой тела/ожирением – 44 (74,6%). Все пациенты были разделены на две группы. Контрольную группу составил 31 пациент, которым потребовалось лечение в условиях ОРИТ в 2009-2010 гг. Основную группу составили 28 пациентов, которым проводилась респираторная поддержка предложенным методом. Средний возраст мужчин и женщин в основной и контрольной группах был сопоставим. Так, в контрольной группе средний возраст мужчин составил 48,5 (SD=13,4) года, женщин 47,5 (SD=9,9) года. В основной группе средний возраст мужчин был 53,2 (SD=12), женщин – 44,6 (SD=13,3) года. Характеристика групп представлена в таблице 2.

Таблица 2 Характеристика пациентов основной и контрольной групп

Признак		Основная группа (n=28)	Контрольная группа (n=31)
Возраст	муж	53,2 (12)	48,5 (13,4)
	жен	44,6 (13,3)	47,5 (9,9)
Пол	муж	23 (82,1%)	17 (54,8%)
	жен	5 (17,9%)	14 (45,2%)
ИМТ	18,5-24,9	7 (25%)	8 (25,8%)
	25-29,9	11 (39,3%)	6 (19,4%)
	> 30	10 (35,7%)	17 (54,8%)
Кол-во пациентов с полож. H1N1		9 (32,1%)	11 (35,3%)
RI		149 (14,7)	137 (18,2)
LIS, баллы		2,5 (0,2)	2,7 (0,1)

Как видно из представленной таблицы, группы были сопоставимы по возрасту, степени повреждения альвеолярно-капиллярной мембраны, но несколько отличались по гендерному признаку и ИМТ. В контрольной

группе мужчин и женщин было практически поровну – 54,8% и 45,2%, соответственно. В основной группе мужчин было значительно больше – 82,1%, чем женщин (17,9%). Количество пациентов с избыточной массой тела/ ожирением соответствовало общей выборке пациентов ОРИТ и составило 74,2% в контрольной группе и 75% в основной. Несколько изменилось соотношение пациентов с избыточной массой тела и ожирением. В основной группе пациенты с избыточной массой тела составили 39,3%, с ожирением – 35,7%. В контрольной группе основную массу пациентов представили лица с ожирением – 54,8%. Ожирение нарушает функцию органов дыхания путем прямого влияния на физиологию дыхания: отложение жира вокруг ребер и в средостении ограничивает подвижность легких и существенно затрудняет вдох. При избыточном отложении жира в брюшной полости развивается дисфункция диафрагмы, что ограничивает экскурсию диафрагмы. Снижаются легочные объемы, особенно резервный объем выдоха и функциональная резервная емкость, которые играют важную роль в поддержании проходимости дистальных дыхательных путей. При снижении резервного объема выдоха ниже объема закрытия происходит коллапс альвеол с развитием микроателектазов. Таким образом, при ожирении сочетаются два варианта нарушений функции внешнего дыхания: уменьшение легочных объемов (рестрикция) и сужение дистальных дыхательных путей (обструкция). Параллельно с нарушением податливости стенок грудной клетки снижается и эластичность легочной ткани за счет увеличения кровенаполнения сосудов легких, повышения сопротивления дыхательных путей и коллапса дистальных дыхательных путей [14, 15]. Наиболее частым симптомом патологических изменений в дыхательной системе является одышка. 84% пациентов с ИМТ > 30 кг/ м2, госпитализированных в ОРИТ, отметили наличие одышки еще до развития заболевания. Для этой категории пациентов характерно частое и поверхностное дыхание, которое способствует снижению работы и цены дыхания, но увеличивает долю вентиляции мертвого пространства в минутном объеме вентиляции и снижает эффективность альвеолярной вентиляции. Установка на то, что пациенты с внебольничной вирусно-бактериальной пневмонией при наличии двухсторонней инфильтрации на рентгенограмме и ИМТ > 30 кг/м2 требуют наблюдения и лечения в ОРИТ в течение 2-3 суток независимо от того, выявлены у них два «малых» или один «большой» критерий тяжелого течения пневмонии привела к значительному сокращению интервала времени между поступлением пациента в стационар и госпитализацией/переводом в ОРИТ. Так, в основной группе время от момента поступления до перевода в ОРИТ в среднем составили 1,2 (SD=0,4) часа, а в контрольной группе – 2,04 (SD=1,5) суток при сопоставимом времени от начала заболевания до госпитализации – 4,2 (SD=2,7) суток для пациентов контрольной группы и 3,9 (SD=2,6) суток

для пациентов основной группы. Для пациентов с синдромом ожирение-гиповентиляция использовалось проведение ранней неинвазивной вентиляции легких (НИВЛ). Показаниями к началу НИВЛ служили: выраженная одышка в покое; частота дыхания (ЧД) > 25/мин, участие в дыхании вспомогательной дыхательной мускулатуры, абдоминальный парадокс; PaCO2 > 45 мм рт.ст., 7,28 < pH < 7,35; PaO2 /FiO2 < 300 мм рт.ст. Использовались режимы: PSV (Pressure Support Ventilation) – вентиляция с поддержкой давлением и CPAP (Continuous Positive Airway Pressure) – постоянное положительное давление в дыхательных путях. При ведении пациента в режиме PSV ПДКВ устанавливалось не менее 5-7 см вод. ст., FiO2 не менее 30-35%. Уровень Psupport регулировался индивидуально, составляя в среднем 16-25 см вод.ст., в зависимости от достижения целевых значений параметров вентиляции. Целевыми параметрами являлись: дыхательный объем (ДО) – 7-9 мл/кг; ЧДспонт – 12-25/мин. При отсутствии эффекта от НИВЛ (PaO2 / FiO2 35 см вод.ст;

Таблица 3 Стартовые параметры в первые сутки ИВЛ

	Основная группа (n=28) mean (SD)	Контрольная группа (n=31) mean (SD)
Начало ИВЛ, сут	1,3 (0,5)	2,7 (2,3)
ПДКВ, см вод.ст.	9,7 (3,2)	10,3 (3,5)
FiO_2, %	57,5 (9,3)	55 (9)
Pcontrol, см вод.ст.	20,3 (5,1)	21,7 (4,3)
Psupport, см вод.ст.	21,6 (3,2)	22,1 (4,7)
Комплайнс, мл/см вод.ст.	27,4 (6,8)	25,1 (5,8)

– реальный дыхательный объем не > 6-8 мл/кг массы тела; – частота дыхания и минутный объем вентиляции – минимально необходимый для поддержания PaCO2 на уровне 35-40 мм рт.ст.; – скорость пикового инспираторного потока – в диапазоне 40-90 л/мин; – характер инспираторного потока – нисходящий; – FiO2 – минимально необходимая для поддержания оксигенации артериальной крови и транспорта кислорода к тканям (< 60% – по возможности); –адекватное ПДКВ (положительное давление в конце выдоха); – продолжительность инспираторной паузы – не > 30% продолжительности дыхательного цикла; –I:E – не более 2,5:1, оптимально 1:1- 1,5:1. Предложенные критерии для перевода на ИВЛ позволили сократить сроки принятия подобного решения. Пациенты основной группы в среднем на сутки быстрее переводились на ИВЛ, что положительно сказывалось на восстановлении оксигенации и адекватной перфузии тканей. Учитывая высокий риск гиповентиляции и аспирации во время интубации, всем пациентам с ИМТ > 30 кг/м2 интубация трахеи выполнялась в «положении с приподнятым головным концом» с подкладыванием под спину и плечи подушки или валика (критерием правильной укладки служила горизонтальная линия, соединяющая грудину и ухо пациента). Все пациенты вентилировались на аппаратах высокого класса: Galileo (Hamilton Medical, Швейцария), Inspiration (Event Medical Limited, Ирландия) в режиме P-SIMV. Стартовые параметры ИВЛ в первые

сутки респираторной поддержки представлены в таблице 3. У пациентов с ИМТ > 30 кг/м2 сразу после интубации для улучшения оксигенации и предотвращения/устранения ателектазов выполнялся «рекруитмент» под контролем параметров гемодинамики. С целью контроля эффективности маневра «рекруитмента» и выбранных параметров ИВЛ выполнялось измерение PaO2 через 1, 6, 12 часов, затем ежедневно и по мере необходимости с расчетом респираторного индекса – RI. Динамика изменения RI представлена на рисунке 1. Как видно на представленном графике, у пациентов основной группы респираторный индекс увеличивался значительно быстрее, чем в контрольной ($p < 0,05$). Это свидетельствует о том, что раннее и обязательное применение маневра рекруитмента у пациентов с ОПЛ/ОРДС позволяет устранить имеющееся ателектазирование поврежденных альвеол уже в течении 1-х суток пребывания на ИВЛ. Для устранения неблагоприятных эффектов высокого ПДКВ на гемодинамику и почечную функцию, всем пациентам основной группы с ПДКВ > 10 см вод.ст., назначалась кардиотоническая поддержка (допамин 4-6 мкг/кг/мин, при тахикардии более 90/мин – добутамина со скоростью 4-6 мкг/кг/мин). Динамика изменения уровня лактата представлена на рисунке 2. Как видно на представленном графике, уровень лактата в основной группе начал снижаться уже в первые сутки и достиг референтных значений ко вторым суткам.

Рис. 1. Динамика изменения респираторного индекса

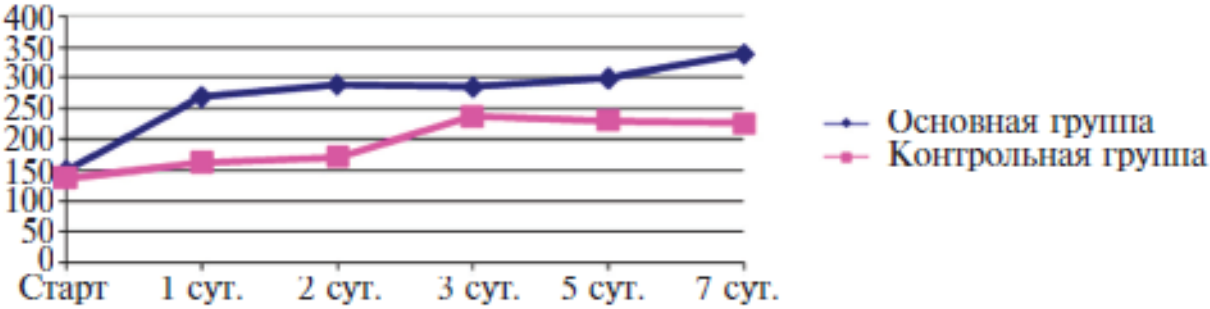
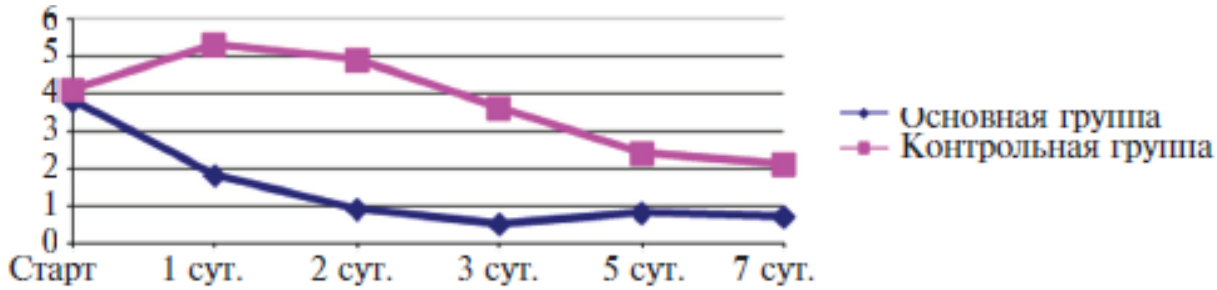


Таблица 4 Применение кардиотонической поддержки

	Основная группа (n=28) mean (SD)	Контрольная группа (n=31) mean (SD)
Кардиотоническая поддержка (дофамин)	23 (82%)	17 (54,8%)
Старт, сут	1,3 (0,8)	4,1 (1,8)
Продолжительность, сут	5,2 (1,2)	3,8 (2,3)

Рис. 2. Динамика изменения уровня лактата



В то время, как у пациентов контрольной группы уровень лактата в первые сутки увеличился до 5,3 ммоль/л, оставаясь высоким во вторые сутки пребывания на ИВЛ, тенденция к снижению появилась с третьих суток. Высокий уровень лактата указывает, что пациенты контрольной группы имели тяжелую тканевую гипоксию, которая, безусловно, сказалась на исходе у данной категории пациентов. Летальность в контрольной группе составила 43% (соответствует мировой статистике), в основной группе – 14,3%. Количество койко/дней искусственной вентиляции легких и собственно пребывания в ОРИТ достоверно были ниже, чем в контрольной группе. Результаты представлены в таблице 5.

Обсуждение в настоящее время, неотложная госпитализация пациентов с пневмонией в ОРИТ рекомендуется при констатировании у пациента тяжелого течения процесса, которое определяется по наличию у пациента не менее двух «малых» или одного «большого» критерия (клинический протокол диагностики и лечения пневмоний, приказ МЗ РБ №768 от 05.07.2012г.). Проведенное нами исследование свидетельствует о том, что ожирение, существенно изменяя легочную механику, создает условия для быстрой декомпенсации работы органов дыхания и является фактором риска развития ОПЛ/ОРДС при тяжелом инфекционном поражении легких. Установлено, что основную массу пациентов с ОПЛ/ОРДС вирусно-бактериальной этиологии, которым потребовалась ИВЛ, составили лица с избыточной массой тела/ожирением – 74,6%, что в целом соответствует международным данным [13]. Продолжив исследования в этой области, мы установили, что самый высокий процент перевода на ИВЛ при данной патологии был отмечен у пациентов с ожирением I и III степени. У этой же группы выявлены самые низкие показатели респираторного индекса – 114,3 мм рт. ст. у пациентов с I степенью ожирения (3,25 балла по шкале LIS) и 125,2 мм рт. ст. у пациентов с III степенью ожирения (2,25 балла по шкале LIS), что свидетельствует о тяжелом повреждении альвеолярно-капиллярной мембраны. Безусловно, такие пациенты требуют особого подхода к интенсивной терапии, включая время начала, условия проведения, выбор режима и параметров ИВЛ.

Таблица 5 Анализ эффективности предложенного метода респираторной поддержки

	Основная группа (n=28) mean (SD)	Контрольная группа (n=31) mean (SD)
Кол-во дней ИВЛ	8,4 (4,9)*	11,1 (10,2)
Кол-во к/д в ОРИТ	11,9 (4,7)*	14,7 (10, 8)
Общее кол-во к/д	24 (12,4)	24,6 (16,8)
Летальность	4 (14,3%)**	13 (43%)

Примечание: * – $p<0,05$, ** – $p<0,01$.

Поэтому мы изменили тактику ведения данной категории пациентов и предложили концепцию «раннего перевода» в ОРИТ: пациенты с внебольничной вируснобактериальной пневмонией при наличии двухсторонней инфильтрации на рентгенограмме и ИМТ > 30 кг/м2 требуют наблюдения и лечения в ОРИТ в течение 2-3 суток независимо о того, выявлены у них два «малых» или один «большой» критерий тяжелого течения пневмонии, что привело к значительному сокращению интервала времени между поступлением встационар и переводом в ОРИТ. У пациентов с ИМТ > 30 кг/м2 применялась ранняя НИВЛ, ранний перевод на ИВЛ (если PaO2 /FiO2<175 мм рт. ст. после 1 часа проведения НИВЛ) с соблюдением принципиальных положений «безопасной» ИВЛ и проведение маневра «рекруитмента» сразу после интубации для предотвращения/устранения ателектазов, что положительно сказывалось на восстановлении оксигенации и привело к снижению койко/ дней ИВЛ, пребывания в ОРИТ и в целом к снижению летальности.

Заключение. Таким образом, представленный метод респираторной поддержки занимает ключевую позицию в комплексной интенсивной терапии острого повреждения легких вируснобактериальной этиологии, так как позволяет эффективно протезировать функцию органов дыхания, снизив летальность в 3 раза. Данный метод отличается дифференцированным подходом к выбору режима вентиляции с учетом тяжести повреждения альвеолярно-капиллярной мембраны и сопутствующих заболеваний (избыточная масса тела/ожирение).

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ВОЗДЕЙСТВИЕ ПРИМЕНЕНИИ ГЕРБИЦИДОВ В СОЧЕТАНИИ С СУСПЕНЗИЕЙ НА СОРНЯКОВ ЗЕРНОВЫХ КУЛЬТУР

Аннотация: В данной статье широко освещена снижения численности сорняков при применения новый види гербициды в сочетании суспензий в озимой пшеницы орошаемых условиях

Ключевые слова: озимая пшеница, срок, температура, гербицид, суспензия, норма, применение, действие, сорняк, вид, количество, вода.

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EFFECTS OF THE APPLICATION OF HERBICIDES IN COMBINATION WITH SUSPENSION ON GRAIN WEEDS

Abstract: In this work, the role of growing weeds among irrigated winter wheat in reducing the amount of weeds when using suspensions with new types of herbicides in combination is widely highlighted.

Key words: Winter wheat, term, temperature, herbicide, suspension, norm, substance, application, effect, weed, species, quantity, water.

Актуальность темы. Сегодня потребность населения мира в зерне пшеницы составляет 840 млн тонн, и этот показатель увеличился на 41,1% по сравнению с предыдущими годами.

В 2017 году мировое производство зерна по сравнению с 2010-2011 годами выросло на 6,5-6,8%. Согласно данным, достигло рекордных 773 млн тонн.

Поэтому, изучение биологических особенностей однодольных и двудольных сорняков, встречающихся на зерновых полях орошаемых зонах, определение биомассы, образующейся в периоды их вегетации, определение продолжительности и нормы применения эффективного гербицида, является одним из актуальных вопросов агротехнических мероприятий меры борьбс с ними.

Согласно международной статистике, в настоящее время общий объем производства пшеничной продукции в странах мира составляет 772 миллиона тонн

В список 10 стран, наиболее выращивающих пшеницу, входят следующие страны: Китай, Индия, Россия, США, Франция, Канада, Пакистан, Украина, Австралия и Германия.

За последние пять лет в Узбекистане был получен урожай зерновых культур более 55 ц/га с гектара, а валовой сбор составил 6,5-7,8 млн тонн.

Важном задачам являются применение гербицидов против сорняков в сочетании с комбинированной суспензией при возделывании сортов озимой пшеницы, приводить повышение урожайности зерновых, а также эффективное использование орошаемых земель и повышение технологических показателей качества зерна.

На сегодняшний день во всем мире из-за сорняков теряется не менее 20 млн тонн зерна. Отмечено, что при отсутствии борьбы с сорняками на зерновых полях орошаемых зонах в Узбекистане теряется 27,0-36,7 % урожая **[**32], поэтому повышение эффективности борьбы с сорняками на зерновых орошаемых зонах, в частности проведение полевых испытаний новых гербицидов, является актуальной научной и практической задачей.

Цель исследования. Заключается в том, что разработке и внедрении агротехнических мероприятия, направленных на выращивание и получение высоких и качественных урожаев зерна за счет использования повышающей эффективность гербицидов и новых видов гербицидов, а также стимуляторов в периоды развития сорняков, обнаруженных на орошаемых зерновых культур.

Методы исследования. Исследования проводились в полевых и лабораторных условиях. Полевые исследования по «Методику проведения полевых экспериментов» УзПИТИ; качество зерна «Требования к заготовке и поставке пшеницы» согласно УзДСт 880; применение гербицедов согласно методическим указаниям «Испытание инсектицидов, акарицидов, биологически активных веществ и фунгицидов», выпущенным Узкимёкомиссией; по подсчету сорняков методического пособия «Защита растении термины и определения». Математический и статистический анализ полученных результатов по методику Б.А.Доспехова «Методы полевого опыта» и программы Microsoft Excel.

Результаты исследований. Практическая значимость полученных результатов исследований - установлено, что совместной применение гербицидов и суспензий против сорняков на зерновых культур экономически эффективно, и даны рекомендации по производству.

По отношению к зерну сорняки имеют очень высокое поглощение минеральных удобрений, влаги, освещения. Засорение зерновых культур (на 1м^2 3 шт)дикого овсами приводить снижение урожайности на 54% с

гектара (Stougaard and Hue 2014). Поэтому меры по борьбе сорными растениями являются основным агротехническим мероприятием.

На основании приведенных опытах в течение 2019-2021 годов на центральном полевом опытном участке научно-исследовательского института Южного землиделие для определения действия гербицида в сочетание с суспензиями против основных видов сорняков, встречающихся зерновых культур на орошаемых зонах.

Опытная участка, расположенная на высоте 334 метра над уровнем моря, 33,313150 северной широты, 65,531810 восточной долготы.

Почва опытных участке светло-серозём, которой поливается. Уровень грунтовых вод колеблется в пределах 3,5-4 метров

Эксперименты проводился в 7 вариантах, 3-ёх кратной повторности. Делянки расположилось в двух ярусах.

Площадь каждого делянки составляет 100 м^2, общая площадь - 2100 м^2. Общая площадь эксперимента составляет 0,70 гектара. Против сорняков применялись новые виды гербициды «Деметра» эм.к, «Кесумии 24 ЭК» эм.к, «Бомба» в.д.г., «Химаскиал» 10% ке. и для повышение активности исползовали жидкости «Адью», в сочетании суспензии «Гумимакс», с помощью ручного опрыскивателя примерно на высоте 10-30 см. Эксперимент проводился на сорте пшеницы «Шамс».

На сегодняшний день перед кластером и сельхозпроизводителям стоит задача усилить борьбу с сорняками, а также более широко усовершенствовать ее методы. Агротехнические приемы и севооборот не могут полностью уничтожить эти сорняки. Следовательно, это также позволяет сократить их за короткое время за счет использования новых видов гербицидов

При определении видов и количества сорняков, необходимо провести картаграмму на всех участках севооборотов и точно определят количества сорных растение произрастающих среди зерновых культур, и на этой основе необходимо провести опрыскивание гербицидом, какой тип гербицидов важно применять к данному виду сорняков.

При наблюдение опытном поле встречались такие виды сорные растение: из однолетних односемянные, дикий овёс, лисий хвость, дикий ячмень (тактак), прей обыкновенный, из однолетние двусемянные сорняки, горчица черная, мальва лесная, пастушья сумка, лебеда татарская, вьюнок полевой от многолетних сорняков, было подсчитано небольшое количество камышовых сорняков. Учёт виды и количество сорняков проводился в третьей декаде феврале, повторный учет в второй декаде марта. При средней суточные температуре воздуха +15+18 ºС, относительная влажность воздуха 60-70% прорастали все сорняки и ускорялось их развитие.

Согласно результатам учета сорняков, было замечено, что наиболее распространенным сорняком на нашем первом варианте был вьюнок

полевой, со средним показателем 19,7, Бодяк полевой 16,6, овсюг 12,0, Alopecurus myosuroides Hids 11,8, мальва лесная 12,2 и реже прей обыкновенный 8,8.

Во второй варианте самые распространенные сорняки бодяк полевой и горчица черная имеют одинаковый количество 16,0, Дикая редка 15,7, овсюг 13,6, пастушья сумка(jag'-jag') 13шт, вьюнок полевой 12,6, Alopecurus myosuroides Hids-14,8, мальва лесная 11,3% и прей обыкновенный 8,4.

Таблица 1

Виды и количество сорняков в опытном участке (В среднем, НИИЮЗ 2019-2021)

№	Варианты	Однолетные и однодольные сорные растение				Однолетные и двудольные сорные растение							Всего
		Дикий овсюг	Дикие ячмень	Лисий хвост	Прей обыкновенный	Бодяк полевой	Дикий редка	Дикая редка	Мальва лесная	Пошутшая (Жаг-сумка)	Лебеда татарская	Вюнок полевой	
1	**Стандарт(безобработки)**	1,5	0,9	1,4	0,9	0,9	1,7	1,2	1,8	1,4	1,3	3,5	16,6
2	**Энто ПИК(Эталон) 10%**	2,0	0,9	1,0	1,0	4,6	1,9	1,3	1,6	1,8	1,2	1,5	18,7
3	**Хим Аскиал 10% КЭ**	1,7	1,0	1,3	1,1	2,4	2,0	1,3	1,1	1,4	1,3	3,6	18,4
4	**Деметра КЭ**	1,9	1,2	2,1	1,2	2,7	1,6	1,4	2,2	1,8	1,3	1,8	19,3
5	**Катсуми 24 ЕС**	1,8	1,7	1,8	1,1	2,7	2,6	1,8	1,9	1,7	1,4	1,1	19,5
6	**Химстар 75 % В.Д.Г**	1,2	1,3	2,2	1,2	1,4	0,9	1,0	1,0	1,2	1,1	5,2	17,9
7	**Адию+Бомба В.Д.Г**	2,0	1,8	1,9	1,2	1,9	1,1	2,2	1,7	1,6	1,3	2,9	19,6
	Среднее количества	12,0	8,8	11,8	7,8	16,6	11,7	10,3	11,2	11,1	9,1	19,7	
(Второй блок)													
1	**Стандарт(безобработки)**	1,6	1,1	1,4	1,0	1,3	1,3	1,3	1,2	2,1	1,8	1,3	15,6
2	**Энто ПИК(Эталон) 10%+ ГумимакС**	2,0	1,3	1,1	1,0	3,0	3,0	2,6	1,0	1,0	1,3	2,0	19,4
3	**Хим Аскиал 10% КЭ+ ГумимакС**	1,3	1,0	2,4	1,4	2,3	2,3	3,3	1,3	2,7	1,0	1,7	20,6
4	**Деметра КЭ+ ГумимакС**	2,0	1,0	2,0	1,8	2,6	2,6	2,2	2,0	1,9	1,3	1,2	20,5
5	**Катсуми 24 ЕС+ ГумимакС**	3,1	1,7	2,9	1,0	2,7	2,7	2,3	2,0	1,7	1,7	2,6	24,4
6	**Химстар 75 % В.Д.Г+**	1,0	1,0	3,0	2,	1,1	1,1	1,6	1,6	2,3	2,3	2,2	19,2

	ГумимакС				0								
7	**Адию+Бомба В.Д.Г+ ГумимакС**	2,5	1,2	2,0	1,0	3,0	3,0	2,4	2,3	1,7	1,3	1,3	21,7
	Среднее количество	13,6	8,4	14,8	9,1	16,0	16,0	15,7	11,3	13,3	10,8	12,3	

В эксприментах первом блоке где применяли только гербициды Энто ПИК(Эталон) 10% количества сорняков составляли 16,6 штук, в вариантах применяймые гербицид Хим Аскиал 10%КЭ количества сорных растение составило 18,7 шт, в вариантах Деметра эм.к -18,4 шт, в вариантах Кацумий 24 ЭС-19,5 шт, в вариантах Химстар 75 %ВДГ-19,5 шт а в вариантах где применяли гербицид Адью+Бомба количества сорных растение составило 19,6 штук.

Во втором блоке, где применялись гебецид+суспензии среднее количество сорняков в контрольном варианте(Эталон) Энто ПИК+суспензии-15,6 шт, в варианте Хим Аскиал 10% КЭ + ГумимакС 10% + сус-19,4 шт, вариантах Деметра эм.к + ГумимакС-20,6 шт, в варианте Кацумии 24 ЭС + ГумимакС -20,5 шт, в вариантах Химстар 75% В.Д.Г + ГумимакС - 19,2 шт и ввариантах где применялись Адью+Бомба В.Д.Г + ГумимакС было обнаружено сорняков 21,7 штук (табл.-1).

При подсчете одного сорняка дикорастущего ячменя было отмечено, что на одном кусте общая продуктивность составляют до 78-92 штук.

Некоторые авторы отмечают, что сорные растеные за год засоряют вес поле, потому что у них очень высокие коэффицент плодоношение.

На опытном поле против сорняков гербициды опрыскивали 7 апреля при температуре воздуха +8+15 ^{o}C, относительной влажности воздуха 60-70% и при скорости ветра 5 м/с, с помощью ручного оприскивателями.

Определение, наблюдение и учет биологической эффективности гербицидов проводили каждые 7 дней по вариантам опыта.

Установлено, что количество сорняков до обработки в контрольном варианте в среднем составляло 16,6 шт., через 7 дней - 17 шт., количество сорняков стало стабильно увеличиваться (17-19) с каждым днем, где применялись гербицид Энто ПИК 10% ем. к 0,4 л/га (эталон) до обработки, количество сорняков в среднем составляло 18,4 шт, через 7 дней после обработки 8, через 15 дней 10 штук, всего 12,4 сорняков прекратили свои развитие, в вариантах Хим Аскиал 10% к.э. 0,3 л/га, среднее количество сорняков до обработки 18,4 через 7 дней после обработки, 11,1 через 15 дней 13,3 шт, в варианте Деметра эм.к 0,5 л/га, среднее количество сорняков до обработки 19,3, через 7 суток после обработки количество сорняков составило 10,1, через 15 сут 13,2 шт, в варинтах Кацуми 24 Э.С. 0,3 л/га, до обработки в среднем 19,5 шт, через 7 дней после обработки 12 шт, через 15 дней 15 сорняков, т. эффективность. 89,2%, в вариантах Химстар 75% ВДГ 20 г/га среднее количество сорняков до обработки 17,9, через 7 дней после обработки - 7,5 шт, через 15 дней после обработки 11,5

шт, всего 13,7 шт сорняков, т.эффективность 76,4%, а в вариантах. Адью+Бомба В.Д.Г 0,2 л/га +30г/га до обработки в среднем 19,6 сорняков, через 7 дней после обработки 15 сорняков, через 15 дней после обработки 16 сорняков, всего 18,1 шт сорных растение погибали и эффективность составило 92,6%.

При совместном применении гербицидов с гумимаксом установлено, что количество сорняков до обработки в контрольном варианте в среднем составляло 16,6 шт, количество сорняков стало стабильно увеличиваться с каждым днем и достигало до 20,9 штук, где применялись гербицид Энто ПИК 10% ем. к 0,4 л/га (эталон) до обработки, количество сорняков в среднем составляло 19,4 шт, через 7 дней после обработки 8, через 15 дней 12 штук, всего 14,4 сорняков прекратили свои развитие, т.е. эффективность составило 74,2%. По результатом исследование, показавшего более высокую эффективность против сорняков по сравнению с контролем и эталоном, в вариантах Demetra em + ГумимакС до обработки количество сорняков в среднем составляло 20,5 шт. сорняков через 7 дней 12 шт., через 15 дней 16 шт. всего 19 шт., т.е. эффективност-92,7%, где применялись Кацумии 24ес +в ГумимакС до обработки, количество сорняков в среднем составляло 20,4 шт, через 7 дней 13 шт, через 15 дней-17 шт, всего 18,1 шт, т.е. т.е. эффективност-88,7%, самые высокие эффективность показал гербицид Адью бомба В.Д.Г+ГумимакС до обработки количество сорняков в среднем составляло 21,7 штук, через 7 сут 14 шт, через 15 сут 17 сорняков, и всего 20,9 погибших, т. е. Эффективность составило 96,3% (табл. 2).

Таблица 2

Действие новых гербицидов против сорняков встречающих на орошаемых зерновых культур (опытные участке НИИЮЗ 2019-2021 гг.)

	Варианты	Нормы расхода, л/га	Количества сорных растение до обработки 1м²	Количества сорных растение после обработки 1м² (7-й день)	Количества сорных растение после обработки 1м² (15-й день)	Количества сорных растение после обработки 1м² (21-й день)	Среднее количества сорных растение оставшихся живых	Эффективность гербицидов, %
Применение гербицидов обычном методом (Среднее 2019- 2021гг)								
1	**Стандарт(безобработки)**		16,6	17	19	0	20,9	0
2	**Энтопик(Эталон) 10%**	0,4	18,7	8	10	12,4	6,2	66,7
3	**ХимАскиал10% КЭ**	0,3	18,4	7	11,1	13,3	5,1	71,9
4	**Деметра Эм.к**	0,5	19,3	10,1	13,2	16,8	2,4	87
5	**Кацумии24ЕС**	0,3	19,5	12	15	17,4	2,1	89,2
6	**Химстар в.д.г**	20г/га	17,9	7,5	11,2	13,7	4,2	76,4
7	**Адью+Бомба в.д.г**	0,2+30 г/га	19,6	15	16	18,1	1,4	92,6

Применение гербицидов в сочетании гумимаксом (среднее 2019-2021 гг..)								
8	**Стандарт(безобработки)**		15,6	16	16,3	0	20,9	0
9	**ЭнтоПИК**(Эталон)+ **ГумимакС**	0,4	19,4	8	12	14,4	5,9	74,2
10	**Хим Аскиал 10% +ГумимакС**	0,3	20,6	10	13	17,5	2,2	85
11	**Деметра Эм.к+ ГумимакС**	0,5	20,5	12	16	19	1,4	92,7
12	**Кацумии 24 ЕС+ ГумимакС**	0,3	20,4	13	17	18,1	1,7	88,7
13	**Химстар 75 % В.Д.Г+ ГумимакС**	20г/га	19,4	11	13	15,1	4,3	77,8
14	**Адью+Бомба В.Д.Г+ ГумимакС**	0.2+30 г/га	21,7	14	17	20,9	0,9	96,3

По результатам анализа исследования по обработке гербицидами против сорняков оказалось, что в необработанном контрольном варианте количество сорняков увеличилось и негативно повлияло на растениях. Из вариантов видно, что Demetra em.k 0,5 л/га, Kasumii 24 e.s 0,3 л/га и Адью бомба В.Д.Г являются лучшими гербицидами, остановившими рост большинства сорняков, и наблюдалось что они показали высокий результат. Внесение этих новых гербицидов на зерновые культур в указанном количестве является гарантией повышения урожайности, чистоты и качества посевов.

Выводы и предложения

1. Результатами исследований было обосновано при применение гербицидов против однолетних и многолетних сорняков и уничтожение 70-90%, улучшают воздушного, теплового, пищевого режимов почвы и повыщают урожайность зерновых культур на 20-25%.

2. 2 В борьбе с сорняками, распространенных в зерновых культур орошаемых зонах Кашкадарьинской области, необходимо обновить применяймые типы гербицидов с различными сферами действия для повышения эффективности против сорняков с различными биологическими свойствами.

3. Гербициды «Деметра» эм.к, 0,5 л/га, «Кацумии 24 ЕС 0,3 л/га», «Бомба В.Д.Г 30 г/га +Адью» 0,2 л/га, + «Хим Аскиал» 10% кэ, 0,3 л/га уничтожают сорняков 85-95 %, при этом на развитие зерновых культур отрицательно не влияют и повышают урожайност на 20-25 %.

4. При изучение различных видов гербецидов по предотвращение растпространение сорняков самыми эффективными оказались гербицид Бомба В.Д.Г 30 г/га+Адью 0,2 л/га+ГумимакС 0,5 л/га, каторые уничтожали широколистных сорнаков до 90-95 %.

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ВОЗРОЖДЕНИЕ НАЦИОНАЛЬНЫХ ЦЕННОСТЕЙ ЯВЛЯЕТСЯ ВАЖНЫМ УСЛОВИЕМ ПОСТРОЕНИЯ ДЕМОКРАТИЧЕСКОГО ОБЩЕСТВА

Аннотация: В данной статье освещено возрождение национальных ценностей является важным условием построения демократического общества.

Ключевые слова: ценность, национальный ценность, демократия, демократического общества, гражданское общество.

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THE REVIVAL OF NATIONAL VALUES IS AN IMPORTANT CONDITION FOR BUILDING A DEMOCRATIC SOCIETY

Abstract: This article highlights the revival of national values is an important condition for building a democratic society.

Keywords: value, national value, democracy, democratic society, civil society.

В становлении демократического общества в Узбекистане ценности, лежащие в основе национальных принципов, также занимают особое место. Необходимо обобщить мнения и рассуждения ряда ученых нашей страны в направлении национальных и общечеловеческих ценностей. Потому что правовое демократическое государство и открытое гражданское общество, которые создаются в Узбекистане, основаны на наших национальных ценностях, наряду с общечеловеческими ценностями.

Когда это называется "ценностью", мы должны понимать совокупность явлений природы и благ общества, которые служат интересам и целям нации, элиты и социальных групп, значимых для человека и человечества, и благодаря которым они ценятся. Существует определение "ценности – комплекс отношений, обстоятельств, материальных вещей и духовного богатства между людьми в обществе, людьми, обладающими авторитетом, вниманием, уважением, авторитетностью, значимостью". Мы придерживаемся мнения, что такое

определение ценностей гораздо ярче выражает их суть, но в рамках определений, данных ценностям, оно отличается от других определений в своей науке. Нам кажется, что "концепция универсальных ценностей выражает общие формы ценностей, требования и процедуры законов основных направлений проживания прошлого и будущего существования человечества, которые имеют значение для общества в целом, отражая в себе наиболее вековые мечты и идеалы Объективной основой концепции универсальной ценности является общество, в котором социальные отношения и процессы обобщают непрерывную жизнь и уклад жизни человечества."

Действительно, в концепции "универсальности" жизнь и созревание человеческой породы, ценности которой являются частью живой природы, должны найти свое выражение в важности ее исторического развития для политических и других единиц. Таким образом, только общество, самая распространенная общность человечества, является создателем и хранителем общечеловеческих ценностей.

Демократические ценности проявляются в местных национальных региональных и универсальных формах при определенных условиях. Следовательно, не каждое общество может представить свою перспективу без развития и укрепления своих духовных и нравственных ценностей в сознании людей. Духовное наследие культурных ценностей народов на протяжении тысячелетий служило мощным источником духовности для народов Востока. Демократическое общество не может быть построено без общечеловеческих и национальных ценностей. Размышляя о ценностях, необходимо обратиться к двум его составляющим. Прежде всего, необходимо отдельно проанализировать активную деятельность человека по отношению к объективному миру. Понятие общечеловеческих ценностей включает в себя те, в которых материальная и духовная среда наследуется в результате развития условий жизни и перехода преемственности к формированию все новых и новых ценностей, и те, в которых дух эпохи является основой для новой социальной потребности и прогресса. Основная функция универсальных ценностей - это важный фактор в познании Вселенной и ее практическом преобразовании.

Национальные ценности - это аспекты и характеристики, которые важны и имеют серьезное значение для нации. Нет ни одной нации, у которой не было бы своей собственной национальной ценности. Деградация нации - это деградация национальной ценности. Национальные ценности история нации будущее образа жизни поколений составляющих социальные слои национального сознания язык проявляются в тесной связи как с духовностью так и с культурой. Потому что национальные ценности - это не только одна из духовных основ, укрепляющих независимость нашей страны, но и главный источник построения

демократического справедливого правового государства и гражданского общества.

Известно, что демократические ценности формируются при определенных условиях. По этой причине они проявляются в местном национальном региональном универсальном содержании.

Национальные ценности - это не какие-то неизменные явления. Улучшение социальной, экономической и духовной жизни, связанное с развитием нации, позволяет национальным ценностям также развиваться по мере изменения условий жизни и труда. Каждая ценность определенного конкретного периода является не только продуктом обстоятельств и потребностей, но и их отражением. С этой точки зрения, необходимо обратить особое внимание на два фактора, чтобы их использовать, прежде чем оценивать ценности вместо того, чтобы находить решения в соответствии с демократическими принципами: первый - это конкретные исторические условия, в которых возникли эти ценности, и второй - возможности и потребности, присущие тем временам. Также необходимо изучить вопросы преемственности общечеловеческих демократических ценностей, являются ли региональные ценности национальными ценностями - какая гармония существовала между ними, на какой почве она возникла. Эти обстоятельства являются важным условием построения демократического общества в Узбекистане.

Верность гуманитарным идеям, демократия, Социальная справедливость, стремление к устойчивой жизни, предотвращать нарушения прав человека, бороться против всех народов за национальную независимость, приглашать людей к дружбе, сотрудничеству и сочувствию, питаться Мира, умиротворение, поддерживать чистоту одобряют сред - это аспект всеобщей ценности, которые в настоящее время имеют большое значение. Эти ценности так же состоят из новых аспектов в развитии науки, техники, культуры, общих производственных отношений, приобретений всем человечеством, достижений демократии в стабилизации законодательства, справедливости, национальное использование, которое служит преобразованию нашей Республики в одно из стран мира.

В демократическом обществе повышается роль духовных ценностей, произведений литературы и искусства, становится необходимым пользоваться воспитательной силой религии, богатым опытом предков в сфере воспитания всесторонней развитости. Общечеловеческие ценности не являются отдельным аспектом духовного и социального созревания человека как такового-к отдельному другу. Универсальные ценности- это приобретенное выражение национальных и региональных ценностей. Общечеловеческие ценности формируются и развиваются на основе ценностей, присущих всему человечеству.

Создание нового Узбекистана – это не просто желание, субъективное явление, а объективная необходимость, которая имеет фундаментальную историческую основу, диктует нынешнюю политико-правовую, социально-экономическую, духовную и образовательную ситуацию в самой нашей стране, соответствует многовековым чаяниям нашего народа, полностью отвечает его национальным интересам.

Новый Узбекистан - это государство, которое развивается на основе принципов дружественного сотрудничества с мировым сообществом, строго следуя общепринятым нормам и принципам, касающимся демократии, прав и свобод человека, конечной целью которого является создание свободной, процветающей и комфортной жизни для народа.

В заключение отметим, что ценности - это материальные, духовные ценности, которые формируются и развиваются в процессе исторического развития общества, оказывают положительное влияние на социальный прогресс в прошлом, настоящем и будущем, внедряются в сознание людей и приобрели положительное значение. С этой точки зрения зрение, исторический опыт, наследие традиции – все это должно превратиться в новое, воспитывающее ценности для будущих поколений.

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БУЮК МУТАФАККИР АБУ АЛИ ИБН СИНО ЎГИТЛАРИНИНГ БУГУНГИ КУНДА БОЛА ТАРБИЯСИДА АҲАМИЯТИ

Аннотация: Замонамиз кишиларини юксак ахлоқий фазилатлар руҳида тарбиялашда, комил инсон бўлиб жамиятимизни юксалтиришда, юртимиз равнақида, мустақиллигимизни мустаҳкамлашда буюк мутаффакирлар фикрларининг аҳамияти ниҳоятда катта. Ўзбекистон Республикаси Президентининг бевосита бошчилигида: «Кадрлар тайёрлаш миллий дастури», «Таълим тўғрисида»ги қонун, Президент фармонларида ўз аксини топганлиги бежиз эмас. Таълим-тарбия тизимини тубдан ислоҳ қилиш борасида Ўзбекистон Республикаси Президенти Шавкат Мирзиёевнинг фикр ва мулоҳазалари диққатга сазовор: "Бизни ҳамиша ўйлантириб келадиган яна бир муҳим масала – бу ёшларимизнинг одоб-ахлоқи, юриш-туриши, бир сўз билан айтганда, дунёқараши билан боғлиқ. Бугун замон шиддат билан ўзгаряпти. Бу ўзгаришларни ҳаммадан ҳам кўпроқ ҳис этадиган ким – ёшлар... Лекин айни пайтда ўзлигини ҳам унутмасин. Биз киммиз, қандай улуғ зотларнинг авлодимиз, деган даъват уларнинг қалбида доимо акс-садо бериб, ўзлигига содиқ қолишга ундаб турсин. Бунга ниманинг ҳисобидан эришамиз? Тарбия, тарбия ва фақат тарбия ҳисобидан".

Калит сузлар: Абу Али ибн Сино, Сайд Нафисий, М. М. Герасимов.

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THE SIGNIFICANCE OF THE TEACHINGS OF THE GREAT MUTAFAKKIR ABU ALI IBN SINA IN EDUCATION OF CHILDREN TODAY

Annotation: The importance of the thoughts of great thinkers in educating the people of our time in the spirit of high moral qualities, in improving our society as a perfect person, in the development of our country, and in strengthening our independence is extremely great. It is not for nothing that under the direct leadership of the President of the Republic of Uzbekistan: "National Program of Personnel Training", "Law on Education" and presidential decrees were reflected. The views and opinions of the President of the Republic of Uzbekistan Shavkat Mirziyoyev regarding the fundamental reform of the education system are noteworthy: "Another important issue that

always comes to our mind is the manners, behavior and, in a word, worldview of our youth. is changing rapidly. The one who feels these changes more than anyone else is the youth... But at the same time, let them not forget their own identity. Let the call of who we are, the descendants of great people, always echo in their hearts and encourage them to stay true to their identity. education, education and only education".

Key words: Abu Ali ibn Sina, Sayyid Nafisi, M. M. Gerasimov.

Мақсад: Бугунги кун жамоатчилик назоратини тарбияга қаратишни талаб қилмоқда. Чунки тарбия сўзининг ортида Ватан, миллат тақдири турибди. Ота-оналарнинг педагогик маданиятини ошириш, фарзанд тарбияси борасидаги бурч ва масъулиятини ошириш мухим вазифаларидан бири хисобланади.

Усул ва услублар: Ота-боболаримиз азал-азалдан ёшларга одобли, яъни яхши хулқли, меҳнатсевар, тўғрисўз, халол, ростгўй, камтар, инсофли, диёнатли, ор-номусли, ўз туғишганларига, қариндош- уруғларига ва яқин дўсту-биродарларига меҳр-муҳаббатли, бир сўз билан айтганда, комил инсонлар қилиб тарбиялашга кучғайратлари ва ақл-идроқларини аямай ишига солиб, алоҳида диққатни қаратганлар. Чунки бунга асос бўла оладиган тарихий манбаларимиз бор. Айниқса аҳлоқ-одобни юксалтириш, инсоний фазилатларни шакллантиришга катта маънавий аҳамият касб этадиган буюк мутафаккир Абу Али Ибн Синонинг таълимотлари ғоят ҳаётий сабоқларидир.

Натижалар: Жаҳон илм аҳли томонидан тан олинган машҳур қомусий аллома ва мутафаккир Абу Али Ибн Сино ўзидан бой интеллектуал мерос қолдирди. Ибн Синонинг қатор асарларида жумладан “Табиат дурдонаси”, “Оила тадбири”, “Ишқ рисоласи”, “Мантиқ рисоласи”, “Ахлоқ рисоласи” кабиларда табиатнинг турли ҳодисалари, ижтимоий ҳаётнинг ўзига хос муаммолари – инсон мақоми бахт-саодатга эришишнинг восита ва йўллари, адолат, комил инсон, шахс ва жамият, жамоани оқилона бошқариш, табиат ва инсон тўғрисидаги ғоялар аҳамиятга моликдир. Оилани ташкил этган киши оила аъзоларига “мудир” ва ўзининг сиёсатини қўллайди, улар отасининг иродасига бўйсунадилар. Яшашда ва овқатланишда ҳамма тенгдир. Хуллас эркак “уй ва эга бўлган нарсаларни муҳофаза қилиши ва асраши учун рафиқага эҳтиёжлидир”-, дейди Ибн Сино. Мутафаккирнинг фикрига кўра, ҳар бир одам ожиз ёки касал бўлганда, кексайган вақтида унга қайғуриши учун ҳамда вафотидан кейин номини барҳаёт қилиши учун фарзандига ва хизматчиларига муҳтождир. Боланинг тарбияси онанинг ҳомиладорлигиданоқ бошланади. Оиладаги шарт-шароитлар, меҳр-муҳаббат, атрофдагиларнинг муносабатлари боланинг тарбиясида жуда катта роль ўйнайди. Ўз фарзанди борасида отанинг сиёсати шундан иборатки, унга чиройли исм қўйиш, яхши энага танлашдир. Болани доим яхши хулқлар ва одоблар

асосида тарбиялаш лозим чунки ёмон феъл – атворлар ва нафратли одатлар болани бузади, улардан болани четлаштириш лозим. Бу мақсадга эришиш учун мураббий болани қилган ишлари учун ёки мақтайди, ёки четлаштиради, ёки жирканч ва ёмон ишлардан қўрқитади, қочиради ёки яхши хулққа одатлантиради ва хайрли ишларга чорлайди. Калтаклаш сўнги чора ва уни қўллаганда бола оғриқни сезиши лозим, номига бўлса, "бола калтак (уриш)дан ҳайиқмайдиган бўлиб қолади ва бунга аҳамият ҳам бермайди".

Алломанинг фикри бўйича, "болага илм ва одобни биринчи навбатда ўргатиш лозим тажрибали, фахм – фаросатли, диндор одобли киши бўлиши шарт. Мактабда, одоб ва аҳлоқ эгаларидан бўлган ҳурматли кишиларнинг фарзандлари билан дўстлашиб ўқиши лозим, бир биридан ёрдамини аямасдан. Биринчи навбатда (она) тили ва Қуръони Каримни, сўнг яшаш тарзи услуби ва маблағ топиш йўлларни, ҳуқуқларни ва санъатни ҳар бир киши ўзининг интилишига мос келадиган соҳани ўрганишга интилади" деб аллома ёзади.

Шу сабабдан шогирдларнинг ҳоҳишини инобатга олиш зарур. Фарзандни касбга йўналтириш ҳақида мутафаккир қуйидаги фикрларни билдиради: биринчидан, турмушини таъминлашда ўз санъатидан фойдаланишнинг лаззатини татиб кўрганда у ишининг манфаати ва қоидасига кўра ўз санъатига муҳаббати ошади ва муносабати ўзгаради уни такомиллаштиришга ҳаракат қилади. Иккинчидан ўз турмуш тарзини тўла таъминлашдан олдин масъулиятни ўз зиммасига олади.

Аёлларнинг энг яхшиси эса қуйидаги сифатларга эга бўлган аёлдир: 1) оқила бўлиши, 2) диндор бўлиши, 3) шарҳайли бўлиши, 4) зийрак ва мулоҳазали бўлиши, 5) меҳир-муҳаббатли бўлиши, 6) фарзандлари кўп бўлиши, 7) тили узун бўлмаслиги, 8) итоаткор бўлиши, 9) покдор ва очиққўнгил бўлиши, 10) эрнинг орқасида ва йўқлигида вафодор бўлиши, 11) оғир ва босиқ бўлиши, 12) виқорли бўлиши, 13) салобатли бўлиши, 14) эрига хизмати мақомида такаббурлик қилмаслиги, балки камтарлик бўлиши, 15) ўз иши ва хизматининг тадбирини яхши ва гўзал кўрсатиши, 16) эрининг топганини сақлашда тежамкор бўлиши, 17) эрнинг кўнглидан ҳам-андуҳнинг гарди ҳамда ғуборликни яхши ҳулқи ва гўзла забони ила пок этиши ҳамда эрининг ғамхўрлигига ўзининг чиройли муомаласи билан тасалли бериши" деб Ибн Сино ҳисоблайди. "Оилада катта ёки кичик нарса бўлмайди. Ҳамма нарса, ҳатто, энг оддий бўлиб кўринган оилавий муносабатлар ҳам болага таъсир кўрсатади. Айнисқа, ростгўйлик, самимийлик, садоқатлилик, ширинсуҳан бўлиш бола камолотидаги зарур ҳаётий воситалардан биридир" -Абу Али ибн Сино.

Абу Али Ибн Сино ахлоқ, таълим-тарбия ҳақида ҳикматлари:

Илм — нарсаларнинг инсон ақли ёрдами билан ўрганилишидир.

Ҳақиқатни очинглар, тўғри йўлдан юринглар. Бир-биригиздан илм ўрганиб, камол топишингиз учун дил пардасини очиб ташланглар.

Қаноат деб, ўзига кифоя қиладиган нарсага эришишга айтилади; буни бўшашганлик ҳам дейишади. Қаноат камтарлик ва унча-мунча нарсани назарга илмайдиган хислат билан ҳирс ўртасида бўлади.

Сабр деб, инсон бошига тушган алам ва чидаб бўлмайдиган оғриқни то енгунга қадар ушлаб туришга айтилади.

Кишини қабиҳ ва бемаза ишларга қадам қўйишдан тутиб турадиган ва уни яхши хулқ ва ишларга йўллашига ҳаё дейилади.

Иффат эса ёмонлик билан шаҳват ҳамда бунга ўхшаган нарсалар ўртасида туради. Яна у серҳафсалалик билан беҳафсалалик ўртасида туради.

Саховат эса бахил ҳамда зиқналик билан сарф қилиш ўртасида туради.

Шижоат — довюраклик эса қўрқоқлик билан қўполлик ўртасида бўлади.

Яхши ва ёмон хулқнинг ҳаммаси шароит, тарбия, одатланиш натижасида вужудга келади. Яхши хулққа ҳам одат туфайли эришилади.

Ҳақиқат мантиқ илмидан талаб қилинсин! Ички қувватларнинг таъсирлари ва таъсирланишлари такрорланаверса, улар учун кучли бир малака ҳосил бўлади. Ахлоқ ҳам шундай вужудга келади.

Хулосалар: Мутафаккирнинг бу фикрлари - ахлоқ дарҳақиқат жамият тараққиётида, шахс ҳаётида муҳим аҳамият касб этади. Президентимиз ёшлар тарбиясини давлат аҳамиятига молик вазифа деб билди ва унинг нуфузини оширди. Ёшлар олдига янгича яшаш, янгича фикрлаш, ҳаётга муносиб ўрнини топиш миллий ва умуминсоний қадриятларга уйғун янгича маънавиятни эгаллаш талаблари қўйилади.

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ИСПОЛЬЗОВАНИЕ ИКТ НА УРОКАХ ХИМИИ ДЛЯ РАЗВИТИЯ ИНТЕЛЛЕКТУАЛЬНЫХ СПОСОБНОСТЕЙ УЧАЩИХСЯ

Аннотация. Применение информационно - коммуникационных технологии(ИКТ) на уроках химии облегчает отработку материала, способствует повышению познавательного интереса к химии, развитию желания и умения учиться, даёт возможность развитие интеллектуального способности и осуществлять индивидуальный подход в обучении и позволяет объективно оценить знания учащихся. ИКТ позволяют не только выстраивать материал в виде последовательного изложения, но и создают возможность нелинейного перемещения между отдельными частями занятия.

Ключевые слова. ИКТ, развития, интелектуалность, способность, химия, урок, материал, возможность.

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THE USE OF ICT IN CHEMISTRY LESSONS FOR THE DEVELOPMENT OF STUDENTS' INTELLECTUAL ABILITY

Annotation. The use of information and communication technology (ICT) in chemistry lessons facilitates the development of material, contributes to the increase of cognitive interest in chemistry, the development of the desire and ability to learn, makes it possible to develop intellectual ability and implement an individual approach in teaching and allows you to objectively assess the knowledge of students. ICTs allow not only to build the material in the form of a consistent presentation, but also create the possibility of non-linear movement between the individual parts of the lesson.

Keywords. ICT, development, intelligence, ability, chemistry, lesson, material, opportunity.

Одним из основных направлений развития непрерывного образования является его информатизация. Информатизация общества предполагает всестороннее и массовое внедрение методов и средств сбора,

обработки, передачи, архивного хранения больших объемов информации на базе средств микропроцессорной и вычислительной техники, средств информационных технологий, а также разнообразных средств передачи информации, включая телекоммуникационные сети и спутниковую связь [1]. Будущее требует от современной молодежи огромного запаса знаний в области использования информационных технологий [2]. Важнейшей задачей образования становиться научить человека жить и плодотворно трудиться в мире глобальных коммуникационных сетей, интернета, подготовить его к восприятию различной информации, научить человека понимать ее [3].

Одним из приоритетных направлений процесса информатизации современного общества является информатизация образования, обеспечивающая широкое внедрение в практику психолого-педагогических разработок, направленных на интенсификацию процесса обучения, реализацию идей развивающего обучения, совершенствования форм и методов организации учебного процесса, обеспечивающих переход от механического усвоения фактологических знаний к овладению умениями и навыками самостоятельно приобретать новые знания [4]. Это приводит к повышению информативности получаемых учащимися в ходе образовательного процесса впечатлений [5]. Компьютеры приобретают все большее значение в процессе образования и вообще познания нового, так как эта деятельность связана с получением, восприятием и обработкой больших объемов информации [6].

В настоящее время при обучении современной молодежи необходимо учитывать, что новое поколение выросшее на мобильных телефонах и компьютерах, требует быстрого, динамичного, с постоянной зрительной стимуляцией образовательного процесса [7]. Новые информационно-коммуникативные технологии позволяют справиться с этой проблемой и направить интеллектуальный потенциал учащихся на позитивное развитие [8].

Химия считается одним из наиболее трудных общеобразовательных дисциплин, изучаемых в школе и колледже [9]. И уже через некоторое время после начала изучения активность, интерес учащихся и качество знаний падает из-за большого объема теоретического материала и большого количества практических упражнений, в разнообразии которых учащиеся не успевают хорошо разобраться из-за недостаточного количества времени, отведенного на изучение тем [10]. Как повысить познавательную активность учащихся на уроках химии, ведь качество знаний учащихся во многом определяется их отношением к учебному предмету? Информационно-коммуникационные технологии помогают решить эту проблему [11].

Уроки с применением ИКТ имеют коренное отличие от классической системы обучения [12]. Это отличие состоит в изменении роли учителя: он

уже не основной источник знаний, его функция сводится к консультативно – направляющей [13]. Это происходит благодаря применению современных электронных учебников, виртуальных химических лабораторий, интернета, новых средств обучения [14]. Задача учителя – подобрать эти средства в соответствии с содержанием учебного материала, возрастными и психологическими особенностями обучаемых, а также с умением учащихся использовать компьютер [15].

Цель применения компьютера на уроке химии - создание дидактически активной среды, способствующей продуктивной познавательной деятельности в ходе усвоения нового материала, развитию мышления учащихся, повышению мотивации к изучаемому предмету [15].

Формы использования ИКТ на уроках химии: - мультимедийные презентации; - видео-опыты; - тестирование; - дистанционное обучение (Решу ЕГЭ, LearningApps); - мультимедийные лабораторные и практические работы; - исследовательская и проектная деятельность; - использование электронных учебников [16].

Кроме того, компьютерные технологии дают возможность: - найти дополнительные источники информации для учителя и учащихся; - шире использовать аудиовизуальные средства для увеличения наглядности материала, для лучшего понимания его студентами; - сопровождать учебный материал динамическими рисунками; - моделировать процессы, которые в обычных условиях невозможно воспроизвести; - воспроизводить химические эксперименты с опасными, токсичными, взрывчатыми реактивам; - проводить быстрое и эффективное тестирование учащихся; - дает возможность осуществлять индивидуальную траекторию обучения учащихся, возможность их роста и развития; - организовать самостоятельную работу учащихся с информацией, возможность осуществлять самоподготовку к лабораторным и практическим работам, урокам контроля и итоговому контролю знаний, подготовку собственных исследований и т. д.; - проводить дистанционное обучение учащихся в случае их болезни или других причин; - размещать методические работы учителя и творческие работы учащихся на различных сайтах [17].

В нашем колледже созданы оригинальные тренажерные технические средства, применяемые в учебной практике на занятиях по химии, в том числе виртуальный тренажер определения состава вещества методом качественного химического анализа. Обучающая программа-тест по химии разработана на Delphi с применением Flash-анимации. Она представляет собой виртуальный тренажер, предназначенный для проверки готовности студентов к выполнению качественного химического анализа, а также закреплению знаний качественных реакций на катионы и анионы при изучении тем курса неорганической химии [18].

В процессе проверки пользователю, проходящему обучение, необходимо распознать соль, которую “загадывает” программа. На основе

предоставленных программой результатов химических реакций, ему (пользователю) необходимо осуществить выбор аниона и катиона “загаданной” соли. В конце теста отображается результаты виртуального анализа, критерии их оценки, набранный балл, и соответствующая итоговая оценка [19].

Кроме выше перечисленного есть шанс показать с помощью ИКТ учащимся те эксперименты и опыты, которые невозможно провести по каким-либо причинам в лаборатории школе и колледжа [20]. При организации практических работ компьютер становится эффективным помощником. Например, при изучении токсичных веществ (бензол, галогены и др.) виртуальный мир даёт возможность проводить химический эксперимент без риска для здоровья учащихся. С помощью электронных учебников показываю видеофрагменты опытов, которые не всегда можно провести на уроке в полном объёме, ввиду отсутствия необходимого оборудования.

Применение компьютеров на уроках химии облегчает отработку материала, способствует повышению познавательного интереса к химии, развитию желания и умения учиться, даёт возможность осуществлять индивидуальный подход в обучении и позволяет объективно оценить знания учащихся. Наблюдения за процессом обучения показали, что на уроках с использованием ИКТ даже “слабые” учащиеся работают более активно, не отвлекаются, заинтересованно выполняют задания.

Использование компьютерных технологий усиливает восприятие, облегчает усвоение и запоминание материал, воздействует сразу на несколько информационных каналов учащегося. При этом повышается интерес учащихся к урокам химии

Но, преподавание химии с применением ИКТ имеет и ряд “минусов”:

- качество технических средств, их характеристик; помимо ошибок в изучении учебного предмета, появляются еще технологические – ошибки работы с программой;

- необходимость учитывать в работе Санитарно-эпидемиологические правила и нормативы;

- разработка урока с использованием информационных технологий возможна только при наличии определенного электронного ресурса, педагогического программного средства, собственной презентации или материалов из сети Интернет;

- диалог с программой лишен эмоциональности и однообразен;

- не учитываются особенности группы, класса; крайне важна роль учителя;

- не обеспечивается развитие речевой, графической и письменной культуры учащихся;

Как можно видеть положительных моментов в использовании ИКТ намного больше.

Внедрение новых информационно - коммуникационных технологий в учебный процесс позволяет активизировать процесс обучения, реализовать идеи развивающего обучения, повысить темп урока, что, конечно же, существенно влияет на мотивационную сферу учебного процесса и его деятельностную структуру. Но их использование на уроке должно быть продуманным, целесообразным и грамотным.

Применение компьютеров на уроках химии облегчает отработку материала, способствует повышению познавательного интереса к химии, развитию желания и умения учиться, даёт возможность осуществлять индивидуальный подход в обучении и позволяет объективно оценить знания учащихся. Наблюдения за процессом обучения показали, что на уроках с использованием ИКТ даже “слабые” учащиеся работают более активно, не отвлекаются, заинтересованно выполняют задания. При этом повышается интерес учащихся к урокам химии, о чём свидетельствуют данные внутри школьного мониторинга.

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ОСНОВНЫЕ ПРИНЦИПЫ РАЗВИТИЯ ТВОРЧЕСКИХ ГРАФИЧЕСКИХ СПОСОБНОСТЕЙ СТУДЕНТОВ ТЕХНИЧЕСКИХ НАПРАВЛЕНИЙ ОБУЧЕНИЯ

Аннотация: В данной статье приведены мнения, методы и предложения по поводу обучения студентов предмету Инженерная графика, с целью повышения качества образования будущих специалистов технических направлений обучения. В статье рассматриваются различные методы преподавания инженерной графики, в том числе и проблемное обучения. Предложены задания по темам Выполнение эскизов деталей и выполнение сборочного чертежа

Ключевые слова: инженерная графика, чертежи, наглядные изображения, модель, методы обучения, проблемное обучение, эскизы деталей, сборочный чертёж.

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MAIN PRINCIPLES OF DEVELOPING CREATIVE GRAPHIC ABILITIES OF STUDENTS IN TECHNICAL DIRECTIONS OF TRAINING

Annotation: This article presents opinions, methods and suggestions on teaching students the subject of Engineering Graphics, in order to improve the quality of education of future specialists in technical areas of study. The article discusses various methods of teaching engineering graphics, including problem-

based learning. Suggested tasks on the topics Sketching parts and performing an assembly drawing

Keywords: Engineering graphics, drawings, visual images, model, teaching methods, problem-based learning, sketches of parts, assembly drawing.

При обучении предмета «Инженерная графика» как общепрофессиональной дисциплины в высших учебных заведениях, необходимо привить знания и навыки начального курса этого предмета в той мере, в какой они могут быть использованы в дальнейшем студентами, особенно при продолжении обучения по направлению техническим направлениям в вузах или профессиональной деятельности с целью подготовки качественных специалистов для промышленных предприятий, которые заинтересованы в притоке молодых, технически грамотных спеиалистов, на которые в нынешнее время наблюдается большой «спрос».

Такая необходимость возникает что студенты и молодые специалисты встречаются с производственными чертежами. Такие чертежи несут на себе сведения технического и технологического характера. Поэтому естественный вопрос: «А что это такое?» не должен остаться без аргументированногопо форме и краткого по содержанию ответа.

Курс «Инженерная графика» ставит своей целью дать студентам знания основ теории изображения предметов на плоскости, а также научить навыкам чтения и выполнения эскизов, чертежей, схем и наглядных изображений, с использованием условностей, установленных стандартами единой системы конструкторских документаций-ЕСКД. Программа ставит следующие учебные задачи:

- дать учащимся знания основ метода прямоугольных проекций и построения аксонометрических изображений;

- ознакомить с важнейшими правилами выполнения чертежей, условными изображениями и обозначениями, установленными государственными стандартами;

-уметь сохранять на основе рассмотрения наглядного чертежа устойчивое представление о форме предмета и найти его среди других изображений, если на одном из них тот же предмет дан в другом ракурсе, а на остальных даны другие, но близкие по форме, предметы;

- умение находить соответствие между моделью и комплексным чертежом, наглядным изображением и чертежом, показывать на проекциях отдельные элементы, соответствующие аналогичным элементам на модели или наглядном изображении. Ясно представлять нарушения видимой связи между элементами реального объекта при переводе его в графическое изображение;

- уметь оперировать одним комплексным чертежом, отчетливо представляя, в каком изображении представлен объект на каждой

проекции; уметь воссоздать по проекциям цельный образ предмета и его форму, прочитать чертеж. При необходимости продемонстрировать понимание чертежа выполнением технического рисунка или модели объекта, либо словесным описанием.

Приведенные условно пять ступеней можно уточнить, исправить, дополнить. Не следует понимать их как ряд четко и последовательно сменяющих друг друга этапов в графическом развитии учащегося. Между ступенями нет резко очерченных границ: овладение знаниями и навыками в одно и то же время может затрагивать объем нескольких ступеней. Но общий путь формирования знаний и навыков, будет наиболее доступным, методически обоснованным. При организации занятий по Инженерной графике и выборе методов обучения, учитель для каждого занятия продумывает его структуру проведения и ставит цели. Урок в большей степени зависит от уже проведенных занятий в течение учебного года, от достигнутого уровня знаний и практических навыков. от характера и объема знаний. При этом преподаватель опирается на достаточно широкий кругозор студентов, на возможности самостоятельного приобретения ими знаний по учебнику, дополнительной технической литературе, материалам Интернета

В педагогике рассматриваются различные типы уроков и различные формы их изложения: урок изучения нового материала, урок закрепления знаний. умений и навыков, повторительно – обобщающий, объединенный или комбинированный.

К занятиям по «Инженерной графике» наиболее применяемой формой проведения является – комбинированный урок, где наряду с объяснением упреподавателя, в качестве важной составной части выступает и проведение практической, графической работы, как формы закрепления полученных знаний.

В тесной взаимосвязи со структурой урока находятся вопросы выбора метода обучения – способа сообщения знаний, обеспечивающие высокие результаты учебно-воспитательного процесса.

Наиболее простая классификация различает словесные, наглядные и практические методы. На уроках черчения –словесный метод – устное изложение учебного материала в форме лекции- беседы, объяснение, сопровождающее построения на классной доске или с использованием компьютерной технологии, а также самостоятельную работу учащихся с учебным пособием и справочной литературой.

К наглядным методам относится демонстрация по ходу урока учебно-наглядных пособий в виде плакатов, учебных таблиц, моделей, натуральных объектов, слайд-презентаций, видеофильмов. Практические методы состоят в чтении и самостоятельном выполнении учащимися эскизов и чертежей, графических упражнений, способствующих прочному закреплению полученных знаний и выработке практических навыков.

Первое предполагает установление взаимопонимания в системе "учитель-ученик", второе - наличие относительно широкого круга проблем и конкретно-практических геометрических и технических задач, требующих ориентации учащихся в содержательных способах их решения.

Чтобы внимание учащихся не ослабевало при изучении нового материала в форме лекция-беседа, учитель прерывает изложение его вопросами к ним, касающимися только что изложенных им сведений.

Не следует задавать вопрос «Все поняли?», потому что редко кто отважится признаться в своей некомпетентности, лучше задавать конкретные вопросы, например, «Как расположены плоскости относительно друг друга в трехгранном угле?» или «Какие размерные величины необходимы для построения горизонтальной проекции?» и т.д. В процессе построения лучше задать вопрос: «Как нужно строить дальше?» или «Какое количество изображений необходимо для построения чертежа этой детали?». При такой постановке вопроса учащимся придется задуматься и выбрать из своих предположений наиболее правильное. В этом случае прослеживаются контуры проблемно-поисковых ситуаций на уроке. Такое ведение занятий способно обеспечить внимание учащихся и понимание нового материала. Оно не позволяет отвлечься от содержания урока, но поощряет активное участие студентов.

В процессе занятия преподаватель не должен увлекаться собственным рассказом или объяснением, так как его задачей является непрестанный, систематический контроль внимания аудитории путем возбуждения ответных реакций, свидетельствующих о восприятии учащимися излагаемого, степени сознательности в его понимании, словом, учитель должен поддерживать обратную связь.

Практические задания студентов включают: работу над заданиями, они должны выполнять работы обязательного минимума (графические и практические работы), предусмотренные программой на основе методических пособий.

Организационные принципы занятий по Инженерной графике можно условно свести к трем подпрограммам с составляющими их элементами:

1. Оптимальная программа по учебному курсу.

В приложении к учебной программе принцип оптимизации означает выбор наилучшего из возможных вариантов управления процессом обучения. Всегда существовал сложнейший вопрос учебного процесса – определение действительно необходимого объема знаний, который должен приобрести студент в процессе обучения. Противоречие учебного процесса, который заключается в противоречии между объемом информации и действительными требованиями подготовки к дальнейшей учебной и профессиональной деятельности, носит эмпирический характер. Возможность передачи как можно большего объема информации за

ограниченное время требует от преподавателя постоянного совершенствования методики преподавания.

Нельзя с достаточной достоверностью сказать, сколько времени студентам, нужно на решение того или иного задания, на изучение страницы учебника, выполнении графических заданий и т.п.

Без накопления данных, характеризующих производительность учебного процесса, без выявления факторов, позволяющих управлять ею, не могут быть определены исходные данные для совершенствования учебного процесса.

Программа графических действий и операций предусматривает систему развития знаний, умений и в работе с различными типами современных чертежных средств компьютерной графики для эффективного выполнения чертежно-технической документации – взаимозависимость содержания учебной программы и насыщенности ее графическими практическими заданиями.

Качество оформления учебных графических и практических заданий и время, отводимое на их выполнение, во многом зависит от:

- повышения производительности труда студентов за счет рационально выбранных чертежных средств и закрепленных навыков работы с ними;
- системного подхода в выборе методов и способов оформления чертежно-графических и практических работ:
- способности творчески подходить к своей деятельности, умения исключить подготовительные и повторяющиеся операции;
- способность спланировать свои действия над чертежом в зависимости от умения разделить и затем последовательно выполнить их с учетом сложности чертежа.

Программа обучающей деятельности – эмпирическая характеристика индивидуальных возможностей учащихся усвоения учебной информации, их способности к выполнению учебных заданий, в том числе к запоминанию учебного материала, решению графических задач, выполнению различных графических работ и тестов. Обучаемость выступает как общая возможность психического развития, достижения наиболее обобщенных систем знаний, общих способов действий. Технические приемы в традиционном учебном процессе – это средства обучения и контроля. Применение технических средств в обучении учащихся призваны повысить эффективность учебного процесса за счет своевременной адаптации процесса обучения к индивидуальным особенностям учащихся.

Создание проблемных ситуаций на уроках Инженерной графики – система методов и средств, обеспечивающих возможности творческого участия учащихся в процессе усвоения новых знаний, формирования творческого мышления и познавательных интересов личности.

Существенное значение в развитии теории проблемного обучения имело положение о роли учебной ситуации в мышлении и обучении (А.М.Матюшкин). Особый вклад в разработку теории проблемного обучения внесли М.И. Махмутов, А. В. Брушлинский. Т.В. Кудрявцев, М.Н. Скаткин и др.

Наиболее обобщённое определение проблемного обучения сформулировал М.И. Махмутов: «проблемное обучение - это тип развивающего обучения, в котором сочетаются самостоятельная систематическая поисковая деятельность учащихся с усвоением ими готовых выводов науки, а система методов построена с учетом целеполагания и принципа проблемности; процесс взаимодействия преподавания и учения ориентирован на формирование мировоззрения учащихся, их познавательной самостоятельности, устойчивых мотивов учения и мыслительных (включая и творческие) способностей в ходе усвоения ими научных понятий и способов деятельности, детерминированного системой проблемных ситуаций». (Махмутов 1975:257)

Ситуация будет проблемной, если при выполнении практического или теоретического задания, ранее усвоенных знаний будет недостаточно и поэтому возникает субъективная потребность в новых знаниях. Возникающая познавательная потребность вызывает и определяет соответствующую активность учащихся в обучении. Проблемное обучение является основным звеном, из которого в дальнейшем развиваются познавательные и профессиональные интересы, а процесс усвоения новых знаний идет с помощью учителя, который использует систем учебных заданий.

В процессе выполнения заданий конструктивно-технического характера меняется образ мышления учащихся. Так, изменение характера работы над графическим изображением у учащихся может вызвать трудности и опасения в собственной несостоятельности, поэтому выполнение тренировочных заданий, рассмотрение ряда примеров по выбранной теме помогут избежать этих трудностей. Подбирая задания нужно исходить из того, что студенты подготовлены к восприятию подобных заданий, а потому можно опираться на следующие качества, знания и навыки:

- развитое пространственное представление;
- умение выполнять чертежи, используя упрощения и условности, предусмотренными стандартами ЕСКД;
- умение ориентироваться в ассортименте типовых деталей и знание способов их соединения;
- понятие о средствах передачи и преобразовании движения в механизмах деталях, используемых для этой цели.

- представление о важнейших технологических процессах, применяемых в современном машиностроении, о его оборудовании и инструментах.

Творческая деятельность по решению задач учащимися, как одним из сложных видов труда, по сути является продуктивной мыслительной деятельностью, представляющей собой процесс решения проблемных задач. Результатом их решения есть получение нового и оригинального для студента продукта деятельности, овладение новыми способами работы или достижение ими того и другого результата вместе.

Творческие задачи подразделяются на две категории. К первой относятся пропедевтические задачи, развивающие общую готовность студентов к выполнению работ с техническим содержанием, которые используются на ранних этапах обучения; ко второй – задачи с элементами проектной деятельности, моделирующие в рамках логики инженерной графики работу специалистов творческих технических профессий. Предлагаемая система задач должна быть основным средством развития творческой графической деятельности студентов.

Одной из таких творческих работ является выполнение эскизов деталей сборочной единицы с последующим выполнением сборочного чертежа самой сборочной единицы с натуры. Сборочная единица может быть выбрана самим студентом, по направлению его обучения. Рассмотрим выполнение этого задания для студентов направления «нефтегазовое дело», «технологии нефтегазовой промышленности» на примере «Крана пробкового» (рис.1), с выполнением эскизов её деталей (рис. 2) и сборочного чертежа пробкового крана (рис 3) с его спецификацией (рис.4).



Рис.1 Пробковый кран

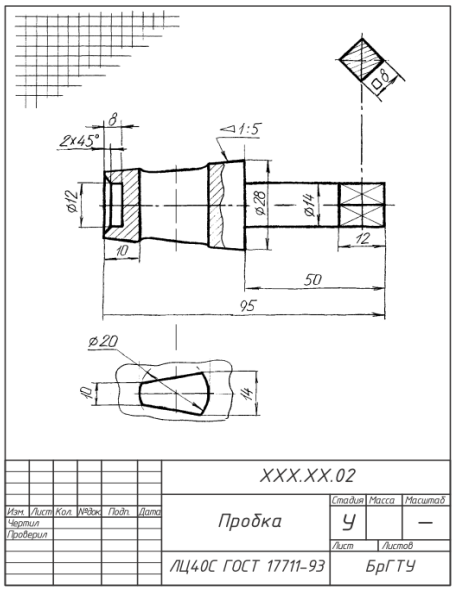


Рис.2 Эскиз пробки

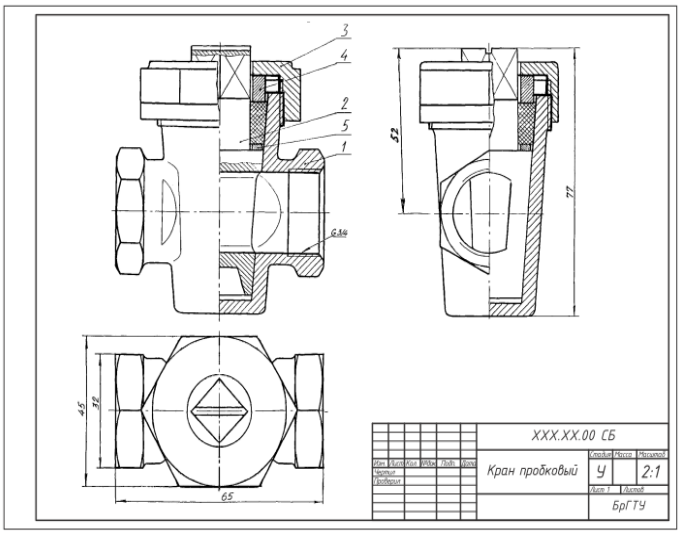


Рис.3 Сборочный чертёж

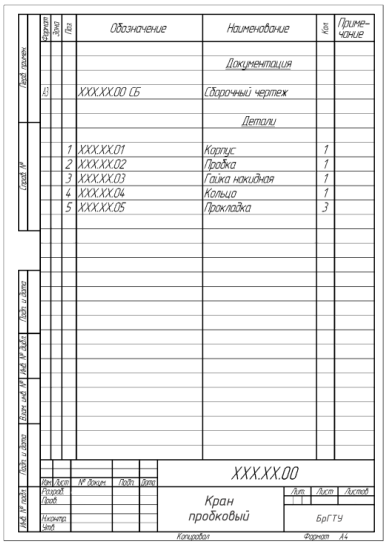


Рис.4 Спецификация

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ВНУТРЕННИЙ КОНТРОЛЬ В БЮДЖЕТНЫХ УЧРЕЖДЕНИЯХ

Аннотация: В научной статье проведен анализ теоретических аспектов понятия «внутренний контроль» в бюджетных учреждениях. Актуальность исследования обусловлена тем, что благодаря организации и проведению внутреннего контроля обеспечивается эффективность использования бюджетных средств и результативность деятельности учреждений бюджетного сектора.

Ключевые слова: внутренний контроль; организация внутреннего контроля; проведение внутреннего контроля; бюджетные учреждения; бюджетные средства.

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INTERNAL CONTROL IN BUDJETARY INSTITUTIONS

Annotation: The scientific article analyzes the theoretical aspects of the concept of "internal control" in budgetary institutions. The relevance of the study is due to the fact that due to the organization and conduct of internal control, the efficiency of the use of budgetary funds and the effectiveness of the activities of an institution in the public sector are ensured.

Keywords: internal control; organization of internal control; carrying out internal control; budget institutions; budget resources.

Под понятием «внутренний контроль» в бюджетном учреждении подразумевается комплекс мероприятий, осуществляемых ответственным субъектом в целях выполнения поставленных задач и достижения определенной руководством цели. Предметом проведения внутреннего контроля является соблюдение объектами контроля бюджетного законодательства и законодательства РФ в сфере закупок [1].

Также под «внутренним контролем» бюджетного учреждения понимают процесс деятельности, инициированный и организованный работниками бюджетного учреждения, наделенными соответствующими полномочиями по проверке соблюдения требований законодательных и иных нормативно-правовых актов, регулирующих деятельность бюджетного учреждения, оценке выполнения принятых управленческих решений [3].

Внутренний контроль бюджетных учреждений в Российской Федерации регулируется прежде всего:

– п. 2 ст. 160.2-1 Бюджетного Кодекса;

– ст. 19 Федерального закона от 06.12.2011 N № 402-ФЗ «О бухгалтерском учете»;

– Федеральным законом «Об аудиторской деятельности» от 30.12.2008 N № 307-ФЗ.

– Приказом Минфина России от 21.11.2019 N 196н (ред. от 01.09.2022) "Об утверждении федерального стандарта внутреннего финансового аудита "Определения, принципы и задачи внутреннего финансового аудита".

Практическая важность организации внутреннего контроля в бюджетных учреждениях России обусловлена следующими аспектами:

1. Субъект контроля обязан будет проводить контроль за всеми фактами и операциями хозяйственной жизни.

2. Организация контроля формирует основы эффективной учетной политики бюджетного учреждения.

3. Организация контроля является источником информации, которая используется для составления пояснительной записки к публикации годовой отчетности.

Организация внутреннего контроля бюджетного учреждения является важным инструментом эффективного управления. Цели ее проведения совместимы с задачами государственной политики в сфере управления и использования бюджетных средств. Финансовое обеспечение бюджетных учреждений происходит из бюджета, а значит, организация внутреннего контроля позволяет проводить оценку рациональности в использовании данных средств.

Также, организация внутреннего контроля в бюджетных учреждениях способствует мобилизации доступных ресурсов и выявлению имеющихся резервов, реализация которых позволяет достичь

поставленных целей. Контрольные процедуры внутри бюджетного учреждения повышают общую эффективность хозяйственной деятельности, которая влияет на качество предоставляемых населению услуг.

Вдобавок, организация внутреннего контроля ставит задачу усиления экономии бюджетных средств. Выявляются факторы и условия, которые приводят к неэффективному использованию бюджетных средств. Также, проводится профилактическая работа по противодействию мошенничества и экономических преступлений, приводящих к хищению и порче имущества [2]. Кроме того, организация эффективного внутреннего аудита в бюджетных учреждениях позволяет противостоять и уголовным преступлениям, связанным с отмыванием преступных доходов [4].

Для проведения внутреннего контроля в бюджетном учреждении необходимо соблюдать следующие этапы:

Первый этап – определяются цели и задачи организации, список ответственных лиц и план мероприятий контролирующих процедур.

Второй этап – проводится анализ внутренней и внешней среды учреждения, определяются направления проведения внутреннего контроля, приводится система показателей оценки эффективности контролирующих процедур.

Третий этап – организация отдела внутреннего контроля, которому выделяются материально-технические и финансовые ресурсы, разрабатываются локальные внутриорганизационные нормативы и правила.

Таким образом, организация и проведение внутреннего контроля в бюджетных учреждениях России выступает важным инструментом в обеспечении эффективного функционирования организаций бюджетного сектора. Благодаря процедурам внутреннего контроля проводится контроль за бюджетными рисками, обеспечивается эффективное и результативное использование бюджетных средств, а также обнаруживаются и устраняются возможные нарушения, негативно влияющие на экономическую безопасность учреждения.

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НАПРАВЛЕНИЯ ГОСУДАРСТВЕННОГО АУДИТА В РОССИИ

Аннотация: В научной статье рассмотрены теоретические основы формирования направлений государственного аудита в России. Определены аспекты понятия «государственный аудит». Выделены основные задачи государственного аудита. Проанализирована роль и значение государственного аудита в российской практике.

Ключевые слова: государственный аудит; аудит эффективности; государственный финансовый аудит; аудит соответствия.

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AREAS OF STATE AUDIT IN RUSSIA

Resume: The scientific article discusses the theoretical foundations for the formation of various areas of state audit in Russia. Aspects of the concept of "state audit" are defined. The main tasks of the state audit are singled out. The role and importance of state audit in Russian practice is analyzed.

Key words: state audit; performance audit; state financial audit; compliance audit.

Под понятием «государственный аудит» подразумевается форма профессиональной деятельности специалистов государственного управления, целью которых является повышение эффективности

использования общественных ресурсов (в первую очередь, бюджетных финансов и средств).

Поскольку государственный аудит – новый инструмент управления, его составляющими выступают [1]:

1. Финансовый контроль качества исполнения бюджетов.

2. Финансовый контроль качества использования бюджетных средств.

Задачами проведения государственного аудита в России являются:

– обеспечение эффективного использования средств бюджета;

– разработка финансовых стратегий для государственных организаций и бюджетных учреждений;

– информационное снабжение о финансовом управлении органам власти;

– обеспечение целевого использования административной работы.

При проведении государственного аудита применяются следующие методы [3]:

– проверка государственных организаций, отчетности и объектов имущества;

– мониторинг деятельности государственных организаций и бюджетных учреждений;

– проведение аудита государственных и муниципальных закупок;

– проведение финансового аудита;

– проведение информационного аудита;

– проведение аудиторской экспертизы.

Для обеспечения решения вышеперечисленных задач могут применяться различные виды государственного аудита. В российской практике сегодня выделяют следующие основные направления государственного аудита [2]:

1. Государственный финансовый аудит. Проводится аудиторская проверка составленной финансовой отчетности государственной организации и/или бюджетного учреждения, чтобы определить соответствие ее составления с требованиями законов и нормативных актов. Определяется эффективность составленных бухгалтерских записей, их законности, соблюдения принципов и правил.

2. Государственный аудит эффективности. Проводится оценка экономической эффективности использования бюджетных средств государственной организации и/или бюджетного учреждения, определяется соответствие целей с фактом расходования средств из бюджета. Проводится анализ того, не были ли преувеличены фактические бюджетные расходы над реальными, в случае превышения отчета над планом определяются причины увеличения расходной части.

3. Государственный аудит соответствия. Проводится оценка точности следования нормам законодательства в расходовании средств из бюджета государственной организации и/или бюджетного учреждения, определяются возможные отклонения от стандарта, которые влияют на итоги ведения отчетности.

В случае выявления в приведенных сферах нарушений, наличие которых влечет за собой уголовную ответственность, органы государственного финансового контроля составляют протоколы административных правонарушений, направляют представления, предписания, уведомления о применении мер бюджетного принуждения или направляют материалы ревизии или проверки в правоохранительные органы.

Государственный аудит в российской практике отличается от финансового контроля тем, что государственный аудит носит больше предупредительный характер и осуществляет комплексную проверку по итогам исполнения бюджета, именно тогда, когда бюджетные деньги были уже израсходованы, и уже имеются те или иные нарушения. Также мероприятия государственного аудита могут способствовать выявлению и пресечению экономических преступлений [4].

Внутренний контроль более эффективен в решении задач профилактики, потому что факты неэффективного использования бюджетных средств совершаются и могут быть остановлены, тогда как при государственном аудите фиксируется уже сам случай совершения, из-за чего могут применяться определенные административные меры.

Таким образом, разные направления государственного аудита в России способствуют решению задач в проведении эффективной аудиторской проверки разных аспектов хозяйственной жизни государственных организаций и бюджетных учреждений. Обеспечивается реализация успешной социальной и экономической политики государства, а также функционирования органов власти и других институтов управленческого аппарата.

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ЮРАК ҚОРИНЧАЛАР ОРАЛИҒИ ДЕВОР ТУҒМА НУҚСОНИ ЖАРРОҲЛИК АМАЛИЁТИДАН КЕЙИН РИВОЖЛАНГАН ПАТОМОРФОЛОГИК ЎЗГАРИШЛАР ДИНАМИКАСИ

Резюме.Ушбу илмий мақолада юрак қоринчалар оралиқ девори нуқсонини жарроҳлик амалиёти билан даволагандан кейин жароҳлик ўтказилган соҳада динамикада ривожланган патоморфологик ўзгаришлар ўрганилган. Жарроҳлик амалиётидан кейин 5-6, 11-12, 24-48 соат, 7-14 кун ва 5-6 ой вақт ўтиб ҳар хил асоратлардан ўлганлар юрак тўқимаси материали ўрганилди. ЖҳНатижалар шуни кўрсатдики, жарроҳлик амалиётидан кейин 5-12-соатларда мушак толалар миофибриллалари сегментар контрактурага учраганлиги, қон томирлари кенгайиб, қонга тўлганлиги, томирлар бўшлиғида лейкоцитлар периферияга миграцияланганлиги, интерстициал тўқима шишга учраганлиги, айрим кардиомиоцитлар ядролари пикнозга учраб, цитоплазмасида гликоген доначалари йўқолиб, миофибриллалар палахсали парчаланганлиги кузатилди. 24-48-соатларда қон томирлари паралитик ҳолда кенгайганлиги, бўшлиғи, девори ва атрофида нейтрофил лейкоцитлар, лимфоцитлар ва макрофаглар тўпланганлиги, миокарднинг шикастланган соҳасида бир гуруҳ кардиомиоцитларнинг нобуд бўлганлиги, чегарадаги мушак толаларининг ҳар хил даражада патоморфологик ўзгаришларга учраб, ҳам ядро, ҳам цитоплазмаси концентрацияланиб, гиперхромазияланганлиги аниқланади. 7-14-кунларга келиб миокарднинг жароҳатланиш соҳасида деструктив ўзгаришларга нисбатан репаратив жараёнлар устун туриши, бевосита чок атрофида яллиғланиш инфильтрати ва грануляцмион тўқима ўсганлиги, 5-6 ойлик даврида миокардга қўйилган чоклар ҳар хил даражада деструкцияланганлиги, атрофида толали фиброматоз парда пайдо бўлганлиги, туғма нуқсон тешиги устига имплантацияланган перикард, нуқсон атрофини ўраган бириктирувчи тўқима билан тўлиқ ҳолда адгезияланиб, битиб кетганлиги ва бир бутун фиброматоз тўқимага айланганлиги ва ундан бириктирувчи

тўқима тутамлари атрофидаги мушак тўқима интерстицийсига ҳар хил чуқурликда ўсиб кирганлиги аниқланди.

Калит сўзлар: юрак, туғма нуқсон, даволаш, жарроҳлик, жарроҳлик майдони, динамикада репаратив ўзгаришлар, морфология.

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DYNAMICS OF PATHOMORPHOLOGICAL CHANGES DEVELOPED AFTER SURGICAL OPERATION OF INTERVENTRICULAR WALL BUTTON DEFECT

Resume. In this scientific article, the pathomorphological changes that developed in dynamics in the area where the surgery was performed after the surgical treatment of the septal wall defect of the heart ventricles were studied. 5-6, 11-12, 24-48 hours, 7-14 days and 5-6 months after surgery, heart tissue material of people who died from various complications was studied. The results showed that 5-12 hours after the surgery, myofibrils of muscle fibers underwent segmental contracture, blood vessels expanded and filled with blood, leukocytes migrated to the periphery in the vascular space, interstitial tissue became swollen, some cardiomyocyte nuclei became pyknosis, glycogen granules disappeared in their cytoplasm, and myofibrils became pale. was observed to be fragmented. In 24-48 hours, blood vessels are paralytically dilated, neutrophilic leukocytes, lymphocytes and macrophages accumulate in the cavity, wall and around them, a group of cardiomyocytes die in the damaged area of the myocardium, muscle fibers on the border undergo various pathomorphological changes, both the nucleus and cytoplasm are concentrated. it is determined that it is hyperchromic. By days 7-14, reparative processes prevail over destructive changes in the area of myocardial injury, inflammatory infiltrate and granulomatous tissue grew directly around the suture, sutures placed on the myocardium were destroyed to varying degrees during 5-6 months, fibrous fibromatous membrane appeared around it, congenital defect hole it was found that the pericardium implanted on it completely adhered to the connective tissue

surrounding the defect and grew into a whole fibromatous tissue, and from it, the connective tissue tufts grew into the interstitium of the muscle tissue at different depths.

Key words: heart, congenital defect, treatment, surgery, surgical field, reparative changes in dynamics, morphology.

Муаммонинг долзарблиги. Юрак қоринчаларини ажратиб турувчи девор аслида қалин мушак ва фиброз тўқимадан иборат. (1, 2). Бу деворнинг пастки қисми нисбатан қалин мушак тўқимасидан иборат, юқори қисми юпқа фиброз пардадан иборат. Юқори қисми аорта даҳлизини ўнг бўлмача пастки қисмидан ажратиб туради ва юпқа фиброз тўқидан иборат бўлганлиги сабабли мембранали парда дейилади. Қоринчалар оралиғи деворнинг мембранали қисми аорта қопқоғи фиброз халқаси билан туташган ва зич коллаген толалардан иборат. Қоринчалар оралиғи девор икки томонидан ҳам, яъни чап ва ўнг қоринчалар бўшлиғи томонидан эндокард билан қопланган. Эндокард қалинлиги чап қоринча томонда, айниқса қоринчалар оралиғи деворда қалинроқ тузилишга эга, аорта ва ўпка артериясига кириш тешигида нисбатан юпқа ва тузилиши бўйича артерия девори тузилишига ўхшаш (3, 4). Эндокард юзаси полигонал ҳужайралардан иборат эндотелий билан қопланган, унинг остида қалин базал мембрана жойлашган. Эндотелий ҳужайралари ва базал мембрана остида кам дифференцианланган ҳужайралардан иборат бириктирувчи тўқима ташкил топган. Унинг остида эластик толалари силлиқ мушак ҳужайралар билан туташиб тўр пайдо қилган мушак-эластик қават жойлашган. Бу қаватнинг эластик толалари бўлмачаларда қоринчаларга нисбатан яхши ривожланган. Бу қаватнинг силлиқ мушак ҳужайралари аортанинг чиқиш қисмида яхши ривожланган ва кўп тармоқли тузилишга эга. Эндокарднинг энг чуқур қисми, яъни миокард билан туташган қисми эластик, коллаген ва ретикуляр толаларга бой бириктирувчи тўқимадан иборат. Юрак қоринчалар оралиғи девори миокарди инсон организмидаги барча мушак тўқималар каби юрак миокарди мушаги ҳам махсус миофибриллаларида актин-миозин тизими ёрдамида қисқарувчан функцияга эга тўқима ҳисобланади (5, 7, 8). Бу мушак тўқимасининг ўзига хослиги актинли ва миозинли миофиламентлар муҳим тартибли ўзаро муносабатда жойлашиб, кўндаланг тарғил чизиқларни пайдо қилади ва ўз-ўзидан ихтиётсиз ритмик қисқариш хусусиятини таъминлайди. Бундай ўз-ўзидан ихтиётсиз ритмик қисқариши симпатик ва парасимпатик нерв тизимлари томонидан бошқарилади.

Тадқиқот мақсади. Юрак қоринчалар оралиқ девор туғма нуқсон бўйича жарроҳлик амалиёти ўтказилгандан кейин динамикада ривожланадиган репаратив регенерациянинг морфогенези ва морфологик хос белгиларини ойдинлаштириш.

Материал ва усуллар.

Охирги икки йил (2021, 2022) давомида ЎзР ССВ Республика патологик анатомия марказида Аква Меднайн ва Эрамед хусусий клиникаларидан олиб келинган юрак қоринчалари оралиғи девор туғма нуқсони касаллиги бўйича жарроҳлик амалиёти ўтказилгандан кейин ҳар хил даврларда ўлган болалар мурдаси аутопсия текширувида клиник-анамнестик ва патологоанатомик маълумотлар ўрганилди. Тиббий хужжатлар таҳлили шуни кўрсатдики, ўлган болаларнинг 3-таси жарроҳлик амалиётидан кейин 5-6 соат ўтиб ўпка гипертензиясидан ва ўнг ўпка дилятациясидан ўлганлиги, 5-таси 11-12 соат ўтгандан кейин ўткир юрак етишмовчилиги ва ўпка шишидан, 4-таси 24-48 соат ўтгандан кейин ўтказувчи йўллар блокланиши ва гипоксиядан ўлганлиги, 6 таси 7-14 кун ўтгандан кейин қоринчалар етишмовчилидан ва ўпка шишидан ўлганлиги ва 4-таси 5-6 ой ўтгандан кейин ўтказувчи йўллар чандиқланиши ва инфекцион эндокардитдан ўлганлиги аниқланди. Жарроҳликдан кейин динамикада, яъни ҳар хил вақтларда қоринчалар оралиғи деворда жарроҳлик жароҳатига ва қўйилган чокларга жавобан ривожланадиган миокард тўқимасидаги шикастланишлар, репаратив регенерацияга хос патоморфологик ўзгаришларни жадвалда кўрсатилган даврларда микроскопик жиҳатдан ўрганилди.

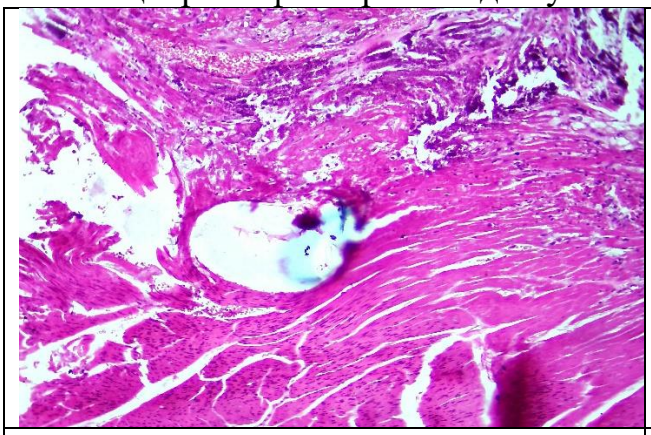
Юрак нуқсонлари жарроҳлик амалиётидан кейин ўлганларнинг хар хил даврларида материалнинг тақсимланиши

Гуруҳлар	1	2	3	4	5	жами
Ўтган вақт	5-6 соат	11-12 соат	24-48 соат	7-14 кун	5-6 ой	
Сони -n	3	5	4	6	4	22

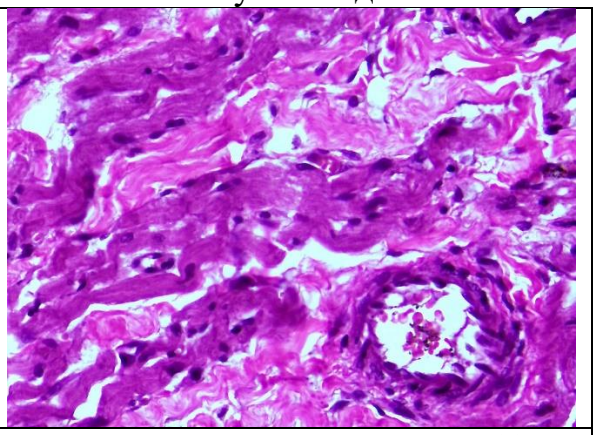
Тадқиқот натижалари ва уларнинг муҳокамаси. Юрак қоринчалар оралиқ деворнинг туғма нуқсони бўйича ўтказилган жарроҳлик амалиётидан кейин дастлабки соатларда ўлганлар юраги морфологик жиҳатидан ўрганилганда қуйидаги ҳолатлар аниқланди. Юрак ташқи кўринишидан шакли думалоқлашгани, ўнг қоринчанинг гипертрофияланиб, катталашгани аниқланади. Қоринчалар оралиғи девор ўрганилганда маълум бўлдики, ундаги нуқсон тешик перикард бўлакчаси билан ёпилганлиги, 5-6 соат ўтган даврда чоклар атрофида қон қуйилишлар мавжудлиги аниқланди. Микроскопик жиҳатдан ўрганилганда қоринчалар оралиғи нуқсон атрофидаги қўйилган чокнинг миокард тўқимаси томонда ва унинг бевосита атрофидаги кардиомиоцитларда ядроларнинг ҳар хил даражада пикнозга учраши, миофибриллаларининг палахсали парчаланиши, саркоплазмасида гликоген доначаларининг йўқолиши кузатилади. Интерстицийсидаги капиллярлар деформацияланганлиги, тўлақонлиги, айримларида стаз ривожланганлиги, деворида плазматик шимилиш пайдо бўлганлиги, бўшлиғида лейкоцитларнинг четда жойланиши ва миграцияланиши аниқланади. Чок

жойлашган соҳадан нуқсон томонида ҳам мушак тўқимаси (1-расм), ҳам нуқсонга жавобан ривожланган қон томирли бириктирувчи тўқима деформацияланиб, парчаланганлиги, айрим жойларига қон қуйилганлиги, оралиқ тўқимада шиш ва лимфоид инфильтрация мавжудлиги аниқланади.

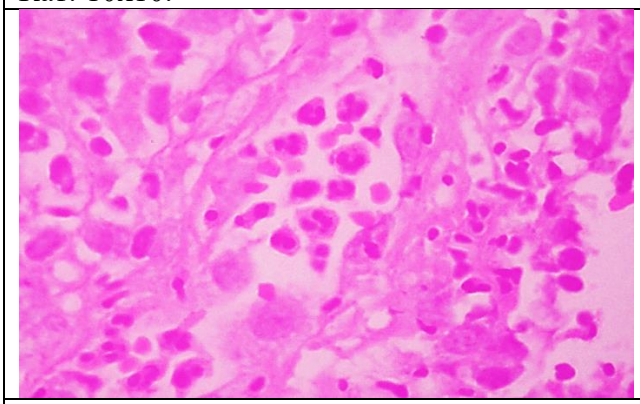
Жарроҳлик амалиёти ўтказилгандан кейин, яъни 11-12 соатларга келиб кардиомиоцитлар цитоплазмасининг бўялиши тўқлашиб, қумоқ-қумоқ кўринишдаги гиалин-томчили оқсилли дистрофия ривожланганлиги кузатилади (2-расм). Бу даврда, айрим мушак толалари деформацияланиб, қийшайганлиги, уларнинг саркомерлари нисбатан эозин билан тўқроқ бўлган бўлса, бошқалари очроқ бўлганлиги кузатилади. Капиллярлар бўшлиғида нейтрофил лейкоцитлар миқдори кўпайганлиги, лимфоцитлар пайдо бўлганлиги, капилляр девори юпқалашиб, чўзилганлиги, эндотелийси шишиб, бўкканлиги, атрофида макрофаглар пайдо бўлганлиги аниқланади. Оралиқ интерстициал бириктирувчи тўқимасида ҳужайраларининг пролиферацияланиш фаоллиги ошганлиги ва лимфо-гистиоцитра инфильтрат пайдо бўлиб бошлаганлиги кузатилади.



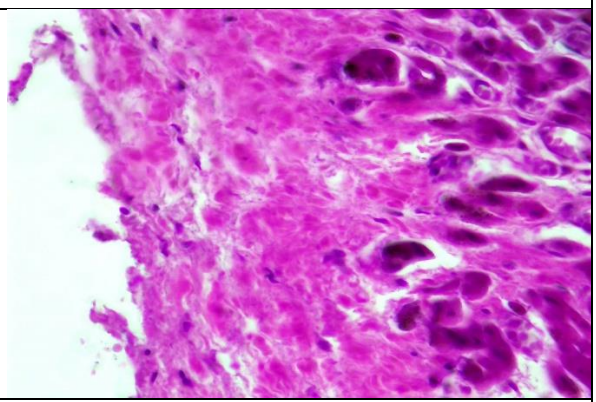
1-расм. Жарроҳлик амалиётидан кейинги 5-6 соат даври, чок ўрни думалоқ тешик шаклда, атроф тўқимада дисциркуляция, шиш ва дистрофия ривожланган. Бўёқ: Г-Э. Кат: 10х10.



2-расм. Жарроҳликдан кейин 11-12-соатлар, мушак толалари титилган, айримлари тўқ, бошқалари оч бўялган. Бўёқ: Г-Э. Кат: 10х40.



3-расм. Жарроҳликдан кейин 24-48-соатлар ўтиб, қон томирлар кенгайган, бўшлиғида ва атрофида лимфо-гистиоцитар ҳужайралар тўпланган. Бўёқ: Г-Э. Кат:



4-расм. Жарроҳликдан кейин 24-48 соат вақт ўтиб, мушак толаларининг бир қисми некрозланганлиги, бошқа қисми некробиотик ҳолатда деструкциялан-

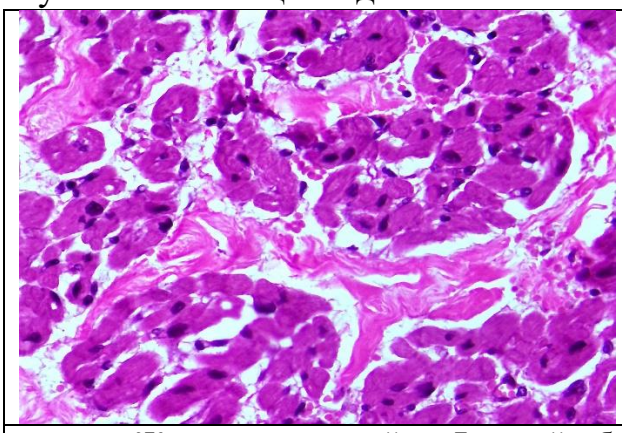
10х40.	ганлиги аниқланади. Бўёқ: Г-Э. Кат: 10х40.

Жарроҳлик амалиёти ўтгандан кейин 24-48 соат ўтган даврда миокарднинг шикастланган соҳасида мушак толалари шиш ҳисобига сийраклашиб, титилиб, бир-биридан узилиб, алоҳида жойлашганлиги аниқланади. Бу соҳада оралиқ интерстициал тўқима кучли шишга учраганлиги, қон томирлари кескин кенгайганлиги, деворининг ўтказувчанлиги ошганлиги, ҳам бўшлиғи, ҳам атрофида лейкоцитлар, лимфоцитлар ва макрофаглар тўпланганлиги аниқланади (3-расм). Оралиқ тўқима тузилмалари шиш ҳисобига титилиб, сийраклашганлиги, ҳужайралари ва лимфо-гистиоцитар инфильтрация ҳужайралари ҳам ҳар хил даражада деструкцияга учраганлиги аниқланади.

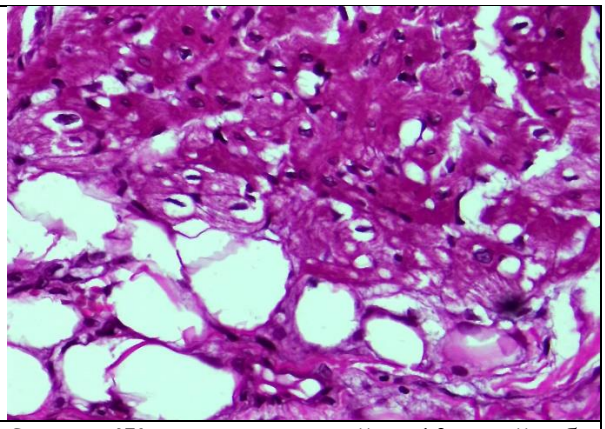
Жарроҳлик амалиётидан 24-48 соат вақт ўтгандан кейин миокарднинг шикастланган соҳасида бир гуруҳ кардиомиоцитларнинг нобуд бўлганлиги, уларнинг ядролари тўлиқ ҳолда парчаланиб йўқолганлиги, ҳужайралар чегаралари аниқланмаслиги, мушак ҳужайраларининг парчаланиб, структурасиз ҳолатга киргшанлиги, оралиқ тўқима билан киришиб, бир хил ҳолатга кирганлиги аниқланади. Унинг ён чегарасида мушак толаларининг ҳар хил даражада патоморфологик ўзгаришларга учраб, сақланиб қолганлиги аниқланади. Мушак толаларнинг аксарияти атроф тўқима тузилмаларидан ажралиб, алоҳида кўринишдаги гиперхромазияга учраган ҳолда, хар хил катталикдаги мушак толаларидан иборатлиги аниқланади (4-расм). Аксариятида кардиомиоцитлар ядролари гипертрофияланиб, йириклашганлиги, атрофидаги саркомерлари изоляцияланиб, тўқроқ бўялишга кирганлиги кузатилади. Жирроҳлик чокларининг атрофидаги миокардда асосан патоморфологик ўзгаришлар оралиқ интерстициал тўқимасида ривожланганлиги аниқланади. Оралиқ бириктирувчи тўқима диффуз ҳолда шишга учраган, қон томирлари атрофида яллиғланиш инфильтрати пайдо бўлган, мушак толаларининг титилиб, сийраклашганлиги аниқланади. Оралиқ тўқиманинг айрим соҳаларида бириктирувчи тўқиманинг ўчоқли ҳолда ўсиб, кўпайганлиги, унга туташган мушак толалари миолиз ҳолатдалиги аниқланади.

Жарроҳлик амалиётидан кейин 7 кундан кўп давр ўтганларда юрак миокардининг жароҳатланган соҳасида дистрофик ва деструктив ўзгаришларга нисбатан репаратив жараёнлар ривожланиши устун туриши кузатилади. Юрак миокардига қўйилган чоклар атрофида интерстициал бириктирувчи тўқима ва қон томирлар томонидан фаоллашув кузатилади. Қон томирлар кенгайган, девори таркибидаги тўқима тузмилмалари ва ҳужайралар пролифератив фаоллашган ҳолатда ва бириктирувчи тўқимасида шиш, толали тузилмаларда мукоид ва фибриноид бўкиш, ҳужайраларида пролиферацияли фаоллашув ривожланганлигидан чоклар атрофида ва жароҳатланган соҳада яллиғланиш инфильтрати ва

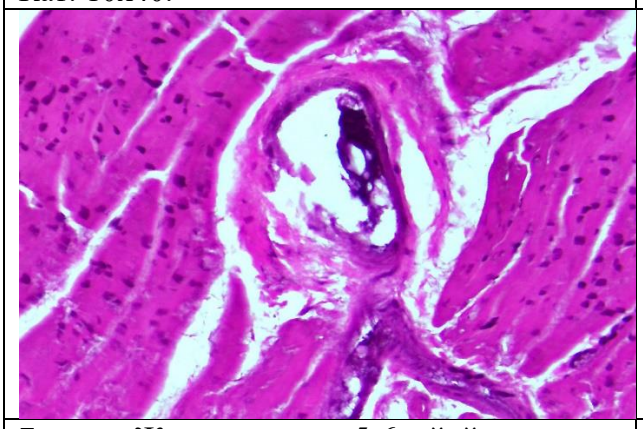
грануляцион тўқиманинг ривожланганлиги кузатилади (5-расм). Бунда, миокарднинг мушак толалари оралиқ тўқиманинг кучли шишга учраганлигидан сийраклашиб, титилганлиги, айрим жойларида лимфо-гистиоцитар инфильтрат ва ёш бириктирувчи тўқима тутамлари пайдо бўлганлиги аниқланади.



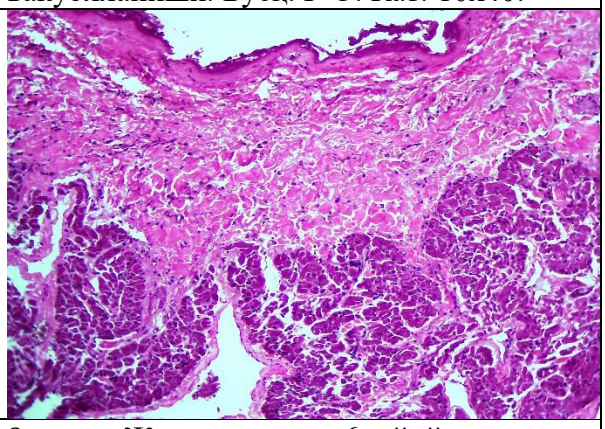
5-расм. Жарроҳликдан кейин 7 кун ўтиб, миокард оралиқ тўқимасида бириктирувчи тўқима толаларининг кўпайиши. Бўёқ: Г-Э. Кат: 10х40.



6-расм. Жарроҳликдан кейин 10 кун ўтиб, кардиомиоцитлар саркомери титилганлиги, саркоплазмасининг вакуолланиши. Бўёқ: Г-Э. Кат: 10х40.



7-расм. Жарроҳликдан 5-6 ой ўтган давр, чок атрофида қўпол толали фиброз тўқимали парда пайдо бўлиши. Бўёқ: Г-Э. Кат: 10х40.



8-расм. Жарроҳликдан 6 ой ўтган давр, нуқсон тешиги устига қўйилган перикард имплантатининг битиши. Бўёқ: Г-Э. Кат: 10х10.

Жарроҳлик амалиётидан кейинги ушбу даврда миокард тўқимасининг интерстицийсида грануляцион тўқима ўчоқлари ва толали тузилмаларнинг кўпайиши аниқланади. Бунда, миокард мушак толалари оралиқ тўқимасининг шиши ҳисобига титилганлиги, деформацияланиб, ингичка тортганлиги, оралиқ тўқимада ҳар хил шаклдаги, айримлари гомоген ҳолда, бошқалари толали эгри-бугри кўринишдалиги, яна бирлари хоатик жойлашган қўпол тузилишга эга толали тузилмалар пайдо бўлганлиги аниқланади. Мушак толалари деформацияланиб, ҳар хил кўринишга кирганлиги,ядролари катта-кичик ва гиперхромазияланганлиги, саркомерлари гомогенлашиб, кендаланг тарғил чизиқларининг йўқолганлиги аниқланади.

Юрак миокардининг жароҳатланиш соҳасига яқин жойларида мушак толалари бетартиб жойлашганлиги, аксарияти таркибидаги кардиомиоцитлар вакуоллашиб, деструкцияланганлиги, орасида яллиғланишга хос лимфо-гистиоцитар ҳужайраларнинг кўпайганлиги аниқланади. Айрим мушак толалар титилганлиги, таркибидаги кардиомиоцитлар саркоплазмаси вакуоллашиб, рангсизлашганлиги, ядролари кариопикнозга учраганлиги кузатилади. Мушак толаларнинг бошқа қисми эозинофил бўялган бўлиб, ундаги кардиомиоцитлар саркоплазмаси гиалин-томчили оқсилли дистрофияга учраганлигидан эозинофил бўялганлиги аниқланади. Тадқиқотнинг бу даврида мушак толаларни микроскопнинг катта объективида ўрганилганди маълум бўладики, мушак толалари таркибидаги миофибриллалар титилиб, гомогенлашганлиги ва таркибида кўндаланг тарғил чизиқлари йўқолганлиги аниқланади. Мушак толаларининг айримларида кардиомиоцитлар саркоплазмаси гидропик дистрофияга учраб, вакуоллашгани (6-расм) ва кардиомиоцит ҳужайраларнинг тўлиқ джеструкцияланиб, нобуд бўлганлиги кузатилади.

Жарроҳлик амалиёти ўтказилгандан кейин 5-6 ойлик даврда ҳар хил асоратлардан ўлган болалар юраги морфологик жиҳатдан ўрганилганда маълум бўлдики, жарроҳлик муолажа ўтказилган юрак қоринчалар оралиғи девор тўқимасида ҳар хил турдаги ва даражадаги репаратив регенерацияга хос бўлган ўзгаришлар ривожланганлиги аниқланди. Миокард тўқимасига қўйилган чоклар ҳар хил даражада деструкцияланишга учраганлиги, унинг атрофида қўпол толали бириктирувчи тўқимадан иборат перифокал капсула пайдо бўлганлиги аниқланади (7-расм). Бириктирувчи тўқимали парда таркибида толали тузилмалар кўплиги, ҳужайралари камлиги маълум бўлди, бириктирувчи тўқимали тутамлар мушак тўқимаси орасига ўсиб кирганлиги ва интерстицийни қалинлаштиргани кузатилади.

Жарроҳлик амалиётидан кейин бу даврга келиб, нуқсон тешик устига имплантант қилиб қўйилган перикард тўқимаси тешик атрофидаги бириктирувчи қатламга битиб, ёпишиб кетганлиги аниқланади. Бунда перикард тўқимаси таркибидаги бириктирувчи тўқима толали тузилмалари бир-бири билан қўшилиб, гомоген ҳолдаги, гиалин оқсилига ўхшаш дағал оқсилли моддага айланганлиги топилади. Унинг остидаги перикардни қоплаган мезотелий парчаланиб, йўқолиб, бириктирувчи тўқима таркибига тўлиқ ҳолда ҳазм бўлиб кетганлиги кузатилади. Перикард таркибидаги бириктирувчи тўқима тузилмалари тешик атрофини қоплаган бириктирувчи тўқима билан адгезияланиб, бир бутун бир-биридан ажралмас ҳолдаги фиброз толали тўқимага айланганлиги аниқланади (8-расм). Ушбу фиброз тўқима таркибидаги толали тузилмалар ҳар хил катталикдаги, бетартиб жойлашган, айрим соҳаларида гомогенлашган ҳолатдаги толали тузилмаларга айланганлиги аниқланади. Толали

тузилмаларнинг орасида кам сонли қон томирлар ва бириктирувчи тўқима ҳужайралари жойлашганлиги кузатилади. Фиброз тўқима билан мушак тўқима чегарасида, мушак тўқиманинг интерстицийсига қараб, ҳар хил катталикдаги бириктирувчи тўқима тутамлари ҳар хил чуқурликда ўсиб кирганлиги аниқланади (8-расм). Бириктирувчи тўқима тутамлари орасидаги мушак толалари бироз гипертрофияланиб, йўғонлашиб, бетартиб жойлашганлиги топилади.

Хулосалар.

Жарроҳлик амалиётидан кейин 5-12-соатларда мушак толалар миофибриллалари сегментар контрактурага учраганлиги, қон томирлари кенгайиб, қонга тўлганлиги, томирлар бўшлиғида лейкоцитлар периферияга миграцияланганлиги, интерстициал тўқима шишга учраганлиги, айрим кардиомиоцитлар ядролари пикнозга учраб, цитоплазмасида гликоген доначалари йўқолиб, миофибриллалар палахсали парчаланганлиги кузатилади.

Жарроҳлик амалиётидан кейин 24-48-соатларда қон томирлари паралитик ҳолда кенгайганлиги, бўшлиғи, девори ва атрофида нейтрофил лейкоцитлар, лимфоцитлар ва макрофаглар тўпланганлиги, миокарднинг шикастланган соҳасида бир гуруҳ кардиомиоцитларнинг нобуд бўлганлиги, уларнинг ядролари тўлиқ ҳолда парчаланиб йўқолганлиги, мушак ҳужайраларининг парчаланиб, структурасиз ҳолатга кирганлиги, унинг ён чегарасида мушак толаларининг ҳар хил даражада патоморфологик ўзгаришларга учраб, чегараланган ҳолда жойлашиб, ҳам ядро, ҳам цитоплазмаси концентрацияланиб, гиперхромазияланганлиги аниқланади.

7-14-кунларга келиб миокарднинг жароҳатланиш соҳасида деструктив ўзгаришларга нисбатан репаратив жараёнлар устун туриши, бевосита чок атрофида яллиғланиш инфильтрати ва грануляцмион тўқима ўсганлиги, атрофдаги мушак толалари титилиб, сийраклашганлиги, интерстицийсида шиш, мукоид ва фибриноид бўкиш ва ўчоқли ҳолда яллиғланиш инфильтрати пайдо бўлганлиги аниқланади.

5-6 ойлик даврида миокардга қўйилган чоклар ҳар хил даражада деструкцияланганлиги, атрофида толалари кўп фиброматоз тўқимадан парда пайдо бўлганлиги, туҳма нуқсон тешиги устига имплантацияланган перикард тўқимаси, нуқсон атрофини ўраган бириктирувчи тўқима билан тўлиқ ҳолда адгезияланиб, битиб кетганлиги ва бир бутун фиброматоз тўқимага айланганлиги ва ундан бириктирувчи тўқима тутамлари атрофидаги мушак тўқима интерстицийсига ҳар хил чуқурликда ўсиб кирганлиги аниқланади.

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ЯНГИ ТУЗИЛИШЛИ БЎЙЛАМА НАҚШЛИ ТРИКОТАЖ ТЎҚИМАЛАРИНИ ОЛИШ ТЕХНОЛОГИЯСИ

Аннотация: Мақолада маҳаллий хом ашёлардан самарали фойдаланиб пахта ва йигирилган ипак ипларидан бўйлама нақшли трикотаж тўқималарини янги тузилишлари ва олиш усуллари ёритилган. Яратилган бўйлама нақшли пахта-ипакли трикотаж тўқима намуналари Хитойнинг LongXing фирмасида ишлаб чиқарилган 14-класс икки игнадонли трикотаж тўқув машинасида тўқиб олинган.

Калит сўзлар: трикотаж, пахта, йигирилган ипак, ассортимент, мато.

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TECHNOLOGY FOR OBTAINING NEW STRUCTURES OF LONGITUDINAL PATTERNED KNITTING FABRIC

Annotation: The article presents ways to effectively use the new cotton-silk longitudinally patterned knitting fabric using local raw materials. The cotton-silk longitudinally patterned knitting fabric produced was made by a 14-gauage knitting machine made by China's LongXing.

Keywords: knitting, cotton, silk yarn, assortment, fabric, quality.

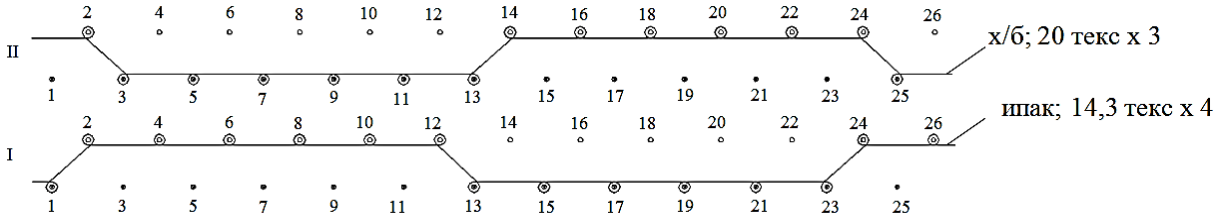
Янги ишлаб чиқариш технологияларининг жорий қилиниши, юқори самарали, замонавий ускуналардан фойдаланиш ва самарали бошқарув тизими соҳа корхоналарида меҳнатнинг юқори самарадорлигини, саноат ишлаб чиқариши ҳажми ўсишини таъминлайди **[**1]. Тўқимачилик саноатида тайёр маҳсулотлар ишлаб чиқариш ҳажмини ошириш, трикотаж маҳсулотларининг янги ассортиментларини олиш технологияларини ишлаб чиқиш ва уни амалиётга жорий этиш муҳим аҳамиятга эга.

Ҳозирда трикотаж саноатида хом ашё сарфини камайтириш мақсадида бош, нақшли ва аралаш тўқималар асосида турли тузилишдаги трикотаж тўқималаридан фойдаланиш тенденцияси кенг қўлланилмоқда. Пахта-ипакли трикотаж маҳсулотларини ишлаб чиқариш ва ассортимент турларини кенгайтириш йўналишида кўплаб олимлар илмий тадқиқот ишларини бажармоқдалар **[**2-5].

Ушбу тадқиқот ишида янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқималарини янги тузилишлари ва олиш усуллари

ишлаб чиқилган. Янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқималарининг 4 та варианти 14-класс LongXing LXA 252 SC ясси икки игнадонли трикотаж тўқув машинасида тўқиб олинди. Трикотаж намуналарини ишлаб чиқаришда чизиқли зичлиги 20 текс х 3 пахта ипидан, 14,3 текс х 4 йигирилган ипак ипидан ва 8 тексли лайкра ипларидан фойдаланилди. Трикотаж тўқималари бир-биридан раппортларини ўзгариши билан фарқ қилади [6-9].

Янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқимасининг I варианти I қаторини тўқиб олишда трикотаж машинаси кареткаси чапдан ўнг томонга ҳаракатланишида олд игнадоннинг 1, 13-23 тўқув игналари ҳамда орқа игнадоннинг 2-12, 24 тўқув игналари ҳалқа ҳосил қилиш учун биринчи ип берувчи мослама ёрдамида йигирилган ипак ипидан глад ҳалқа қаторини шакллантиради. Бу холатда олд игнадоннинг 3-11, 25 тўқув игналари ҳамда орқа игнадоннинг 14-22, 26 тўқув игналари ҳалқа ҳосил қилиш жараёнида иштирок этмайди. Натижада, олд ва орқа игнадоннинг ҳалқа ҳосил қилиш жараёнида иштирок этган игналарида йигирилган ипак ипидан глад ҳалқалари шаклланади. Трикотаж тўқимасининг II қаторини тўқиб олишда трикотаж машинаси кареткаси ўнгдан чапга томон ҳаракатланишида олд игнадоннинг 25, 13-3 тўқув игналари ҳамда орқа игнадоннинг 24-14, 2 тўқув игналари ҳалқа ҳосил қилиш жараёнига кўтарилиб иккинчи ип берувчи мослама ёрдамида пахта ипидан глад ҳалқа қаторини шакллантиради. Бу холатда олд игнадоннинг 23-15, 1 тўқув игналари ҳамда орқа игнадоннинг 26, 12-2 тўқув игналари ҳалқа ҳосил қилиш жараёнида иштирок этмайди. Натижада, олд ва орқа игнадоннинг ҳалқа ҳосил қилиш жараёнида иштирок этган игналарида пахта ипидан глад ҳалқалари шаклланади (1-расм, тўқима раппортининг II-қатори).



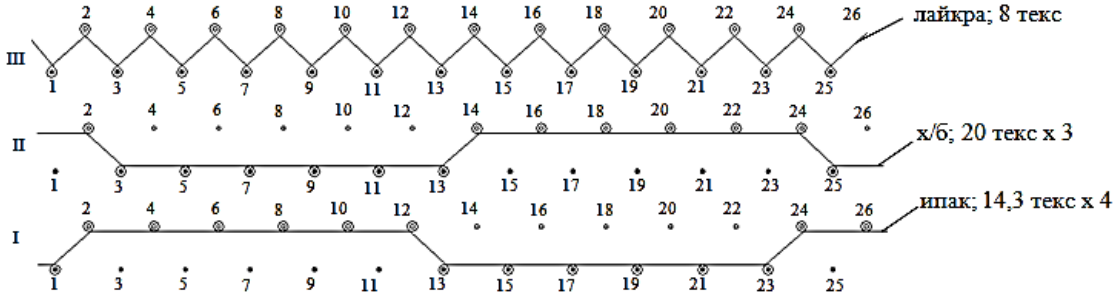
1-расм. Янги тузилишли бўйлама йўл-йўл нақшли пахта-ипакли трикотаж тўқимасининг графикли ёзуви (I-вариант).

Трикотаж тўқималари ассортиментини кенгайтириш ва шакл сақлаш хусусиятини ошириш мақсадида янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқимасини ишлаб чиқаришда юқори чўзилувчан лайкра ипидан фойдаланилди.

Тадқиқотлар давомида янги тузилишли бўйлама нақшли пахта-ипакли II вариант трикотаж тўқимасининг графикли ёзуви 2-расмда келтирилган бўлиб, трикотаж тўқимасининг I ва II қаторларини тўқиб олиш жараёни ҳудди I вариант трикотаж тўқимасининг I ва II қаторларини

тўқиб олиш жараёни билан бир хил кетма-кетликда бажарилади. Трикотажни олишда эса тўқима вариантлари бир-биридан тўқима раппортининг ўзгариши билан фарқланади.

Янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқимасининг чўзилувчанлигини камайтириш ва шакл сақлаш хусусиятини ошириш мақсадида трикотаж тўқимасининг III қаторини тўқиб олишда юқори чўзилувчан лайкра ипидан фойдаланилди. Трикотаж тўқимасини III қаторини ҳосил қилишда трикотаж машинаси кареткаси чапдан ўнгга томон ҳаракатланишида олд ва орқа игнадоннинг барча тўқув игналарида ҳалқа ҳосил қилиш учун учинчи ип берувчи мослама ёрдамида лайкра ипидан ластик ҳалқалар қаторини шакллантиради. Ҳалқа ҳосил қилишнинг кейинги жараёнларида эски ҳалқалар ластик ҳалқалари устига ташланади (2-расм, тўқима раппортининг III-қатори).



2-расм. Янги тузилишли бўйлама йўл-йўл нақшли пахта-ипакли трикотаж тўқимасининг графикли ёзуви (II-вариант).

Олинган трикотаж тўқимасида трикотаж машинасининг олд ва орқа игнадонларида жойлашган тўқув игналарида навбатма-навбат ҳалқа устунларини йигирилган ипак ва пахта ипларидан алмаштириб глад ҳалқа қаторларини ҳамда лайкра ипи ёрдамида ластик қаторини ҳосил қилиш ҳисобига янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқима тури ишлаб чиқилди. Бўйлама нақшли пахта-ипакли трикотаж тўқима намуналарининг учинчи ва тўртинчи вариантларини ишлаб чиқаришда тўқима раппорти ортиб боради. Ишлаб чиқариш технологияси ўзгармайди.

Тақдим этилаётган трикотаж тўқимасини маҳаллий устки кийим ишлаб чиқариш корхоналарида кенг кўламда қўлланиладиган бир ва икки тизимли ясси игнадонли трикотаж машиналарида ишлаб чиқариш мумкин.

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ЯНГИ ТУЗИЛИШЛИ БЎЙЛАМА НАҚШЛИ ТРИКОТАЖ ТЎҚИМАЛАРИНИ ТЕХНОЛОГИК КЎРСАТКИЧЛАРИ

Аннотация: Мақолада пахта-ипакли нақшли трикотаж тўқима намуналарининг технологиок кўрсаткичларини таҳлил натижалари келтирилган. Хом ашё сифатида чизиқий зичлиги 20 тексли пахта, 14,3 тексли йигирилган ипак ва 8 тексли лайкра ипларидан фойдаланилди.

Калит сўзлар: трикотаж, пахта, йигирилган ипак, ассортимент, технологик параметр.

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TECHNOLOGICAL PARAMETRES OF COTTON-SILK LONGITUDINALLY PATTERNED KNITTING FABRIC

Annotation: In the article results of analyses of technological parameters patterned knitted fabrics. Cotton yarn with a linear density of 20 tex, silk yarn of 14,3 tex and Lycra thread of 8 tex were used as raw materials.

Keywords: coefficient of variation, fibrous waste, spinning, quality.

Тўқимачилик соҳасида пахтага оид ишлаб чиқариш занжирида энг юқори қўшимча қиймат тайёр трикотаж ва тикувчилик маҳсулотлари соҳасида кузатилади **[**1]. Республикамиздаги трикотаж маҳсулотлари ишлаб чиқаришга ихтисослашган корхоналар олдида турган асосий муаммолар-мамлакатимиз экспорт салоҳиятини ошириш, ички ва ташқи бозорларда маҳсулот турларини кўпайтириш, сифатини ошириш, маҳаллий хом ашёлардан фойдаланиб импорт ўрнини босувчи, физик-механик ва гигиеник хусусиятлари юқори бўлган, ҳамда фасл талабларига мос бўлган трикотаж маҳсулотларини ишлаб чиқаришдир.

Тўқимачилик соҳасида ҳозирги кунда трикотаж тўқима тузилишига нақшли тўқима элементларини киритиш ҳисобига хомашё сарфини камайтириш тенденцияси кенг ривожланмоқда **[**2, 3].

Ҳом ашё сарфини камайтириш ва трикотаж тўқимасининг сифат кўрсаткичларини яхшилаш мақсадида ясси игнадонли трикотаж машинасида бўйлама нақшли пахта-ипакли трикотаж тўқималарини 4 та варианти ишлаб чиқарилди.

Бўйлама йўл-йўл нақшли пахта-ипакли трикотаж тўқима намуналари чизиқли зичлиги 20 х 3 tex пахта ипидан, 14,3 х 4 tex йигирилган ипак ипидан ва 8 tex ли лайкра ипларидан фойдаланиб тўқиб олинди.

Таклиф этилаётган бўйлама нақшли пахта-ипакли трикотаж тўқималарининг раппорти ва ҳом ашё таркиби ўзгаришини уларнинг технологик кўрсаткичларига таъсирини ўрганиш мақсадида олинган намуналар экспериментал усулда [4-7] аниқланди ва олинган натижалар жадвалда келтирилган.

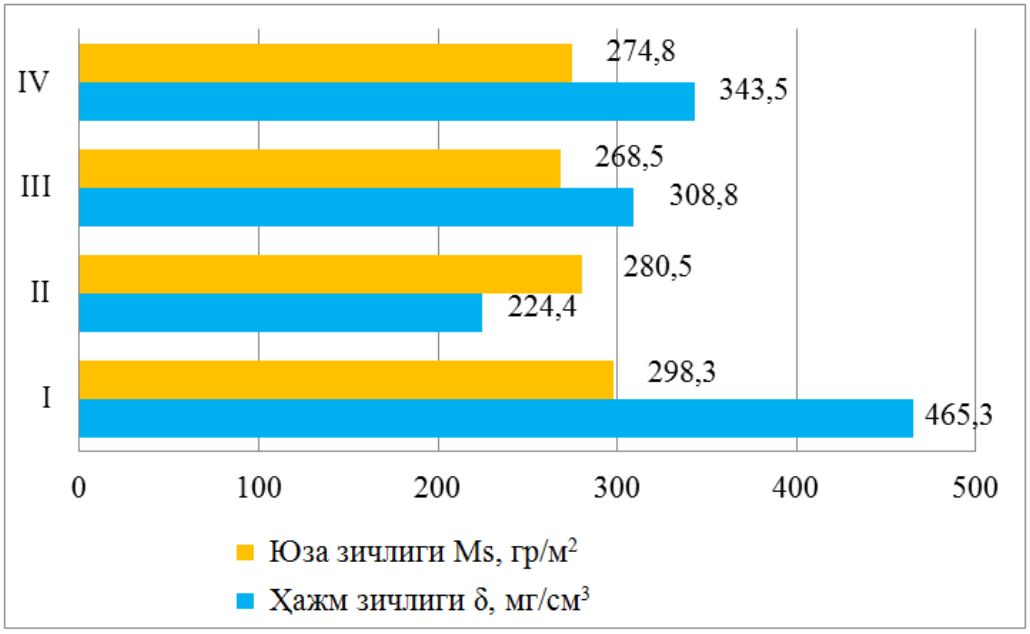
Олинган намуналар ичида I вариант (асос тўқима)нинг тўқима таркиби 52% пахта, 48% йигирилган ипак ипидан ташкил топган. Ушбу вариантнинг юза зичлиги MS=465,3 г/м^2, қалинлиги T=1,56 мм, ҳажмий зичлиги
298,3 мг/см^3 дан иборат (2.2-жадвал). II-вариант трикотаж тўқимаси таркибида пахта ипи миқдори 48%, йигирилган ипак ипи миқдори 46,4% ва лайкра ипи миқдори эса 5,6% ни ташкил этади. Маълумки, тўқима таркибига қўшилган лайкра ипи трикотажни шакл сақлаш хусусиятини оширади. Трикотаж тўқимасининг юза зичлиги MS=224,4 г/м^2, қалинлиги T=0,8 мм, ҳажмий зичлиги 280,5 мг/см^3 ни ташкил этади.

1-жадвал.

Янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқималарининг технологик кўрсаткичлари

Кўрсаткичлар		Вариантлар			
		I	II	III	IV
Ипларни тури, чизиқли зичликлари ва матодаги % миқдори	Пахта ипи 20 текс х 3	52	48	49,5	50,3
	Йигирилган ипак ипи 14,3 текс х 4	48	46,4	48	48,2
	Лайкра ипи 8 текс	-	5,6	2,5	1,5
Ҳалқа қадами A, мм	Пахта	1,31	1,35	1,28	1,25
	ипак	1,31	1,35	1,28	1,25
Ҳалқа қатори баландлиги B, мм	Пахта	1,19	1,85	1,43	1,25
	Ипак	1,19	1,85	1,43	1,25
Горизонтал бўйича зичлик $P_г$	Пахта	38	37	39	40
	Ипак	38	37	39	40
Вертикал бўйича зичлик $P_в$	Пахта	42	27	35	40
	Ипак	42	27	35	40
Халқа ипи узунлиги L, мм	Пахта	6,2	6,3	6,0	6,2
	Ипак	6,2	6,2	6,0	6,1
Трикотажнинг юза зичлиги M_s, гр/м^2		465,3	224,4	308,8	343,5
Трикотажнинг қалинлиги T, мм		1,56	0,8	1,15	1,25
Ҳажм зичлиги δ, мг/см^3		298,3	280,5	268,5	274,8
Хақиқий ҳажмий енгиллик, Δδ мг/см^3		-	17,8	29,8	23,5
Нисбий енгиллик θ, %		-	5,9	10	7,9

III-вариантда пахта ипи миқдори 49,5% ни, йигирилган ипак ипи миқдори 48%, лайкра ипи 2,5% ни ташкил этади. Трикотаж тўқимасининг юза зичлиги M_S=308,8 г/м^2 ни, қалинлиги T=1,15 мм ни ташкил этса, унинг ҳажмий зичлиги 268,5 мг/см^3 ни ташкил этади. IV-вариантда пахта ипи миқдори 50,3% ни, йигирилган ипак ипи миқдори 48,2%, лайкра ипи 1,5% ни ташкил этади. Трикотаж тўқимасининг юза зичлиги M_S=343,5 г/м^2 ни, қалинлиги T=1,25 мм ни ташкил этса, унинг ҳажмий зичлиги 274,8 мг/см^3 ни ташкил этади (1-расм).



1-Расм. Янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқималарининг юза ва ҳажм зичликларини ўзгариш гистограммаси

Янги тузилишли бўйлама йўл-йўл нақшли трикотаж намуналарининг ҳажм зичликлари 268,5 дан 298,3 мг/см^{3}гача оралиқда ўзгарди. Енг юқори ҳажм зичлик кўрсаткичи I-вариант асос тўқимасида кузатилди ва у 298,3 мг/см^3 ни ташкил этган бўлса, енг кам ҳажм зичлик кўрсаткичи тўқима таркиби 49,5% пахта ва 48% йигирилган ипак ҳамда 2,5% лайкра ипидан ташкил топган III-вариантда кузатилди ва у асос тўқимага нисбатан 29,8 мг/см^3 га енгил бўлиб, у 268,5 мг/см^3 ни ташкил этди. Асос тўқимага нисбатан II-вариантнинг ҳажм зичлик кўрсаткичи 5,9%га, III-вариантнинг ҳажм зичлик кўрсаткичи 10%га, IV-вариантнинг ҳажм зичлик кўрсаткичи 7,9%га кам эканлиги аниқланди. Яъни, қолган вариант трикотаж тўқималари таркибида пахта ва лайкра иплари миқдорини тўқима раппортига қараб камайганлиги ва йигирилган ипак ипини қўлланилиши ҳисобига ҳажм зичлик кўрсаткичларини камайишига эришилди.

Ҳулоса қилиб айтганда, янги тузилишли бўйлама нақшли пахта-ипакли трикотаж тўқималарини янги технологиядан фойдаланиб олишда хом ашё сифатида йигирилган ипак ипини самарали қўллаш, тўқима раппортини ўзгартириш ҳисобига трикотажни ҳажм зичлигини (ҳом ашё

сарфини)
1,4-10% гача камайтириш ва сифат кўрсаткичларини яхшилашга эришиш мумкинлиги тадқиқот ишида ўз аксини топди.

Таклиф этилаётган янги технология асосида олинган бўйлама нақшли пахта-ипакли трикотаж тўқима намуналари аёллар ва болаларнинг енгил устки трикотаж кийим ва маҳсулот ассортиментларини ишлаб чиқариш учун тавсия этилади.

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ОЦЕНКА ГИДРОМЕТЕОРОЛОГИЧЕСКОГО РЕЖИМА РЕК БАССЕЙНА СУРХАНДАРЬИ

Аннотация. В данной статье приведены результаты оценки изменения режима климатических параметров и их воздействие на изменение режима стока рек. Основными результатами исследований является оценка динамики среднегодовых значений температуры воздуха, атмосферных осадков и расходов воды за период с 1960 по 2019 годы. Изучение динамики многолетних данных позволили выявить повышение, в последние годы, температуры воздуха на 1,0-1,5°с по сравнению с 60-ыми годами. Исследованиями внутригодового распределения атмосферных осадков и расходов воды установлено, что в последние годы наблюдается сдвиг максимальных значений осадков от зимнего периода в сторону весны и расходов воды от июля-августа месяцев на июнь-июль месяцы. Вместе с тем изучение типа питания рек показало, что в последние годы показатель типа питания стал понижаться от 0,30, соответствующий снегово-ледниковому питанию до 0,10 соответствующий снегово-дождевому питанию.

Ключевые слова: река, речной сток, речной бассейн, климат, атмосферные осадки, температура воздуха, гидрологический режим.

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ASSESSMENT OF THE HYDROMETEOROLOGICAL REGIME

RIVERS OF THE SURKHANDARYA BASIN

Annotation. This article presents the results of assessing the change in the regime of climatic parameters and their impact on the change in the regime of river flow. The main results of the research are an assessment of the dynamics of the average annual values of air temperature, precipitation and water flow for the period from 1960 to 2019. The study of the dynamics of long-term data made it possible to identify an increase in last years of the air temperature by 2.0-2.5 ° C, in compared with the 60s. Studies of the intra-annual distribution of atmospheric precipitation and water flow have established that in recent years there has been a shift in the maximum values of precipitation from the winter period towards spring and water flow from July-August to June-July. At the same time, a study of the type of river feeding showed that in recent years the indicator of the type of feeding began to decrease from 0.30, corresponding to snow-glacial feeding, to 0.10, corresponding to snow-rain feeding.

Keywords: river, river runoff, river basin, climate, climate precipitation, air temperature.

ВВЕДЕНИЕ.

В последнее время во всем мире идет активное изучение проблем, связанных с уязвимостью экономики и населения в условиях изменения климата. Как отмечается в Докладе Первой рабочей группы Пятого оценочного доклада Межправительственной группы экспертов по изменению климата: «Каждое из последних трех десятилетий характеризовалось более высокой температурой на поверхности земли, чем любое другое десятилетие с 1850 года» (МГЭИК, 5AR, WG1, 2013 г.).

Каковы современные тенденции изменения климата для планеты в целом и для Центральной Азии в частности? Пока в этом вопросе нет единого мнения, так как климатологам приходится учитывать слишком много факторов и выводы по результатам исследований не однозначный. По данным изучения температуры воздуха, из 13 метеостанций с периодом наблюдений около 100 лет, при повышении среднегодовой температуры за 1884-1994 годы для Узбекистана был установлен положительный температурный тренд, который повышался колебательным образом и соответствовал колебаниям глобальной температуры с 1930-х годов. Трендовые величины потепления, рассчитанные на 100 лет XX века, находятся в пределах 0,5-1°С. (Аламанов, и др., 2006). На территории Узбекистана зарегистрированы значительные колебания годовых осадков, в то время как в среднем по территории наблюдается слабая тенденция к их увеличению. (Чуб, 2007).

В последние годы на реках Средней Азии наблюдаются резкие изменения стока воды. Из года в год происходит резкое уменьшение или резкое увеличение стока. С учетом источников насыщения

среднеазиатских рек такие резкие изменения могут быть только следствием внезапного таяния ледников и снегов в зимние месяцы при повышении температуры и уменьшении количества снегопадов. Все изменения стока рек являются результатом изменившихся в последние годы климатических условий региона особенно зимнего и весеннего периодов. Тёплая зима и обильные осадки весной не могут не оказать своё воздействие на изменение режима стока рек и его типа питании. Целью данной работы является оценка изменения режима климатических параметров и их воздействие на изменение режима стока рек. Основной гипотезой работы побудившее наши действия на изучение данной проблемы состоит в предположении, что в настоящее время мы стоим на начальном этапе процесса изменения, как климатических условий региона, так и изменения режима формирования речного стока всех рек Центральной Азии. Смещение максимальных значений атмосферных осадков уже происходит, это в свою очередь приводит к смещению максимальных расходов воды, в результате потепления зимнего периода происходит изменение типа питания стока рек от снегово-ледникового к сегово-дождевому. Изменение типа питания в ближайшем будущем может привести к значительному изменению режима стока рек. Большая часть стока рек будет происходить в весенний период и даже часть стока будет формироваться в зимний период с большими расходами воды. За счёт дождевых паводков сток будет формироваться внезапно и будет иметь большие расходы воды, характерные в настоящее время для летнего периода. Удержать такой сток в зимний и весенний периоды будет невозможно, так как существующие водохранилища Центральной Азии рассчитаны на постепенное заполнение с учётом постепенного стока в результате таяния снега и льда. Это приведёт к засухе в летний период, когда потребность в воде наибольшая.

Для выяснения этого вопроса и изучения многолетней динамики речного стока и метеорологических параметров нами были проведены исследования на примере Сурхандарьинской области Узбекистана одного из наиболее уязвимых регионов к климатическим воздействиям в Центральной Азии.

ОПИСАНИЕ ОБЪЕКТА.

В данной работе объектом нашего изучения была выбрана река Сангардак пос Кинггузар. Река Сангардак начинается с юго-западного склона Гисарского хребта (на высоте 3800 м над уровнем моря). Площадь водосбора составляет 889 км², средняя высота бассейна реки составляет 2286 м. В верхнем течении река называется Дегиканора. В этой части река очень узкая и протекает по долине с крутыми склонами. В реку Сангардак впадает несколько больших и малых рек, правыми притоками являются реки: Кызылсой, Шорчиоб и Молонгур; левыми притоками являются реки: Хандиза и Нилу. Река Сангардак питается в основном сезонным снегом и

подземными водами. Максимальный расход воды 44 м³/сек. (в мае), минимальный сток 4,38-4,04 м³/сек в ноябре - январе. Среднемноголетние расходы воды реки Сангардак составляет 15 м³/сек, средний модуль стока – составляет 17,0 л/сек на км². (Расулов и др., 2003).

Оценка метеопараметров нами производилась по метеостанциям Бойсун (1249 м), Денов (516 м) и Шерабод (417 м), находящихся вблизи изучаемых нами речных бассейнов Сангардак, Шерабад, Тупаланг и др. Количество метеорологических элементов, наблюдаемых на всех метеостанциях, неодинаково. На некоторых метеостанциях наблюдались лишь отдельные величины. На метеостанциях Шорчи, Денов, Байсун и Шерабад наблюдения за атмосферными осадками начаты с 1930-х и 1940-х годов. Эти метеостанции имеют данные наблюдений с года, когда они были запущены, до настоящего времени.

МАТЕРИАЛЫ И МЕТОДЫ.

Существуют различные методы и подходы для оценки воздействия климатических факторов на изменчивость стока и для оценки изменчивости осадков и температуры воздуха. В гидрометеорологии часто пользовались методом аналогий при оценке изменения этих параметров. (Владимиров, 1990). Наиболее распространёнными подходами являются статистические методы оценки многолетнего ряда наблюдений и расчёта их обеспеченности и характеристик многолетнего ряда наблюдений. (Трофимов, 1999)

Статистические методы в гидрологии часто являются единственным возможным путем определения количественных оценок различных гидрометеорологических явлений или процессов. Это вытекает из многофакторной сущности гидрологических и метеорологических явлений, когда на формирование конечного результата оказывают влияние весьма большое число факторов, учесть суммарное действие, которых не представляется возможным. (Виноградов, 1988).

Оценка изменения гидрометеорологических характеристик и их взаимосвязь производилась на основе совмещения графических кривых внутригодового распределения осадков и расходов воды. Автором этой статьи Ш.Ш. Мухамеджановым была использована методика совмещения графиков внутригодового распределения осадков и расходов воды для начального и последнего периода статистического ряда. Использованная методология была использована в магистрской работе М.Исабоевой в 2021 году. (Исабоева, 20121).

Распространённым методом оценки многолетнего ряда наблюдений является расчёт обеспеченности ряда и его параметров: коэффициента вариации, среднеквадратичного отклонения, коэффициента асимметрии и др. (Рождественский и Чеботарёв, 1974) Учитывая многофакторность формирования речного стока для оценки изменчивости наблюденных данных по температуре воздуха, атмосферным осадкам и речного стока

нами были проведены расчёты среднеквадратического отклонения или стандарта (Рождественский и Чеботарёв, 1974):

$$\sigma_x = \sqrt{\frac{\sum_{i=1}^{n}(x_i - \overline{x})^2}{n}}.$$

коэффициента вариации, который является характеристикой изменчивости статистического ряда и определяется по формуле (Рождественский и Чеботарёв, 1974):

$$Cv = \frac{\sigma_x}{Xcp}$$

где: Cv - коэффициент вариации; σ_x - среднеквадратичное отклонение; Xcp - средняя величина совокупности ряда.

Расчёты питания речного стока, на основе наблюдённых данных, нами были проведены по классификации В.Л.Шульца. (Шульц, 1965):

При составлении гидрографа стока был использован генетический метод построения гидрографа (Владимиров, 1990).

РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЯ.

Гидрологический режим рек и их изменение всецело зависит от внутригодового распределения осадков и температуры воздуха. Изменение этих метеопараметров сказывается на значениях стока рек и их водообеспеченности. (Шульц и Машарипов, 1969). Понятие водность года характеризуется ни столько стоком рек сколько обеспеченностью осадков в те временные периоды, в которые осадки обеспечивают и формируют сток характерный для данной территории, соответствующий среднемноголетним данным базового периода. Под базовым периодом мы понимаем ряд лет, когда особых изменений в значениях данного ряда не происходит до того года, с которого может идти отсчёт либо повышения, либо снижения значений изучаемого показателя. (Расулов и др., 2003).

Оценка динамики среднегодовых значений температуры воздуха за период с 1960 по 2019 годы показывает повышение его значений в последние годы. Анализ показал, что повышение температуры воздуха по метеостанции Бойсун начинается с середины 70-ых годов. Температура воздуха за последние 50 лет повысилась на 1,0-1,5 °C (рис. 1).

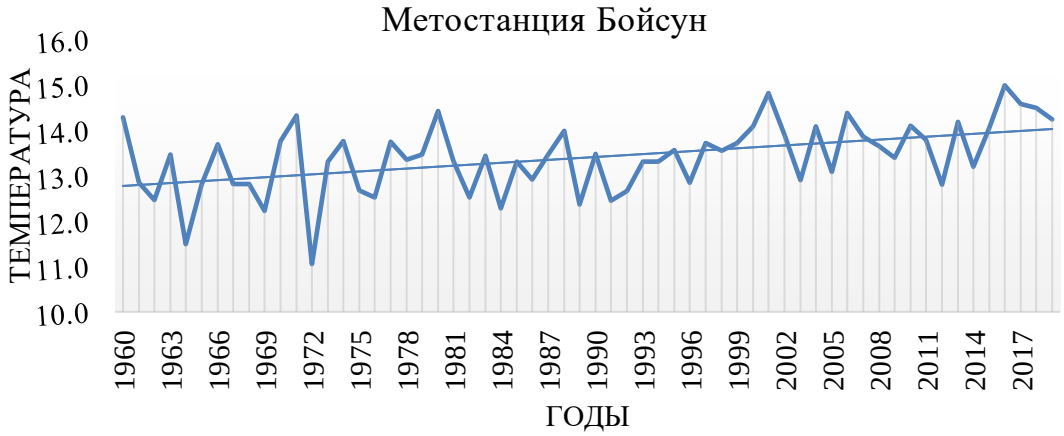


Рисунок 1. Динамика многолетних значений температуры воздуха по метеостанции Бойсун

Как видно из рисунка 1 средние значения температуры воздуха в 60-70-ых годах составляли 13°С, начиная с 90-ых-2000-ых годов среднегодовые значения температуры воздуха стали заметно увеличиваться до 13,5°С и более градусов, в последние годы среднегодовые значения температуры стабильно показывают 14°С и более в среднегодовых значениях температуры воздуха. При этом начиная с 70-ых годов до последних лет резко сократилась изменчивость максимальных и минимальных расходов воды по сравнению с 60 ми годами. Если в 60 годах разница максимальных и минимальных среднегодовых значений температуры составляли от 2°С до 3°С, то в последние годы эта разница составляет не более 1,0°С - 1,5°С. По метеостанции Денов изменение среднегодовых значений температуры воздуха за период с 1960 по 2019 годы было более значительно чем по метеостанции Бойсун. (Рисунок 2).

Средние значения температуры по метеостанции Денов увеличились в последние годы на 2,5°С-3,0°С и более. Колебание максимальных и минимальных значений среднегодовых температур по метеостанции также указывает на резкое снижение в последние годы по сравнению с 60-ыми и началом 70-ых годов. Оценка многолетнего колебания осадков на основе данных метеостанции Бойсун за период с 1960 по 2019 годы, показывает, что на протяжении всего наблюдаемого периода линия тренда средних значений наблюдаемого ряда атмосферных осадков практически не изменяется (рис. 3).

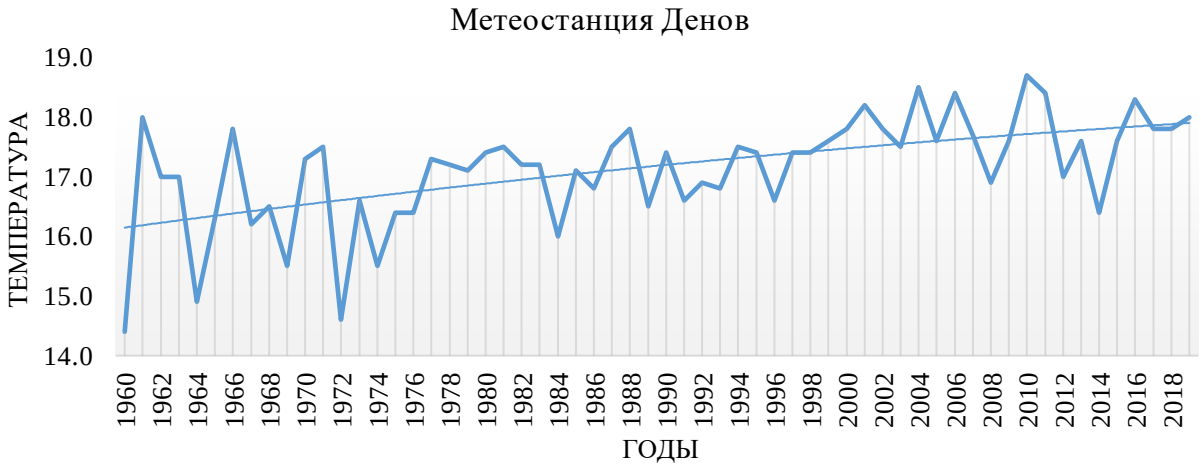


Рисунок 2. Динамика многолетних значений температуры воздуха по метеостанции Денов

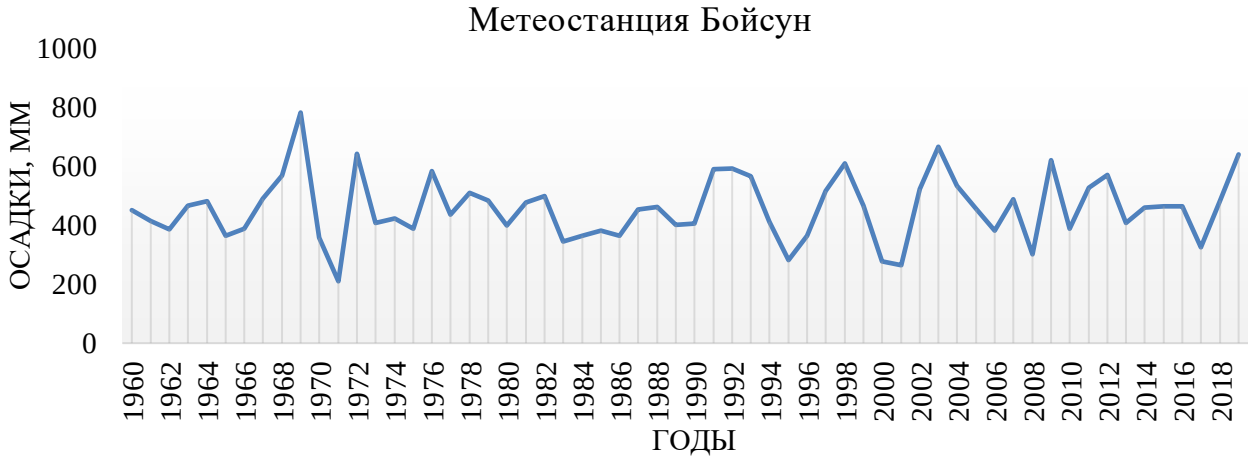


Рисунок 3. Динамика многолетних значений атмосферных осадков (мм) по метеостанции Бойсун

Характерным показателем статистического ряда наблюдений 60-ых годов, являются равномерное распределение суммы годовых осадков с единичным случаем в 1968 и 1969 годах резким колебанием максимальных и минимальных значений суммы годовых осадков. Значения суммы годовых осадков в 70-ых и 80-ых годах имеют более равномерные значения без резких перепадов максимальных и минимальных значений между годами. С 90-ых годов до 2018 года можно видеть, как осадки имели на всём протяжении этого периода резкие колебания максимальных и минимальных значений суммы годовых осадков. В количественном отношении за весь период наблюдений особых изменений суммы годовых осадков и его тенденций к повышению или уменьшению не наблюдается.

Таким образом, оценка многолетней динамики осадков и температуры воздуха в бассейне Сурхандарьи показала, что за последние годы есть определённые изменения климатических условий, которые выражаются в основном повышением температуры воздуха.

Оценка колебания среднегодовых расходов воды рек Сурхандарьинского бассейна за многолетний период не выявила изменения средних значений расходов воды ни в сторону уменьшения, ни в сторону увеличения. Однако, как видно из графика (Рисунок 4), есть изменения в характере колебаний расходов воды. В последние годы увеличилась разница между максимальными и минимальными расходами воды, к тому же увеличилась повторяемость, как многоводных, так и маловодных лет. Гидрологический режим рек Центральной Азии формируется в зависимости от типа питания рек. (Shults. 1965). Большинство рек Узбекистана имеет снегово-ледниковое и ледниково-снеговое питание. Температура воздуха является одним из основных факторов, оказывающих влияние на режим формирования речного стока горных рек. (Shults. 1965).



Рисунок 4. Динамика многолетних значений расхода воды (м³/сек) по реке Сангардак (г/п Кинг-Гузар)

Снегово-ледниковое питание рек Узбекистана и Центральной Азии обусловлено установившимися за многие столетия климатическими условиями, при которых температурный режим и режим осадков обеспечивает минусовые температуры и достаточное количество твёрдых осадков в зимний период. (V.L. Shults. 1965). В свою очередь происходит накопление снега в горной местности и образование ледников, которые начиная с мая месяца в результате таяния обеспечивает сток рек в летний период. При этом максимальные расходы приходятся на июль-август месяцы. От соотношения стока рек этих месяцев к общему годовому стоку определяется тип питания рек по классификации В.Л. Шульца. (Шульц. 1965). В условиях Средней Азии, особенно юго-западной её части, где осадки выпадают преимущественно в зимне-весенний период, а лето сухое, велика роль ледников в формировании внутригодового распределения стока. Чем больше оледенение речного бассейна, тем дальше к осени сдвигается половодье. Очевидно, что при значительном

сокращении оледенения этот параметр должен уменьшаться. По данным наблюдениям Г.Е. Глазырина многолетний ход δ для р. Сох. по классификации В.Л. Шульца, (Шульц. 1965) имеет ледниково-снеговое питание, указанный параметр в последние 50-60 лет заметно уменьшался. Соответственно изменился и тип питания. (Глазырин, 2014). Наши исследования питания рек Сурхандарьинсокго речного бассейна показали, что за период с 50-60-ых годов до настоящего времени соотношение стока рек за июль-сентябрь месяцы к общему годовому стоку стал понижаться от 0,30 соответствующий снегово-ледниковому питанию до 0,10 соответствующий снегово-дождевому питанию (рис.5).

Полученный результат показателя типа питания говорит о том, что тип питания на реке Сангардак изменился от снегово-ледникового на снегово- дождевое. Как было указано выше основной причиной этому является повышение температуры воздуха в последние годы.

Чтобы установить какие происходят изменения в регионе по режиму осадков и гидрологическому режиму рек, нами была проведена оценка внутригодового распределения температуры воздуха, атмосферных осадков и расходов воды за весь период наблюдений. Для сравнения изменения этих показателей нами были выбраны характерные годы в начальный период наблюдений в середине и в конце наблюдаемого ряда (рис. 6).

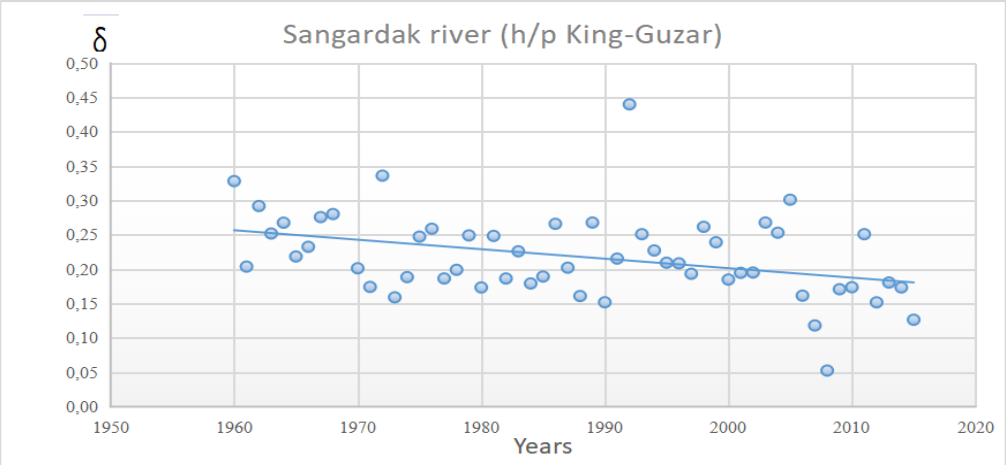


Рисунок 5. Изменение коэффициента δ-показателя типа питания рек рассчитанной по классификации В.Л. Шульца для реки Сангардак.

Как видно из рисунка 6, в 2019 году почти по всем месяцам года прослеживается повышение температуры воздуха в сравнении с 1960 годом. Особенно в зимний период в декабре месяце среднемесячная температура воздуха повысилась от +3,6°С до +9°С, январе месяце от +5,6°С до +7,3°С.

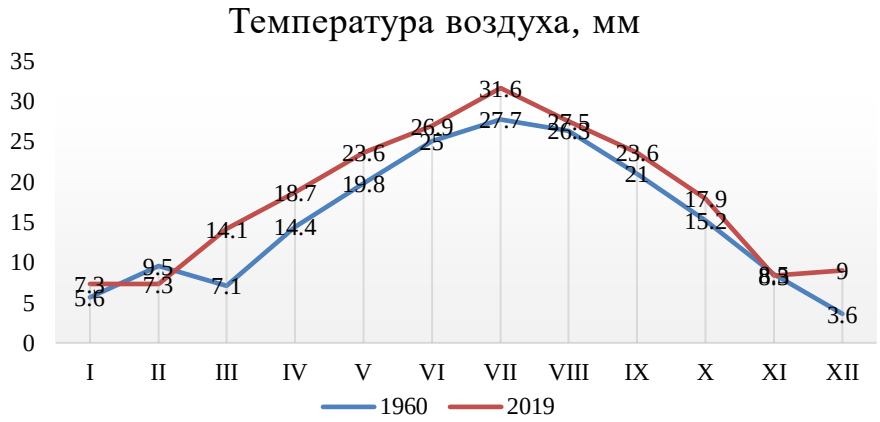


Рисунок 6. График внутригодового распределения температуры воздуха по метеостанции Бойсун за 1960 и 2019 годы

Повышение температуры воздуха в зимний период, на высоте 1200 метров над уровнем моря, один их главных факторов кардинального изменения режима осадков, режима питания и режима стока рек. Атмосферные осадки в результате высокой температуры большей частью выпадают в виде дождя и в этот же период питают речное русло. Даже если осадки выпадают в виде снега, при высокой температуре воздуха снег не задерживается на поверхности земли и быстро тает, опять же питая речное русло.

Оценка внутригодового распределения осадков за 1960 и 2019 годы по метеостанциям Бойсун, Шерабад и Денов показали, что в последние годы есть определённая сдвижка максимальных осадков от зимнего периода в весенний (рис. 7-9).

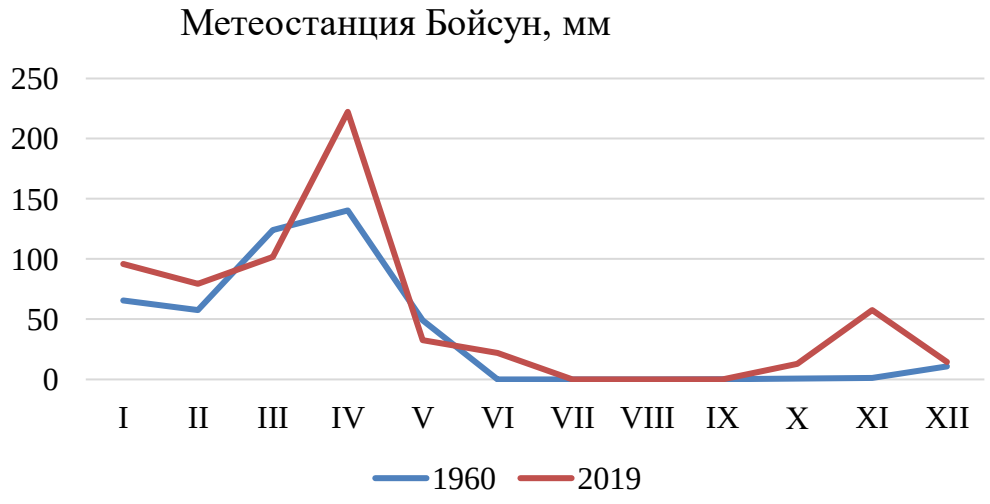


Рисунок 7. Внутригодовое распределение осадкв по метеостанции Бойсун, мм

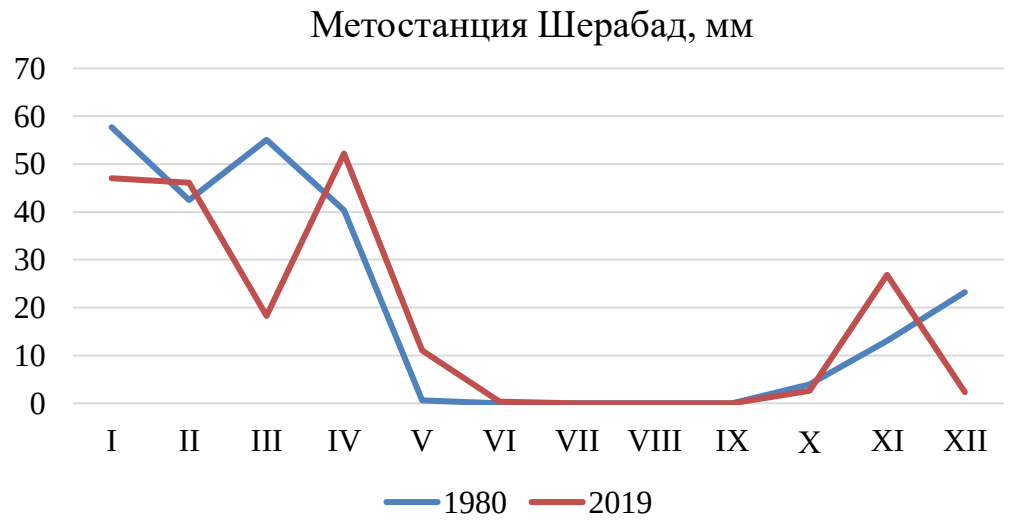


Рисунок 8. Внутригодовое распределение осадкв по метеостанции Шерабад, мм

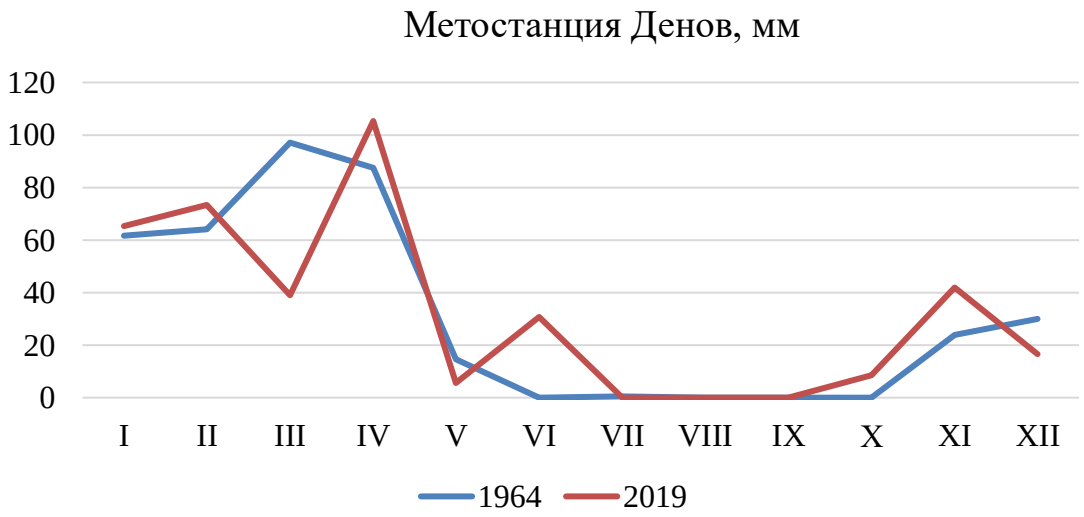


Рисунок 9. Внутригодовое распределение осадкв по метеостанции Денов, мм

Ощутимая сдвижка осадков от зимнего периода в сторону весны отмечается на метеостанциях, расположенных на небольших высотах (метеостанции Денов - 516 м над уровнем моря и Шерабад - 417 метров над уровнем моря). На высотах более 1200 метров над уровнем моря (метеостанция Бойсун - 1249 метров над уровнем моря) есть определённая сдвижка, но значительно меньшая, чем на малых высотах. Как отмечает В.Е. Чуб “Тренды средней зимней и средней летней температуры воздуха с высотой уменьшаются. (Чуб, 2015) Быстрое повышение зимней температуры существенно влияет на режим устойчивого снежного покрова. Образование устойчивого снежного покрова запаздывает, разрушение происходит раньше, продолжительность залегания

уменьшается (Царёв, 2010). Это характерно для всех высотных зон, но чем выше, тем этот эффект слабее. По предварительным данным для МС Ойгаинг наблюдается «концентрация» зимы во времени и даже некоторое увеличение снежности. Вопрос сложный и требует дальнейшей проработки. Но уже сейчас ясно, что отступающие ледники как продукт климата и рельефа не просто «прячутся» в более подходящие орографические условия, но и «уходят» в такие условия, где климатические изменения (потепление) ослаблены. Так, по данным Г.Е.Глазырина тренд средней летней температуры воздуха, ответственной за таяние ледников, в верховьях Пскема ослаблен и даже отрицательный на высотах более 1,5 км (Глазырин, 2014).

Сдвижка выпадения осадков с зимнего периода в весенний сказалась на изменении гидрографа стока рек Сурхандарьинского бассейна. На рисунке 10 приведён график внутригодового распределения расходов воды по реке Сангардак для двух периодов 1960 года и 2019 год.

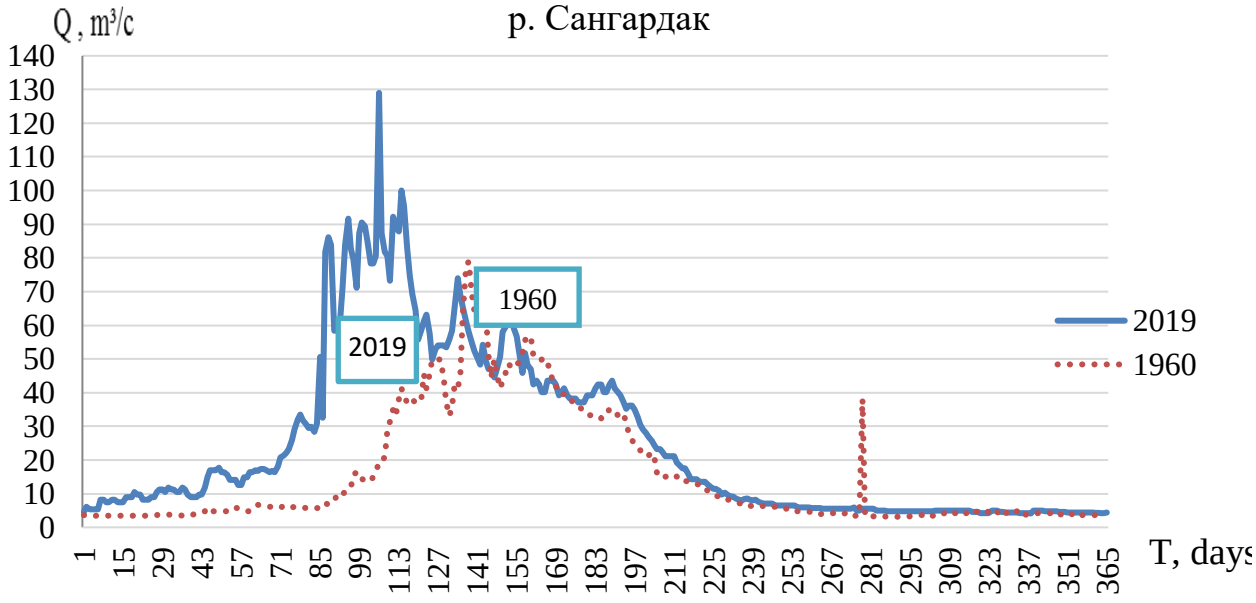


Рисунок 10. Внутригодовое распределение расходов воды реки Сангардак

Как видно из графика максимальные расходы гидрографа в 2019 году сместилась в сторону весны в сравнении с 1960 годами. Как видно из рисунка10 интенсивное питание стока рек в 2019 году начался в конце февраля в начале марта, в то время как в 1960 году начало питания стока рек приходится апрель месяц. Если максимальный сток в 2019 году распределён с марта до середины апреля месяца, то в 1960 году максимальный сток распределён с апреля по июнь месяцы.

По графику видно, что с февраля по апрель месяцы сформировался новый максимум стока, отсутствовавший ранее на графике 1960 года. Помимо значительного смещения гидрографа с летнего периода на весенний по графику годового распределения расходов воды можно видеть

значительное увеличение расходов воды в половодье. Если раньше в 1960 году максимальные расходы воды в половодье составляли 40 до 80 м3/сек, то в последние годы они стабильно находятся на отместках 80-100 м3/сек. Как видно из рисунка площадь гидрографа 1960 года покрывает только правую летнюю часть гидрографа 2019 года. Такое положение говорит о том, что в последние годы значительно изменился режим атмосферных осадков и режим питания стока рек. Дополнительный максимальный сток воды в реке за период с февраля по апрель месяцы сформирован не иначе, как за счёт дождевых осадков и таяния снегов в зимний и ранневесенний периоды. Если питание стока реки Сангардак в 60-ых годах прошлого столетия относился к снеголедниковому питанию, то к 2019 году в результате потепления в зимний период и повышения интенсивности жидких осадков перешёл в категорию снегодождевого питания.

ОБСУЖДЕНИЕ РЕЗУЛЬТАТОВ. Сравнительная оценка температурного режима по его среднегодовым значениям между годами в период с 1960 по 2019 года, показала увеличение по всем наблюдённым метеостанциям изучаемого нами региона. Значения среднемноголетних температур воздуха, зарегистрированных на метеостанции Бойсун за период 1960-2019 гг., увеличили свои значения на 1,0°С - 1,5°С. Это увеличение достигло своего максимального уровня к 2001 году. К 2019 году было установлено, что этот рост продолжился. Минимальная температура наблюдалась в 1972 г. По метеостанции Денов было установлено, что с 1988 года температура воздуха повысилась по сравнению с 1960-ми годами. Это увеличение достигло своего максимального уровня к 2007 году. Было установлено, что к 2019 году этот прирост несколько снизился. Минимальная температура наблюдалась в 1972 г. Установлено, что многолетние температуры воздуха, зарегистрированные на рассматриваемых метеостанциях, в текущем периоде резко возросли по сравнению с базовым периодом. Абсолютные максимальные значения температуры воздуха, зарегистрированные на станциях Сурхандарьинской области за период наблюдений до 2019 года, наблюдались в Байсуне в 2001 году, в Денове в 2011 году. Оценка внутригодового распределения среднемесячных значений температуры воздуха показала, повышение температуры воздуха практически по всем месяцам. В частности, в зимний период температура воздуха в 2019 году увеличилась на 1,6°С по сравнению с 60-ыми годами. В летние периоды увеличение температуры воздуха на 2°С и более градуса прослеживается по всем месяцам. Значения в 27°С градусов в июле месяце наблюдавшиеся в 1960 году перешли на июнь месяц, температура июня месяца 1960 года составлявшая 25°С в 2019 году больше соответствует маю месяцу (23,6°). В марте месяце в последние годы температура воздуха показывает 14,1°С (2019 г.) против 7°С в 1960 году. Оценка внутригодового распределения среднемесячных температур воздуха показывает, что в настоящее время

(2019 г.) температурный режим весеннего периода увеличил свои значения на 2°С и более и соответствует значениям среднемесячных температур, которые прослеживались в 1960 году на один месяц позже. Как отмечает В.Е.Чуб “.....тренды средней зимней и средней летней температуры воздуха с высотой уменьшаются. Быстрое повышение зимней температуры существенно влияет на режим устойчивого снежного покрова”. (Чуб, 2015). Смещение повышенных значений температуры воздуха в последние годы на один месяц в сторону зимы приводит к стаиванию тех снежных запасов, которые в прежние года стаивали на 1 месяц позже. Как отмечает Г.Е. Глазырин “Сезонный снег на ледниках, стаивая в тёплое время года, участвует в быстром влагообороте. Не стаявшие в фирновых областях его остатки трансформируются в фирн, а затем – в лёд, которые участвуют в замедленном влагообороте». Именно такой подход используется обычно гидрологами при математическом моделировании стока горных рек”. Стаявший раньше времени снег не имеет возможности при повышенных температурах трансформироваться в фирн и участвовать в замедленном влагообороте. В приведённых графиках внутригодового распределения осадков, видно, что в последние годы наблюдается сдвиг максимальных значений осадков от зимнего периода в сторону весны. Эти изменения перераспределения осадков свидетельствуют об изменении климатических условий на территории Узбекистана и всего Центрально Азиатского региона и его прямое воздействие на изменение гидрологического режима рек. Хотя в приведённых графиках по температуре воздуха больших изменений во внутригодовом распределении не наблюдается, однако есть тенденция повышения температуры воздуха в последние десятилетия, которые так или иначе оказывают своё влияние на внутригодовое распределение осадков и речного стока. Как показывают наши исследования есть определённые изменения в температурном режиме региона при рассмотрении колебания месячных данных в многолетнем разрезе в январе и феврале месяцах. Как видно из графиков в последние годы температура воздуха в январе месяце имеет значительно высокие значения, чем в предыдущие года и особенно в 60 и 70-ые года (рис.6). Потепление температуры воздуха в зимний период приводит к тому, что количество твёрдых осадков значительно уменьшится и увеличится количество жидких осадков.

В результате проведённых исследований многолетнего ряда наблюдений за динамикой атмосферных осадков было установлено, что в последние годы отмечено смещение максимальных значений атмосферных осадков от зимнего периода к весне. Это в свою очередь приводит к значительному изменению гидрологического режима рек, которая заключается в тенденции сдвижки максимального стока от летних периодов июня - июля месяцев в сторону весны на май-июнь месяцы (рис. 10). Дальнейшее смещение осадков от зимы к весне может привести к

смещению стока рек на более ранние периоды, что скажется на проблеме удержания основного стока рек планируемое для использования.

ЗАКЛЮЧЕНИЕ.

Проведённые исследования в бассейне реки Сурхандарьи по изменению метеорологических показателей и гидрологического режима рек показали, что за последние годы есть тенденция повышения температуры воздуха. Оценка динамики среднегодовых значений температуры воздуха за период с 1960 по 2019 годы показывает повышение его значений в последние годы. Температура воздуха за последние 50 лет повысилась на 1,0-1,5 °С.

Оценка многолетнего колебания осадков за период с 1960 по 2019 годы, показывает, что на протяжении всего наблюдаемого периода линия тренда средних значений наблюдаемого ряда атмосферных осадков практически не изменяется.

Оценка колебания среднегодовых расходов воды рек Сурхандарьинского бассейна за многолетний период не выявила изменения средних значений расходов воды ни в сторону уменьшения, ни в сторону увеличения. Однако, есть изменения в питании стока рек. Гидрологический режим рек Центральной Азии формируется в зависимости от типа питания рек. Большинство рек Узбекистана имеет снегово-ледниковое и ледниково-снеговое питание. Наши исследования питания рек Сурхандарьинского речного бассейна показали, что за период с 50-60-ых годов до настоящего времени соотношение стока рек за июль-сентябрь месяцы к общему годовому стоку стал понижаться от 0,30 соответствующий снегово-ледниковому питанию до 0,10 соответствующий снегово-дождевому питанию

Внутригодовое распределение метеопараметров и расхода воды показывает, что в последние годы наблюдается сдвиг максимальных осадков от зимнего периода к весне, вместе с тем имеет место сдвига стока рек от летнего периода к весне. При таком перераспределении осадков, температуры воздуха и стока рек могут возникнуть проблемы с водными ресурсами региона. Та часть речного стока, которая формировалась от таяния снега и ледников, теперь будет формироваться в весенний период и некоторая часть в зимние месяцы. Эти воды не будут удерживаться в виде снега и ледников, а напрямую будут стекать в речной бассейн. При таких условиях региону Центральной Азии грозит обострение дефицита водных ресурсов особенно в вегетационный период сельскохозяйственных культур.

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КЛИНИЧЕСКИЕ ОСОБЕННОСТИ ПСОРИАЗА У ДЕТЕЙ И ПОДРОСТКОВ

Аннотация: Проведены клинико-диагностические параллели современных особенностей течения псориаза и ряда псориазиформных дерматозов в детском возрасте. Указан ряд клинических симптомов, которые необходимо учитывать для точной дифференциальной диагностики различных дерматологических состояний у детей, что в ряде случаев бывает затруднительным.

Ключевые слова: псориаз, псориазиформные дерматозы, дети.

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CLINICAL FEATURES OF PSORIASIS IN CHILDREN AND ADOLESCENTS

Abstract: Clinical and diagnostic parallels between the current clinical features in the course of psoriasis and a number of psoriasiform dermatoses in children were drawn. The authors specified a number of clinical symptoms to be taken into consideration to ensure accurate differential diagnostics of different dermatological conditions in children, which can be difficult in a number of cases.

Key words: psoriasis, psoriasiform dermatoses, children.

ВВЕДЕНИЕ

Под наблюдением находились 380 детей с диагнозом псориаза и другими псориазиформными папулосквамозными дерматозами, возраст детей колебался от 6 мес. до 17 лет (средний возраст 11,3 ± 2,8 года), получавших стационарное и амбулаторное лечение в период 2010—2022 гг. Девочек было на 13,6 ± 1,7% больше, чем мальчиков (56,8 ± 2,5 и 43,2 ± 2,5% соответственно).

МАТЕРИАЛЫ И МЕТОДЫ

Особенности строения кожи ребенка в различные возрастные периоды, характер ухода, качество и рациональность питания, наличие интеркуррентных патологических состояний и прием лекарственных препаратов для их лечения, кон такт со средствами бытовой химии, поллютантами внешней среды или жилища, материалами одежды или

обуви — все это и многое другое отражается на состоянии кожи [1]. При современных условиях и ритме жизни указанные влияния посредством сложных разнонаправленных механизмов приводят к формированию различных геперергических состояний и болезней, вызывающих стойкие морфофункциональные нарушения кожного покрова ребенка. В клинической практике это выражается в формировании ряда особенностей клинической картины и течения дерматозов, нередко затрудняющих постановку правильного диагноза [2].

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Так, клиническая картина каплевидного псориаза у детей, зачастую возникающего после перенесенной острой стрептококковой инфекции, все чаще напоминает каплевидную форму парапсориаза [3, 4]. С одной стороны, сходство симптомов обусловлено склонностью кожи детей к экссудативным реакциям, с другой — общеизвестными опосредованнымистрептококками иммунными реакциями с поражением сосудистой стенки, обусловливающими формирование буровато-красного оттенка папул, который может быть присущ обоим дерматозам.

Окончательная постановка диагноза возможна после проведения гистологического исследования. На рис. 1 и 2 представлены клинические случаи с описанной выше клинической картиной. Также определенные сложности вызывает дифференциальная диагностика псориаза у пациентов со скудными проявлениями болезни и расположением высыпаний в нетипичных местах, что зачастую уводит врача в сторону от постановки правильного диагноза.



Рис. 1. Каплевидный псориаз у больной Ч., 9 лет. Высыпания на коже



бедер

Рис. 2. Каплевидный парапсориаз с очагами поражения на коже бедер у больной С., 9 лет

При невозможности проведения диагностической биопсии диагноз уточняется в процессе динамического наблюдения (рис. 3).



а б

Рис. 3. Каплевидный псориаз на коже уха (*а*) и разгибательной поверхности руки (*б*) у больного И., 8 лет

При гистологическом исследовании у пациента в представленном на рис. 3 клиническом случае (рис. 4) выявляются изменения, соответствующие псориазу: выраженный гиперкератоз, паракератоз, микроабсцессы Мунро под роговым слоем, выраженный акантоз с псориазиформным типом гиперплазии эпидермиса и истончением супрапапиллярных отделов, гиперактивность базального слоя эпидермиса, отек сосочков дермы, извитые и расширенные капилляры, экстравазаты, значительные периваскулярные гистиолимфоцитарные инфильтраты с примесью нейтрофилов [5].

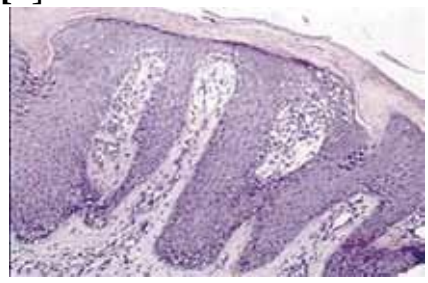


Рис. 4. Патогистологический препарат кожи больного И., 8 лет. Каплевидный псориаз (описание см. в тексте). Здесь и на рисунке 6, 9, 12, 16 окраска гематоксилином и эозином

На рис. 5 представлен случай псориаза ладоней и подошв у больного Д., 3 лет.



Рис. 5. Псориаз ладоней и подошв у больного Д., 3 года

У детей поражение кожного покрова чаще наблюдается преимущественно в области темени, реже – затылка и висков. Чешуйки напоминают волокна асбеста, которые с трудом отделяются. Асбестовидный лишай всегда сопровождается зудом разной степени интенсивности. Волосы прилегают к коже, сухие, окутанные мелкими беловатыми чешуйками. При длительном существовании заболевания и отсутствии адекватной помо щи нередко развивается диффузное поредение волос.

Для гистологической картины асбестовидного лишая характерны следующие изменения: гиперкератоз, паракератоз и небольшая лимфоцитарная инфильтрация вокруг волосяных фолликулов, а также дистрофические изменения сальных желез.

ЗАКЛЮЧЕНИЕ

Таким образом, современные особенности течения псориаза и ряда псориазиформных дерматозов в детском возрасте требуют постоянного мониторинга и анализа с целью совершенствования диагностики указанных состояний и улучшения возможностей своевременной и адекватной специализированной дерматологической помощи маленьким пациентам.

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СЕРДЕЧНО-ЛЕГОЧНАЯ РЕАНИМАЦИЯ: НОВЫЕ ПЕРСПЕКТИВЫ И МЕТОДЫ В РЕАНИМАЦИИ

В настоящее время существует ряд четко сформулированных принципов проведения сердечно-легочной реанимации (СЛР), которые отражены в рекомендациях Американской ассоциации сердца (AHA) и Европейского общества кардиологов (ESC) 2010 г. Особенно это касается жестких правил по своевременному и правильному проведению непрямого массажа сердца, согласно которым компрессии грудной клетки должны осуществляться не менее 100 раз в мин и на глубину не менее 5 см. Поддерживать необходимые стандарты нелегко даже обученному персоналу, усталость операторов достаточно быстро приводит к снижению качества СЛР. На сегодняшний день существуют различные механические приспособления для непрямого массажа сердца, одно из которых — система LUCAS. В ряде исследований система LUCAS показала эффективность и безопасность, сравнимые с ручным непрямым массажем сердца. Конструктивные особенности прибора LUCAS не препятствуют проведению других мероприятий по поддержанию жизни — дефибрилляции, искусственной вентиляции легких. Проницаемость аппарата для рентгеновских лучей делает возможным применение системы LUCAS в катетеризационных лабораториях, если существует необходимость в проведении СЛР во время процедур. Система LUCAS может служить альтернативным пособием для проведения СЛР и может найти применение в отделениях интенсивной терапии, кроме того, ею могут быть оснащены бригады специальных экстренных служб.

Ключевые слова: сердечно-легочная реанимация, непрямой массаж сердца, система для непрямого массажа сердца LUCAS.

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CARDIO-PULMONARY REANIMATION: NEW PERSPECTIVES AND METHODS IN REANIMATION

At the present there are principles of cardiopulmonary resuscitation (CPR) which are reflected in the recommendations of the AHA and ESC of 2010. They include strict rules on well-timed and proper closed-chest cardiac massage. According to these rules chest compressions should be repeated at least 100 times per minute at a depth of not less than 5 cm. To comply with the standards is not easy even for skilled staff, operator tiredness quickly leads to decrease in CPR quality. Various mechanical devices for closed-chest cardiac massage are used nowadays. One of them is LUCAS system. In some studies LUCAS system showed an efficacy and safety comparable with manual closed-chest cardiac massage. Design features of the LUCAS device do not disturb other life maintaining activities — defibrillation, mechanical ventilation. The device permeability for X-rays makes possible the use of LUCAS in cath labs, if CPR is needed during the intervention procedure. LUCAS system can serve as an alternative tool for CPR. It can be used in intensive care units, as well as be at the disposal of special emergency teams.

Key words: cardiopulmonary resuscitation, closed-chest cardiac massage, LUCAS system for closed-chest cardiac massage.

Введение. Внезапная сердечная смерть в настоящее время остается одной из наиболее серьезных проблем кардиологии. Следует признать, что эта проблема пока еще слишком далека от своего решения. Частота возник новения внезапной сердечной смерти зависит от возраста, пола, наличия или отсутствия в анамнезе сердечно-сосудистых заболеваний. В США ежегодно регистрируется около 300 000 внезапных сердечных смертей в год, что составляет 1 случай на 1000 населения в год. В России от внезапной сердечной смерти также ежегодно погибает несколько сотен тысяч людей, до 2 случаев на 1000 населения **[**1]. Не оставляет сомнений, что неотложная помощь людям с остановкой сердца — с внезапной сердечной смертью – остается актуальнейшей проблемой не только неотложной медицины, но и терапии и кардиологии, в частности. На рубеже XX-XXI веков мировое медицинское сообщество, ведущие

реаниматологи мира пришли к выводу о необходимости улучшения результатов реанимации (оживления) больных с внезапной остановкой сердца. Несмотря на широкое внедрение современных

методов реанимации в конце XX века не было получено ожидаемого существенного увеличения выживаемости пациентов. По мнению ряда экспертов, это явилось следствием чрезмерного увлечения новыми фармпрепаратами, альтернативными протоколами реанимации, отсутствием четких приоритетов в протоколах оживления пациентов. Было отмечено, что в результате из-за смены приоритетов тактики оживления, время непрямого массажа сердца от общего времени проведения сердечно-легочной реанимации уменьшилось с 83% до 30-55%. Из-за этого на рубеже веков был сформирован новый взгляд на многие опубликованные ранее экспериментальные и клинические исследования. Таким образом, в 2000 и 2005 годах были произведены существенные изменения в протоколах сердечно-легочной реанимации [2-4]. Далее следовал закономерный пересмотр рекомендаций по проведению СЛР в последующие годы. Если провести обзор последних редакций американских и европейских рекомендаций по СЛР, то, несомненно, следует отметить все большее смещение акцента на своевременное и качественное проведение непрямого массажа сердца [5,6].

Непрямой массаж сердца. При том, что существуют различные подходы к проведению непрямого массажа сердца, различные альтернативные и вспомогательные варианты пособий (например, увеличение компрессий грудной клетки до 200 в мин или вспомогательные компрессии в область эпигастрия), все эксперты сходятся в необходимости проведения своевременного и качественного непрямого массажа сердца. Непрямой массаж сердца является базисом в оказании реанимационных мероприятий, как обученным медицинским персоналом, так и необученным. В контексте современных рекомендаций еще более смещен акцент в сторону непрямого массажа грудной клетки, допускается исполнение алгоритма Hands-Only (СЛР без вентиляции легких) необученным персоналом. Необходимость в искусственной вентиляции легких безоговорочно подчеркивается в случае первичной остановки дыхания (например, при утоплении или аспирации) или в случае проведения сердечно-легочной реанимации обученным персоналом. Дело в том, что необученному реаниматору проще выполнять сердечно-легочную реанимацию без вентиляции легких, при этом существенных отличий в выживаемости после остановки сердца, связанной с нарушениями функции сердца, практически нет: как в случае выполнения СЛР без вентиляции легких, так и в случае СЛР с компрессиями грудной клетки и вентиляцией легких [5,6].

Необходимо еще раз подчеркнуть, что в рекомендациях по СЛР и неотложной помощи, как в европейских, так и в американских, постоянно

подчеркивается необходимость качественного выполнения непрямого массажа сердца. В современной редакции это означает, что компрессионные сжатия должны производиться с надлежащей частотой и глубиной вдавливания с полным расправлением грудной клетки после компрессий. При этом, если рекомендации АНА (2005) трактовали должную частоту компрессий грудной клетки как «около 100 в мин», то редакция 2010 г. однозначно требует «выполнять компрессионные сжатия не менее 100 в мин». Аналогичная ситуация и в отношении глубины компрессий грудной клетки при выполнении непрямого массажа сердца. Если в рекомендациях АНА 2005 г. требуемая глубина компрессий была приблизительно 4-5 см, то в рекомендациях АНА 2010 г. глубина компрессий должна быть не менее 5 см. Во всех рекомендациях последних десятилетий при выполнении непрямого массажа сердца подчеркивается необходимость правильного расположения рук реанимирующего, которые должны располагаться на нижней трети грудины, на 2 см выше мечевидного отростка. Неправильное расположение рук может привести не только к осложнениям (перелом ребер, мечевидного отростка), но и резко снижает эффективность СЛР [5,6].

Ряд достаточно жестко сформулированных положений в последних рекомендациях АНА по проведению СЛР призваны унифицировать подходы к ней, относительно упростить алгоритмы проведения мероприятий в рамках базовой и расширенной помощи и, в конечном итоге, привести к повышению эффективности СЛР и повышению количества пациентов, выживших после остановки кровообращения. Но в то же время жесткое формулирование ряда положений по проведению СЛР влечет за собой возникновение трудностей. Не только неподготовленному реаниматору, но и подготовленному персоналу блоков интенсивной терапии, бригад скорой медицинской помощи (СМП) тяжело выдерживать жесткие современные стандарты оказания неотложной помощи. Необходимость поддерживать высокий темп компрессий грудной клетки, глубину компрессий, длительность выполняемого пособия даже при идеальной технике исполнения ведут к быстрому истощению сил человека, оказывающего это реанимационное пособие. Ряд исследований доказывают, что эффективность ручного непрямого массажа сердца может резко снижаться — часто всего через одну

минуту — вследствие эффекта усталости проводящего СЛР [7,8]. Отсюда неизбежно снижается качество проводимых реанимационных мероприятий и, соответственно, снижается вероятность благоприятного исхода. Рекомендуемая смена ролей в бригаде реаниматологов, чередование лиц, участвующих в проведении сердечно-легочной реанимации, лишь отчасти решает проблему. Зачастую неизбежна некая неразбериха, сумятица при выполнении пособия несколькими лицами. Становится обязательной роль координатора, которую должен брать на

себя либо наиболее опытный член бригады реаниматологов, либо человек, первым начавший реанимационные мероприятия. Здесь следует отметить и еще один аспект, влияющий на качество оказания неотложной помощи. С сожалением приходится признать, что уровень подготовленности выпускников медицинских ВУЗов, врачей, работников специальных служб (МЧС, полиция, пожарная охрана), общественности в целом в отношении необходимых мероприятий по поддержанию жизни невысок. Отсутствует как необходимая «внутренняя готовность» к оказанию реанимационных пособий, так и необходимый уровень теоретических и практических навыков и умений. Конечно, и это находит свое отражение в международных рекомендациях, но исходы реанимации лучше, если реанимационное пособие все-таки оказывают (пусть и с ненадлежащим качеством), чем, когда реанимацию не проводят вовсе. Механические приспособления для проведения сердечно-легочной реанимации.

В настоящее время на рынке медицинского оборудования есть ряд механических приспособлений для проведения СЛР. Необходимость широкой оснащенности дефибрилляторами не вызывает никаких сомнений, так как своевременное и правильное использование дефибрилляторов приводит к существенному повышению выживаемости после остановки сердца. Спектр предлагаемых приборов очень разнообразен, но о существовании иных механических приспособлений, помогающих в проведении качественной СЛР, известно не так много. Между тем, существует ряд механических приспособлений, которые облегчают труд реаниматологов, поддерживают высокие современные стандарты оказания неотложной помощи и позволяют проводить механический непрямой массаж сердца, одной из таких систем является автоматическое устройство для сердечно-легочной реанимации ZOLL AutoPulse производства компании ZOLL (США). AutoPulse — это автоматическое устройство с питанием от аккумуляторной батареи для проведения непрямого массажа сердца за счет непрерывной компрессии грудной клетки у пациентов с внезапной остановкой кровообращения. Ритмичная, щадящая компрессия грудной клетки обеспечивается двумя большими с мягкой обивкой накладками, которые закрепляются на одном компрессионном ремне с правой и левой стороны. Компрессионный ремень крепится на штифте, который соединяется с приводным валом, расположенным на нижней поверхности платформы. Благодаря перекатыванию ремня по этому валу (с частотой 80 в мин) происходит компрессия грудной клетки. Накладки фиксируются на теле пациента при помощи застежек-липучек. Комплект для компрессии грудной клетки называется LifeBand. Применение этого устройства обеспечивает постоянные качественные компрессии, значительно улучшающие кровоснабжение сердца и головного мозга. Кроме того, AutoPulse сокращает паузы между компрессиями до абсолютного минимума.

Непосредственно на месте происшествия или в движущейся машине скорой помощи пациенту можно выполнять постоянный и непрерывный массаж сердца и параллельно осуществлять все иные мероприятия экстренной помощи. Применение устройства ZOLL AutoPulse бригадами экстренных служб или персоналом отделений интенсивной терапии способно улучшить качество оказываемого пособия по СЛР, в первую очередь за счет проведения качественного непрямого массажа сердца и за счет нивелирования эффекта усталости, что характерно для ручного непрямого массажа сердца, и что неизбежно сказывается на качестве и эффективности сердечно-легочной реанимации. В то же время, на наш взгляд, система ZOLL AutoPulse не лишена ряда недостатков. В первую очередь следует отметить недостаточно высокую частоту компрессий грудной клетки, 80 в мин, что не соответствует современным требованиям к СЛР. Кроме того, комплект LifeBand закрывает собой практически всю переднюю поверхность грудной клетки у взрослого человека, что существенно затрудняет применение наружного дефибриллятора, при том, что проведение дефибрилляции с минимальной задержкой времени является одним из базисных требований современной СЛР. Нам так же не встретились исследования по возможности, эффективности и безопасности применения системы ZOLL AutoPulse в катетеризационных лабораториях. Это нельзя отнести к существенным недостаткам прибора, однако при современном уровне интервенционных вмешательств способность автоматического приспособления для непрямого массажа сердца эффективно работать в условиях катетеризационных лабораторий, не препятствуя действиям операторов, была бы очевидным преимуществом. Тем не менее, эксплуатация системы ZOLL AutoPulse в отделениях интенсивной терапии, реанимации стационара и в автомобиле скорой медицинской помощи кажется весьма перспективной для улучшения

качества проводимой СЛР и благоприятных исходов СЛР, являясь своеобразной альтернативой ручному непрямому массажу сердца, проводимому обученным персоналом. Еще одним автоматическим приспособлением для непрямого массажа сердца является система LUCAS. Система компрессии грудной клетки LUCAS, разработанная шведской компанией Jolife AB, предназначена для обеспечения непрерывных компрессий грудной клетки с заданными постоянной частотой и глубиной компрессии, что способно привести к восстановлению спонтанного кровообращения. LUCAS представляет собой портативную, достаточно простую в использовании систему (рис. 1), разработанную для выполнения автоматизированных компрессий грудной клетки в соответствии с международными рекомендациями по обеспечению кровообращения у пациентов с остановкой сердца. В самом схематичном представлении система LUCAS представляет собой дугу на опорной пластине, на дуге располагается компрессор с поршнем и вакуумной присоской, который

оказывает активные компрессионные и декомпрессионные движения и обеспечивает равные по длительности циклы компрессии-декомпрессии.



Рисунок 1. Система компрессии грудной клетки LUCAS

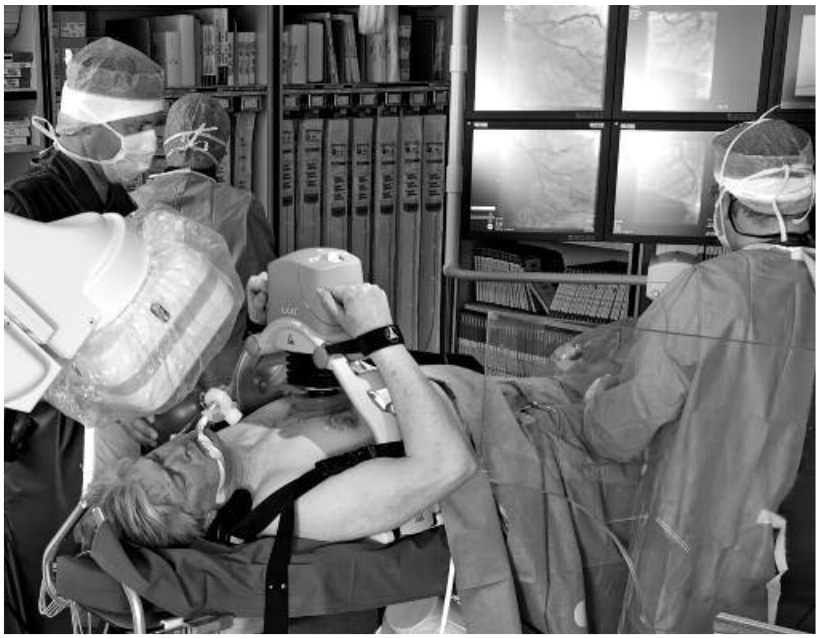


Рисунок 2. Расположение системы LUCAS

Система LUCAS выполняет 100 компрес сий в мин, при этом глубина продавливания грудной клетки составляет 5 см. Следует отметить, что существует необходимость точного позиционирования поршня, так как его неверное размещение на грудной клетке снижает эффективность непрямого массажа сердца. Правильно позиционированный прибор LUCAS не препятствует выполнению дефибрилляции, искусственной вентиляции легких, интубации трахеи, катетеризации центральных вен и другим мероприятиям в рамках оказания базовой и расширенной медицинской помощи при остановке сердца (рис. 2). Система LUCAS эргономична, компактна и проста в применении, может применяться независимо от того, где находится пациент: лежит на земле, на кровати или

на носилках в машине скорой помощи. Транспортировка пациента с остановкой сердца в специализированное отделение или с места происшествия в стационар нередко сопровождается вынужденными паузами в проведении СЛР, что несет в себе потенциальный риск для пациента. Система LUCAS перемещается вместе с пациентом с места происшествия в машину скорой помощи. Она продолжает выполнять непрерывные эффективные компрессии грудной клетки, что позволяет избежать снижения давления в коронарных сосудах и поддерживать адекватное кровообращение у пациента во время транспортировки. Автоматические компрессии, не требующие ручного вмешательства, исключают возникновение усталости у лиц, выполняющих СЛР, а также стрессовые повреждения, связанные с выполнением СЛР. С помощью системы LUCAS персонал, оказывающий помощь, может немедленно начать автоматический непрямой массаж сердца, стабилизировать пациента и быстро взять ситуацию под контроль. Система LUCAS исключает потребность в дополнительном персонале для выполнения СЛР, уменьшая скопление людей в месте происшествия и обеспечивая выполнение стабильных, качественных компрессий грудной клетки. Автоматизация выполнения компрессий позволяет высвободить персонал, который может сконцентрироваться на выполнении других задач, необходимых для спасения пациента, например, на введении препаратов, проведении искусственной вентиляции или дефибрилляции. Система LUCAS обеспечивает проведение СЛР согласно существующим рекомендациям. С помощью постоянных по амплитуде, непрерывных компрессий грудной клетки возможно восстановление спонтанного кровообращения у пациента.

Доказательная база не вызывает сомнений сложность проведения высококачественных рандомизированных исследований у пациентов с внезапной остановкой сердца, так как осуществление подобных исследований ограничено рядом соображений как методологического, так и этического характера. Тем не менее, существует ряд исследований, подтверждающих эффективность и безопасность механического массажа сердца при помощи системы LUCAS по сравнению с ручным непрямым массажем сердца. В двуцентровом рандомизированном пилотном исследовании СЛР с помощью системы LUCASTM1(V1) по сравнению с ручной СЛР у пациентов с внебольничной остановкой сердца, проведенном Rubertsson S. и соавт., не было выявлено значимых различий в частоте восстановления самостоятельного кровообращения [30 (43,5%) и 22 (31,9%) пациента соответственно; p=0,22], в количестве пациентов, госпитализированных живыми [18 (26,1%) и 15 (21,7%) пациентов соответственно; p=0,69], а также в числе пациентов, выписанных из больницы живыми [6 (8,7%) и 7 (10,1%) пациента соответственно; p>0,05]. Была отмечена тенденция к увеличению ранней выживаемости при

использовании LUCAS [9]. В публикации Maule Y. описывается начало применения и первые результаты использования устройства LUCASTM1(V1) в университетской больнице в Бругманне (Бельгия). Были проанализированы данные, полученные при проведении СЛР с помощью LUCAS (n=123) и ручной СЛР (n=27) 150 последовательным пациентам с внебольничной остановкой сердца. Частота восстановления спонтанного кровообращения при использовании LUCAS (57,7%) была более чем в 2 раза выше, чем в группе ручной СЛР (25,9%). В дополнение к этому устройство LUCAS предоставляло возможность транспортировать пациента на фоне эффективной СЛР и сконцентрировать внимание реаниматоров на других проблемах, связанных со спасением жизни [10]. Кластер-контролируемое пилотное исследование, проведенное в Швеции Axelsson C. и соавт., (n=128)

показало, что при выполнении СЛР с помощью LUCASTM1(V1) по сравнению с ручной СЛР во внебольничных условиях восстановление самостоятельного кровообращения (в обеих группах 51%), число больных, госпитализированных живыми (38% в группе LUCAS и 37% в группе ручной СЛР; p>0,05), число больных, выписанных живыми (8% и 10%; p>0,05), в обе

их группах значимо не различались [11]. Ряд других авторов также сообщают об эффективности применения системы LUCAS для непрямого массажа сердца, в публикациях отмечается отсутствие серьезных осложнений, связанных с использованием системы LUCAS, подчеркивается удобство в применении, возможность «высвободить еще одну пару рук во время этапов мероприятий по поддержанию жизни» [12-14].

Интересен опыт применения системы непрямого массажа сердца LUCAS в катетеризационных лабораториях. Обнадеживающие результаты получены Wagner H. и соавт. В ретроспективном исследовании, проведенном этой группой, оценивалось применения LUCAS 1 (V1 и V2) в течение более чем 5 лет у пациентов с острым инфарктом миокарда с подъёмом сегмента ST (ИМпST), доставленных в катетеризационную лабораторию живыми, но потребовавших длительной реанимации с помощью LUCAS на фоне продолжающегося коронарного вмешательства. СЛР с помощью LUCAS потребовалась 33 из 3 058 пациентов со ИМпST; частота длительной реанимации в катетеризационной лаборатории составила 10,8 на 1000 процедур при ИМпST. СЛР с помощью LUCAS потребовалась ещё 10 пациентам: 7 с инфарктом миокарда без подъёма сегмента ST, 2 при плановом чрезкожном коронарном вмешательстве (ЧКВ) и 1 с тампонадой. Всего за пять лет СЛР с помощью LUCAS проводилась у 43 пациентов. Из них 12 пациентов было выписано из больницы, 11 — с хорошим неврологическим исходом. Выживаемость в этой группе пациентов высокого риска, таким образом, составила при

мерно 25%. У 65% пациентов исходным видом остановки кровообращения была электро-механическая диссоциация. Устройство LUCAS позволяло проводить рентгеноскопию в большинстве проекций, за исключением прямой переднезадней проекции. К счастью, доступные проекции почти всегда были предпочтительными даже без LUCAS [15]. В ряде других сообщений отмечается возможность эффективного использования системы LUCAS в катетеризационных лабораториях. Авторами отмечается ряд преимуществ системы непрямого массажа сердца LUCAS перед традиционным ручным непрямым массажем сердца при проведении СЛР в условиях катетеризационной лаборатории. Система LUCAS позволяет продолжать процедуру, обеспечивая непрерывные компрессии грудной клетки, а, следовательно — кровообращение и поступление кислорода к жизненно важным органам. Система LUCAS позволяет поддерживать кровообращение при одновременном выполнении ЧКВ и катетеризации. Медицинский персонал может выполнять процедуры катетеризации без ущерба для выполнения компрессий, что позволяет снизить стресс и облегчить принятие решений. Система LUCAS прозрачна для рентгеновского излучения (за исключением кожуха и поршня), что позволяет выполнять рентгеноскопию в большинстве

проекций без удаления системы LUCAS. При установленной пациенту системе LUCAS возможно выполнение рентгеноскопии в одной плоскости в следующих проекциях: левой передней косой — краниальной/каудальной косой; правой передней косой — краниальной/каудальной косой; прямой каудальной; прямой латеральной и прямой краниальной. Система LUCAS устраняет необходимость проведения СЛР персоналом в области действия рентгеновских лучей [16].

В целом ряде публикаций подчеркивается безопасность применения системы LUCAS для непрямого массажа сердца при проведении сердечно-легочной реанимации [17-19]. В исследовании, выполненном Smekal D. и соавт., получены результаты, которые позволили сделать вывод, что использование системы LUCAS сопряжено с таким же числом и видом повреждений, что и применение ручной СЛР (проспективное контролируемое исследование 85 пациентов, не выживших после остановки сердца). У большинства пациентов развилась догоспитальная остановка сердца. Пациенты были рандомизированы в группы СЛР с помощью LUCASTM1(V1) (n=38) и ручной СЛР (n=47). Все пациентам в течение нескольких минут до рандомизации проводилась ручная СЛР. Вскрытие не выявило повреждений у 42,1% пациентов в группе LUCAS и у 55,3% пациентов в группе ручной СЛР (p=0,28). Частота и виды повреждений вследствие СЛР в различных группах различались незначимо, ни одно из повреждений вследствие СЛР не было расценено как опасное для жизни. Множественные переломы рёбер (более трёх) были выявлены у 17/38 (44,7%) пациентов в группе LUCAS и у 13/47 (27,7%)

пациентов в группе ручной СЛР (p=0,12). Переломы грудины определялись у 29,0% пациентов в группе LUCAS и у 21,3% пациентов в группе ручной СЛР (p=0,46) [17].

Заключение. Обобщая опубликованные данные, следует заключить, что система LUCAS для непрямого массажа сердца представляет собой устройство, позволяющее выполнять эффективный непрямой массаж сердца во время проведения сердечно-легочной реанимации, соответствующий современным методологическим указаниям по СЛР. При этом применение системы LUCAS не менее безопасно, чем ручной непрямой массаж сердца. Использование системы LUCAS позволяет избежать травматизма у медицинского персонала, участвующего в проведении СЛР, сберегает силы врачей, позволяя организованно осуществлять дальнейший комплекс мероприятий по оживлению, ограждает персонал от возможного избыточного воздействия рентгеновского излучения в катетеризационных лабораториях, не препятствуя действиям врачей, выполняющих ЧКВ.

В настоящее время система компрессии грудной клетки LUCAS, наверное, не может заменить собой квалифицированного врача-реаниматолога, но то, что наличие подобной системы может являться альтернативной, дополнительной возможностью для проведения качественного непрямого массажа сердца, вызывает мало сомнений. На наш взгляд, применение системы LUCAS эффективно в отделениях реанимации, в катетеризационных лабораториях, также и экстренными службами (СМП, МЧС, полиция, пожарные), что в конечном итоге должно позволить проводить необходимые мероприятия для поддержания жизни с высокой интенсивностью, эффективностью и без ущерба как качеству проводимых мероприятий, так и здоровью, и физическому состоянию пациентов.

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ПРИМЕНЕНИЕ ФРЕЗЕРНЫХ КОМБАЙНОВ НА ДОБЫЧНЫХ МЕСТОРОЖДЕНИЯХ

Аннотация: Представлен анализ работы фрезерных комбайнов при разработке месторождений полезных ископаемых по послойно-полосовым технологиям в России и зарубежом. Приведены графики зависимости изменения производительности комбайнов от прочности разрушаемых горных пород.

Ключевые слова: строительство, горная промышленность, фрезерный комбайн, строительные материалы, порода, производительность.

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USE OF MILLING COMBINES IN MINING FIELDS

Annotation: Presents an analysis of the work of milling machines in development of deposits of mineral resources according to the layer-strip technology in Russia and abroad. Presents diagrams of dependence of change of productivity of milling machines on the strength of destructible rocks.

Keywords: construction, mining, milling combine, building materials, rock, productivity.

В настоящее время значительное усиление мер по экологической и социальной безопасности ведения строительных и горных работ ограничивает производство буровзрывных работ (БВР). Разупрочнение скальных и полускальных горных пород с помощью БВР имеет ряд недостатков, а именно: необходимость временного прекращения работ и отвода техники и людей на безопасное расстояние перед проведением взрыва; нарушение сплошности массива пород, что отрицательно влияет на устойчивость борта карьера(выемки) и требует его дополнительного выполаживания; отбитая взрывом порода имеет неравномерный гранулометрический состав от негабаритов(требующих вторичного взрывания) до пыле видных частиц; невозможность использования непрерывного транспорта(без предварительного крупного дробления) для перемещения добытой породы; выброс продуктов горения взрывчатых веществ ухудшает экологическую ситуацию вместе проведения работ(особенно при массовом взрыве); полезное ископаемое взрывом перемешивается с пустой породой, что ведет к снижению качества добываемого сырья; полезное ископаемое, находящее в тонких пластах не может быть селективно добыто и после проведения БВР удаляется вместе с пустой породой в отвал, а также другие недостатки. В случае приближения фронта работ вплотную к населенным пунктам или объектам инфраструктуры, ведение БВР вообще исключено, в тоже время на ряде давно эксплуатируемых месторождений основные и наиболее качественные запасы (по причине выработки других запасов) полезных ископаемых оказываются в непосредственной близости к жилью и другим объектам.

В связи с этим во всем мире возрастает интерес к использованию оборудования, обеспечивающего безвзрывное отделение породы от массива ее дробление и погрузку в транспорт с достаточно высокой производительностью. За последние 20-30 лет машиностроительными фирмами Германии, Австрии, США и других стран разработаны и изготавливаются фрезерные машины (фрезерные комбайны) различных типов для ведения добычных и строительных работ по послойно-полосовой технологии. Фрезерный рабочий орган может располагаться в передней части, по центру или в задней части комбайна, во всех трех случаях забоем является поверхность площадки уступа. Комбайны имеют модульную конструкцию, включающую рабочий орган с опорной рамой, ходовую часть, силовую установку, транспортирующее устройство. Фрезерный комбайн в отличие от одноковшовых или многоковшовых экскаваторов, работающих на месте с незначительными передвижками, постоянно перемещается с достаточно большой скоростью (до15…30м/мин). Фрезерование породы происходит при прямолинейном движении, при разворотах комбайн поднимает рабочий орган и двигается в

холостом режиме. Поскольку комбайн достаточно громоздкий, то его перемещение с одной полосы(забоя) на другую занимает значительную часть рабочего времени (до10…25%), следовательно, наибольшую производительность фрезерные комбайны обеспечивают на больших по длине забоях, где относительные потери времени на маневрирование минимальны.

При использовании фрезерных комбайнов в строительстве на устройстве выемок, каналов и других работах достаточно точно обеспечивается нужный профиль и геометрические параметры строящихся объектов. Исключение влияния взрывных волн на массив позволяет обеспечивать большую устойчивость откосов, что ведет к сокращению объемов строительства, выработанная площадка имеет спрофилированную поверхность без трещин, что снижает расход бетона при строительстве. Значительные объемы строительных работ при помощи фрезерных карьерных комбайнов ведутся в США, Японии, Германии, Австралии и других странах в основном на прокладке трасс автодорог в гористой местности или в стесненных условиях. Наибольшие объемы работ карьерными фрезерными комбайнами до недавнего времени выполнялись в Ливии (на строительстве водных резервуаров и каналов), где осуществлялся грандиозный проект по ирригации страны [1]. В РФ в строительстве фрезерные машины в основном используются на ямочном ремонте дорог (дорожные фрезы).

В горнодобывающей промышленности фрезерные карьерные комбайны получили значительное распространение, как в развитых, так и в развивающихся странах США, Германии, Франции, Италии, Испании, Бразилии, ЮАР, Австралии, России, Украине, Узбекистане, Индии и многих других странах. Комбайны используются на разработке вскрышных пород и на добыче полезных ископаемых (угль, горючие сланцы, бокситы и фосфориты идр.). В России на открытых работах чаще всего применяют фрезерные комбайны фирм Wirtgen и Krupp [2, 3]. Наибольший опыт применения фрезерных комбайнов накоплен на разработке месторождений строительных материалов. К настоящему времени комбайны Wirtgen Surface Miner работают на добыче фосфоритового, цементного сырья и гипса на карьерах, расположенных в различных странах мира, в частности в Индии три ведущие компании по производству цемента уже около пятнадцати лет на своих карьерах применяют исключительно безвзрывную технологию горных работ [2].

Горные комбайны начали использоваться в Узбекистане вскоре после их появления на мировом рынке. Впервые в нашей стране фрезерный комбайн Wirtgen 2100 SM был применен в 1989 году в карьере Ташкура месторождения Джера -Сарадара на добыче фосфорита (с пределом прочности насжатие сж σ 30-40МПа) с пропластками доломита (с = сж σ 160МПа), необходимость в применении комбайна возникла по

причине невозможности дальнейшего ведения БВР вблизи городских строений, средняя эксплуатационная производительность комбайна на добыче гипса составила 1200 тыс/ч. В 1993 году в РФ в Якутии на трубке «Юбилейная» при разработке кимберлитов (спределом прочности на сжатие = сж σ 40-50МПа) был использован комбайн Wirtgen 2600SM, производительность комбайна при работе в штабель составила 270-315м^3/ч. К настоящему времени в Узбекистане на карьерах горные комбайны работают на различных месторождениях, а именно: на карьере Ташкура Кызылкумского региона (Навоийский область), комбайны Wirtgen 2100SM и MAN TAKRAF разрабатывают фосфорита с пределом прочности на сжатие от62-83 до96-120Мпа. В России на Сокольско-Систовском карьере(Воронежская область) ОАО «Липецкцемент», комбайны Wirtgen 2200SM и 2500SM разрабатывают мелко и среднеобломочный известняк с пределом прочности на сжатие30-70МПа; на Пятковском карьере(Калужская область), комбайн Wirtgen 2200SM разрабатывает известняк с пределом прочности на сжатие 55-80МПа; на Пикалевском месторождении (Ленинградская область) комбайн Wirtgen 2500SM разрабатывает плотный, кристаллический и «землистый» известняки; на Джегутинском карьере ОАО «Кавказцемент» на разработке известняка используется комбайн Wirtgen 2500SM. Также на разработке месторождений строительных пород горные комбайны применяются на Украине: Добрянское месторождение(Львовская область) Николаевского цементного завода, комбайн Wirtgen 2200SM используется на разработке известняка; Михайловское месторождение(Донецкая область), комбайн Wirtgen 2200SM разрабатывает гипс, с пределом прочности на сжатие 87МПа; в Узбекистане ОАО «Бухара стройматериалы» на разработке гипса использует дорожную фрезу Wirtgen 2000V3 После обобщения данных по производственной эксплуатации горных комбайнов на карьерах мира были построены графики зависимости эксплуатационной производительности горных комбайнов от предела прочности пород на сжатие, в данной статье приведены зависимости (рис. 1) для наиболее распространенных и давно используемых комбайнов Wirtgen 2100SM и 2600SM. **[**4,5]

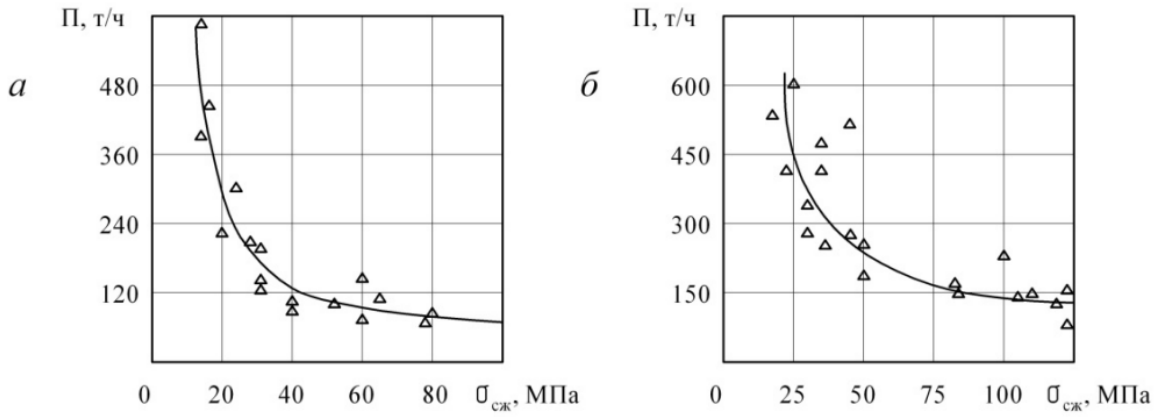


Рис. 1. Графики зависимости эксплуатационной производительности фрезерных комбайнов Wirtgen от предела прочности породы на сжатие: а– модель 2100SM; б– модель 2600SM

Из графиков видно, что с увеличением предела прочности породы производительность горных комбайнов снижается, при этом комбайн более крупного типоразмера может работать на более прочных породах. Характер данных зависимостей предопределяет область эффективного использования горных комбайнов, которая ограничивается прочностью пород до 50МПа для небольших моделей и до70 80МПа для более крупных машин, при большей прочности экономически более целесообразно ведение БВР.

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АСОСИЙ КАПИТАЛГА АМОРТИЗАЦИЯ ҲИСОБЛАШ ВА УНДАН САМАРАЛИ ФОЙДАЛАНИШ ИМКОНИЯТЛАРИ

Аннотация: Инновацион иқтисодиёт шароитида корхоналарни ўзини-ўзи молиялаштиришда асосий капиталга амортизация ажратмалари ҳисоблаш ва ундан самарали фойдаланиш имкониятлари ҳамда буни давлат даражасида қонунийлаштириш масалалари тўғрисида сўз юритилади.

Калит сўзлар: Амортизация, жадаллашган амортизация, амортизация ҳисоблаш усуллари, жисмоний эскириш.

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ASOSIY KAPITALGA DEPOSIT HISOBLASH VA UNDAN SAMARALI FOYDALANISH IMKONYATLARI

Abstract: In the context of innovative economy, it is discussed about the possibilities of calculating and effective use of depreciation allowances for the fixed capital in the self-financing of enterprises, as well as the issues of its legalization at the state level.

Key words: Depreciation, accelerated depreciation, depreciation calculation methods, physical wear and tear.

Кириш

Жаҳон амалиётида технологик хавфсизликни таъминлаш, инновацион-инвестицион саноат сиёсатини амалга ошириш, иқтисодиёт тармоқларида технологик қайта қуролланишни амалга ошириш, корхоналар учун дегрессив жадаллашган амортизация тизими ривожлантирилмоқда. Шу муносабат билан ривожланаётган давлатларда миллий ҳисоб тизими талабларини ҳисобга олиб инфляция ва технологик тараққиёт шароитида фан-техника тараққиёти ютуқларига тез берилувчан тармоқларда амортизациянинг инвестицион жараёнларни шакллантиришда жадаллашган амортизация усулини табақалаштириб рағбатлантириш, амортизациянинг ўрнини самарали қоплаш, унинг норма ва ставкасини аниқлаш, табақалашган мезонларини ва солиқ имтиёзларини ишлаб чиқишда дегрессив жадаллашган амортизация усулларини қўллаш бўйича мақсадли илмий изланишлар янада жадаллашмоқда.

Амортизация ва унинг жадаллашган усулларини қўллаш хусусиятларини тадқиқ этган хорижлик иқтисодчи олимлар қаторига

Эллиот Б., Эллиот Ж., Френк Дж. Фабоцци, Пиндайк Р., Рубинфельд Д., Хендриксен Э.С., Ван Бреда М.Ф., Макконел К., Стенлей Б., Гётци У., Норзкот Д., Шустер П., Сломан Ж., Врайд А., Чатфилд М.А., Литтлтон А.С., Шмаленбах Э., Ласскю П., Маттерн К., Танхайзер З., Маттессич Р. ларни киритишимиз мумкин.

Ўзбекистоннинг инновацион иқтисодиётга ўтиш шароитида такрор ишлаб чиқариш жараёнида асосий капитални модернизациялаш ва иқтисодиётни барқарор ўстириб бориш талабларини ҳисобга олиб жадаллашган амортизация тизимини қўллашнинг назарий асосларини тизимли такомиллаштиришга қаратилган илмий изланишларни олиб боришни тақозо этмоқда. Ушбу жиҳатлар масаланинг долзарблигини белгилаб беради.

Методлар

Мақолада гуруҳлаш, таққослаш, илмий тафаккур, иқтисодий-статистик, тадқиқот объектлари ва олинган натижаларни баён қилиш усулларидан фойдаланилган.

Натижалар

Иқтисодиётга фан-техника ютуқларини жорий қилишни тезлаштириш учун молиявий шарт-шароитларни вужудга келтириш ва ишлаб чиқарувчиларнинг асосий капиталларнинг фаол қисмини тезкор янгилаш ҳамда инновацион ривожланишдан манфаатдорликни ошириш мақсадида жадаллашган амортизация усулидан фойдаланиш кўзда тутилади.

Жадаллашган амортизацияни асосий капиталларнинг белгиланган норматив хизмат муддати таққосланганда улар баланс қийматини ишлаб чиқариш харажатларига тўлиқ ўтказилиши таъминланилишига кўра мақсадли усул ҳисобланади.

Амортизацияни ҳисоблашнинг жадаллашган усули материалларнинг янги прогрессив турларини ишлаб чиқариш, компьютер технологияларини жорий қилиш, маҳсулот экспортини кенгайтириш учун фойдаланиладиган асосий воситаларга нисбатан ҳамда жисмоний ва маънавий эскирган техникаларни янги анча унумлилари билан оммавий алмаштириш тақозо қилинганда кенг қўлланиши мумкин.

Жадаллашган амортизация киритилганда уни ҳисоблашнинг бир текисдаги (чизиқли) усули қўлланилади, бунда тўлиқ тиклашга йиллик амортизация ажратмаси нормаси белгиланган тартибдан икки мартадан кўпга ошмаслиги зарур.

Шу сабабли замонавий иқтисодиётда амортизациянинг жадаллашган усуллардан фойдаланиш долзарб бўлмоқда. Бундан ташқари одатда таъмирлаш харажатлари асосий капиталдан фойдаланишнинг охирги даврларида дастлабки йилларига қараганда инфляция туфайли анча катта бўлади. Натижада асосий капитал объектлари нафлилиги ҳам узоқ давр оралиғида бир хил даражада сақланиб қолади. Йиллар йиғиндиси бўйича

(кумульятив) қийматни чегирма қилиш усулида асосий капитал хизмат даврини кўрсатадиган йилдаги сонларни қўшиш орқали ҳисобланган коэффициентидан фойдаланилади.

Жадаллашган амортизациянинг йиллар йиғиндиси усули бўйича аниқланадиган кўрсаткичини қуйидаги формула бўйича ҳисоблаш мумкин:

$$S = \frac{N*(N+1)}{2}$$

Бу ерда:

S – йиллар йиғиндиси; N – асосий капитал объектининг кўзда тутилган хизмат даври.

Амортизацияни ҳисоблашнинг юқоридаги усулларини таққослаш натижаларини графикда тасвирлаб, ҳар йилги амортизация суммаси ва асосий капиталнинг қолдиқ қиймати ўртасидаги боғлиқликни аниқлаймиз.

Расмдан кўриниб турибдики, тўғри чизиқли ҳисобдан чиқариш усулида йиллик амортизация ажратмаси 5 йил давомида бир хил (18 млн. бирлик) даражада сақланади.



1-расм. Турли усулларда ҳисобланган йиллик амортизация ажратмаси миқдори[61]

Бу ерда:

ТЧҲЧУ – тўғри чизиқли ҳисобдан чиқариш усули;

ИЧУ – ишлаб чиқариш усули;

ЙЙУ – йиллар йиғиндиси усули;

КБҚУ – камайиб борувчи қолдиқ усул.

Шундай қилиб, жадаллашган амортизация энг аввало, кўҳна саноат мажмуаларида эскирган ишлаб чиқариш воситаларини янгилаш суръатларини ошириш имконини беради. Мазкур усулда давлат томонидан

[61]Муаллиф томонидан тайёрланди.

алоҳида тармоқ ва корхоналарни ривожлантиришни жадаллаштиришнинг самарали дастаги сифатида ҳам фойдаланилиши мумкин. Бироқ, уни асосий капитални такрор ишлаб чиқариш механизмига киритиш фақат капитал қўйилмалар соҳасида ўз-ўзини молиялаштириш реал жорий қилингандагина мақсадга мувофиқдир[62].

Жадаллашган усулни қўллаш билан амортизация фонди унинг қайта тақсимлаш ва рағбатлантириш вазифаларини рўёбга чиқаришнинг самарали воситаси бўлиб қолади. У фан-техника тараққиётини жорий қилиш суръатларига, фонд маблағларининг тармоқлараро тақсимланишига ва корхоналар хўжалик фаолиятининг молиявий натижаларига сезиларли таъсир кўрсатади[63].

Капитал қўйилмаларни молиялаштиришнинг барча муҳим манбаларидан ҳисобланган амортизация ўз маблағлари сифатида фойда каби инвестицияларни молиялаштиришнинг пул ресурси бўлиш билан бирга солиқ олинадиган асосни «ноль»га келтириш имконини ҳам беради.

Мунозара

Муаммога билдирилган фикр ва мулоҳазаларни умумлаштириб, амортизациянинг асосий таркиблари бўйича қуйидаги умумий хулосаларни чиқарамиз:

амортизациянинг объекти жисмоний маънодаги асосий капитал ҳисобланади. Амортизацияни объектив иқтисодий категория сифатида қараб чиқиш лозим, унинг моддий асоси асосий капиталнинг айланиш жараёни ҳисобланади;

амортизация иқтисодий тушунча сифатида хўжалик юритувчи субъектларнинг асосий капиталдан фойдаланиш жараёнида вужудга келадиган иқтисодий муносабатларни ифодалайди ҳамда амортизация ажратмаси, амортизация нормаси ва амортизация фонди каби аниқ ҳаракат шаклларига эга бўлади;

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АТОПИЧЕСКИЙ ДЕРМАТИТ: НЕКОТОРЫЕ АСПЕКТЫ

Аннотация: Атопический дерматит (атопическая экзема, синдром атопической экземы/дерматита) – хроническое воспалительное заболевание кожи, сопровождающееся зудом, которое в типичных случаях начинается в раннем детском возрасте, может продолжаться или рецидивировать в зрелом возрасте и приводит к физической и эмоциональной дезадаптации пациента и членов его семьи. Атопический дерматит в детском и взрослом возрасте представляется единой болезнью, несмотря на то, что в дальнейшем, возможно, будут выделены генетические подтипы, имеющие различные варианты экспрессии.

Ключевые слова: радиоаллергосорбентный тест; МГК – местные глюкокортикоиды; УФ – ультрафиолетовое (облучение).

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ATOPIC DERMATITIS: SOME ASPECTS

Abstract: Atopic dermatitis (atopic eczema, atopic eczema/dermatitis syndrome) is a chronic inflammatory skin disease accompanied by itching, which typically begins in early childhood, may continue or recur in adulthood and leads to physical and emotional maladjustment of the patient and members his family. Atopic dermatitis in childhood and adulthood seems to be a single disease, despite the fact that in the future, genetic subtypes with different expression variants may be identified.

Keywords: radioallergosorbent test; MGK, local glucocorticoids; UV - ultraviolet: howl (irradiation).

ЭПИДЕМИОЛОГИЯ

Распространённость заболевания возросла за последние 3 десятилетия и составляет в развитых странах, по мнению разных авторов, 10:15% у детей в возрасте до 5 лет и 15: 20% у школьников. Причины увеличения заболеваемости неизвестны. С другой стороны, в некоторых сельскохозяйственных регионах Китая, Восточной Европы и Африки уровень заболеваемости остаётся на прежнем уровне [2]. Установлено, что атопический дерматит развивается у 81% детей, если больны оба родителя, у 59% – если болен только один из родителей, а другой имеет

аллергическую патологию дыхательных путей, и у 56% – если болен только один из родителей [2].

ПРОФИЛАКТИКА

Назначение гипоаллергенной диеты (исключение из рациона питания коровьего молока, яиц или других потенциально аллергенных продуктов) беременным из группы риска по рождению ребёнка с аллергической патологией не снижает риска развития атопических заболеваний у ребёнка, более того, назначение подобной диеты может негативно сказаться на нутритивном статусе как беременной, так и плода.

Соблюдение гипоаллергенной диеты женщиной из группы риска по рождению ребёнка с аллергическими заболеваниями во время грудного вскармливания может снизить риск развития атопического дерматита у ребёнка [1]. Соблюдение гипоаллергенной диеты во время лактации матерью ребёнка, страдающего атопическим дерматитом, может уменьшить тяжесть течения заболевания [2].

ДИАГНОСТИКА

Диагностика атопического дерматита основывается преимущественно на клинических данных; объективных диагностических тестов, позволяющих подтвердить диагноз, в настоящее время не существует. Обследование включает тщательный сбор анамнеза, оценку распространённости и тяжести кожного процесса, оценку степени психологической и социальной дезадаптации и влияния заболевания на семью пациента.

Второстепенные критерии (наблюдают в большинстве случаев, необходимы для постановки диагноза):

- дебют в раннем возрасте;
- наличие атопии:
- отягощённый семейный анамнез по атопии или наличие атопических болезней у пациента;
- наличие специфических IgE:АТ;
- ксероз.

Добавочные критерии (помогают заподозрить атопический дерматит, но являются неспецифическими и не могут быть использованы для установления диагноза в научных или эпидемиологических исследованиях):

- атипичный сосудистый ответ (в том числе бледность лица, белый дермографизм);
- фолликулярный кератоз, усиление кожного рисунка ладоней, ихтиоз;
- изменения со стороны глаз, периорбитальной области;
- другие очаговые изменения (в том числе периоральный, периаурикулярный дерматит);

• лихенификация, пруриго.

Клиническая картина

Клиническая картина зависит от возраста ребёнка [2].

У детей первого года жизни выделяют 2 типа течения заболевания.

◆ Себорейный тип характеризуется наличием чешуек на волосистой части головы, которые появляются уже в первые недели жизни, либо протекает как дерматит в области кожных складок. В дальнейшем возможна трансформация в эритродермию.

◆ Нумулярный тип возникает в возрасте 2:6 мес и характеризуется появлением пятнистых элементов с корочками; характерная локализация – щёки, ягодицы и/или конечности. Также часто трансформируется в эритродермию.

Дошкольный возраст: у 50% детей, страдающих детской экземой, кожные проявления нивелируются к 2 годам жизни. У оставшейся половины характерная локализация процесса – кожные складки.

Школьный возраст: характерная локализация – кожные складки. Отдельная форма атопического дерматита в этом возрасте – ювенильный ладонноподошвенный дерматоз, при котором кожный патологический процесс локализуется на ладонях и стопах. Для этой формы атопического дерматита характерна сезонность: обострение симптомов в холодное время года и ремиссия в летние месяцы. При наличии дерматита стоп необходимо помнить, что дерматофитии у детей наблюдают очень редко. Атопический дерматит с локализацией в области ягодиц и внутренней поверхности бёдер обычно появляется в возрасте 4–6 лет и сохраняется в подростковом возрасте [4].

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СОВРЕМЕННАЯ ДИАГНОСТИКА TORCH-ИНФЕКЦИЙ У ЖЕНЩИН ФЕРТИЛЬНОГО ВОЗРАСТА

Резюме: В статье приводится информация о том, что в настоящее время в нашей стране наблюдается высокий показатель в составе инфекций, характерных для раннего неонатального периода на фоне низкого уровня младенческой смертности, среди которых лидирующие позиции занимают внутриутробные инфекции плода, а внутриутробное инфицирование плода и новорожденного играет важную роль в развитии инфекционных и воспалительных заболеваний.

Ключевые слова: неонатальный период, внутриутробное инфицирование плода, воспалительные заболевания.

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MODERN DIAGNOSTICS OF TORCH INFECTIONS IN WOMEN OF FERTILE AGE

Resume: The article provides information that currently in our country there is a high rate of infections characteristic of the early neonatal period against the background of a low infant mortality rate, among which intrauterine fetal infections occupy a leading position, and intrauterine infection of the fetus and newborn plays an important role in the development of infectious and inflammatory diseases.

Keywords: neonatal period, intrauterine infection of the fetus, inflammatory diseases.

Введение. Актуальность рассмотренных ниже вопросов заболеваемости вирусом простого герпеса (ВПГ) и вирусом краснухи обусловлена очень широким распространением возбудителей. По данным ВОЗ, около 90% населения нашей планеты инфицировано ВПГ, а во всех случаях заболевания краснухой, что регистрируются в Европе, 83% приходится на страны СНГ **[**1,4].

Краснуха – вирусная инфекционная болезнь, характеризующаяся мелкопятнистой сыпью, лимфоаденопатией, умеренной интоксикацией, кратковременной лихорадкой и поражением плода у беременных. Особое значение краснухи как инфекционного заболевания связано с потенциальной опасностью тяжелых осложнений для ребенка, которые могут развиться в случае заражения матери во время беременности. До 40-х годов нашего столетия краснуха из-за легкого прохождения заболевания, почти полного отсутствия летальности, редких неблагоприятных последствий осложнений мало привлекало внимание исследователей [3,5]. После того, как в 1942 году Н.Грегг сообщил об увеличении частоты врожденных аномалий, глухоты и катаракт у новорожденных после вспышек краснухи, она стала одной из наиболее важных медицинских проблем. Дальнейшие исследования показали, что возбудитель краснухи имеет наиболее выраженное тератогенное действие, поскольку может поражать все без исключения органы и системы плода [6]. Особый риск эмбриофетопатии наблюдается при заражении в начале 1-го триместра беременности, что может приводить не только к развитию триады Грегга, а и к спонтанным выкидышам, мертворождению, ранней детской смертности (от необратимых поражений важных органов) [2,7].

Из-за того, что клинические проявления заболевания могут быть стертого характера, а в 50% краснуха протекает в субклинической форме, одних клинических симптомов для постановки диагноза недостаточно. Доказательством острой краснушной инфекции является определение антител (АТ) класса IgM, специфических к вирусу краснухи, обнаружение в крови специфических IgG (АТ) к вирусу краснухи есть показателем прошлой инфекции или проведенной вакцинации. Специфические IgG начинают выявляться на 5-7 сутки после появления сыпи, достигают максимума через 4-5 недель и остаются на высоком уровне продолжительное время.

Негативный результат на специфические IgG указывает на отсутствие защитного иммунитета против вируса краснухи, а также вместе с негативным результатом специфических (АТ) IgM может регистрироваться в период сероконверсионного окна, который длится 2-3 недели от начала инфицирования [8].

Цель исследования. Уточнить понятия: внутриутробное инфицирование и внутриутробная инфекция. Ознакомить врачей-неонатологов, педиатров, детских инфекционистов, акушеров и гинекологов с вариантами реализации внутриутробного инфицирования во внутриутробную инфекцию, на современном уровне изложить вопросы патогенеза, клиники, лечения, диагностики и профилактики рассматриваемой темы.

Материалы и методы исследования. Для достижения поставленной цели нами был проведен обзор отечественных и зарубежных

источников литературы рассматриваемой проблемы, что позволило обобщить особенности клинико-лабораторных проявлений внутриутробных инфекций. Выделить основные этапы лабораторной диагностики: антенатальная; ранняя (доклиническая) в момент рождения ребенка; диагностика ВУИ при появлении клинических признаков.

Результаты и обсуждение. В основе косвенных методов диагностики лежит изучение состояния здоровья матери – определение характера инфекции, иммунного ответа, метаболических сдвигов в организме. К этим методам относятся микробиологический (бактериоскопическое, бактериологическое, электронно-микроскопическое, вирусологическое исследование биопроб материнского организма); метод иммуноферментного анализа (ИФА) (выявление специфических IgM и IgG); метод иммунофлюоресценции; метод молекулярной гибридизации (идентификация строго определенного фрагмента ДНК или РНК); ультразвуковой, а также биохимические методы (определение С-реактивного белка, pH влагалища и цервикального канала, a1-протеиназы, a2-глобулина плазмы, фибриногена). Косвенные методы диагностики позволяют поставить предположительный диагноз. У беременной, роженицы, родильницы исследуются слюна, отделяемое из носа, зева, кровь, моча, отделяемое и соскоб из шейки матки, уретры, влагалища.

Обнаружение специфических IgG антител в сыворотке крови, исследованной до или в первые дни после контакта с соответствующим инфекционным агентом, свидетельствует о ранее перенесенной инфекции или иммунизации, однако не позволяет определить, когда это первичное инфицирование произошло. Как правило, выявление специфических IgM антител и появление IgG антител у ранее серонегативных беременных свидетельствует о развитии первичной инфекции. При некоторых инфекциях диагностически значимое возрастание в динамике титра IgG и появление IgM может указывать на реактивацию инфекции во время беременности. Для доклинической диагностики ВУИ объектами исследования в момент рождения ребенка являются аспират из глотки, желудка, отделяемое из конъюнктивы, ушей, периферическая кровь (определение содержания общего белка и его фракций, острофазовых показателей, иммуноглобулинов А, М, G, С-реактивного белка), моча, меконий, спинномозговая жидкость, послед (гистологическое и микробиологическое исследование).

В диагностике ВУИ большое значение имеет идентификация возбудителей у матери, а также в околоплодных водах, плаценте, тканях плода и новорожденного. В качестве скрининг-тестов следует использовать микроскопическое исследование мазков околоплодных вод и желудочного содержимого новорожденного. При исследовании мазков, окрашенных по Граму, обнаружение в поле зрения 4-х и более лейкоцитов,

а также грамотрицательной микрофлоры свидетельствует о высокой степени инфицированности новорожденного.

При проявлении клинических признаков ВУИ у новорожденных диагноз подтверждается: 1. Выделением возбудителя из биологических сред (кровь – респираторные вирусы, парвовирус В19, цитомегаловирус, бактерии; моча – цитомегаловирус, вирус краснухи, микоплазмы; смывы носоглотки – вирусы краснухи, герпеса, энтеровирусы, респираторные вирусы; желудочное содержимое и фекалии – энтеровирусы, вирусы краснухи, бактерии; содержимое везикул – вирус герпеса; цереброспинальная жидкость – вирусы краснухи, герпеса, цитомегаловирус, энтеровирусы, микоплазмы). 2. Данными серологических исследований в динамике у матери и ребенка.

Поскольку IgM не передаются трансплацентарно, появление у новорожденного специфических IgM антител к тому или иному возбудителю отражает собственный иммунный ответ ребенка на внутриутробное инфицирование. IgG, полученные от матери, быстро разрушаются, поэтому исчезновение этих антител при динамическом наблюдении за ребенком говорит об отсутствии у него инфицирования. Уровень специфических IgG антител у новорожденного, превышающий таковой у матери, и сохранение высокого уровня антител у ребенка старше 6-8 месяцев свидетельствует о перенесенной им инфекции. В диагностике ВУИ применяются и другие серологические методы, такие как реакция нейтрализации, реакция торможения гемагглютинации, РПГА, латекс-агглютинация, иммунный блоттинг, иммунофлюоресцентный, радиоиммунологический. Обязательны осмотр окулистом и проведение ультразвукового исследования головного мозга, а также органов брюшной полости. Лечение детей, страдающих ВУИ, должно быть комплексным, дифференцированным и проводиться с использованием методов как специфической, так и неспецифической терапии.

Вывод. Представленная статья позволит врачам профильных специальностей систематизировать для себя такие понятия, как внутриутробное инфицирование и внутриутробная инфекция, ориентироваться на особенности патогенеза, клиники, диагностики, лечения и профилактики внутриутробных инфекций, что позволит снизить заболеваемость, смертность в структуре инфекций, специфических для раннего неонатального периода, а также рост инвалидизации среди детей раннего возраста по причине данной патологии.

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СТИЛИСТИЧЕСКИЕ ПРОБЛЕМЫ В АРАБСКОМ ЯЗЫКОЗНАНИИ

В лингвистике существуют разные мнения о термине стиль и его понимании. В узбекском языкознании также есть попытка обобщить представления о стиле и создать его совершенное определение. «Стиль — это подсистема языка, отличающаяся от других типов своей лексикой, фразеологическими сочетаниями и грамматическими приемами, связанная с определенной стороной социальной деятельности общества, с его внутренними особенностями. Итак, каждый стиль-подсистема отличается от других стилей-подсистем своим словарным пластом, устойчивыми сочетаниями, морфологическими формами, синтаксической структурой.

Ключевые слова: Ильму-л-ма'ани, Ильму-л-баян, Ильму-л-бади.

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STYLISTIC PROBLEMS IN ARABIC LINGUISTICS

In linguistics, there are different opinions about the term style and its understanding. In Uzbek linguistics, there is also an attempt to generalize ideas about style and create its perfect definition. "Style is a subsystem of a language that differs from other types in its vocabulary, phraseological combinations and grammatical devices, associated with a certain aspect of the social activity of society, with its internal features. So, each subsystem style differs from other subsystem styles in its vocabulary, stable combinations, morphological forms, and syntactic structure.

Keywords: Ilmu-l-ma'ani, Ilmu-l-button, Ilmu-l-badi.

Несмотря на то, что слова «стиль» и «стилистика» давно известны в филологической науке, европейское и русское языкознание начало заниматься этим вопросом в начале нашего века. Однако следует отметить, что стилистика, хотя и привлекала внимание исследователей-лингвистов в 20-е годы, изучалась она больше с литературоведческой точки зрения. Новое значение она приобрела только после 40-х годов с появлением

Пражского лингвистического кружка и научных работ В. В. Виноградова в этой области, а с 50-х годов стала центром внимания языкознания и стала ее интереснейшей темой.

В лингвистике существуют разные мнения о термине стиль и его понимании. В узбекском языкознании также есть попытка обобщить представления о стиле и создать его совершенное определение. «Стиль — это подсистема языка, отличающаяся от других типов своей лексикой, фразеологическими сочетаниями и грамматическими приемами, связанная с определенной стороной социальной деятельности общества, с его внутренними особенностями. Итак, каждый стиль-подсистема отличается от других стилей-подсистем своим словарным пластом, устойчивыми сочетаниями, морфологическими формами, синтаксической структурой. Но это не значит, что стили полностью отличаются друг от друга своими особенностями, конечно.

Общая лексика этого языка, формы и синтаксические приемы, свободные и фиксированные сочетания, общие для типов стилей в каждом языке. Это объединяет все стили в один национально-литературный язык». Хотя это определение считается несколько совершенным с точки зрения лингвистики, в литературоведении и искусствоведении термин стиль понимается по-разному.[2]

Так же, как существуют разные мнения о понятии стиля, существуют и разные взгляды на вопрос о функциональных стилях и их классификации.[64].

Классификация В. В. Виноградова приобрела важное значение в языкознании благодаря широкому охвату по функциям языка. Это стиль общения (обиходно-деловой) языка; официальный (обиходно-деловой), официально-документальный (официально-документальный) и научный методы как сообщение; показывает, что публицистические и художественные методы связаны с задачей воздействия[65].

Из-за отсутствия единой точки зрения на принцип классификации одни ученые, принимая во внимание весь народный язык, а некоторые только литературный язык, делят его на стили, основанные на принципах выразительности и эмоциональности, экспрессивно-жанровой и функционально-стилистические принципы. В результате наблюдается разнообразие в количестве стилей и их наименовании.[66].

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Известно, что термина «стилистика» у арабов не существует. Слово «стилистика» в переводе с арабского означает «стиль, метод; соответствует слову «форма, форма, стиль». Точнее, аль-блага — это термин, соответствующий таким словам, как ораторское искусство, умение правильно и уместно говорить, риторика. Изначально эта наука не считалась наукой о взрослом возрасте. Она состояла из трех отдельных наук: ильму-л-ма'ани (علم المعاني), илму-л-баян (علم البيان) и ильму-л-бади' (علم البديع).

Ильму-л-ма'ани — это наука о правилах толкования слова путем его украшения различными средствами для объяснения предполагаемой цели говорящего. Это наука, изучающая значение предложения или сочетания слов или отдельного слова.

Ильму-л-баян — это наука о методах построения реалистичной и уместной интерпретации.

Ильму-л-бади — это наука словесного искусства, выражающая реальность с помощью элегантных художественных средств, методов и символов. Ильму-л-бади' имеет дело с элементами языка, которые украшают речь, вызывают у собеседника симпатию и желание его слушать.

Наука арабского полового созревания соответствует науке риторики и стилистики в европейских филологических науках. Наука стилистика была принята как современная форма науки о половом созревании в Узбекистане и других тюркских республиках Содружества Независимых Государств.

Та часть стилистики, которая по предмету соответствует взрослому возрасту, называется филологической стилистикой. Филологическая стилистика делится на литературную стилистику и языковую стилистику (лингвистику).

В стилистике есть функциональные стили. Функциональные стили учитывают особенности речи в разных сферах. «Стиль» в арабском языке соответствует функциональным стилям в стилистике.

В мировом языкознании, в частности, в русском и узбекском языкознании, выполнены важные исследования в области классификации и изучения функциональных стилей. В узбекском языкознании на сегодняшний день существует практически единодушное мнение о классификации функциональных стилей. Эта ситуация является основой для создания многих важных исследований.

Известно, что газетный язык состоит из единиц текста, и эти единицы считаются объектом изучения стилистики. Поэтому, прежде чем приступить к изучению стилистических особенностей глаголов в газетных текстах, мы сочли необходимым остановиться на понятии «функциональный стиль».

В узбекском языкознании были выделены и согласованы следующие

стили, что привело к созданию многих исследований в данной области: 1) разговорный, 2) официальный (документальный), 3) научный, 4) публицистический, 5) художественный стили. Эта классификация занимает прочное место в узбекском языкознании.

В настоящее время узбекский и русский стили изучаются по пяти направлениям. В современной современной лингвистике эти пять стилей далее делятся на более мелкие стили.

В арабском языке 1) научный метод (العلمي الاسلوب); 2) литературный (художественный) стиль (الادبي الاسلوب); 3) есть риторический стиль (الاسلوب الختابي).

Арабские лингвисты также определяют научный стиль как аль-афкар «идеи-мысли» и аль-маани аш-шага аль-каламы «ясно выражать словами», а литературный стиль как аль-афкар ва-лам-'ани. «идеи и значения», al-alfaẓ wa-salib al-shagha «слова». и четкие стили выражения», они показывают основные столпы, такие как العاطفة «эмоция», الشعرية الشور «поэтический вид».

Стиль изученных нами арабских газетных текстов в основном соответствует литературному (художественному) стилю. Однако язык газет некоторых арабских исследователей должен состоять из простых, простых слов и словосочетаний и языковых структур, понятных рядовым читателям, тем самым он должен отличаться от литературного стиля, широко использовавшегося в ранние периоды арабского и арабского языков. Исламская пресса. Они считают, что этот метод должен быть предназначен не только для специалистов или интеллектуалов, но и для обычных студентов.

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ДЕФИЦИТ МАГНИЯ В КАРДИОЛОГИИ

Аннотация: Рассматриваются последствия и причины дефицита магния при сердечно-сосудистых заболеваниях. Описаны особенности метаболизма магния при атеросклерозе, артериальной гипертонии, сердечной недостаточности. Обсуждаются перспективы терапии препаратами магния в кардиологической практике.

Ключевые слова: дефицит магния, артериальное давление, атеросклероз, эндотелиальные клетки, сердечная недостаточность, ренин-ангиотензивная система, диуретики.

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MAGNESIUM DEFICIENCY IN CARDIOLOGY

Abstract: The consequences and causes of magnesium deficiency in cardiovascular diseases are considered. The features of magnesium metabolism in atherosclerosis, arterial hypertension, and heart failure are described. The prospects of therapy with magnesium preparations in cardiology practice are discussed.

Keywords: magnesium deficiency, arterial pressure, atherosclerosis, endothelial cells, heart failure, renin-angiotensin system, diuretics.

ВВЕДЕНИЕ

Человеческий организм при рождении содержит около 760 мг магния, приблизительно 5 г в возрасте 4—5 мес и почти 25 г во взрослом возрасте. При этом 30—40% магния, содержащегося в организме, находится в мышцах и мягких тканях, 1% обнаруживается во внеклеточной жидкости, а остальная часть содержится в костной ткани. Значение магния сложно переоценить. Так, практически все химические процессы в организме требуют участия ферментов. Ферментная система в основном состоит из 3 составных частей: специфической белковой молекулы (непосредственно фермента), молекулы меньших размеров (чаще всего витамина, например пиридоксина, или витамина B6) и положительно заряженного иона металла, такого как цинк, медь, марганец

или магний. Магний является вторым по распространенности внутриклеточным катионом после калия и служит кофактором для более 300 ферментных реакций, в том числе реакций энергетического обмена, синтеза белка и нуклеиновых кислот. Из всего изложенного можно сделать вывод, что магний служит жизненно необходимым элементом, недостаток которого может вызывать серьезные нарушения жизнедеятельности организма. В данной статье мы попытаемся описать нозологические формы сердечно-сосудистых заболеваний (ССЗ), которые связаны с дефицитом магния.

МАТЕРИАЛЫ И МЕТОДЫ

Существуют убедительные доказательства того, что концентрация внеклеточного магния играет важную роль в регуляции активности эндотелиальных клеток [1]. Действительно, уровень магния влияет на синтез оксида азота [2], высвобождение внутриклеточного кальция [1], поглощение и метаболизм липопротеинов низкой плотности [3], степень проницаемости мембран для воды и альбумина [4] и пролиферацию эндотелиальных клеток. Кроме того, нехватка магния усиливает цитотоксическое действие свободных радикалов в эндотелиальных клетках. Так как эндотелиальные клетки играют важную роль в атерогенезе, можно выдвинуть предположение о влиянии магния на механизмы развития атеросклероза. J. Maier и соавт. в своем исследовании в доказали, что ингибирование роста эндотелиальных клеток, возникающее при нехватке магния, прекращается после восстановления его нормального уровня, таким образом указывая на то, что никаких необратимых изменений при дефиците магния не возникает. Вероятнее всего, стимуляция роста клеток возникает вследствие воздействия внутриклеточного магния, катализирующего реакции, необходимые для процесса пролиферации эндотелиальных клеток. Так как магний играет роль естественного антагониста кальция, можно также предположить, что баланс между этими двумя ионами также влияет на процессы роста клеток.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Данные других исследований также свидетельствуют о прямом участии магния в патогенезе ССЗ в целом и атерогенеза в частности. К примеру, употребление мышами со сниженным уровнем аполипопротеина (оказывающим сильный антиатеро- склеротический эффект) воды, обогащенной ионами магния, одновременно с высокохолестериновой диетой приводило к ингибированию атерогенеза.

В то же время пероральный прием препаратов магния связан со значительным улучшением функции эндотелия у пациентов с коронарной недостаточностью. Согласно исследованию ARIC (Atherosclerosis Risk in Communities Study), высокий риск развития коронарной недостаточности отмечается у пациентов с низким уровнем магния в сыворотке крови, даже

с учетом традиционных факторов риска развития коронарной недостаточности [1].

В культивируемых эндотелиальных клетках низкая концентрация магния способствует увеличению адгезии к ним моноцитов, поскольку активируется молекула адгезии сосудистых клеток (vascular cell adhesion molecule — VCAM). В этих условиях также подавляется активность ингибитора активатора плазминогена-1 (plasminogen activator inhibitor-1 — PAI-1), повышается уровень провоспалительных цитокинов (интерлейкин 3 ИЛ-1α), ухудшается пролиферация эндотелия и происходит старение клеток [2,3]. В исследовании, проведенном на мышах с наследственной гипомагниемией (MgL mice, hypomagnesemia in mice), указано на значительное снижение функции эндотелия [4]. В подтверждение результатов, полученных в культивируемых клетках, аорта MgL также демонстрировала более высокую, чем в контрольной группе, экспрессию VCAM и PAI-1 [4].

В более ранних исследованиях определялся общий уровень ионов магния, что не всегда отражало достоверное соотношение между внутрии внеклеточным магнием. В настоящее время, благодаря флюоресцентным методам определения концентрации Mg2+ и Mg2+-специфичным электродам появилась возможность изучать содержание ионов магния непосредственно в живых клетках.

ЗАКЛЮЧЕНИЕ

Современная западная диета способствует недостаточному поступлению магния с пищей, так как предпочтение отдается бедной микроэлементами высококалорийной еде, а из воды удаляются соли магния, являющиеся причиной повышенной «жесткости» воды. Пероральный прием препаратов магния для восполнения его дефицита может быть полезным при целом ряде патологий, включая гипертоническую болезнь, ишемическую болезнь сердца, коронарную недостаточность, нарушения ритма сердца, а также синдром хронической усталости, многие виды скелетно-мышечных расстройств, эпилепсию, бронхиальную астму, панические расстройства и многие другие органические и психические патологии. Однако на практике содержащие магний добавки крайне редко назначаются врачами, что свидетельствует о недооценке важности этого элемента. До недавнего времени интерес к магнию в традиционной медицине наблюдался только среди акушеров, которые использовали сульфат магния для купирования АГ, преэклампсии и эклампсии беременных. В последнее время интерес к поведению магния распространяется и на врачей других специальностей. Безусловно, нельзя относиться к магнию как к чудодейственному средству, способному решить сразу все проблемы в современной медицине. Так, S. Patrick и соавт. [2] в своем исследовании «поставили крест» на предположениях о том, что внутривенное введение магния в коронарные сосуды способствует

значительному снижению смертности во время острого сердечного приступа. Не существует волшебных веществ и препаратов, равно как и нет лекарств от всех болезней. Но существуют полезные и несколько недооцененные группы лекарственных средств, которые, по-видимому, займут свою нишу в комплексном лечении больных.

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МЕТОДЫ РАЗВИТИЯ ИХ ПРОФЕССИОНАЛЬНЫХ КАЧЕСТВ В ПРОЦЕССЕ ПОВЫШЕНИЯ КВАЛИФИКАЦИИ УЧИТЕЛЕЙ

Аннотация: В данной статье рассматриваются методы развития их профессиональных качеств в процессе повышения квалификации учителей, обеспечения интеграции современных информационно-коммуникационных технологий и образовательных технологий, создания дополнительных условий для непрерывного развития профессионального мастерства педагогов, индивидуализации процессов повышения квалификации на основе цифровых технологий.

Ключевые слова: цифровизация, интеграция, профессиональной деятельности, цифровые технологии, индивидуализация, модернизация, глобализация, электронный портфолио, систематизация.

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METHODS OF DEVELOPING THEIR PROFESSIONAL QUALITIES IN THE PROCESS OF PROFESSIONAL DEVELOPMENT OF TEACHERS

Abstract: This article discusses methods for developing their professional qualities in the process of professional development of teachers, ensuring the integration of modern information and communication technologies and educational technologies, creating additional conditions for the continuous development of professional skills of teachers, individualization of advanced training processes based on digital technologies.

Keywords: digitalization, integration, professional activity, digital technologies, individualization, modernization, globalization, electronic portfolio, systematization.

Сегодня особое внимание уделяется информатизации и цифровизации образовательного процесса образовательных учреждений. В частности, особое внимание уделяется вопросам создания системы

подготовки высококвалифицированных специалистов для цифровой экономики, обеспечения прочной интеграции современных информационно-коммуникационных технологий и образовательных технологий, создания дополнительных условий для непрерывного развития профессиональных навыков. педагогов и индивидуализации образовательных процессов на основе цифровых технологий.

В нашей стране серьезное внимание уделяется вопросу совершенствования системы непрерывного образования, укрепления материально-технической базы образовательных учреждений, оснащения их современными техническими и информационными средствами, а также обеспечения их квалифицированными педагогическими кадрами.

Наряду с материальными факторами в повышении качества образования и обеспечении его эффективности большое значение имеют уровень профессиональной подготовки и потенциал педагогических кадров. Система повышения квалификации должна быть способна чутко реагировать на важные изменения социальных запросов, направленных в соответствии с содержанием и характером работы педагогов, активно применять в системе самые передовые достижения мирового образования, чтобы в полной мере удовлетворять социальные запросы на совершенствование области и широкий спектр методов обучения, основанных на взаимном сотрудничестве преподавателей и студентов, требует новаторского подхода к использованию и профессиональной деятельности педагогов.

В учебных процессах, организованных в среде информационно-коммуникационных технологий, повышается способность обучающихся к самообразованию и саморазвитию, творческие способности, способность к самостоятельному поиску информации и получению новых знаний, умение применять полученные знания. знания на практике.

При этом развитие коммуникативной компетентности обучающихся, способности к самопрезентации; обеспечить разнообразие; создание условий для полноценной самостоятельной работы (делает их активными участниками процесса познания, саморазвития, самообразования; позволяет повысить мобильность и гибкость обучающихся в быстро меняющихся условиях. Организация непрерывного учебного контроля обучаемых, полное внедрение форм обучения на практике служит для диагностики качества, то есть уточнения состояния профессиональной деятельности педагогов и ее совершенствования на этой основе, эффективного управления процессами в ней.

Оценка процесса непрерывного профессионального развития на основе показателей электронного портфолио не ограничивается определением уровня мастерства студента, а является важным педагогическим средством стимулирования процесса профессиональной деятельности и оказывает сильное влияние на личность студента.

Благодаря этому на основе объективной оценки слушателя у него появляется возможность адекватной самооценки, отмечается формирование критического отношения к своему успеху.

С этой точки зрения оценка знаний, умений и навыков слушателя, особенно в целях повышения эффективности электронной системы контроля знаний, требует постоянного исследования и совершенствования.

Через электронное портфолио формируются возможности системного анализа практического применения всех форм повышения квалификации педагогических кадров. Также внедрение системы электронного портфолио создает важные условия для поэтапного развития профессионального потенциала педагогов, появляются возможности внедрения аудирования дифференцированного подхода в организацию процессов повышения квалификации педагогических кадров в профильных учебных заведениях.

Систематизация информации облегчает использование информационно-образовательных ресурсов. Создание информационно-образовательных порталов помогает логически организовать и систематизировать информацию. Информационно-образовательные ресурсы помимо содержания программ должны составляться из заданий и задач, обеспечивающих формирование необходимых умений и компетенций обучающихся, определяющих объем знаний, которыми они должны овладеть, излагаться в определенной логической форме. системы и соответствуют принципам согласованности и преемственности.

Благодаря специально организованному управлению качеством информационно-коммуникативной подготовки образовательный процесс будет не только носить социально-инновационный характер, направленный на развитие общества, но и поддерживать необходимую эффективность в существующих социально-экономических условиях.

Современная эпоха глобализации требует от педагогов быстрой и эффективной адаптации к новым условиям, быстрого приобретения новых знаний, то есть соответствия требованиям времени. С другой стороны, необходимо обратить внимание на актуальные проблемы, возникающие в виде традиционной подготовки педагогических кадров в период выполнения требований системы повышения квалификации и достижения поставленной цели.

Внедрение дистанционной формы повышения квалификации педагогов при сохранении сущности и требований формы «непосредственного» повышения квалификации вызывает изменение содержания процесса и традиции «очной» реализации.

Кроме того, в процессе обучения формируются важные профессиональные качества педагогических кадров. К важным профессиональным качествам относятся ответственность, надежность, инициативность, способность к сотрудничеству, умение принимать

самостоятельные решения. Ведь профессиональное развитие определяется обогащением потенциальных и важных профессиональных качеств, повышением эффективности труда.

Таким образом, в условиях информационного общества, развития дистанционного образования и его интеграции в традиционную систему образования оно является эффективным инструментом решения организационно-педагогических задач достижения образовательной среды, отвечающей интересам человека, личностному фактору. и образовательные потребности системы повышения квалификации.

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АКТУАЛЬНОСТЬ ИЗУЧЕНИЯ СТРАНОВЕДЧЕСКИХ ТЕКСТОВ В РЕАЛИЗАЦИИ ЕДИНСТВА ОБУЧЕНИЯ И ВОСПИТАНИЯ СТУДЕНТОВ

Аннотация: Введение в процесс обучения языку внеязыковой информации – страноведческого компонента как изучаемого, так и родного языков – необходимо для реализации функционально-коммуникативного принципа обучения. Требование вводить в процесс обучения русскому языку в национальную аудиторию страноведческую информацию оказывается важным и с точки зрения дидактики. С одной стороны, без страноведческих знаний общение на русском языке будет затруднено и даже невозможно. С другой стороны, цели обучения являются значительно шире, чем просто формирование коммуникативной компетенции. Обучение общению не может быть единственной целью, так как учение не бывает без познания, воспитания и развития.

Ключевые слова: знание иностранных языков, функциональность языка, изучение русского языка, страноведческий материал, повышение образовательного уровня, воспитательное значение, лингвострановедение, совершенствование их речевой деятельности, функционально-коммуникативный принцип обучения, обучение неродному языку.

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THE RELEVANCE OF THE STUDY OF COUNTRY TEXTS IN THE IMPLEMENTATION OF THE UNITY OF TRAINING AND EDUCATION OF STUDENTS

Annotation: The introduction of extra linguistic information into the process of teaching a language – a country-specific component of both the studied and native languages – is necessary for the implementation of the functional-communicative principle of learning. The requirement to introduce country-specific information into the process of teaching the Russian language to a national audience is also important from the point of view of didactics. On the one hand, without regional knowledge, communication in Russian will be difficult and even impossible. On the other hand, learning objectives are much broader than just the formation of communicative competence. Teaching

communication cannot be the only goal, since teaching does not happen without knowledge, education and development.

Keywords: knowledge of foreign languages, language functionality, study of the Russian language, country studies material, raising the educational level, educational value, linguistic and regional studies, improvement of their speech activity, functional-communicative principle of teaching, teaching a non-native language.

В последние годы в нашей стране все больше расширяются международные контакты в разных сферах деятельности, в связи с чем возрастает потребность в специалистах со знанием иностранных языков, в том числе и русского языка.

В настоящее время, благодаря углублению торгово-экономического, научно-технического и культурно-образовательного сотрудничества зарубежных стран и стран СНГ, очевидна важность изучения русского языка и других иностранных языков в высших учебных заведениях.

Сегодня в процессе обучения русскому языку большое внимание уделяется коммуникативности и функциональности языка. Одним из важных среди методов обучения является коммуникативный метод, целью которого является развитие у студентов умений решать коммуникативные задачи средствами иностранного языка, свободно общаться с его носителями. Таким образом, язык усваивается во время естественного общения, организатором и участником которого является преподаватель. При этом студент выполняет роль субъекта этого общения.

В работах ученых, занимающихся проблемами обучения неродному языку (В.Г.Костомаров, Е.М.Верещагин) неоднократно подчеркивалось, что преподавание должно одновременно преследовать две цели: а) коммуникативную, направленную на овладение элементарными умениями и навыками в слушании, говорении, чтении, письме; б) общеобразовательную, позволяющую ученикам на материале родной культуры овладеть знаниями.

Введение в процесс обучения языку внеязыковой информации – страноведческого компонента как изучаемого, так и родного языков – необходимо для реализации функционально-коммуникативного принципа обучения.

Требование вводить в процесс обучения русскому языку в национальную аудиторию страноведческую информацию оказывается важным и с точки зрения дидактики. С одной стороны, без страноведческих знаний общение на русском языке будет затруднено и даже невозможно. С другой стороны, цели обучения являются значительно шире, чем просто формирование коммуникативной компетенции. Обучение общению не может быть единственной целью, так как учение не бывает без познания, воспитания и развития.

Следовательно, страноведческий материал, предлагаемый студентам, должен обязательно способствовать повышению их образовательного уровня и иметь воспитательное значение. Таким материалом и оказываются предлагаемые студентам сведения о своей культуре, на основе которых постигается их языковое оформление в другом языке.

Кроме того, в процессе обучения встает задача нахождения специфического, формирующего потребность в овладении русским языком как предметом учебной деятельности. Таким предметом может стать история, культура, традиции народа, говорящего на изучаемом студентами языке. Их использование будет способствовать удовлетворению познавательной потребности студентов, что является одним из наиболее важных условий его усвоения.

Этими причинами и обосновывается утвердившаяся в методике преподавания русского языка мысль о необходимости введения в языковой учебный процесс страноведческих сведений. Мы же считаем, что в современных условиях необходимо усвоение русского языка и на материале ценностей родной культуры.

Обращаясь к определению понятия «страноведение», отметим, что оно охватывает достаточно широкий круг явлений, выступает как совокупность знаний не только о стране изучаемого языка: ее истории, географии, политическом устройстве, экономике, быте, обычаях, но и в такой же степени родной культуры в сопоставление с русской.

Получение таких знаний может происходить по различным каналам. Одним из них являются специальные занятия, на которых студенты ведут разговор о стране, с которой знакомятся, на своем родном языке.

Возможен и другой путь, получивший определение «лингвострановедение», при котором ключом к познанию культуры определенной нации становится сам процесс овладения языком.

На наш взгляд, возможен и третий путь, при котором сопоставительный анализ изучаемых языков сопровождается и сопоставлением культур — изучаемого и родного языка студентов. Языковые единицы с национально-культурным компонентом (безэквивалентные и фоновые слова) являются специфическим материалом, служащим объектом лингвострановедческой работы, поскольку при знакомстве с этими словами осваивается не только план выражения, но и план содержания, создается представление о новых предметах и явлениях. Выявленные в структуре лингвистических единиц два уровня — лексическое понятие и фон — оказываются очень важными с точки зрения усвоения национальной семантики.

Особо значимым является фон, с одной стороны, фиксирующий исторические пласты страноведческой информации, с другой — отражающий этнокультурный контекст современной эпохи и изменения в нем. Благодаря этому, в процессе ознакомления с лексикой идет

одновременно накопление информации о стране, постижение процессов иноязычной действительности, особенностей общественного сознания и культуры носителей языка, а также их сопоставление с бытом и реалиями родной культуры, на материале которой легче и надежней усваивается русский язык.

В качестве учебного материала выступают и художественные тексты, не только несущие определенную информацию, но и воздействующие на чувства, вкус читателей, их эмоции и образную память.

В заключение целесообразно отметить, что:

- используемые страноведческие тексты (художественные, публицистические и т.д.) и упражнения к ним, дают студентам возможность лучше понять текст, создают основу для более высокого уровня его осмысления. Предлагаемые задание направлены на развитие мышления студентов и совершенствование их речевой деятельности. Выполняя такие задания, студенты не могут ограничиться простым воспроизведением прочитанного, от них требуется умение обобщить полученные сведения, выявить в тексте главную мысль, сформулировать и высказать свое мнение о тексте;

- особенно примечательным, на наш взгляд, являются задания, в которых предпринята попытка акцентировать внимание студентов на особенностях употребления слов в тексте, привить им навыки анализа языковой формы текста или произведения. В ходе ответов на такие вопросы происходит совершенствование речи студентов, обогащение их лексического запаса новыми словами и выражениями. Одновременно они учатся анализировать текст, делать необходимые выводы и обобщения;

- введение заданий такого плана вносит определенный вклад в ее формирование, способствуя при этом и реализации главной цели — включения студентов в процесс общения на русском языке, то есть они ставятся в условия, вызывающие потребность в языковых средствах, и потому освоение и закрепление новых слов идет более активно, чем при простом заучивании или дословным воспроизведении прочитанного материала.

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МОРФОФУНКЦИОНАЛЬНЫЕ НАРУШЕНИЯ ЩИТОВИДНОЙ ЖЕЛЕЗЫ У ДЕТЕЙ С ЦЕРЕБРАЛЬНОЙ ГИПОКСИЧЕСКОЙ ИШЕМИЕЙ

Резюме: Проблема церебральных гипоксически-ишемических заболеваний центральной нервной системы у детей по сей день остается одной из актуальных проблем неонатологии и педиатрии, что обусловлено высокой частотой и большим значением перинатальной патологии головного мозга.

В то же время неопределенность результатов церебральной ишемии определяется степенью функциональной зрелости мозга и пластичностью нервной системы у детей раннего возраста.

В данной статье подчеркивается, что вопросы определения влияния механизмов перинатальных гипоксически-ишемических поражений центральной нервной системы на роль определенных негативных факторов, а также отдаленных неврологических заболеваний и поиска надежных критериев прогноза формирования оптимальных подходов к лечению для такого ведения изучены не полностью решено.

Ключевые слова: гипоксия, поражения головного мозга, ишемия, центральная нервная система, детство, щитовидная железа.

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MORPHOFUNCTIONAL DISORDERS OF THE THYROID GLAND IN CHILDREN WITH CEREBRAL HYPOXIC ISCHEMIA

Resume: The problem of cerebral hypoxic-ischemic diseases of the central nervous system in children remains to this day one of the urgent problems of neonatology and pediatrics, due to the high frequency and high importance of perinatal pathology of the brain.

At the same time, the uncertainty of the results of cerebral ischemia is determined by the degree of functional maturity of the brain and the plasticity of the nervous system in young children.

This article emphasizes that the issues of determining the influence of the mechanisms of perinatal hypoxic-ischemic lesions of the central nervous system on the role of certain negative factors, as well as long-term neurological

diseases and the search for reliable criteria for predicting the formation of optimal treatment approaches for such management have not been fully studied.

Key words: hypoxia, brain lesions, ischemia, central nervous system, childhood, thyroid gland.

Актуальность. В настоящее время невозможно представить диагностику патологии щитовидной железы без ультразвукового исследования, позволяющего оценить ее расположение, структуру, объем [3].

Наиболее объективным способом оценки величины щитовидной железы, согласно заключениям экспертов и рекомендациям ВОЗ, стало уточнение ее суммарного объема, измеряемого с помощью ультразвуковой методики — эховолюметрии [1,4].

Насчитывается около двадцати попыток разработки нормативов тиреоидного объема в детском возрасте, предпринятых в разных странах. Вопрос об окончательной интерпретации полученного результата является интенсивно изучаемым, но не решенным. Кроме того, значительно реже оцениваются ультразвуковые параметры тиреоидного объема у детей раннего возраста [4,6].

Таким образом, актуальность данной проблемы и отсутствие четких критериев, позволяющих оценить размеры и объем. щитовидной железы в сопоставлении с ее функциональными особенностями, обусловливает необходимость проведения комплексного исследования морфофункциональных нарушений тиреоидной системы у детей раннего возраста [2,7].

Цель исследования. Целью исследования является выявление морфофункциональных нарушений щитовидной железы у детей, перенесших неонатальный транзиторный гипотиреоз и церебральную гипоксию-ишемию, с целью их своевременной диагностики, коррекции и предотвращения формирования тиреоидной патологии.

Материал и методы исследований. Методом свободной выборки был обследован 50 ребенок в возрасте от 1 месяца до 3 лет жизни. Из общего числа обследованных исключены дети с наследственной патологией и врожденными пороками развития, врожденным гипотиреозом, хронической соматической и инвалидизирующей неврологической патологией.

Результаты исследования. Гипоксия плода, перенесенная на фоне сочетанных анте- и интранатальных факторов риска, имеет ведущее значение в формировании изменений функционального состояния центральной нервной и гипофизарно-тиреоидной систем у новорожденных.

У детей, перенесших транзиторный гипотиреоз и церебральную гипоксию-ишемию, выявлен дисбаланс тиреоидных гормонов на фоне

увеличения объема щитовидной железы, что указывает на высокий риск по формированию тиреоидной патологии.

Нормативные показатели объема щитовидной железы у детей 1 мес. - 3 лет имеют четкую корреляционную зависимость от возраста и показателей физического развития. Наиболее тесная корреляционная связь определена между тиреоидным объемом и массой тела ребенка раннего возраста (г = 0,73), что позволило считать индекс тиреоидной массы наиболее четким критерием индивидуальной оценки объема щитовидной железы.

Параметры тиреоидного объема являются наиболее стабильным и достоверным ультразвуковым показателем изменения морфофункционального состояния гипофизарно-тиреоидной системы у детей с транзиторным гипотиреозом и церебральной гипоксией-ишемией.

Дисбаланс показателей гипофизарно-тиреоидных гормонов сочетается с повышением индекса тиреоидной массы более 0,11 х 10".

Вывод. Предложенные критерии диагностики морфофункциональных нарушений щитовидной железы у детей раннего возраста могут быть использованы для обоснования целесообразности проведения терапии и включения данного контингента детей в группу риска по формированию тиреоидной патологии.

Разработанные параметры объема щитовидной железы могут быть использованы для скрининг-диагностики транзиторных и перманентных дисфункций у детей раннего возраста.

Предложена схема диспансерного наблюдения с целью своевременной коррекции транзиторных дисфункций и профилактики патологии ЩЖ у детей, перенесших неонатальный транзиторный гипотиреоз и церебральную гипоксию-ишемию.

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ЛЕЧЕНИЕ И ПРОФИЛАКТИКА СИНДРОМА АНЕМИИ ПРИ САХАРНОМ ДИАБЕТЕ

Резюме: Сахарный диабет – это хроническое заболевание, которое развивается, когда поджелудочная железа не вырабатывает достаточного количества инсулина (в данном случае речь идет о сахарном диабете 1 типа) или организм неэффективно работает на вырабатываемый инсулин (соответственно, этот вариант характеризует сахарный диабет 2 типа).

Как вы знаете, инсулин вырабатывается бета-клетками поджелудочной железы. Его наиболее важной функцией является участие в углеводном обмене. С помощью этого гормона поджелудочная железа регулирует уровень глюкозы в крови, поскольку инсулин поставляет глюкозу в клетки, тем самым способствуя снижению уровня сахара в крови. Не существует генетически детерминированных форм диабета и наследственной предрасположенности.

В этой статье классификация сахарного диабета включает разделение диабета 1 и 2 типов, гестационного диабета, а также других специфических типов диабета, введение других специфических типов, например, ювенильного Моди-диабета; генетические аномалии из-за нарушения функции рецепторов к инсулину; различные эндокринопатии; информация о течении сахарного диабета и хронической анемии на фоне хронического панкреатита.

Ключевые слова: сахарный диабет, инсулин, анемия, глюкоза.

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TREATMENT AND PREVENTION OF ANEMIA SYNDROME IN DIABETES MELLITUS

Resume: Diabetes mellitus is a chronic disease that develops when the pancreas does not produce enough insulin (in this case, we are talking about type 1 diabetes mellitus) or the body does not work effectively on the insulin produced (respectively, this variant characterizes type 2 diabetes mellitus).

As you know, insulin is produced by beta cells of the pancreas. Its most important function is to participate in carbohydrate metabolism. With the help of this hormone, the pancreas regulates the level of glucose in the blood, as insulin delivers glucose to the cells, thereby contributing to a decrease in blood sugar levels. There are no genetically determined forms of diabetes and hereditary predisposition.

In this article, the classification of diabetes mellitus includes the separation of type 1 and type 2 diabetes, gestational diabetes, as well as other specific types of diabetes, the introduction of other specific types, for example, juvenile Modi-diabetes; genetic abnormalities due to impaired function of insulin receptors; various endocrinopathies; information about the course of diabetes mellitus and chronic anemia on the background of chronic pancreatitis.

Keywords: diabetes mellitus, insulin, anemia, glucose.

Актуальность. Анемия (малокровие) является всемирной медико-социальной проблемой, затрагивающей значительную часть населения [2]. По данным Всемирной организации здравоохранения (ВОЗ) анемия выявляется у каждого четвертого человека – у 24,8% жителей планеты (~1,62 млрд. чел.) [5]. Одной из ведущих причин анемии является дефицит железа в организме, и в основном, связанный с несбалансированным питанием - недостаточным потреблением продуктов с содержанием железа и других микроэлементов.

Другой, не менее значимой, этиологией развития железодефицитной анемии (ЖДА) считается наличие хронической кровопотери различной локализации (желудочно-кишечный тракт, репродуктивная система у женщин и др.) [1]. Наиболее часто, малокровие встречается у детей дошкольного возраста (до 5 лет), беременных (возраст не имеет значения) и у пожилых людей (возраст ≥ 60 лет) [7].

Среди небеременных женщин, в возрасте от 15 до 50 лет, распространенность анемии в РФ составляет 19,8%, что сопоставимо с аналогичным показателем в Белоруссии (19,4%), Польше (18,7%), Эстонии (17,7%) [8], хотя некоторые авторы приводят более высокие цифры - до 51% [4]. Однако, в более развитых странах Европы, частота выявления анемии в этой группе населения в 2 раза ниже – 8,8% в Великобритании, 9,1% во Франции и 12,3% в Германии, что свидетельствует о связи уровня и качества жизни населения с состоянием здоровья [9].

Многие широко распространенные хронические заболевания (ревматические, опухолевые и инфекционные), сопровождаются снижением значения Hb, патогенетические механизмы которых тесно связаны с имунновоспалительным процессом, влияющими на эритропоэз. С учетом этого, недавно, была введена объединяющая эти анемии терминология «анемия хронических 17 заболеваний» (АХЗ). [3].

В настоящее время особый интерес вызывает влияние СД, как хронически текущего заболевания, неблагоприятно воздействующего, при отсутствии компенсации, на все процессы, происходящие в организме с формированием тяжелых микро- и макро-сосудистых осложнений, на развитие анемического синдрома.

На современном этапе, считается, что наличие самой гипергликемии является одной из значимых и недооценённых факторов риска развития анемии, прямо или опосредованно, влияющий на важнейшие физиологические процессы поддерживающие нормальный уровень Hb. [6]. Изучение особенностей анемического синдрома при СД имеет чрезвычайную актуальность в связи с его всемирной эпидемией - по данным IDF число больных СД в Европе с 59,8 млн. чел. (в 2015 г.) к 2040 г. может увеличится до 71,1 млн. чел. [1].

Цель исследования. Изучить распространенность и механизмы формирования анемического синдрома при сахарном диабете.

Материалы и методы исследования. Для изучения распространенности и тяжести анемии у больных СД 1 и 2 типа было обследовано 50 чел. Из них больные СД 1 типа составили 37 чел., больные СД 2 типа - 13 чел.

Результаты исследования. В группе обследованных пациентов, проживающих в Андижанской области, снижение уровня гемоглобина было обнаружено у 1% пациентов с сахарным диабетом 1 и 2 типа, что, согласно другим исследованиям в Узбекистане в целом, не отличается от распространенности пациентов с сахарным диабетом 1 типа (20%). В 86% случаев легкой степени тяжести у пациентов с сахарным диабетом 1 типа анемия считается нормохромной в 63%, нормоцитарной в 56% и норморегенеративной в 86%.

У пациентов с сахарным диабетом 1 типа на долю железодефицитной анемии приходится 54,8% всех случаев анемического синдрома, в то время как на долю анемии хронических заболеваний приходится 23,6%. Дефицит фолиевой кислоты встречается у 37,7% пациентов с сахарным диабетом 1 типа, независимо от стадии диабетической нефропатии. Дефицит витамина B12 выявляется чаще (4,3%), чем в популяции (0,1%). У 32,2% пациентов синдром анемии возникает по различным причинам.

Пациенты с сахарным диабетом 1 типа с анемией хронических заболеваний имеют более низкие уровни СКФ, чем пациенты с сахарным

диабетом 1 типа с железодефицитной анемией. Наблюдаются нарушения у пациентов с сахарным диабетом 1 типа при анемии хронических заболеваний в отличие от пациентов с железодефицитной анемией, реабсорбционная функция почечных канальцев нарушена с признаками элиминации почечных цитомембран.

По мере увеличения продолжительности диабета при наличии анемии у пациентов с сахарным диабетом 1 типа снижение СКФ более заметно и быстрее, чем у пациентов с сахарным диабетом 1 типа с нормальным уровнем гемоглобина. У пациентов с сахарным диабетом 1 типа с анемией наблюдаются признаки нарушения реабсорбционной функции почечного канальцевого аппарата при любой продолжительности диабета и даже при отсутствии клинических признаков диабетической нефропатии.

Вывод. Высокая частота анемического синдрома при диабетическом поражении почек у больных СД по сравнению с пациентами без поражения почек и с почечной патологией другой этиологии, а также тесная взаимосвязь развития анемии при СД со снижением СКФ и выраженностью альбуминурии, указывают на целесообразность проведения скрининга на наличие микрососудистого осложнения со стороны почек (исследование мочи на альбуминурию и креатинина сыворотки) при выявлении анемии у больных СД 1 и 2 типа.

При назначении ингибитора АПФ, необходимо учитывать, что его регулярный прием может быть причиной развития анемии у больных СД 1 и 2 типа с поражением почек, но не ее утяжеления, что не требует редукции терапевтической дозы препарата или его отмены.

Анемия у больных СД 1 типа, но без поражения почек, может сопровождаться ложно-завышенным значением HbA1c, что необходимо учитывать при интерпретации данных контроля гликемии.

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ИНТЕНСИВНАЯ ИНФУЗИОННАЯ ТЕРАПИЯ У БОЛЬНЫХ В КРИТИЧЕСКИХ СОСТОЯНИЯХ

Инфузионная терапия (ИТ) была одним из главных инструментов влияния на гомеостаз в различных критических ситуациях. В настоящее время ИТ является важным компонентом анестезии и интенсивной терапии. Однако неправильное восстановление баланса жидкости было основной причиной смертности в отделениях интенсивной терапии и послеоперационной интенсивной терапии в 80-х годах XX века. Считается, что создание внутрисосудистой нормоволемии во время операции защищает эндотелиальный гликокаликс (ЭГ) от воздействия медиаторов воспаления, минимизирует патологические изменения при транскапиллярном обмене жидкости и белков путем сохранения ЭГ. В исследованиях по клиническому использованию Сорбилакта и Реосорбилакта, проведенных в ведущих украинских клиниках хирургического, травматологического, терапевтического, онкологического, акушерского, педиатрического, инфекционного и других профилей, показаны безопасность и эффективность этих препаратов при детоксикации и противошоковой терапии; доказаны их возможности при лечении заболеваний, связанных с тяжелыми нарушениями микроциркуляции, свертываемости крови, энергетическими, метаболическими и другими расстройствами.

Ключевые слова: кристаллоиды, коллоиды, инфузионная терапия.

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INTENSIVE INFUSION THERAPY IN PATIENTS IN CRITICAL CONDITIONS

Introduction. Infusion therapy (IT) has been one of the main tools for influencing homeostasis in various critical situations. Currently, IT is an important component of anesthesia and intensive care. However, improper fluid rebalancing was the leading cause of death in intensive care units and postoperative intensive care units in the 1980s. It is believed that the creation of intravascular normovolemia during surgery protects the endothelial glycocalyx (EG) from the effects of inflammatory mediators, minimizes pathological changes during transcapillary fluid and protein exchange by preserving EG. Studies on the clinical use of Sorbilact and Rheosorbilact, conducted in leading Ukrainian clinics of surgical, traumatological, therapeutic, oncological, obstetric, pediatric, infectious and other profiles, show the safety and effectiveness of these drugs in detoxification and anti-shock therapy; proved their potential in the treatment of diseases associated with severe disorders of microcirculation, blood clotting, energy, metabolic and other disorders.

Key words: crystalloids, colloids, infusion therapy.

Инфузионная терапия (ИТ) была и остается одним из основных инструментов воздействия на гомеостаз при критических состояниях различной природы. Именно ИТ принадлежит ведущая роль в устранении волемических нарушений при различных критических состояниях, на нее же возлагаются задачи по устранению метаболических, водно-электролитных, микроциркуляторных и иных гомеостатических нарушений, развивающихся при различных заболеваниях. В настоящее время ИТ является важным компонентом анестезиологического пособия и интенсивной терапии. Однако неадек ватное восстановление жидкостного баланса было одной из основных причин летальности в отделениях реанимации и послеоперационной интенсивной терапии в 80-е годы XX века [1]. Но и в наше время практика периоперационной инфузионной терапии также остается одной из самых обсуждаемых тем. Продолжаются дискуссии относительно количества и качества растворов, применяемых во время обширных операций. Существуют публикации о чрезмерном внутрисосудистом объеме ятрогенного генеза после операции, который приводит к осложнениям и увеличению послеоперационной летальности. Исследователи считают, что причиной неадекватности ИТ может быть, с одной стороны, отсутствие оптимальной инфузионной среды, которую можно было бы безопасно вводить в требуемом количестве, а с другой — отсутствие адекватного контроля физиологических и биохимических параметров, на которые влияют инфузионные среды, а также сложность их комплексной оценки. Во врачебной практике рутинного назначения инфузионных сред нередко развивается «механицизм» и забываются

теоретические основы их применения. Назначение любых инфузионных сред представляет собой интервенцию во внутреннюю среду организма, что в той или иной степени влияет на показатели водно-солевого обмена, кислотно-основного состояния, осмолярности. Поэтому клиницисту целесообразно учитывать базисные понятия водно-электролитного обмена, их изменения под влиянием ИТ, сведения о функции и дисфункции сосудистого эндотелия, свойствах различных инфузионных препаратов и возможностях мониторинга гемодинамики для контроля за адекватностью проводимой ИТ. Необходимо отметить, что в сопряженной паре «циркуляция — метаболизм» наиболее важную роль играет все же гипоперфузия, поскольку уровень метаболизма при различных критических состояниях может возрастать в 4–5 раз без развития клиники шока [1]. Септический шок связан как с относительной, так и с абсолютной гиповолемией. Каскад воспалительных реакций, вовлекающий множество медиаторов, приводит к повреждению ЭГ, увеличению проницаемости сосудов микроциркуляции и капиллярной утечке, которая, в свою очередь, ведет к накоплению интерстициальной жидкости, потерям белка и отеку тканей.

Наименее сбалансированным является физиологический раствор. В большинстве случаев предпочтительными оказываются более сбалансированные растворы. Однако в случаях гиперкалиемии, гиперкальциемии, а в особенности гипохлоремического метаболического алкалоза именно физиологический раствор является наиболее предпочтительной замещающей средой. Другим важным свойством полиэлектролитных растворов, определяющим специфику показаний, противопоказаний и режимы дозирования, является содержание носителей резервной щелочности. Это вещества, которые в процессе метаболизма образуют гидрокарбонат, пополняя таким образом буферную емкость гидрокарбонатной системы крови (лактат, ацетат, малат, фумарат). Инфузия растворов, не содержащих носителей резервной щелочности, вызывает уменьшение буферной емкости крови и приводит к развитию гемодилюционного ацидоза. Инфузионные среды с высоким содержанием носителей резервной щелочности противопоказаны при алкалозах и тяжелой печеночной недостаточности. Среди коллоидных препаратов нет альтернативы по полифункциональности действия естественному коллоиду альбумину, обладающему молекулярной массой около 69 000 дальтон. Около двух третей этого белка образует постоянно обновляющуюся часть, располагающуюся в интерстициальном пространстве. Альбумин движется из внутрисосудистого пространства в интерстициальное, возвращаясь в сосуды по лимфатической системе. Подобное движение оценивают по периоду полувыведения (в норме — между 16–18 часами) или по скорости транскапиллярной утечки [30]. 5% раствор альбумина изотоничен, имеет КОД 20 мм рт.ст., остается во

внутрисосудистом пространстве при условии, что капиллярная мембрана не изменена. 20% и 25% растворы альбумина — гиперонкотические, имеют КОД 80–100 мм рт.ст., а потому обладают свойством увеличения внутрисосудистого объема за счет притягивания жидкости из интерстициального пространства. Аналитические исследования последних лет полностью реабилитировали альбумин как волюмкорректор критических состояний (и, на наш взгляд, очередной раз поставили вопрос о доказательности самой доказательной медицины). Среди синтетических коллоидов препараты ГЭК являются безусловными лидерами в течение двух последних десятилетий как в мире в целом, так и в Украине. В настоящее время из группы коллоидных кровезаменителей в основном рекомендуют использовать растворы ГЭК последних поколений — тетракрахмалы (140/0,4). Преимуществами ГЭК является способность значительно повышать онкотическое давление плазмы и стабилизировать гемодинамику, но в то же время вызывать минимальное количество побочных реакций в отличие, например, от декстранов или белковых препаратов. Однако риск нар ушения почечной функции при применении крахмалов является постоянным и дозозависимым. Действующим веществом коллоидов на основе модифицированного жидкого желатина (МЖЖ) является частично гидролизованный и сукцинилированный желатин (средняя молекулярная масса 30 000–35 000 Да). Увеличение ОЦК и повышение АД происходят не только за счет введенного раствора, но и в связи с дополнительным поступлением в сосудистое русло межтканевой жидкости (волемический коэффициент — около 100 %). Отечественным препаратом этой группы коллоидов является Волютенз — 4% раствор сукцинилированного желатина, растворенный в сбалансированном растворе (Рингера ацетат) со средней молекулярной массой 30 000 Да. Теоретическая осмолярность — до 273 мосм/л. Растворы МЖЖ, в частности Волютенз, благодаря своей молекулярной массе и КОД, равному раствору человеческого альбумина (33 мм рт.ст.), обладают достаточной продолжительностью объемного действия — до 3–5 часов. Элиминация осуществляется в основном через почки. Длительность гемодинамического эффекта волютенза — около 3–4 часов. Максимальная суточная доза 200 мл/кг. Вызывая осмотический диурез, препараты МЖЖ обеспечивают поддержание функции почек при шоке. Снижают вязкость крови, улучшают микроциркуляцию, снижают вероятность развития интерстициального отека. Существенным преимуществом плазмозаменителей на основе МЖЖ является их относительно слабое влияние на систему гемостаза и структурные сегменты нефрона. Поэтому растворы МЖЖ в аспекте безопасности обладают преимуществами перед препаратами ГЭК при врожденных коагулопатиях, развитии у больных выраженных нарушений системы свертывания крови и тяжелых поражениях почек. Тем не менее для пациентов с нарушениями

свертываемости крови, почечной недостаточностью и хроническими заболеваниями печени рекомендуются мониторинг соответствующих показателей и учет полученных данных при определении дозировки любого плазмоэкспандера. Несколько десятков лет в практике инфузионной терапии использовались декстраны. Декстран — гидрофильный полисахарид, полимер глюкозы, продуцируемый из сахарозы бактериями Leuconostoc mesenteroides. Декстраны могут иметь различную степень полимеризации, в зависимости от которой растворы, получаемые из них, имеют различную молекулярную массу и функциональное назначение. Волемические свойства декстранов весьма высоки, и тот факт, что препараты ГЭК в настоящее время существенно потеснили декстраны, связан отнюдь не с низкой объемзамещающей активностью последних, а с большой частотой тяжелых осложнений и побочных реакций. В настоящее время в практику инфузионной терапии прочно вошли многоатомные спирты маннитол, сорбитол и ксилитол, которые благодаря своим свойствам и отсутствию токсического действия используются уже довольно давно в медицине. Введенный внутривенно маннитол почти не подвергается метаболизму, быстро покидает кровяное русло, распределяется в экстрацеллюлярном пространстве и выводится с мочой путем клубочковой фильтрации. Основным показанием для применения маннитола является терапия отека головного мозга и внутричерепной гипертензии (ВЧГ) при черепно-мозговой травме (ЧМТ). Рекомендуемые дозы варьируют от 0,5–2,0 г/кг через 6 часов. Однако в последнее время описано большое количество осложнений и ограничений при его применении. Самым важным ограничением является осмолярность плазмы, которая не должна превышать 320 мосм/л. Объем интерстициальной жидкости в головном мозге составляет 320–340 мл. В зонах с нарушенной проницаемостью гематоэнцефалического барьера (ГЭБ) этот объем увеличивается более чем на 50 %. Но маннитол действует только на «здоровый» мозг, т.е. оказывает дегидратирующий эффект преимущественно в зонах, где сохранен ГЭБ и возможно формирование осмотического градиента между капилляром и интерстициальным пространством. При использовании маннитола высока вероятность развития феномена «отдачи» или «рикошета», т.е. смены фазы быстрого снижения внутричерепного давления фазой усиления мозгового кровотока. Маннитол, проникая через ГЭБ, может накапливаться в тканях мозга и вызывать ребаунд-эффект (повышение внутричерепного давления после первоначального снижения). Однако наиболее частыми осложнениями применения маннитола являются гипотония, резкое снижение ОЦК (за счет диуретического эффекта), повышение гематокрита и ухудшение реологических свойств крови, гиперосмолярное состояние. Маннитол в последнее время рекомендуют у больных с ВЧГ, когда надо выиграть время для проведения хирургической декомпрессии,

предотвратить или приостановить начинающуюся дислокацию мозга. Для решения проблем инфузионной терапии как нельзя лучше подходят комплексные инфузионные препараты Реосорбилакт и Сорбилакт. Оба препарата содержат сорбитол, основные катионы (Na+, K+, Ca2+, Mg2+), анион Cl и лактат-анион. Общая осмолярность Реосорбилакта в 3 раза превышает осмолярность плазмы крови (900 мосмоль/л), а Сорбилакта — в 5,5 (1670 мосмоль/л) раза. Благодаря гиперосмолярности Реосорбилакт и Сорбилакт вызывают поступление жидкости из межклеточного пространства в сосудистое русло, что сопровождается увеличением ОЦК за счет увеличения объема плазмы. Способствует улучшению микроциркуляции и перфузии тканей. Благодаря мощному специфическому осмодиуретическому эффекту сорбитола, связанному с отсутствием у человека природных механизмов реабсорбции многоатомных спиртов в проксимальных почечных канальцах, отмечается выраженное диуретическое действие обоих препаратов, особенно Сорбилакта. Помимо этого, сорбитол, частично метаболизируясь до фруктозы, способствует нормализации углеводного и энергетического обмена. Сорбитол стимулирует окисление жирных кислот по некетогенному пути метаболизма и способствует более легкому использованию кетонных тел в цикле Кребса. Исследования по клиническому применению Сорбилакта и Реосорбилакта, проведенные в ведущих украинских клиниках хирургического, травматологического, терапевтического, онкологического, акушерского, педиатрического, инфекционного и других профилей, показали безопасность и эффективность этих препаратов для проведения противошоковой и дезинтоксикационной терапии; доказали их широкие возможности в лечении заболеваний, сопровождающихся выраженными нарушениями микроциркуляции, коагуляции крови, энергетическими, метаболическими и другими расстройствами. Наиболее детально клинические эффекты инфузионных сред с высоким содержанием сорбитола исследованы в травматологической и нейрохирургической клинике при лечении пострадавших с политравмой. Для профилактики и лечения отека мозга после операций по поводу опухолей головного мозга на современном этапе препаратами выбора являются Реосорбилакт и Сорбилакт. Доказано, что при использовании этих препаратов синдром «рикошета» выражен значительно меньше. По сравнению с маннитолом Реосорбилакт и Сорбилакт имеют и другие преимущества, связанные со способностями устранять метаболический ацидоз, поддерживать электролитный состав крови, обеспечивать энергетические потребности клеток (дополнительные противоотечные факторы). Кроме того, доказана эффективность применения Сорбилакта не только после операций по поводу опухолей, но и после вмешательств по поводу гематом (черепномозговая травма, геморрагический инсульт), воспалительных процессов (абсцесс мозга,

серозный менингоэнцефалит), а также при консервативном лечении (ишемический инсульт вследствие тром боэмболии средней мозговой артерии). Доказано, что при терапии отека головного мозга эффективно комплексное применение L-лизина эсцината 10,0–20,0 мл и Реосорбилакта или Сорбилакта в дозе 10 мл/кг. В комплексе анестезиологического обеспечения пациентам с нейрохирургической патологией в качестве основы инфузионной терапии как в предоперационном, так и в интра- и после операционном периодах рекомендовано применение Реосорбилакта в дозировке от 3–5 до 7–10 мл/кг в комбинации с L-лизина эсцинатом 10,0–20,0 мл (у детей 0,15–0,2 мг/кг). При развитии острой церебральной недостаточности (ОЦН) развиваются первичные и вторичные повреждения мозга. Основные вторичные повреждения мозга — это гипоксия и гипотензия. Гипотензия возникает вследствие развития гиповолемии, низкого сердечного выброса, снижения преднагрузки, низкого общего периферического сопротивления. Но на фоне выраженной гиповолемии нормальные АД и ЧСС могут поддерживаться только за счет высокого ОПСС. Использование агрессивной тактики инфузионной терапии позволило избежать развития вторичных ишемических повреждений головного мозга у 72 % больных. У больных с тяжелой ЧМТ, мозговым инсультом может развиваться ВЧГ, поэтому довольно часто приходится использовать гиперосмолярные растворы. При тяжелом поражении мозга, гипертермии для поддержания центрального перфузионного давления (ЦПД) необходимо введение большого количества жидкости и симпатомиметиков на фоне нарушения ауторегуляции мозгового кровообращения. Мозговой кровоток, ЦПД при нарушении ауторегуляции сосудов мозга зависят от системного АД. Мониторинг системной гемодинамики позволяет определить степень гиповолемии, изменить структуру инфузионной терапии, увеличить количество используемых коллоидов. В последние годы проведены крупные рандомизированные контролируемые исследования по проблеме использования растворов коллоидов и кристаллоидов в схеме интенсивной терапии острой церебральной недостаточности. Авторы сравнивали введение 6% и 10% ГЭК 130/0,4 с введением кристаллоидного раствора в течение четырех и более дней у больных с острым ишемическим инсультом. Различий по эффективности и безопасности между двумя группами выявлено не было. Следовательно, необходимы дополнительные проспективные рандомизированные контролируемые исследования. В целом сложно отделить влияние инфузионных сред на неврологические исходы от воздействия на сердечно-сосудистую систему. Причины дисфункции миокарда после поражения головного мозга многочисленны. К ним относятся вазоконстрикция легочных сосудов, обусловленная поражением головного мозга и внемозговыми нарушениями, применение седативных препаратов в больших дозах как компонента терапии внутричерепной

гипертензии. Кроме этого, у данных пациентов действительно наблюдается вызванная стрессом кардиомиопатия. В этом контексте гиперволемия при инфузионной терапии может вести к дисфункции миокарда тяжелой степени, сердечно-легочным осложнениям вне зависимости от типа использованного раствора. Применение цель-ориентированной гемодинамической коррекции, направленной на оптимизацию сердечного выброса и водного статуса, на ранних этапах оказания помощи больным ОЦН должно сопровождаться улучшением клинических исходов и уменьшением сердечно-легочных осложнений в сопоставлении с традиционным лечением. В Украине разработан инновационный инфузионный продукт нового поколения под названием Гекотон (многокомпонентный сбалансированный коллоидно-гиперосмолярный раствор), который максимально отвечает требованиям, предъявляемым к идеальному плазмоэкспандеру. Полученный гиперосмолярный раствор, с одной стороны, способствует увеличению осмолярности плазмы и переходу жидкости из клетки и интерстиция в кровеносное русло (гиперосмолярный компонент), с другой стороны, обеспечивает увеличение онкотического давления плазмы и сохранение внутрисосудистого объема (коллоидный компонент). Основными действующими веществами в препарате являются ГЭК 130/0,4, ксилитол и натрия лактат. Гекотон обладает гемодинамическим, реологическим, противошоковым, дезинтоксикационным действиями. Введение ГЭК восстанавливает нарушенную гемодинамику, улучшает микроциркуляцию и реологические свойства крови (за счет снижения гематокрита), уменьшает вязкость крови, снижает агрегацию тромбоцитов и препятствует агрегации эритроцитов. Ксилитол — это пятиатомный спирт, который усваивается печенью (80 %) и тканями других органов (почки, сердце, поджелудочная железа, надпочечники, головной мозг) и выделяется с мочой. Ксилитол непосредственно включается в пентозофосфатный цикл метаболизма, не вызывает снижения в печени аденинну клеотидов (АТФ, АДФ, АМФ), обладает более высоким антикетогенным, азотосберегающим действием, чем глюкоза. Учитывая, что ксилитол является источником энергии с независимым от инсулина метаболизмом, он действует антикетогенно и липотропно. Максимальная скорость утилизации ксилитола составляет 0,25 г/кг/ч. Натрия лактат применяется как носитель резервной щелочности. Действие натрия лактата проявляется через 20– 30 мин после введения. Механизм действия Гекотона следующий: возникновение осмотического градиента между внутри- и внеклеточным пространствами; перераспределение объема из внутриклеточного пространства, интерстиция, эндотелия и эритроцитов в кровеносное русло; первичная активизация капиллярного кровотока; перемещение воды по осмотическому градиенту; быстрое возмещение ОЦК; восстановле ние гемодинамического равновесия и стабилизация

гемодинамики; длительность и выраженность волемического эффекта; улучшение микроциркуляции, тканевой перфузии и оксигенации тканей. В 2013–2014 годах в отделении анестезиологии и интенсивной терапии КМУ «Клиническая Рудничная больница» нами проведено исследование: был применен Гекотон у пациентов с ишемическим инсультом и у больных с сочетанной травмой, включающей ЧМТ с ушибом головного мозга. Группа 1 (15 больных с острыми нарушениями мозгового кровообращения (ОНМК) по ишемическому типу и 10 больных с сочетанной травмой) в качестве базовой противоотечной терапии получала маннитол в дозе 1–2 г/кг, гемодинамика и объемный мозговой кровоток поддерживались введением сбалансированных ионных растворов (стерофундин, йоностерил) в дозе 2–4 мл/кг/ч под контролем темпа диуреза (не менее 2 мл/кг/ч), при необходимости проводилась инфузия мезатона. Группа 2 (15 больных с ОНМК по ишемическому типу и 10 больных с сочетанной травмой) в качестве базовой противоотечной и инфузионной терапии получала Гекотон в дозе 3–4 мл/кг/сут, гемодинамика и объемный мозговой кровоток поддерживались введением сбалансированных ионных растворов (стерофундин, йоностерил) в дозе 0,5– 1,0 мл/кг/ч под контролем темпа диуреза (не менее 2 мл/кг/ч). Проводилось динамическое измерение параметров центральной гемодинамики (ЦГ) методом реографии (систолическое АД, общее периферическое сосудистое сопротивление (ОПСС), сердечный индекс (СИ), ударный индекс (УИ)), мозговой гемодинамики при помощи транскраниальной допплерографии, определение осмолярности до и после введения препарата расчетным методом. Ключевым критерием включения больных в исследование было наличие исходного нормо- или гиподинамического типа гемодинамики. Применение Гекотона/маннита проводилось в течение первых 3 суток терапии под контролем степени отека головного мозга. В дальнейшем к терапии добавляли L-лизина эсцинат. Установлено, что в группе 1 для достижения целевых показателей ЦГ и мозгового кровотока требовалось использование стратегии гиперволемии с применением симпатомиметиков, что в ряде случаев приводило к развитию периферических отеков и дополнительному назначению диуретиков. Данная стратегия приводила к положительной динамике в показателях линейной скорости кровотока, более выраженной на стороне поражения. В группе 2 на фоне терапии с использованием Гекотона и рестриктивного типа волемической нагрузки удалось достичь целевых показателей центральной гемодинамики без применения симпатомиметиков, дозу кристаллоидов, необходимых для стабилизации гемодинамики, уменьшили в 3 раза без снижения темпа диуреза. Удалось достигнуть улучшения мозгового кровотока на стороне поражения, статистически не отличимого от показателей группы 1, что характеризовало как противоотечный, так и положительный гемодинамический эффект гекотона. Наличие ксилитола в

препарате способствует уменьшению явлений острого отека головного мозга, что благотворно влияет на показатели мозговой гемодинамики. При применении стандартной инфузионной и противоотечной интенсивной терапии у пациентов как с ОНМК, так и с сочетанной травмой к 5-м суткам достигнут достоверный регресс неврологической симптоматики до 12 баллов по шкале комы Глазго. У пациентов с модифицированной терапией (Гекотон + рестриктивный тип инфузионной терапии) также достигнут достоверный регресс неврологической симптоматики к 5-м суткам. Таким образом, применение разных схем инфузионной и противоотечной терапии привело к улучшению показателей центральной гемодинамики и мозгового кровотока. Применение препарата Гекотон позволило избежать в большинстве случаев ненужной гиперволемии (рестриктивный тип инфузионной терапии) и достоверно снизить частоту использования симпатомиметиков. Полученные результаты позволяют рекомендовать применение препарата Гекотон в схеме лечения пациентов с острой церебральной недостаточностью. Выявленный противоотечный эффект Гекотона сопоставим с эффектом маннитола у пациентов с ОЦН. Нами проведено второе исследование в отделении интенсивной терапии РНЦЭМП АФ в отделении нейрореанимации 2021–2022 годах по применению Гекотона у 40 пациентов с различной патологией. Из 40 больных 28 были прооперированы на органах брюшной полости (тонкий и толстый кишечник, желчный пузырь, поджелудочная железа и т.п.), 7 больных перенесли операции на мягких тканях, 2 больных — операции на легких, 3 — отравление окисью углерода. Критериями включения больных в исследование было наличие исходного гиподинамического типа гемодинамики, отсутствие признаков почечной недостаточности и нарушений коагуляции. С целью коррекции гиподинамического типа кровообращения и гемодилюции в комплексе инфузионной терапии применялся Гекотон. Использовалась низкая доза препарата — 3 мл/кг/сут. Скорость введения составила в среднем 1,5 мл — 3,0 мл/кг/ч. Применяемая доза препарата в течение трех дней подряд не превышала 600–800 мл. Общий объем инфузионнотрансфузионной терапии составил в среднем от 1,2 до 1,5 л в сутки и включал дополнительно растворы кристаллоидов и глюкозы. У больных в динамике на протяжении трех суток исследовались показатели центральной гемодинамики реографическим методом, кислотно-основное состояние, газы крови, Ht, SpO2, коагулограмма (активированное частичное тромбопластиновое время, протромбиновое время, тромбиновое время, тромбоциты, растворимые фибрин-мономерные комплексы). В результате проведенного исследования получены изменения исследуемых показателей (кислотно-основное состояние, газы крови, Ht, коагулограмма) на уровне тенденций. Показатели ЦГ (АД, УИ, СИ) при поступлении были снижены на 15–20 %, а ОПСС, ЧСС — повышены на 18 и 24 % соответственно по сравнению с

показателями контрольной группы. Повторные исследования, проведенные в динамике, показали восстановление исследуемых параметров ЦГ до контрольного уровня у 32 больных через 12 ч, у 8 больных — через 18 ч от начала лечения. Больных с гиподинамическим типом кровообращения через 72 ч обнаружено не было. Полученные результаты позволяют рекомендовать применение препарата Гекотон в комплексе лечения пациентов с гиподинамическим типом кровообращения для стабилизации кровообращения, терапевтического разведения крови с лечебной целью (гемодилюции). Актуальным вопросом ИТ неотложных состояний являются быстрота наступления гемодинамического эффекта (для того, чтобы максимально быстро восстановить основные функции жизненно важных органов и систем), а также его продолжительность. Необходимо помнить, что переливаемые жидкости — это лекарство, поэтому применять их нужно обдуманно и обоснованно. Здравый смысл, основанный на результатах многочисленных исследований и личном опыте, убеждает клиницистов в том, что сочетание кристаллоидов и полусинтетических коллоидов — идеальная комбинация для проведения ИТ при тяжелых заболеваниях и критических состояниях. Исследования последних лет несомненно свидетельствуют о важной роли гликокаликса как регулятора перемещения коллоидов и кристаллоидов через сосудистую стенку. Прежде всего речь идет о миграции альбумина и вводимых искусственных коллоидов через сосудистую стенку в интерстиций, оттуда — в лимфу, из лимфы — назад в сосуды, поддерживающей таким образом гомеостаз внеклеточного пространства. Именно на этом уровне возникают ятрогенные последствия инфузионной терапии, определяющие неблагоприятный исход.

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ВЛИЯНИЕ ПОГОДНЫХ УСЛОВИЙ НА РЕЖИМ ДВИЖЕНИЯ АВТОБУСОВ НА ГОРОДСКИХ МАРШРУТАХ

Аннотация: При разработке расписания движения общественного транспорта не учитывается фактор влияния погодных условий на изменение пассажиропотоков на маршруте. Научный подход для решения данной проблемы требует определения взаимосвязи между пассажиропотоком на маршруте движении автобусов и показателями погоды. В статье авторы исследуют взаимосвязь между погодными характеристиками и пассажиропотоком на маршруте движения автобусов.

Ключевые слова: Пассажир, общественный транспорт, погодные индикаторы, температура, время в пути, влажность, осадки.

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THE INFLUENCE OF WEATHER CONDITIONS ON THE MODE OF MOVEMENT OF BUSES ON URBAN ROUTES

Annotation: Public transport flow does not take into account passenger flows along the route depending on weather conditions. Weather indicators are important for assessing passenger traffic in public transport, as well as for predicting passenger traffic. A scientific approach to this issue requires determining the relationship between the flow of passengers during the movement of buses between weather indicators. The article examines the relationship between the weather characteristics of shuttle buses and passenger traffic.

Keywords: Passenger, public transport, weather indicators, temperature, route time, humidity, precipitation.

Расписание движения общественного транспорта зависит от конкретного пассажиропотока, и оно обычно разрабатывается с учётом спроса пассажиров, расстояния маршрута, типов автобусов на маршруте и погодных условий. Погодные условия – один из основных факторов, влияющих на пассажиропоток в общественном транспорте. При движении общественного транспорта по маршруту показатели изменения пассажиропотока будут зависеть от уровня суточных осадков, влажности, температуры и времени года. Одним из показателей, характеризующих динамику продаж билетов для пассажиров, является влияние погодных условий. Температура и влажность - важнейшие факторы, влияющие на потоки пассажиров в общественном транспорте. Поэтому при разработке расписания движения общественного транспорта важно проводить исследования по прогнозированию динамики изменения пассажиропотока с учётом погодных условий.

Помимо ряда будних и праздничных дней, праздников, отпусков и крупных событий, которые влияют на поток пассажиров в соответствии с количеством проданных билетов, погодные индикаторы также влияют на такие показатели, как температура, влажность и осадки. Индикаторы погоды играют важную роль в прогнозировании пассажиропотока в общественном транспорте. Температура ниже - 50 и осадки приведут к увеличению продаж билетов в будние дни, то есть к увеличению пассажиропотока в общественном транспорте примерно на 30%. В условиях осадков и низких температур в выходные дни поток пассажиров в общественном транспорте значительно сокращается по сравнению с рабочими днями. Изменение пассажиропотока в зависимости от погодных условий связано с географической вероятностью пунктов назначения и местоположения пассажиров. Научный подход к этому вопросу требует определения взаимосвязи между погодой и пассажиропотоком на общественном транспорте. В статье нами исследуется взаимосвязь между

пассажиропотоком и погодными условиями на городских автобусных маршрутах.

Сегодня количество постоянных жителей, гостей, сотрудников и студентов в Ташкенте растет день ото дня. Транспортные услуги для большинства пассажиров оказываются автобусными маршрутами ОАО «Тошшахартраншизмат». С целью повышения качества транспортного обслуживания пассажиров актуальным в этой связи является проведение научных исследований колебания пассажиропотоков на автобусных маршрутах и факторов, которые на них влияют.

Исследователи по всему миру провели множество научных исследований для решения этих проблем. Например, исследователи из Department of Meteorology, Freie Universit¨at Berlin, Germany, K M Nissen, N Becker, O D¨ahne, M.Rabe, J.Scheffler, M Solle и U Ulbrichих изучали, как погодные условия в Берлине влияют на пассажиропоток. Исследование показало, что поток пассажиров в общественном транспорте Берлина определяется продажей билетов. В анализе учитывались пассажиры старше 6 лет и пассажиры, пользующиеся общественным транспортом на основе электронной оплаты. Исследования показали в Берлине увеличилась доля билетов проданных водителями автобусов в плохую погоду [1].

Technological University Dublin - Исследователи Blanchardstown Campusa Markus Hofmann и Margaret O'Mahon изучали работу автобусов в различных погодных условиях. В ходе исследования разработаны рекомендации диспетчерам по учету погодных условий при составлении расписания движения автобусов. В исследовании проанализирована взаимосвязь между изменениями пассажиропотока в погодных условиях за 12 месяцев в году [2].

Institute of Future Cities, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong исследователь Sui Taoa, ва Jonathan Corcoranb, Francisco Rowec, Mark Hickman провели исследования по разработке моделей, которые зависят от местных погодных условий в отношении времени в пути на автобусе. В исследовании смоделировано влияние погоды на почасовое движение автобусов с учетом функциональных возможностей региона. Исследование было рассчитано для получения запаздывающих эффектов автобусов в наборе данных с транзитных смарт-карт и подробных измерений погоды в единицах времени **[3].**

Исследователи Syeed Anta Kashfi из Технологического университета Квинсленда, Австралия, и доцент Professor Jonathan Bunker провели исследование влияния погоды на движение автобусов. В исследовании изучалось влияние неблагоприятных погодных условий на движение автобусов. Были изучены вопросы погодной зависимости автобусных маршрутов и времени в пути, а также влияние частного транспорта на движение автобусов в неблагоприятных погодных условиях [4].

С целью изучения факторов, влияющих на пассажиропоток на общественном транспорте города Ташкента, проанализирован опыт развитых стран в прогнозировании пассажиропотока на общественном транспорте, все факторы, влияющие на движение и современные методы обслуживания пассажиров на общественном транспорте.

В Ташкенте в настоящее время проживает более 3,0 миллионов человек. В 2020 году Республику Узбекистан посетило 6 748 500 туристов, из которых 19% приходится на город Ташкент. Если проанализировать количество пассажиров, перевезенных общественным транспортом в Ташкенте в течении года, то это 104 725 000 человек. В Ташкенте у пассажиров есть выбор общественного транспорта так как пассажиров обслуживают разные виды транспорта. К ним относятся метро, автобусы и такси.

Изучение пассажиропотока проводится в будние и выходные дни. Согласно анализу работ мировых учёных показывают погодные условия в выходные дни имеют большее влияние на пассажирооборот в общественном транспорте. Еще одним фактором, влияющим на поток пассажиров общественного транспорта в Ташкенте, является тот факт, что школьники и студенты не пользуются общественным транспортом во время каникул и школьных, технических и университетских каникул. Согласно исследованиям, этот фактор влияния проявляется в загруженности общественного транспорта, то есть промежутке времени между 7 и 9 часами утра. Существуют несколько способов определения пассажиропотока. Его можно определить, рассчитав поток пассажиров относительно проданных билетов и прибавив к нему процент пассажиров, путешествующих на основе электронных карт с ежемесячной оплатой. Общий расчёт пассажиропотока основан на продаже билетов по опыту зарубежных стран. Пассажиропоток меняется в дождливые, морозные, засушливые дни с низкой влажностью и даже в безоблачные дни. Пассажиропоток значительно сокращается даже в ненастную погоду в ночное время в выходные дни. Изучать влияние погоды на движение общественного транспорта целесообразно двумя способами: абсолютным и относительным. [5]

Абсолютный метод предполагает изменение потока пассажиров вне зависимости от водителей автобусов. В относительном смысле понимается движение, связанное с воздействием погоды на водителей автобуса. Исследования показывают, что удобство времени ожидания и мест для общественного транспорта также влияет на поток пассажиров в неблагоприятных погодных условиях. Это будет зависеть от потока пассажиров общественном транспорте.

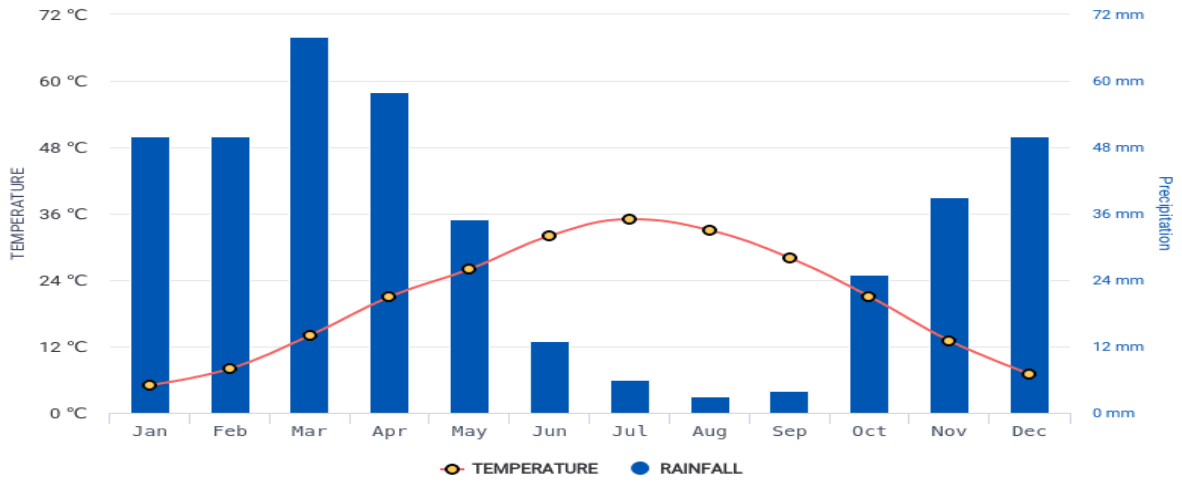


Рис.1. Общие показатели температуры и осадков города Ташкента

Temperature - температура

Rainfall – индикатор осадков

По данным hikersbay.com, самая высокая температура в Ташкенте за многие годы приходится на июль, а самая низкая - в январе. Анализируя данные об осадках, можно сказать, что наибольшее количество осадков выпало в марте, а наименьшее - в августе. Были и организаторы метеорологических указателей. Также есть индикаторы, такие как атмосферное давление, время восхода и захода солнца и средняя скорость ветра [6].

Ниже рассматриваются основные факторы, влияющие на режим движения городского общественного транспорта.

- дневное время (время пиковой нагрузки - обычно с 700 до 900 и с 17:00 до 19:00, свободное время);
- сезон (сезон, месяц);
- будние дни (будни и выходные);
- погодные условия (температура, осадки и влажность);
- каникулы (школьные и студенческие каникулы, выходные помимо праздника);
- праздничные дни (1 января - Новый год, 8 марта - Международный женский день, 21 марта - Навруз, 9 мая - День Победы, 1 сентября - День Независимости, 1 октября - День учителя и наставника, 8 декабря - День Конституции, Рамадан и др.;
- крупные мероприятия (спортивные соревнования, концерты, конференции, симпозиумы);
- геопозиция - демографические и другие показатели города и области:

Показатели пассажиропотока по видам транспорта в Республике Узбекистан

Таблица №1

Годы	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020[2)]*
Перевезено пассажиров, *млн.пасс*	**4 909,9**	**5 169,9**	**5 380,0**	**5 560,4**	**5 679,0**	**5 951,5**	**6 025,1**	**5 240,4**
Ж/д транспорт	17,4	19,1	20,1	20,5	21,1	22,1	22,9	6,2
Автомо-бильный транспорт	4815,8 [1)]	5079,0 [1)]	5293,2 [1)]	5480,8 [1)]	5 591,3	5 852,8	5 915,2	5 192,9
Троллейбус	0,4	0,9	0,8	0,8	0,5	0,5	0,7	0,4
Трамвай	14,7	14,6	11,4	2,7	2,3	4,4	3,8	1,2
Метрополитен	59,2	54,0	52,3	53,5	61,6	69,1	79,2	38,8
Воздушный транспорт	2,4	2,3	2,2	2,1	2,2	2,6	3,2	0,9

1) Уточнённые сведения

2) Предварительные данные

Согласно динамике пассажиропотока, приведенной в Таблице 1, в 2013-2020 годах доля автомобильного транспорта в общем пассажирообороте транспортной системы страны оставалась стабильной на уровне 95-99%. Рост пассажиропотока на автомобильном транспорте в 2013-2020 гг. составлял в среднем 4-6% ежегодно.

Нами проведён анализ влияния погодных показателей на пассажиропоток применительно к количеству пассажиров, перевезенных в 2020 году на автобусах, принадлежащих 1-му автобусному парку АО «Тошшахартрансхизмат» в Ташкенте. (Таблица № 2)

Таблица № 2

Среднестатистические показатели погоды и количество переве-зённых пассажиров автобусами 1 – автобусного парка за 2020 год

Месяцы	Количество пассажиров (Q)	Средняя температура погоды (t)	Уровень влажности (%)	Средняя температура почвы (t)	Осадки (мм)	Снежный покров (высота см)
январь	817 173	5,6	61	3	74,5	3
февраль	804 373	5,7	61	5	30,6	6
март	885 662	12,9	56	13	47,1	0
апрель	922 657	15,8	11,7	17	46,2	0
май	903 886	22,5	42	29	0,8	0
июнь	782 579	25,6	39	32	55,6	0
июль	761 087	21,4	30	39	0	0
август	784 715	27,5	33	34	0	0
сентябрь	844 900	21,4	39	25	2,6	0
октябрь	844 715	16,1	47	16	4,6	0

ноябрь	835 959	5,5	70	4	28,4	3
декабрь	873 109	6,3	65	4	39,1	1

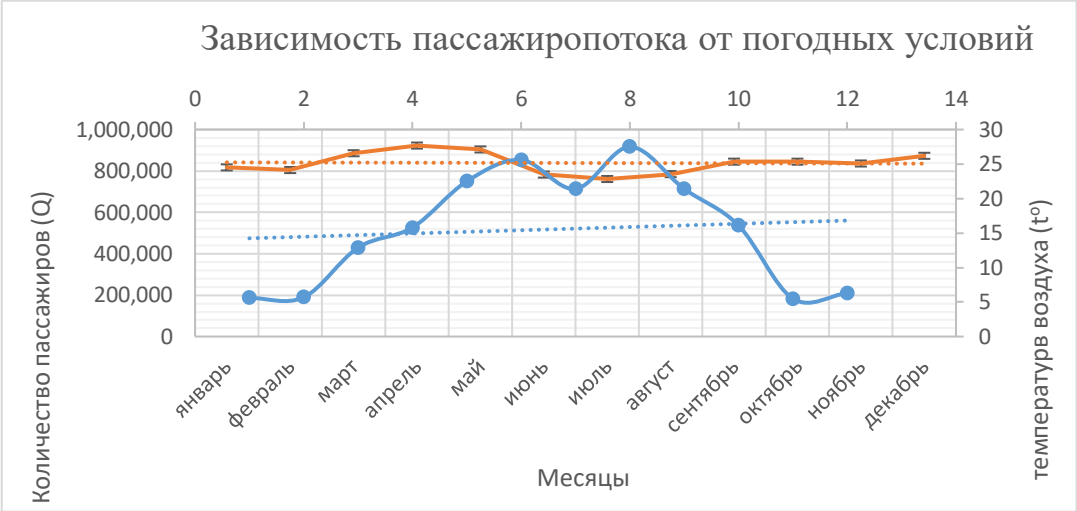


Рис.2 Пассажиропоток и среднестатистические показатели погоды

В результате исследования влияния погодных условий на пассажиропоток нами составлен рисунок № 2, где показана степень влияния изменения погоды на пассажиропоток на автобусных маршрутах, выполняемых автобусами 1 – автобусного парка.

Самая высокая температура в анализируемом году была в июле-августе. Как видно из этого графика, самый низкий уровень пассажиропотока соответствует самым высоким месяцам температуры. Еще одним фактором, влияющим на пассажиропоток, является то, что школьники и студенты в июле-августе на каникулах. Месяцы увеличения пассажиропотока – апрель и декабрь. В декабре мы наблюдаем, что температура воздуха упала в среднем на -50, что, в свою очередь, привело к увеличению пассажиропотока в это время. Согласно опросу пассажиров, при низких температурах и минусах они чаще пользуются общественным транспортом, чем личным.



Рис. 3. Пассажиропоток и среднестатистические показатели влажности (%)

При изучении взаимосвязи между среднемесячным потоком пассажиров на момент анализа и влажностью погоды (рис. 3) наибольший пассажиропоток наблюдался в апреле, когда уровень влажности был самым низким.

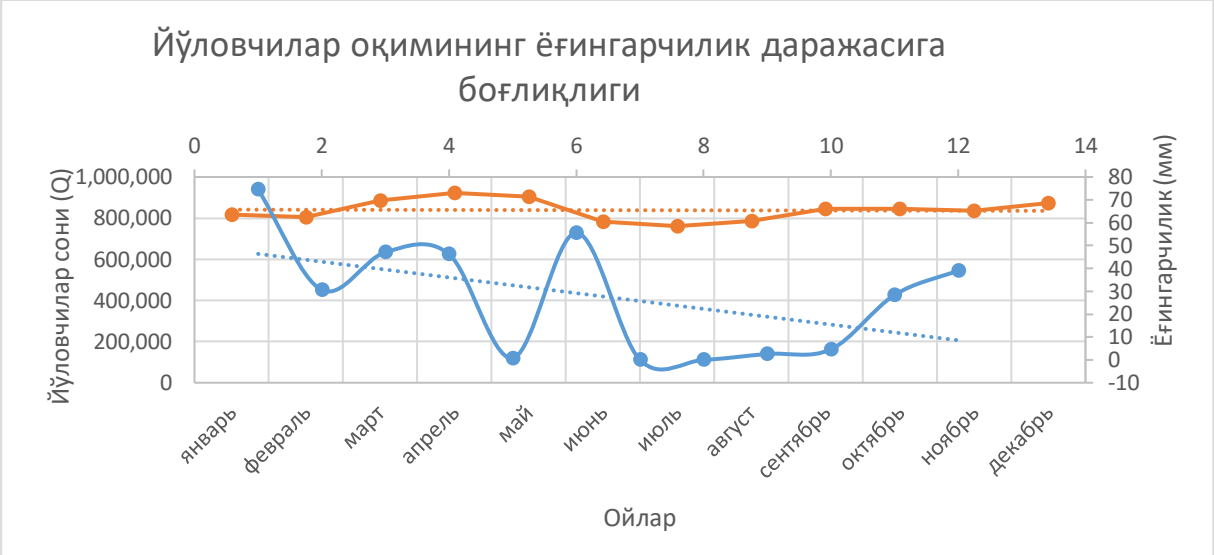


Рис.4. Среднестатистические показатели влияния осадков (мм) на пассажиропоток

Наименьшее количество пассажиров, зафиксированное в июле-августе, когда наблюдалось минимальное количество осадков (рис. 4), также было связано с периодами школьных и студенческих каникул.

Он будет полностью подвержен влиянию погодных условий во время движения общественного транспорта. Поэтому качество услуг общественного транспорта также зависит от погодных условий. Влияние погодных показателей на готовность автобусов проявляется в основном в периоды невысокой температуры. Неблагоприятные погодные условия на маршруте приводят к проблемам, связанным с необходимостью определенного снижения скорости движения по скользкой дороге, ухудшением видимости в дождь и туман, изменением пассажиропотока при дожде и низких температурах, маневренностью автобусов, повышенной загруженностью движения. Эти негативные эффекты приводят к увеличению общего времени в пути общественного транспорта и снижению качества обслуживания. 35-40% времени общественного транспорта на маршруте уходит на остановки (остановки) на промежуточных станциях. Время маршрута и скорость связи будут изменяться под воздействием вышеуказанных индикаторов.

В заключение отметим, что организация движения общественного транспорта без учета погодных показателей негативно сказывается на времени проезда автобуса по маршруту и на качестве обслуживания. Исследование показали, что неучёт погодных показателей в режиме общественного транспорта приводит к снижению качества обслуживания.

Такие факторы, которые влияют на отклонение расписания движения автобусов от плана, желательно учитывать при разработке расписания. Есть возможность учесть каждый из погодных показателей при разработке расписания, обеспечить ассортимент автобусов, повысить надежность обслуживания пассажиров.

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ТРАНСФОРМАЦИЯ МОЛОДЁЖИ НОВОГО УЗБЕКИСТАНА В СОЦИАЛЬНО-ИННОВАЦИОННЫХ ПРОЦЕССАХ: СОЦИОЛОГИЧЕСКИЙ АНАЛИЗ

Аннотация. В данной статье анализируется роль молодёжи в устойчивом развитии социальной структуры. В ней приведено научное определение и проанализирована роль молодёжи в развитии общества. Также в статье раскрывается суть реформ, проводимых в Узбекистане по формированию молодёжи как активной социальной группы нашего общества.

Ключевые слова: молодёжь, социальная группа, инновация, неорганизованная молодёжь, пассивная молодёжь, активная молодёжь, социально-инновационная активность.

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TRANSFORMATION OF THE YOUTH OF NEW UZBEKISTAN IN SOCIAL AND INNOVATIVE PROCESSES: A SOCIOLOGICAL ANALYSIS

Abstract. This article analyzes the role of youth in the sustainable development of the social structure. The existing scientific concepts were given and analyzed the work of young people to develop our society. The author thought about how youth's role in the sustainable development of the social structure is played. Simultaneously, the article revealed reforms, the necessary measures carrying out in Uzbekistan for the formation of young people as an active group of our society.

Keywords: youth, social group, innovation, unorganized youth, passive youth, active youth, social innovation activity.

Вопросы связанные с молодёжью всегда были актуальными, так как именно молодёжь является приемником нации и потенциальными трудовыми ресурсами, которая обеспечивает настоящее и будущее страны, соединяет настоящее поколение с предыдущими поколениями. Своими качествами как стремление к новаторству и склонностью к творчеству они выделяются от других социальных групп и классов. Естественно, что эти особенности также влияют на растущие потребности молодёжи в материальной, социальной и духовно-просветительской сферах. Расширения масштабов потребностей, в частности, когда жизненные потребности молодёжи превышают динамику производства социальных предложений в обществе, создается состояние дисбаланса между их потребностями и имеющимися в обществе возможностями, что может приводит к различным конфликтам. В связи с этим, растет необходимость последовательного и целенаправленного исследования данных трансформационных социологических процессов, происходящих в жизни современной молодёжи.

Молодёжь составляет одну из самых сложных групп в социальной структуре общества, в связи с тем, что молодёжь сама по себе неоднородна и у них на разном уровне и степени сформированы потребности и интересы. С этой точки зрения актуальным является вопрос о её самостоятельности как социального слоя или группы, или же как единицы в структуре других социальных групп. Кроме того, в условиях процесса глобализации в мире, их консолидация на основе общих целей и интересов, роли в прогрессе общества и как силы, составляющую основу социальной структуры общества, проявляются как факторы, обеспечивающие стабильное развитие страны.

В современном стремительно меняющемся мире, в контексте развития рыночных отношений, растет потребность в фундаментальном изучении проблем молодёжи. Сегодня реализация интересов молодежи определена как одна из приоритетов государственной политики. «Мы прилагаем все усилия, чтобы укрепить гражданскую позицию и активность подрастающего поколения, научить наших детей мыслить независимо, приобретать современные знания и навыки, чтобы быть готовыми конкурировать на международной арене, становиться зрелыми профессионалами»[67]. С этой точки зрения социологическое исследование трансформации молодежи нового Узбекистана в социально-инновационных процессах имеет научное и практическое значение.

[67] Мирзиёев Ш.М. Стратегия Нового Узбекистана. Ташкент. Издательство «Узбекистан», 2021. - С. 54-55.

Для начала необходимо дать определение понятию молодёжь. Учёных по данному вопросу условно можно разделить на две группы: те, кто признает их существование в обществе как самостоятельной социальной группы, (О.И.Белый, Н.Б.Горбачева, В.В.Давнис, О.А.Донских, С.О.Елижев, А.И.Ковалева, В.А.Луков и других), которых можно включить в первую группу, а также Л.Л.Штуден, М.Ю.Немцев и других можно включить во вторую группу. По мнению последних молодёжь можно анализировать только с точки зрения возраста, а не как независимая социальная единица. Однако и у них с точки зрения возрастного ценза нет единого мнения. В частности, если Н.И.Маркова, С.О.Елишев, А.Ф.Радченко обосновывают обеспечение валидности исследования молодёжи разделив их на лица в возрасте от 14 до 30 лет, то О.И. Белый, делит их на три группы: от 14 до 18 лет, от 18 до 22–25 лет, от 25 до 30 лет, В.В.Давнис разделяет их на три группы: несовершеннолетние (15–19 лет), совершеннолетние (20–24 года) и взрослые (25–29 лет).

Из вышесказанного ясно, что у исследователей нет единого мнения является ли молодёжь отдельной социальной группой и каково её внутреннее устройство. Кроме возрастного, не существуют также единого мнения о том, по какому из факторов, таких как местожительство, возраст, образование, семейное (социальное) положение, можно определить их место в социальной структуре общества. Сложно раскрыть всю сущность молодёжи, объединив и изучив все вышеперечисленное в одну систему. С учетом изложенного, на наш взгляд, не усложняя определение понятие молодёжь, её можно разделить на следующие группы:

1. Дошкольный возраст – от 1 до 7 лет (дети);
2. Школьный возраст – от 7 до 16 лет (подростки);
3. Молодежь от 16 до 30 лет (достигшие зрелости).

Классификикация возрастных групп в указанном порядке облегчает определение молодёжи: **во-первых,** с точки зрения возраста; **во-вторых,** места и значение их в обществе; **в-третьих,** демографического статуса в структуре населения страны.

На наш взгляд, социальную группу молодёжи можно определить следующим образом: **Молодёжь** является самостоятельным субъектом, которая имеет свои интересы как социальная группа общества, член семьи, представитель нации или народа, гражданин, создатель и потребитель материальных и духовных ценностей, обладатель уникального статуса по отношению к той или иной идеологии, связывающие различные поколения и участвующее во всех сферах и деятельности общества, а также ответственная за будущее страны. В этом определении обобщенно учтены права, обязанности и интересы молодёжи. Это помогает четко понять её статус, место в развитии общества и страны. В этом определении в отличие от других, излагается идея о том, что молодёжь обладает самостоятельным статусом как независимая социальная группа. Она,

прежде всего, одна из важных групп, образующих население страны, обеспечивающих её естественный прирост и дополнение выбывающей её части.

Во-вторых, молодёжь является главным трудовым ресурсом страны. Старение и убывание (смерть) части населения - объективный процесс; **в-третьих**, молодёжь занимает особое место в обществе и как важный член семьи; **в-четвертых**, молодёжь играет роль хранителя и защитника нации от различных угроз и враждебных сил; **в-пятых**, молодёжь составляет основу военной мощи страны. Она также является главной силой в обеспечении национальной безопасности, защищая её от внешних и внутренних врагов; **в-шестых**, молодёжь - сила, которая поддерживает непрерывность развития нации. Основными факторами, обеспечивающими её выживание являются то, что они понимают и гордятся своими достижениями, осознают интересы своей нации, обладают чувством самоотверженности ради прогресса и настроены на развитие в соответствии с изменениями во времени и пространстве.

Вместе с тем, как было отмечено выше расслоение среди молодёжи может происходить в экономической, социальной, политической, духовно-просветительской и интеллектуальной сферах. Это, во-первых зависит, от разнообразия физических, интеллектуальных, жизненных, экономических, социальных, духовных и образовательных возможностей и образа жизни людей в обществе, а во-вторых, от деятельности государства в экономической и социально-политической сферах.

На расслоение молодёжи влияют: отсутствие работы, справедливости и равенства в использовании материальных и духовных богатств; наличие коррупции в системе образования и управления; в случае, если принимаемые законы и решения в части, касающихся молодёжи формальны и не реализуются на практике; кризисы в экономической, социальной и духовной сферах; медлительность в реализации государственной политики в отношении молодёжи; «упадок» желаний и стремлений молодёжи к освоению науки, техники и технологий; отчуждение молодёжи от семьи и духа коллективности.

Для устранения данного процесса или её минимизации необходимо повышение социально-инновационной активности молодёжи, которая играет важную роль в процессе её социализации.

Под повышением социально-инновационной активности молодёжи подразумевается (исходя из изменений происходящих в социальной структуре общества (развитие и кризисов) формирование в их сознании и мировоззрении направленности и целеустремлённости на прогрессивное развитие, потребность работать вместе, как единая сила, преодоление общих существующих проблем. Это важная задача является приоритетным направлением молодёжной политики страны.

Создание государством новых рабочих мест, мероприятия, направленные на «адаптацию» молодёжи к меняющимся потребностям общества, в частности, осуществление структурных изменений в производстве, организационно-практические меры, такие как повышение квалификации молодёжи и формирование новых навыков в соответствии с новыми направлениями, обеспечивают повышение их социально-инновационной активности.

Если провести сравнения портрета молодёжи в первые годы независимости и молодёжи Нового Узбекистана, то можно выделить (исходя из полученных результатов социологических исследований 1998-1999 годы и 2021 года) следующие черты:

Характеристика молодёжи 1998-1999гг.

- стремление к открытости;
- склонность к риску;
- следование традициям;
- социальная пассивность;
- отсутствие чувства причастности к реформам;
- склонность влиянию «деструктивных» сил;
- не имение навыков «фильтрации» информаций в Интернете и социальных сетях.

Характеристика молодёжи Нового Узбекистана (2021 г.):

- независимость в мышлении;
- стремление к инновациям;
- обладание современными знаниями и профессиями;
- наличие гражданской позиции;
- способность к конкурированию на международной арене;
- стремление стать зрелыми профессионалами;
- сформированный идеологический иммунитет к информации в Интернете и социальных сетях.

За более чем двацать лет произошли кардинальные изменения интересов и ценностных ориентаций молодёжи. Современная молодёжь Узбекистана более прагматична, ориентирована на результат, у неё развито стремление к познанию и инновациям, она умеет фильтровать информацию и использовать в своих интересах. Тем не менее, незначительная часть молодёжи участвуют в инновациях, в научных исследованиях.

Понятие «инновация» не так давно используется в узбекской научной литературе (исследователи дали ряд определений), данный вопрос и по сей день не потерял своей актуальности. Это определение может показаться простым и легким, но на практике она многогранна и сложна. Это обусловлено тем, что, с одной стороны, она относится ко всем сферам деятельности человека, а с другой стороны, масштабы её создания, практического внедрения и эффективные результаты, проявляются в

реальной жизни. Исходя из выше представленного мнения можно сказать, что, ***«инновация»*** - это процесс создаваемых нововведений, изобретений и их внедрение на практике, вчера не существовавшие, сегодня являющиеся практическим результатом интеллектуального потенциала человека в науке, технике, технологиях, а также в социально-экономической, в социально-политической и в духовно-просветительской сферах общества.

Без активного участия молодёжи в инновационных процессах невозможно достичь прогресса. По нашему мнению, перед нами актуально стоят следующие вопросы, требующие своего решения: а) формирование инновационного мышления у молодёжи; б) развитие на уровне современных требований их интеллектуального потенциала; в) их социализация в общество, т.е., укрепление сотрудничества с различными социальными группами и слоями для достижения общих целей; г) обеспечение конкретной материальной поддержки инновационных идей; г) практическая реализация инновационных идей.

Социологический опрос проведенный нами совместно с коллегами кафедры «Социология» Национального университета Узбекистана, показал, как молодёжь понимает «инновацию» и насколько она вовлечена в данные процессы, как развиваются связанные с этим процессы. Всего в опросе приняли участие 1605 респондентов[68].

С целью определения отношения молодёжи к уровню развития инноваций в Узбекистане, респондентам был задан вопрос *«Как, по вашему мнению, развиваются инновации в Узбекистане?».* Участвовавшие в опросе респонденты ответили следующим образом: 403 респондента (25,1%) «очень медленно», 163 (10,2%) - «развиваются», 890 (55,4%) ответили «на среднем уровне», 117 - «развиваются очень активно» (7,3%), 32 (2)% - «совсем не развиваются».

Если проанализировать полученные данные и обобщить ответы, (включающие в себя инновации развиваются «очень медленно», «не развиваются» и «совсем не развиваются»), то выходит, что из общего числа, 588 (37,3%) респондентов недовольны текущим состоянием инновационных процессов в стране. Учитывая, что 991 респондентов (67,8%) имеют высшее образование, становиться очевидным, что инновационные процессы в стране отстают от потребностей быстро меняющегося мира, а также уровня прогресса.

Молодёжь по разному относиться и участвует в инновационных процессах. Исходя из социально-инновационной активности молодёжи их можно разделить на несколько групп. Из них неорганизованная молодёжь занимает особое место. Объединить неорганизованную молодёжь в ряды

[68] Социологический опрос был проведен 5-25 июля 2021 года среди 1605 респондентов. Для обеспечения репрезентативности исследования была выбрана выборка респондентов на основе территориальных и социально-демографических характеристик населения Узбекистана (место жительства, возраст, пол, национальность, образование, статус занятости и.т.д.).

организованной социальной группы молодёжи должно стать одной из важных задач государственных организаций и ННО. Учитывая то, что молодёжь является опорой будущего страны, важно наладить социальное партнерства между вышеуказанными организациями. Сотрудничество и направление молодёжи к достижению единой цели имеет не только социальное, но и важное политическое значение. И вправду, *неорганизованная молодёжь*, которая сформировалась в процессе перехода к рыночным отношениям, является одной из самых актуальных проблем, требующих от общества особого внимания. На самом деле эта задача связана не только с потребностями развития страны, но и с устранением формирования самых опасных черт характера (психики) молодёжи, таких как: 1) агрессия; 2) отчуждение от государства и общества; 3) отчуждение от семьи и родственников; 4) недоверие к государству; 5) возникновение чувства, что она «лишняя» для общества и семьи.

Если это своевременно не выявить, молодёжь станет склонна совершать негативные действия, такие как: а) насилие, жестокое обращение к людям и вероломство; б) объединение с «жестокими» и негативно настроенными силами (это будет проявляться в безоговорочном выполнении определяемых ими задач, которые противоречат интересам государства, общества и народа); в) строить свою жизнь на основе чувства космополитизма.

По нашему мнению, «неорганизованная молодежь» не возникает спонтанно, причины их появления вызваны следующими факторами: недостаточным развитием трудовых навыков у детей в семьях, наличие таких взглядов у родителей, типа: «еще молодой, со временем сам научится трудиться». В данном смысле, роль семьи в формировании у молодёжи трудовых навыков остается значительной. Нужно с детства обучать детей работать, самостоятельно организовывать свою жизнь. К сожалению, из-за того, что в процессе воспитания этому уделяется недостаточное внимание, некоторые молодые люди вырастают с «привычкой» «не работая жить комфортно».

Исходя из вышеизложенного, считаем, что неорганизованная молодёжь – это группа молодёжи, которая при переходе к рыночным отношениям не в состоянии адаптироваться к новым структурным изменениям во всех сферах жизни, имеющая ограниченные возможности трудоустройства, не имеющая конкретной и постоянной работы, не обучающаяся в учреждениях образования, отчужденная от жизни общества, недовольная и не желающая привыкнуть к получаемым доходам.

В вышеприведенном определении «неорганизованная молодежь» мы включили в неё молодых людей, которые не были вовлечены в определенную область производства, которые не учились в образовательном учреждении и не были обеспечены постоянной работой.

Исходя из этого определения, эти критерии также могут быть применены и к группе "пассивная молодёжь".

Но разница между "пассивной молодёжью" и "неорганизованной молодежью" заключается в том, что «пассивная молодёжь» участвуют во всех существующих процессах в жизни страны, также имеет постоянную работу или получает образование по той или иной специальности и находятся на разных этапах обучения. Но большинство из них – это молодые люди, которые, имея эти возможности, вместо того, чтобы эффективно их использовать, придерживаются таких (пассивных) взглядов, как «моя хата с краю», «какая мне разница», «день прошёл и ладно». Такие встречаются во всех сферах общества. Формированию такой психологии способствуют то, что в семье отсутствует последовательность в воспитании, несмотря на наличие материального достатка существует легкомысленное отношение к ним, отсутствие чувства уверенности в себе, на основе принципа «нам и этого хватит» безразличное отношение к окружающему миру, к окружающей действительности. Все это превращается в образ жизни.

В исследовании важных факторов, способствующих повышению активности «пассивной» молодёжи сделан следующий вывод. Активизация «пассивной молодёжи» протекает труднее, чем «неорганизованной молодёжи». Причина в том, что несмотря на наличие возможностей и условий, у «пассивной молодёжи» сформирована устойчивая психология. Для того, чтобы её изменить, сначала необходимо изменить сознание. Это намного труднее, чем создать условия и возможности для развития «неорганизованной молодёжи». Для этого, прежде всего, необходимо осознание экономических и социальных потребностей, обеспечение роста внутреннего духовного потенциала. Это предполагает наличие в обществе большого интеллектуального потенциала, а также чтобы все «механизмы», связанные с воспитанием работали стабильно и последовательно.

Важной частью молодёжи является «активная молодёжь». Под «активной молодёжью» понимается молодёжь, которая умеет использовать имеющиеся и созданные возможности во всех сферах жизни общества, преследует конкретные цели в своей повседневной жизни, в работе, учебе, профессии, стремится превратить успех в содержание и суть своей жизни и ответственно относиться к своей деятельности. Эта часть молодёжи не нуждается в «активизации», нужно только их убедить и направить на достижение конкретных целей.

Респондентам был задан вопрос: *«Следует ли, что либо изменить на вашем месте учёбы (работы)?* Ответом было: «да, нужно менять» - 991 респондентов (61,7%); «нет необходимости менять» - 353 респондентов (22%); «не знаю» - 261 респондентов (16,3%).

На вопрос *«Какие меры следует предпринять для активизации социальной группы молодёжи в обществе?»* (получено 5 242 ответов, в

связи с тем, что один респондент мог выбрать несколько вариантов): 962 респондентов отметили (18,3 %) – вовлечение молодёжи в сферы науки и образования; 724 респондентов (13,8 %) – усиление участия молодёжи в государственном управлении; 754 респондентов (14,4 %) – расширение условий для получения молодёжью высшего образования; 832 респондентов (15,8 %) – обеспечение занятости молодёжи; 135 респондентов (2,6 %) – создать условия для молодых людей только в вопросах получения образования и работы, но ограничить их участие в государственном управлении; 608 респондентов (11,6 %) – укрепление у молодёжи духа инициативности; 457 (8,7 %) – создание молодёжи условий для религиозного вероисповедания; 725 респондентов (13,8 %) – расширение возможностей для молодёжи по овладению современными информационными технологиями; 45 респондентов (1 %) – другие ответы.

Для того, чтобы активизировать молодёжь, 18,3% респондентов считают необходимым вовлечение молодёжи в сферы науки и образования. Это, конечно, свидетельствует о возросшем интересе нашей молодёжи к данным сферам. Мы считаем, что на это, безусловно, повлияли принятые государством нормативно-правовые акты, направленные на повышение роли науки и ученых в обществе, внимание, уделяемое обновлению материально-технической базы научно-исследовательских организаций.

Те, кто считает, что обеспечение занятости молодёжи (15,8%) будет способствовать их активизации, также составляет значительную часть. Это исходит из процессов, происходящих в обществе, связанные с развитием рыночной экономики, конкуренцией и пониманием того, что обеспечение занятости молодёжи является одной из главных социальных функций государства и достижение стабильного социального положения.

В последние годы условия для получения высшего образования молодыми людьми расширяются. В частности, открываются новые высшие учебные заведения, увеличиваются квоты приема, расширяются права высших учебных заведений. Это, в свою очередь, еще больше повышает интерес молодёжи к получению высшего образования. В частности, «расширение условий для получения молодёжью высшего образования» необходимым считают 14,4% респондентов, что свидетельствует о том, что этот вопрос имеет одно из первостепенных значений.

Также, признавая возрастающую роль молодёжи в общества, их активную деятельность во всех сферах, а также расширение их участия в системе управления, 13,8% респондентов выразили мнение, что «усиление участия молодёжи в государственном управлении» и столько же «расширение возможностей для молодёжи по овладению современными информационными технологиями», являются актуальными проблемами.

Исходя из вышеприведенного, считаем, что, во-первых, молодёжь неравнодушна к модернизационным процессам, происходящим в стране, и

они участвуют в них. Это очевидно из высказанных ими выше предложений о необходимости позитивных изменений в различных сферах жизнедеятельности; во-вторых, среди них имеются те, кто недостаточно вовлечены или заинтересованы в процессах, происходящих в обществе либо надо признать, что есть такие, кто проявляет к ним безразличие.

Респондентам также был задан вопрос: *«В каких сферах следует широко внедрять инновации?»* (были даны 2972 ответа с учетом, что один участник выбрал несколько вариантов). Респонденты высказали следующие мнения: нужно широко применять инновации: в экономической сфере – 663 (22,3%); в социальной сфере - 448 (15,1%); в информационно-коммуникационной сфере – 473 (16%); в науке, образовании, в технике и технологиях – 770 (26%); в духовно-просветительской сфере – 87 (3%); в политической сфере – 85 (2,7%); в образовательной сфере – 353 (11,8%); в остальных - 93 (3,1%) сферах.

Из этих данных видно, что большинство респондентов подчеркнули необходимость внедрения инноваций (по возрастающей) в образование, науку, технику и технологии, в экономическую, социальную и информационно-коммуникационную сферы. Конечно, это естественно, потому что эти направления влияют на развитие всех остальных отраслей. Самое главное, что респонденты правильно понимают содержание и суть происходящих глобальных процессов в мире, а также важность находится на уровне позволяющем конкурировать с другими странами в указанных отраслях.

На основе проведенной научно-исследовательской работы по происходящим трансформационным процессам в социально-инновационной деятельности молодёжи Узбекистана, мы пришли к следующим выводам:

1. Молодёжь как независимая социальная группа с научной точки зрения фундаментально недостаточна изучена. Практическое значение будет иметь обеспечение участия молодёжи в принятии решений в соответствии с их потенциалом и влияющим на развитие страны, а также поиск новых механизмов для дальнейшего повышения их активности, а также направление изменений происходящих в характере, мировоззрении, сознании и мышлении молодёжи в позитивное русло.

2. Важное значение в развитии общества имеет социализация молодёжи. В процессе социализации становится все более заметным отчуждение части молодёжи от общества. Предотвращение углубления этого сложного процесса остается одной из важнейших задач, стоящих перед государством, общественными организациями, семьей и родителями.

3. В социальной структуре общества имеются группы молодёжи как неорганизованная молодёжь, пассивная молодёжь и активная молодёжь, которые отличаются друг от друга своим статусом, отношениям к

происходящим процессам во всех сферах общественной жизни.

4. Исходя из того, что молодёжь является независимой социальной группой, нельзя отрицать того факта, что у них есть свои собственные интересы, цели и устремления. Их можно разделить на две группы: частную и общую. Первая связана с конкретными целями, интересами, устремлениями и социальным положением каждого молодого человека, в то время как вторая связана с общими интересами страны и прогресса нации.

5. В процессе перехода к рыночным отношениям под влиянием ряда объективных и субъективных факторов происходит формирование неорганизованной молодёжи, рост их доли, что может приводить к нестабильности и конфликтам. Активное участие в вопросах уменьшения количества существующих и предотвращения образованию новых, наряду с государственными институтами, должны принимать ННО и предприниматели, а также другие социально активные группы общества, что будет способствовать стабильности и ожидаемым положительным результатам в развитии.

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КАДРОВЫЕ ВОПРОСЫ И ОПЛАТА ТРУДА В ТРАНСПОРТНОЙ ОТРАСЛИ РОССИЙСКОЙ ФЕДЕРАЦИИ

Аннотация: В статье рассматривается одна из ключевых отраслей экономики – транспорт. Проведен анализ объема грузооборота и пассажирооборота в РФ в период с 2000 по 2021 гг. Приведена статистика доли видов транспорта, задействованных в грузоперевозках и пассажироперевозках. Приведены данные о состоянии транспортной отрасли Российской Федерации в динамике. Транспортная отрасль рассмотрена с точки зрения рабочих мест и трудоустройства. Проведен подробный анализ заработной платы занятых в транспортном комплексе. Произведена оценка изменений за анализируемый период.

Ключевые слова: грузооборот, пассажирооборот, транспорт, перевозки, заработная плата.

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PERSONNEL ISSUES AND REMUNERATION IN THE TRANSPORT INDUSTRY OF THE RUSSIAN FEDERATION

Abstract: The article discusses one of the key sectors of the economy – transport. The analysis of the volume of cargo and passenger turnover in the Russian Federation in the period from 2000 to 2021 was carried out. The statistics of the share of modes of transport involved in cargo and passenger transportation are given. The data on the state of the transport industry of the Russian Federation in dynamics are presented. The transport industry is considered from the point of view of jobs and employment. A detailed analysis of

the wages of those employed in the transport complex has been carried out. The changes for the analyzed period were evaluated.

Keywords: cargo turnover, passenger turnover, transport, transportation, wages.

Автотранспортные организации включают в такую отрасль экономики, как транспорт. Любая экономическая деятельность связана с увеличением удовлетворения потребностей людей, которые приобретают различные товары и услуги. В нашем случае основная цель транспортных организаций - создать благоприятные условия для перевозки человека или определённого товара в назначенное место и в назначенное время. Для данной отрасли характерен ряд особенностей, которые необходимы учитывать при проведении анализа. Например, важно обратить внимание на особенности географических условий, поскольку на все транспортные перевозки влияет путь, по которому осуществляется выполнение услуг. Также, важно обращать внимание на виды транспорта, осуществляющего грузоперевозки и пассажироперевозки, в силу различий их технического оснащения, которое предназначено для выполнения конкретных функций.

Целью анализа деятельности транспортных организаций является определение и оценка результатов в социально-экономической сфере.

К задачам, связанным с анализом деятельности транспортных организаций относится определение основных тенденций развития производства и возможностей улучшения эффективности деятельности предприятий

Объектом исследования являются транспортные компании, их деятельность и её последствия. В качестве единицы наблюдения рассматривается отдельная компания и особенности её функционирования.

Осуществление перевозок грузов и перемещения пассажиров является основной задачей транспортных организаций. Для положительной оценки деятельности автотранспортных компаний должен быть выполнен план по всем основным показателям и видам перевозок. Для этого важно отслеживать объём перевозок, осуществленных за год. Основной задачей нашего исследования в данном вопросе является отслеживание динамики грузооборота и пассажирооборота, а также формирование выводов, исходя из полученной информации. Единицей измерения данного показателя является тонно-километр. Чтобы получить результат необходимо суммировать все произведения массы перевезённых грузов на пройденное расстояние в километрах.

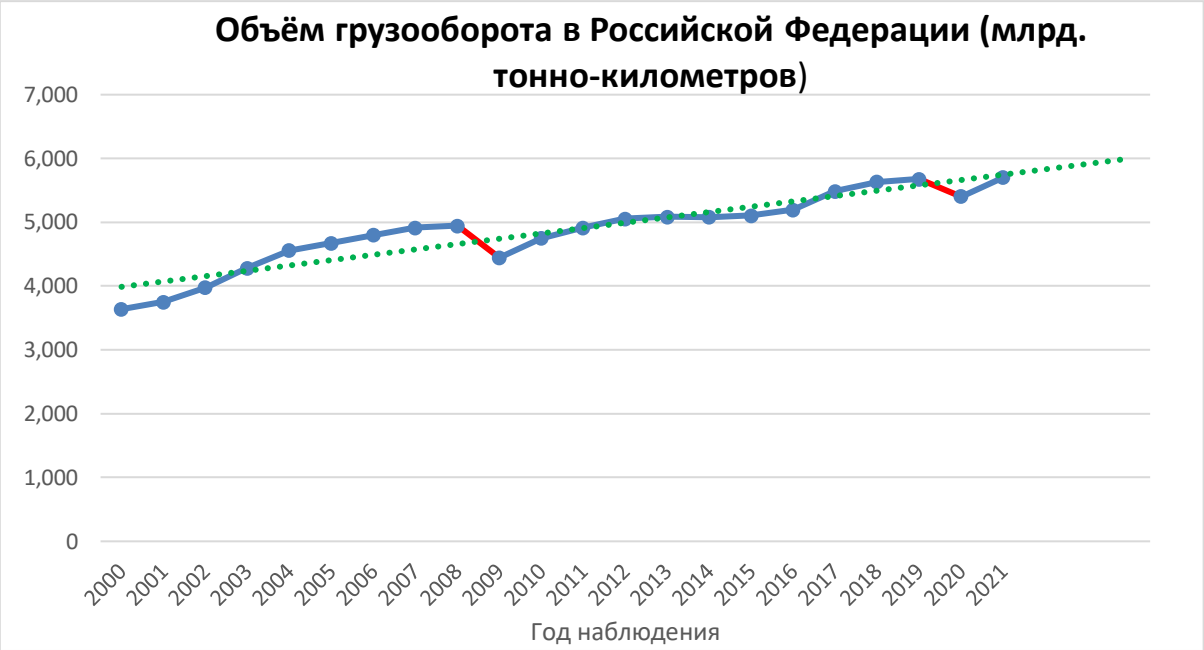


Рисунок 1 – Динамика объёма грузооборота в России **[1]**

Исходя из полученной информации можно обратить внимание на то, что грузооборот в России имеет положительную тенденцию. За анализируемый период лишь дважды было выявлено уменьшение грузооборота по сравнению с предыдущим годом, что говорит нам о стабильном развитии Российской Федерации в сфере грузоперевозок. Согласно полученной линии тренда уже к 2024 года мы сможем достичь результата в 6000 миллиардов тонно-километров по грузообороту.

Для того чтобы сделать вывод относительно этого вопроса по деятельности транспортных организаций в целом, необходимо привести также статистику пассажирооборота, который вычисляется путём суммирования произведений количества пассажиров на расстояние перевозки. При подсчёте учитывается вид транспорта, сообщения и другие признаки.

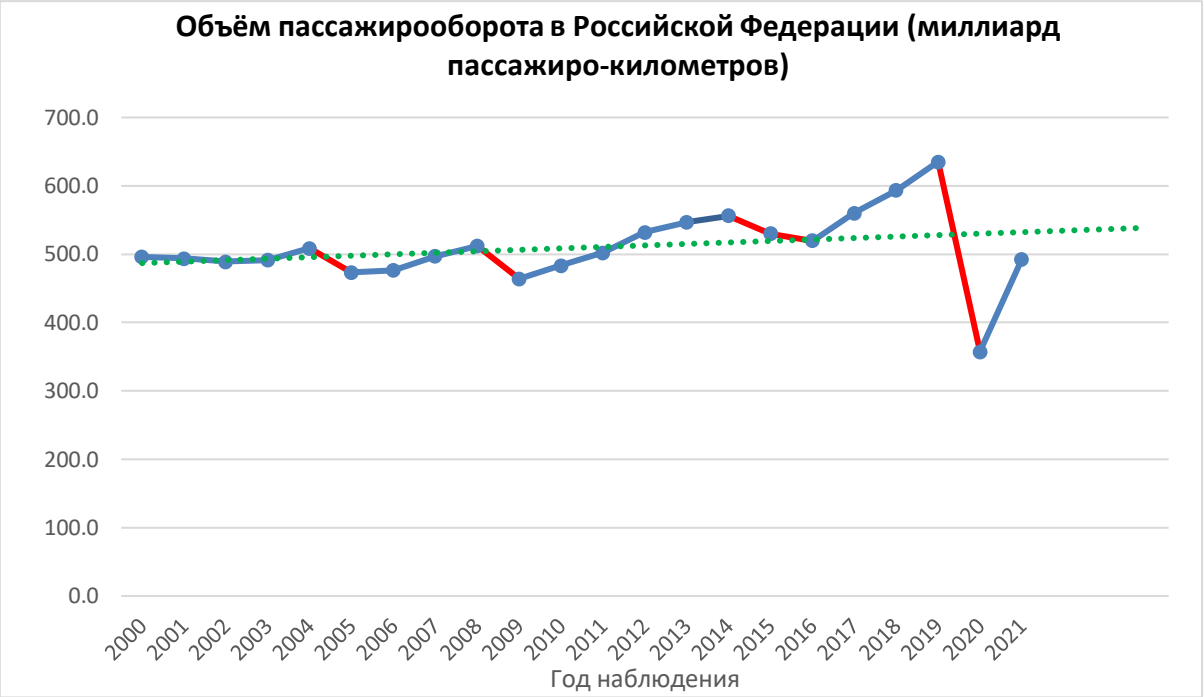


Рисунок 2 – Динамика объёма пассажирооборота в России [2]

Ситуация с пассажирооборотом в Российской Федерации не такая однозначная как с грузооборотом. Мы можем заметить резкий спад в период с 2019 по 2020 год, вызванный пандемией коронавируса, когда людям было необходимо находиться дома и отказаться от различного рода передвижений. Можно сказать, что в это время транспортные компании, осуществляющие свою деятельность в сфере пассажироперевозок испытывали не лучшие времена. Однако уже сейчас показатели постепенно возвращаются к уровню 2019 года и уже через несколько лет появится возможность говорить о положительной тенденции и в этой сфере.

Говоря в общем о деятельности транспортных компаний в России, всё-таки прослеживается положительная тенденция в их развитии, о чём говорит стабильность роста объёмов грузоперевозок и довольно быстрое возобновление высоких объёмов пассажироперевозок.

Для наглядности приведём статистику доли видов транспорта, задействованных в грузоперевозках и пассажироперевозках.

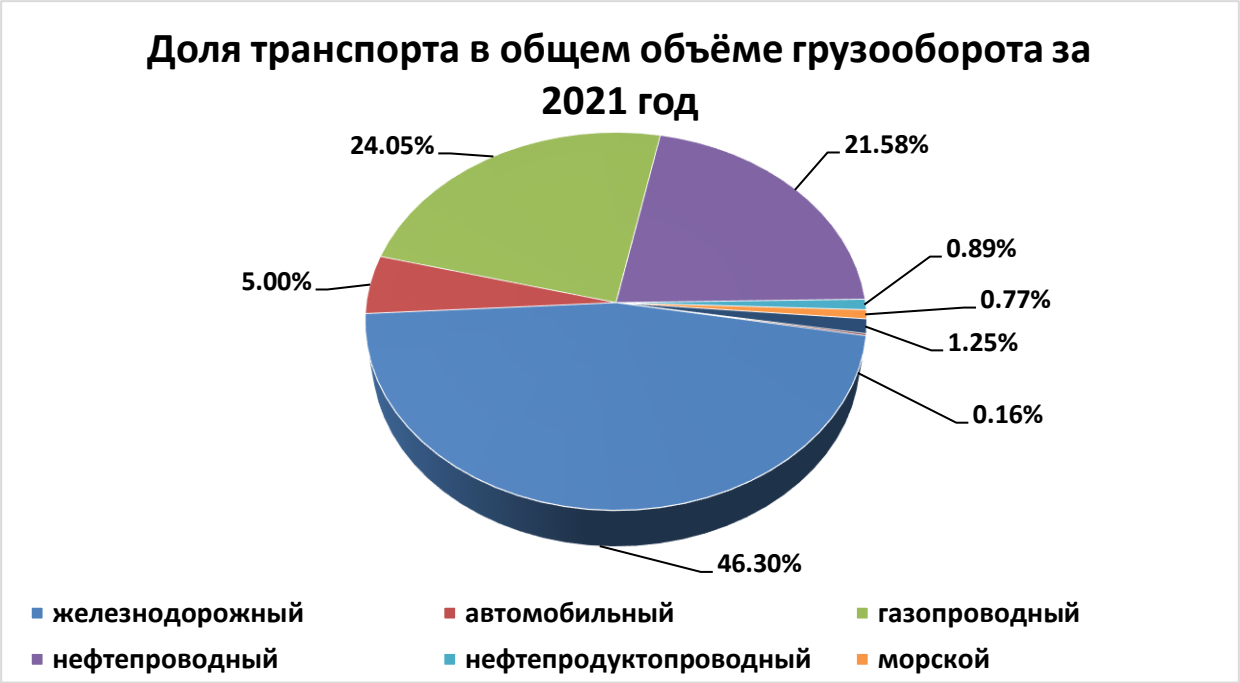


Рисунок 3 – Доля транспорта в общем объёме грузооборота [3]

Можно заметить, что примерно половина всех грузоперевозок в России приходится на железнодорожный транспорт.

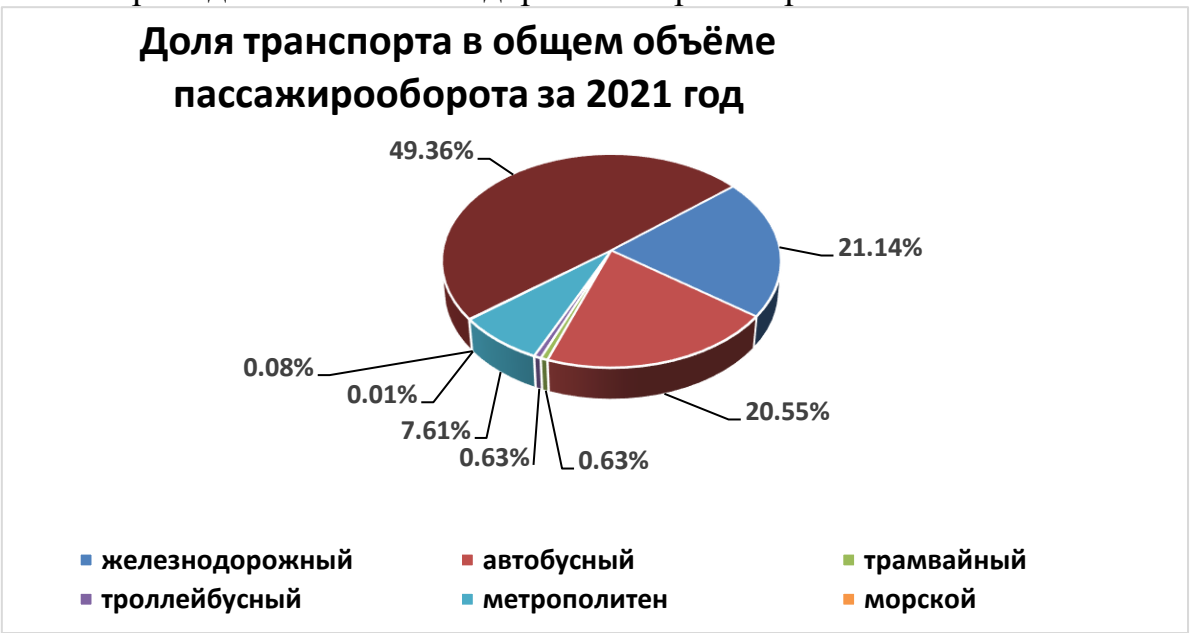


Рисунок 3 – Доля транспорта в общем объёме пассажирооборота [3]

Соответственно около половины перевозок пассажиров в нашей стране осуществляется с помощью авиасообщения.

Данная информация поможет нам понять, какие транспортные компании следует рассматривать при анализе прочих факторов, связанных с деятельностью транспортных компаний.

С помощью полученных данных выберем несколько крупнейших транспортных компаний и проведём сравнительный анализ их деятельности исходя из найденной информации.

Полученная информация позволяет нам рассмотреть транспортный комплекс с точки зрения потенциального рабочего места. Для этого необходимо обратить внимание на средние показатели заработной платы по каждому виду деятельности, включённому в эту отрасль. С помощью данных, полученных из информационно-статистического бюллетеня, составленного Министерством транспорта Российской Федерации за 9 месяцев 2022 года, можно сделать ряд выводов. Во-первых, средняя заработная плата по всему транспортному комплексу составляет примерно 74824 рубля, то на 14,5 % выше чем в предыдущем году. Это говорит о высоких перспективах для человека, желающего трудоустроиться. По крайней мере, в данной сфере человек способен иметь стабильный доход, причём его уровень выше среднего по нашей стране. Разберём наиболее привлекательные виды деятельности, представленные в данном комплексе. Для этого представим таблицу, составленную по данным информационного бюллетеня.

Таблица 1 **[**4]

Средняя месячная заработная плата занятых в транспортном комплексе

	Январь – сентябрь 2021 г. (руб.)	**Январь – сентябрь 2022 г. (руб.)**	**Январь – сентябрь 2022 г. в % к январю – сентябрю 2021 г.**
Транспортный комплекс – всего	**65 342,0**	**74 824,2**	**114,5**
в том числе: Деятельность железнодорожного транспорта – всего	68 578,3	80 234,7	117,0
Деятельность железнодорожного транспорта: междугородные и международные пассажирские перевозки	60 294,7	73 819,3	122,4
Деятельность железнодорожного транспорта: грузовые перевозки	72 789,7	83 748,4	115,1
Перевозка пассажиров железнодорожным транспортом в пригородном сообщении	59 991,2	67 375,3	112,3
Деятельность автомобильного транспорта – всего	52 650,5	62 003,5	117,8
регулярные перевозки пассажиров автобусами в городском и пригородном сообщении	47 100,6	55 581,2	118,0
деятельность легкового такси	69 936,2	86 520,1	123,7

и арендованных легковых автомобилей с водителем			
регулярные перевозки пассажиров автобусами в междугородном сообщении	30 602,5	37 425,6	122,3
регулярные перевозки пассажиров автобусами в международном сообщении	19 462,5	33 438,7	171,8
специальные перевозки (для собственных нужд) автобусами	38 245,2	65 406,1	171,0
перевозка пассажиров автобусами в городском и пригородном сообщении по заказам, за исключением перевозки арендованными автобусами с водителем и по туристическим или экскурсионным маршрутам	47 441,1	43 564,2	91,8
перевозка пассажиров автобусами в междугородном и международном по заказам, за исключением перевозки арендованными автобусами с водителем и по туристическим или экскурсионным маршрутам	31 969,3	39 463,0	123,4
деятельность автомобильного грузового транспорта и услуги по перевозкам	56 042,4	65 447,8	116,8
Деятельность городского электрического транспорта – всего	55 097,1	62 787,0	114,0
регулярные перевозки пассажиров троллейбусами в городском и пригородном сообщении	35 924,2	42 272,4	117,7
регулярные перевозки пассажиров трамваями в городском и пригородном сообщении	35 625,9	40 723,3	114,3
перевозка пассажиров метрополитеном	72 368,1	80 262,2	110,9
Деятельность морского транспорта – всего	139 502,7	181 321,6	130,0
деятельность морского пассажирского транспорта	90 029,3	111 106,4	123,4
деятельность морского грузового транспорта	142 075,7	185 171,0	130,3
Деятельность внутреннего водного транспорта – всего	66 215,9	76 543,2	115,6
деятельность внутреннего водного пассажирского транспорта	48 533,3	50 055,1	103,1
деятельность внутреннего водного грузового транспорта	69 221,7	81 261,8	117,4
Деятельность воздушного транспорта – всего	128 899,2	142 695,7	110,7
деятельность пассажирского воздушного транспорта	127 328,8	142 491,9	111,9

деятельность грузового воздушного транспорта	143 694,4	144 718,5	100,7
Деятельность транспортная вспомогательная – всего	65 363,3	72 908,6	111,5
Деятельность вспомогательная, связанная с железнодорожным транспортом	56 998,1	64 803,9	113,7
Деятельность вспомогательная, связанная с водным транспортом	83 608,2	90 367,7	108,1
Деятельность вспомогательная, связанная с воздушным транспортом	80 444,7	84 957,4	105,6
Транспортная обработка грузов	71 424,8	81 840,5	114,6
Деятельность вспомогательная прочая, связанная с перевозками	78 667,5	93 343,2	118,7
Деятельность вспомогательная, связанная с автомобильным транспортом	48 872,4	54 495,4	111,5
из нее деятельность по эксплуатации автомобильных дорог, автомагистралей, мостов и тоннелей	48 824,9	54 307,8	111,2

Таким образом, при поиске работы, стоит обратить внимание на отрасль воздушного транспорта и морского транспорта, если вы обладаете достаточными квалификационными навыками и вас привлекает деятельность в сфере транспорта.

Далее определим масштабы обеспечения занятости в этой сфере труда. Для этого приведём информацию из информационно-статистического бюллетеня за 9 месяцев текущего года

Таблица 2 [4]

Среднесписочная численность работников, занятых в транспортном комплексе за январь-сентября 2022 года

	Январь – сентябрь 2021 г.	**Январь – сентябрь 2022 г.**	**Январь – сентябрь 2022 г. в % к январю – сентябрю 2021 г.**
Транспортный комплекс – всего	**1 915 644**	**1 914 505**	**99,9**
в том числе: Деятельность железнодорожного транспорта – всего	426 915	422 900	99,1
Деятельность железнодорожного транспорта: междугородные и международные пассажирские перевозки	113 839	99 726	87,6
Деятельность железнодорожного транспорта: грузовые перевозки	283 738	292 896	103,2

Перевозка пассажиров железнодорожным транспортом в пригородном сообщении	29 338	30 278	103,2
Деятельность автомобильного транспорта – всего	453 457	451 811	99,6
Регулярные перевозки пассажиров автобусами в городском и пригородном сообщении	157 510	148 290	94,1
Деятельность легкового такси и арендованных легковых автомобилей с водителем	2 514	2 678	106,5
Регулярные перевозки пассажиров автобусами в междугородном сообщении	5 209	4 486	86,1
Регулярные перевозки пассажиров автобусами в международном сообщении	168	158	93,9
Специальные перевозки (для собственных нужд) автобусами	1 167	1 565	134,1
Перевозка пассажиров автобусами в городском и пригородном сообщении по заказам, за исключением перевозки арендованными автобусами с водителем и по туристическим или экскурсионным маршрутам	590	850	144,0
Перевозка пассажиров автобусами в междугородном и международном сообщении по заказам, за исключением перевозки арендованными автобусами с водителем и по туристическим или экскурсионным маршрутам	3	2	85,6
Деятельность автомобильного грузового транспорта и услуги по перевозкам	286 296	293 782	102,6
Деятельность городского электрического транспорта – всего	167 663	162 352	96,8
Регулярные перевозки пассажиров троллейбусами в городском и пригородном сообщении	39 243	36 874	94,0
Регулярные перевозки пассажиров трамваями в городском и пригородном сообщении	39 887	36 326	91,1
Перевозка пассажиров метрополитеном	88 533	89 152	100,7
Деятельность морского транспорта – всего	13 856	13 757	99,3
Деятельность морского пассажирского транспорта	685	715	104,4
Деятельность морского грузового транспорта	13 171	13 042	99,0
Деятельность внутреннего водного транспорта – всего	24 723	24 768	100,2
Деятельность внутреннего водного	3 592	3 745	104,

пассажирского транспорта			3
Деятельность внутреннего водного грузового транспорта	21 131	21 023	99,5
Деятельность воздушного транспорта – всего	79 077	79 641	100,7
Деятельность пассажирского воздушного транспорта	71 489	72 351	101,2
Деятельность грузового воздушного транспорта	7 588	7 290	96,1
Деятельность транспортная вспомогательная – всего	749 953	759 276	101,2
Деятельность вспомогательная, связанная с железнодорожным транспортом	256 617	263 323	102,6
Деятельность вспомогательная, связанная с водным транспортом	49 269	47 442	96,3
Деятельность вспомогательная, связанная с воздушным транспортом	127 006	124 764	98,2
Транспортная обработка грузов	79 713	82 263	103,2
Деятельность вспомогательная прочая, связанная с перевозками	92 741	90 465	97,5
Деятельность вспомогательная, связанная с автомобильным транспортом	144 607	151 019	104,4
из нее деятельность по эксплуатации автомобильных дорог, автомагистралей, мостов и тоннелей	120 645	126 854	105,1

Полученные данные свидетельствуют о широком выборе направления деятельности в этой сфере, а также о том, что в транспортном комплексе задействовано около 1,36% всего населения России и при этом численность в динамике довольно стабильная и заметен плавный рост за последние 15 лет, согласно данным Министерства транспорта Российской Федерации.

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ВАЖНОСТЬ ОМЕГА-3-ЖИРНЫХ КИСЛОТ В КАРДИОЛОГИЧЕСКОЙ ПРАКТИКЕ

Аннотация: Цель настоящего обзора – еще раз привлечь внимание врачей к этому важному разделу медицины, напомнить о целесообразности использования омега-3-жирных кислот в качестве эффективных средств первичной и вторичной профилактики сердечно-сосудистой патологии, необходимости более широкого их применения у больных с инфарктом миокарда, при сердечной недостаточности, включении в комплексное лечение аритмии.

Ключевые слова: омега-3-жирные кислоты, сердечно-сосудистые заболевания, метод, лечение.

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THE IMPORTANCE OF OMEGA-3 FATTY ACIDS IN CARDIAC PRACTICE

Abstract: The purpose of this review is to once again draw the attention of doctors to this important branch of medicine, to recall the advisability of using omega-3-fatty acids as effective means of primary and secondary prevention of cardiovascular pathology, the need for their wider use in patients with myocardial infarction, with heart failure, inclusion in the complex treatment of arrhythmias.

Keywords: omega-3 fatty acids, cardiovascular disease, method, treatment.

ВВЕДЕНИЕ

В последние десятилетия характер жизнедеятельности человека в развитых странах претерпел значительные изменения. Наряду с гиподинамией, ростом потребления алкоголя и курением табака, возрастанием нервного напряжения и отрицательных эмоций, ухудшением экологической обстановки отмечаются существенные изменения характера питания. Массовая промышленная переработка жиров, масел и содержащих их продуктов в значительной мере снизила

содержание эссенциальных (незаменимых) жирных кислот (ЖК) в нашем рационе. В последние десятилетия произошло радикальное повышение потребления рафинированных жиров, при этом в структуре питания населения неуклонно снижалась доля натуральных масел, содержащих фосфолипиды и эссенциальные ЖК.

МАТЕРИАЛЫ И МЕТОДЫ

Важная биологическая роль данных соединений в организме уже априори дает основание говорить о том, что их дефицит может отразиться на состоянии здоровья больших популяций населения. Результаты многочисленных исследований убедительно подтверждают связь распространенности сердечно-сосудистых, онкологических, аутоиммунных и ряда других заболеваний с недостаточным поступлением в организм человека полиненасыщенных ЖК (ПНЖК) семейства омега-3, что дает основание рассматривать эту проблему как чрезвычайно актуальную. Анализ числа публикаций (около 40 тыс. к началу 2011 г.) свидетельствует не только о высоком, но и неуклонном росте исследовательского интереса к изучению омега-3-ПНЖК в различных аспектах медицины. Причем львиная доля исследований посвящена кардиологической тематике.

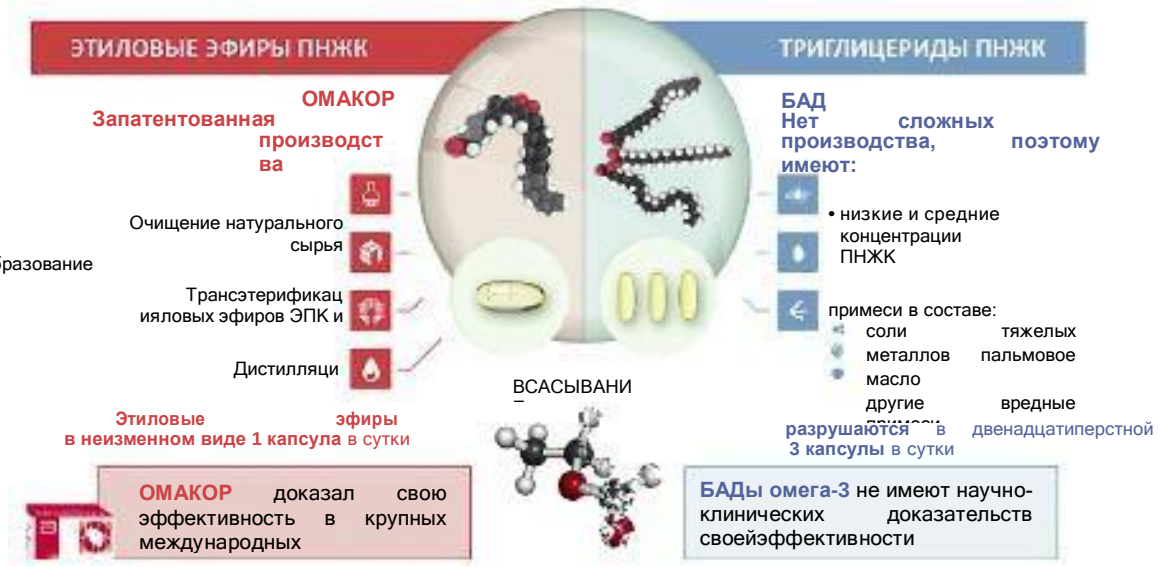
Вместе с тем необходимо отметить, что на практике врачи уделяют недостаточное внимание этому разделу терапии. Нечасто омега-3-ПНЖК включаются в комплексное лечение больных, перенесших инфаркт миокарда (ИМ), при нарушениях сердечного ритма, сердечной недостаточности. Кроме того, обилие различных БАД омега-3-ПНЖК вносит элемент путаницы в применение этих препаратов (рис. 1). Лишь рецептурный препарат омега-3-ПНЖК **[**Омакор (эйкозапентаеновая кислота / докозагексаеновая кислота = 1,2/1 – 90%)] имеет конкретные показания по вторичной профилактике ИМ, а также лечению гипертриглицеридемии, и входит в клинические рекомендации и стандарты по лечению кардиологических больных.

Цель данного сообщения – еще раз привлечь внимание врачей к этой важной области медицины.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

В начале 1980-х годов в исследованиях датских ученых I.Dyerberg и H.Bang был выявлен крайне низкий уровень сердечно-сосудистых заболеваний у коренных жителей Гренландии – эскимосов. Анализ полученных данных привел авторов к выводу, что этот факт связан с потреблением в 10 раз большего по сравнению с европейцами количества жиров морских животных с высоким содержанием ПНЖК семейства омега-3. Аналогичные результаты были получены в эпидемиологических исследованиях населения прибрежных районов Японии, Нидерландов и ряда других стран. Эти ЖК являются незаменимыми, так как не могут синтезироваться в организме **[**3].

Рис. 1. Отличия этиловых эфиров и триглицеридов



*Collins N et al. Differences between Dietary Supplement and Prescription Drug Omega-3 Fatty Acid Formulations: A Legislative and Regulatory Perspec- tive. J Am College Nutrition 2008; 27 (6): 659-66.

Каков механизм положительного действия омега-3- ПНЖК? Прежде чем попытаться ответить на этот вопрос, необходимо вспомнить, что же такое ЖК и какова их биологическая роль. ЖК представляют собой цепь углеродных атомов в количестве 16 и более.

Таким образом, биологические свойства ЖК зависят от длины углеродной цепочки, количества двойных связей и расположения первой двойной связи [2].

Таким образом, биологическое действие омега-3 и омега-6-ПНЖК приводит к диаметрально противоположному эффекту.

Естественно, эту конкурентную борьбу выигрывает тот субстрат, которого больше. Если в метаболизме доминируют ПНЖК омега-6, то в организме преобладают вазоконстрикторные и тромбогенные процессы, гиперактивация воспалительных реакций. Если повышается роль ПНЖК омега-3, то наблюдаются вазолитические, гипокоагуляционные процессы и гипоергическая воспалительная реакция (табл. 1).

Таблица 1. Биологическое действие омега-3 и омега-6-ПНЖК

Биологическое действие	Омега-3 ПНЖК	Омега-6 ПНЖК
Воспаление	↓	ПП
Сосудистый тонус	↓	ПП
Агрегация тромбоцитов	↓	П
Фибринолиз	↓↓	=

ЗАКЛЮЧЕНИЕ

Установленная связь между высоким уровнем омега-3- ПНЖК в крови и снижением риска сердечно-сосудистых событий, прежде всего внезапной сердечной смерти, дает основание предположить, что омега-3-индекс (процентное количество ЭПК и ДГК в мембране эритроцитов от общего количества ЖК) может явиться объективным фактором риска внезапной сердечной смерти. Для проверки этой гипотезы C.Albert и соавт. [1] был выполнен квартильный анализ концентрации незаменимых ЖК этого класса в эритроцитах с разным риском фатальных аритмий. Согласно полученным данным риск подобных аритмий для высшего квартиля был снижен на 90%. Результаты этого исследования указывают на то, что уровень омега-3 в эритроцитах может использоваться в качестве фактора риска внезапной смерти. На основании имеющихся данных предложены зоны риска в зависимости от величины омега-3-индекса. Защитный уровень соответствует индексу 8% и более, высокий риск смерти от ИБС наблюдается при индексе омега-3 4% и менее. В нескольких эпидемиологических исследованиях было показано, что по сравнению с омега-3-индексом, равным 7–8%, этот показатель менее 4% ассоциируется с 10-кратным повышением риска внезапной смерти. Имеющиеся данные свидетельствуют о его высокой корреляции с другими факторами риска внезапной смерти.

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ТОЛАЛИ ЧИҚИНДИЛАРНИ ЙИГИРИШГА ТАЙЁРЛАШНИНГ ИП СИФАТИГА ТАЪСИРИ ТАХЛИЛИ

Аннотация: ушбу мақолада ип йигириш учун тажрибаларда тайёрлов бўлимининг толали чиқиндилардан (33%) ва ўрта толали пахтадан (67%) иборат аралашмаси ҳосил қилиниб Uster лаборатория ускуналарида ип сифат кўрсаткичлари таҳлил этилган.
Калит сўзлар: вариация коэффициенти, толали чиқинди, йигириш.

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STUDY OF THE INFLUENCE OF THE PREPARATION OF FIBER WASTE OF SPINING PRODUCTION ON THE QUALITY OF YARN

Annotation: This article examines the quality indicators of yarn, determined on the laboratory equipment of the company Uster, developed from a mixed composition of fibrous waste from the preparatory workshop (33%) and medium-staple cotton (67%).
Keywords: coefficient of variation, fibrous waste, spinning, quality.

Технологик тизимларнинг ўзига хос фарқли жиҳати улардаги толали материални қайта ишлаш жадаллигидир. Иккинчи тизимда ишлов бериш интенсивлиги арра тишли тозалагич қўшилиши билан оширилади. Учинчи тизимда тараш машинасида қабул қилувчи барабанлар сонини кўпайтириш орқали интенсивлик янада оширилади. Ип йигириш учун тажрибаларда тайёрлов бўлимининг толали чиқиндилардан (33%) ва ўрта толали

пахтадан (67%) иборат аралашмаси ҳосил қилинди. Uster лаборатория ускуналарида пахта толаси ва толали чиқиндиларнинг таркибидаги толаларнинг хоссалари аниқланди.Маълумки,пневмомеханик ипларнинг таркибий тузилишинибелгилайдиган асосий омиллар - бу йигириш учун тайёрланган пилтанинг сифати ва йигирув камерасида пилтача ҳосил бўлиш параметрлари ҳисобланади. Тадқиқот мақсадига мувофиқ, толали материални қайта ишлаш иш^нсивлигини баҳолаш учун пилта тузилишининг комплекс кўрсаткичи (КПС) ўрганилди. КПС толалар тутамлари комплексларини элементар толаларга ажратилишини билвосита харакгерлайди. Пилталар намуналарини ташкил этувчи толаларни ажратилганлигини кўрсатиш учун узиш машинасида пилтани узилишида сарфланадиган кучи КПС кўрсаткичи сифатида қабул қилинди. Пахта толаси ва толали чиқиндилар аралашмасидан тайёрланган пилтанинг КПС кўрсаткични баҳолаш учун РМ-З-1 узиш машинасида амалий тадқиқотлар ўтказилди. Тадқиқот натижалари 1-жадвалда келтирилган.

Турли технологик тизимларда ишлаб чиқарилган
пилталарнинг КПС кўрсаткичлари

1-жадвал

Технологик тизимлар	Пилтанинг комплекс кўрсаткичи, сН /текс			КПС бўйича вариация коэффициенти, %		
	Тараш пилтаси	1-ўтим пилтаси	2-ўтим пилтаси	тараш пилтаси	1 -ўтим пилтаси	2-ўтим пилтаси
1-тизим	367	245	207	24,6	23,8	19,4
2- тизим	286	214	168	19,6	21,2	18,1
3- тизим	254	178	136	18,7	17,6	16,3

Бу камайишни нисбий жиҳатдан баҳоланганда 1-ўтим пилталашда тараш пилтасига нисбатан 33,2% га, 2-ўтим пилталашда эса 1-ўтимга нисбатан 15,5% га тенглиги кўринади.

КПС бўйича вариация коэффициентлари пилталарнинг узунликлари бўйича тақсимланиш бир текисда бўлмаслиги, технологик босқичларда эса уни ўзгариши содир бўлади. Толаларни яхши текисланиши ва қайта қўшилишда пилта нотекислигини камайиши вариация коэффициентини ижобий томонга ўзгартиришга олиб келади. Юқоридаги учта технологик тизимларда қайта ишланган аралашмалардан тайёрланган пилталардан карда йигириш тизими бўйича йигириб олинган ипларнинг физик-механик хусусиятлари 2-жадвалда келтирилган.

Карда йигириш тизимида олинган ипларнинг физик-механик хусусиятлари

2-жадвал

Кўрсаткичлар	Технологик тизимлар		
	1-тизим	2-тизим	3-тизим
Ипнинг номинал номери (Ne)	20	20,3	20

Ипнинг чизиқли зичлиги, текс	29,5	29,7	29,5
Нотекислик, U%	12,29	11,04	10,67
Uster бўйича вариация коэффициенти, CV%	16,73	14,01	13,56
Нисбий узилиш кучи (Tenacity), Rkm	10,81	11,73	11,12
Эластиклиги (Elongation), %	5,84	4,67	5,03
Бурамлар сони, $м^{-1}$	838	792	850
Ингичка жойлари (Think -50% /km)	4	3	4
Йўғон жойлари (Thick +50% /km)	66	44	60
Тугунчалар (Neps +200 /km)	70	37	39
Туклилик (Hairness H)	8,47	8,14	7,43

Толаларни йигиришга тайёрлаш тизимининг муҳим ва асосий кўрсаткичи ҳисобланадиган тозалаш самарадорлиги ўрнатилган жиҳозларнинг конструктив ва технологик имкониятларига боғлиқ.

Ташкил этилган технологик жиҳозлар комплексларининг умумий тозалаш самарадорлигини қуйидаги формуладан аниқланди:

$$Э_к = [1 - (1 - 0{,}01\varepsilon_1)(1 - 0{,}01\varepsilon_2)] \cdot 100 \quad (2)$$

бунда $\boldsymbol{\varepsilon_1, \varepsilon_2}$-мос равишда ТТА ва тараш машиналарининг тозалаш самарадорлиги, %. Тарамдаги нуқсонларнинг умумий миқдорининг меъёрий қиймати белгиланган ҳол учун муайян жиҳозлар комплексида қайта ишлаш мумкин бўлган толалар аралашмаси таркибидаги нуқсонларнинг меъёрий чегарасини қуйидаги ифода орқали аниқлаш мумкин**:**

$$З_а = \frac{З_т \cdot В}{100 - Э_к} \quad (3)$$

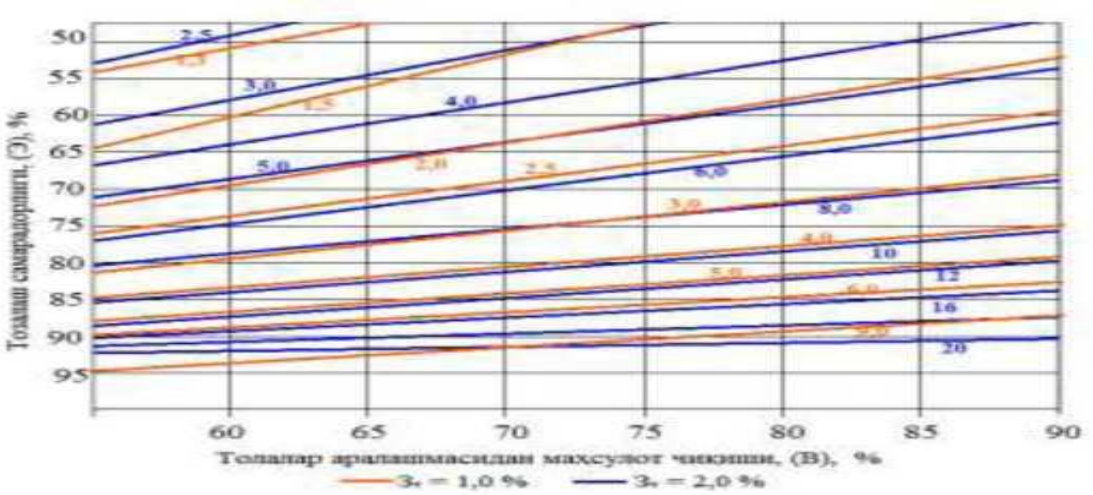
бунда $З_а$ ва $З_т$ -мос равишда толалар аралашмаси ва тарамдаги хор-хас ҳамда нуқсонлар миқдори, %; В- аралашмадан маҳсулот чиқиши, %.

Ушбу ифодага мувофиқ тайёрланган компьютер дастури асосида $З_а$ ни

$В$ ва $Э_к$ га боғлиқлигини кўрсатувчи графикда $З_т$ нинг меъёрини 1% ва 2 %

белгиланган ҳол учун $З_а$ ни ўзгариш соҳаси тасвирланган (1-расм).

Боғланиш чизиқларининг йўналиши ва олинган қийматлардан кўриниб турибдики, кўрсатилган шароитлар учун таркибида 20% гача нуқсонлар бўлган аралашмаларни қайта ишлаш мумкин.



1-расм. $З_и$ ни $В$ ва $Э_К$га боғлиқлигини кўрсатувчи график.

Хулоса. Шундай қилиб, толалар аралашмасини қайта ишлаш натижасида олинадиган тарамнинг таркибидаги хор-хас ва нуқсонларнинг миқдорини белгиланган ҳол учун жиҳозларнинг умумий самарадорлиги, тарам чиқиш миқдорини боғланиши мавжудлиги аниқланди.

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ОСОБЕННОСТИ ПРЕПОДАВАНИЯ ЛАТИНСКОГО ЯЗЫКА В МЕДИЦИНСКИХ ВУЗАХ

Аннотация: в статье рассматриваются дидактические и методические особенности преподавания латинского языка. Автор считает, что при подготовке будущих специалистов-медиков акцент необходимо делать на формирование студента-исследователя.

Ключевые слова: латинский язык, метод, мёртвый язык, греко-латинская терминология.

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FEATURES OF TEACHING LATIN AT MEDICAL UNIVERSITIES

Abstract: The article deals with the didactic and methodological features of teaching the Latin language. The author believes that in the preparation of future medical specialists, the emphasis should be placed on the formation of a student-researcher.

Key words: Latin language, method, dead language, Greek-Latin terminology.

В современных условиях модернизации образования возникла острая необходимость перенесения акцентов с простого усвоения знаний на формирование определенных компетенций и практическое применение результатов образования. Это повлекло за собой необходимость использования инновационных форм, методов, технологий, которые способствуют развитию интеллектуальных, лингвистических, коммуникативных и творческих способностей студентов, активизируют учебно-познавательную деятельность, продуктивное творчество, различные типы мышления. Современная система образования, на которую возложена обязанность подготовки новых поколений в информационно насыщенной среде, вынуждена пересматривать образовательные идеалы прошлого, ставя задачи соответственно новым потребностям [1, с.139]. Поэтому при подготовке будущих специалистов-медиков акцент делается на формирование студента-исследователя, высокодуховного человека, способного к постоянному самообразованию, к творческому использованию полученных знаний и нестандартному мышлению.

Курс латинского языка – это обязательная дисциплина системы подготовки медиков, изучение таких дисциплин как анатомия, гистология, физиология, фармакология, биохимия, ботаника, фармацевтическая химия основывается на знании латинской терминологии.

Цель изучения латинского языка в медицинских вузах – это подготовка специалистов, способных сознательно и грамотно использовать анатомическую, клиническую и фармацевтическую латинскую терминологию на практике. Специфика этого предмета заключается в том, что он ближе к специальным медицинским дисциплинам, чем к языковым и социально гуманитарным. И все же медицинская терминология – это не только профессиональные названия, служащие для ситуативного обозначения объекта, явления или процесса.

По классификации А. Мусорина, латинский язык относится к мёртвым языкам, которые продолжают активно функционировать в книжно-письменной сфере. Престиж латинского языка заключается в том, что он играл в системе образования ту роль, которую сейчас играет живой язык, то есть на определенном этапе именно средствами латинского языка объясняли понятия, явления, которых не существовало в других культурах и их языки не располагали лексикой для их описания [2, с. 3].

Основными умениями и навыками студентов должны быть профессионально-коммуникативные умения репрезентации потенциала дидактического дискурса, единицей которого являются учебные тексты различных типов. Познавательная деятельность студентов, связанная с приобретением профессиональных знаний, формированием и развитием профессионального говорения, происходит не сразу, а поэтапно, в процессе обучения и осознания личной цели обучения. Современное медицинское образование на сегодняшний день немыслимо без знания и понимания законов формирования постоянно создаваемой терминологии. Но, кроме усвоения анатомической и клинической терминологии, правил написания рецептов, латинский язык помогает студентам в овладении языковой компетенцией, необходимой им в исследовательской работе, анализе научных идей, способствует более глубокому и сознательному усвоению терминологии в родном и изучаемом иностранном языках.

Следует признать, что принятые методы преподавания латинского языка влекут за собой низкую продуктивность и высокий уровень демотивации студентов. Но, несмотря на наметившуюся в западном мире тенденцию изучать латинский язык прямым («натуральным») методом, вспоминаются слова филолога-классика С.И. Любомудрова, который говорил: «Совсем не нужно стремиться оживлять то, что умерло; нужно это мёртвое изучать тем же путём, который ему свойственен – путём анатомии, ибо тогда лишь мёртвое приобретает громадную ценность для живого» [5, с. 6].

Современный подход к обучению латинскому языку в медицинских вузах, требующий перенесения акцентов с простого усвоения знаний на формирование определённых компетенций и практическое применение результатов образования, непременно влечёт за собой реформирование методик преподавания.

Метод «хранилище» помогает актуализировать уже накопленные знания, предполагает работу, как в группах, так и индивидуально. Студенты наполняют «хранилище» анатомическими, клиническими, фармацевтическими терминами, используя различные способы терминообразования.

Метод «пометки на полях» особенно актуален при самостоятельном изучении определенных тем. Студентам предлагается выделять маркерами разных цветов уже знакомую им информацию, новую для них, оставшуюся непонятой, вызывающую дальнейший интерес. Это позволяет преподавателю удерживать обратную связь со студентами, учить обучающихся анализировать информацию, улучшает качество самостоятельной работы.

Метод «схематического конспектирования» помогает наглядно и сжато представить любую грамматическую либо фонетическую тему. Преподаватель может сам представить теоретический материал в виде схемы или предложить студентам самостоятельно выбрать и составить схематический конспект поданного материала. Например, схематически представить тему «Латинское прилагательное» (группы, подгруппы, окончания, склонения и т.д.).

Метод «умственной карты» позволяет студентам наглядно, согласно их собственному восприятию, представить сложный для запоминания материал. Для составления подобной карты предлагается использовать цветные маркеры, фломастеры, краски, проявить весь свой творческий потенциал. Лучшие студенческие работы могут быть перенесены на больший формат (А1) и использоваться как наглядный материал на занятиях в других группах.

Метод «мозгового штурма» помогает находить нетрадиционное решение различных задач, путем обсуждения по определенным правилам (группы должны найти как можно больше различных ошибок (грамматических, лексических, структурных, например, в рецепте).

Метод проектов учит студентов самостоятельно получать знания и решать практические задачи в процессе осуществления проекта, что стимулирует исследовательскую деятельность студентов («Медицинские термины в латинских пословицах и поговорках», «Клятва Гиппократа», «Латинский язык в повседневной жизни» «Латинские интернационализмы», «Латинский язык в средние века»).

Игровой метод может использоваться как на практических занятиях, так и внеаудиторно. Например, игра-соревнование (кто больше вспомнит и

верно запишет слов с определенными звуками, буквосочетаниями, терминоэлементами и т.д.), лексические игры («снежный ком» - выделение, объяснение, перевод терминоэлементов – один студент выделяет, второй – объясняет значение, третий – приводит примеры других терминов с этим терминоэлементом; «бинго» - студенты получают карточки с записанными терминами, слушают толкования и закрывают названные; «пинг-понг» - быстрая работа в парах (словообразовательный элемент – перевод, пример термина – перевод на русский язык)).

Латинский язык призван расширять лингвистическое мировоззрение студентов, повышать их общую языковую культуру, путем использования навыков нормативного употребления латинско-греческих интернационализмов, развивать логическое мышление, благодаря его четкому строю грамматики, синтаксиса, иметь воспитательное значение через знакомство студентов с историей возникновения, развития, функционирования латинского языка, его значения в развитии европейской науки и культуры.

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РАЗРАБОТКА ПРОЕКТА ТЕХНИЧЕСКОГО РЕШЕНИЯ, НАПРАВЛЕННОГО НА УЛУЧШЕНИЕ ТЕХНОСФЕРНОЙ БЕЗОПАСНОСТИ

Аннотация: в статье рассмотрена разработка проекта технического решения, направленного на улучшение техносферной безопасности.

Ключевые слова: неразрушающий контроль, техническое решение, техническое решение, излучение импульсов, результат анализа, добыча нефти, неоднородность эхо-сигналов.

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DEVELOPMENT OF A TECHNICAL SOLUTION PROJECT AIMED AT IMPROVING TECHNOSPHERE SAFETY

Abstract: the article considers the development of a technical solution project aimed at improving technosphere safety.

Keywords: non-destructive testing, technical solution, technical solution, pulse emission, analysis result, oil production, inhomogeneity of echo signals.

Условиями безопасного производства и эксплуатации являются диагностика и своевременный ремонт оборудования. Определение качества выпускаемого оборудования, определение остаточного ресурса и продление срока службы эксплуатируемых объектов – важнейшие задачи, стоящие в настоящие время в машиностроении, энергетике, нефте и газодобывающих, а также перерабатывающих отраслях промышленности РФ.

Одна из самых сложных и важных задач при бурении нефтяных и газовых скважин – обеспечение безопасности и технологичеости оборудования. В 2019 году произошло 10 аварий на нефтяных и газовых месторождениях, где причиной аварии служило или разрыв неисправность технологического трубопровода.

Основной метод контроля за надежной и безопасной работой технологических трубопроводов – периодические ревизии и диагностика. Результаты диагностики служат основанием для оценки состояния трубопровода и возможности его дальнейшей эксплуатации.

Диагностика трубопровода включает в себя:

- периодический мониторинг механического напряжения и деформаций;

- мониторинг температуры по длине трубопровода;

- мониторинг возникновения утечек вдоль трубопровода.

Задание выполнено. Результаты анализа используемых методов неразрушающего контроля представлены в таблице 1.

Таблица 1 – Результаты анализа используемых методов неразрушающего контроля

№ п/п	Наименование технического решения	Известные технические решения	Преимущества известных технических решений	Недостатки известных технических решений	Положительные эффекты от использования и сущность разрабатываемого решения
1	Магнито-порошковый	Данный метод основывается рассеивании магнитных полей над дефектом, формой и амплитудой которых несет информацию глубине нахождения дефекта. Индикатором является ферромагнитный порошок или суспензия Выявление дефектов находящихся на поверхности и подповерхности. Выявление дефектов определяется на глубине до 2 мм. При проведении магнитопорошкового метода исследования можно определить трещины и расслоения.	Низкая избирательность к типу дефекта.	Недостатком данного метода является остаточная намагниченность металла.	Выполненный анализ результатов таблицы 1 свидетельствует что, реали-зация разработанной модифицированной программы диагностирования технологических трубопроводов на ОАО «Сызранский НПЗ» обеспечит более безопасную эксплуатацию и точный контроль технического состоя-ния нефтепроводов, а также позволит сократить расход материально-технических ресурсов предприятия.
2	Радио-графический	Основан на анализе и регистрации ионного излучения в результате взаимодействия с объектом исследования. Выявление скрытых	Преимуществом радиографического метода является быстрое распознавани	Высокая стоимость оборудования, большие трудозат	

		внутренних дефектов в стыковых швах практически любых материалов	е вида дефекта.	раты. Данный метод требует соблюдение требований техники безопасности	
3	Акустико-эмиссионный (АЭ)	Регистрация и анализ акустических волн, возникающих в процессе пластической деформации и роста трещин в контролируемых объектах. Развивающиеся Дефекты	Меньшее время инспекции. Меньшая стоимость аппаратуры и контроля	Чувствительность к помехам. Не определяет размер трещины и глубину дефекта.	
4	Ультразвуковой	Излучение импульсов ультразвуковых колебаний, прием и регистрация отраженных от неоднородностей эхо-сигналов Излучение импульсов ультразвуковых колебаний, прием и регистрация отраженных от неоднородностей эхо-сигналов	Скрытые внешние и внутренние дефекты различных размеров и форм. Различные конструкционные материалы Односторонний доступ к контролируемой поверхности. Более высокая достоверность обнаружения дефектов 2,5 раза, оперативность в 15 – 20 раз и безопасность	Высокая стоимость оборудования, большие трудозатраты	

			в работе по сравнению с другими методами неразрушающего контроля производительность в 2 – 4 раза, меньшая стоимость в 2 – 6 раз и безопасность в работе по сравнению с другими методами неразрушающего контроля		
5	Капиллярный	Основан на капиллярном проникновении индикаторных жидкостей в полости поверхностных дефектов и регистрации индикаторного рисунка.	Обнаружение дефектов производственно-технологического и эксплуатационного происхождения: трещины шлифовочные, термические, усталостные,закаты и др Высокая чувствительность, простота контроля и наглядность результатов	Сложность в обнаружении внутренних дефектов и их местоположения	

Добыча нефти на месторождениях осуществляется в несколько этапов: строительство скважин; сбор и транспортировки продукции нефтяных скважин; подготовка нефти, газа и воды; поддержание пластового давления; методы воздействия на пласт и вспомогательные процессы. Каждый этап является источником своих опасных и вредных факторов, а также характерных причин аварийных ситуаций.

Статистический анализ аварийности при добыче нефти свидетельствует об устойчиво высоком его уровне, а также высоком уровне сопровождающего аварии смертельного травматизма в отрасли.

Причинно-следственная цепочка событий – предпосылок к авариям и травмам в техносфере выглядит примерно одинаково: ошибочные и несанкционированные действия работающих, и/или неисправности и отказы технологического оборудования, и/или неблагоприятное влияние внешних факторов, различаясь соотношением каждой группы причин в общем их количестве. Здесь следует отметить повышение значимости в группе технических причин аварийности и травматизма в нефтедобыче такого фактора, как изношенность используемого оборудования.

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НОВЫЕ КОМПЬЮТЕРНЫЕ СИМУЛЯТОРЫ-МАНЕКЕНЫ ДЛЯ СЕРДЕЧНО-ЛЕГОЧНОЙ РЕАНИМАЦИИ И ИХ ИСПОЛЬЗОВАНИЕ В ОБУЧЕНИИ

Использование тренажеров и имитаторов стало неотъемлемой частью медицинского образования, подготовки кадров, а также научных исследований. Обучение с помощью тренажеров в настоящее время принято во многих различных областях медицины, выходящих за пределы анестезиологии. Манекены-тренажеры и симуляторы являются лишь инструментами для эффективного обучения. Образование, обучение, подготовка и общая компетентность обучающих имеют первостепенное значение. Необходимо понимание владения и поддержания врачами независимо от специальности навыков по базовой сердечно-легочной реанимации. Обучение практическим навыкам современной сердечно-легочной реанимации стало одной из важнейших составляющих обучения различных категорий учащихся системы последипломного образования.

Ключевые слова: инновации, образование, муляжи, манекены, имитаторы.

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NEW COMPUTER SIMULATORS-MANIKINS FOR CARDIO-PULMONARY RESUSCITATION AND THEIR USE IN TRAINING

The use of medical dummies has become an integral part of medical education, training and research. Simulation-based training is now accepted in many different fields of medicine besides anesthesiology. Simulation

mannequins and simulators are just tools for effective training. Education, training and general competence of instructors are of great importance. It is necessary for physicians and specialists, to understand the significance of regular training of their basic cardiopulmonary resuscitation skills. Practical skills in training up-to-date CPR has become one of the most important components in training ovarious categories of students in postgraduate education.

Key words: innovations, education, dummies, mannequins, simulators.

В авиации обучение пилотов происходит преимущественно с использованием современных тренажеров (симуляторов-манекенов), которые также применяются для оценки или контроля практических навыков. В подготовке пилотов симуляционный тренинг шел рука об руку с развитием авиационной техники. Так, симуляционное медицинское обучение в период новейшей истории опиралось на успехи симуляционного тренинга в других отраслях, связанных с риском для жизни практического обучения в реальных условиях, прежде всего в авиации [5]. Возможность обучения врачей с использованием инновационных технологий симуляционного обучения является одновременно и реалиями сегодняшнего образовательного процесса, и перспективным направлением [1]. Одним из главных направлений в сфере высшего медицинского образования является необходимость значительного усиления практического аспекта подготовки будущих врачей при сохранении должного уровня теоретических знаний [4]. Анестезиология-реаниматология – это наука о жизнеобеспечении, вплоть до временного замещения (протезирования) жизненно важных функций при критических состояниях, и специальность со значимой мануальной составляющей. Каждый анестезиолог-реаниматолог должен обладать широким набором практических навыков и умений. Врачи всех специальностей и прежде всего анестезиологи-реаниматологи должны владеть практическими навыками по сердечно-легочной реанимации (СЛР). Современная тактика СЛР является предметом международных стандартов, всецело основанных на принципах доказательной медицины и пересматриваемых в США и Европе один раз в пять лет («Guidelines AHA/ACC on CPR», ноябрь 2015 года; полный текст опубликован в журналах «Circulation» и «Resuscitation») [2]. Авторитетные международные рекомендации разрабатываются совместно экспертами Американской ассоциации кардиологов и Европейского совета по реанимации. Рекомендации по СЛР опираются на регулярно проводимые за рубежом научные исследования в этой области, формирующие современные подходы к технике СЛР. В подготовке международных рекомендаций по СЛР 2015 года принимали участие 250 экспертов из 39 стран, был привлечен Международный согласительный комитет по

реанимации (The International Liaison Committee on Resuscitation, ILCOR) [3]. Процедура экспертных оценок проходила по новым протоколам и стандартам системных анализов, предложенным ILCOR. Использована новая система классификации для классов рекомендаций и уровней доказательности. Можно спасти людей с внезапной остановкой кровообращения или потерей сознания в общественном месте или далеко за городом, если кто то быстро окажет первую помощь для поддержания жизни, а затем вызовет машину «скорой помощи». Многие жизни могли бы быть спасены, если бы первый человек (очевидец), пришедший на помощь, владел приемами СЛР. Раннее начало реанимации и ранняя дефибрилляция (в пределах 1–2 минут) могут повысить выживаемость до 60% и более. Принципы СЛР нельзя изучать только теоретически, они обязательно должны быть подкреплены практическими навыками. Успех оживления зависит именно от технической (практической) составляю-щей СЛР. С этой целью для обучения практическим навыкам применяются специальные манекены тренажеры, позволяющие имитировать весь процесс проведения СЛР. В 1960 году American Heart Association запустила программу повышения квалификации по СЛР для врачей (обучение непрямому массажу сердца (НМС), дыханию «рот ко рту», наружной дефибрилляции) и первые обучающие курсы для широкой публики. Истоки современной СЛР исходят от Петера Сафара (Peter Safar), заведующего анестезиологией городской больницы г. Балтимора (США), который разработал принципы (азбуку) СЛР и для мнемонического запоминания разбил процесс на три этапа (ABC):

A (Airway) – дыхательные пути;

B (Breathing) – дыхание;

C (Chest compressions) – массаж грудной клетки (НМС).

В 1957 г. Петер Сафар опубликовал книгу «ABC of Resuscitation», где подробно изложил основы СЛР, что буквально перевернуло представления о принципах оказания неотложной помощи. Его работа привлекла всемирное внимание, в том числе и в Норвегии [4]. По настоящее время во всем мире, в том числе и у нас в России, Петер Сафар считается осново положником теоретических и практических основ современной СЛР, сформировавшим концепцию СЛР, а его «азбука» (методика СЛР), дошедшая до рубежа веков, осталась практически неизменной (с 2010 года – CAB). Врач, не знающий азбуки Сафара, не может считать себя полностью «грамотным», сколько бы вузовских дипломов ни имелось на его счету. Но залогом успеха СЛР является овладение необходимыми практическими навыками. Именно предприниматель Асмунд Лаэрдал, воодушевленный рассказом о новейшем медицинском открытии своего знакомого, норвежского доктора Бьорну Лин-ду (Bjorn Lind), изготовил первый опытный образец манекена для отработки одного из элементов СЛР – приемов искусственного

дыхания. Пособие было представлено медицинской общественности. В 1960 году изобретатель СЛР Петер Сафар дал изделию высокую оценку. В дальнейшем по его предложению в манекен была встроена пружина, имитирующая сопротивление грудной клетки, что позволило отрабатывать полный цикл навыков СЛР. Поскольку лицо манекена было изготовлено с гипсового слепка лица неизвестной французской девушки, утонувшей в реке Сене в XIX веке, манекен получил торговое название «Ресаски Энн» (англ.Resusci Anne – «Оживленная Анна»). Реаниматологи в шутку называют Ресаски Энн «самой часто целуемой девушкой всех времен». В соответствии с международными стандарта-ми по проведению СЛР 2010-го и 2015 годов модифицирован основной практический алгоритм (азбука) базовой СЛР Петера Сафара взрослым, пострадавшим от остановки сердца. Он заключается в отказе от первичной дыхательной реанимации (проведения искусственного дыхания). Необученные непрофессиональные спасатели или простые очевидцы внезапной остановки сердца, произошедшей на улице или в госпитале, должны проводить СЛР без искусственных вдохов, следуя методике «Hands only» – «только руки» под руководством диспетчера или самостоятельно не менее 10 минут. Считается, что именно при такой новой последовательности оживления, сокращающей время до первого компрессионного нажатия, большее количество пострадавших от внезапной остановки кровообращения получат помощь от случайных свидетелей. Важнейшей в триаде A (Airway), B (Breathing) и C (Compressions) является циркуляция (C). Кислород содержится в крови в адекватных количествах как минимум первые десять минут после внезапной остановки сердца. Искусственная циркуляция обеспечивает транспорт этого кислорода, и не наблюдается снижения выживаемости при проведении СЛР посредством только компрессий грудной клетки. Даже полная окклюзия верхних дыхательных путей первые 6 минут не ухудшает выживаемости, если проводится непрямой массаж сердца. Кроме того, если обученный непрофессиональный реаниматор умеет делать искусственное дыхание, он должен чередовать компрессионные сжатия с искусственным дыханием в соотношении 30:2. Эффективность реанимационных мероприятий в большей степени зависит от правильной техники их проведения. Сделать эту технику безукоризненной можно исключительно в процессе практического освоения комплекса СЛР с использованием специальных обучающих устройств – манекенов.

Характеристика используемых методов обучения. Обучение современной СЛР предполагает теоретическую подготовку в виде лекций и семинарских занятий и овладение практическими навыками на манекенах-имитаторах пациента. Манекены-имитаторы пациента – сложные механические полно ростовые модели человека, снабженные электронными устройствами, которые дают оценку правильности

выполнения манипуляции (например, подача звукового и светового сигнала при надлежащем выполнении СЛР). Практическое занятие на манекенах Resusci Anne – это углубленное изучение раздела общей реаниматологии, протоколов диагностики и реанимации, возможность овладеть практическими навыками, направленными на обеспечение проходимости верхних дыхательных путей, многократной отработки на высококлассном манекене навыков проведения СЛР в различных клинических условиях возникновения терминального состояния: асистолия, электромеханическая диссоциация, фибрилляция желудочков. Приобретение указанных навыков обучающимися (студентами, интернами/ординаторами, слушателями, населением) способствует развитию клинического мышления и оптимизирует тактику в экстремальных ситуациях. По нашему мнению, наилучшими образцами для обучения СЛР являются тренажеры и манекены фирмы «Laerdal» (Норвегия), используемые для отработки навыков СЛР в Центре манипуляционных навыков Кировского ГМУ:

1. торс для практики интубации;
2. тренажер реанимации с интерактивным имитатором аритмии;
3. тренажер реанимации «Resusci Anne Skill Reporting, Laerdal»;
4. педиатрический тренажер жизнеобеспечения.

Обучение и тренинг СЛР проводятся в специально оснащенной учебной комнате Центра манипуляционных нывыков. Преподаватель излагает и демонстрирует методику проведения СЛР на манекене в соответствии с действующими последними современными стандартами СЛР 2015 года. Обучающегося просят выполнить 5 циклов базовой СЛР на манекене тренажере Resusci Anne Skill Reporting, Laerdal. Манекен заранее укладывается на кушетке или на полу (соблюдение правила «твердой поверхности»). Проведение СЛР двумя участниками способствует не только улучшению практических навыков СЛР, но и формированию навыков работы в команде. Во время выполнения манипуляций происходит непрерывная инструментальная и визуальная оценка качества работы обучающегося.

Компьютерная система контроля и регистрации навыков Laerdal для обучающихся имеет неоспоримые преимущества:

• обучающиеся могут совершенствовать свои навыки СЛР при помощи визуальных кривых выполнения действий и хронометрии важных реанимационных действий в режиме реального времени;

• после завершения выполнения задания графическое и цифровое заключения можно использовать для сравнения индивидуальной работы обучающегося с рекомендациями.

Особенности манекенов Resusci Anne:

1. реалистичная анатомия, включая наклон головы, выведение подбородка, глубину и силу сжатия грудной клетки;

2. датчик показывает правильное расположение рук;

3. система вентиляции обеспечивает соответствующую экскурсию грудной клетки при ИВЛ методом «рот ко рту» или с помощью маски и мешка Амбу;

4. беспроводная связь с Sim Pad Skill Reporter с помощью программного обеспечения Skill Reporter;

5. проводная связь со Skill Guide;

6. возможность моделировать различное сопротивление грудной клетки: жесткое, приблизительно 60 кг, среднее – примерно 45 кг и малое – примерно 30 кг.

Работа на манекенах позволяет:

1. обеспечить проходимость верхних дыхательных путей (тройной прием Сафара);

2. проводить ИВЛ методом «рот ко рту» и с помощью мешка Амбу;
3. проводить непрямой массаж сердца;

4. определять эффективность СЛР;

5. оценивать результаты выполнения;

6. осуществлять обратную связь обучающегося с преподавателем;

7. осуществлять мониторинг ЭКГ;

8. проводить электрическую дефибрилляцию.

Диагностика практических навыков включает в себя оценку выполнения НМС, искусственной вентиляции легких простейшими экспираторными методами: «рот ко рту», «рот к носу» или мешком Амбу. Эффективность выполнения НМС включает в себя подсчет частоты компрессий грудной клетки в минуту, определение требуемой глубины компрессий, способ поиска идеального места расположения рук при проведении компрессий, полное расправление грудной клетки или недопущение остаточной компрессии во время проведения компрессий, подсчет количества компрессий в цикле, измерение интервала между циклами компрессий инструментально с помощью имеющегося манекена Resusci Anne. Также во время проведения непрямого массажа сердца визуально оценивается положение обучающегося относительно манекена, количество смещений рук на область ребер, количество смещений рук выше места компрессий, метод выполнения компрессий (пальцами, одной/двумя руками), степень соприкосновения рук с грудной клеткой пациента. Инструментальная оценка вентиляции легких с помощью манекена Resusci Anne заключается в контроле необходимого объема вентиляции, времени проведения вентиляции, подсчете количества вдуваний в цикле. Визуальная оценка включает метод проведения вентиляции, способ открытия и поддержания проходимости дыхательных путей, закрывание носа во время вдуваний, определение амплитуды экскурсии грудной клетки, количества попыток вдуваний, а также положение рук на голове пациента во время вдуваний. Таким образом,

манекен Resusci Anne имеет четкие анатомические ориентиры и реалистичные ощущения компрессии/вентиляции при обучении правильной технике выполнения СЛР. Критерии оценки освоения практических умений

1. «Зачтено» – обучающийся демонстрирует мануальные навыки СЛР взрослому пациенту в конкретной ситуации при работе в команде; допускает некоторые неточности (малосущественные ошибки), которые самостоятельно обнаруживает и быстро исправляет; анализирует результаты собственных действий.

2. «Не зачтено» – не владеет техникой выполнения СЛР или делает грубые ошибки при ее выполнении, не знает особенностей СЛР взрослого пациента, не может самостоятельно исправить ошибки. Обучение основам СЛР включает просмотр учебного видеофильма по основам СЛР «СЛР для граждан» (30 минут), тематических видеороликов по технике СЛР, решение ситуационных задач и процедуру тестирования, что, безусловно, способствует закреплению полученных теоретических знаний и практических навыков по проведению СЛР. Заключение Таким образом, в последнее время растет понимание того, что традиционных методов обучения специальности «анестезиология-реаниматология» и соответствующим практическим навыкам становится недостаточно. Компьютерные симуляторы и манекены играют важную роль в заполнении пропасти между теорией и практикой и должны стать неотъемлемой частью обучения. Особенно это очевидно при обучении СЛР. Компьютерные симуляторы и манекены тренажеры различных уровней сложности позволяют приобрести навыки и изучить алгоритм действий в различных ситуациях в безопасных условиях для пациента и обучающегося. Обучение с использованием такой инновационной технологии требует проверки знаний и их контроля, который должен осуществляться либо электронными методами, либо опытными преподавателями клиницистами. Однако необходимо понимать и тот факт, что компьютерное обучение лишь дополняет, а отнюдь не заменяет клиническое обучение врача.

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Салиева М.Х.
Андижон давлат тиббиёт институти
Андижон шахри Ю.Атабеков кўчаси № 1 уй.

АБУ АЛИ ИБН СИНОНИНГ ИЛМИЙ АСОСЛАНГАН СИЙМОСИ

Аннотация: Мамлакатимизда баркамол авлодни шакллантириш, ёшларни маънавий-ахлоқий ва жисмонан соғлом этиб тарбиялаш, уларни олиб борилаётган ислоҳотларнинг фаол иштироқчисига айлантиришга қаратилган чора-тадбирлар изчил амалга оширилмоқда.

Қайд этилган муаммоларни бартараф этиш, ёш авлодни тарбиялаш борасидаги ишларни янада такомиллаштириш, таълим-тарбия сифатини мазмун жиҳатидан янги босқичга кўтариш, ўқитувчилик касбининг нуфузини ошириш мақсадида, шунингдек, 2017 — 2021 йилларда Ўзбекистон Республикасини ривожлантиришнинг бешта устувор йўналиши бўйича Ҳаракатлар стратегиясига мувофиқ. Қуйидаги устувор йўналишларни назарда тутувчи ёшларни маънавий-ахлоқий ва жисмоний баркамол этиб тарбиялаш, уларга таълим-тарбия бериш тизимини сифат жиҳатидан янги босқичга кўтариш бўйича комплекс чора-тадбирлар дастури тасдиқландин ва амалга оширилмоқда.

Калит сузлар: Абу Али ибн Сино, Сайд Нафисий, М. М. Герасимов

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THE SCIENTIFIC BASED CHARACTER OF ABU ALI IBN SINA

Annotation: In our country, measures are consistently implemented aimed at the formation of a harmonious generation, raising young people spiritually, morally and physically healthy, turning them into an active participant in the ongoing reforms.

In order to eliminate the mentioned problems, further improve the work on the education of the younger generation, raise the quality of education to a new level in terms of content, increase the prestige of the teaching profession, as well as in accordance with the strategy of actions in five priority areas of development of the Republic of Uzbekistan in 2017-2021. You have approved and are implementing a comprehensive program of measures to raise the system of moral and physical education of young people to a qualitatively new level, providing them with the following priorities.

Key words: Abu Ali ibn Sina, Sayd Nafisiy, M. M. Gerasimov.

Ёшлар ўртасида миллий ғояни тарғиб қилиш, уларда давлат рамзлари ва миллий қадриятларга ҳурмат ҳиссини уйғотиш, амалга оширилаётган ислоҳотларнинг мазмун-моҳиятини ёшларга етказишда буюк мутафаккир Абу Али Ибн Синонинг фикр- мулохазалари катта аҳамиятга эга.

Мақсад: Андижон давлат тиббиёт институти ректори профессор Юсуф Отабекович Отабеков (1912-1981) томонидаг буюк аллома Абу Али ибн Синонинг бюстини ҳақиқий қиёфасини яратиш хақида маълумот бериш.

Усул ва услублар: Юсуф Отабекович Отабеков ректорлик лавозимида иш бошлаган чоғиданоқ барча ишларга атрофлича ёндашган эди. Шундай тиғиз пайтда яна бир катта ишга қўл уриб, буюк аллома Абу Али ибн Синонинг бюсти сиймосини илмий асосда яратиш ҳаракатига тушди.

Бунинг сабаби, бунга қадар Ибн Синонинг бир- бирига ўхшамаган ўттиздан ортиқ кўринишдаги портрети мавжуд эди. Лекин, уларнинг ҳаммасида ҳам Ибн Синонинг хақиқий қиёфаси акс этмаганди. Ҳатто, машҳур антрополог ва ҳайкалтарош М. М. Герасимов яратган Ибн Сино портретида ҳам қатор камчиликлар мавжуд эди. Бу ижтимоий гигиена, соғлиқни сақлашни ташкил этиш ва тиббиёт тарихи билан шуғулланувчи мутахассис олим Ю.А.Атабековни қониқтирмай келарди.

Натижалар: Ю.О.Отабеков Ибн Синонинг ҳақиқий қиёфасини яратиш керак деган орзу билан юрарди. Бу орзу уни ижодий изланишлар сари чорлади кафедра доценти Ш.Х. Хамидуллин, эстетика фани муаллими Е. Соколова билан биргаликда. Ш. Х. Хамидуллин анатомия, ижтимоий-гигиена ва тиббиёт тарихидан йирик мутаҳассис эди. Шунинг билан бирга математика, физика ва геометрия фанларини ҳам чуқур ўзлаштирган инсон эди. Унинг бу билими Ибн Сино бюстини яратишда қўл келиши, Е. Соколова эса тайёр ўлчовлар асосида бюстни тиклаши мумкин эди. Ю.О.Отабеков

уларнинг мана шу билим ва қобилиятларини ҳисобга олиб ҳамкорликда ижодий иш қилишни таклиф этди. Улар масаланинг моҳиятини тушунгач, унинг таклифини қабул қилдилар.

Андижон Давлат тиббиёт институти ректори, хамда ижтимоий гигиена ва соғлиқни сақлашни ташкил қилиш кафедра мудири профессор Ю.О.Отабеков томонидан буюк мутаффакир, олим Абу Али Ибн Синонинг бюсти яратилди. Улар энг аввал, Ибн Синонинг ташқи қиёфаси ва табиатанинг хусусиятларига алоқадор бўлган мавжуд материал ва тарихий-адабий манбаларнинг барчасини синчиклаб кўриб чиқдилар, буюк олимнинг ҳаёти ва ижодий фаолиятини чуқур ўргандилар.

Бу мураккаб ва мушкул вазифани адо этишда улар эронлик машҳур академик Сайд Нафисий томонидан олинган Ибн Сино калла суягининг ҳақиқий фотосуратларини асос қилиб олдилар.

Фотосуратларнинг тарихи хақида бироз тўхталиб ўтамиз: 1925 йили Жахон Тинчлик Кенгашининг қарорига мувофик Абу Али Ибн Сино таваллудининг минг йиллиги шарафига Эроннинг Хамадон шахрида янги мақбара барпо этилганди. Ибн Синонинг хоки эски макбарадан янгисига олиб ўтилаётган пайтда академик Сайд Нафисий буюк хакимнинг калла суягини икки хил суратга тушириб олишга муяссар бўлганди. Ибн Сино калла суягининг фотосуратлари кейинчалик алломанинг ташқи қиёфасини тиклаш учун рус олимларига тақдим этилганди.

Академик В. Н. Терновский ана шу фотосуратларни кўриб Ибн Сино калла суягининг хусусиятлари тўғрисида антропологик томондан тасвирлаб берди. Машҳур археолог, антрополог ва ҳайкалтарош М. М. Герасимов эса 1956 йили ана шу тасвирлар асосида Ибн Синонинг ён томондан туширилган хужжатли портретини яратди. Бироқ калла суягининг ўзи ёки лоақал ундан аниқ олинган қуйма бўлмаганлигидан олимнинг олд томонидан туширилган хужжатли график портретини ҳам ярата олмади. Шунга қарамай М. М. Герасимовнинг ҳужжатли портрети Ибн Синонинг хақиқий қиёфасини излаб топишда олға қўйилган катта қадам эди.

Муаллифлар: проф.Ю.А.Отабеков, доц. Ш.Х.Хамидуллин ва Е.Соколова буни эътироф этдилару, лекин М. М. Герасимов услубидан ойдаланмадилар. Чунки, унинг услуби Ибн Сино бюстининг олд томондан кўринишини яратишда қўл келмас эди. Шунинг учун улар мутлақо янги, яъни фотосуратларга қараб ташқи қиёфасини тиклаш услубини яратиш устида иш олиб бордилар. Ниҳоят, Ибн Сино калла суяги ҳайкалининг модели яратилгач, олдиндан тайёрланган график тасвирлар асосида унинг портрети тикланди. Бу иш босқичма-босқич олиб борилди. Пешона, қош, кўзлар, энгакни ишлаш, қулоқ супраси ва бўйинни ясашда пластик анатомияда қабул қилинган умумий қоидаларга тўла амал қилиб калла суягининг антропологик хусусиятларини ҳисобга олишди.

Ибн Сино ҳайкал-портретини яратиш учун салкам ўн беш йил вақт кетди. Ибн Сино сиймосини беками кўст сақлаб қолган ҳолда бюстни бир неча марта қайта ишлаб чиқдилар ва пировард натижада буюк аллома образини топишга эришдилар.

Шундан сўнг муаллифлар Ибн Сино бюстини кандай яратганликлари ҳақида «Ибн Сино бюсти» фотоальбомини тайёрлаб, китоб ҳолида ўзбек, рус ва инглиз тилларида нашр қилдилар.

Бу фотоальбомни санъат ва антропология соҳасидаги тегишли муассасалар, ҳамда шу соҳанинг йирик мутахассисларига юбориб, уларнинг фикр-мулоҳазаларини сўрадилар ва бу ҳақда ижобий фикр ва юксак баҳо берилган кўплаб тақризлар олдилар.Узок йиллик изланиш ва машаққатли меҳнатлар ортда қолди (1964-1979).

Ю.А.Отабеков ўзи орзу килган Абу Али Ибн Синонинг ҳакикий сиймоси яратилди ва бу иш дунё жамоатчилиги томонидан эътироф этилди.

Тиббиёт тарихчиларининг Барсилона шахрида (Испания, 1980й.) бўлиб ўтган Халқаро конгрессида проф.Ю.А.Отабековнинг Ибн Сино бюстини яратганлиги ҳақида қилган доклад ҳорижий давлатлар олимларида катта қизиқиш уйғотди.

Хулосалар: Бу бюст Ибн Сино сиймосига энг кўпроқ ўхшаган бўлиб дунъё олимлари портретлар галереяси ичида муносиб ўрин олди. Республикамизнинг маданий ҳаётида эса катта воқеа бўлди.

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КОРХОНАЛАР ХУСУСИЙ КАПИТАЛИНИ ШАКИЛЛАНИШ ТАРТИБИ

Аннотация: мақолада корхоналар хусусий капиталини шакилланиш тартиби очиб берилган.

Калит сўзлар: хусусий капитал, акционерлик капитали, тақсимланмаган фойда, хусусий капиталнинг бошқа компонентлари, ички омил, ташқи омил, босқичма-босқич, соф активлар.

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PROCEDURE FOR FORMATION OF PRIVATE CAPITAL OF ENTERPRISES

Abstract: the article describes the procedure for the formation of private capital of enterprises.

Key words: equity capital, equity capital, retained earnings, other components of equity capital, internal factor, external factor, incremental, net assets.

Ўзбекистон Республикаси ҳам МҲХС ларига босқичма-босқич ўтмоқда. 2022-2026 йилларга мўлжалланган тараққиёт стратегиясида [69]3-бўлимда **“**Миллий иқтисодиётни жадал ривожлантириш ва юқори ўсиш суръатларини таъминлаш” 26-мақсадига тўхталганда Мамлакатда инвестиция муҳитини янада яхшилаш ва унинг жозибадорлигини ошириш, келгуси беш йилда 120 миллиард АҚШ доллари, жумладан 70 миллиард доллар хорижий инвестицияларни жалб этиш чораларини кўриш. Бундай мақсадга эришиш учун молиявий ҳисобнинг халқаро стандартлари хам жуда катта роль ўйнайди.Чунки ҳозирги кунда инвесторларга молиявий ҳисоботлар катта аҳамиятга эга.

Ўзбекистон Республикаси “Бухгалтерия ҳисоби тўғрисида”ги Қонунининг ушбу моддаси хусусий капитални ҳисобга олиш деб номланган.

[69] Ўзбекистон Республикаси Президентининг 2020 йил 24 февралдаги “Молиявий ҳисоботнинг халқаро стандартларига ўтиш бўйича қўшимча чора-тадбирлар тўғрисида”ги ПҚ-4611-сон қарори

19-модда. Хусусий капитални ҳисобга олиш

Хусусий капитал устав фондидан (устав капиталидан), қўшилган, захира капиталидан ва тақсимланмаган фойдадан таркиб топади.

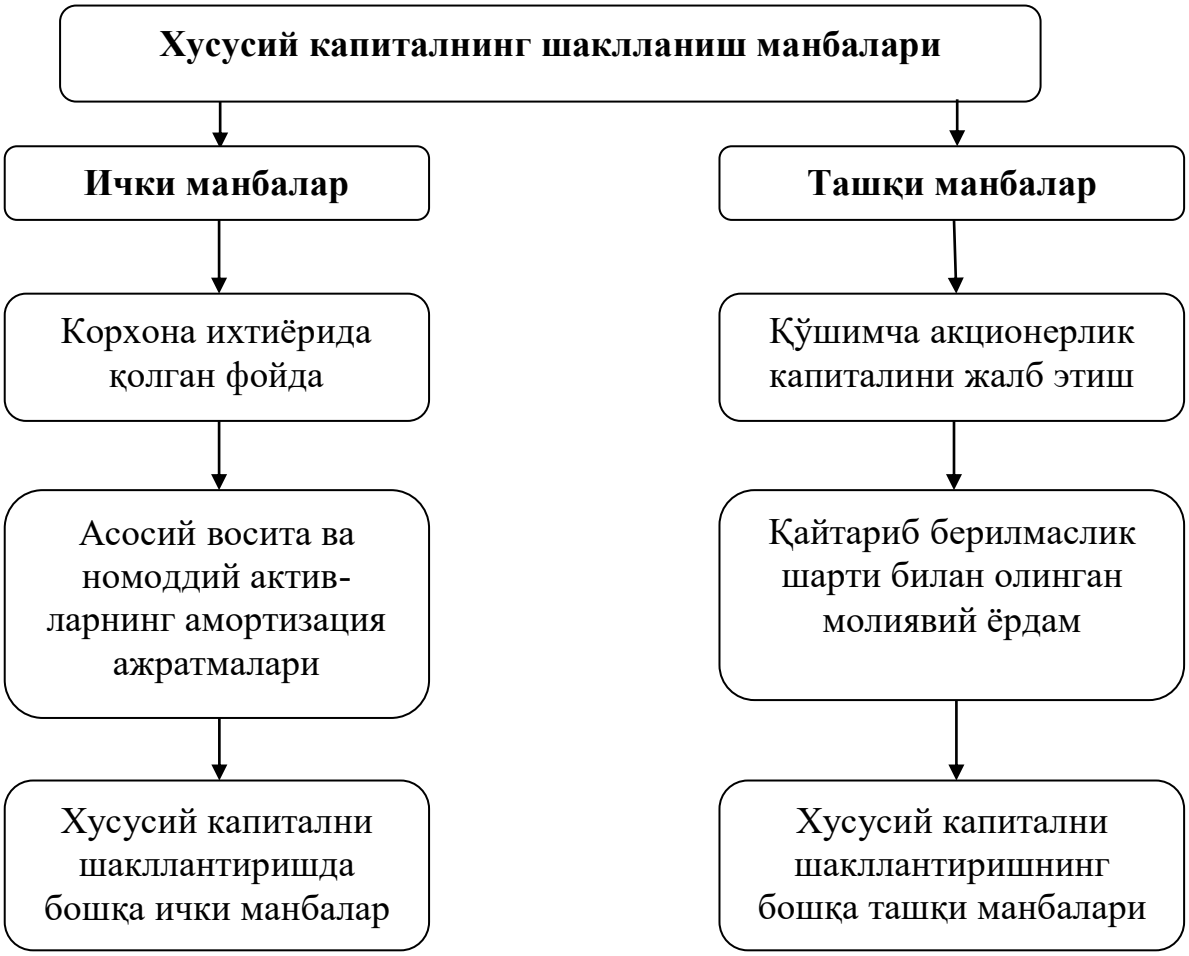
Устав фонди (устав капитали) таъсис ҳужжатларида белгиланган ҳиссаларнинг (пулда ифодаланган ҳолдаги) йиғиндисини акс эттиради. Устав фондига (устав капиталига) ҳиссалар шаклида киритиладиган моддий ва номоддий активлар таъсисчилар (иштирокчилар) ўртасидаги келишувга кўра баҳоланади, қонунда назарда тутилган ҳолларда эса, баҳоловчи ташкилот томонидан баҳоланиши керак.

ХУСУСИЙ КАПИТАЛ = АКТИВ – МАЖБУРИЯТЛАР

Бу тенгликдан кўриниб турибдики, хусусий капитал ҳар бир хўжалик юритувчи субъектлар фаолиятининг мулкий ва молиявий ҳолатини ифодалайди.

Хусусий капитал ўз таркибига қуйидаги элементларни олади: Устав капитали, Қўшилган капитал, Резерв капитали, Тақсимланмаган фойда, Сотиб олинган хусусий акциялар, Мақсадли тушумлар ва бошқалар. Буни қуйидаги чизмада кўриш мумкин.

Акционерлик жамиятларида чиқарилган ўз акциялари бошқалардан қайта сотиб олинган бўлса, у ҳолда хусусий капитал суммасини топишда сотиб олинган хусусий акциялар қиймати (ХАҚ) хусусий капитал миқдоридан чегириб ташланади, яъни:



2-чизма. Хусусий капиталнинг шаклланиш манбалари.

Хулоса қилиб аутганда корхоналар хусусий капитал ҳолати ва уни ташкил қилишда қўйдаги таклифларда фойдаланса мақсадга муофиқ.

Биринчидан, республикамизда хорижий амалиётда кенг қўлланилаётган МҲХСларга ўтиш бўйича Президентимизнинг 2020 йил 24 февралдаги “Молиявий ҳисоботнинг халқаро стандартларига ўтиш бўйича қўшимча чора-тадбирлар тўғрисида” ПҚ-4611-сон қарори ижросини таъминлаш жадаллашади.

Иккинчидан, бухгалтерлар молиявий ҳисоботларни халқаро стандартлар асосида тузиш бўйича амалий кўникмаларни вужудга келтиш.

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КОРХОНАЛАР СОФ ФОЙДАНИ ШАКИЛЛАНТИРИШ ТАРТИБНИНГ АЙРИМ МАСАЛАЛАРИ

Аннотация: мақолада корхоналар соф фойдасни шакилланиш тартиби очиб берилган.

Калит сўзлар: хусусий капитал, акционерлик капитали, тақсимланмаган фойда, хусусий капиталнинг бошқа компонентлари, соф фойда, бошқа атама, босқичма-босқич, соф активлар.

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SOME ISSUES OF THE FORMATION OF NET PROFIT OF ENTERPRISES

Abstract: the article describes the procedure for the formation of net profit of enterprises.

Keywords: equity, equity capital, retained earnings, other components of equity, net profit, other term, incremental, net assets.

Бозор иқтисодиёти шароитида хўжалик юритувчи субъектларни тегишли маблағлар билан таъминлаш ўта долзарб масала ҳисобланади. Бундай таъминотда корхоналар хусусий капиталининг ўрни беқиёсдир.

Ўзбекистон Республикаси Президентининг 2020 йил 24 февралдаги ПҚ-4611-сон “Молиявий ҳисоботнинг халқаро стандартларига ўтиши бўйича қўшимча чора тадбирлар тўғрисида”ги қарорига асосан, молиявий ҳисоботнинг халқаро стандартларига (кейинги ўринларда-МҲХС) ўтишни жадаллаштириш орқали хорижий инвесторларни зарур ахборот муҳити билан таъминлаш ва халқаро молия бозорларига кириш имкониятларини кенгайтириш, шунингдек, ҳисоб ва аудит соҳалари мутахассисларини халқаро стандартлар бўйича тайёрлаш, акциядорлик жамиятлари, тижорат банклари, суғурта ташкилотлари ва йирик солиқ тўловчилар тоифасига киритилган юридик шахслар, 2021 йил 1-январдан бошлаб, МҲХС асосида бухгалтерия ҳисоби юритилишини ташкил этади.[70] Шу жиҳатдан бугунги кунда корхоналарда хусусий капитал ҳисобини стандартларга мувофиқлаштириш масалалари бўйича алоҳида илмий тадқиқот ишларини

[70] Ўзбекистон Республикаси Президентининг 2020 йил 24 февралдаги №-4611 сонли қарори

олиб бориш талаб этилмокда. Биз биламизки корхона албатта фойда олиш мафсадида ўз фаолиятни амалга оширади.Корхоналар соф фойдасни аниқлаш учун фурмул ишлаб чиқилган.

***1.Сотишдан олинганфойда ёки зарар* (Фс) ёки (Зс):**

Фс (Зс) = Ст –Тс, мос равишда

Фс =агар Ст > Тс, Зс =агар Ст< Тс

Бу ерда: Ст – соф тушум,Тс – сотиш таннархи.

***2.Асосий фаолиятдан олинган фойда ёки зарар* (Фаф) ёки (Заф):**

Фаф (Заф) = Фс (Зс) –Дх + Бод

Бу ерда: Дх- давр харажатлари; Бод – асосий фаолиятдан олинган бошқа операцион даромадлар.

***3.Умумхўжалик фаолиятидан олинган фойда ёки зарарлар* (Фух) ёки (Зух):**

Фух (Зух) = Фаф (Заф) + Фмф – Змф

Бу ерда: Фмф – молиявий фаолиятдан олинган фойда;

Змф - молиявий фаолиятдан кўрилган зарарлар

***4.Солиқгача фойда ёки зарарлар* (Фст) ёки (Зст):**

Фст (Зст) = Фух (Зух) + Фф –Фз

Бу ерда: Фд –фавқулотдаги фойда; Фз – фавқулотдаги зарарлар

***5.Соф фойда ёки соф қопланмаган зарарлар (*Сф) ёки (Сз):**

Сф (Сз) = Фст (Зст) –Фс (Яст)

Бу ерда: Фс – фойда солиғи, Яст – ягона солиқ тўлови

Тақсимланмаган фойда - фойданинг жамғарилаётганини ифодалайди ва мулкдорларнинг қарорига биноан устав капиталига қўшилиши мумкин.

Хўжалик юритувчи субъектнинг барча йиллар бўйича фаолияти ва ҳисобот давридаги тақсимланмаган фойда ёки қопланмаган зарар суммаси бир-биридан фарқ қилади.

Соф фойда суммаси ҳисобот даврининг охирида якуний ёзув билан 8710 “Ҳисобот даврининг тақсимланмаган фойдаси (қопланмаган зарар)” счётининг кредитига, зарар суммаси эса ушбу счетнинг дебетига 9910 “Якуний молиявий натижани ҳисобга олувчи счётлар” счёти билан боғланган ҳолда ҳисобдан чиқарилади.

Фикримизча, энг аввалambор, корхоналар соф фойдани яний аниқ таркибини белгилаш, шунингдек улар тавсифи, тан олиниши, баҳоланиши, молиявий ҳисоботларда акс эттирилиши ва очиб берилиши борасида МҲХСларда белгиланган яхлит тартибларга ўтиш зарур. Чунончи, IAS 1, IAS 27, IAS 28, шунингдек IFRS 3, IFRS 10 халқаро стандартларда барча бизнес бирликларида соф фойданинг таркибий элементлари сифатида белгиланган ва тавсифланган бошқа атамаларга ўтишимиз мақсадга мувофиқ:

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ЖЕЛУДОЧНО-КИШЕЧНЫЕ ЗАБОЛЕВАНИЯ

Аннотация. Одной из особенностей хронических заболеваний желудочно-кишечного тракта (ЖКТ) у детей является их коморбидность. Особый интерес представляет связь между аллергическими заболеваниями и пищеварительной системой. Предполагается прямое аллергическое поражение слизистых оболочек пищевода, желудка и кишечника различными аллергенами, поражение других органов и одновременное развитие местного воспаления с повышением проницаемости эпителиального барьера желудочно-кишечного тракта для аллергенов. Поскольку слизистая оболочка желудка контактирует с аллергенами, которые поступают раньше других органов пищеварения, такое сочетание аллергических заболеваний и патологии ОИТ сегодня привлекает внимание исследователей.

Ключевые слова: дети, атопический дерматит, желудочно-кишечная система, кишечная флора, эластаза, панкреатит.

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GASTROINTESTINAL DISEASES

Abstract. One of the characteristics of chronic diseases of the gastrointestinal tract (GI) in children is their comorbidity. The relationship between allergic diseases and the digestive system is of particular interest. Direct allergic damage to the mucous membranes of the esophagus, stomach and intestines by various allergens, damage to other organs and simultaneous development of local inflammation with an increase in the permeability of the epithelial barrier of the gastrointestinal tract to allergens is assumed. Since the mucous membrane of the stomach is in contact with allergens that enter before other digestive organs, this combination of allergic diseases and OIT pathology attracts the attention of researchers today.

Key words: children, atopic dermatitis, gastrointestinal system, intestinal flora, elastase, pancreatitis.

Большое количество случаев атопического дерматита (АтД) сопровождается нарушениями функции органов пищеварения, которые приводят к обострению и осложнениям основного заболевания. По данным

Robison R.G., Singh A.M. и Lee MJ, Kang MJ, боль в животе наблюдается у 72% детей с АтД, диарея – у 57%, метеоризм – у 49%, рвота – у 37%, запор – у 26%, тошнота – у 22%. [11]. Н.Г.Соболева и соавторы в своих исследованиях выявили изменения в системе пищеварения у большой группы детей с атопическим дерматитом, у 74,8% детей с АтД генетическая предрасположенность к гастроэнтерологической патологии в основном наблюдалась в материнском поколении [6]. 81,5% детей имели признаки поражения желудочно-кишечного тракта. Изолированный болевой абдоминальный синдром наблюдался у 2,4% детей, боли в животе, сопровождающиеся диспепсическими жалобами - 30,6%, боли в сочетании с диспепсическим синдромом и запорами - 68,4%. Кроме того, авторы обнаружили снижение аппетита (41,5%), тошноту (37,8%) и заикание (23,1%). В обследованной группе детей желудочно-кишечные симптомы в большинстве случаев появлялись на первом году жизни ребенка, а запор считался одним из наиболее частых симптомов. Проявление желудочно-кишечных симптомов у этих детей чаще наблюдалось на фоне раннего введения прикорма и нерационального питания. Несомненно, развитие этих состояний обусловлено тем, что характер питания не соответствует функциональным возможностям органов пищеварения ребенка. Наиболее часто рвота наблюдалась на первом году жизни детей с АтД (у 28% детей), это состояние часто было связано с введением в рацион аллергенов, в том числе белка коровьего молока. У 75% детей, перенесших рефлюкс на первом году жизни, симптомы гастроэзофагеального рефлюкса сохранялись и во взрослом возрасте. На основании полученных данных можно сделать вывод, что на первом году жизни у детей с пищевой аллергией и АтД моторика органов пищеварения формируется и в дальнейшем становится более выраженной. Что касается аллергического процесса, то чувствительность к коровьему молоку и куриным яйцам на первом году жизни ребенка отмечена у 88,2% и 83,0% детей соответственно. Ранее хорошо известным явлением, связанным с поражением желудочно-кишечного тракта при АтД, является повышенная проницаемость эпителиального барьера желудочно-кишечного тракта.

Предполагается, что повышенная проницаемость эпителиального барьера связана с аллергическим воспалением в кишечнике как признаком атопического процесса, при котором органом-мишенью становится не только кожа, но и кишечник. В результате повышенной проницаемости кишечного барьера увеличивается поступление антигенов из кишечника в организм больного.

В результате проведенного исследования у 97,5% детей были выявлены изменения в органах пищеварения. Больные предъявляли жалобы на боли в животе, периодическую тошноту, снижение аппетита, заикание, изжогу, неустойчивый стул, запоры, метеоризм. У 69,7% детей отмечались признаки интоксикации: общая слабость, гиподинамия,

быстрая утомляемость, повышенная возбудимость, неспособность к концентрации внимания, иногда плаксивость. В анамнезе у 86,9% детей родители отмечали постоянные диспепсические расстройства и желудочные расстройства.

Ферменты поджелудочной железы в крови, триглицериды в кале, ультразвуковое исследование органов брюшной полости, копрологические исследования выявили значительное нарушение функции поджелудочной железы у детей с АтД. В то же время выявлено изменение мембранозного пищеварения и при нарушении полостного пищеварения. В то же время показано, что существует достоверная сильная корреляция (R=+0,76, p<0,01) между уровнем липазы в сыворотке крови и дефицитом лактазы, что свидетельствует о тесной взаимосвязи нарушений пищеварения и всасывания. между В то же время с помощью ксилозного теста показано кишечное всасывание углеводов и липидов (неэтерифицированных жирных кислот по липидограмме кала), причем степень выраженности этих нарушений была связана с тяжестью заболевания (по по шкале SCORAD) увеличивалась в зависимости от возрастания [10].

Таким образом, у детей с АтД помимо полостного пищеварения нарушено и пристеночное пищеварение, что связано с нарушением многостадийной ферментативной обработки, необходимой для усвоения и последующего всасывания продуктов гидролиза пищевых веществ. Механизмы нарушения всасывания в кишечнике при АтД связаны с массивным штаммом антигенов, что привело к аллергической реакции по принципу «шокового органного» поражения. Изменения кишечной проницаемости вследствие местной реакции гиперчувствительности наблюдались в результате воспаления слизистой оболочки кишечника, вызванного пищевыми аллергенами. Увеличение количества IgE-продуцирующих клеток, тканевая эозинофилия, высокая концентрация цитокинов, катионного белка эозинофилов (ESR) и α1-антитрипсина многими учеными приводились в качестве доказательства локального аллергического воспаления.

Во многих случаях удается выявить функциональные нарушения моторики толстой кишки при заболеваниях атопического характера. Титова Н.Д. с соавторами установили, что синдром раздраженного кишечника (СИР) статистически значимо чаще встречался у взрослых с атопией (P=0,015), что привело к введению термина «атопический СИС». В целом у детей с атопией симптомы СИС встречались в 3,2 раза чаще, чем у пациентов без АтД (95% II, 1,20-8,50, P = 0,02) [7]. По данным авторов, частота СИС среди атопических заболеваний была выше, чем аллергического ринита (в 2,67 раза больше, чем в популяции; 95% доверительный интервал [II], 1,10-6,49; P = 0,03), аллергической экземы (в 3,85 раза; 95% II, 1,72-8,60; P = 0,001) и депрессивных больных (в 2,56 раза; 95% II, 1,05-6,14; P = 0,04). Kelly T. и соавторы наблюдали за детьми

с аллергическими заболеваниями (по сравнению с детьми без аллергии) в возрасте 3-13 лет и обнаружили СИТ у 6,6% детей с аллергией и 6,3% детей без аллергии (p=0,581). Аналогичные результаты наблюдались в отношении частоты запоров **[**3].

Согласно систематическим обзорам, пищевая непереносимость наблюдалась у 20-65% больных с диагнозом ТИС, и в большинстве случаев это было связано с иммунологическими нарушениями. При этом значимые причины, определяемые кожным прик-тестом, оказывали положительное влияние на клиническое течение функциональных нарушений моторики кишечника при их исключении из рациона.

По результатам метаанализа аллергические заболевания наблюдались у большинства пациентов с ТИС. Важно и интересно, что помимо аллергических заболеваний у больных с ТИС и СД чаще наблюдались функциональная диспепсия (т.е. нарушение моторики верхних отделов желудочно-кишечного тракта) и депрессия (т.е. психоэмоциональные расстройства).

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ТРУДОВЫЕ ОТНОШЕНИЯ, ОСЛОЖНЕННЫЕ ИНОСТРАННЫМ ЭЛЕМЕНТОМ: НОРМАТИВНОЕ РЕГУЛИРОВАНИЕ И ПРОБЛЕМЫ

Аннотация: Ввиду роста международной трудовой миграции проблема регулирования трудовых правоотношений, осложненных иностранным элементом, является особо актуальной. Трудовое законодательство, как отрасль права, характеризуется сочетанием частных и публичных начал. Ввиду этого в науке ведутся споры об отнесении или неотнесении международных трудовых правоотношений к объекту международного частного права. Рассмотрены особенности международных трудовых отношений на примере Российской Федерации. Выявлены проблемы и предложены пути их решения.

Ключевые слова: трудовые отношения, иностранный элемент, международное частное право, Трудовой кодекс РФ.

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LABOR RELATIONS COMPLICATED BY A FOREIGN ELEMENT: REGULATORY REGULATION AND PROBLEMS

Abstract. Due to the growth of international labor migration, the problem of regulating labor relations complicated by a foreign element is particularly relevant. Labor legislation, as a branch of law, is characterized by a combination of private and public principles. In view of this, there are disputes in science about the attribution or non-attribution of international labor relations to the object of private international law. The features of international labor relations on the example of the Russian Federation are considered. Problems are identified and solutions are proposed.

Keywords: labor relations, foreign element, private international law, Labor Code of the Russian Federation.

В настоящее время с учетом мировой глобализации, быстрого роста трудовой миграции тема исследования, связанная с правовым регулированием трудовых отношений, осложненных иностранным элементом, является особо актуальной. Так, если субъекты трудовых отношений, работник и работодатель, являются гражданами разных государств или лицами без гражданства, то выбор права, применимого к таким правоотношениям, будет сделан при помощи коллизионных норм, которые содержат принципы рассмотрения таких спорных ситуаций, существующих в правоотношениях, осложненных иностранным элементом [1].

Трудовое законодательство, как отрасль права, характеризуется сочетанием частных и публичных начал. По мнению Л.А. Лунца, нельзя сказать, чтобы было ясно, какие вопросы относятся к публично-правовым, а какие - к гражданско-правовым элементам трудового права [2]. В науке ведутся дискуссии о том, являются ли трудовые отношения объектом изучения международного частного права. Некоторые ученые считают, что такие отношения должны регулироваться исключительно отечественным правом [3], ведь существенные различия гражданского и трудового права представляют собой невозможность применить некоторые основные положения к трудовым отношениям с иностранным элементом [4]. Другие же, например, Н.И. Марышева выделяет трудовые отношения как отдельный элемент системы международного частного права, а, следовательно, и причисляет его к объектам [4]. Мы согласны с мнением Н.И. Марышевой и считаем, что трудовые отношения однозначно стоит рассматривать как объект международного частного права, так как в них ярко выражен индивидуальный, частный интерес.

Главной отличительной чертой международного частного права является его коллизионно-правовой метод. Коллизионные нормы содержатся в законодательстве многих стран мира. Например, В Швейцарии закон позволяет сторонам выбрать применимое право по праву страны, в которой работник пребывает или в которой ведется деятельность, а также по праву страны места жительства или обычного места пребывания работодателя [5].

В науке международного частного права можно выделить следующие коллизионно-правовые принципы:

А) Принцип автономии воли, иначе свобода выбора права. Его суть заключается в том, что стороны трудового правоотношения вправе сами выбрать закон страны, которому будут починяться трудовые правоотношения между ними. Данный принцип является предметом дискуссий в научной среде. Нам наиболее близким представляется мнение о том, что действительно не должно быть ограничений в выборе права страны, но с условием: выбор сторонами права другой страны не может

затрагивать
действия императивных норм страны, с которой договор реально связан, иначе говоря, всегда необходимо помнить об оговорке о публичном порядке [7].

Б) Закон места работы. Право, которому будут подчиняться трудовые правоотношения, будет той страны, на территории которой выполняется работа.

В) Закон места нахождения работодателя. Если согласно трудовому договору работу следует выполнять на территории нескольких государств, к трудовому отношению применятся закон места нахождения, места жительства или места коммерческой деятельности работодателя.

Г) Закон флага судна. Так, если работник выполняет свою трудовую функцию на водном или воздушном транспорте, то его трудовые правоотношения будут подчиняться закону той страны, в которой зарегистрировано судно или транспорт.

Рассмотрим особенности международных трудовых отношений на примере Российской Федерации. Так, Трудовой кодекс РФ [6] закрепил, что иностранцы на ряду с гражданами РФ имеют равные права и обязанности в трудовых правоотношениях, что называется в теории международного частного права национальным режимом. Однако, в кодексе нет норм о том, как разрешать спорные правовые ситуации, участником которых является иностранное лицо. Можем сделать вывод о том, что российский законодатель не относит международные трудовые правоотношения к объекту международного частного права, ведь ни один нормативно правовой акт Российской Федерации не содержит нормы, которая бы регламентировала порядок выбора права страны для урегулирования трудовых отношений, с участием иностранного элемента.

Ст. 327.1 ТК РФ говорит о распространении норм Трудового кодекса и иных актов, которые содержат нормы трудового права, на трудовые отношения иностранных граждан, если иное не установлено международным договором.

Согласно ст. 11 ТК РФ трудовые отношения в РФ регулируются трудовым законодательством и иными актами, которые содержат нормы трудового права. Как мы знаем, одним из главнейших источников международного частного права в РФ является раздел VI ГК РФ, где содержатся основные положения о нем, его принципы. Возникает вопрос, ст. 11 ТК РФ подразумевает включение этого раздела ГК РФ в категорию «иной акт»? Конечно же, при буквальном толковании закона, мы не можем ответить на этот вопрос положительно, ведь и ГК РФ, и ТК РФ являются федеральными законами, а значит по своей юридической силе они равны. Закон под понятием «иной акт» подразумевает какой-либо подзаконный акт, который разъясняет детальное правовое регулирование конкретных правоотношений.

Таким образом, мы видим, что ст. 11 ТК РФ говорит о регулировании трудовых правоотношений, осложненных иностранным элементом, российским правом. Однако, учитывая сложившиеся в науке международного частного права коллизионные правовые принципы, можно сделать вывод, что ТК РФ не раскрывает ни один из них. Таким образом, мы видим, что в трудовом законодательстве существует большой пробел, связанный с правовым регулированием трудовых отношений с участием иностранного элемента.

В заключение хочется сказать, что в ТК РФ необходимо внести статью, которая позволила бы применять к трудовым отношениям, осложненным иностранным элементом, нормы главы VI ГК РФ. Считается также абсолютно оправданным закрепление коллизионных норм в данной сфере в Трудовой кодекс РФ. В частности, закрепление принципа автономии воли, позволяющего сторонам выбор применимого права, обеспечивающего наиболее полную защиту их прав.

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ПРОБЛЕМЫ РАЗРАБОТКИ ПРОЦЕССА ОРГАНИЗАЦИИ СТРОИТЕЛЬНОГО ПРОИЗВОДСТВА

Аннотация: На сегодняшний день одной из ключевых проблем, связанных с реализацией инвестиционно-строительных проектов, является срыв сроков ввода в эксплуатацию объектов строительства, что влечет за собой удорожание итоговой стоимости реализации проекта и, как правило, ухудшает качество строительства. Процесс организации строительного производства – это разносторонняя и многоаспектная деятельность, поэтому для решения проблем организационного характера требуется такой подход к управлению, который позволит охватить все сферы деятельности хозяйствующего субъекта строительной отрасли,

Ключевые слова: виды потерь в строительстве; организация строительного производства; нормативное обеспечение производственно-строительной деятельности; подходы к менеджменту хозяйствующих субъектов строительной отрасли; планирование строительной деятельности.

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PROBLEMS OF DEVELOPMENT OF THE PROCESS OF ORGANIZATION OF CONSTRUCTION PRODUCTION

Annotation: To date, one of the key problems associated with the implementation of investment and construction projects is the breakdown of the commissioning of construction projects, which entails a rise in the total cost of the project and, as a rule, worsens the quality of construction. The process of organizing construction production is a versatile and multi -assembled activity, therefore, to solve problems of organizational nature, such an approach to management is required, which will allow to cover all areas of activity of an economic entity of the construction industry,

Key words: organization of construction production; normative support of production activities; approaches to the management of business entities of the construction industry; planning of construction activities.

В своем обращении к Олий Мажлису и народу Узбекистана 20 декабря 2022 года Президент Республики Узбекистан Шавкат Мирзиёев отметил, что «наша численность населения в этом году превысила 36 миллионов человек, ежегодно наши ряды пополняют около 900 тысяч новых жителей, и в результате наших масштабных и эффективных реформ валовой внутренний продукт впервые превысил 80 миллиардов долларов. В этом году в нашу экономику поступили прямые иностранные инвестиции в размере 8 миллиардов долларов, а наш экспорт достиг 19 миллиардов долларов.Для этого за последние шесть лет мы построили в нашей стране почти 300 тысяч домов, или в 10 раз больше, чем в предыдущие годы. За этот период было создано дополнительно 500 000 ученических мест, а их общее количество достигло 5 миллионов 300 тысяч. В настоящее время интенсивно продолжается работа по созданию еще 1 200 000 ученических мест».(1)

В современных условиях ограниченности финансовых ресурсов предприятий и ужесточения конкуренции, предприятиям строительной отрасли для обеспечения запланированного уровня своей рентабельности необходимо выполнять строительные работы по сооружению или реконструкции объектов качественно и в заданные сроки. Профессионализм, качество и соблюдение сроков строительства считаются основными характеристиками деловой репутации хозяйствующих субъектов данной отрасли, ухудшение хотя бы одного из этих показателей влечет за собой финансовые потери для всех участников строительного процесса

Развитие строительной отрасли требует решения таких проблем, как снижение себестоимости продукции, повышение ее качества, замена устаревших технологий и оборудования, снижение энергоемкости, регулярное нарушение сроков поставок товарно-материальных ценностей, нехватка квалифицированного персонала. Организация строительной деятельности по своему содержанию является весьма разносторонней и многоаспектной. Решаемые менеджерами задачи в процессе организации строительного производства, как правило, относятся сразу к нескольким областям деятельности: инженерной, управленческой, информационной и экономической. Поэтому разработка инновационных подходов к данному процессу является одной из самых актуальных задач в строительной отрасли. Создание таких подходов можно охарактеризовать как междисциплинарную задачу, в которой неразрывно взаимосвязаны элементы знаний, опыт их применения, а также практические умения из разных областей строительной деятельности.

Строительная продукция стационарна, а рабочие участки движутся, сменяя друг друга по мере выполнения отдельных видов или этапов работ; при длительном сроке выпуска продукции те или иные детали реализации проекта могут изменяться, а его характеристики – уточняться (изменяться)

в процессе реализации проекта. Четко определить последовательность задач тоже проблематично, из чего следует частичное распределение ресурсов и требование общих профессиональных компетенций для множества позиций.

Стратегия совершенствования направлена на быстрое обучение на этапе планирования и в процессе строительно-монтажных работ. Кроме того, в современном строительном производстве происходит нивелирование специфики за счет стандартизации, модульной координации при возрастании роли подрядчиков; количество взаимосвязей между организациями-участниками строительного процесса сокращается при переходе к долгосрочным объединениям, за счет привлечения специализированных и многофункциональных бригад минимизируется сложность производства. (2)

В основе его концепции лежит оптимизация всех производственных процессов путем их ранжирования по основному признаку – выделение процессов, добавляющих ценности конечной продукции, и выявление процессов, не приносящих добавленной ценности готовой продукции или снижающих ее. Определяют до семи основных видов потерь, возникающих в результате этих процессов и снижающих ценность продукции:

- Потери, ведущие к перепроизводству.
- 2. Потери, созданные в результате простоя или ожидания.
- 3. Потери, возникающие в результате избыточной транспортировки материалов.
- 4. Потери, вызванные излишней обработкой.
- 5. Потери, возникающие в результате избытка запасов.
- 6. Потери времени, созданные ненужными передвижениями рабочих при выполнении технологического процесса.
- 7. Потери, проявившиеся в результате возникновения дефектов и необходимости их исправления
- 8.Несвоевременная передача заказчиком денежных средств за выполненные строительно-монтажные работы.
- Выделяют также девятую группу потерь, обусловленных игнорированием человеческого фактора

Можно с уверенностью сказать, что в практике возведения зданий и сооружений имеют место все вышеперечисленные виды потерь. Суть подхода «бережливого производства» заключается в том, что необходимо своевременно определять и исключать все действия, создающие потери на предприятиях строительной отрасли. Данный вопрос уже рассматривали отечественные ученые. Наиболее значимым результатом в этой области стали разработки О.И. Пакидова, который с группой соавторов спроектировал схему управления строительным процессом на основе двух составляющих: «поточного проектирования» и «поточного строительства».

Авторы разработали организационную схему инвестиционно-строительного проекта от возникновения идеи создания объекта до ввода его в эксплуатацию, позволяющую с применением современных технологий в кратчайшие сроки реализовывать проекты при заданном уровне качества. Разработка направлена на совершенствование взаимодействия субъектов инвестиционно-строительного процесса. (3)

На заключительном этапе процесса управления потоками разрабатываются инструкции для персонала, которому должны быть доступны инструменты логистики, применяющиеся на соответствующих стадиях строительства: проектная документация и анализ технологических альтернатив; планы выполнения работ, потребности в материалах, загрузки технических средств, планы работ персонала и подрядчиков; в сфере материально-технического снабжения – данные о специфике материалов, план поставок материальных ресурсов на участки, план загрузки техники, регламент на заказ техники и регламент оценки и учета материальных потерь; в процессе выполнения работ – план их выполнения по объектам, отчетность по производительности персонала и использованию техники, правила техники безопасности. При применении данных инструментов необходимо обеспечить обратную связь для получения информации о состоянии процессов и оперативного внесения изменений в графики и планы в соответствии с фактическими потребностями.

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ЙИГИРИШ ЖАРАЁНИНИ МАВЖУД БОШҚАРИШ УСУЛЛАРИ ВА ТИЗИМЛАРИНИНГ ТАҲЛИЛИ

Аннотация: Тўқимачилик саноатидаги технологик жараёнларнинг мураккаблашуви унда, замонавий техник воситаларнинг қўлланилиши, замонавий бошқариш қурилмалари асосида бошқариш тизимини яратишни талаб этади.

Калит сўзи: Йигириш жараёнини мавжуд автоматик ростлаш тизимлари компенсациялаш усуллари ёки оғишга асосланган ростлаш тамойили бўйича ишлайди.

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ANALYSIS SUSHCHESTVUYUSHCHIX METHODOV I SYSTEM MANAGEMENT PROTSESSOM PRYADENIYA FUTBOLOCHNYX TKANEY

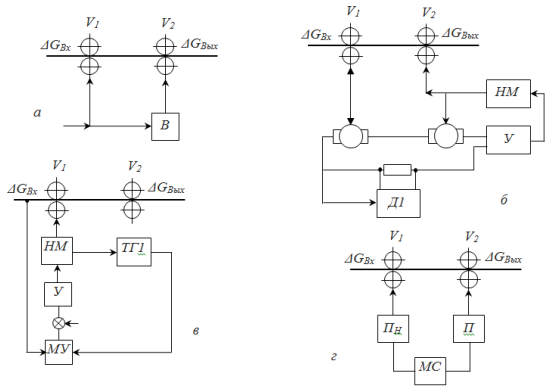
Abstract. The complexity of technological processes and the textile industry requires the creation of system management, the establishment and use of modern technical means and modern control systems.

Keywords: Suschestvuyushchie system automatic regulation of the process works on the principle of methodov compensation with regulation and elimination.

Тўқимачилик саноатининг ривожланишини асосий йўналишларидан бири улардаги технологик жараёнларини атоматлаштириш ҳисобига маҳсулот сифатини яхшилаш ва ишлаб чиқариш унумдорлини оширишдан иборатдир. Бу эса технологик жараёнлар ва қурилмаларни бошқариш сифатига юқори талабларни қўяди. Тўқимачилик саноатидаги технологик қурилмаларни бошқариш тизимини такомиллаштириш мақсадида мавжуд бошқариш усуллари ва воситалари таҳлил қилинди. Бунда жараённинг узлусизлик характерга эга эканлигига алоҳида аҳамият берилди. Йигириш жараёнини автоматлаштиришда асосий масала - бу технологик параметрлар, яъни пиликни чўзиш, унинг зичлиги ва қалинлигини сақлаш муҳим аҳамият касб этади. Чунки булар тайёр маҳсулотнинг сифат кўрсаткичларига катта таъсир кўрсатади.

Механик вариаторли чўзиш қурилмаси асосан пиликнинг эластиклигини йўқотиш қаттиқ характеристикали пружинага боғлиқ бўлиб, унда чўзиш кучи Гук қонуниятига бўйсунади. Бу схеманинг афзаллиги шундаки, машинани ишга тушириш ва тўхтатишда юритманинг ростланувчи ҳамда ростланмайдиган қисмларини номутаносиблигини ҳисобга олиш имконини беради Ишлаб чиқаришда қўлланилаётган пиликни чўзиш қурилмалари асосан ростланувчи юритмалар билан таъминланган бўлиб, пиликнинг текислиги электр юритмаларининг тезлигини ўзгаришига ҳисобига амалга оширилади. Чўзиш қурилмасини бошқариш схемалари 1-расмда келтирилган.

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1-расм. Чўзиш қурилмасининг бошқариш схемалари

1-расм б-схемада келтирилган бошқариш роликнинг назорат қилинмайдиган тезликни v_1 таъсирини камайтириш учун солиштириш схемаси мураккаблаштирилган. Пиликнинг йўғонлигининг нотекислигини ҳам ҳисобга олиш учун механик вариатор билан бирга роликлар тезлигини бошқарувчи электр юритма 1.6-расм в-схемада келтирилган. Бунда электр

юритманинг тезлигини бошқаришда кучайтирувчи қурилма қўлланилган. Бошқариш сифатини яна ҳам ошириш учун бошқариш 1-расмдаги г-схемасининг таркибига илашувчи муфтали электр юритмани қўллаш таклиф этилган.

Мавжуд бошқариш тизимларининг таҳлили шуни кўрсатдики, улар асосан жараённинг бирон бир технологик параметрини стабиллашга мўлжалланган бўлиб, анъанавий бошқариш усуллари асосида қурилган.

Шунинг учун улар ўзгарувчиларнинг ўзаро таъсирини ва ғалаён таъсирларининг ўзгаришининг динамик хусусиятларини ҳисобга олиш имконини бермайди. Шунингдек, уларда ташқи таъсирларни компенсациялаш асосий ўрин эгаллаб, объект параметрларини ростлаш бир бирига боғлиқ бўлмаган ҳолда амалга оширилади. Шунинг учун мавжуд бошқариш тизимларида айрим параметрларинигина адаптив бошқариш қўлланилган.

Реал объектларда қўлланилаётган бошқариш тизимлари асосан типик ростлагичлар, яъни П, ПИ, ПИД ростлаш қонунлари асосида ишлаб чиқилган. Жараённинг ва объектнинг мураккаблигига қараб бошқариш тизиминини структураси бир ёки кўп контурли кўринишга эга ўлади. Бундай структура ва бошқариш қонуниятлари асосида содда объектлар учун мўлжалланган бўлиб, сифатга юқори талаб қўйилмаган жойларга тадбиқ этилади.

Тўқимачилик саноатидаги технологик жараёнларнинг мураккаблашуви унда, замонавий техник воситаларнинг қўлланилиши, замонавий бошқариш қурилмалари асосида бошқариш тизимини яратишни талаб этади. Шунинг учун типик ростлагичлар ва бошқариш қонунлари юқори самара бермайди. Кейинги пайтларда мураккаб чизиқли объктларда бошқаришнинг юқори сифатини таъминлаш имконини берувчи юқори тартибли динамик ростлагичларга асосланган технологик объектлар ҳолатини бошқариш тамойилларини қўллаган ҳолда яратиш тенденцияси кузатилмоқда. Булар жумласига модал бошқариш назариясига асосланган бошқариш тизимларини яратиш мисол бўлади. Лекин ушбу назария асосан чизиқли объектларга мўлжалланган бўлиб, фақатгина битта параметрни бошқаришга мўлжаллангандир ва бошқариш тизими параметрларини ички хоссаларини ўзгаришини ҳисобга олиш имконини бермайди.

Маълумки, йигириш жараёни маҳсулотининг физик-механик характерини ўзгариши, технологик қурилмаларининг ишлаш режимларини ўзгариши бошқариш тизимини ички параметрларини ҳисобланган қийматдан фарқини келтириб чиқаради. Бунинг натижасида технологик жараённи автоматик бошқариш тизимининг самарадорлигини камайишига сабаб бўлади ва мавжуд ростлагичларни юқорида келтирилган омилларни ҳисобга олган ҳолда синтезлашни талаб этади.

Шуни айтиш жоизки, йигириш жараёнини хусусиятидан келиб чиққан ҳолда хозирда нафақат бошқариш сифатини анъанавий

кўрсаткичлари (аниқлиги, тезкорлиги, халақитларга чидамлиги ва б.) тезкорлигини таъминлаш балки, бошқариш тизимини яратишда унинг параметрик сезгирлигини камайтиришга ҳам алоҳида аҳамият берилмоқда. Бундай тизимларни яратиш бошқариш қурилмаларни синтезлаш учун адаптив ва робаст ёндашувларни қўллаш орқали амалга оширилади.

Адаптив автоматик ростлаш тизимлари юқори мураккаблик хусусиятига эга бўлади, лекин параметрик сезгирмаслик муаммосини тўлиқ ечиш имконини бермайди, чунки уларда очиқ циклли (адаптациялаш режимида) бошқариш қурилмасини ўз созлаш учун бошқариш объекти параметрларининг ўзаро боғлиқлигини билиш талаб этади. Бу эса анчагина мураккабликни туғдиради. Берк цикл бўйича ўз созлашни амалга оширишда юқори тезкорликка эга бўлган адаптациялаш контури тизимнинг турғунлигини таъминлашни мураккаблаштиради.

Бошқариш жараёнида робаст ёндашувни қўллашнинг муҳим жиҳати шундан иборатки, юқори тезликка эга параметрик ғалаёнларни содда воситалар ёрдамида компенсациялаш имкониятига эгалигидир.

Хозирда яна бир кенг тарқалган усуллардан бири оптималлаш ёндашувини қўллашга асосланган бошқариш тизимларини робаст синтезлаш усулларини қўллашдир, лекин буларда ростлагичнинг даражаси (тартиби) бошқариш объектининг тартибидан юқори бўлиш эхтимоли мавжуддир. Бу эса объектнинг дастлабки параметрлари бўйича бошқариш сифатини пасайишига олиб келади. Динамик объектларни синтезлашнинг яна бир усулларидан бири интерваллар усулидир, лекин бунда объект параметрларини номинал қийматдан оғиш катталикларини баҳолаш талаб этилади. Шунингдек, бошқариш масаларини ечишда физикавий ходисани математик шакллантириш мобайнида аниқ объектнинг ўзига хос хусусиятларини тўлиқ ҳисобга олиш масаласи бошқариш тизимини яратишни мураккаблаштиради ва синтезланган тизимнинг самарадорлигини пасайишига олиб келади.

Йигириш қурилмаларини бошқариш тизимлари маҳсулот сифат кўрсаткичларини берилган даражада стабил ушлаб туришини таъминлаши зарурдир. Бу эса пиликни чўзишда узатишнинг юқори аниқлик ва тезкорликда тезлигини ростлашни таъминлаш учун йигириш қурилмасидаги электр юритмани сифатига юқори талабларни қўяди. Йигириш қурилмасидаги электр юритмалар унинг механизмлари ҳаракат тезлигини юқори аниқликда ушлаб туриш ва текис ростланишни маълум диапазонда ростлаш (2-3% ушлаб туриш) ни таъминлаш, пиликнинг хоссаларига мос равишда унинг чизиқли зичлигини берилган қийматдан 0.05% фарқини, пиликни тортиш кучини 1-3% чегарада стабил ушлаб туришни таъминлаш талаб этилади.

Шунингдек, йигириш қурилмасини бошқариш жараёнида айланувчи масса инерция моментларининг ўзгариши ва пиликнинг эластиклиги содир бўлади ҳамда бу параметрлари жараён мобайнида узлуксиз бўлиши ёки

сакрашсимон ўзгариши мумкин. Йигириш қурилмасининг ишлашини характерли хусуситларидан бири механизмлар орасида эластик боғланишнинг мавжудлиги ва уларда 2-10 Гц гача хусусий частотали тебранишни хосил бўлишидир. Шу нуқтаи назардан йигириш жараёнининг математик кўринишини чизиқли бир массали ёки икки массали динамик модел сифатида ифодалаш мумкин.

Шуниндек, қурилманинг математик таркибида ночизиқлилик ва кечикишлилик хусусиятига эга бўлган элементлар мавжуд бўлиб, улар пиликнинг хоссалари ва электр юритманинг хусусиятларини характерлайди.

Йигириш қурилмасини мавжуд бошқариш тизимлари одатда ПИ ва ПИД типдаги аналог ростлагичлар базасида бўйсунувчан бошқариш принципи асосида қурилади. Бунда бошқариш тизимлари робастлик хоссасига эга, лекин уларнинг тезкорлиги бошқариш объктининг эластик тебраниш частотаси бўйича чегараланган бўлади. Бундай бошқариш тизимларида пиликнинг ҳаракатланиш жараёнига боғлиқ равишда унинг инерция моментини ўзгаришига ҳамда бошқариш каналларининг ўзаро таъсири ҳисобига параметрик ғалаёнлар содир бўлади. Булар эса ўз навбатида бошқариш сифатига салбий таъсир кўрсатиб, бошқариш тизимига қўйилган талабларни бажариш имкониятини бермайди.

Йигириш жараёнини бошқариш тизимининг аниқлиги ва тезкорлигини оширишга интилиш жараёнда содир бўладиган физикавий эффектларни ҳисобга олиш эвазига унинг математик моделини мураккаблашувига олиб келади. Математик моделнинг мураккаблашуви объектнинг динамикасини ифодаловчи диференциал тенгламалар тизимининг тартибини (даражасини) юқорилиги, ҳолат кординаталарини ўзаро кесишувчи алоқаларининг мавжудлиги ҳамда бошқариш каналининг ўзаро таъсири билан характерланади. Бу эса П, ПИ, ПИД типдаги ростлаш қонуниятлари асосида бўйсунувчан ростлаш усули бўйича синтезланган бошқариш тизимининг самарадорлигини пасайишига олиб келади. Модал ва оптимал бошқариш усулларини қўллаш асосида ҳолат ростлагич базасида синтезланган бошқариш тизими юқори тартибли объектлар учун, жумладан кесишувчан алоқали ҳолат кординаталарига эга объектлар учун мувофаққиятли синтезлаш имконини беради. Лекин бошқариш объектининг параметрик ноаниқлиги шароитида параметрик сезгирлигининг юқорилигини таъминлайди. Чунки йигириш жараёнига хос бўлган тезкорлик мусбат тескари боғланишли ростлагични бўлишлигини талаб этади. Бу эса ўз навбатида параметрик ғалаёнларни бошқариш тизимининг юқори сезгирликка эга бўлишини келтириб чиқаради.

Таҳлиллар шуни кўрсатдики, йигириш жараёнини бошқариш тизимининг асосий камчилиги шундан иборатки, жараёнга таъсир этувчи қатор омиллар пиликдаги тебранишларни, толанинг навини, намлигини, тозаланганлик ва аралаштирилганлик даражасини, толанинг структуравий

нотекислигини эътиборга олмайди, фақтгина тезликни бир меъёрда ушлаб туриш вазифасини бажаради. Бу эса жараёнда ип узулишини кўпайишига, объектдаги жараённинг маълум қисмини тўхтаб қолишига олиб келади. Хулоса қилиб шуни айтиш мумкинки, йигириш жараёнини мавжуд автоматик ростлаш тизимлари компенсациялаш усуллари ёки оғишга асосланган ростлаш тамойили бўйича ишлайди. Бу эса компенсациялаш коэфицентининг юқори аниқлигини талаб этади. Натижада жараённинг мураккаб кўп параметрик матемик моделини қуришни талаб этади. Шунингдек, жараён хақидаги ахборотнинг етарли эмаслиги бундай тизимларнинг юқори динамик аниқлигини таъминлаш имконини бермайди. Юқоридаги параметрларнинг ўзгариши турли хил ноаниқликлар ва эҳтимоллик хусусиятларига эга бўлиб, бу муаммони ҳал этиш учун интеллектуал технологиялар усулларидан фойдаланиш таклиф этилган.

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АЛЛЕРГИЧЕСКИЕ ЗАБОЛЕВАНИЯ У ДЕТЕЙ С НАРУШЕНИЕМ ДИСБИОЗА КИШЕЧНИКА

Аннотация: в течение последних десятилетий в мире отмечается неуклонный рост аллергической патологии среди детей. Так, в странах Европы за последние 20 лет распространенность атопической сенсибилизации увеличилась вдвое, а, согласно прогнозам Всемирной организации здравоохранения, аллергические заболевания вскоре будут занимать первое место в структуре общей патологии. Цель статьи – изучить и проанализировать аллергические заболевания у детей с нарушением дисбиоза кишечника.

Ключевые слова: аллергические заболевания у детей, нарушение дисбиоза кишечника, Всемирная организация здравоохранения.

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ALLERGIC DISEASES IN CHILDREN WITH INTESTINAL DYSBIOSIS

Abstract: over the past decades, the world has seen a steady increase in allergic pathology among children. Thus, in Europe over the past 20 years, the prevalence of atopic sensitization has doubled, and, according to the forecasts of the World Health Organization, allergic diseases will soon take first place in the structure of general pathology. The purpose of the article is to study and analyze allergic diseases in children with impaired intestinal dysbiosis.

Key words: allergic diseases in children, impaired intestinal dysbiosis, World Health Organization.

Актуальность. Сейчас в России от аллергических заболеваний страдает 25-30% детской популяции [1, 3], в то же время наблюдается смещение сроков дебюта на более ранний возраст и тенденция к учащению тяжелых клинических форм [2, 4]. Исследования, проведенные в течение последних 10 лет, свидетельствуют, что в России около четверти детей раннего возраста имеют проявления атопии, в частности атопического дерматита (АД) [5]. Считается, что АД является результатом взаимодействия нескольких составляющих: влияния факторов внешней среды, генов предрасположенности к заболеванию, дисфункции кожного

барьера и иммунологических нарушений[6]. Сегодня не вызывает сомнений тот факт, что аллергические заболевания у детей провоцируются патологическими количественными и качественными изменениями микрофлоры кишечника, объединенных термином «дисбактериоз» [7]. Принимая во внимание вышеизложенное, актуальным следует признать изучение клинико-лабораторных особенностей течения АД у детей с нарушениями видового состава и популяционного уровня микрофлоры.

Таким образом, **целью работы** стало изучение диагностического значения общеклинических и параклинических показателей у детей с проявлениями дисбактериоза кишечника на фоне АД для повышения эффективности лечения этого заболевания.

Результаты исследования. Высыпания экссудативного острого воспалительного характера преимущественно локализовались на лице, сгибательных и разгибательных поверхностях конечностей вокруг крупных суставов и шеи. Несмотря на отсутствие достоверных различий по выраженности клинических проявлений атопии у представителей обеих групп, при наличии нарушения микрофлоры кишечника у детей 1-й группы отмечено четкую тенденцию к большей интенсивности кожных изменений. Так, сумма по EASI, превышающей 6,4 балла, регистрировалась в 52,6% детей 1-й клинической группы и только в 28,5% случаев во 2-й (P> 0,05) группе сравнения. При этом относительный риск указанной выше тяжести клинических проявлений АД, оценены по EASI в 6,4 балла и более, при наличии дисбактериоза кишечника в отношении группы пациентов без патологического нарушения микрофлоры кишечника составил 1,6 (95% ДИ 1,1-2,3), абсолютный риск - 0,2, при ВШ 2,8 (95% ДИ 1,5-4,9).

Оценивая показатели общего анализа крови, мы не обнаружили изменений у детей обеих клинических групп сравнения. Однако у детей 1-й группы с выраженными нарушениями микрофлоры кишечника выявлено достоверно выше количество эозинофилов в периферической крови по младенцев 2-й группы (3,1 ± 0,6% и 1,5 ± 0,5% (p <0,05) в соответствии). В то же время у пациентов 1-й группы отмечена четкая тенденция к повышению абсолютного эозинофильного числа (АЕЧ), что указывает на более выраженную ответ организма на аллергический воспалительный процесс. Так, АЕЧ у детей с признаками дисбактериоза составило 0,20 ± 0,04 г / л, а у младенцев без нарушения микрофлоры кишечника - 0,10 ± 0,05 г / л (P> 0,05). Выявлено достоверно более высокую концентрацию общего IgE в сыворотке крови младенцев 1-й клинической группы по пациентов группы сравнения (315,0 ± 97,1 МЕ / мл и 83,3 ± 31,3 МЕ / мл (P <0,05) в соответствии). В то же время концентрация общего IgE, превышающей 130,0 МЕ / мл, регистрировалась в 44,4% детей 1-й клинической группы и втрое реже (14,2%) во 2-й группе сравнения (P> 0,05). Показатели диагностической ценности повышенного

содержания общего IgE в сыворотке крови детей с дисбактериозом на фоне АД по пациентов без патологических нарушений микрофлоры кишечника были следующими: чувствительность - 44,4% (95% ДИ 34,4-54,7), специфичность -85,8 % (95% ДИ 77,3-92,0), ОП + - 3,1 и ВП - 0,6.

Заключение. Патологическое нарушение микробиоценоза кишечника у детей, больных АД, повышает риск тяжелого течения данного заболевания в 2,8 раза. Наличие дисбактериоза у детей на фоне АД повышает риск обнаружения высокой концентрации общего IgE в сыворотке крови> 130,0 МЕ / мл практически в 5 раз (ОШ 4,8 (95% ДИ 2,4-9,5)). Для повышения эффективности лечения АД у детей в комплексе терапевтических мероприятий необходимо осуществлять коррекцию дисбактериоза кишечника путем назначения пребиотических или пробиотических препаратов.

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КЛИНИЧЕСКОЕ ЗНАЧЕНИЕ ИЗУЧЕНИЯ ГЕРПЕСВИРУСНОЙ ИНФЕКЦИИ У ЖЕНЩИН РЕПРОДУКТИВНОГО ВОЗРАСТА

Резюме: Герпесвирусная инфекция – одна из самых распространенных вирусных инфекций на планете. Согласно статистике, около 98% населения земного шара имело контакт с вирусом простого герпеса I или II типа и имеет антитела к нему.

В большей степени (в 80% случаев) причиной развития генитального герпеса является герпес II типа. В то же время вероятность заражения людей вирусом герпеса і типа выше, чем людей, инфицированных вирусом герпеса II типа: 3,7 миллиарда и 536 миллионов инфицированных соответственно. Говоря об актуальности этой вирусной инфекции в статье, важной считается следующая основная информация: заболеваемость генитальным герпесом колеблется от 17,2 до 100 на 0,1 тысячи жителей, в зависимости от возрастной группы. В США в среднем 25% беременных женщин имеют антитела к вирусу рода herpesvirus II, в Европе этот показатель составляет 16%, а в Азии - около 8%. Кроме того, около 5% женщин впервые заболевают генитальным герпесом во время беременности.

В статье показана высокая актуальность этого вопроса и важность его изучения акушерами-гинекологами, дерматовенерологами, врачами-инфекционистами различных специальностей.

Ключевые слова: герпесвирусная инфекция, репродуктивный возраст, женщины, вирус герпеса.

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CLINICAL SIGNIFICANCE OF STUDYING HERPESVIRUS INFECTION IN WOMEN OF REPRODUCTIVE AGE

Resume: Herpesvirus infection is one of the most common viral infections on the planet. According to statistics, about 98% of the world's population has had contact with herpes simplex virus type I or II and has antibodies to it.

To a greater extent (in 80% of cases), the cause of the development of genital herpes is herpes type II. At the same time, the probability of infection of people with herpes virus type I is higher than people infected with herpes virus type II: 3.7 billion and 536 million infected, respectively. Speaking about the relevance of this viral infection in the article, the following basic information is considered important: the incidence of genital herpes ranges from 17.2 to 100 per 0.1 thousand inhabitants, depending on the age group. In the USA, on average, 25% of pregnant women have antibodies to the herpesvirus II virus, in Europe this figure is 16%, and in Asia - about 8%. In addition, about 5% of women get genital herpes for the first time during pregnancy.

The article shows the high relevance of this issue and the importance of its study by obstetricians-gynecologists, dermatovenerologists, infectious diseases doctors of various specialties.

Keywords: herpes virus infection, reproductive age, women, herpes virus.

Актуальность. На современном этапе герпетическая инфекция является одной из наиболее распространенных и социально значимых вирусных инфекций человека в мире. По оценке ВОЗ в 2015 году 67% населения в мире в возрасте до 50 лет были инфицированы вирусом герпеса I типа **[**3,5,10]. Согласно данным американских исследователей, около 30 млн взрослых в США страдают генитальным герпесом и каждый год регистрируется еще примерно 500 тысяч новых случаев заболевания **[**1,6,8].

Герпесвирусная инфекция (ГИ) – инфекционное заболевание человека, лечение которого представляет большие трудности. Вероятным фактором «неуспеха» терапии ГИ является резистентность вируса простого герпеса (ВПГ) к этиотропным препаратам (ЭП) **[**2,4,11].

В силу пожизненной персистенции вируса герпеса в организме человека, высокого процента формирования рецидивирующих форм инфекции, а также торпидности к существующим методам лечения, генитальный герпес занимает одно из ведущих мест среди инфекций, передающихся половым путем **[**1,6,9].

Как следствие, за последние годы в клинической практике значительно увеличилось число больных, страдающих хроническими, часто рецидивирующими формами герпетической инфекции, которые сопровождаются определенными нарушениями иммунного статуса и трудно поддаются лечению **[**7].

Цель исследования. Мониторинг чувствительности ВПГ к ЭП и определение его клинического значения у женщин с часто рецидивирующей ГИ в условиях амбулаторного приема.

Материалы и методы исследования. Под наблюдением находились 63 пациентки в возрасте 20–40 лет с различными клиническими формами ГИ. Для установления причин неэффективности терапии больным была проведена верификация диагноза с учетом анамнестических и клинических данных, результатов общепринятых методов исследования.

Результаты исследования. Статистическую обработку данных проводили общепринятыми методами вариационной статистики. Результаты: у всех пациенток ГИ была обусловлена ВПГ, что подтверждалось выявлением специфических антител к вирусу. Среди обследованных преобладали пациентки, инфицированные ВПГ-1 (61,9%); ассоциация двух штаммов ВПГ или ассоциация с другими представителями сем. Herpesviridae была установлена у 19,04%.

Все пациентки ранее получали ЭП (АЦВ или ВалАЦВ или Фамвир в моноварианте или в сочетании с препаратами ИФН в стандартной дозировке) без видимого эффекта. Один курс терапии получили 16 (25,4%) пациенток, 2 и более курсов – 47 (74,6%). В случае отсутствия ответа на лечение – при сохранении высыпаний более 1 нед. после начала терапии, при появлении атипичных очагов поражения или новых высыпаний, последнее считали не эффективным. Для установления причин «неуспеха» терапии больным был проведен фенотипический анализ возбудителя ГИ.

Анализ спектра чувствительности выделенных штаммов ВПГ к АЦВ показал, что 85,7% (54/63) штаммов вируса были чувствительными к АЦВ и 95,23% (60/63) – к Валтрексу. В структуре чувствительности к АЦВ преобладали умеренно чувствительные штаммы (34/63) (53,96%), в структуре чувствительности к Валтрексу – высокочувствительные щтаммы. У 6 больных отмечена чувствительность к АЦВ только в высокой концентрации.

У всех больных исходно отмечался высокий уровень инфекционной активности вируса на фоне низких титров антител к ВПГ, который достоверно снижался в процессе лечения, однако не достигал нормальных значений. Заболевание протекало у данных пациентов на фоне выраженного иммунодефицита. На основании результатов индивидуально ориентированной диагностики пациенткам была проведена корректировка схемы терапии. Применение такого подхода позволило повысить эффективность терапии и степень удовлетворенности пациенток назначаемой терапией.

Вывод. Мониторинг чувствительности ВПГ к ЭП у пациенток с часто рецидивирующей ГИ имеет большое значение для адекватного подбора схемы лечения (в зависимости от исходных характеристик возбудителя), контроля ее эффективности.

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ОСНОВНЫЕ КЛЮЧЕВЫЕ ПРОБЛЕМЫ В СОВРЕМЕННОМ ВОЛЕЙБОЛЬНО-СПОРТИВНОЙ ПОДГОТОВКЕ В КОЛЛЕДЖАХ И УНИВЕРСТИТЕТАХ

Аннотация. В настоящее время в развитии спортивной подготовки волейболистов еще предстоит решить ряд проблем. В тренировках по волейболу основным вопросом является базовое мастерство спортсменов, и эти базовые приемы часто определяют исход игры. Основываясь на педагогическом опыте автора, в данной статье проанализированы ключевые вопросы спортивной подготовки современного волейбола от физической подготовки, технической подготовки, тактических способностей и психологических, нравственных качеств, в надежде популяризировать и улучшить волейбольный вид спорта в колледжах и университетах, а также предоставить справочную информацию. основа для здорового развития волейбольной команды колледжа.

Ключевые слова: волейбол, спортивная подготовка, физическая подготовка, техническая подготовка, тактическая и психологическая подготовка, нравственные качества.

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THE MAIN KEY PROBLEMS IN MODERN VOLLEYBALL AND SPORTS TRAINING IN COLLEGES AND UNIVERSITIES

Abstract. At present, there are still some problems to be solved in the development of volleyball athletic training. In volleyball training, the basic skill of the athletes is the key issue, and these basic techniques often determine the outcome of the game. Based on the author's teaching experience, this paper analyzed the key issues of modern volleyball athletic training from the physical training, technical training, tactical ability and psychological, moral quality, hoping to popularize and improve the volleyball sport in colleges and universities, and provide reference basis for the healthy development of the college volleyball team.

Keywords: Volleyball, Athletic Training, Physical training, Technical Training, Tactical Ability and Psychology, Moral Quality

Физическая подготовка

Физическая подготовка игроков в основном направлена на улучшение физических функций тела и улучшение функций центральной нервной системы и внутренних органов, чтобы они могли адаптироваться к развитию технических и тактических потребностей волейбола, чтобы поддерживать хорошую конкурентоспособность. государство, чтобы продлить жизнь спорта, чтобы предотвратить возникновение несчастных случаев с травмами. Физические способности являются основой овладения техникой волейбола, а хорошая физическая подготовка является важным залогом повышения технико-тактического уровня волейболистов. Соревнования по волейболу интенсивные, а ситуация сложная и изменчивая, что выдвигает более высокие требования к функциям организма спортсмена, поэтому от спортсменов требуется не только хороший отскок, но и быстрая реакция, хорошая координация и гибкость. Поэтому уровень физической подготовленности спортсмена все больше становится важным фактором, определяющим спортивные результаты. Для развития и улучшения физической подготовленности волейболистов необходимо достижение цели научной подготовки через программу. С расширением тренировочного процесса спортсменов физической подготовкой следует уделять больше внимания сочетанию специальных требований [1].

Обучение волейболу можно разделить на две основные категории: основные упражнения и дополнительные упражнения. Базовые упражнения включают подготовку к осанке и движению, технико-тактические упражнения. Вспомогательные средства – комплекс комплексных физкультурных упражнений, например, на практике должны быть задействованы мышцы основных групп мышц и мышцы вокруг каждого сустава [2].

Техническое обучение

Разовое техническое обучение. Во-первых, обращая пристальное внимание на основные моменты технической спецификации, чтобы

установить правильный динамический стереотип. У студентов-спортсменов есть сильное признание, но пластичность также очень велика. Если тренеры будут уделять больше внимания отработке базовых навыков и стандартизации действий, то технические движения спортсменов смогут сформировать правильные динамические стереотипы и получить мультипликативный эффект. В конкретном обучении для новых игроков базовая подготовка может использоваться в течение примерно двух месяцев. Использование движений из рук в руки, чтобы разбить упражнение или отработать различные симуляции, чтобы у новых игроков была более правильная концепция действий в рациональном и перцептивном знании. Например, тренировка блока обычно проводится после четырех основных техник: пас, подушка, пряжка и подача. У спортсменов-студентов интерес к блокированию выражен слабее, чем к предыдущему, поэтому они недостаточно сосредоточены в тренировке, что не способствует развитию у спортсменов всесторонней специальной техники [2,3].

Обучение тактике и тактической осведомленности

Тактическая подготовка. Тактическая подготовка является важным содержанием обучения волейбольной команды колледжа, а тактический уровень команды в значительной степени отражает общую силу команды, а тактическую подготовку можно разделить на тактическую звеньевую тренировку и систему тактической подготовки. Обучение тактической связи является основой тактической подготовки, и усиление всех аспектов обучения может сделать всю тактическую систему обучения более совершенной. Обучение в основном основано на важности каждой системы и реальной ситуации в команде. Тактическая система обучения включает в себя: получение системы организации тактической подготовки в наступлении; система организации обучения тактике атаки; остановил систему тактической подготовки с атакой мяча, затем систему организации тактической подготовки в наступлении, тренируя сильную цель, отвечающую фактическим потребностям, что особенно полезно для развития тактической осведомленности. [5].

Тренеры в волейбольной команде колледжа должны обратить внимание на следующие вопросы при организации и обучении:

1. В соответствии с реальной ситуацией в команде, чтобы выбрать соответствующую тактику для проведения обучения и тренировок;

2. Тактика преподавания и обучения должна следовать принципу от простого к сложному, от простого к сложному, чтобы предотвратить слепоту;

3. Обращая внимание на связи между нападением и защитой, усиливая серию технических и тактических тренировок, чтобы предотвратить разрыв каждой связи.

Психологическая подготовка волейболистов

Психологическая подготовка волейболистов – это своего рода тренировка, развитие и совершенствование всех видов психологических качеств и психологических качеств, которыми должны обладать волейболисты при занятиях специальной спортивной деятельностью. Планомерно проводить психологическую подготовку, оказывать благотворное влияние на психологический процесс и личность обучающихся, способствует развитию и совершенствованию умственных способностей к обучению, тренировкам и играм в условиях экстремального стресса. Психологические методы обучения, в основном основанные на психологическом процессе личности и психологических особенностях студентов, с точки зрения волейбольного матча в бою, возбудимости центральной нервной системы для регулирования использования второй сигнальной системы для достижения оптимального степень научной подготовки. **[**2,4].

Заключение

Подобно физическому воспитанию и внеучебным занятиям спортом, хорошая волейбольная подготовка является одним из основных способов реализации цели вузовского образования и спортивной задачи вуза. Таким образом, мы должны обратить внимание на физическую, техническую, тактическую и тактическую осведомленность, психологическую подготовку, чтобы они поняли цель обучения, чтобы вырастить элитных спортсменов.

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ОСОБЕННОСТЬ ПРИМЕНЕНИЯ ЛАЗЕРНОЙ ТЕРАПИИ В РЕАБИЛИТАЦИИ БОЛЬНЫХ COVID-19

Аннотация: В статье представлены результаты успешной работы двух российских центров оказания помощи больным COVID-19, в которых применяли лазерную терапию. Проводили реабилитацию пациентов (29 человек) в соответствии с клиническими рекомендациями: импульсным ИК НИЛИ неинвазивно и в тяжелом случае дополнительно внутривенным лазерным освечиванием крови (525 нм, зелёный спектр) и ультрафиолетовым лазерным освечиванием крови (365 нм). Также осуществлялись профилактические курсы неинвазивной лазерной терапии медицинских работников и их родственников (60 человек).

Ключевые слова: COVID-19, пневмония, лазерная терапия, метод, диагностика.

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PECULIARITIES OF LASER THERAPY IN THE REHABILITATION OF PATIENTS WITH COVID-19

Abstract: The article presents the results of the successful work of two Russian centers for providing care to patients with COVID-19, in which laser therapy was used. Rehabilitation of patients (29 people) was carried out in accordance with clinical recommendations: non-invasive pulsed IR LILI and, in severe cases, additional intravenous laser illumination of blood (525 nm, green spectrum) and ultraviolet laser illumination of blood (365 nm). Also, preventive courses of non-invasive laser therapy were carried out for medical workers and their relatives (60 people).

Keywords: COVID-19, pneumonia, laser therapy, method, diagnostics.

ВВЕДЕНИЕ

Мир столкнулся с пандемией, вызванной ранее неизвестным коронавирусом *SARS-CoV*-2 особенностями которого являются высокая вирулентность и смертность. У человека вирусная инфекция может вызывать ряд заболеваний, вплоть до тяжёлого острого респираторного

синдрома [1]. Одним из основных патоморфологических механизмов развития пневмонии *COVID*-19 является нарушение микроциркуляции и связанного с этим метаболизма паренхимы лёгкого. Основные цели реабилитации пациентов с пневмониями: восстановление *функции внешнего дыхания* (ФВД), купирование и предотвращение развития синдрома раннего закрытия дыхательных путей, устранение диссоциации между альвеолярной вентиляцией и лёгочной перфузией, восстановление бронхиальной проводимости и восстановление полноценных экскурсий грудной клетки [3].

К сожалению, пока не предложено достаточно эффективных методов профилактики заболевания, лечения и реабилитации больных *COVID*-19, достаточно высокой остаётся смертность. Предлагается много различных вариантов, среди которых обсуждаются, и достаточно активно, перспективы *лазерной терапии* (ЛТ) [4].

МАТЕРИАЛЫ И МЕТОДЫ

При первичном осмотре 90% пациентов предъявляли неспецифические жалобы, характеризующие наличие синдрома гипоксиии (явления астенизации, недомогание, потливость), примерно у трети пациентов были выявлены жалобы на одышку инспираторного характера, около 5% жаловались на ощущение неполного вдоха, либо затруднение выдоха. По данным физикального исследования у большинства пациентов фиксировался грудной тип дыхания, являющийся менее физиологически выгодным, снижение амплитуды экскурсий грудной клетки, аускультативная картина соответствовала стадии разрешения пневмонии.

Всем пациентам в схему реабилитации кроме дыхательных тренировок и занятий на тренажёрах, вибрационной гимнастики и аэрозольтерапии, был добавлен курс лазерной терапии (аппарат «Матрикс»). Воздействие проводили импульсным ИК НИЛИ (длина волны 904 нм, длительность светового импульса 100 нс, импульсная мощность 15 Вт, частота 80 Гц, экспозиция 1,5 мин на одну зону): на область кожной проекции:

- очага (2-3 зоны);
- корней лёгких;
- полей Кренига;
- левая надключичная область (неинвазивное лазерное освечивание крови, НЛОК). На курс 12-15 процедур, ежедневно или через день.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Пациентам с лёгким течением заболевания (6 человек, в том числе дети из семьи заболевшего сотрудника) провели 7 ежедневных процедур неинвазивной ЛТ (методика описана выше). Лечение всеми переносилось хорошо, уже после первой процедуры отмечалось облегчение боли в груди при кашле, улучшение отхождение мокроты за счёт повышения эффективности кашлевого толчка, улучшение общего самочувствия. К 5-й

процедуре снизились явления интоксикации, общей гипоксии, стабильно нормализовалась температура.

В одном случае течение болезни оценивалось как тяжёлое, потребовалась длительная госпитализация с диагнозом: *SARS*(+) двухсторонняя пневмония, с дыхательной недостаточностью II-III ст. Реабилитация проводилась после выписки из стационара, на курс из 5 ежедневных процедур комбинированного варианта лазерной терапии (аппарат «Лазмик»): *Внутривенное лазерное освечивание крови* (ВЛОК)-525 + *Ультрафиолетовое лазерное освечивание крови* (ЛУФОК) (длина волны 525 нм, зелёный спектр, мощность 2 мВт, экспозиция 5 мин + длина волны 365 нм, ультрафиолетовый спектр, мощность 2 мВт, экспозиция 5 мин через день) и воздействие импульсным ИК НИЛИ (длина волны 904 нм, длительность светового импульса 100 нс, импульсная мощность 15 Вт, плотность мощности 10-15 Вт/см^2, частота 80 Гц, экспозиция 1,5 мин на одну зону) на область кожной проекции очагов в лёгочной ткани (2-3 зоны), корня лёгких, также освечивали левую надключичную область. Уже после первой процедуры пациентка отмечала снижение утомляемости, общей слабости, уменьшение «подкашливания» и облегчение отхождение мокроты, улучшение общего самочувствия. К 5-й процедуре отметила значительное улучшение общего самочувствия, исчезновение одышки при умеренной физической нагрузке.

В этот же период времени, с учётом возникновения вспышки заболевания среди медицинских работников (с летальным случаем до начала применения лазерной терапии) и для предотвращения развития фатальных осложнений, работникам двух медицинских учреждений (60 человек) проведены профилактические курсы неинвазивной лазерной терапии (3-5 процедур ежедневно или через день). Воздействие проводили импульсным ИК НИЛИ (параметры методики см. выше) на область кожной проекции корня лёгких и левой надключичной области. Всеми процедуры переносились хорошо, случаев заболеваемости *COVID*-19 не выявлено. Более того, наблюдали другие сопутствующие положительные результаты. После первой же процедуры медработники, имеющие в течение ряда лет сопутствующие заболевания (бронхиальная астма, хронический обструктивный бронхит, аллергический ринит и др.) отметили улучшение общего самочувствия и облегчения симптомов хронических заболеваний, а после 5-й процедуры улучшение было столь значительным, что речь может идти о реальном лечении. Хотя эффективность лазерной терапии при бронхолёгочной патологии различного генеза достаточно хорошо продемонстрирована [2], метод, к сожалению, остаётся пока мало востребован.

ЗАКЛЮЧЕНИЕ

Мы продолжим оценивать влияние лазерной терапии в профилактических и лечебных целях у сотрудников медицинских

учреждений в условиях пандемии в отдалённом периоде – 3-6-9 мес. Считаем, что полученный опыт подтверждает корректность и справедливость включения лазерной терапии в состав российских клинических рекомендаций. Также есть полная уверенность, что метод может быть использован для эффективной профилактики и лечения больных *COVID*-19.

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ФАРҒОНА ВОДИЙСИ ВИЛОЯТЛАРИДА ЎТКАЗИЛГАН СОЦИОЛОГИК-ДЕМОГРАФИК ТАДҚИҚОТЛАР ТАҲЛИЛИ

Аннотация: Ушбу мақолада Фарғона водийси вилоятларида ўтказилган социологик-демографик тадқиқотлар таҳлили натижалари келтирилган ҳамда таклиф ва тавсиялар ишлаб чиқилган.

Калит сўзлар: демография, демографик жараёнлар, социологик-демографик сўровнома, аҳоли миграцияси, никоҳга кириш ёши, никоҳ-оила муносабатлари, оила барқарорлиги.

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ANALYSIS OF SOCIOLOGICAL AND DEMOGRAPHIC RESEARCH CONDUCTED IN THE REGIONS OF FERGANA VALLEY

Annotation: This article presents the results of the analysis of sociological and demographic research conducted in the regions of the Fergana Valley. Proposals and recommendations on the results of the research were developed.

Key words: demography, demographic processes, socio-demographic survey, population migration, marriage age, marriage-family relations, family stability.

Демографик жараёнларни ўрганишда ижтимоий сўров усулини қўллаш тадқиқот ишининг мукаммаллигини таъминлайди. Мамлакатда демографик кўрсаткичларни ижтимоий сўровномалар орқали муаммони атрофлича ўрганишга ва ечишга кўмак беради.

Фарғона водийси вилоятларида барча соҳалардаги каби демографик жараёнлар билан боғлиқ муаммоларнинг юзага келиши табиий. Ҳудудларда аҳолининг ҳар томонлама баркамол бўлиб шаклланиши айнан шу муаммолар ечимига боғлиқ. Аҳоли туғилиши, ўлими ва табиий ўсиши ва билан боғлиқ муаммоларни атрофлича ўрганишда ижтимоий сўровнома усулининг аҳамияти катта.

Ижтимоий сўровнома муаллиф томонидан Фарғона водийси вилоятларининг ижтимоий-иқтисодий ривожланиш даражаси, демографик кўрсаткичлари ва географик жойлашган ўрнига тафовутга эга ҳудудлари,

турли жойда ва турли касбдаги кишилари (300 та) танлаб олинди. Сўровномада Андижон вилояти, Қўрғонтепа тумани, Тўрачек м.ф.й., Бўстон тумани, Янги Обод м.ф.й., Пахтаобод тумани, Соҳил м.ф.й., Андижон шаҳри, Андижон м.ф.й., Наманган вилояти, Тўрақўрғон тумани, Гулқишлоқ мф.й., Учқўрғон тумани, Қайқи қишлоғи, Фарғона вилояти, Данғара тумани, Катта турк м.ф.й., Қува тумани Раста маҳалласи, Олтиариқ тумани, Зилха шахрида яшовчи турли касб, ёш ва ижтимоий гуруҳга мансуб кишилар иштирок этди.

Олиб борилган тадқиқотнинг асосий мақсади ҳудудларнинг демографик вазиятини аниқлаш бўлганлиги сабабли кейинги саволлар бевосита шу хусусда.

“Оилада нечта фарзанд бўлишини ҳоҳлар эдингиз?” – деган саволга респондентларнинг 46 фоизи 2-3 та, 35 фоизи 3-4 та деган жавобни беришган. 10 фоизи 4-5 та ва 7 фоизи 5-6 та ва ундан кўп деган фикрни билдиришди. 5-6 та ва ундан кўп деб фикр бидирганлар барчаси ўрта ва ўрта маҳсус маълумотга эга респондентлар бўлди. Шунингдек, айримлар 1 та фарзанд кўришни ҳоҳиши борлигини билдирган. Олий маълумотли респондентларнинг 40 фоизи 2-3 та ва 42 фоизи 3-4 деган жавобни беришган. Ўрта маълумотли респондентларда эса бу кўрсаткич 48 ва 32 фоизга тенг бўлган. 13 фоиз ўрта маълумотли респондент эса 4-5 жавобини беришган. Бундан кўриниб турибдики, асосан оилалар 2-4 та фарзанд кўришни ҳоҳлашмоқда.

“Фарзандларингиз ёши орасидаги фарқ неча ёшга тенг бўлишини ҳоҳлайсиз?” деган саволга респондентларнинг 11 фоизи 2 йил, 49 фоизи 2-3 йил 29 фоизи 3-4 йил, 6 фоизи 4-5 йил ва 5 фоизи 5-6 йил деб жавоб беришган. Шунингдек, 50 ва ундан катта ёшдаги респондентлар фарзандлари ёши орасидаги фарқ 2 йил бўлганлигини билдиришди. Олий маълумотли респондентларнинг 80 фоизи фарзандлари ёши орасидаги фарқ 3 йил ва ундан ортиқ вақт бўлишини хоҳлашган бўлса ўрта ва ўрта маҳсус маълумотлиларда бу кўрсаткич 75 фоизни ташкил этди. Аёлларнинг 78 ва эркакларнинг 72 фоизида ҳам фарзанд кўриш орасидаги интервални 3 йилдан ортиқ бўлишини ҳоҳлашади. Ҳулоса шуки, келгусида оилаларда фарзандлар ёши орасидаги фарқни ортиб бориши кузатилади.

Оилада соғлом муҳитнинг таркиб топиши оиланинг мустаҳкам бўлиши, соғлом ва баркамол фарзанд камол топишида асосий омил ҳисобланади. Оилалар ажрашиши жамиятда нотўлиқ оилалар кўпайиши ва ундаги фарзандлар тарбиясига ўзининг салбий таъсирини кўрсатади. Сўровномада, “*Ҳозирги вақтда оилаларда ажралишларга асосий сабаб нимада, деб ўйлайсиз?*” деган саволга 20 фоиз иштирокчилар қайнона-келин ўртасидаги муносабатлар деган фикрни билдирган бўлса, 23 фоизи оилада эр-хотиннинг “характери тўғри келмаган”лигини, 13 фоизи “ичкилик ва гиёҳвандлик”ни, 8 фоизи “молиявий етишмовчилик” ва яна 8 фоизи “фарзандсизлик” сабабини келтирган. Шунингдек,

респондентларнинг 4 фоизи оилалар ажрашишига уяли алоқадан нотўғри фойдаланиш натижасида деб фикр билдирган бўлса, 23 фоизи ўзлариниг бошқа фикрларини билдириб ўтган. Унга кўра, ёшларни оилага тайёр эмаслиги, эрта никоҳга кириш, ота-онанинг фарзандлар тарбиясига эътиборсизлиги ва уларнинг ҳаётига жиддий эътибор бермаслиги, тўй маросимларидаги ортиқча дабдабабозлик ва бошқа сабаблар келтирилган.

Ҳозирги кунда фарзанди никоҳга кирган ота-оналар, 40 ва ундан катта ёшдаги респондентларнинг 28 фоизи оилалардаги ажралишларда юқоридаги сабабларга қўшилмасдан ўз фикрларини билдиришган бўлса, 20 фоизи қайнона келин муносабатлари ва яна шунча қисми ёшлар ҳарактерининг тўғри келмаслиги ажралишларнинг асосий сабаби, деб билади.

Янги оила қурган 20-30 ёшдаги сўровнома иштирокчилари 21 фоизи қайнона келин муносабатлари, 33 фоизи ҳарактери тўғри келмаслик ва 22 фоизи бошқа сабабларни оилалар ажралишига сабаб, деб ўйлайдилар. Кўриниб турибдики, ҳозирги кунда молиявий етишмовчилик, ичкилик ва гиёҳвандлик, фарзандсизлик ёки уяли алоқадан нотўғри фойдаланиш сабаблари ажралишда катта сабаб ҳисобланмаяпти. Оилалар ажралишида қайнона келин муносабатлари, ёшлар ҳарактерининг тўғри елмаслиги ва юқорида келтирилган бошқа фикрлар асосий ўрин тутмоқда. Шу ўринда Ўзбекистон Республикаси Маҳалла ва оилани қўллаб қувватлаш вазирлиги вазирлиги ўз вақтида ташкил топган бўлиб, мазкур масалаларга жиддий эътибор қаратишлиги зарур ҳисобланади. Шунингдек, умумий ўрта таълим, ўрта махсус билим юртлари битирувчилари ва олий таълим талабаларининг бу борада билимларини бойитиб бориш мақсадга мувофиқдир.

Ёшларни эрта никоҳга кириши айрим оилаларда ажралишларнинг бўлиши, онанинг фарзанд кўришга тайёр эмаслиги каби муаммоларга сабаб бўлади. Шу ўринда сўровнома иштирокчиларига “*Ёшлар неча ёшдан никоҳга кирган (оила қурган) маъқул?*” деган савол билан мурожаат қилинди. Респондентларнинг 10 фоизи 16-20 ёш деб жавоб беришган бўлса, 78 фоизи 20-25 ёш орасида никоҳга кирган мақул эканлигини билдиришди. 10 фоиз респондент 26-30 ёшда никоҳга киришни маъқул кўришган бўлса, 2 фоизи 30 ёшдан кейин никоҳга киришини билдирган. Ўзбекистонда, ҳусусан Фарғона водийси вилоятларида айни вақтдаги никоҳга кириш ёши кўпчилик учун мақбул ёш ҳисобланмоқда.

Никоҳга кираётган ёшларни оилага тайёрлаш, соғлом ва мустаҳкам оилаларни кўпайтириш учун қандай ишларни амалга ошириш лозимлигини билиш учун “*Оилага тайёрлаш учун қандай ишларни амалга ошириш мақсадга мувофиқ?*” деган савол билан мурожаат қилинди. Респондентларнинг 40 фоизи “Ўқув юртларининг юқори синфларида махсус “Оила мактаби” курсларини ташкил этиш, унда оила қуришга ёшларни тайёрлаб бориш” керак деб фикр билдирган бўлса, 26 фоизи

“ёшларни касб-хунарга ўргатиш лозим” деб ўйлашади. Шунингдек, сўровномада иштирок этганларнинг 10 фоизи “ФҲДЁ органларида “Оила-жамият” мавзуларида тест синовлари топшириш керак” деган жавобни беришган бўлса, 11 фоизи тиббий маълумотларни кўпайтириш зарур, 13 фоизи эса ўзларининг бошқа фикрларини билдиришган. Фикр билдирувчилар ёшига кўра фарқ сезилмайди, лекин олий маълумотли респондентларнинг 19 фоизи ва ўрта махсус маълумотли иштирокчиларни 10 фоизи ўзларининг фикрларини билдириб ўтишган. Билдирилган фикрлар ичида оилада ота-онани фарзандларини оилага тайёрлашдаги ролини ошириш, ёшларни оила ва никоҳга жиддий муносабатда бўлиши лозимлиги, маҳалла ролиши ошириш ва бошқа фикрлар билдирилган.

Демографик жараёнлар, шунингдек никоҳ ва оила муносабатларига миграция жараёни ҳам ўз таъсирини кўрсатади. Бугунги кунда сир эмаски, кўплаб меҳнат мигрантлари МДҲ мамлакатлари, ҳусусан Россия Федерацияси, Қозоғистон Республикаси, Корея Республикаси ва бошқа мамлакатларга кетишмоқда. Ушбу ҳолат бир томондан оиланинг моддий имкониятларини яҳшиласа, иккинчи томондан, бу миграцияда асосан эркаклар иштирок этиши нотўлиқ оилаларнинг кўпайиши ва фарзандлар тарбиясига салбий таъсир этиши табиий ҳол. Шунингдек, оилавий муносабатларга ҳам таъсир кўрсатиши мумкин. Шу мақсадда, сўровнома иштирокчиларига “*Ёшларнинг ташқи миграцияси демографик жараёнларга қандай таъсир кўрсатади, деб ўйлайсиз?*” мазмунидаги савол билан мурожаат қилинди. Респондентларнинг 30 фоизи “Салбий, аёлларда турли касалликлар кўпаяди”, 25 фоизи “Менталитетимизга хос хусусиятлар камаяди”, 20 фоизи “Молиявий масалалар ҳисобига оила даромади ошади” ва 12 фоизи “Ижобий, оилада фарзандлар сони меъёрлашади” жавобини беришди. 13 фоиз иштирокчи ўзларининг мустақил фикрларини билдириб ўтишди. Билдирилган фикрларда ёшларнинг ташқи миграциясига салбий қарашлар кўпроқ бўлиб, оилавий муносабатлар, фарзандлар тарбияси каби масалаларга салбий таъсири ҳақида фикр билдирилган.

Ушбу саволга аёл респондентларнинг 39 фоизи “салбий, аёлларда турли касалликлар кўпаяди” ва 31 фоизи “менталитетимизга хос хусусиятлар камаяди” деган фикрни билдиришган. Ушбу жавобни ёш оила ёшидаги 20-30 ёшли респондентларнинг 20 ва 28 фоизи билдиришди. Шунингдек, 50 ва ундан катта ёшдаги аҳолининг 40 фоизи оиланинг молиявий даромадлари ошади деган ва 30 фоизи (барчаси аёллар) салбий, аёлларда турли касалликлар кўпаяди деган фикр билдирган. Ушбу саволга аксарият респондентлар ўзларининг салбий муносабатларини билдириши, аҳоли зичлиги юқори бўлган Фарғона водийси вилоятларида меҳнат ресурсларининг бандлик даражасини ошириш, янги иш ўринлари яратиш муҳимлигини билдиради.

Бугунги кунда аҳолининг бандлик даражасини ошириш, янги иш ўринларини яратиш, шунингдек, мутахассис кадрлар тайёрлашда аҳолининг қайси соҳада ишлашга қизиқишини ўрганиш муҳим ҳисобланади. Респондентлдарга "*Фарзандингиз улғайгач қайси касбда ишлашини хоҳлар эдингиз?*" деган савол берилди. Сўровномада иштирок этганларнинг 34 фоизи фарзандларини келажакда ўқитувчи ва врач касбида ишлашни ҳоҳишини билдирган бўлса, 26 фоизи ҳуқуқни муҳофаза қилиш ҳодими, 20 фоизи санъаткор, 12 фоизи тадбиркор, савдогар, 4 фоизи деҳқон фермер ва 4 фоизи ишчи-хизматчи бўлиб ишлашини истаган. Аёлларнинг 31 фоизи ва эркакларнинг 45 фоизи фарзандларини ўқитувчи ва врач бўлишини, 27 фоиз аёллар ва 22 фоиз эркаклар фарзандини келажакда ҳуқуқни муҳофаза қилиш ходими сифатида кўришни хоҳлашган. Дехқон-фермер ва ишчи хизматчи бўлишини аёлларнинг 5 фоизи ва эркакларнинг 2 фоизи истаган. Олий маълумотли респондентларнинг 43 фоизи ва ўрта махсус маълумотли иштирокчиларнинг 29 фоизи фарзандларини келажакда ўқитувчи-врач бўлишига истак билдирган, ҳуқуқни муҳофаза қилиш ҳодими бўлишини ҳоҳлаганлар 22 ва 27 фоизга тенг бўлди. Шунингдек, респондентлар кўпроқ ўзларининг касб-корлари ва касбларнинг моддий томонларига эътибор беришган.

Аҳолини уй-жой билан таъминлашда хукумат томонидан кўп қаватли уйлар ва коттежлар қуриб узоқ муддатли кредитлар асосида аҳолига берилмоқда. Ота-оналарнинг фарзандларини келажакда қандай жойда истиқомат қилишини билиш мақсадида "*Фарзандингиз қаерда яшашини хоҳлар эдингиз?*" саволи билан мурожаат қилинди. Сўровномада иштирок этганларнинг 33 фоизи фарзандларини шаҳарда ҳовли уйларда яшаш истагини билдирган. 23 фоизи қишлоқда, оддий ҳовли уйда, 22 фоизи қишлоқда намунавий уйларда, 15 фоизи шаҳарда кўп қаватли уйларда истиқомат қилишини хоҳлашини билдирган. Сўровнома иштирокчиларини жинси, маълумоти бўйича фикрларида катта фарқ кузатилмайди. Лекин, ёши бўйича таҳлилида айрим фарқлар кузатилди. Ёш оила аъзолари ҳисобланган 20-30 ёшли респондентлар 14 фоизи ва 40-50 ёшдаги фарзандини уй-жой билан таъминлаши керак бўлган ота-оналарнинг 9 фоизи шаҳарда кўп қаватли уйларда яшашини ҳоҳлашган. Мос равишда шаҳарда ҳовли уйда яшашни хоҳлаганлар 36 ва 30 фоизга тенг бўлди. Қишлоқ жойда оддий ҳовли уйда яшашни хоҳлаганлар 20-30 ёшли респондентларнинг 20 фоизи ва 40-50 ёшли иштирокчиларнинг 28 фоизи ташкил этди. Бундан ҳулоса шуки, аҳолининг кўп қисми кўп қаватли уйлардан кўра ҳовли уйларда яшаш истагини билдиришган. Шунингдек, ёшлар кўпроқ шаҳарда, уларнинг ота-оналари эса қишлоқ жойда, оддий ҳовли уйларда яшашини ҳоҳлашмоқда.

Ушбу ижтимоий сўровнома натижаси сифатида қуйидагилар эътироф қилинди:

- ёшларни оилага тайёрлашда таълим муассасаларида ёшларни саводхонлик даражасини ошириб бориш;

- оила мустаҳкамлигида ота-она ва маҳалла ролини ошириш, бу борада ОАВ орқали тарғиботни янада кучайтириш;

- ҳомиладорлик даврида тиббий ҳизмат кўрсатишни янада такомиллаштириш;

- янги иш ўринлари яратиш ва аҳоли бандлигини оширишдаги вазифаларни янада ривожлантириш;

- ташқи меҳнат миграциянинг салбий жиҳатларини кўрсатувчи видеороликлар тайёрлаш ОАВ орқали намойиш қилиш;

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ПАРРАНДАЧИЛИКНИНГ БИОЛОГИК ХУСУСИЯТЛАРИ

Аннотация: Ушбу мақолада паррандачиликнинг биологик ҳусусиятлари ҳамда унинг амалий аҳамияти ҳусусида фикр юритилган ва паррандачиликни ривожлантириш бўйича айрим тавсиялар келтирилган.

Калит сўзлар: паррандачилик, гўшт-тухум йўналиши, бройлер, товуқ, ўрдак, ғоз, туҳум.

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BIOLOGICAL CHARACTERISTICS OF POULTRY

Annotation: This article discusses the biological features of poultry farming and its practical importance, and gives some recommendations for the development of poultry farming.

Key words: poultry, meat-egg direction, broiler, chicken, duck, goose, egg.

Республикада паррандачилик соҳасини ҳар томонлама қўллаб-қувватлаш ва ривожлантириш, ички ва ташқи бозорларга йўналтириш учун рақобатбардош маҳсулотлар ишлаб чиқариш ҳажмларини кўпайтириш, паррандачилик ҳўжаликларининг озуқага бўлган талабини барқарор таъминлаш механизмларини йўлга қўйиш, соҳага кенг аҳоли қатламларини жалб этиш, тармоқда илмий-техник ёндашувлар ва ахборот технологиясидан самарали фойдаланишни ташкил этиш борасида бир қатор ишлар амалга оширилмоқда. Бу борада паррандачилик ва унинг биологик хусусиятларини ўрганиш муҳим аҳамият касб этади.

Паррандачилик чорвачиликнинг сердаромад, тез кўпайувчи ва етилувчи тармоғи ҳисобланади. Паррандачилик аҳолига сифатли тухум ва парранда гўшти етказиб беришда катта аҳамиятга эга. Айниқса, товуқ, ўрдак ва ғозчилик билан шуғулланувчи тармоқлари қишлоқ хўжалик паррандачилигининг асосий ва етакчи йўналишлари ҳисобланади.

Парранда гўшти тез ҳазм бўлиш хусусиятига кўра барча турдаги чорва моллари гўштидан устун туради. Таркиби ҳар хил кимёвий элементларга бой. Жумладан, 2 ойлик жўжа гўштида 20% га яқин оқсил, 10-12% ёғ бўлади. Тухумида 13% оқсил, 11% ёғ, 1% минерал моддалар ва

витаминлар мавжуд. Тўйимлилиги жиҳатидан 10 дона товуқ тухуми калорияси 0,8 кг. мол гўшти калориясига тўғри келади. Тухум таркибида 85% га яқин сув бўлиб, қолгани оқсил, витамин ва ферментлардан иборат. Тухум сариғи 52% сув, 32% ёғ ва 16% га яқин оқсилдан иборат. Шунингдек, паррандачилик жуда тез етиладиган, тез кўпаядиган ва семириши учун кам озуқа сарфланадиган чорвачилик тармоғи ҳам ҳисобланади. Масалан, товуқ жўжалари 5-6 ойлигида тухумга киради, биринчи йилда 150-200 та тухум беради.

Гўшт учун боқиладиган товуқ жўжалари 55-60 кун ичида 1,5-1,8 кг. семиради, 1 кг. семириши учун ўртача 2,6-2,8 кг. озуқа сарфланади. 50 кунлик ўрдаклар вазни 2 кг.га етади, бир йилда 100-150 дона тухум олиш мумкин. Ғозлар 65-75 кунлигида вазни 4-4,5 кг.га етади, ҳар 1 кг. сем и ри ш и учун 4-4,5 кг. о зу қ а сарфланади. Ҳар бир бош ғознинг йил давомида берган насли ҳисобидан 70-75 кг., куркалардан эса 200 кг. гушт етиштириш мумкин. Уларнинг жўжалари 6 ойлигида 5-6 кг., баъзан 8-9 кг. ва ундан ҳам оғирроқ бўлади. Паррандаларнинг серпуштлиги уларнинг энг муҳим кўрсаткичларидан бири бўлиб, бу бир қанча омилларга боғлиқ. Масалан, паррандаларнинг тури, зоти, ёши, боқиш усуллари, йилнинг фасли ва индивидуал хусусиятлари шулар жумласидан (1-жадвалга қаранг).

1-жадвал

Паррандаларда серпуштлик (тухум бериши)нинг ёшга қараб ўзгариши

Парранда турлари			Ёши (йил хисобида)				
			1	2	3	4	5
Товук	тухум йўналишида	ўртача(%)	270 100	230 85,2	197 73,0	169 62,6	148 54,8
	гўшт-тухум йўналишида	ўртача(%)	180 100	140 77,8	110 61,1	90 50,0	65 36,1
Ўрдак		ўртача(%)	110 100	120 109	90 81,8	80 72,7	60 54,5
Ғоз		ўртача(%)	40 100	50 125	65 162,5	60 150	30 75
Курка		ўртача(%)	90 100	96 106,7	85 94,4	68 75,6	34 37,8

Манба: Қурбонов Р. Паррандачилик сирлари. –Т.: Meriyus, 2013. 96 б.

Паррандаларнинг тухум қилиши қиш ойларида камаяди, баҳорда эса жадаллашади. Қиш вақтида олинган тухум сонини аниқлаш мақсадида 4 ой (ноябрь-февраль ойлари) мобайнида етиштирилган тухумлар ҳисобга олинади. Паррандаларнинг биринчи тухум қилган кунигача ўтган вақт физиологик етилувчанлик даври деб аталади. Бу давр турли паррандаларда турлича: масалан, тухум йўналишидаги товуқларда 120-150 кун, гушт-тухум йўналишидаги товуқларда 150-180 кун, куркаларда 220-320 кун,

гўшт -тухум йўналишидаги ўрдакларда 200-260 кун, гўшт йўналишидаги ўрдакларда 280-330 кун, ғозларда 250-330 кун бўлади. Паррандаларнинг туллаш вақтига қадар берган тухум сони тухум бериш цикли деб аталади.

Парранда тухумларининг вазни уларнинг турига кўра ҳар хил бўлади. Масалан, товуқ тухуми 55-62 грамм, ўрдак ва курка тухумлари 80-100 грамм, ғозники эса 110-180 грамм бўлади. Паррандаларнинг вазни алоҳида ва гуруҳ қилиб, тарозида тортиб, аниқланади. Лекин тухум йўналишидаги жўжалар 150 кунлигида, гўшт йўналишидагилари эса асосий гуруҳга ўтказиш ёки гўшт учун сўйиш вақтида аниқланади. Паррандаларнинг гўшт маҳсулдорлиги уларнинг қуйидаги кўрсаткичлари асосида аниқланади:

✓ танаси шакли - формаси, кўкрак ва оёқ (сон)ларининг гўштдорлик хусусияти, гўштнинг сорти ва сифати;

✓ танадаги гўшт ва суяк ҳамда уларнинг ўзаро нисбати;

✓ гўшт учун сўйилган вақтдаги вазни;

✓ ана шу даврга қадар бўлган ўсиш тезлиги ва бошқалар.

Сифатли парранда гўшти етиштиришда ихтисослаштирилган паррандачилик фабрика ва комплекслари салмоқли ўрин эгаллайди. Бу борада бройлер (гўштбоп**)** жўжа гўшти етиштириш муҳим аҳамиятга эга. Бройлер гўшт йўналишидаги зотдор тур ҳисобланиб, мазаси ва парҳезбоплиги билан катта аҳамиятга эга. Тухумдан чиққан жўжа 55-65 кунлигига қадар жадал усулда боқилса, кифоя. Улардан 1 кг. гўшт маҳсулоти олиш учун 2-2,5 кг. омихта ем сарфланади.

Товуқларни гуруҳларга бўлишда уларнинг асосий маҳсулоти ҳисобга олинади. Масалан, тухум йўналишидаги товуқларнинг вазни 1,8-2,2 кг., тухум-гўшт йўналишидагиларники 2,5-3,5 кг., гўшт йўналишидаги товуқларники 3,9 кг. ва ундан кўпроқ бўлади.

Товуқларни тез ва соғлом етиштиришда юқорида келтириб ўтилган биологик хусусиятлари ҳисобга олиниш мақсадга мувофиқ ҳисобланади. Юқоридагилардан келиб чиқиб паррандачиликни ривожлантиришда қуйидаги тавсияларни ишлаб чиқилди:

✓ жўжаларни дастлабки кунлардан нобуд бўлишини олдини олиш ва соғлом ривожланиши учун боқиладиган хоналар кенг ва ёруғ бўлиши ва дезинфекция қилиш лозим;

✓ Жўжа ўстириладиган хонанинг ҳарорати биринчи ҳафтада 33-28, иккинчи ҳафтада 28-26, учинчи ҳафтада 26-24, тўртинчи ҳафтада 24-22, бешинчи ҳафтада 22-20, олтинчи ҳафтада 20-18 даража иссиқ бўлиши лозим;

✓ Паррандахона поли иссиқ, мустаҳкам, текис ва силлиқ бўлиши муҳим аҳамиятга эга ҳисобланади. Бунинг учун полга 15–20 см қуруқ материал тўшалиши лозим.

✓ Жўжа боқиладиган хоналарнинг ҳар 100 бошга мўлжаллаб алоҳида катакларга ажратиб қўйилиши мақсадга мувофиқдир;

✓ Ёш жўжалар турли ошқозон-ичак касалликларига чалинувчанлигини ҳисобга олиб, унинг олдини олиш учун сувдонлардаги сув 1 кунда икки марта алмаштирилади ва ҳафтада икки марта оч пуштиранг марганцовка эритмаси солиб туриш лозим;

✓ Жўжаларни пуллороз-тиф касаллиги, ўлат (ньюкасл) касаллигига қарши эмлаш ишларини амалга ошириш мақсадга мувофиқ

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ПРЕВЕНТИВНАЯ СЕДАЦИЯ НА ОСНОВЕ ПРОГНОЗИРОВАНИЯ РИСКА РАЗВИТИЯ ДЕЛИРИЯ У ПАЦИЕНТОВ С ОСТРЫМ КОРОНАРНЫМ СИНДРОМОМ

Аннотация. Делирий является предиктором неблагоприятного исхода как при инфаркте миокарда (ИМ), так и при других нозологиях. Несмотря на рост интереса к данной проблеме, эффективных способов прогнозирования, профилактики и лечения делирия не найдено. Данный обзор литературы освещает актуальные представления об этиологии, патогенезе делирия, подходах к профилактике и лечению, особенностях делирия у больных ИМ, содержит анализ проведенных клинических исследований и метаанализов с выявлением причин их неудач и поиском перспективных направлений для дальнейших исследований этого синдрома.

Ключевые слова: делирий, патогенез, инфаркт миокарда.

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PREVENTIVE SEDATION BASED ON PREDICTION OF THE RISK OF DELIRIA DEVELOPMENT IN PATIENTS WITH ACUTE CORONARY SYNDROME

Annotation. Delirium is a predictor of poor outcome in both myocardial infarction (MI) and other nosology. Despite the growing interest in this problem, effective methods for predicting, preventing and treating delirium have not been found. This review of the literature highlights current ideas about the etiology, pathogenesis of delirium, approaches to prevention and treatment,

features of delirium in patients with MI, contains an analysis of clinical trials and meta-analyses with the identification of the causes of their failures and the search for promising directions for further research on this syndrome.

Key words: delirium, pathogenesis, myocardial infarction.

В последние годы отмечается неуклонное улучшение показателей выживаемости больных инфарктом миокарда (ИМ) [1]. Данная тенденция объясняется прогрессом в исследованиях, направленных на поиск способов улучшения сердечной, легочной и почечной дисфункции. Делирий как внешнее проявление острой дисфункции головного мозга (ГМ) является предиктором более высокого риска летального исхода [2]. С учетом потенциальной обратимости делирия исследования, направленные на уточнение механизмов развития делирия, разработку этиопатогенетических методов профилактики и лечения, очень актуальны. Большинство рандомизированных клинических исследований (РКИ) делирия касаются изучения этого состояния у больных общетерапевтического и хирургического профиля. Исследования ИМ-ассоциированного делирия немногочисленны и в основном сосредоточены на пациентах, перенесших аортокоронарное шунтирование. Увеличение из-за демографических изменений доли пожилых людей в будущем способно привести к большему количеству пожилых пациентов с ИМ. В перспективе это может привести к росту встречаемости делирия. Несмотря на возрастающее количество исследований делирия, проблема по-прежнему далека от решения. Цель данного обзора литературы: систематизация актуальных данных о делирии, выявление причин неудач проведенных ранее РКИ, поиск перспективных направлений дальнейших исследований делирия с целью изменения клинической практики и улучшения исходов заболевания у этой группы больных.

Материал и методы. Поиск проводился методом сплошной выборки с помощью баз eLibrary, Pubmed и Scopus по ключевым словам «delirium», «делирий», «myocardial infarction», «инфаркт миокарда», годы поиска – 2016–2021 гг.

Дефиниция и диагностика. Несмотря на то, что делирий известен с античных времен, долгое время не существовало единого определения данного синдрома. Опубликованный в начале 2020 г. консенсус экспертов десяти научных сообществ по обновленной номенклатуре делирия и острой энцефалопатии поставил точку в этом вопросе [3]. В соответствии с данной номенклатурой делирий определяется комбинацией характеристик, описанных в DSM-5. В DSM-5 унифицирован термин «делирий», исключено употребление других его названий, ключевыми для диагностики делирия моментами стали снижение внимания и/или возбуждение. Были выделены 3 формы делирия: гипоактивный, гиперактивный и смешанный делирий. В клинической практике наиболее

распространенными признаками и симптомами, которые идентифицированы в DSM-5, являются следующие: нарушение внимания (97%), долгосрочное (89%) и кратковременное (88%) ухудшение памяти, дезориентация (76%), снижение визуально-пространственных способностей (87%), речевые нарушения (57%), нарушения восприятия (50%) [4]. В последние годы активно обсуждается субсиндромальный делирий, являющийся промежуточным состоянием между делирием и неделириозным состоянием [5]. По данным литературы, около 30% больных [6] с субсиндромальным делирием демонстрируют более высокую смертность и продолжительность госпитализации посравнению с пациентами без делирия [7]. Сведения об особенностях субсиндромального делирия основаны на немногочисленных исследованиях с малым количеством пациентов, поэтому данный вопрос требует проведения новых изысканий [8]. Наиболее часто используемые шкалы, применяемые для верификации делирия:

– Монреальская когнитивная шкала (MoCA) обеспечивает оценку функций лобной коры, включая исполнительные функции, абстрактное мышление, генерацию слов.

– Методика оценки спутанности в модификации для отделений интенсивной терапии (CAM-ICU) наиболее проста и может быть использована средним медицинским персоналом. Требует предварительной оценки уровня сознания по шкале RASS. Применяется для скрининга при большом количестве пациентов в непсихиатрических областях медицины. Существует модификация CAM-ICU для пациентов на инвазивной искусственной вентиляции легких (ИВЛ).

– Шкала скрининга делирия ICDSC представляет собой контрольный список из восьми пунктов на основекритериев DSM и особенностей делирия: измененный уровень сознания, невнимательность, дезориентация, галлюцинации или бред, психомоторное возбуждение или заторможенность, несоответствующее настроение или речь, нарушение цикла сна/бодрствования и колебания ментального статуса. Позволяет выявлять делирий в том числе у больных, общение с которыми затруднено.

По результатам проведенных ранее метаанализов показана высокая чувствительность (80%) и специфичность (95,9%) шкалы CAM-ICU и несколько меньшая чувствительность (74%) и специфичность (81,9%) шкалы ICDSC у пациентов, находящихся в тяжелом состоянии в отделении реанимации и интенсивной терапии (ОРИТ) [9].

Этиология и патогенез. Делирий с позиции этиологии и патогенеза рассматривается как полиэтиологический синдром. Факторы риска развития делирия можно разделить на следующие группы:

– Предрасполагающие факторы.

– Инициирующие факторы.

– Лекарственные факторы.

К предрасполагающим факторам относятся пожилой возраст, мужской пол, нарушение зрения, деменция, функциональная зависимость, иммобилизация, алкоголизм на фоне обезвоживания, инсульт, расстройства метаболизма. К инициирующим факторам можно причислить употребление и/или отмену наркотических, токсических и других психотропных веществ, тяжелое острое заболевание, инфекцию мочевыводящих путей, гипоксемию, гипонатриемию, шок, анемию, болевой синдром, катетеризацию мочевого пузыря, ортопедические операции, кардиохирургические вмешательства, экстракардиальные хирургические вмешательства, поступление в ОРИТ, большое количество лечебных манипуляций.

Среди лекарственных факторов выделяют назначение препаратов с антихолинергической активностью: антипсихотики, некоторые антибиотики, кодеин, циметидин, каптоприл, дипиридамол, гипотиазид, дигоксин, фуросемид, изосорбида динитрат, нифедипин, нифедипин, преднизолон, теофиллин, трициклические антидепрессанты; и прочие препараты: антипаркинсонические препараты, препараты белладонны, бензодиазепины, хлорфенирамин, дифенгидрамин, галоперидол, слабительные, наркотические препараты, нестероидные противовоспалительные препараты (НПВС), ранитидин и варфарин [10].

Общепринятого мнения о патогенезе делирия на сегодняшний день нет [11]. Существующие представления о механизмах развития делирия объединены в ряд теорий. Нейровоспалительная теория предполагает, что системные воспалительные процессы на фоне инфекционного заболевания или хирургической травмы могут вызывать вторичные воспалительные процессы в ГМ. Повышенный уровень цитокинов у больных делирием, даже после купирования инфекционного процесса и когнитивных расстройств, вовлеченность иммунокомпетентных клеток центральной нервной системы (ЦНС) в нейроэндокринные взаимодействия, влияющая на проницаемость церебральных сосудов в рамках неспецифических патологических процессов, подтверждают эту теорию. Положительная корреляция между пролиферацией CD 68+ макрофагов в ЦНС и миокарде у больных ИМ в первые 3 сут от начала заболевания [12] позволяют судить о значимом вкладе системных воспалительных процессов в патогенез делирия при ИМ.

Теория оксидативного стресса характеризует делирий как проявление фундаментального нарушения мозгового метаболизма с недостаточной оксигенацией ГМ, что в результате приводит к когнитивной дисфункции. Гипоксические и ишемические состояния, сопровождающие ИМ, вызывают прогрессирующую дисфункцию гематоэнцефалического барьера, нарушая трансэндотелиальный транспорт ионов и повышая поступление высокомолекулярных гидрофильных молекул из плазмы в

периваскулярное пространство, приводя сначала к ионному, а затем к вазогенному отеку ГМ [13].

Теория дефицита нейротрансмиттера описывает делирий как состояние, возникающее в ответ на нарушение обмена нейромедиаторов, а именно вследствие дефицита ацетилхолина и избытка дофамина. Теория находит подтверждение в клинической практике: как правило, фармакологическое лечение делирия начинается с отмены антихолинергических препаратов и назначения антипсихотических препаратов, блокирующих дофамин. Нейроэндокринная гипотеза фокусируется на негативных эффектах повышенных уровней глюкокортикоидов, наблюдаемых во время физиологического стресса. Данная теория развития делирия тесно ассоциирована с ИМ: течение этого заболевания является стрессом для больного, так как связано с выраженным болевым синдромом, вегетативными реакциями, чувством нехватки воздуха и страхом смерти. Гиперкортизолемия, сопровождающая стресс, может вызывать длительное изменение пластичности и структурной целостности гиппокампа и префронтальной коры, приводя к нарушениям памяти, внимания и процессов познания, а также может усугублять связанное с воспалением нервное повреждение [14].

Теория суточной дисрегуляции демонстрирует связь между делирием и нарушенным сном и указывает на то, что плохой сон обычно предшествует появлению делирия. Поступление в коронарное ОРИТ с диагнозом ИМ зачастую сопряжено с нарушением цикла сна и бодрствования ввиду специфики функционирования таких отделений. Теория сетевого разъединения применяет системный нейробиологический подход к объяснению патофизиологии делирия и включает доказательства аномальной координации между областями мозга, полученные с помощью современных методов визуализации, включая функциональную магнитно-резонансную томографию (МРТ) [15].

Теория старения нейронов объединяет в себе ряд аспектов перечисленных выше гипотез и формирует патофизиологический базис, позволяющий объяснить большую подверженность делирию больных пожилого возраста и более старших возрастных групп. Подавляющее большинство больных ИМ относятся к этим же возрастным группам. Процессы, лежащие в основе большей части теорий, одновременно являются патогенетическими звеньями течения ИМ или возникают в ходе его лечения. В каждом конкретном клиническом случае имеет место сочетание аспектов разных теорий. Процессы нейровоспаления, нарушения оскислительного метаболизма ГМ и нейро-эндокринной дисрегуляции результируются в виде нарушения водно-электролитного обмена ГМ. Данные относительно ассоциации делирия с нарушениями перфузии/оксигенации, нейровоспалением и нейроэндокринной дисрегуляцией, развивающимися при ИМ, и их влиянием на водно-

электролитный обмен ГМ, а также возникновения и течения делирия изучены недостаточно и зачастую противоречивы, что требует проведения исследований для уточнения влияния этих факторов на делирий при ИМ. В свете сочетанного характера патогенеза делирия наиболее перспективной в плане понимания патогенеза и диагностики этого процесса выглядит разработка функциональных методик выявления и стратификации нарушений метаболизма ГМ.

Особенности делирия при инфаркте миокарда. Частота делирия может варьироваться от 5,7% у пациентов с острым ИМ, поступивших в коронарное ОРИТ [16], до 40%, как описано, у пациентов, перенесших операцию на открытом сердце [17]. Частота этого осложнения зависит от ряда факторов, в том числе от тяжести заболевания, характеристики пациента и использованного метода диагностики [18]. Проблема гиподиагностики делирия, особенно в гипоактивной форме, искажает представление о его эпидемиологии [19].

Исследования, посвященные делирию при ИМ, немногочисленны и имеют малый размер выборки. Работы М.Л. Гринберга и Я.Л. Габинского (2006), а также А.И. Максимова (2011) содержат непротиворечивые данные об эпидемиологии делирия при ИМ и клиническую характеристику больных ИМ, осложненным делирием. Однако аспект особенностей патогенеза делирия при ИМ в этих работах не освещается. По данным А.И. Максимова, больные с ИМ-ассоциированным делирием не отличались от больных ИМ, не осложненным делирием, по таким значимым параметрам системной и внутрисердечной гемодинамики, как конечный диастолический размер (КДР) левого желудочка (ЛЖ), фракция выброса (ФВ) ЛЖ, ударный объем (УО), минутный объем крови (МОК), сердечный индекс (СИ) и систолическое давление в правом желудочке (СДПЖ). В работах А.А. Витик и Н.П Шень, в отличие от работы А.И. Максимова, отмечается предиктивная по отношению к делирию значимость снижения ФВ ЛЖ и наличия сахарного диабета (СД) 2-го типа. Оценка отличий параметров системной гемодинамики в основной и контрольной группах (УО, сердечный выброс (СВ), МОК, СИ, СДПЖ) в работе не проводилась. Ретроспективное регистровое исследование ИМ-ассоциированного делирия M. Jäckel и соавт., включившее 624 пациента, выявило в качестве независимых предикторов делирия возраст, деменцию, злоупотребление алкоголем, гипотензию и лейкоцитоз. При этом корреляции вероятности развития делирия с размером и фенотипом ИМ не установлено [19]. Таким образом, проведенные ранее исследования достоверно не выявили «специфические» для ИМ предикторы делирия. Вероятно, более широкое внедрение в клиническую практику таких, более чувствительных, чем ФВ ЛЖ, функциональных маркеров сердечной дисфункции, как глобальная продольная деформация, позволит определить эти предикторы в перспективных исследованиях. Профиль пациентов коронарных ОРИТ в

последние годы стал более сложным и разнообразным [20]. С этими изменениями частота делирия существенно увеличилась [21] и стала сравнима с ОРИТ других профилей. Несмотря на рост числа случаев делирия в коронарных ОРИТ, самые последние публикации были сосредоточены в основном на больных в ОРИТ общего профиля и кардиохирургических ОРИТ. Делирий практически не изучен у пациентов ОРИТ с острой нехирургическойкардиологической патологией. Экстраполяция данных о больных делирием из ОРИТ других типов затруднена из-за особенностей профиля пациентов, которые необходимо учитывать. Пациенты, поступающие в коронарные ОРИТ, как правило, пожилые или из более старших возрастных групп, часто с острой сердечной недостаточностью, острым коронарным синдромом или после остановки кровообращения [16]. Возрастает частота поступления пациентов старческого возраста после таких процедур, как трансаортальная замена аортального клапана. Часто эти пациенты имеют легкие или умеренные когнитивные нарушения и находятся в условиях полипрагмазии, что наряду с преклонным возрастом является фактором риска делирия [22]. Кроме того, в коронарных ОРИТ больше «текучесть» пациентов и меньше продолжительность пребывания по сравнению с ОРИТ общего профиля. С одной стороны, это потенциально полезно за счет сокращения времени воздействия факторов риска делирия, с другой стороны, это создает трудности в реализации стратегий профилактики делирия. Ведение делирия в коронарных ОРИТ имеет ряд особенностей. Больные, которым необходима временная электрокардиостимуляция (ЭКС) или чрескожная механическая поддержка кровообращения (МПК), могут испытывать тревогу, находясь в ясном сознании. Любое внезапное или неконтролируемое движение больного может привести к серьезным осложнениям, включая остановку кровообращения, смерть в результате дислокации устройства, фатального кровотечения, тромбоза или повреждения сосудов. В таких ситуациях делирий, особенно в гиперактивной форме, требует эффективных методов прогнозирования и быстрого контроля для предотвращения осложнений.

Профилактика делирия. С помощью ряда нефармакологических воздействий, включающих частую переориентацию, участие в когнитивно-стимулирующих действиях, применение нефармакологических средств, благоприятствующих засыпанию, среды, способствующей наступлению сна, поощрение физической активности, использование визуальных и слуховых средств и раннего лечения обезвоживания, можно добиться снижения частоты развития делирия, уменьшения суммарной продолжительности и общего количества эпизодов делирия [23]. В исследованиях S.K. Inouye и соавт. отмечается значимое снижение частоты развития делирия в ответ на применение немедикаментозных методов профилактики, уменьшение суммарной длительности эпизодов делирия и

их количества [23]. Эти данные подтверждаются результатами метаанализа, проведенного R. Woodhouse и соавт. [24]. В указанных работах отмечается слабое влияние нефармакологических интервенций на тяжесть делирия и их меньшую эффективность при тяжелых хронических и онкологических заболеваниях. Предотвращение делирия у этой группы больных было достигнуто менее чем в 30% случаев. Фактором, ограничивающим данные исследования, был профиль включенных больных. Аналогичных исследований на популяции больных ИМ не проводилось. РКИ, посвященные медикаментозной профилактике делирия в общей популяции, на сегодняшний день довольно многочисленны. Среди ранее проведенных исследований профилактического применения галоперидола у хирургических больных есть данные о снижении частоты делирия. В некоторых исследованиях представлены данные только о сокращении его продолжительности и тяжести [25]. Двойное слепое плацебо-контролируемое РКИ, посвященное сравнению эффективности применения кетамина и галоперидола для профилактики делирия в ОРИТ, не показало отличий в частоте развития делирия в сравнении с плацебо [26]. Профилактика делирия антипсихотическими препаратами у больных, требующих лечения в условиях палаты интенсивной терапии, не вполне успешна. В РКИ, проведенном в 2013 г. V.J. Page и соавт., внутривенное введение галоперидола больным, нуждавшимся в инвазивной ИВЛ, не привело к снижению продолжительности делирия. M. van den Boogaard и соавт. в РКИ по применению галоперидола для профилактики делирия показали отсутствие отличий во влиянии на конечные точки в сравнении с плацебо [27]. Метаанализ данных РКИ из баз PubMed, Embase и Cochrane Library, опубликованных на момент июля 2019 г., продемонстрировал отсутствие влияния профилактического назначения галоперидола на развитие делирия в сравнении с плацебо [28]. В последние годы активно обсуждается применение агонистов мелатонина для профилактики и лечения делирия. В исследовании Tareef Al-Aama и соавт. профилактическое применение низких доз экзогенного мелатонина у пожилых больных в ОРИТ ассоциировалось с более чем двукратным снижением частоты делирия. Однако последующие РКИ и метаанализы показали высокую вариативность получаемого клинического эффекта [29], неоднородность РКИ и низкую достоверность доказательств ряда исследований с потенциальной ошибкой типа II [30]. Решение вопроса о рутинном применении агонистов мелатонина для медикаментозной профилактики делирия в ОРИТ требует проведения многоцентрового РКИ достаточной мощности и на данный момент не рекомендовано. Дексмедетомидин в отечественных и зарубежных исследованиях зарекомендовал себя как средство, снижающее вероятность развития делирия, в том числе у больных ИМ [31, 32]. Несмотря на значимое снижение частоты, он, как и другие препараты, не смог профилактировать

все случаи делирия. Плейотропность противовоспалительных эффектов статинов в отношении делирия неоднократно демонстрировалась в небольших одноцентровых исследованиях. В РКИ X.Q. Xu и соавт. назначение аторвастатина в дозе 40 мг/сут более чем в 2 раза снижало частоту послеоперационного делирия, не увеличивая частоту печеночной гиперферментемии и рабдомиолиза [33]. Взаимосвязь между назначением и дозированием статинов при ИМ с частотой развития ИМ-ассоциированного делирия предстоит выяснить в дальнейших исследованиях. Новым направлением в немедикаментозной профилактике и лечении делирия является применение методик виртуальной реальности (VR) [34]. A.C. Naef и соавт. предлагают использовать VR для изучения влияния иммерсивной стимуляции виртуальной реальности на частоту возникновения делирия в ОРИТ. Предлагается использовать датчики движения для выявления предиктивных для делирия паттернов движений пациента. Изучение эффективности и безопасности нефармакологических методов профилактики делирия, таких как политика открытых посещений в ОРИТ, контакт с семьей или друзьями (в т. ч. цифровой), применение VR, имеет важное значение для улучшения исходов у больных в ОРИТ. Требуются более эффективные стратегии для значительного снижения шума, особенно в ночное время для улучшения сна, ранней мобилизации пациентов, как можно более качественного и раннего многопрофильного ухода. Необходимо эффективное и безопасное лечение уже развившегося делирия, а также стратегии ускорения когнитивного и функционального восстановления, предотвращения инвалидности и недееспособности после развития делирия [35].

Лечение делирия. Первоочередным действием при верификации делирия является максимально быстрое выявление и устранение его причины. Помимо вмешательств, направленных на устранение причины делирия, используются препараты для устранения симптомов делирия. Назначение симптоматической терапии позволяет обезопасить пациента и персонал ОРИТ, способствует улучшению долгосрочного прогноза и восстановлению ментальных функций [36] и, что немаловажно для больных ИМ, снижает потребность в кислороде за счет снижения уровня возбуждения. Чаще всего для симптоматического лечения делирия используют антипсихотики. Наиболее часто используется обладающий выраженным антагонизмом к дофамину и слабым антихолинергическим эффектом препарат галоперидол. Преимуществами галоперидола являются возможность парентерального введения и слабый вегетативный ответ на введение препарата. Однако сравнительное применение антипсихотических препаратов невыявляет значимой разницы в клиническом эффекте [37]. Существенных различий между оланзапином и галоперидолом или рисперидоном в проведенных ранее одинарных слепых РКИ выявлено не было. Хлорпромазин, галоперидол и рисперидон не

показали значимой разницы в рамках двойного слепого РКИ [38]. Кветипин уменьшал продолжительность делирия в сравнении с плацебо в двойном слепом РКИ [39]. В нерандомизированном открытом исследовании не было обнаружено значительной разницы между арипипразолом и галоперидолом [40]. С момента одобрения FDA в 2008 г. дексмедетомидина для седации у неинтубированных пациентов ОРИТ началось активное внедрение данного препарата в клиническую практику, в том числе для седации пациентов в состоянии делирия. Согласно данным метаанализа исследований применения дексмедетомидина для профилактики и лечения делирия в условиях ОРИТ, проведенного в 2020 г. S. Wang и соавт., дексмедетомидин снижал частоту развития делирия в ОРИТ, продолжительность нахождения в ОРИТ и продолжительность инвазивной ИВЛ. При этом дексмедетомидин не влиял на летальность в ОРИТ, госпитальную летальность, летальность на 30-е сут и продолжительность делирия [41]. В 2016–2017 гг. S. Shivji и соавт. провели ретроспективный анализ лечения делирия в ОРИТ общего и хирургического профиля. 76% больных, включенных в исследование, получали для профилактики и купирования делирия дексмедетомидин, галоперидол и кветипин. Частота купирования делирия была статистически значимо выше в группе, не получавшей фармакологической терапии делирия. Продолжительность делирия не различалась у больных, получавших и не получавших превентивную терапию делирия [39]. Кроме этого, более чем у ¼ больных в этом исследовании отмечены побочные эффекты в виде гипотонии и брадикардии, что говорит о необходимости крайне осторожного назначения психотропных препаратов у больных с ИМ-ассоциированным делирием ввиду исходно скомпрометированной гемодинамики.

Заключение. Делирий как клиническое проявление синдрома островозникшей мозговой дисфункции на фоне любого критического состояния, ИМ в частности, является серьезным осложнением основного заболевания с долгосрочным негативным прогнозом. Признание данного факта привело к росту интереса к этой проблеме и прогрессу в его диагностике. Однако указанное осложнение ввиду сложного и не до конца изученного патогенеза, отсутствия валидных предикторов и наличия гипоактивных форм по-прежнему подвержено гиподиагностике [18]. РКИ, посвященные профилактике и лечению делирия, хотя и выявляют более или менее эффективные способы как немедикаментозной, так и медикаментозной профилактики, и лечения, не решают проблему делирия полностью. Такое положение дел обусловлено рядом причин. Исследуемые в РКИ фармакологические и нефармакологические методы профилактики и лечения делирия воздействуют на конечные стадии патогенеза и клинические проявления делирия, либо изолированно воздействуют на один из патогенетических механизмов, не затрагивая

другие патологические пути развития этого процесса. Поиск клинико-анатомических параллелей у больных делирием, как правило, ограничен факторами, зависящими от больного (ИВЛ, МПК, ЭКС, инкорпорированные девайсы и импланты, исходно неизвестная анатомия ЦНС), и ограниченными возможностями методов функциональной диагностики и нейровизуализации. Кроме этого, РКИ как инструмент исследования делирия, вероятно, исчерпали свои возможности для получения новых данных о проблеме. На фоне длительного отсутствия единого определения делирия, гиподиагностики__ этого состояния и гетерогенности больных набор однородных групп превращается в крайне сложную задачу, которая к тому же дополняется этическими и юридическими ограничениями, что приводит к медленному накопленданных и статистическим ошибкам. Устранение существующих недостатков процесса исследования делирия возможно в рамках регистрового исследования, целями которого должен стать поиск новых универсальных и специфических предикторов делирия, общего патогенетического звена для различных патологических механизмов, а также универсальных и специфических способов прогнозирования, профилактики и лечения делирия.

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СУҒОРИЛАДИГАН МАЙДОНЛАРДА СУВ РЕСУРСЛАРИДАН (КОЛЛЕКТОР-ЗОВУР) САМАРАЛИ ФОЙДАЛАНИШ (БУХОРО ВИЛОЯТИ МИСОЛИДА)

Аннотация: Ҳозирги кунда жаҳонда сув ресурсларининг чегараланганлиги сабабли, суғориладиган майдонларнинг кенгайиши, ва бошқа бир қатор омиллар таъсирида сув тақчиллиги глобал муаммолардан бири саналади.

Калит сўзлар: Ер ости сувлари, коллектор, зовур, Вобкент тумани суғориладиган майдонлари, сув ресурслари, қишлоқ хўжалиги.

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EFFICIENT USE OF WATER RESOURCES (COLLECTOR-SUMMER) IN IRRIGATED AREAS (IN THE EXAMPLE OF BUKHARA REGION)

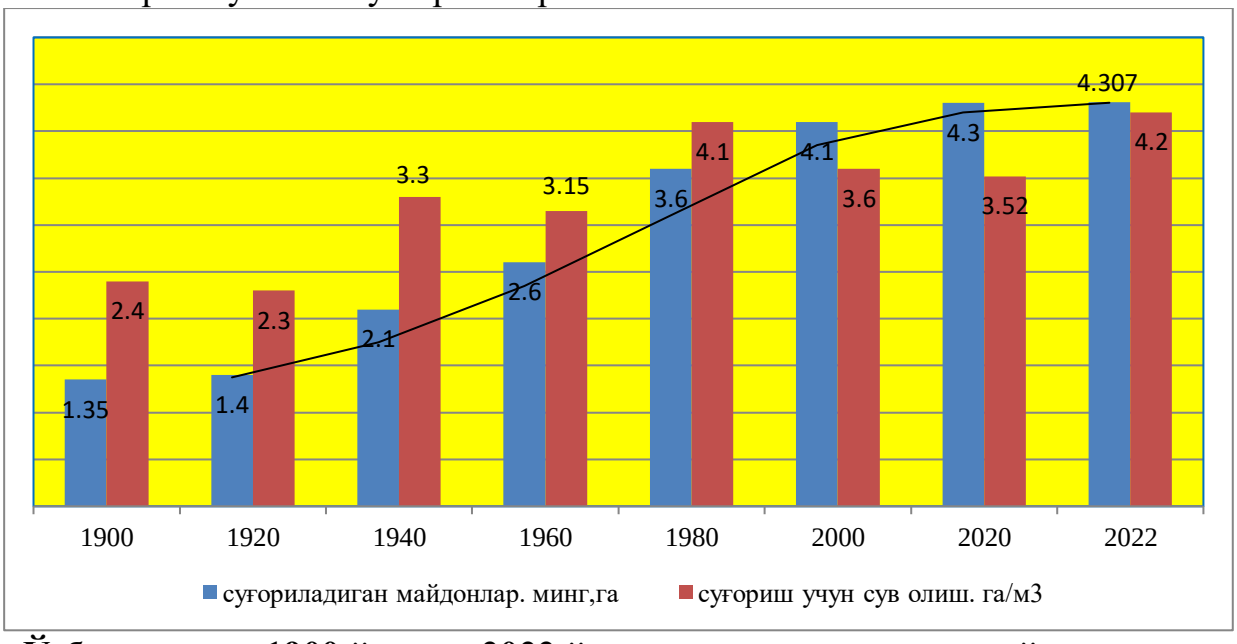
Abstract: Due to the limitation of water resources in the world, the expansion of irrigated areas and a number of other factors, water shortage is considered one of the global problems.

Keywords: Underground water, collector, ditch, irrigated areas of Vobkent district, water resources, agriculture.

Жаҳон миқёсида кечаётган иқлимнинг илиши жараёни Ер сайёраси табиатига, айниқса, сув русурсларининг ҳосил бўлиш шароити ва миқдорига кучли таъсир кўрсатмоқда. Натижада, сув ресурслари тақчиллигининг йилдан-йилга ортиб боришига олиб келмоқда. БМТнинг махсус маълузасида таъкидланганидек, «Сув ресурсларининг нақадар бебаҳолигини тан олиш ва, шу ҳолатни эътиборга олган ҳолда, тегишли қарорлар қабул қилиш, уларнинг ҳисобини аниқ юритиш – сув ресурсларини мақсадли ва самарали бошқаришда, шунингдек, БМТнинг 2030 йилгача бўлган барқарор ривожланиш кун тартибида кўрсатилган асосий мақсадларга эришишда ўта муҳим ҳисобланади». Табиийки, бу ҳолатлар кам сувли йиллар, уларнинг шаклланиш хусусиятларини

гидрологик нуқтаи назардан тадқиқ этишни, коллектор-зовур сувларининг гидрологик кўрсаткичлари билан иқлимий омиллар орасидаги боғланишларни физик-статистик баҳолаш орқали кам сувли йилларни прогнозлаш амалиётини йўлга қўйиш муҳимлигини кўрсатмоқда.

Ўзбекистон Республикаси Президентининг 2022 йил 28 январдаги ПФ-60-сон «Ўзбекистон Республикасини 2022-2026 йилларга мўлжалланган Янги Ўзбекистоннинг тараққиёт стратегиясида, «Сув ресурсларидан самарали фойдаланиш ҳисобига 7 миллиард куб метр сувни иқтисод қилиш ва суғориладиган эрларнинг мелиоратив ҳолатини янада яхшилаш, қишлоқ хўжалиги ишлаб чиқариш соҳасига интенсив усулларни, энг аввало, сув ва ресурсларни тежайдиган замонавий агротехнологияларни жорий этиш[71]» бўйича муҳим чора-тадбирлар белгилаб берилган. Ушбу вазифаларни амалга оширишда, жумладан, коллектор-зовурлар тизимини қуриш, сув танқислигини юмшатиш ва улардан самарали фойдаланишнинг такомиллашган усулларини ишлаб чиқишга қаратилган тадқиқот ишларини олиб бориш муҳим илмий-амалий аҳамият касб этади. Республикада суғориладиган майдонлар 1900 йилдан 2022 йилгача кенгайиб уларни сув билан таъминлаш ҳам ўзгариб борган. Йиллар давомида республикада суғориладиган ер майдонлари ва уларга солиштирма сув олиш ўзгариб бориши.



Ўзбекистонда 1900 йилдан 2022 йилгача суғориладиган майдонларга сув олишнинг ўзгариши.

Вилоятдаги суғориладиган майдонларнинг мелиоратив ҳолатини яхшилашда коллектор-зовур тармоқларисиз тасаввур этиб бўлмайди.

[71]Ўзбекистон Республикаси Президенти Ш.М.Мирзиёевнинг 2022 йил 28 январдаги “2022-2026 йилларга мўлжалланган янги Ўзбекистоннинг тараққиёт стратегияси тўғрисида”ги (PF-60 сон 31 мақсад, 1-илова) Фармони.

Натижада, вилоятда Марказий Бухоро, Шимолий, Оғитма, Порсонкўл ва бошқа йирик коллектор-зовур тармоқлари ишга туширилди. Коллектор-зовурда олиб борилган тажрибаларда аниқ бўлдики, нисбатан энгил ва шўри ювилган эрларни таркибида 6 г/л гача минераллар бўлган коллектор-зовур сувлари билан суғориш, экинларининг ҳосилдорлигини камайтирмаслигини кўрсатди. Вилоятда сув тежовчи технологияларни жорий этиш ва кам сувли йилларда ирригация-мелиорация ишларини режа асосида амалга ошириш ҳисобига сув ресурсларидан янада самарали фойдаланишга қаратилган қатор тадбиплап тизимли павишда амалга ошипилмоқда ва бу бопада сезилапли ижобий натижалапга эпишилмоқда. Вилоятда суғориладиган майдонларда коллектор-зовур сувларидан фойдаланиш бўйича олиб борилган илмий изланишлар асосида қуйидагилар аниқланди.

1. Коллектор-зовур сувларининг миқдор ва сифат ўзгаришлари аниқланган ва баҳоланган, шунингдек, коллектор-зовур сувлари минераллашув даражаси ва гидрологик кўрсаткичларининг суғориш мақсадларида олинган сув миқдорига боғлиқлиги аниқланган. Натижада, минераллашган коллектор-зовур сувларидан фойдаланиш самарадорлигини оширишнинг имконияти яратилган.

2. Коллектор-зовур сувларининг туманлар бўйича ўзгаришлари баҳоланган ҳамда иқтисодиётнинг турли соҳаларида қўшимча сув ресурслари сифатида фойдаланиш бўйича тавсиялар берилган. Натижада, вилоят ҳудудида коллектор-зовур сувларидан қўшимча ресурс сифатида қайта фойдаланиш имконияти ошган.

3. Нисбатан кам минераллашган Марказий Бухоро, Шимолий ва Оёқоғитма коллектор-зовур сувларидан қишлоқ хўжалик экинларини суғориш, шўрга чидамли ўсимликларни этиштириш ва бошқа мақсадларда фойдаланиш учун тавсия этилган. Натижада, фермер хўжаликларида коллектор-зовур сувларидан суғорма деҳқончиликда фойдаланиш имконини берган.

4. Коллектор-зовур сувларини дарё суви билан қўшиб экинларни суғориш орқали фойдаланиш, суғориладиган майдонларнинг сизот сувлари сатҳи ва минераллашувини мақбул даражада ушлаб туриш бўйича, вилоятнинг Вобкент тумани фермер хўжаликларида амалиётга жорий этилиб самарадорликка эришилган. Натижада, минераллашган коллектор-зовур ва ташлама кўл сувларидан суғориладиган эрларнинг ҳолатини яхшилаш, улардан турли мақсадларда (балиқчилик, паррандачилик) фойдаланиш, шунингдек сув танқислигининг салбий оқибатларини олдини олиш ва атроф-муҳитни муҳофаза қилиш имконини беради.

Бухоро вилояти туманларида қишлоқ хўжалик экинларини суғоришда коллектор-зовур сувларидан кенг кўламда фойдаланилади. Шулардан, Вобкент тумани суғориладиган майдонларида Марказий

Бухоро коллектор-зовур сувлари билан қишлоқ хўжалик экинларини суғоришда фойдаланилади.







Марказий Бухоро зовур сувидан намуналар олиш жараёни.

Марказий Бухоро зовури Вобкент туманида қурилган энг йирик гидротехника иншоотларидан биридир. Марказий Бухоро зовурининг узунлиги 95.1 км бўлиб, сув ўтказиш қобилияти 80 $м^3/с$ ни ташкил қилади. Марказий Бухоро коллекторига Бухоро, Жондор, Вобкент ва Ромитан туманлари ҳудудидаги коллектор-дренаж тармоқларида йиғиладиган сизот сувлар ташланади. Марказий Бухоро зовур сувидан натижалар олиниб қишлоқ хўжалик экинларини суғорганда ижобий натижалара эришилди.

Вилоятдаги коллектор-зовур сувларидан бедани суғоришда самараси юқоридир. Беда тупроқ шўрини кетказишдаги самараси яхши ҳисобланиб, коллектор-зовур тармоқлари бўлгандагина, ижобий натижа беради. Шу билан бирга, ўсиш давридаги суғориш ўз вақтида ўтказилган ва тегишли агротехник тадбирлар сифатли амалга оширилган тақдирдагина тупроқнинг мелиоратив ҳолати яхшиланади. Шу боис тупроқ унумдорлиги ва шўрланиш даражалари турлича бўлган далаларда экинларнинг таъсири тупроқдаги микроорганизмларнинг миқдори ва фаолияти, тупроқларнинг агрокимёвий ва агрофизик хусусиятлари, ғўза ўсимлигининг ўсиши, ривожланиши ва ҳосилдорлигини ўрганиш муҳим аҳамиятга эга. Шу сабабли тупроқ унумдорлиги ва шўрланиш даражалари турлича бўлган далаларда қадимдан беда, шоли, буғдойнинг ўсиши, ривожланиши ва ҳосилдорлигини ўрганиш муҳим аҳамиятга эга.

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ЗНАЧЕНИЕ ВИТАМИНОВ В ПЕДИАТРИИ

Аннотация: Проблема сбалансированного питания остается актуальной в современной педиатрии. Несмотря на обилие высококачественных продуктов питания на узбекском рынке, распространенность витаминодефицититных состояний остается высокой. Автор статьи знакомит с важными функциями витаминов и микроэлементов в организме человека, а также демонстрирует необходимость их дополнительного введения в виде правильно сбалансированных фармакологических форм.

Ключевые слова: витамины, дефицит витаминов, коррекция, дети.

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THE IMPORTANCE OF VITAMINS IN PEDIATRICS

Abstract: The problem of balanced nutrition remains relevant in modern pediatrics. Despite the abundance of high-quality food products on the Russian market, the prevalence of vitamin deficiency conditions remains high. The author of the article introduces the important functions of vitamins and microelements in the human body, and also demonstrates the need for their additional administration in the form of properly balanced pharmacological forms.

Keywords: vitamins, vitamin deficiency, correction, children.

ВВЕДЕНИЕ

Рациональное питание детей является важнейшим условием поддержания здоровья нации. Дефицит витаминов — одна из серьезных причин ухудшения состояния здоровья детей. Часто выявляемый дефицит носит характер сочетанной витаминной недостаточности. Особенно актуальной эта проблема становится весной и во время долгого осеннезимнего периода. Однако настораживает, что в течение последних лет дефицит витаминов обнаруживается и в летне-осенний период, что

свидетельствует о формировании у большинства населения неблагоприятного круглогодичного типа полигиповитаминоза. Также отмечено, что полигиповитаминозы часто сочетаются с дефицитом микроэлементов.

МАТЕРИАЛЫ И МЕТОДЫ

Витамины — это низкомолекулярные органические соединения с высокой биологической активностью, необходимые для нормальной жизнедеятельности организма. Их принято делить на водорастворимые и жирораство римые. Водорастворимые витамины включают витамин С и витамины группы В: тиамин, рибофлавин, пантотеновую кислоту, В6, В12, ниацин, фолат и биотин. Жирорастворимыми являются витамины А, Е, D и К [3–4]. Наряду с витаминами известна группа так называемых витаминоподобных соединений. К ним относят холин, инозит, оротовую, липоевую и парааминобензойную кислоты, карнитин, биофлавоноиды (рутин, кверцетин, чайные катехины) и ряд других соединений, обладающих теми или иными свойствами витаминов. Однако витаминоподобные соединения не имеют всех основных признаков, присущих истинным витаминам, и, следовательно, таковыми не являются. В частности, холин и инозит, входя в состав соответствующих фосфолипидов, выполняют в организме пластическую функцию. Оротовая и липоевая кислоты, а также карнитин синтезируются в организме. Парааминобензойная кислота является витамином только для микроорганизмов, для человека и животных она биологически неактивна. Метил-метионинсульфония хлорид (витамин U) обладает терапевтическим эффектом при ряде заболеваний, но не выполняет каких-либо жизненно важных функций в организме.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Содержание витаминов в пище значительно ниже, чем белков, жиров и углеводов, и не превышает, как правило, 10–100 мг/100 г продукта. В связи с чем особенно важно достаточное содержание каждого из витаминов в повседневном рационе детей. Витамины не служат источником энергии или «строительным» материалом для органов и тканей в отличие от белков, жиров и углеводов, а являются регуляторами физиологических и биохимических процессов, лежащих в основе большинства жизненно важных функций организма, например участвуют в энергетическом обмене (тиамин, рибофлавин и ниацин), биосинтезе и превращениях аминокислот и белков (витамины В6 и В12), различных превращениях жирных кислот и стероидных гормонов (пантотеновая кислота), нуклеиновых кислот (фолат) и других физиологически активных соединений. Таким образом, витамины необходимы для процессов роста, поддержания нормального кроветворения и половой функции, деятельности нервной, сердечнососудистой и пищеварительной систем, желез внутренней секреции, а также для полноценного функционирования

зрительного анализатора и поддержания нормальных свойств кожи. Также важная роль принадлежит витаминам в обеспечении адекватного иммунного ответа; функционирования систем метаболизма ксенобиотиков, формировании антиоксидантного потенциала организма [5]. В основе высокой биологической активности витаминов лежит их участие в каскаде ферментных систем в качестве так называемых коферментов, т.е. низкомолекулярных небелковых веществ, которые образуют комплекс с белковой частью ферментов и непосредственно осуществляют химические реакции, катализируемые данным ферментом. Другая ключевая функция витаминов заключается в их участии в построении и функционировании мембран клеток и клеточных органелл (первая функция присуща практически всем водорастворимым витаминам, а также жирорастворимому витамину К, а вторая — всем жирорастворимым витаминам [2].

Таблица 1. Наиболее часто встречаемые причины витаминной недостаточности

I. Алиментарная недостаточность витаминов	1. Нерациональное питание, вызывающее дефицит витаминов в пищевых рационах беременных женщин и кормящих матерей, приводящий к снижению запасов витаминов в организме новорожденного ребенка и уменьшению их уровня в грудном молоке. 2. Нерациональное искусственное вскармливание с преимущественным использованием кефира, коровьего молока и других неадаптированных молочных смесей. 3. Несвоевременное и недостаточное введение продуктов прикорма в питание детей 1-го года жизни. 4. Низкое содержание витаминов в суточных рационах питания детей дошкольного и школьного возраста, обусловленное нерациональным построением пищевых рационов и ограниченным потреблением продуктов-витаминоносителей. 5. Потери и разрушение витаминов в процессе технологической переработки продуктов питания, их длительного и неправильного хранения и нерациональной кулинарной обработки. 6. Действие антивитаминных факторов, содержащихся в продуктах. 7. Присутствие в продуктах витаминов в малоусвояемой форме. Разбалансировка химического состава рационов и нарушение оптимальных соотношений между витаминами и другими нутриентами и между отдельными витаминами. 8. Пищевые извращения и религиозные запреты, налагаемые на потребление ряда продуктов у некоторых народностей
II. Угнетение роста нормальной кишечной микрофлоры, продуцирующей ряд витаминов	1. Болезни желудочно-кишечного тракта. 2. Нерациональная фармакотерапия

III. Нарушения ассимиляции и метаболизма витаминов	1. Нарушения всасывания витаминов в желудочно-кишечном тракте: заболевания желудка; заболевания кишечника; поражение гепато-билиарной системы; конкурентные отношения с абсорбцией других витаминов и нутриентов; врожденные дефекты и (или) незрелость транспортных и ферментных механизмов абсорбции витаминов. 2. Утилизация поступающих с пищей витаминов кишечными паразитами и патогенной кишечной микрофлорой. 3. Нарушение нормального метаболизма витаминов и образования их биологически активных форм: наследственные дефекты; недоношенность; приобретенные заболевания; действие инфекционных агентов. 4. Нарушение образования транспортных форм витаминов: наследственные; вследствие незрелости метаболических процессов (недоношенность и др.); приобретенные. 5. Антивитаминные эффекты лекарственных веществ и других ксенобиотиков

ЗАКЛЮЧЕНИЕ

Современное питание детей не может полностью удовлетворить их нарастающую потребность в витаминах и мик роэлементах. Дополнительная витаминизация рациона питания позволяет предотвращать гиповитаминозы в течение всего года. Применение же поливитаминных препаратов не менее важно и рекомендуется как для профилактики, так и для лечения витаминодефицитных состояний. Существование развличных форм выпуска этого препарата дает врачам и родителям возможность выбора наиболее оптимального из них, в наибольшей степени соответствующего состоянию здоровья и питания ребенка

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ОБУЧЕНИЕ РУССКОМУ ЯЗЫКУ ДЕТЕЙ ПОДГОТОВИТЕЛЬНОЙ ГРУППЫ ДОШКОЛЬНЫХ УЧРЕЖДЕНИЙ

Аннотация: В статье рассматриваются пути обучения русскому языку детей старшего дошкольного возраста. Предлагаются и подробно описываются некоторые методы и приемы обучения русскому языку детей данного возраста.

Ключевые слова: обучение, старший дошкольный возраст, методы, приемы, русский язык, метод «Семья», игра, дети, уровень владения языком.

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TEACHING RUSSIAN TO CHILDREN OF THE PREPARATORY GROUP OF PRESCHOOL INSTITUTIONS

Abstract: The article discusses ways of teaching the Russian language to older preschool children. Some methods and techniques of teaching Russian to children of this age are proposed and described in detail.

Keywords: education, senior preschool age, methods, techniques, Russian language, "Family" method, game, children, language proficiency.

Русский язык является одним из сложных языков для изучения. Обучение этому языку проявляет трудности для учителя в подготовительных группах с узбекским и иными языками обучения. Начальные представления о языке дети получают в дошкольном возрасте. Самым важным этапом этого периода считается старший дошкольный возраст.

В старшем дошкольном возрасте дети бывают любопытными, их интересует каждая новая черта предметов, которые окружают их. В этот период у них продолжается процесс познания нового неизвестного. Обучающий иностранному языку детей данного возраста должен планировать свои уроки, учитывая факторы, влияющие на их сознание.

Учёные предлагают учить детей к языку с самого раннего детства. Известный учёный-педагог К.Д. Ушинский сказал: «Дитя приучается в несколько месяцев так говорить на иностранном языке, как не может приучиться в несколько лет» [2, 67]. Исходя из этого можно сказать, что обучение иностранным языкам с раннего детского возраста дает ожидаемые результаты. С года в год у ребёнка накапливаются

необходимые знания. Он начинает мыслить и анализировать свои способности по изучению языка. В младшем дошкольном возрасте ребенок получает начальное представление о русском языке. Этот период помогает формировать интерес к изучению языка.

В среднем дошкольном возрасте ребенку мир интересен еще больше. В этот период жизни можно обучать их использованию различных речевых конструкций. «В этом возрасте воспитанник средней группы должен спокойно рассказывать свою автобиографию (имя, фамилия, имена своих родителей, свой возраст и обязательно где он живёт: свою родину, свой город.)» [2, 1533].

В отличии от среднего дошкольного возраста заинтересовать к изучению русского языка детей старшего дошкольного возраста (подготовительная группа) является намного сложным процессом. Начиная с 5 лет, у ребенка появляется представление о своем поле, о своих родителях (как их зовут, кем и где они работают), а также он начинает считать себя взрослым, пытается строить дружеские отношения с ровесниками и т.д. Работа с таким ребёнком вызывает большие усилия и трудности. Потому что ему уже не интересны игрушки, он не хочет выучить стихи. Более того, постоянное упрямство, эгоистичность встречаются в 70 % детей старшего дошкольного возраста. Планируя работу по обучению детей данного возраста русскому языку, обучающий должен учитывать следующие моменты:

- специфику, особенности, алфавит и грамматический строй родного и изучаемого языков;
- лингвокультурологические аспекты обучения русскому языку;
- географию языковой среды;
- уровень понимания детьми русского языка.

Каждое занятие должно предусматривать комплексное решение речевых задач, поэтому нужно обратить внимание на лексические, фонетические и грамматические закономерности использования даже элементарных слов. По отношению к слову «ЯБЛОКО» можно выделить следующие стороны:

- правильно произносить слово (фонетическая сторона)
- это фрукт который растёт в саду (лексическая сторона)
- Что это? (грамматическая сторона).

Такое определение поможет формировать понятие, представление о каком-то предмете. Старший дошкольный возраст является особенной среди других. Потому что здесь у учителя есть главная задача - подготовка к школе. Расширяя свой словарный запас, ребёнок начинает вступить в диалог на русском языке, общаться с другими становится намного легче. Но теперь он должен приобрести навыки письменной речи. Речевая среда в формировании начальных умений по русскому языку играет особую роль. Обычно во многих узбекских семьях родители знают русский язык на

уровне А1 и ниже. Дома ребёнок в основном проводит время с мамой. Поэтому она является участницей процесса формирования интереса к русскому языку, если мама не владеет русским языком, то должна уделять время на изучение русского языка вместе с ребёнком. Дети этого возраста чувствуют и понимают это. Они начинают думать, что если повторять домашнее задание вместе с мамой, то она будет с ними. Способ, предлагаемый выше поможет найти общий язык с ребенком.

Начиная с 5-6 лет нужно ознакомить детей с буквами изучаемого языка. Сначала можно дать краткую информацию о русском алфавите. Предлагаем использовать игровой метод «Семья».

Собрать всех детей в один круг, разделить их на группы «гласные» и «согласные». Девочки у нас красивые поэтому они гласные. Обязательно надо учитывать их число так, как в русском алфавите только 10 гласных букв. В этом возрасте дети уже начинают считать все предметы, естественно могут задавать вопросы о числе девочек. Воспитательница с изменённым голосом должна сказать, что 10 гласных букв в русском алфавите. Мальчики у нас сильные они у нас согласные (21 мальчик, если в этой группе не так уж много мальчиков можно в эту группу добавить остальных девочек). Выбрать одного мальчика и девочку можно сказать, что они у нас папа и мама. Они разделяют, когда мы ссоримся (Ъ) и смягчают, когда нас хотят примирить (Ь). И закончить свои слова в виде совета: «Мы все одна семья, должны жить вместе и дружно». Эта игра поможет нам одновременно и с воспитательной стороны, и в целях обучения. Дальше можно уже постепенно ознакомить воспитанников с буквами. Узнав каждый день новую букву, ребёнок должен уметь находить слова, начинающиеся на эту букву или слова, в составе которых есть данная буква.

Таким образом, метод «Семья» позволяет нам провести урок в нетрадиционной форме:

- одновременно участвуют все воспитанники;
- реализуется обратная связь между учителем и воспитанниками;
- у воспитанников развивается речь.

Общие ключевые компетенции дошкольника 6-7 лет следующие:

- коммуникативная компетенция (умение использование средство общение в различных ситуациях);
- игровая компетенция (творческое применение ребёнком опыта, знаний, и навыков в процессе игры. Является основой для учебно-воспитательной деятельности);
- социальная компетенция (умение вести себя со взрослыми и сверстниками в жизненных ситуациях с соблюдением согласованных правил и норм поведения);

- познавательная компетенция (сознательное восприятие окружающего мира и применение полученных знаний, умений, навыков и ценностных установок для решения учебных и практических задач) (3;п.3).

Согласно этому учителя должны формировать и усовершенствовать все компетенции у детей старшего дошкольного возраста. Родить в душе ребёнка любовь к русскому языку является принципиальной задачей каждого специалиста – учителя русского языка.

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НЕКОТОРЫЕ АСПЕКТЫ ЛЕЧЕНИЯ ПРИ СОЧЕТАННОЙ ТРАВМЕ ГРУДИ И СЕГМЕНТОВ КОНЕЧНОСТЕЙ

Аннотация: Статья содержит литературный обзор отечественных и зарубежных источников о политравме. Отражены статистические данные распространенности данной патологии, летальности и инвалидизации от травм, классификация, современные методы диагностики и лечения множественных и сочетанных травм.

Ключевые слова: политравма, множественная и сочетанная травма, травма груди.

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SOME ASPECTS OF TREATMENT IN COMBINED INJURIES OF THE CHEST AND LIMB SEGMENTS

Abstract: The article contains a literary review of domestic and foreign sources on polytrauma. Statistical data on the prevalence of this pathology, mortality and disability from injuries, classification, modern methods of diagnosis and treatment of multiple and combined injuries are reflected.

Key words: polytrauma, multiple and combined trauma, chest trauma.

ВВЕДЕНИЕ

В настоящее время травмы являются одной из трех основных причин смертности населения мира наряду с сердечно-сосудистыми и онкологическими заболеваниями [1], а у категории лиц трудоспособного возраста занимают первое место, составляя 45% [2]. Существенный вклад в инвалидизацию населения вносят политравмы, поскольку тяжесть повреждений, преимущественно опорно-двигательного аппарата (ОДА),

сложность лечения и реабилитации, ошибки и осложнения приводят к тому, что стойкая утрата трудоспособности при них достигает 15–20%. Частота сочетанной травмы в общей структуре травматизма составляет 40–60%, а летальность 35–80% [2–4].

Дорожно-транспортные происшествия (ДТП), криминогенная обстановка, непрекращающиеся военные конфликты, стихийные бедствия, высотное строительство прежде всего обусловливают стабильное нарастание частоты травматизма [5]. В структуре сочетанной травмы повреждения груди составляют около 10%, занимая третье место после переломов костей конечностей и черепно-мозговой травмы (ЧМТ) [1].

МАТЕРИАЛЫ И МЕТОДЫ

Впервые понятие «множественная и сочетанная травма» было сформулировано на II Всесоюзном съезде травматологов-ортопедов А. В. Капланом и соавт. (1975). К множественным травмам отнесли два и более повреждений в пределах одной анатомической области, к сочетанным — повреждения какого-либо внутреннего органа и переломы или другие травмы ОДА, а также сочетания перелома конечности с повреждением сосудов и нервов. это определение имеет сторонников до настоящего времени [1]. Кроме этого определения стоит отметить следующие формулировки: «К группе сочетанных травм следует относить одновременное механическое повреждение двух и более анатомических областей, включая конечности». Сочетанное повреждение — это одновременно возникшее поражение двух или более органов, относящихся к различным анатомо-физиологическим системам. Множественной травмой, по мнению А. А. Пушкова, считается повреждение органов одной полости (грудной или брюшной), травмы в пределах двух и более анатомо-функциональных образований опорно-двигательной системы (ОДС), повреждение сосудов и нервов в различных анатомических сегментах конечности или конечностей.

В последние годы появился новый термин — «политравма», который сегодня стал общепринятым как у нас в стране, так и за рубежом. Имеется в виду несколько повреждений у одного человека, одно или несколько из которых является опасным для жизни. По мнению В. В. Агаджанян, А. В. Шаталина, С. А. Кравцова, политравма — это совокупность двух и более повреждений, одно из которых, либо их сочетание, несет непосредственную угрозу для жизни пострадавшего и является причиной развития травматической болезни. Политравма отличается особой тяжестью клинических проявлений, сопровождается значительными нарушениями жизненно важных функций организма, трудностью диагностики, сложностью лечения [2].

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Производственные травмы, как причина сочетанных повреждений составляют около 5%. Они вызываются придавливанием тяжелыми

предметами (например, бетонной плитой на стройке), затягиванием в движущиеся механизмы станков, когда повреждаются верхние конечности, грудная клетка, череп.

Классификация множественных и сочетанных повреждений. Все предложенные классификации построены на анатомии и клинике повреждений; на основе балльной оценки тяжести повреждений и тяжести состояния; на анатомии и тяжести. Производными от этих классификаций являются классификации на основе различных тактических схем. Идеальную схему создать нельзя, так как невозможно при жизни учесть все повреждения и их тяжесть, а тем более выразить все это в баллах или в виде формул с поправочными коэффициентами. На практике клиническая классификация является преобладающей, а балльная оценка используется для сортировки при массовых катастрофах и в условиях военных действий, а также для ретроспективного анализа и прогнозирования.

Методы диагностики сочетанных повреждений. Согласно рекомендациям «Современные методы и подходы в лечении пациентов с тяжелой травмой» для первичной оценки состояния пациента после серьезной травмы или с потерей сознания в реанимации травматологического отделения рутинными являются следующие лучевые методы: рентгенография органов грудной клетки (ОГК) в переднезадней проекции — для выявления опасных для жизни повреждений, которые требуют немедленного лечения (напряженный пневмоторакс, массивный гемоторакс, флотация грудной клетки) или дальнейшего исследования (расширение средостения, подозрение на повреждение крупного сосуда); рентгенография таза в переднезадней проекции — для выявления сложных переломов костей таза, которые требуют установки тазового корсета; рентгенография кости (сустава) в двух взаимно перпендикулярных проекциях; ультразвуковое исследование (УЗИ) брюшной полости (позволяет быстро обнаружить свободную интраперитонеальную жидкость, указывающую на брюшное кровотечение).

Компьютерную томографию (КТ) следует проводить всем пациентам с повреждениями грудной клетки при возникновении малейших сомнений в трактовке обзорной рентгенограммы [2]. Убедительно доказана необходимость проведения компьютерной томографии при тяжелой травме груди, преимущественно для оценки повреждения аорты и выявления скрытого пневмоторакса у пациентов с потерей сознания.

В настоящее время видеоторакоскопия открыла не только безграничные возможности диагностики, но и новую стратегию торакальной хирургии. Несмотря на возможности эндовидеохирургии в диагностике и лечении осложнённой травмы груди, миниинвазивные вмешательства в нашей стране пока еще не нашли широкого применения

Из функциональных методов выполняются спирография и электромиография.

ЗАКЛЮЧЕНИЕ

Таким образом, лечение политравм во второй половине XX в. стало одной из ключевых проблем отечественной и мировой медицины, так как оно затрагивает интересы молодых, активных, трудоспособных граждан. Актуальность ее возрастает в XXI в. в связи с урбанизацией и автомобилизацией большинства стран, в том числе и Узбекистане. Лечение и реабилитация пострадавших с множественной и сочетанной травмой всегда связаны с определенными трудностями и до настоящего времени остаются весьма актуальной проблемой.

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СВЯЗЬ СЕМЬИ И ШКОЛЫ В ВОСПИТАНИИ ФИЗИЧЕСКИХ КАЧЕСТВ ПОДРОСТКОВ

Аннотация: В данной статье показывается связь семьи и школы в воспитание двигательных качеств подростков. Также предлагается минимум двигательных умений и навыков, которыми выпускники школ должны овладеть, занимаясь дома физкультурой самостоятельно или под руководством родителей.

Ключевые слова: воспитание, двигательные качества, связь, семья, упражнение, рост, развитие, результат.

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FAMILY AND SCHOOL CONNECTION IN EDUCATION OF PHYSICAL QUALITIES OF ADOLESCENTS

Annotation: This article shows the relationship between the family and the school in the upbringing of the motor qualities of adolescents. It also offers a minimum of motor skills that school graduates must master by doing physical education at home on their own or under the guidance of their parents.

Key words: education, motor qualities, connection, family, exercise, growth, development, result.

Воспитание в семье предполагает воспитание двигательных качеств (силы, выносливости, ловкости, гибкости, быстроты), повышение функциональных возможностей организма и укрепление здоровья. Обучение физическим упражнениям, воспитание двигательных качеств и устранение недостатков физического и функционального развития у школьников - это специфические стороны физического воспитания детей в семье, связанные друг с другом.

Нельзя считать, например, нормальным, когда ребенок имеет огромную силу, прыгучесть, гибкость, но не умеет плавать, играть в волейбол, бадминтон и т. д. Важно также, чтобы высокий уровень развития двигательных качеств (выносливости, силы, ловкости, быстроты,

гибкости) проявлялся при выполнении трудовых действий (участие в сельскохозяйственной работе, в домашних делах) и способствовал овладению навыками, необходимыми для службы в армии и техникой спортивных упражнений. Научить детей всем этим навыкам и умениям только за счет уроков физкультуры, как бы мы к этому ни стремились, практически невозможно. Очевидно, и не следует к этому стремиться.

Родители располагают огромными возможиостями для обучения своих детей различным видам двигательных действий. Многими упражнениями дети могут овладеть сами, консультируясь у школьных учителей физкультуры, спортсменов и родителей. Чтобы научиться, например, делать стойку на кистях, нужно знать, как она выполняется и систематически тренироваться в этом упражнении.

Разве в состоянии школьный учитель физкультуры, к которому на урок приходят от 30 до 40 учеников, уделять столько времени на обучение школьника как родители.

Все родители крайне заинтересованы в том, чтобы их ребенок умел плавать, играть в бадминтон, футбол, волейбол, бегать, прыгать и т. д.

Нужно не только хотеть, но и принимать решительные меры по обучению собственных детей различным видам двигательных действий.

Ниже предлагается минимум двигательных умений и навыков, которыми выпускники школ должны овладеть, занимаясь дома физкультурой самостоятельно или под руководством родителей:

1. Плавание двумя спортивными способами (кроль, брасс, спина или баттерфляй). Умение проплыть 500—1000 м любым способом.

2. Медленный непрерывный бег - юноши до 30 - 40 мин, девушки до 20-30 мин.

3. Овладение двумя спортивными играми по выбору: волейбол, настольный теннис, баскетбол, футбол, бадминтон.

4. Овладение техникой прыжка в длину, в высоту с разбега (одним из способов прылска), техникой метания малого мяча и гранаты.

5. Катание на велосипеде.

6. Овладение акробатическими упражнениями: перевороты боком, стойка на голове, мост, ласточка, стойка на руках (мальчики), переворот вперед (девушки),

7. Овладение простейшими приемами борьбы и самообороны.

8. Овладение прыжками в воду («солдатиком» с 1 и 3 м).

В программу максимум входит спортивная специализация детей в одном из видов спорта по линии ДСШ, спортивной секции в школе или самостоятельно дома под руководством родителей или общественников - инструкторов.

Например, бегом на длинные и короткие дистанции школьник может заниматься самостоятельно. Многие выдающиеся спортсмены добивались результатов мирового класса, занимаясь самостоятельно.

При обучении детей новым движениям необходимо учитывать, что процесс обучения двигательным действиям включает следующие части: 1) ознакомление с новым двигательным действием; 2) разучивание двигательного действия; 3) закрепление и совершенствование двигательного действия.

На этапе ознакомления с двигательным действием родители должны создать у детей представление о выполняемом упражнении. При этом используют в первую очередь словесные методы обучения. Родители рассказывают школьнику, например, о технике прыжка в длину с разбега; объясняют как надо выполнять упражнения; делают замечания и дают указания по ходу выполнения упражнения.

При обучении детей новым движениям большое место отводится показу упражнения в целом. Любое новое упражнение можно изучать в целом или по частям. В процессе разучивания целесообразно использовать оба метода.

Разучивание, например, прыжков в длину начинают по частям: вначале изучают отталкивание и полет с небольшого разбега, затем отталкивание, полет и приземление, в дальнейшем разбег. После того, как школьник овладел этими составными частями прыжка, можно перейти к обучению прыжка в длину в целом, включающего разбег, отталкивание, полет и приземление.

За этапом разучивания следует этап закрепления, т. е. многократное повторение разучиваемых двигательных действий.

Для закрепления навыка необходимо повторять упражнение многократно не только на одном занятии, но и в системе из многих занятий до тех пор, пока после перерыва ребенку не удастся выполнить упражнение без ошибки. Если же навык правильного упражнения не закрепляется, то даже заученное упражнение может быть забыто. На восстановление утраченных двигательных навыков времени требуется меньше, чем на разучивание упражнения.

Родители должны анализировать и оценивать успешность овладения детьми двигательных действий, выявить недостатки в этой работе и находить оптимальные способы исправления допускаемых ошибок при выполнении движений. Одновременно они должны приучать и своих детей анализировать и оценивать правильность выполнения движений.

За счет словесных и наглядных методов обучения (разъяснения, объяснения, показ упражнений) уточняются и устраняются ошибки ребенка при выполнении двигательного действия.

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ТЕНДЕНЦИИ РАЗВИТИЯ ПРЕСТУПНОСТИ И КРИМИНОГЕННОЙ СИТУАЦИИ В РЕСПУБЛИКЕ КАРАКАЛПАКСТАН

Аннотация: В статье рассматриваются основные тенденции развития преступности и криминогенной ситуации в Республике Каракалпакстан. Криминогенная ситуация — это состояние, событие или обстановка, которая побуждает человека совершить некую преступную деятельность.

Ключевые слова: общество, рост, преступления, тенденция, темп, развитие.

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TRENDS IN THE DEVELOPMENT OF CRIME AND THE CRIMINOGENIC SITUATION IN THE REPUBLIC OF KARAKALPAKSTAN

Annotation. The article discusses the main trends in the development of crime and the criminogenic situation in the Republic of Karakalpakstan. A criminogenic situation is a state, event or situation that induces a person to commit some kind of criminal activity.

Key words: society, growth, crime, trend, pace, development.

В настоящее время в условиях современного общества рост преступности является одним из основных показателей развития данного общества, Множество городов с миллионной численностью населения подвержены преступлениям в значительной степени больше, по сравнению с городами относительно небольшим количеством граждан.

Научно-технический прогресс и быстрые темпы развития рыночной экономики, а также развитие и существенное изменение практически всех сфер общественной жизни приводит к возникновению обстановки для преступных деяний. Данную обстановку называют криминогенной ситуацией, которая способна породить и усилить количество совершаемых преступлений, а также увеличить показатели роста преступности в целом

Криминогенная ситуация занимает промежуточное место между личностью преступника, средой и преступлением. Она предшествует преступлению и является его непременным «спутником». Никакое преступление не может быть совершено, если в реальной действительности для этого нет подходящих условий. «Криминогенная ситуация — это состояние, событие или обстановка, которая побуждает человека совершить некую преступную деятельность. Это также обстоятельства, предшествующие совершению преступления и повлиявшие на чувства, волю, сознание потенциального преступника» [2].

Существуют различные источники возникновения криминогенных ситуаций:

- сам преступник, намеренно или случайно создающий криминогенную обстановку.
- поведение других лиц, побуждающих человека совершить деяние.
- природные катаклизмы. Массовое мародерство порождается ощущением всеобщей безнаказанности и выбросом адреналина после пережитой катастрофы;
- стечение обстоятельств [1].
- Любая реакция человека в криминогенной ситуации, продиктованная разумом, а не чувствами, строится следующим образом:
- формируется мотив;
- принимается решение;
- совершается поступок. Своевременное обнаружение криминогенных ситуаций и принятие мер к их ликвидации имеют важное значение в предупреждении преступлений [3].

Преступность подразумевает под собой систематически происходящие деяния, нарушающие установленный правопорядок и закон на конкретной территории и в конкретное время. Преступность является сложносоставным понятием права, отражающим неблагоприятную сторону жизни общества, и передает черты определенных периодов его истории.

За годы независимости в Республике Каракалпакстан реализованы комплексные меры по профилактике правонарушений и борьбе с преступностью, что позволило достичь положительных результатов в обеспечении правопорядка и значительного улучшения криминогенной ситуации в республике.

По итогам января-июня 2022 года среди преступлении часто встречаются экономические преступлении, мошенничества, краж, хищение путём присвоения или растраты, уклонений от уплаты налогов, грабежи и разбой, изготовлений, сбыта поддельных денег, акцизных марок или ценных бумаг, вымогательств, нарушений правил торговли или оказания услуг, производство, изготовление, приобретение, хранение, перевозка в

целях сбыта или сбыт недоброкачественных либо фальсифицированных лекарственных средств или изделий медицинского назначения, реализация лекарственных средств или изделий медицинского назначения вне аптек, и их филиалов.

По статистическим даннымуровень преступности в Республике Каракалпакстан в 2021 году в январе по июнь составляло 1368 ив 2022 году 1521 преступлении (таблица 1). Уровень преступности является более информативным показателем, так как в отличие от абсолютного количества преступлений, позволяет оценить степень распространенности преступности в стране или на определенной территории.

Таблица 1

Зарегистрированныепреступлении в Республике Каракалпакстан с 2008 по 2021 гг.

Виды преступлении	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Число лиц, совершивших преступления	3422	3729	3556	3854	5190	4171	4107	3663	3815	3051	1812	1343	1674	2519
Зарегистрированные преступлений по всем линиям служб	3312	3233	3182	3189	3425	3164	3107	3042	3456	2861	1968	1870	2092	3306
Зарегистрированные умышленные убийства и покушения на убийства	46	42	39	38	32	29	30	26	35	13	15	11	18	22
Число лиц, совершивших умышленные убийства с покушениями	54	42	42	31	46	26	40	28	36	19	18	10	13	22

За шесть месяцев 2022 года наиболее высокий уровень преступностинаблюдалось в городе Ташкенте35,6 на 10 тысяч человек, самый низкий показатель в Республике Каракалпакстан 7,8 на 10 тысяч человек (Таблица 2).

Таблица 2

Преступность по всем линиям служб в зависимости от степени тяжести ее совершения в Республике Каракалпакстан (в январе-июне 2022 г., ед.)

	Зарегистрировано преступлений по всем линиям служб	**из них:**			
		не представляющих большой общественной опасности	менее тяжкие	тяжкие	особо тяжкие
Республика Каракалпакстан	1 521	648	479	356	38

В Республике Каракалпакстан преступлении не представляющих большой общественной опасности в январе-июне 2022 года составляла 3,3%, совершенные особо тяжкие преступления составляло 2,2%.

Лица, совершившие преступления в Республике Каракалпакстан (в январе-июне 2022 г., человек) среди мужчин составляет 1102 человек, темп роста 1,4, а также среди женщин 190человек, темп роста 1,7.

Число несовершеннолетних лиц, совершивших преступления в Республике Каракалпакстан (в январе-июне 2022 г., человек) составляет 32 человек, 2,5%к общему числу правонарушителей.

Таким образом, анализ тенденции и развитие преступности в Республике Каракалпакстан свидетельствует, что сегодня она представляет собой качественно новый феномен по своим масштабам и по степени негативного влияния на жизнедеятельность общества. Поэтому все более актуализируется задача усиления противодействия всего общества этому негативному явлению, использования в целях решительного перелома криминальной ситуации сложного комплекса экономических, социально-политических, воспитательных, правоохранительных мер.

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ОСОБЕННОСТИ ДЕЯТЕЛЬНОСТИ В СИСТЕМЕ СКЛАДИРОВАНИЯ

Аннотация: В статье рассматриваются особенности деятельности системы складирования, а также логистических процессов на складе с применением методик выбора системы складирование. Применение этих методик позволяет предприятию упорядочить логистические потоки и складские операции, тем самым повысив оперативность действий, получив минимальные издержки, а также уменьшить время на выполнение этих операций.

Ключевые слова: Хранение товаров, система складирования, логистические потоки, методы улучшения, складские операции, порядок выбора системы складирования.

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PECULIARITIES OF ACTIVITIES IN THE SYSTEM OF WAREHOUSING

Abstract: The article discusses the features of the warehousing system, as well as logistics processes in the warehouse using the methods of choosing a warehousing system. The use of these techniques allows the company to streamline logistics flows and warehouse operations, thereby increasing the efficiency of actions, obtaining minimal costs, as well as reducing the time to perform these operations.

Key words: Storage of goods, warehousing system, storage system selection procedure, logistics flows, improvement methods, warehouse operations, the procedure for choosing a storage system.

Система складирования на предприятиях имеет важную роль в логистические цепочки. Создание системы управления запасами на предприятии-участнике внешнеэкономической деятельности (ВЭД) для бесперебойного и стабильного снабжения производственными запасами, а также быстрого удовлетворения потребностей всей системы цепи поставок на сегодняшний день является одним из наиболее востребованных и актуальных вопросов в логистике.

Чтобы добиться незамедлительного выполнения заказов конечного потребителя компании готовы вкладывать огромные финансовые средства и время в развитие этой отрасли, так как предприятию необходимо обеспечивать непрерывный цикл перемещения материальных потоков и поддержание в целости процессов, которые обеспечивают их протекание от начальной точки в виде завода изготовителя, посреднической в виде склада и конечной в виде клиента.

Значительные объемы средств, вкладываемых в развитие складских помещений, придает проблеме научного управления ими первостепенную важность. Запас, находящийся на складах, в современном бизнесе перестает быть только расчетным показателем деятельности, становясь одним из основных объектов управления, обеспечивающих успех предприятия [1].

На сегодняшний день склад является одним из ключевых звеньев в товаро-проводящей цепочке, которая обладает как материальной, так и технической оснащенностью для проведения таких складских операций как приемка товара, его проверку, а также выдача готового товара, хранение, комплектация, а также маркировку, упаковку товара, его возврат поставщику, паллетирование и, в некоторых случаях, его доработку. Эффективно использующаяся система складирования на предприятии позволяет сократить расходы на издержки, а также повысить оперативность действий на складе путем уменьшения времени на выполнение этих операций.

Система управления склада подразумевает под собой ряд мер, направленных на бесперебойное обеспечение эффективности процессов складских операций и управления ими.

Выбор наиболее рациональной и подходящей системы складирования необходимо осуществлять в определенном порядке [2]:

1. Первым делом определяется и устанавливается место склада в логистических звеньях, а также прописываются его основные функции, которые он в себе несет;

2. Устанавливается и проектируется общая направленность склада с учетом материально-технической складской системы. Так, например, система может быть механизированной, автоматической или же автоматизированной;

3. Обуславливается задача, которая подчинена разработке складской системы;

4. Анализируются и определяются элементы подсистем складской системы;

5. Просчитываются возможные комбинации обозначенных элементов подсистем, выписываются риски данных комбинаций, их преимущества и недостатки;

6. Осуществляется выбор максимально рационального и опционального конкурентного варианта из всех технически возможных;

7. Проводится оценка данного выбранного варианта по критериям рентабельности и оптимальности выбора;

8. Осуществляется выбор запасного альтернативного варианта с возможностью перестроится на нее в короткие сроки.

Анализ и поиск оптимально рациональных вариантов осуществляется с помощью поиска информации, разработке собственной, приведению диаграмм, таблиц, сравнений с максимально приближенным альтернативным вариантом.

Место склада в иерархии логистической системы и выполняемые им функции прямо пропорционально регулируют техническую оснащенность склада.

В свою очередь система складирования подразделяется на несколько логистических процессов, которые являются основными и присутствуют в большинстве систем складирования. Ее основными процессами являются:

1. Распределение товаров;

2. Создание оптимальных заказов;

3. Обслуживание и отслеживание клиентских заказов. Мониторинг их эффективности, а также получение обратной связи;

4. Хранение готовой продукции на складе;

5. Транспортировка товара;

6. Комплектация товара, его упаковка, паллетирование;

7. Осуществление послепродажного обслуживания, прием возвратного товара.

Каждый из этих процессов имеет фундаментальное значение для системы складирования, влияя как на нее, так и на всю логистическую цепь, начиная от изготовителя товаров, заканчивая конечным клиентом. То есть, склад принимает очередную партию товара, осуществляет с ним операции по разукомплектации, упаковке товара для конечного потребителя, что повышает окончательную стоимость товара.

В процессе реализации логистических процессов возникают некоторые проблемы, вот некоторые из них:

1. Эффективность использование складских помещений;
2. Месторасположение логистических мест на складе
3. Выбор оптимальной системы складирования

Решения по данным проблемам выносятся руководительским составом каждого предприятия отдельно, так как нет какой-либо универсальной методики их решения, ведь все эти действия сугубо индивидуальны и в основном опираются на характеристики складов, их количество, а также бюджет, выделенный на решение этих проблем

Основной концепцией системы складирования является его экономичность. Добиться этого показателя можно только если планирование и реализация плана системы складирования рассматривается с точки интересов всех подразделений фирмы и склада, в частности. При этом, рентабельность склада будет являться основным критерием концепции системы.

Система складирования представляет из себя максимально оптимальное размещение груза и выполнение внутренних складских процессов, а также оперативное и рациональное управление этими показателями. Необходимо учитывать все связанные и взаимозависимые процессы как с внешними потоками объекта (приемка товара, его отправление конечному потребителю, доставка товара), так и с внутренними (приемка, адресное хранение товара, его транспортировка по складу), а также необходимо учитывать факторы, связанные с ними, например, размеры склада, особенности груза, особенности хранения, техника). Построение системы складирование складывается на выборе наиболее перспективной из всех технически возможных систем для решения поставленных перед складом задач с помощью как качественного, так и количественного получения оценки [2,3].

Для выбора рациональной системы складирования, необходимо определить функции склада в логистической цепи, склады могут быть снабженческие, производственные, и распределительные, склады оптовой торговли. Определиться с уровнем механизации склада, определить задачу которой подчиняется разработка системы складирования, создать комбинации выбранных элементов всех подсистем. Выбор системы складирования — это сложный процесс, на который влияет множество факторов и экономических показателей. Принцип построения складской системы выбирают исходя из экономических соображений для повышения рентабельности работы не только склада, но и предприятия в целом [4].

Таким образом, выбор оптимального варианта системы складирования осуществляется послетехнико-экономическойоценкикаждогоиз рассматриваемых вариантов. В качестве критериев оценки могут выступать показатель эффективности

использования складской площади и объема, показатель общих затрат на тонну товара, связанных с оснащенностью склада по данному варианту, однако главным критериемявляются экономические показатели, представляющим собой отношение затрат на складирование к общим финансовым результатам предприятия.

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ПРОФАЙЛИНГ И ЕГО РОЛЬ В СФЕРЕ ТАМОЖЕННЫХ ОРГАНОВ

Аннотация: В статье дана определения термину профайлинга и характеристика профайлинга, как метода психодиагностики личности, применяемого для выявления потенциально опасных лиц, автоматизированные профайлинг системы. А также, статье анализируются возможности и результаты применения технологий профайлинга в профессиональной деятельности должностных лиц таможенных органов. Раскрывается функциональное содержание профайлинга как системы прикладных психологических технологий, позволяющих определить потенциального правонарушителя и дать прогноз его поведенческим тенденциям.

Ключевые слова: профайлинг, должностные лица таможенных органов, технологии профайлинга, автоматизированные профайлинг системы.

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PROFILING AND ITS ROLE IN THE SPHERE OF CUSTOMS AUTHORITIES

Annotation: The article defines the term profiling and characterizes profiling as a method of personality psychodiagnostics used to identify potentially dangerous persons, automated profiling systems. Therefore, the article analyzes the possibilities and results of using profiling technologies in the professional activities of customs officials. The article reveals the functional content of profiling as a system of applied psychological technologies that allow you to determine the negative signs of verbal and nonverbal human behavior in an analytical way, as well as describe the appearance of a potential offender and give a forecast of his behavioral trends.

Keywords: profiling, customs officials; profiling technologies; automated profiling systems.

Современные технологии призваны защитить общество от потенциально опасных лиц, способных причинить ущерб личности или государству. Одной из таких дисциплин стал профайлинг, разрабатывающий технологии, способные выявить лиц с потенциально опасным поведением.

Профилирование представляет собой комплекс социально-психологических методов диагностики особенностей личности, скрытых мотивов и оценки сообщаемой информации, основанный на оценке невербального, вербального и субвербального поведения субъекта, прогнозировании сценариев развития ситуаций и отношений, действий, модели поведения и человеческого общения. Это комплекс методов и приемов оценки и прогнозирования поведения человека, основанный на анализе наиболее информативных признаков, в том числе характеристик внешности и поведения. Он включает в себя технологии наблюдения и допроса людей с целью выявления потенциально опасных или лживых лиц, а также людей с определенными талантами и ценностями.[72]

Этот метод является достаточно новым направлением в психологической науке, но уже сейчас можно сказать, что он дает возможность получать объективную информацию о потенциальной опасности личности, «считывать» невербальные компоненты, межличностного общения, и может быть эффективно использован для мер по предупреждению актов незаконного вмешательства на транспорте и террористической опасности в местах массового скопления людей.

Данная технология впервые начала применяться в конце 1970-х гг. израильской авиакомпанией «Эль-Аль» (El-Al) и изначально служила для обозначения технологии наблюдения и опроса пассажиров в ходе предполетного досмотра с целью выявления потенциально опасных лиц при авиаперелетах. Она была ориентирована на снижение вероятности появления возможных рисков, связанных с авиаперевозками пассажиров, и применялась во время предполетного досмотра. На тот момент в данной технологии пользовался небольшой набор базовых психологических паттернов (стереотипов поведения) и представляла собой процедуру психологического тестирования. Позже, в 1984 году методика была «смоделирована» в англоязычном варианте компанией ICTS и стала использоваться службами авиационной безопасности в большинстве европейских стран и США.

Определение метода дал Р. Ресслер, сформулировавший сущность профайлинга как процесса выявления определенных психологических особенностей личности на основе анализа совершенных им преступлений. [73] Параллельно с этим компания П.Экмана разработала ряд компьютерных

[72] 1. Arpenteva M.R. Psihologicheskie juridicheskoj psihologii. Kaluga: KGU, 2017. 262 s.
[73] Devery S. Criminal Profiling and Criminal Investigation // Journal of Contemporary Criminal Justice. 2010. November. Vol. 26 (1). pp. 393-409.

программ, позволяющих считывать и прогнозировать изменения эмоциональных состояний и поведения человека. [74] Эти программы стали активно использоваться в различных структурах, занимающихся обеспечением безопасности людей и организаций, государств и межгосударственных отношений. Как и все технологии разведки, инструменты профилирования работают быстро, просто и надежно: все, что нужно знать о человеке, отражается в его поведении и речи, нужно только понимать, что искать. В связи с тем, метод профайлинга дает возможность сделать достаточно точное предположение о потенциальной опасности личности, он может использоваться не только в аэропортах, но и на железнодорожных вокзалах, автостанциях, морских портах, метрополитене, в местах массового скопления людей для предупреждения как актов не законного вмешательства, так и любых противоправных действий.

Психологическую базу профилирования можно разделить на 4 пункта:

1. Нестандартное поведение;
2. Усиленная жестикуляция;
3. Использование непривычных речевых конструкций;
4. Неконтролируемые физиологические признаки.

Профайлинг в настоящее время широко применяется правоохранительными органами, поскольку системный анализ преступлений позволяет создать психологический профиль человека, вынашивающего преступные замыслы и совершающего противоправные действия. Такой психологический профиль базируется на описании характерных отличительных особенностей внешности и поведения человека, то есть признаках противоправного намерения. Детальный анализ и описание данных признаков обусловливает возможность определения потенциально опасных граждан. Таким образом, профилирование человека по определенному профилю способствует выявлению потенциального правонарушителя. Существуют люди, способные узнавать ложь на интуитивном плане, а есть и такие, в сфере деятельности которых очень важно обладать и развивать специальные навыки для распознавания обмана, например, сфера таможенного дела. Сотрудники таможни должны быть способны улавливать изменения мимики или непроизвольные движения тела, для предотвращения незаконного ввоза товаров, наркотических и опасных веществ, определять ложь из разговора с потенциальным контрабандистом. Важным показателем при определении противоправных намерений является вербальное и невербальное поведение человека. При наблюдении за лицом, пересекающем границу, инспектор таможенных органов, в рамках

[74] Jekman P. Psihologija lzhi. SPb.: Piter, 2009. 270 s.

анализа вербальных признаков, должен обратить внимание на тембр и тон голоса, скорость речи, паузы, оговорки, речевые ошибки, различные уловки на прямо поставленные проверочные вопросы, а в рамках невербальных признаков – на позы, жесты и мимику.

Профилирование как процесс решения своеобразной «головоломки» основано на понятии «гомологии преступников», которое предполагает, так или иначе, наличие у преступников имманентного единообразия, которое, как считают сторонники традиционной науки, позволяет сделать логическое, научно обоснованное профилирование. Профиль можно охарактеризовать как совокупность значимых признаков, указывающих на наличие или отсутствие потенциальной связи субъекта (пассажира, посетителя и т.п.) с рассматриваемой угрозой.[75] В этом и заключается умение профилировщика - в каждом конкретном случае понимать и предвидеть действия непредсказуемого, "типологизировать" непредсказуемое и сделать его понятным, демистифицировать его. Для этого, в частности, в профилировании необходимо использовать методы психологии в их прикладном аспекте. Профилирование включает в себя ряд прикладных социально-психологических методик, целью которых является оценка достоверности сообщаемой информации о невербальном поведении человека, так называемая не инструментальная или интегративная детекция лжи или личностных качеств.

Профайлинг основан на том, что большинство людей чувствует дискомфорт, когда лжет. Обманщик прекрасно осознает, что может быть разоблачен и наказан. И скрывать свои истинные чувства тем сложнее, чем масштабнее обман. Поэтому методики профилирования напрямую связаны с психологией. Профайлер замечает жесты, эмоции или микроэкспрессию, которые не может контролировать собеседник, испытывающий психологическое напряжение. Техники профайлинга – безинструментальный метод выявления мошенников и лжецов. Для его результативности профайлер должен разбираться в психологии и фиксировать мельчайшие проявления эмоций собеседника.

Для выявления лиц с противоправными намерениями в профайлинге осуществляемом должностными лицами таможенных органов, широко используются технологии опроса. Приведем пример использования профайлинга в Российской Федерации: в России известна специальная техника опроса пассажиров, суть которой сводится к выстраиванию соответствующего алгоритма и правил задавания вопросов: уместных, контрольных, симптоматичных и нейтральных:

– уместный вопрос задается с целью выявления психологической реакции и сопровождающего его физического проявления;

[75] Kocsis R.N., Palermo G.B. Disentangling Criminal Profiling: Accuracy, Homology, and the Myth of Trait-Based Profiling // International Journal Offender Therapy and Comparative Criminology. 2015. Vol. 59 (1). pp. 313-332.

– контрольный вопрос преследует цель выявить ложный ответ и признаки поведения человека при ложном ответе, с тем чтобы сравнить сходства и различия в реакции;

– симптоматичный вопрос используется, чтобы установить, вызывает ли он напряженную реакцию у лица, пересекающего таможенную границу, разговор на посторонние темы.[76]

Кроме этого нужно отметить что есть и несколько автоматизированных програм профилирования. Одним из них является «Profile Cener». Это автоматизированный профайлинг, который классифицирует характеристики личностей основоваясь на анализе её переписки. Это программное решение, которое применяется для выявления мошеннических действий, прогнозирования и обнаружения деструктивного поведения не только правонарушителей, но и сотрудников в отношении организации. «Profile Cener» позволит управлять кадрами, повышать эффективность работы и просчитывать риски личности для окружающих или компании; узнать, как сотрудники различных подразделений на самом деле относятся к политикам безопасности и службе безопасности; дать достоверную оценку кадров без личных пристрастий и вкусов, истории отношений и другого эмоционального «багажа».

Подводя итог можно сказать что профайлинг является важным аспектом не только в сфере таможенных органов, но и в сфере других правохранительных органов. Профилирование позволяет обнаружить потенциально опасных личностей и предотвратить протевозаконные действия лиц. Это в свою очередь приводит в сфере таможни в первую очередь к понижению незаконного перевоза предметов контрабанды через границы государства, а также приминения профайлирнга в других сферах права приводят к снижению преступности благодаря преждевременным обнаружениям человека с неправомерными намерениями. Для этого нужно создать спец курсы по профайлингу для обучения сотрудников методам профайлинга и внедрить в практику использования автоматизированных профайлинговых систем.

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ФУНКЦИИ РУССКОГО ЯЗЫКА В СОВРЕМЕННОМ ОБЩЕСТВЕ

Аннотация: В настоящей статье рассмотрены вопросы изучения научно-методической литературы, литературных норм, которые стремятся соблюдать всякий культурный человек при выявление основных проблем в изучения русского языка, рассмотрены основные современные подходы принципов обучения русскому языку.

Ключевые слова: язык, общение, наука, принцип, функционирование, многонациональность, средство, профессионально.

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FUNCTIONS OF THE RUSSIAN LANGUAGE IN MODERN SOCIETY

Annotation: This article discusses the issues of studying scientific and methodological literature, literary norms that every cultured person strives to observe when identifying the main problems in learning the Russian language, the main modern approaches to the principles of teaching the Russian language are considered.

Key words: language, communication, science, principle, functioning, multinationality, means, professionally.

В нашей стране с первых лет независимости на уровень государственной политики поднят вопрос развития системы образования, осуществляется большая работа в целях обучения молодого поколения современным знаниям и профессиям в соответствующих мировым стандартам условиях, формирования физически здоровых и духовно зрелых личностей, содействия реализации их талантов и потенциала, воспитания молодежи в духе любви и преданности Родине.

В современном обществе образование выдвигается в число ведущих областей деятельности общества, входит в круг факторов, определяющих будущее страны. Это обусловлено тем, что система образования является основой экономического и социального развития страны. Для развития и процветания нашего государства необходимо формирование интеллектуального потенциала нации, поскольку Узбекистану, вступающему в мировое образовательное сообщество, предстоит стать конкурентоспособным государством.

В нашей стране образованию уделяется большое внимание. Цель образования – воспитание гармонично развитого человека, личность.

В одном из своих выступлений Президент нашей страны Ш.М. Мирзиёев сказал следующие слова: «Но все же самое большое наше богатство - это огромный интеллектуальный и духовный потенциал нашего народа. Мы хорошо знаем и высоко ценим заслуги нашей интеллигенции - деятелей науки и техники, в первую очередь наших уважаемых академиков и профессоров, представителей культуры, литературы, искусства и спорта - в создании и приумножении этого великого потенциала. Всесторонняя поддержка научных изысканий и творческой деятельности этих самоотверженных людей, создание для них необходимых условий должно стать нашей первостепенной задачей».

Цель системы образования - обеспечить право человека на образование. Критерием эффективности деятельности такой системы является уровень образованности граждан - воспитанности и обученности. Право на образование - основное и естественное право человека - реализуется им всю жизнь. С помощью образования возможно максимальное развитие огромного интеллектуального потенциала человека.

Исследуя уровень развития мышления обучаемых, педагоги разрабатывают разнообразные методики для усовершенствования мыслительных процессов и операций, которые находят применение в социально-экономической сфере, обществе в целом, что требует всё более новых и точных знаний об эффективном развитии именно инновационных методов образования. Поэтому, в силу своей глобальности и многогранности, данная проблема по-прежнему остаётся актуальной.

Исследуя уровень развития мышления обучаемых, педагоги разрабатывают разнообразные методики для усовершенствования мыслительных процессов и операций, которые находят применение в социально-экономической сфере, обществе в целом, что требует всё более новых и точных знаний об эффективном развитии именно инновационных методов образования. Поэтому, в силу своей глобальности и многогранности, проблема обучения по-прежнему остаётся актуальной.

В-четвертых, изучение русского языка стимулирует и заметный приток туристов в Западную Европу и другие страны мира. В-пятых, определенную группу учащихся привлекает трудность русского языка. По мнению американских студентов, русский язык для изучения выбирают те, кто любят преодолевать препятствия. Норма, как и все в языке медленно, но непрерывно развивается, она имеет динамический характер.

Постоянное взаимовлияние различных ответвлений русского языка, историческое развитие его системы, а также контакты с другими языковыми системами приводят к вариантности, а затем и изменению норм. Одно и то же явление в разные периоды жизни языка может сначала

быть за пределами нормы, затем стать её частью, а после вновь оказаться вне нормы. Таким образом, язык постоянно отбирает средства выражения, иногда этот выбор в силу различных причин оказывается сделать непросто, и тогда одновременно существуют несколько вариантов нормы. Без преувеличения можно сказать, что вариантность норм является неизбежным спутником развития языка. На том или ином этапе развития языка варианты могут находиться в разных отношениях друг с другом.

Литературный язык в последнее время испытывает активную атаку со стороны бытовой лексики, вторжение иноязычной лексики. Это существовало всегда, и в любой живой язык на протяжении всей истории противостоял таким атакам, умея развиваться и сам себя защищать. Литературная норма всегда предполагает сохранение функционально-стилистически дифференциальных вариантов, потому что любая система тем более устойчива, чем сложнее её структура. Любое чрезмерное упрощение языковой системы может лишь её способности выполнять присущие ей разнообразные функции, вытеснить её из традиционных сфер употребления. [1]

Правильность речи – это ее соответствие литературным нормам, которые стремятся соблюдать всякий культурный человек. Слушатели обычно воспринимают ненормативность как показатель недостаточной образованности, низкого уровня общей культуры говорящего. По вопросу, что такое культура речи, у ученых единого мнения нет. Некоторые лингвисты считают, что культура речи – это умение говорить и писать правильно. Другие утверждают, что культура речи – это способность излагать свои мысли просто, логично, доступно. Третьи – что культура речи сводится к умелому использованию средств выразительности языка. Четвертые – это точность, краткость, и национальная самобытность – главные достоинства нашей речи.

С.И. Ожигов рассматривал вопрос о языковой норме более широко, указывая на то, что «норма – это совокупность более пригодных (правильных, предпочитаемых) для обслуживания общества языковых средств, которая складывается как результат отбора языковых элементов (лексических, произносительных, морфологических, синтаксических) из числа сосуществующих наличествуемых, образуемых вновь или извлекаемых из пассивного запаса прошлого в процессе социальной, в широком смысле, оценки этих элементов». [2]

Одной из первых задач, требующих решения, С.И. Ожигов считает нормализацию произношения. Автор утверждает, что литературная норма общенародного произношения, переживая известные колебания, должна в конечном итоге представлять собой результат развития и совершенствования старой московской нормы. Не менее важная задача в области культуры речи – нормализация ударения. На всем протяжении развития русского литературного языка норма ударения связана с

особенностями взаимоотношений литературного языка с северными и южными народными говорами, а также с влиянием церковно-книжного произношения, это и явилось причиной колебаний в русском ударении.

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САМОВОСПИТАНИЕ ВАЖНЫЙ ФАКТОР В ПРОЦЕССЕ ОБРАЗОВАНИЯ

Аннотация: В статье рассмотрен вопрос решения двуединую задачу: дать систему знаний и обучить их самостоятельному приобретению, как современная школа постоянно обращается сформированию новых, достаточно устойчивых психических качеств. А также мнения о резервах психического развития и самовоспитания.

Ключевые слова: система, знание, обучение, навыки, деятельность.

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SELF-EDUCATION IS AN IMPORTANT FACTOR IN THE PROCESS OF EDUCATION

Annotation: The article deals with the issue of solving a two-pronged task: to give a system of knowledge and teach them to independently acquire it, as a modern school constantly addresses the formation of new, fairly stable mental qualities. As well as opinions about the reserves of mental development, about the possibility of deploying the abilities of the child.

Key words: system, knowledge, learning, skills, activities.

Обучение – педагогический процесс, в котором обучающиеся под руководством учителя получают навыки и опыт по применению систематизированных знаний основ дисциплин. Этот двусторонний процесс, соединяющий в себе деятельность учителя (обучение) и деятельность ученика (изучение). Язык является совершенным средством познавательной деятельности. Обучение языку формирует мировоззрение школьников, включает их в социальную жизнь. Изучение языка развивает интеллект, оно должно быть опережающим по отношению к другим учебным предметам и направленным на овладение речевыми умениями. Говорение и письмо – это устное и письменное выражение мысли. Методика тесно связана с психологией, так как они изучают развитие речи и мышления школьников, а также процессы восприятия учебного материала, его запоминания и воспроизведения. «В методике разрабатываются такие проблемы, в основе которых лежит психологический феномен: формирование умений и навыков

правописания, усвоение языковых понятий, активизация познавательной деятельности учащихся, развитие их познавательных интересов» [3].

Результатами обучения являются получение общего образования, формирование у учеников научного мировоззрения, подготовка их к жизни. Учитель не только должен иметь глубокие знания по правильной научной организации учебного процесса, но и должен знать общие психологические закономерности процесса обучения и усвоения знаний, формировать навыки и умения, развивать мысль.

Если психологические особенности человека во многом играют управляющую роль в его формировании и развитии, то решающую функцию выполняет социальное воспитание человека, условие его проживания, его обучение и воспитание. Специальную роль в психологическом развитии играет обучение и воспитание как «процесс воздействия, отвечающий требованиям общества, целенаправленный процесс воздействия старшего поколения на младшее поколение по пути к сознательной цели» [1]. Психологи обоснованно признают тот факт, что человек, являясь активным существом, может сам сознательно изменять собственную личность, то есть может заниматься собственным воспитанием [4]. Но самовоспитание не может вестись в отрыве от окружающей среды. Этот процесс происходит при активном взаимодействии с окружающим миром. При учебно-воспитательной работе учитывание определённых душевных особенностей ребёнка даёт учителю возможность пользоваться такими педагогическими методами и средствами, которые соответствуют возрастным требованиям и возможностям ребёнка. Психологи отметили характеристику умственного развития как его критерии:

1. Скорость усвоения материала или темп его восприятия;
2. Сжатость мышления, определяемого количеством обдумываний.
3. Уровень аналитико-синтетической деятельности;
4. Приёмы переноса умственной деятельности, сформулированной в другом объекте, на основе изучения одного объекта.
5. Уметь самостоятельно систематизировать и обобщать полученные знания.

Обучение каждому предмету должно быть построено так, чтобы оно дало максимальную пользу умственному развитию учеников. Очень важное значение имеет создание у учеников мастерства систематизировать и обобщать получение по предмету знаний, умение самостоятельно работать с разными литературными источниками, сравнение фактов, полученных из разных пособий, по одному или другому вопросу [4]. Целевая направленность научно-творческих способностей студентов на основе усвоенных знаний, требует от каждого педагога большого опыта, научного потенциала творения. Значит, в целях повышения мыслительной активности учащихся мы должны проводить каждое занятие не просто так,

а с установкой, что мы готовим грамотных специалистов с высшим интеллектуальным потенциалом, являющихся нашим будущим и опорой, продолжателем общества.

При развитии самовоспитания учащихся первостепенное значение имеет организация занятия. В этом случае всё мастерство и талант учителя заключается в применении новых педагогических технологий на уроке, в творческом подходе к учебному материалу. Важная задача – «реализация общего среднего образования детей и молодёжи, отвечающей требованиям современного общества и научно-технологического прогресса, вооружение учащихся глубокими и самостоятельными знаниями по основам дисциплин, пробуждение стремления у них к непрерывному совершенствованию своих знаний и умений, подготовка учащихся к активной трудовой и общественной деятельности, сознательному выбору профессии» **[**8].

Характерной особенностью интереса к знаниям является то, что он имеет интеллектуальный характер: вызывающий интерес субъект помогает определить новые стороны предмета, открыть значение наблюдаемых событий, понять причинно-следственные связи. Если учитель сумеет пробудить в ученике интерес к своему предмету, то у учащихся появляется возможность для самостоятельных творческих работ; они будут стремиться к знаниям, решению трудностей на пути к получению знаний **[**9].

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ХАЛҚ ОҒЗАКИ ИЖОДИ НАМУНАЛАРИ МАТНИНИНГ ЛИНГВИСТИК ТАДҚИҚИ ҲАҚИДА

Аннотация: Ушбу мақолада ўзбек халқ оғзаки ижоди намуналарига бағишланган статистик қатор лексикографик кузатишлар ва лингвофольклористик тадқиқотлар, улар асосида тузилган бир қатор луғатлар ва уларнинг достон тилини ўрганишдаги аҳамияти хусусида фикрлар баён этилган.

Калит сўзлар: Тилшунослик, лисоний бирлик, миллат, жамият, халқаро, маданият, халқ оғзаки ижоди.

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ON THE LINGUISTIC STUDY OF THE TEXT OF SAMPLES OF FOLK'S ORAL CREATION

Annotation: This article presents a series of statistical lexicographical observations and lingvofolkloristic studies on examples of Uzbek folklore, a number of dictionaries based on them and their importance in the study of the epic language.

Keywords: Linguistics, linguistic unity, nation, society, international, culture, folklore.

Сўнгги йилларда ўзбек тилшунослигида халқ оғзаки ижоди намуналарига бағишланган статистик қатор лексикографик кузатишлар ва лингвофольклористик тадқиқотлар яратилди. Хусусан, Т.Мирзаев, Ж.Эшонқул, С.Фидокорларнинг “Алпомиш” достонининг изоҳли луғати **[**Мирзаев Т., Эшонқул Ж., Фидокор С, 2007: 162], Д.Ўринбоеванинг “Ўзбек халқ достонлари тилининг частотали луғати” **[**O‘rinboyeva D, 2006: 244], Д.Ўринбоева ва У.Умурзоқовнинг “Ўзбек халқ достонлари тилининг алфавит-частотали луғати” **[**O‘rinboyeva D., Umurzoqov U, 2006: 395], Б.Йўлдошев, Д.Ўринбоеванинг “Ўзбек халқ достонларининг частотали-изоҳли фразеологик луғати” **[**B.Yo’ldoshev, D.O’rinboyeva, 2008: 100], Б.Ўринбоев, К.Бозорбоевнинг “Алпомиш” достони фразеологизмларининг таъбири” **[**Б.Ўринбоев, К.Бозорбоев, 1998: 40], Г.Жуманазарованинг **“**Фозил Йўлдош ўғли “Ширин билан Шакар” достонининг изоҳли луғати” **[**Г.Жуманазарова, 2007], Н.Хаджимусаеванинг “Орзигул” достони

тилининг луғати” [Хаджимусаева Н, 2012: 387] каби ишларини тилга олиш мумкин.

Т.Мирзаев, Ж.Эшонқул, С.Фидокорларнинг “Алпомиш” достонлари асосида тузган луғатида, хусусан, Фозил Йўлдош ўғли ва бошқа халқ бахшилари томонидан куйлаган версияларида қўлланилган, аммо адабий тилимизда кам учрайдиган ёки умуман учрамайдиган, айрим маънолари унутилган лисоний бирликларнинг изоҳи келтирилганлиги билан илмий ва амалий аҳамиятга эга бўлган лексикографик тадқиқот бўлиб, унда 1157 та сўзнинг изоҳи берилган.

Худди ана шу тартибдаги изоҳли луғатлар ўзбек халқ достонларининг ҳар бири асосида яратилиши лозим, деган фикрда бўлган Г.Жуманазарова ҳам Фозил Йўлдош ўғли “Ширин билан Шакар” достонининг изоҳли луғати”ни тузган ва бу луғат 311 та сўзнинг изоҳини ўз ичига олади.

Сўнгги йилларда ўзбек лингвофольклористик луғатчилигида замонавий компьютер дастурларидан самарали фойдаланиш борасида Д.Ўринбоева, Г.Жуманазарова, Н.Хаджимусаева, А.Эшмуродовлар салмоқли ишлар қилди. Дастлаб Д.Ўринбоева халқ достонлари матнини лингвостатистик таҳлил этиш ва шу асосда луғатларга муайян даражада тартиб бериш ишини биринчи бўлиб амалга оширди, қилган ишларнинг амалий натижаси сифатида иккита луғат нашр этди. [O ‘rinboyeva D, 2006] Биринчи луғат, яъни “Ўзбек халқ достонлари тилининг частотали луғати” учун “Алпомиш”, “Равшан”, “Рустамхон” достонлари матни материал вазифасини ўтаган. Ушбу матнлар асосида замонавий комьпютер дастурлари ёрдамида 28499 марта қўлланган 19274 та луғавий бирликни қамраб олган сўзшакллардан иборат ҳар бир достоннинг алоҳида частотали ва алфавитли-частотали луғатлари тузилган. Луғат маълумотига кўра, “Алпомиш” 14029, “Равшан” 7059, “Рустамхон” 7411 сўзшакллардан ташкил топган.

Достонлар матнида бир марта қўлланган сўзлар частотаси юқори кўрсаткични ташкил этади. Масалан, «Алпомиш» да – 7476 ва 53,3%, «Равшан» да – 4303 ва 60,9%. Шунингдек, 1дан 10гача бўлган сўзлар – 5262 (37,5%) ва 2388 (33,8%); 10дан 90гача – 1179 (8,4%) ва 319 (4,5%); 90дан 1000гача – 112 (0,79%) ва 14 (0,19) ни ташкил этиши маълум бўлган. Бир мартадан қўлланган сўзларнинг асосий қисмини от ва феъллар ташкил этган.

Б.Йўлдошев, Д.Ўринбоеванинг “Ўзбек халқ достонларининг частотали изоҳли фразеологик луғати” [B.Yo‘ldoshev, D.O‘rinboyeva, 2008: 100] ўзбек тилшунослигида яратилган фольклор асарлари тилининг, хусусан, фразеологик луғатининг дастлабки тажрибадаги илк намунаси дейиш мумкин. Луғатни яратишда муаллифлар Фозил шоирнинг “Алпомиш”, “Рустам” ва Эргаш Жуманбулбул ўғлининг “Равшан достонлари матнини (жами: 28499 та сўзшаклни) асос қилиб олган. Ҳар

бир достоннинг умумий матн ҳажми хилма-хил: “Алпомиш”да – 14029, яъни 49,2% ни; “Равшан” достони – 7059, яъни 24,7% ни; “Рустам” достони – 7411 сўзшакли 26,2 % ни ташкил этади. Матнларни қайта текшириш жараёнида муаллифлар мазкур матнларда жами 1041та фразеологик бирликлар қўлланганлигини, улар халқ достонлари матнида 1641 марта қайтарилганлигини аниқлаганлар. Муаллифлардан Д.Ўринбоеванинг ахборот беришича, “Алпомиш” достонида қайталаниш частотаси 2007 сўзшаклида бўлиб, умумий танлама ҳажмининг 14% ни, “Равшан” достонида 534 сўзшакли умумий танлама ҳажмининг 7,5% ни, “Рустам” достонида 647 сўз шакли умумий танлама ҳажмининг 8,7% ни ташкил этган. **[**Ўринбоева Д, 2007: 87-90].

Мазкур луғат муаллифларнинг улкан ютуғи шундаки, объект сифатида танланган достонлардаги фразеологик бирликларнинг натижаларини Ш.Раҳматуллаевнинг тилшунослигимизда машҳур луғати **[**Раҳматуллаев Ш, 1978: 408] билан солиштирилган, фақат учта достон матнида қўлланилган 189 та ибораларнинг таъкидланган луғатда учрамаганлигини аниқлаган. Тузилишига кўра икки қисмдан иборат бўлган бу луғатнинг дастлабки қисмида ўзбек халқ достонлари матнида фразеологизмларнинг қўлланиш частотаси қиёсий йўналишда алифбо тартибида берилган бўлса, кейинги қисмида достонлар матнидаги фразеологизмларнинг қисқача изоҳли луғати ўрин олган. Табиийки, фразеологик бирликларнинг лингвостатистик аспектда бундай тартибда тадқиқ этилиши тилшунослигимизда фольклор тили билан боғлиқ бўлган барча назарий ва амалий масалаларни ҳал этишда бу луғатнинг илмий-амалий аҳамияти жуда катта.

Г.У.Жуманазарованинг докторлик диссертациясида **[**Жуманазарова Г, 2017: 73] Фозил Йўлдош ўғли куйлаган “Балогардон”, “Баҳром ва Гуландом”, “Зевархон”, “Лайли ва Мажнун”, “Малика айёр”, “Нурали”, “Рустамхон”, “Фарҳод ва Ширин”, “Ширин билан Шакар” достонлар лексик-семантик, лингвостилистик ва лингвостатистик жиҳатдан таҳлил этилган. Муаллифнинг диссертациясида ва эълон қилган асосий ишларида **[**Жуманазарова Г.У, 2011: 72] қўйилган вазифалар тўла-тўкис амалга оширилган, тадқиқотнинг илмий янгилиги сифатида қуйидагиларни таъкидлаш лозим: достонлар тилидаги сўзларнинг тарихий-этимологик ва функционал-мазмуний хусусиятлари очиб берилган; достонларнинг электрон матни асосида лекскографик манбалари (сўзлик, алфавитли, частатали, терс (чаппа) ва изоҳли луғатлар) яратилган; достонлар матнидаги фонетик, лексик-грамматик қурилишидаги бирликларнинг қўлланилиш миқдори аниқланган; достонлар тили лингвопоэтикасини аниқлаш орқали услубий формулаларнинг тузилмавий-поэтик табиати ва лексик-стилистик қатламларнинг семантикаси асосланган, ибораларнинг тузилмавий-семантик ва коннотатив маъноларидаги ўзига хосликлар очиб берилган. Шунингдек, Г.Жуманазарованинг диссертациясида ва

тадқиқотларида таҳлилга жалб этилган достонлар қаҳрамонлари нутқидаги норасмий, халқчил унсурлар (сўкиш, қарғиш ва ҳақоратли сўзлар) нинг матндаги лингвопоэтик хусусиятлари асослаб берилган. Энг муҳими, достонлар тилидаги ўхшатишларнинг тузилмавий-семантик ва поэтик табиати, сифатлаш, метафора, метонимия ва ибораларнинг лингвопоэтик имкониятлари аниқлаб берилган, бадиий-эстетик қиммати лисоний далиллар асосида очиб берилган.

Хулоса қилиб айтганда, ўзбек тилшунослигида халқ оғзаки ижоди намуналарига бағишланган статистик, лексикографик кузатишлар ва лингвофольклористик тадқиқотлар яратилганлиги шу соҳада қилиниши керак бўлган бир қатор илмий изланишларга муҳим манба бўлиши шубҳасиз.

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РЕГУЛИРОВАНИЕ НИТЕЙ ОСНОВЫ НА ТКАЦКИХ СТАНКАХ

Аннотация: В статье изложены кинематическая и ди намические модели привода вращения навоя, обеспечивающие снижение изнурительного разрушения нитей основы при зевообразовании.

Ключевые слова: Натяжения нитей основы, зевообразования, деформация нитей

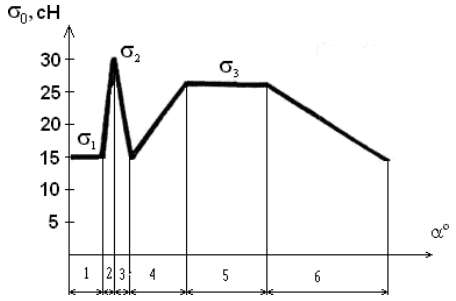
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REGULATION OF WARP THREADS ON LOOMS

Annotation: The article presents kinematic and dynamic models of the navoi rotation drive, which reduce the debilitating destruction of the warp threads during yawning.

Keywords: Tension of the warp threads, gaping, deformation of the threads.

Многочисленные эксперименты по измерению натяжения нитей основы за один оборот главного вала для наиболее массовых на предприятиях Узбекистана ткацких станков MST910 показывают значительные колебания этого параметра.



Как видно из графика изменение натяжение нитей формулируется двумя участками.

- с постоянным напряжением: □(t) □ □$_1$ □ const,
- с постоянной скоростью нагружения: □(t) □ □$_1$ □ vt,

где □(t) – напряжение нити в момент времени t; □$_1$ – постоянное напряжение нити; v – скорость изменения напряжения нити; t – время нагружения нити.

Напряженно-деформированное состояние нитей основы на ткацком станке за

один цикл можно оценить, используя критерий длительной прочности, основанный на формулах С.Н. Журкова и Бейли. Для участка с постоянным напряжением нити коэффициент повреждаемости определяется по формуле:

для участка с постоянной скоростью нагружения нити – по формуле:

Общая повреждаемость основы за оборот главного вала: □1Ц □ □□0 □ □□ПР

а общая повреждаемость нитей основы на ткацком станке: □ □ □ 1Цn

где n – количество циклов, которые испытывает основа на ткацком станке;

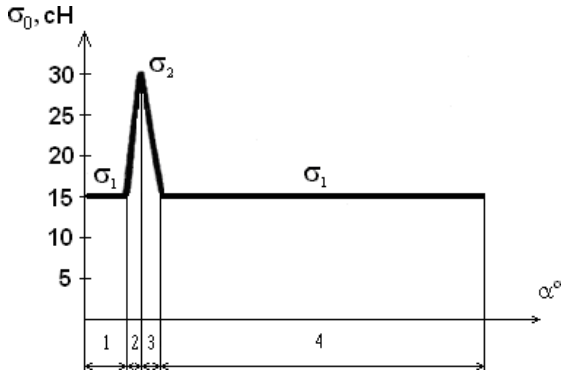
□0 - напряжение нити; T –температура по шкале Кельвина; R – постоянная Больцмана; □0–период тепловых колебаний атомов в твердом теле около положения равновесия; U_0 –энергия активации при разрушении тела; j –структурный коэффициент; t [□(□)] –время, в течение которого образец находится под нагрузкой; в случае изменения напряжения по какому-либо закону – величина, определяемая экспериментально. Расчет напряженности заправки ткацкого станка по зонам тензограммы, соответствующим процессам формирования ткани – зевообразованию, прибою и т.д., приведен в табл.

$$\eta_0 = \int_0^{t_0} \frac{dt}{\tau_0 e^{\left[\frac{U_0 - j\sigma_0}{RT}\right]}} = \frac{t_0}{e^{\left[\frac{U_0 - j\sigma_0}{RT}\right]}}$$

$$\eta_0 = \int_0^{t_{ПР}} \frac{dt}{\tau_0 e^{\left[\frac{U_0 - j(\sigma_0 + vt)}{RT}\right]}} = \frac{e^{\left[\frac{jvt_{ПР}}{RT}\right]} - 1}{\tau_0 e^{\left[\frac{U_0 - j\sigma_0}{RT}\right]}} \frac{RT}{jv}.$$

1	$4{,}093 \cdot 10^{-6}$	0,021
2	$3{,}187 \cdot 10^{-6}$	0,017
Номер зоны	Повреждаемость за один оборот	Повреждаемость за период нахождения под нагрузкой
3	$3{,}186 \cdot 10^{-6}$	0,017
4	$2{,}832 \cdot 10^{-5}$	0,148
5	$3{,}748 \cdot 10^{-4}$	0,197
6	$4{,}025 \cdot 10^{-4}$	0,212
Итого	$1{,}165 \cdot 10^{-4}$	0,613

Частота вращения главного вала ткацкого станка равна 240 об/мин. Величина угла заступа равнялась 40° оборота главного вала; заправочное натяжение 16 сН; натяжение при прибое 30 сН; натяжение основы при полном открытии зева 28 сН. Наибольшая величина повреждаемости нитей основы приходится на процесс зевообразования, несмотря на то, что натяжение нитей в этот период меньше, чем при прибое уточной нити к опушке ткани. То есть, более интенсивное разрушение нити происходит не тогда, когда она испытывает максимальные напряжения и деформации. При оценке степени разрушения существенную роль играет время разрушения. В данном случае процесс зевообразования оказывает значительно большее влияние, так как он более длительный по сравнению с процессом прибоя. Поскольку снижение натяжения в момент прибоя отрицательно скажется на качестве ткани, целесообразно реализовать кинематику ткацкого станка такой, чтобы в период зевообразования натяжение нитей основы снижалось, по крайней мере, до заправочного. Следовательно, желаемой можно считать зависимость (t), представленную на рис.



Динамика привода ткацкого навоя в момент зевообразования должна обеспечивать отпуск основы на величину открытия зева. Определим абсолютную деформацию нитей основы. При отсутствии компенсации со стороны регулятора она равна

$$\lambda = \sqrt{\ell_1^2 + h^2} + \sqrt{\ell_2^2 + h^2} - (\ell_1 - \ell_2),$$

нижней где h – высота верхней или части зева. Подкоренные выражения можно разложить в ряд Маклорена. Взяв два первых члена ряда, получим:

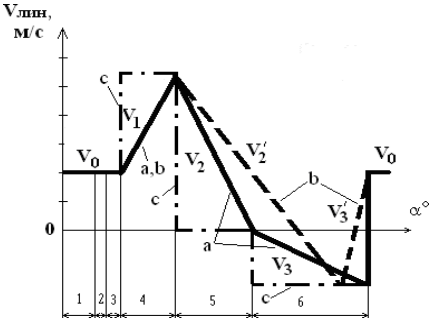
$$\lambda = \ell_1 \sqrt{1 + \frac{h^2}{\ell_1^2}} + \ell_2 \sqrt{1 + \frac{h^2}{\ell_2^2}} - (\ell_1 + \ell_2) = \frac{h^2 L}{2\ell\ell_{1\,2}}.$$

Для компенсации деформации нитей вперiод зевообразования навой должен совершать возвратно-вращательное движение по законам "a", "b" или "c". Исходя из предложенного закона и длительности фаз тканеобразования определяются динамические характеристики, предъявляемые к электроприводу и составляется программа управления

им. Например, для варианта "с" скорость "доворота" навоя для отпуска основы должна составить

$$V_1 = \frac{\lambda}{t_4},$$

а скорость обратного хода – для натяжения основы



Реализация такого закона натяжения возможна с использованием автономного регулируемого электропривода навоя вместо существующих основных регуляторов. Векторное управление двигателем переменного тока с параметрами (7) с помощьюпроекции тока статора i_{1d} обеспечит потокосцепление ротора, а с помощью проекции i_{1q} можно независимо и безынерционноуправлять частотой ротора ω_2

$$\psi_{2d} = i_{1d}\frac{L_m}{(1+pT_2)}, \quad \omega_2 = i_{1q}\frac{L_m}{T_2\psi_{2d}},$$

где T_2 – постоянная времени ротора; L_m – основной магнитный поток

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СПОРНЫЕ И НЕРЕШЕННЫЕ ВОПРОСЫ ДИАГНОСТИКИ И ИНТЕНСИВНОЙ ТЕРАПИИ ВЕНТИЛЯТОР-АССОЦИИРОВАННОЙ ПНЕВМОНИИ У БОЛЬНЫХ С ОСТРЫМ НАРУШЕНИЕМ МОЗГОВОГО КРОВООБРАЩЕНИЯ (ОБЗОР ЛИТЕРАТУРЫ)

Аннотация. Сосудистые заболевания головного мозга являются важнейшей медико-социальной проблемой в целом, и для анестезиологии-реаниматологии в частности, в связи с их большой распространенностью, высокой смертностью и высокой степенью инвалидизации. Каждый год от инсульта погибает около 6 миллионов человек, больше чем от СПИДа, туберкулеза и малярии. Минимальная летальность от инсульта составляет 21,2 %, а максимальная - 62,25%, наиболее высокая наблюдается при кровоизлияниях (от 31,3 % до 80,0 %). Показатель заболеваемости инсультами в России растет ежегодно на 10,9 % (с 450 до 499 на 100 тыс. населения). Летальность в первые 30 дней от момента развития ОНМК варьирует по данным разных авторов от 10 % при ишемическом инсульте, до 42 % - при субарахноидальном кровоизлиянии и 52 % - при внутримозговых гематомах. В последние годы, благодаря эффективной и своевременной нейрореанимационной и нейрохирургической помощи, больные с массивными сосудистыми поражениями мозга все чаще переживают острейший период, и неврологические осложнения инсульта во многих случаях уже не определяют тяжесть состояния больных и летальный исход.

Ключевые слова: вентилятор-ассоциированная пневмония, нейрореанимация, нейрохирургической помощи, острым нарушением мозгового кровообращения.

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CONTROVERSED AND UNRESOLVED ISSUES IN THE DIAGNOSTICS AND INTENSIVE THERAPY OF VENTILATION-ASSOCIATED PNEUMONIA IN PATIENTS WITH ACUTE CEREBRAL CIRCULATION (REVIEW OF THE LITERATURE)

Abstract. Vascular diseases of the brain are the most important medical and social problem in general, and for anesthesiology and resuscitation in particular, due to their high prevalence, high mortality and high degree of disability. About 6 million people die each year from a stroke, more than from AIDS, tuberculosis and malaria. The minimum mortality from stroke is 21.2%, and the maximum is 62.25%, the highest is observed with hemorrhages (from 31.3% to 80.0%). The incidence rate of strokes in Russia is growing annually by 10.9% (from 450 to 499 per 100,000 population). Mortality in the first 30 days from the moment of stroke development varies according to different authors from 10% for ischemic stroke, up to 42% for subarachnoid hemorrhage, and 52% for intracerebral hematomas. In recent years, thanks to effective and timely neuroreanimation and neurosurgical care, patients with massive vascular lesions of the brain are increasingly experiencing an acute period, and neurological complications of stroke in many cases no longer determine the severity of the patient's condition and death.

Key words: ventilator-associated pneumonia, neuroresuscitation, neurosurgical care, acute cerebrovascular accident.

По данным разных авторов частота развития пневмонии при инсульте составляет от 5% до 56,6%. Инсульт-ассоциированная пневмония является важным фактором, приводящим к увеличению летальности и повышению степени инвалидизации. По данным одних российских исследователей «влияние таких осложнений острого периода инсульта, как пневмония незначительно в связи с небольшим числом таких осложнений», по мнению других - «развитие тяжелых форм пневмонии обусловливает летальный исход у 5 % больных, переживших период неврологических осложнений» и «возникает у половины больных и в 14 % случаев является основной причиной смерти». Данные опубликованные V.

Hanna et a1. свидетельствуют о высокой частоте развития нозокомиальной пневмонии после инсульта в отделениях нейрореанимации - до 56,6 %. Высокая заболеваемость ВАП у пациентов с инсультами характерна и для больных находящихся в отделениях общей реанимации - до 50 %, инсультных блоках - до 44 %, смешанных отделениях - до 23,8% и отделениях реабилитации - до 11%.

Присоединение вентилятор-ассоциированной пневмонии у больных с ОНМК, по данным одних авторов, приводит к 3-х кратному увеличению летальности, по данным других авторов - 30-дневняя летальность у пациентов с пневмонией была 26,9 % (171/635), а без присоединения пневмонии - 4,4 %.

При проведении интенсивной терапии больным с жизнеугрожающим инсультом часто используется искусственная вентиляция легких. Показаниями для начала ИВЛ у больных с нарушениями мозгового кровообращения являются: снижение уровня сознания до комы, нарушения проходимости дыхательных путей, проявления дыхательной недостаточности, отсутствие стволовых рефлексов и проведение ангиографических или хирургических операций, неврологическими критериями были отсутствие или кратковременное открытие глаз на стимуляцию ногтевого валика, 8 и менее балов по Шкале Ком Глазго, особенно при появлении дилатации зрачка. Количество больных с ОНМК, которым требуется проведение ИВЛ, по данным различных авторов, составляет 10% от всего числа инсультных больных. Уровень летальности больных с ОНМК, которым проводилась ИВЛ, составляет от 46 % до 75 %. По данным других исследователей прогноз у данной категории больных еще более неблагоприятен, и летальность может достигать от 49% до 93%. Уровень летальности у больных, которым проводилась ИВЛ, зависит не только от факторов, которые присутствоВАПи при начале ИВЛ, но и от развития осложнений и той терапии, которую получал больной в отделении интенсивной терапии.

Нозокомиальной пневмонией, связанной с ИВЛ, считается пневмония, клинико-рентгенологические признаки которой появились не ранее, чем через 48 часов после интубации трахеи и начала проведения ИВЛ в отсутствие признаков пневмонии на момент интубации. Диагностика ВАП основывается на основании критериев, предложенных международными и отечественными рекомендациями.

Одним из первых терминов, указывающим на особенности развития пневмоний у больных с инсультами, было появление термина постинсультная пневмония, который был предложен S. Teramoto. Дальнейшее развитие данная концепция получила в 2003 году, когда R. Hilker et al. впервые предложили термин «инсульт-ассоциированная пневмония». К инсульт-ассоциированной пневмонии они предложили относить пневмонии, которые развиваются у инсультных больных в сроки

не ранее чем через 72 часа от момента поступления в больницу. Другая классификация разделяет пневмонии у инсультных больных на острые - развивающиеся в течение первого месяца от момента инсульта, и хронические - развивающиеся в сроки более 1 месяца.

Среди факторов риска более высокой летальности для реанимационных больных с ВАП указывают на возраст больного, наличие коморбидных заболеваний, наличие ОРДС, органной дисфункции. Для больных с политравмой факторами развития ВАП являются длительная ИВЛ (более 72 часов), тяжесть состояния по APACHE II > 15 баллов, нарушение функций ЦНС (3-7 баллов по шкале Глазго), аспирация желудочного содержимого, неадекватная стартовая антибактериальная терапия. В исследовании 2013 года, посвященному установлению факторов риска возникновения ВАП у больных хирургического профиля, находящихся в отделениях интенсивной терапии, было установлено, что факторами риска являются наличие диабета, иммуносупрессия, более тяжелое состояние по шкале APACHE II, длительно проводимую ИВЛ, наличие открытых ран.

Общие принципы интенсивной терапии у больных с ОНМК. Своевременное начало адекватной антибактериальной терапии является основным в лечении вентилятор-ассоциированной пневмонии, так как даже кратковременная отсрочка с началом адекватной антибактериальной терапии ведет к увеличению летальности. M. Iregui et al. обнаружили, что у пациентов, у которых начало адекватной антибактериальной терапии было отложено на 16 часов, летальность была 69,7 % против **28,4% в** случае своевременного назначения терапии. По мнению A. Kumar et al. при промедлении с антибактериальной терапией в первые 8 часов летальность увеличивается на 7,6 % каждый час.

Наиболее часто неадекватность антибактериальной терапии заключается в назначении антибиотиков, к которым отмечается резистентность возбудителей пневмонии. Наиболее часто антибиотикорезистентными микроорганизмами являются Pseudomonas aeruginosa и метициллин-резистентный Staphylococcus aureus, но в ряде клиник отмечается и резистентность штаммов Acinetobacter и Klebsiella. При решении вопроса о выборе антибиотика надо основываться на наличии факторов риска возможности у больного мультирезистентной патогенной флоры и антибиотикограммами, характерными для данного медицинского учреждения.

Известно, что факторами риска наличия полирезистентной флоры являются: терапия антибиотиками в течение ближайших 90 дней; наличие госпитализаций в предшествующие 90 дней; длительность последней госпитализации 5 суток; длительность ИВЛ более 7 суток; проведение диализной терапии; наличие сестринского ухода на дому; иммуносупрессивная терапия или заболевание; высокая частота

антибиотикорезистентности у населения или в отделениях реанимации и интенсивной терапии.

Также, такие факторы, как длительность ИВЛ и длительность госпитализации, проведение предшествующей антибактериальной терапии, являются более важным для развития ВАП.

Согласно рекомендациям American Thoracic Society, Infectious Diseases Society of America, когда имеются риски развития мультирезистентной флоры, стартовая антибактериальная терапия должна начинаться с назначения 3-х антибиотиков: 2-х антибиотиков из различных классов активных в отношении P. aeruginosa и 3-го активного в отношении MRSA и быть обосновано результатами локальных антибиотикограмм. В то же время, есть данные, согласно которым, оптимальным является деэскалационный подход к назначению антибактериального препарата - чаще всего карбапенема - с последующим переходом на антибиотики более узкого спектра.

Для большинства пациентов с ВАП длительность антибактериальной 7 дневной терапии так же эффективна, как и 14 дневной, при условии адекватности начальной эмпирической антибиотикотерапии. Хотя в случае, когда ВАП вызвана P. aeruginosa данных об оптимальной длительности антибактериальной терапии недостаточно. Когда имеется хороший клинический эффект на первичную антибактериальную терапию и флора из нижних отделов респираторного тракта чувствительна к начальной терапии, возможен переход через 3 суток на более простую схему антибиотикотерапии. В определенных случаях, ориентируясь на полученные данные об уровне антибиотикорезистентности возбудителей нозокомиальной пневмонии, есть рекомендации, что в отношении синегнойной палочки оптимальным антибиотиком является имипенем; антибиотиком выбора против золотистого стафилококка служат ванкомицин и рифампицин. Респираторная поддержка является неотъемлемой частью терапии больных с вентилятор-ассоциированными пневмониями. В тоже время работ, посвященных вопросу ИВЛ у инсультных больных с ВАП, достаточно немного, нет и рандомизированных исследований, посвященных данному вопросу. Рекомендации авторов касаются в большей степени основных принципов проведения ИВЛ у больных с острой церебральной недостаточностью и принципов проведения ИВЛ у общереанимационных больных при развитии ВАП.

Основным при проведении ИВЛ у больных с острой церебральной недостаточностью считается поддержание нормовентиляции с уровнем $PaC0_2$ в пределах 35-40 ммрт. ст. Ряд авторов у больных с острой церебральной недостаточностью рекомендует при проведении ИВЛ применять режим VC, другие не видят разницы в использовании режимов ИВЛ между контролируемыми по объему или по давлению. Более позднее

исследование различных режимов вентиляции показало, что у больных с геморрагическим инсультом в острый период заболевания параметры респираторной поддержки, механические свойства легких и газовый состав крови не имели значимых различий при различных методах ИВЛ (с контролем по объему и с контролем по давлению). Общим принципом выбора режимов вентиляции является применение вспомогательных режимов при вентиляции больных, которые доступны контакту, но требуют протекции дыхательных путей и контролируемых режимов при наличии комы и/или внутричерепной гипертензии. Параметры ИВЛ, которые рекомендуют достигнуть при проведении ИВЛ, по мнению большинства врачей, должны составлять: дыхательный объем 6-8 мл/кг, давление плато менее 30 см вод. ст. и PEEP - 5-10 см вод. ст., хотя и не все придерживаются данных взглядов. Также существуют общие рекомендации, что при развитии нарушений оксигенации вследствие развития пневмонии, ОРДС, нейрогенного отека легких должны быть использованы специальные режимы ИВЛ - вентиляция по давлению, инверсия соотношения вдоха к выдоху, применение высоких цифр PEEP.

Наличие пневмонии, как прямого фактора повреждающего легочную ткань, так и вторичного повреждения за счет системной воспалительной реакции может привести к развитию ОРДС, который проявляется гипоксемией, снижением растяжимости легких, появлением при рентгенографии легких 2-х сторонних инфильтратов при отсутствии признаков перегрузки левого предсердия (давление заклинивания менее 18 мм рт. ст.. Появление медиаторов воспалительного ответа у данной категории больных связано не только с повреждением головного мозга, но и с самими режимами вентиляции. Использование режимов ИВЛ, направленных на достижение гипокапнии до уровня $PaC0_2$ 30-35 ммрт. ст., может потребовать применение дыхательного объема более 6-8 мл/кг, что может привести к развитию VILI (вентилятор- ассоциированного повреждения легких) — состоянию аналогичного ОРДС. Этиология VILI связана с перераздутием легких во время ИВЛ (волюмотравма), процессами рекрумента-дерекрумента спавшихся альвеол (ателектатравма) и активации медиаторов воспаления (биотравма).

Таким образом, основным направлением интенсивной терапии ВАП согласно большинству литературных источников, считают своевременно начатую адекватную деэскалационную антибактериальную терапию, а также использование режимов ИВЛ, обеспечивающих минимально повреждающее действие на легочную ткань. В качестве стартовых препаратов целесообразно использовать карбапенемы, защищенные цефалоспорины, при наличии MRSA - ванкомицин.

Оценка эффективности антибактериальной терапии вентилятор-ассоциированной пневмонии. Согласно мнению ряда авторов эффективность антибактериальной терапии должна оцениваться через 72

часа от момента начала антибактериальной терапии. Считается, что антибактериальная терапия неэффективная, если отмечается хотя бы один из данных критериев: нет повышения PaO2; сохраняется лихорадка более 38,0 °С или снижение температуры менее 35,5 °С наряду с наличием гнойного трахеобронхиального секрета; нарастание инфильтрации легочной ткани на 50 %; развитие септического шока или развитие синдрома полиорганной недостаточности по 3 и более системам, которая отсутствовала в 1 день.

Биомаркеры являются многообещающим инструментом не только в рамках диагностики развития ВАП, но и для дальнейшего контроля над эффективностью проводимой антибактериальной терапии. Прокальцитонин является прогормоном, который, наиболее вероятно, секретируется в нейроэндокринных клетках легких и кишечника при развитии ССВР. В нескольких исследованиях была изучена динамика прокальцитонина при развитии ВАП у пациентов в отделениях реанимации общего профиля и больных после остановки кровообращения. Чувствительность при определении ПКТ в данных исследованиях варьировала от 41 % до 100 %, хотя в двух исследованиях она достигала 97 %-100 %. **F. Duflo** e1 a1. на результатах обследования 98 больных делают вывод о том, что уровень прокальцитонина в плазме, а не в альвеолярном лаваже, должен применяться при диагностике ВАП.

Исследование динамики ПКТ при назначении антибактериальной терапии у больных с сепсисом продемонстрировало, что происходит снижение длительности антибактериальной терапии без развития неблагоприятных эффектов по сравнению со стандартной терапией.

С-реактивный белок является неспецифическим биологическим маркером воспаления, синтез которого происходит в печени. В ответ на инфекцию происходит быстрое нарастание синтеза С-реактивного белка и такое же быстрое снижение при коррекции инфекционного процесса [140; 141]. В работе L. M. Coelho et al., было показано, что его определение полезно для выявления больных с возможным неблагоприятным исходом и подбору антибактериальной терапии в течение 1 недели заболевания. А. В. Коньков делает выводы о том, что диагностическая значимость ГОСТ и С-реактивного белка одинакова. M. F. Engel et al. в обзорной работе, опубликованной в 2012 году, подвергнув анализу 13 статей, посвященных проблеме антибиотикотерапии при инфекции нижних дыхательных путей, ориентированной на уровень С-реактивного белка, заключается, что данный вид терапии имеет ограниченное применение, является разноречивым; и ориентация на С-реактивный белок не может быть решающим фактором.

Результаты при оценке уровня С-реактивного белка в жидкости, полученной при бронхо-альвеолярном лаваже дали большой разброс, как по чувствительности, так и по специфичности. Большое количество, как

недостоверных отрицательных результатов, так и большое количество недостоверных положительных результатов было получено и в исследовании P. Pövoa et al.

Таким образом, основными критериями эффективности антибактериальной терапии могут являться как положительная динамика клинических данных, так и изменения со стороны биомаркеров воспаления - снижение уровня С-реактивного белка и прокальцитонина.

Методы профилактики ВАП у больных с ОНМК. Согласно литературным данным мероприятия направленные на профилактику ВАП могут быть разделены на 2 основные группы: фармакологические и нефармакологические.

К нефармакологическим методам относятся: предпочтение оротрахеальной интубации перед назотрахеальной; проведение мониторинга давления в манжетке интубационной трубке; проведение аспирации секрета из надманжеточного пространства; своевременная экстубация; предупреждение повторных интубаций; проведение неинвазивной вентиляции легких (НВЛ); применение ранней трахеостомии; использование дыхательных фильтров; проведение рутинной смены дыхательных контуров; согревание вдыхаемой воздушно-кислородной смеси; использование закрытых аспирационных систем; проведение рутинной смены аспирационных систем; проведение стерилизации или дезинфекции используемых при дыхании и вентиляции медицинских изделий; проведение профилактики по контаминации, используя «барьерные» мероприятия; применение кинетических кроватей; использование возвышенного положения головного конца; использование для кормления зонда, установленный в постпилорический отдел желудка.

К фармакологическим методам относят: селективную деконтоминацию кишечника; превентивное назначение антибиотиков; обработку и деконтоминацию ротовой полости; проведение обоснованной профилактики стрессовых язв желудка; исключение неоправданной избыточной седации и релаксации.

Назотрахеальную интубацию связывают с более высокой частотой развития нозокомиальных синуситов, при котором инфицированный секрет может быть аспирирован, что приведет к развитию ВАП. Контроль давления в манжетке интубационной трубки необходим, чтобы предупредить затекание инфицированного содержимого ротоглотки в нижние отделы респираторных путей. Показано, что при снижении давления в манжетке интубационной трубки ниже 20 см вод. ст. повышается частота развития ВАП. В то же время давление в манжетке не должно превышать 30 см вод. ст. с целью предупреждения повреждения трахеи.

В ряде исследований показана эффективность аспирации надманжеточного содержимого трахеи с целью предупреждения его

накопления с последующим затеканием в трахею и развитием ВАП с применением специальных трахеостомических и интубационных трубок, имеющих боковое отверстие. В то же время ряд авторов не показал их благоприятного влияния на снижение частоты развития ВАП или снижение частоты колонизации дыхательных путей при применении интубационных или трахеостомических трубок с возможностью надманжеточной аспирации. Данные разногласия могут быть объяснены различными уровнями давления в манжетках и применением антибиотиков. В более позднем исследовании Dezfulian продемонстрировал эффективность применения интубационных и трахеостомических трубок с надманжеточной аспирацией для предупреждения развития ВАП при ожидаемой длительности вентиляции более 72-х часов.

Риск развития ВАП повышается с увеличением времени проведения ИВЛ. На основании полученных данных авторы рекомендуют проводить экстубацию так скоро, как позволяет клиническая ситуация, что облегчается при протоколировании назначения седативных препаратов и более ранних попытках отлучения от респиратора.

По мнению некоторых авторов, повышение частоты развития вентилятор- ассоциированных пневмоний связывают с функциональным парезом мышц гортаноглотки в результате предшествующего нахождения интубационной трубки в течение нескольких дней. Частота реинтубаций может быть снижена благодаря планированию экстубации с применением протокола отлучения от респиратора, применением неинвазивной вентиляции легких и предупреждением случайных экстубаций, которая по литературным данным может достигать 0,8-2,2 случаев на 100 дней нахождения интубационной трубки.

Как показано в некоторых исследованиях, применение НВЛ позволяет снизить частоту развития ВАП по сравнению с инвазивной вентиляцией у больных с дыхательной недостаточностью. Последний мета-анализ, проведенный К. Е. Burns et al., продемонстрировал, что НВЛ снижает частоту ВАП, смертность и длительность ИВЛ. Несмотря на все свои благоприятные эффекты НВЛ может быть неэффективна у больных с дыхательной недостаточностью, вызванной кардиогенным отеком легких или хроническими обструктивными заболеваниями легких, при отлучении от респиратора и противопоказана при угнетении сознания.

По мнению ряда авторов, ранняя трахеостомия, по сравнению с поздней, предупреждает развитие ВАП. Длительная интубация приводит к таким осложнениям, как повреждение глотки и стеноз трахеи, что исключается при наложении трахеостомии. В то же время некоторые авторы не находят благоприятного влияния ранней трахеостомии, по сравнению с поздней трахеостомией или пролонгированной интубацией, на частоту развития ВАП. В мета-анализе, проведенном J. Griffiths et al.,

включающим 382 больных из 5 исследований, не было обнаружено снижение риска развития ВАП или летальности при наложении ранней трахеостомии, хотя достоверно снижалась длительность искусственной вентиляции легких и длительность нахождения в отделении интенсивной терапии.

До сих пор остается открытым вопрос об оптимальном методе проведения трахеостомии - классическая или перкутанная дилятационная трахеостомия. Ряд авторов являются сторонниками ранних трахеостомий с мнением, что «трахеостомии больным, находящимся на ИВЛ следует осуществлять не позднее 5-7 суток интубации» и «трахеостомию у нейрореанимационных больных с изолированным поражением головного мозга следует выполнять в первые четверо суток от начала ИВЛ после устранения как системных (нестабильная гемодинамика, газообменные нарушения), так и внутричерепных (гематома, гидроцефалия, внутричерепная гипертензия) причин церебральной недостаточности». В свою очередь есть данные, что ранняя трахеостомия не улучшает исходы заболевания. Так C. Clech et al. в проспективном обсервационном когортовом исследовании, включающим 2186 больных в 12 реанимационных отделениях хирургического профиля, которым чаще накладывалась трахеостома традиционным способом, а не перкутанная, получил результаты, свидетельствующие, что ранняя трахеостомия не вела к улучшению выживаемости. Другое исследование среди пациентов после кардиохирургических операций, которые были разделены на 2 группы с наложением ранней перкутанной трахеостомии и поздней трахеостомии (на 15-ые сутки от момента начала ИВЛ), не показало различия в длительности ИВЛ, сроках госпитализации, так же как и в частоте развития вентилятор-ассоциированных пневмоний. В рандомизированном контролируемом исследовании P. P. Terragni et al. о влиянии сроков трахеостомии при лечении больных с острой дыхательной недостаточностью на частоту развития ВАП было показано, что в группе с ранней трахеостомией (сроки до 6-8 дней) по сравнению с поздней (13-15 суток) ВАП встречается реже - у 14% больных и 21% больных соответственно. В этой же работе коллектив авторов заключает, что время трахеостомии не влияет на длительность госпитализации и летальность, в итоге они делают вывод о том, что трахеостомия не должна накладываться ранее 13-15 суток от момента начала ИВЛ. Еще более свежий мета-анализ представил F. Wang et al., сравнивший влияние ранней и поздней трахеостомии на длительность ИВЛ, сроки госпитализации в отделениях интенсивной терапии и в стационаре и частоту осложнений. Итоги анализа 7 исследований с включением 1044 пациентов показали, что ранняя трахеостомия недостоверно снижает летальность и частоту развития ВАП, при отсутствии достоверной разницы в длительности проведения ИВЛ, длительности нахождения в отделениях интенсивной терапии и в

стационаре. Опубликованное в 2013 году в JAMA открытое мультицентровое рандомизированное клиническое исследование, проводимое Duncan Young et al. на протяжении 7 лет с 2004 по 2011 годы на базе 70 реанимационных отделений общего профиля и 2 кардиохирургических отделений в 13 университетских клиниках и 59 больницах Великобритании, сравнившем результаты при наложении ранней трахеостомии (в первые 4 суток) и поздней трахеостомии, не нашло различия в снижении летальности в 30-дневный срок или различия в других важных вторичных показателях. Для больных с тяжелым ишемическим инсультом или с тяжелым геморрагическим инсультом была показана возможность и безопасность наложения ранней трахеостомии, в то же время авторы считают, что необходимо проведение дальнейших работ, направленных на изучение влияния трахеостомии на исход заболевания.

Таким образом, фармакологические и нефармакологические мероприятия, направленные на предупреждение ВАП, в определенной степени уменьшают частоту ее возникновения, но, к сожалению, не позволяют полностью предотвратить возникновения данной патологии, в том числе и у пациентов с ОНМК.

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СОЦИАЛЬНЫЙ СТРЕСС, ТРУДОВАЯ МОТИВАЦИЯ И ЗДОРОВЬЕ

Аннотация: Совокупность патологических процессов, вызвавших указанные изменения, точнее всего может быть обозначена как «социальный стресс». Специфическая причина возникновения социального стресса заключается в утрате населением эффективной трудовой мотивации. Хронический социальный стресс приводит к истощению общего адаптационного синдрома, срыву динамического стереотипа высшей нервной деятельности, формированию феномена «запрограммированной смерти организма – феноптоза», а также негативному проявлению повышенной гетерозиготности популяционного генофонда.

Ключевые слова: трудовая мотивация, социальный стресс, смертность, здоровье населения, динамический стереотип.

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SOCIAL STRESS, WORK MOTIVATION AND HEALTH

Annotation: The set of pathological processes that caused these changes can most accurately be designated as "social stress". The specific reason for the emergence of social stress is the loss of effective labor motivation by the population. Chronic social stress leads to the depletion of the general adaptation syndrome, disruption of the dynamic stereotype of higher nervous activity, the formation of the phenomenon of "programmed death of the body - phenoptosis", as well as a negative manifestation of increased heterozygosity of the population gene pool.

Keywords: labor motivation, social stress, mortality, public health, dynamic stereotype.

ВВЕДЕНИЕ

Поскольку мы живем в обществе с рыночной экономикой, подлежит анализу социальное неравенство в состоянии здоровья [2]. С учетом приобретенного исторического опыта для этого, по-видимому, вновь необходимо обратиться к марксистскому учению. К. Маркс утверждал, что

для капиталистического общества характерно «социальное производство нездоровья», обусловленное присвоением прибавочного продукта [4].

Чтобы обосновать пути преодоления негативных последствий реформ, необходимо знать, каким образом экономические, социальные, психологические и иные факторы оказывают свое пагубное влияние на здоровье населения. По-видимому, ключевую роль при этом играет процесс, который точнее всего может быть обозначен как социальный стресс.

ОСНОВНАЯ ЧАСТЬ

В наши дни понятие стресса вышло за границы сугубо профессионального использования и стало достоянием массового сознания. В повседневной жизни стресс совершенно справедливо определяют как приспособительную реакцию живого организма в ответ на любое возмущение в окружающей среде. Однако, несмотря на широкое использование и всеобщее понимание стресса, нельзя забывать, что это понятие имеет конкретное физиологическое содержание. Стресс представляет собой однотипную нейрогормональную реакцию организма, возникающую под влиянием сильных, даже экстремальных, раздражителей. Биологический смысл реакции стресса заключается в мобилизации резервов организма для преодоления последствий таких воздействий. Стресс мобилизует адаптационные процессы. Поэтому автор концепции стресса Г. Селье назвал его общим адаптационным синдромом. Чрезмерный стресс снижает сопротивляемость организма и может вызвать развитие характерных патологических изменений. Чаще всего возникают язвенная болезнь, ишемическая болезнь сердца, нарушение сердечного ритма, аллергические реакции, включая бронхиальную астму [1].

В чем же заключается необходимость выделения еще одной разновидности стресса – социального стресса? Таких причин, как минимум, четыре. Во-первых, он касается не любых живых организмов и даже не любого человека, а только дееспособного индивида. Во-вторых, возникающие под влиянием социального стресса отрицательные изменения в уровне смертности и продолжительности жизни в максимальной степени происходят не в наиболее ранимых детских и пожилых возрастных группах, а у лиц трудоспособного возраста, т.е. изменяется фундаментальная биологическая закономерность – различие в устойчивости основных возрастных групп населения. В-третьих, изменения, возникающие в организме под влиянием социального стресса, не ограничиваются чрезмерной нейрогормональной реакцией и вызываемыми ею патологическими процессами, а касаются всех классов болезней. Четвертое отличие заключается в том, что социальный стресс имеет свою специфическую причину развития. Положение это представляется ключевым, поэтому требует более подробного рассмотрения.

Специфическая причина возникновения социального стресса заключается в утрате населением эффективной трудовой мотивации. Для преодоления в России социального стресса и медико-демографического кризиса необходимо создание у трудоспособного населения сильной трудовой мотивации, основанной на возможности честным трудом обеспечить достойное существование себе и своей семье.

Проблема трудовой мотивации существует во всех странах мира. Высокопроизводительный труд требует большого волевого усилия работника. Такое волевое усилие дается тяжело, длительно оно может осуществляться только при очень сильной трудовой мотивации. Подобная мотивация особенно важна вначале, потом на помощь приходит сложившийся динамический стереотип.

Как показал академик П.К. Анохин, имеется единый универсальный принцип организации деятельности организма – формирование функциональных систем, направленных на достижение необходимого приспособительного результата. Физиологическая архитектура функциональной системы принципиально всегда одна и та же, и лишь модернизируется в зависимости от того, на каком уровне мотивации она формируется: автоматического (неосознанного) поддержания постоянства внутренней среды организма, инстинктивных поведенческих актов или сознательной деятельности. Трудовая мотивация относится к последнему, высшему, уровню. Чаще всего она является системостимулирующим фактором всей жизнедеятельности человека. Мотивационное возбуждение в коре головного мозга извлекает из памяти прошлый опыт, на основе которого происходит формирование цели функциональной системы. Это принципиально важный момент. Он объясняет, почему вероятность возникновения эффективной трудовой мотивации у разных лиц в разный период времени и в разных странах не одинакова. Определение цели формирующейся функциональной системы осуществляется от достигнутого уровня, сопоставляется с внешними условиями и собственными возможностями. Поэтому для развития эффективной трудовой мотивации ведущую роль играет прежнее качество жизни, а не тот уровень, на который «опустили» индивида обстоятельства жизни. Нищета определяет рост преступности, а не производительности труда.

Социальный стресс, подобно любому виду стресса, вначале обусловил возникновение стереотипной нейроэндокринной реакции организма, лежащей в основе общего адаптационного синдрома. После дефолта, когда развитие фазы истощения общего адаптационного синдрома приняло массовый характер, на авансцену вышел другой патогенетический механизм ухудшения здоровья – срыв динамического стереотипа высшей нервной деятельности [3].

ЗАКЛЮЧЕНИЕ

Таким образом, в реализации социального стресса, порожденного утратой трудовой мотивации, в основном задействованы четыре патогенетических механизма: истощение общего адаптационного синдрома, срыв динамического стереотипа высшей нервной деятельности, формирование феномена запрограммированной смерти организма (феноптоза) и усиление свободнорадикального окисления, обусловленного повышенной гетерозиготностью генофонда российской популяции. Последняя причина оказала особенно отрицательное воздействие на физическое развитие и здоровье детей и подростков.

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К ВОПРОСУ ВЫРАБОТКИ УМЕНИЯ ЧТЕНИЯ И ПОНИМАНИЯ ИНОЯЗЫЧНЫХ ТЕКСТОВ

Аннотация: В статье речь идет о том, что введение русских лакун на занятиях по русскому языку и литературе в группах с узбекским языком обучения лицеев, колледжей, языковых и неязыковых вузов Республики Узбекистан идёт в определённой последовательности и имеет характерные особенности. Автор утверждает, что объектом лингвистического комментария для преодоления этнокультуроведческих барьеров являются архаичные языковые единицы, переосмысленные слова, многозначные слова и выражения, языковые единицы, отсутствующие в лексиконе представителей других культурных сообществ.

Ключевые слова: текст, культурология, лакуна, семантизация, перевод, этнокультуроведческие сведения, лингвистический комментарий.

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TO THE QUESTION OF DEVELOPING THE SKILL OF READING AND UNDERSTANDING FOREIGN LANGUAGE TEXTS

Annotation: The article deals with the fact that the introduction of Russian gaps in the classes of the Russian language and literature in groups with the Uzbek language of instruction in lyceums, colleges, language and non-language universities of the Republic of Uzbekistan goes in a certain sequence and has characteristic features. The author argues that the object of linguistic commentary to overcome ethnocultural barriers are archaic language units, reinterpreted words, polysemantic words and expressions, language units that are absent in the lexicon of representatives of other cultural communities.

Key words: text, culturology, gap, semantization, translation, ethnocultural information, linguistic commentary.

К числу основных задач в процессе обучения неродному языку относится выработка умения чтения и понимания иноязычных текстов. Известно, что при изучении языка чтение иностранного текста является заданием повышенной трудности. И одним из препятствий к его пониманию является отсутствие у обучаемых знаний в области истории культуры страны изучаемого языка. Представляется, что в этой ситуации

оригинальный литературный текст на определённом этапе обучения становится средством фасилитации (to facilitate – облегчать; способствовать; содействовать) обучения иностранному языку. При изучении иностранного языка, прибегая к литературному тексту, мы понимаем, что литературный первоисточник способствует изучению языка не только наличием в нём больших языковых богатств, но и необходимых для полного понимания текста и погружения в языковую среду культурологических сведений.

Введение русских лакун на занятиях по русскому языку и литературе в группах с узбекским языком обучения лицеев, колледжей, языковых и неязыковых вузов Республики Узбекистан идёт в определённой последовательности и имеет характерные особенности.

Как известно, лакуны относятся к пассивному минимуму программы по языку. Методисты В.Г.Гез, М.В.Ляховицкий и др. считают, что для объяснения лексики, относящейся к пассивному минимуму, характерны следующие особенности: объяснение слов должно идти от языковой формы к понятиям, которые передаёт слово; для каждого нового слова или словосочетания сообщаются различные значения, зафиксированные в лексическом минимуме; для правильного и быстрого узнавания лексики в тексте объясняются его информативные структурные признаки, отличие от омонимов, возможное контекстуальное окружение; ознакомление с новой лексикой может идти как на печатном, так и на звучащем тексте; при ознакомлении с лексикой необходима установка на узнавание слов при слушании и чтении.

Методисты для решения проблемы презентации иностранной лексики предлагают десять методов: 1. использование наглядности (конкретные предметы, пространственные понятия и ориентиры, геометрические формы и другие); 2. использование описания; 3. использование перечисления (мебель - шкаф, стол, стул, диван и т.п.); 4. указание на родовое слово (сейнер - рыболовное судно); 5. использование синонимов (кидать - бросать); 6. использование антонимов; 7. указание на словообразовательную ценность (читатель - чита(ть) + тель; 8. указание на внутреннюю форму (подушка - то, что подкладывают под ухо, когда спят); 9. использование сильного семантизирующего контекста (собака лает, кошка мяукает); 10. использование перевода: а) перевод одним словом; б) перевод с помощью нескольких слов; в) перевод с дополнительным пояснением.

Раскрытие значение лакун (семантизация) может осуществляться переводным и беспереводным методами. К переводному методу семантизации относится перевод-толкование, при котором помимо эквивалента на родном языке студентам сообщаются сведения о совпадении или расхождении в объёме значения лакун. Например: граф -

граф (наслдан наслга ытиб борган дворянин унвони). Беспереводные методы семантизации включают в себя:

- демонстрацию предметов, жестов, действий, картин, рисунков, диапозитивов, слайдов, которые содержат разнообразный материал для иллюстрации лакун, например, в произведении А.С.Пушкина «Дубровский» волостное дворянство и быт помещичьей усадьбы; портреты (одежда, внешний вид современников А.С.Пушкина, реалии быта и труда русского народа);

- раскрытие значений лакун на русском языке, для чего могут использоваться определения – описания значения нового слова уже известными словами.

Способ семантизации при помощи дефиниции нами применяется, когда слово не имеет эквивалента на родном языке студентов, на продвинутом этапе обучения русскому языку. Например, горничная - работница для уборки комнат и других домашних (но не по кухне) работ; картуз - мужской головной убор с жёстким козырьком, фуражка; кучер - человек, который правит лошадьми в экипаже.

В методике преподавания русского языка и литературы прочно утвердилось мнение о том, что средства наглядности позволяют наиболее эффективно познакомить студентов с новым для них предметом или явлением, восполнить то, чего не хватает им для восприятия словесного образа.

Методисты предлагают использовать репродукции известных картин русских художников, которые облегчают знакомство студентов с реалиями быта и труда русского народа, встречающихся в изучаемых произведениях русской литературы XIX века.

В качестве материала для этнокультуроведческого комментария мы считаем наиболее удачными статичные экранные пособия, в первую очередь – слайды. Таковы, например, рисунки П.Соколова к «Капитанской дочке» А.С.Пушкина: «Белогорская крепость», «Военное учение в Белогорской», гравюра «Портрет Пугачёва» и мн. др.

В этой связи методисты отмечают, что сообщение сведений исторического характера, привлечение изобразительного материала, конкретизирующего и оживляющего этнокультуроведческие сведения, дают толчок работе воссоздающего воображения.

Таким образом, средства наглядности не просто облегчают, но и стимулируют умственную деятельность студентов, развивают навыки наблюдения и помогают избегать перевода, а также способствуют установлению связи слова с представлением.

Следующий приём раскрытия значения лакун – комментарий.

Термин «комментарий» происходит от латинского слова “commentaries”, что значит «заметки», «толкование».

Многие учёные (Б.В.Томашевский, С.А.Рейсер, Д.С.Лихачёв, Ю.М.Лотман, И.В.Арнольд и др.) исследовали комментарий с разных точек зрения. Так А.Г.Гурочкина трактует «комментарий» двояко: в широком и узком понимании этого понятия.

Сюда исследователи относят внетекстовой комментарий (предложения и сверхфразовые единства, включённые в повествование, в любые части текста и содержащие оценку событий, людей, предметов) и внутритекстовой комментарий (примечания после глав, отдельные главы, эпиграфы, постраничные примечания, предисловия). В узком же понимании комментарий, по А.Г.Гурочкиной, это «объяснение/толкование какого-либо фрагмента текста, сообщение дополнительной информации» [1]. При этом выделяются следующие виды комментария: лингвистический, историко-текстовой, историко-литературный и реальный. Объектом лингвистического комментария являются архаичные языковые единицы, переосмысленные слова, многозначные слова и выражения, языковые единицы, отсутствующие в лексиконе представителей других культурных сообществ. Историко-текстовой комментарий связан с достоверными и точными фактами об истории создания произведения. Историко-литературный комментарий отражает отношение автора к своему произведению, реакцию на произведения современников и потомков, а также даёт представление о месте произведения в мировой литературе.

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ОЦЕНКА СОСТОЯНИЯ МЕТАБОЛИЧЕСКОЙ АКТИВНОСТИ КИШЕЧНОЙ МИКРОБИОТЫ ПРИ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА

Резюме: Желудочно-кишечный тракт человека содержит приблизительно 100 триллионов (1014) бактериальных клеток, включая 1000 видов бактерий. Эти клетки выполняют широкий спектр биохимических и метаболических функций, которые дополняют физиологию организма.

В статье изучались питание организма, образ жизни, гигиена, генетика хозяина, использование антибиотиков и влияние бактериального состава окружающей среды на индивидуальный состав кишечной микробиоты 1.2.

В этой статье подчеркивается, что, несмотря на разнообразие среди людей, уникальный состав кишечной микробиоты со временем стал очень стабильным, что указывает на то, что кишечные бактерии могут быть потенциальным фактором риска заболеваний человека.

В статье рассматривается влияние состояния кишечной микробиоты на ишемическую болезнь сердца.

Ключевые слова: ишемическая болезнь сердца, кишечная микробиота, бактериальные клетки.

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ASSESSMENT OF THE STATE OF METABOLIC ACTIVITY OF THE INTESTINAL MICROBIOTA IN ISCHEMIC HEART DISEASE

Resume: The human gastrointestinal tract contains approximately 100 trillion (1014) bacterial cells, including 1,000 bacterial species. These cells perform a wide range of biochemical and metabolic functions that complement the physiology of the body.

The article studied the nutrition of the body, lifestyle, hygiene, host genetics, the use of antibiotics and the influence of the bacterial composition of the environment on the individual composition of the intestinal microbiota 1.2.

This article highlights that despite the diversity among humans, the unique composition of the intestinal microbiota has become very stable over

time, indicating that intestinal bacteria may be a potential risk factor for human diseases.

The article examines the effect of the state of the intestinal microbiota on coronary heart disease.

Key words: coronary heart disease, intestinal microbiota, bacterial cells.

Актуальность. Ишемическая болезнь сердца занимает первое место в популяции в качестве основной причины смертности населения (в развитых странах мира -21,7% всех смертей). В последнее время имеется тенденция к нарастанию частоты заболеваемости в 1,7 раз у лиц в возрасте 30-59 лет по сравнению с 1985 годом **[**2,5,8].

Высокая частота заболеваемости ишемической болезнью сердца людей трудоспособного возраста, а также тяжесть осложнений этой патологии предопределяют ее высокую клиническую и социальную значимость.

В настоящее время в качестве основополагающей в развитии ишемической болезни сердца рассматривается роль формирования метаболического синдрома, в том числе развития атерогенной дислипопротеидемии. Существующие методы коррекции дислипопротеидемии с использованием, в частности, статинов не обладают высоким профилем безопасности **[**6,9]. Вместе с тем известно, что в регуляции липидного обмена существенное значение имеет поддержание качественного и количественного состава микрофлоры кишечника **[**3,4,7].

Нарушение кишечной микрофлоры встречается у 90% больных с сердечно-сосудистыми (ишемическая болезнь сердца) и обменными (ожирение, дислипопротеидемия) заболеваниями **[**1]. При этом дисбиотические изменения кишечника, по мере своего прогрессирования, ухудшают клиническое течение основного заболевания, способствуя увеличению атерогенного потенциала сыворотки крови. В этих условиях прогредиентно нарастает выраженность клинических симптомов, удлиняются сроки их клинической манифестации, ухудшаются показатели результатов лечения и качество жизни пациентов.

Указанные обстоятельства предопределяют необходимость усовершенствования подходов к коррекции метаболических расстройств у больных ишемической болезнью сердца.

Цель исследования. Коррекция показателей сердечно-сосудистого риска за счет изменения состава и метаболической активности у пациентов с ишемической болезнью сердца.

Материалы и методы исследования. Методологической основой исследования послужила совокупность клинических, лабораторно-инструментальных и статистических методов.

Результаты исследования. У 100% больных ишемической болезнью сердца обнаружены нарушения качественного и количественного состава микрофлоры кишечника с преобладанием дисбиоза 2-ой степени тяжести.

У больных ишемической болезнью сердца, ассоциированной с дисбиотическими изменениями кишечника, выявлено: снижение показателей качества жизни, преимущественно за счет ухудшения показателей общего здоровья, жизнеспособности, ролевого физического и ролевого эмоционального функционирования; нарушения психологического статуса, преимущественно проявляющиеся повышением уровня реактивной и личностной тревожности, астенизации.

У всех больных ишемической болезнью сердца, ассоциированной с дисбиозом кишечника, выявлены изменения показателей липидного обмена в виде повышения уровня общего холестерина, триглицеридов, холестерина липопротеидов низкой плотности сыворотки крови; изменения показателей перекисного окисления липидов и маркеров антиоксидантной системы в виде падения восстановительного потенциала аскорбатной, тиолсульфидной анти-оксидантных систем, снижения соотношения активности ферментов первой линии защиты - супероксиддисмутазы/каталазы и нарастания реакций перекисного окисления липидов; изменения показателей иммунного статуса в виде повышения уровня циркулирующих иммунных комплексов и иммуноглобулина класса М в сыворотке крови.

Применение пробиотиков в составе комплексной терапии больных ишемической болезнью сердца сопровождается: гиполипидемическим действием, сопоставимым с действием симвастатина, при этом пробиотики в большей степени, чем симвастатин, способствуют повышению уровня анти-атерогенной фракции холестерина липопротеидов высокой плотности, снижая коэффициент атерогенности с 4,34 до 2,33; отмечается нормализация процессов перекисного окисления липидов, что проявляется возрастанием функциональной активности антирадикальных ферментов - супероксиддис-мутазы и каталазы, нормализацией редокс-потенциала антиоксидантных систем, уменьшением уровня реакций перекисного окисления липидов; достигаются изменения показателей иммунного статуса преимущественно за счет активизации гуморального звена иммунитета.

У больных ишемической болезнью сердца, ассоциированной с дисбиозом кишечника, дополнительное назначение средств коррекции нарушений микробиоценоза кишечника оказывает положительное влияние на клиническое течение заболевания, способствует улучшению состояния психологического статуса и повышению качества жизни пациентов.

Вывод. Необходимо отметить важность первых лет жизни и внутриутробного развития детей, здоровье населения начинается со

здорового детства. Результаты исследований последних лет перевернули восприятие организма человека, более того, вновь подчеркнули необходимость комплексного подхода в лечении и профилактике, смелые идеи ученых “вырастить” здоровую флору сегодня кажутся все более реальными, активно во всем мире с большим успехом проводятся трансплантации кала, причем не только для лечения диареи, вызванной Clostridium difficile, но и идут исследования в области лечения воспалительных заболеваний кишечника, синдрома раздраженного кишечника, метаболического синдрома и других расстройств.

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ИНГЛИЗ ТИЛИДА АНИҚЛИК МАЗМУНИДАГИ МОДАЛ СЎЗЛАРНИНГ ПРАГМАТИК ВАЗИФАЛАРИ ВА ГАПДА ЖОЙЛАШИШ ТАРТИБИ

Аннотация: Аниқлик модал мазмуни констатив нутқий актларга definitely, exactly, precisely, never модал сўзлари ва феъл-кесимнинг замон шакли транспозицияси орқали киритилади.

Калит сўзлар: инглиз тили, definitely, exactly, precisely, never модал сўзлари.

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PRAGMATIC FUNCTIONS OF MODAL WORDS WITH PRECISION CONTENT IN ENGLISH AND THE ORDER OF LOCATION IN THE SENTENCE

Abstract: The modal content of precision is included in constative speech acts through the modal words definitely, exactly, precisely, never and the transposition of the tense form of the verb.

Key words: English, definitely, exactly, precisely, never modal words.

1. Аниқлик мазмунидаги модал сўзлар

КИРИШ. Definitely модал сўзи, одатда, нутқий актнинг модаллик доирасига ишонч (Малявин, 1986: 109; Greenbaum, 1969: 203; Jacobson, 1978: 23) ёки ҳаққонийлик (Яковлева, 1983: 14) мазмуни киритувчи модал сўзлар гуруҳига кириб, уларни surely, certainly, of course модал сўзлари билан бир қаторга қўйиш учун замин яратади.

Аммо definitely модал сўзининг ўз маъносидан келиб чиққан ҳолда, ушбу сўзнинг модал мазмунини “аниқлик”, “қатъийлик” деб эътироф этсак мақсадга мувофиқ бўлади назаримизда. Definitely сўзи таркибида “гумон, ишончсизлик ёки ноаниқликнинг мавжуд эмаслиги”, “шубҳасиз”, “аниқ” семаларининг мавжудлиги боис нутқий тузилма модаллик доирасига сўзловчининг прпозиция аниқлигига ишончи мазмунини киритади (Webster, p. 297).

АДАБИЁТЛАР ШАРХИ ВА МУХОКАМА. Exactly модал сўзи маъносида ҳодисаларнинг маълум даражада ёки бутунлай воқеликка мос

келиши мазмуни (Webster, p. 397), precisely модал сўзида “равшанлик”, “аниқлик” (Webster, p. 905) семалари мавжудлиги боис нутқий тузилмага муқобил модал мазмун ҳосил қилади.

Таҳлил этилган мисоллар шуни кўрсатдики, definitely, exactly, precisely модал сўзларининг қўлланилиш ҳолатлари кўп эмас (0, 8%).

Аниқлик мазмунидаги модал сўзларнинг прагматик вазифалари

Мазкур қатъийлик операторлари қўйидагиларни ифодалаш учун хизмат қилади:

(1) адресат фикри билан розиликни ажратиб кўрсатиш:

- She understood that I had had an accident.
- She definitely did (le Carre, p. 422)
- I wouldn’t like her to feel that.
- Exactly (Murdoch, The B. and B., p. 156)
- He’s here on a business trip.
- Precisely (Gardner, p. 72)
- I like to serve you, sir and to obey you in all that is right.
- Precisely: I see you do (Bronte, p. 219);

(2) Адресат пресуппозицияси ҳаққонийлигининг қатъий тасдиқланиши:

- Is he a special friend of yours? Mason asked.
- Definitely (Gardner, p. 52)
- Then you’re going to be married, sir?
- Precisely with your usual acuteness you have hit the nail straight on the head (Bronte, p. 252).
- You mean that luck turns?
- Exactly, Hastings (Christie, ABC, p. 128).

Definitely модал сўзидан сўзловчининг назарида ёлғон кўринган адресат пресуппозициясини қатъиян рад этилишини ифодалаш учун фойдаланилади:

- Do you think I can persuade him not to go to Canada?
- No, I definitely don’t (Bradford, p. 728);

қатъий эътирозни ишодалаш учун:

- He is guilty.
- He definitely isn’t (Cunningham, p. 32).

Exactly модал сўзи баҳо қийматини кучайтириш учун ишлатилади:

- You’re not alone?
- Exactly (Donleavy, p. 214).

Аниқлик мазмунидаги модал сўзларнинг гапда жойлашиш тартиби

Definitely модал сўзи мураккаб кесимнинг асосий феълидан олдин жойлашиб, одатда, гапнинг ўртасидан ўрин олган бўлади:

I definitely don’t like suppressing news (Bradford, p. 361)

And Ricardo is definitely dead, Mr. Smiley (le Carre, p. 93).

Exactly ва precisely модал сўзлари одатда нутқий тузилма аввалида жойлашади ёки мустақил коммуникатив бирлик сифатида фаолият олиб боради.

Юқорида таъкидлаб ўтилганидек, definitely, exactly, precisely модал сўзларининг ишлатилиш ҳолатлари замонавий инглиз тилида кўп учрамайди. Таҳлил этилаётган мисоллар санаб ўтилган модал сўзларнинг бошқа прагматик мазмун бирликлари билан ўзаро муносабатдор бўлган ҳолатларни ажратиш имконини бермади, шунингдек, ушбу модал сўзларнинг дискурс доирасида ишлатилишига мисоллар учрамади. Аммо уларнинг ишлатилиши бошқа қатъийлик операторлари бўйсунадиган қонуниятлар каби эканлигини таъкидлашга асослар мавжуд.

Узатилаётган ахборот аниқлигига сўзловчининг ишончи, шунингдек, қатъий тасдиқни ифода этиши мумкин бўлган by all means модал ибораси қўлланишида юзага келади (Nilsen, 1972: 157).

Адресат пресуппозициясининг кучайтирилган тасдиғи ҳолатлари ҳам кузатилиши мумкин:

- Want to come around and say hello?
- By all means (Suzann, p. 428)

ёки ажратиб кўрсатилган розилик ифодаси:

- Tell him that.
- By all means (Donleavy, p. 336).

Пропозиция аниқлиги, ҳаққонийлиги кучайтирилиши мумкин:

By all means he will come.

2. Never модал сўзи

Never ни одатда равиш деб ҳисоблашади ва модал сўзлар қаторига киритишмайди (Quirk, Greenbaum, Leech, Svartvick, 1982: 214).

Бизнинг назаримизда, never сўзи нутқий тузилманинг семантик таркибида қатъийликни ифодалашда муҳим ўринга эгалигига асосланиб, маъносида “ҳеч қандай”, “ҳеч қачон” семаларининг мавжудлиги боис уни инкор белгили “аниқ” мазмунига эга модал сўзлар қаторига қўшсак, мақсадга мувофиқ бўлади (Webster, p. 773).

Юқорида қараб чиқилган нутқий тузилма модаллик доирасига сўзловчининг пропозиция аниқлигига ишончи модал мазмунини киритувчи модал бирликларидан never сўзининг фарқи унинг мазмунида инкор семасининг мавжуд эканлиги ҳисобланади.

Never модал сўзининг прагматик вазифаси унинг маълум бир ҳаракатнинг ўтмиш, бугун ва келажакда бажарилишини қатъиян инкор этишни ифодалаш учун хизматида намоён бўлади:

Constance never said a word about it (Sheldon, M. of the G., p. 163). I never drink on duty (Sheldon, M. of the G., p. 324). You’ll never have a better chance than this (Maygham, 2, p. 14).

Шаклан ҳаракатни ўтган замонга боғловчи, яъни ўтган замон шаклидаги феъл-кесимдан олдин жойлашиб, never сўзи ҳаракатнинг

амалга оширилмаслиги муддатини нутқий тузилма шакллантирилган пайтни ҳам хисобга олган ҳолда кенгайтириши мумкин:

I never understood your writing, Phillip (McCullers, p. 123). (I could not ever understand your writing and I can't understand it now).

Кўпчилик ҳолатарда never модал сўзи ўтган замонга таалуқли нутқий тузилмаларда қўлланилади (30%).Ушбу қатъийлик операторидан келаси замонга нисбаттан гумон ҳиссини йўқотиш ва адресатга ҳаракат ёки воқеа аниқ содир бўлмаслиги тўғрисида сўзловчининг ишончи ҳақида хабар бериш мақсадида фойдаланилади:

I give up. I'll never get through to her (Bradford, p. 117).

Ҳаракатнинг ўтмиш, бугун ва келажакда амалга оширилишининг қатъий рад этилишидан ташқари, never модал сўзи, шунингдек, бошқа бир қатор прагматик вазифаларни бажариши мумкин. Жумладан:

(1) Сўзловчининг назарида ёлғон кўринган адресат прессупозициясининг қатъий инкор этилишини ифодалаш:

"They had a quarrel at the lake?" Paula cut in. "Oh, no. He never even spoke to her (Bradford, p. 356).

Ўзбек тилида муқобил мазмун "ҳатто" кучайтирувчи юкламаси воситасида берилади: "Ҳатто, унинг билан ҳеч қачон гаплашмаган эди";

(2)адресат фикрига қатъиян норозиликнинг ифодаланиши:

- Let's hope he will forget Paula,
- He'll never let go of her (Bradford, p. 194);

(3) қатъий рад этишнинг ифодаси:

- A bottle of Ginger Ale.
- I never liked it (Maugham, 2, p. 186).
- Every day after class the male students would gather around her, trying to make a date.
- I never mix pleasure with business, she told them (Sheldon, M. of the G., p. 225);

(4) ижобий эмфатик баҳони ифодалаш:

It's never been spelled better (Shaw, Network, p. 215);

шунингдек, салбий баҳо ифодаси:

You never were very devious, avaricious or venal, Edvina (Bradford, p. 112);

(5)қарама-қарши қўйилган пропозицияларнинг бирини кучайтирилиши:

I heard of a Mr. Barnes of New York and I was told that he had written a book called The Mystery of a Hansom Cab. But I never read it (Maugham, 2, p. 147).

Never модал сўзининг нутқий тузилмада жойлашиш тартиби ҳам ўзига хос прагматик мазмун ифодасига таъсир кўрсатади. Бинобар, гапнинг бошланишидажойлашган never модал сўзи ҳаракат субъектини яширин ифодалайди:

- He’s the most important man in this part of the country. Name of Salomon Van der Merwe…

- Never heard of him (Sheldon, M. of the G., p. 17).

Never had no talent that way (Wilder, p. 37).

Гапнинг ўртасида қўлланилишида never субъект ва предикат орасидан жой олган бўлиши мумкин (27, 9%):

Drake never broke a promise in his life (le Carre, p. 507).

Агар кесим мураккаб феъл шакли билан ифодаланган бўлса, одатда, never асосий феълдан олдин ўрин олади (54%):

I shall never do it myself (Maugham, 1, p. 422). I’ve never seen a Texas ranch (Shaldon, M. of the G., p. 257).

Ушбу қатъийликни оширувчи бирлик мавжуд бўлган констатив нутқий актнинг охирида яна бир бор never ишлатилиш ҳолатлари ҳам учраб туради. Бу турдаги бимодал ифодаланиш қатъийликнинг ўта юқори даражасини билдиради:

I shall never be employed again never (Murdoch, The B. and B., p. 423).

Мустақил коммуникатив бирлик сифатида never қуйидагиларни ифодалаш қобилиятига эга:

(1) адресат пресуппозициясини қатъиян тасдиқлаш:

- You wouldn’t want a girl to have dinner alone, would you?

- Never (Shaw, Byz, p. 22);

(2) сўзловчининг назарида ёлғон кўринган адресат пресуппозициясининг қатъиян рад этилиши:

- Haven’t you seen her?

- Never (Cunningham, p. 72);

(3) ажратиб кўрсатилган эътироз:

- You said you’d do it for three reales.

- Never. You promised me four (Maugham, 1, p. 354);

(4) қатъий рад этилиш:

- Send him back to Starfield.

- Never, I said (Murdoch, Net, p. 162).

Never, шунингдек, ўзининг такроран қўлланилишида сўз-гап сифатида ишлатилиши мумкин:

My mother would never consider selling her stock in Sitex Oil. Never (Bradford, p. 496).

Нутқий тузилма доирасида never модал сўзи турли мазмунли нутқий тузилма прагматик маъносини ўзгартирувчилар билан ўзаро муносабатдор бўлиши мумкин.

(1) Бир мазмунли операторларнинг боғлиқлиги қатъийликнинг модал-коммуникатив ва бимодал ифодаланиши орқали намоён бўлади.

а) Модал сўз never ва коммуникатив бирликнинг нутқий тузилма доирасида ўзаро муносабатдорлиги ушбу нутқий тузилма прагматик мазмунининг модал-коммуникатив кучайишига олиб келади. Нутқий

тузилмада never модал сўзи билан бирга ишлатиладиган коммуникатив бирликлар сифатида қуйидагилар намоён бўлади:

- look, listen каби эътиборни тортиш учун хизмат қилувчи ишоралар:

Now, look, Paula, he's never going to be suspicious of me (Bradford, p. 767);

- you see, you know, you hear предикатив комплекслари:

I could never get much out of Madge about her, you know (Murdoch, Net, p. 71);

- сўроқ шакли орқали ифодаланган констатив нутқий актлар:

You're never stuck for an answer, are you? (Sheldon, Windmill, p. 203);

- swear, promise каби келаси замонга таалуқли диктум билан мос келувчи перформатив феъллар:

I swear I will never go to another fight (Cunningham, p. 101);

I promise you on my word of honour that I'll never repeat it to a living soul(Maugham, 2, p. 78).

б) қатъийликнинг бимодал мослашмаган ифодаси констатив нутқий акт доирасида never модал сўзи ва қўйида келтирилганларни қўллаганда намоён бўлади:

-" ҳақиқатдан ҳам" мазмунидаги модал сўз:

I never drank wine. In fact I never drank anything (Sheldon, Windmill, p. 211); I've never really found the want of it (Maugham, 2, p. 266);

- нутқий тузилмага ҳаққонийлик модал мазмунини киритувчи do эмфатик феъли:

I don't know what happened to him, Mr. Mason. He never did show up (Gardner, p. 71);

- ишонч мазмунидаги модал сўз ёки предикатив модус ифодаси:

I'm sure I never felt better (Bradford, p. 185); Of course I never thought anything would come of it (Maughamp, 2, p. 168);

- нутқий тузилмага пропозициянинг ҳаққонийлигига сўзловчининг ишончи мазмунини киритадиган маълумлик мазмунидаги модал сўз:

Obviously she's never seen the lady (Shaw, Nightwork, p. 163); Apparently it never occurred to him that she might have been unfaithfull to him (Maugham, 2, p. 171).

Бимодал мослашган кучайтириш ўзгартирилган замон формаси билан never модал сўзини қўллаш орқали амалга оширилади: Present Continuous келажакдаги ҳаракатни ифодалаш учун фаоллашади:

I am never going back of course (McCullers, p. 78).

Of course модал сўзи ушбу ўринда адресат пресуппозицияси ҳаққонийлигини тасдиқлаш учун хизмат қилади.

2) Турли мазмундаги иккита бирликларнинг ўзаро муносабатдорлиги нутқий тузилма доирасида қатъийликни кучайтирувчи never модал сўзи ва констатив нутқий актига субъектив фикр характерини берувчи операторнинг мавжуд бўлишида намоён бўлади:

In my opinion, Shane o'Neill will never love anyone but Paula (Bradford, p. 195), ёки адресатга салбий таъсирни пасайтириш учун хизмат қилувчи:

- My niece, Miss Porchester, prefers the novels of Mr. William Black.
- I'm afraid, I've never read any (Maugham, 2, p. 298).

Констатив нутқий акт қатъийлигини кучайтирувчи бошқа модал бирликлар каби never модал сўзини ҳам умумий мулоқот мақсади акс топган дискурс доирасида қўлланилишини кузатиш имконига эгамиз. Мазкур ҳолатда қуйидагиларни кузатиш мумкин:

(1) поғонали кучайиш:

- Is she really going away?
- I don't know, said Hugo. I really don't know what she plans to do. She's like the weather. One simply never knows with Sadie (Murdoch, Net, p. 226).

Поғонали кучайтириш нафақат really ва never нинг ишлатилиши ҳисобига, балки I- One каби субъектнинг ўзгариши орқали ҳам амалга ошириладиган I don't know – I really don't know – One never knows оппозициясига асосланган.

(2) оператор бир неча маротаба дискурс доирасида ишлатиладиган такрорий кучайтириш:

Never had he called me more frequently to his presence. Never been kinder to me. And alas. Never had I loved him so well (Bronte, p. 249). I've never had a boy in love with me in all my life. I've never been allowed even to see boys alone – except Percy (Fitzgerald, p. 48).

(3) аввалги ва охирга нутқий тузилмани never белгилайдиган билвосита кучайтириш:

I will never see him again as long as I live. Not even if he came and begged on his bended knees. Take him back. Never. (Maugham, 2, p. 139).

ХУЛОСАЛАР

1. Аниқлик, қатъийликни ифодаловчи воситалар орасида асосий ўринни қатъийликнинг туб семасига эга модал бирликлар эгаллайди; уларнинг асосий прагматик вазифаси пропозициянинг ҳаққонийлиги, ростлигини таъкидлаш ҳисобланади.

Мазкур туркумдаги модал бирликлари орасида қуйидаги мазмундаги гуруҳлар ажратилади: (1) сўзловчининг пропозиция ҳаққонийлигига ишончини ифодаловчилар; (2) сўзловчининг пропозиция шубҳасиз тўғрилигига ишончига ишора қилувчилар; (3) сўзловчининг пропозиция аниқлигига ишончини билдирувчилар.

2. Ажратилган модал бирликларининг ҳар бир гуруҳи бирликларнинг луғавий маъносидаги фарқларга асосланиб, таъкиднинг турли даражасини акс эттирувчи мезон шаклида намоён этилиши мумкин.

3. Мисоллар таҳлили гувоҳлик беришича, модал операторлар асосий гапдан тортиб махсус гапларгача турли грамматик мавқеъдаги бирликлар орқали ифодаланиши мумкин.

4. Аниқлик модал бирликлари, хабар берилаётган ахборот ҳаққонийлиги ва ростлигини кучайтиришдан ташқари, нутқий тузилма прагматик мазмунига адресат пресуппозициясининг ҳақиқатлигини тасдиқлаш ёки инкор этиш каби қўшимча тусларни ҳам киритиши мумкин.

Ушбу турдаги операторлар қатъий эътироз, суҳбатдош фикрига қўшилиш, узил-кесил рад этиш, қатъий баҳолаш каби иккинчи даражали прагматик мазмунларни биринчи ўринга олиб чиқишга хизмат қилади.

5. Аниқлик модал бирликларининг мазмуни эгилувчан, улар ўзгариши ва категориаллик нуқтаи назаридан нейтрал бўлган миннатдорлик, оқлаш, тилак каби нутқий тузилмалар мазмунини кучайтириши мумкин.

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БЕРБЕРИН И БЕРБЕРИНСОДЕРЖАЩИЕ РАСТЕНИЯ

Аннотация: В данной статье коротко проанализировано фармакология растений семейства Berberidaceae, некоторых берберин содержащих растений различных семейств и строения, медицинское значение изохинолинового алкалоида берберина.

Ключевые слова: химия, вещество, физиологически активные, алкалоиды, растения, протоберберины, изохинолины, семейство, Berberidaceae.

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BERBERINE AND BERBERINE - CONTAINING PLANTS

Abstract: This article briefly analyzes the pharmacology of plants of the Berberidaceae family, some berberine-containing plants of various families and structures, the medical significance of the isoquinoline alkaloid berberine.

Keywords: chemistry, substance, physiologically active, alkaloids, plants, protoberberins, isoquinolines, family, Berberidaceae.

Растения рода Berberis (сем. Berberidaceae) являются одними из широко распространенных на земном шаре. Все виды барбариса являются типичными алкалоидоносами.

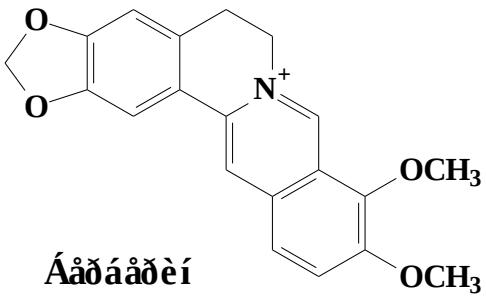
Применение барбарисов в медицине известно из глубокой древности. Так, в надписях на глиняных дощечках из библиотеки ассирийского царя Ашшурбанипала за 650 лет до нашей эры упоминаются ягоды барбариса как средство, очищающее кровь. Великий врачеватель средневековья Абу Али Ибн Сина использовал в своей практике плоды, листья, корни барбариса для приготовления лекарств от печеночных, желудочно-кишечных заболеваний, а также от заболеваний желчного пузыря и селезенки [1]. Имеются данные о применении различных органов Berberis vulgaris и алкалоида берберина для лечения злокачественных новообразований: при опухолях печени, раке желудка и горла. В Средней Азии отвары из ветвей, корней или коры корней барбариса применяются для лечения переломов костей, вывихов, растяжений, ран и ожогов.

Все части растения Berberis содержат изохинолиновые алкалоиды, главный из которых берберин, а листья кроме алкалоидов содержить витамины С, Е, каротиноиды, органические кислоты (яблочную, лимонную, виннокаменную), минеральные соли, а в период плодоношения -эфирное масло. В коре корней наряду с берберином как главный алкалоид, содержится также пальматин, колумбамин, ятрорицин и оксиакантин [2].

Лекарственным сырьём являются лист (лат. *Folium Berberidis*) и корень (*Radix Berberidis*) барбариса обыкновенного. Листья заготавливают во время бутонизации и цветения; корни — ранней весной до распускания почек или осенью после созревания плодов.

Настойка листьев барбариса обладает кровоостанавливающим (повышает свёртываемость крови) и желчегонным действием. Препараты барбариса стимулируют сокращение мускулатуры, суживают сосуды отдельных органов, вызывают понижение тонуса жёлчного пузыря, обладают болеутоляющим и противовоспалительным действием. В народной медицине барбарис используется как кровоостанавливающее средство, а также при заболеваниях почек, печени, мочевых путей, а также как потогонное. Экстракт из листьев барбариса известен как кровоостанавливающее средство при женских заболеваниях.

Берберин изохинолиновый алкалоид состава $C_{20}H_{17}NO_4$, содержится в различных частях многих растений, принадлежащих к разнообразнейшим семействам, так что с этой стороны может считаться одним из распространенных в растительном царстве. Кроме барбариса (Berberis vulgaris), он найден в корнях коломба (Radix Colombo), принадлежащем растению Cocculus palmatus Dec., в коре Geoffroya inermis и Xanthoxylum clava Herculis. В настоящее время его получают из корней культивируемого лекарственного растения Coptis chinensis [3].



Áåðáåðèí

Берберин относится к протоберберинovым алкалоидом изохинолинового типа. Он является одним из первых алкалоидов, нашедших применение в медицине.

Берберин содержится во многих изученных нами видах барбарисов [4, 5]. Его можно обнаружить в листьях, цветках, плодах, молодых побегах, стеблях и корнях. Берберин извлекается в основном экстракцией

органов растений метанолом и путем разделения полученной суммы методом колоночной хроматографии **[**4].

Максимальное накопление алкалоида наблюдается в корнях растений в период созревания плодов и широко применяется в научной медицинской практике. Берберин используется при лечении заболеваний жёлчного пузыря, а также некоторых злокачественных опухолей. В нашей стране берберин применяется в медицине как желчегонный препарат. В качестве сырьевого источника для производства берберина используются корни B.vulgaris.

Поскольку берберин обладает множеством ценных фармакологических свойств, ученые ищут пути его применения для лечения и предупреждения различных заболеваний, включая рак, болезни сердца и сахарный диабет **[**6].

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ОЦЕНКА И АНАЛИЗ СТРАТЕГИЧЕСКОГО УПРАВЛЕНИЯ ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТЬЮ

Аннотация: В этой статье в основном анализируется текущая ситуация с управлением интеллектуальной собственностью предприятий в нашей стране, делается вывод о наличии недостатков в управлении интеллектуальной собственностью предприятий в нашей стране и предлагаются решения этой текущей ситуации.
Ключевые слова: Управление интеллектуальной собственностью.

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EVALUATION AND ANALYSIS OF STRATEGIC INTELLECTUAL PROPERTY MANAGEMENT

Summary: This article mainly analyzes the current situation with the management of intellectual property of enterprises in our country, concludes that there are shortcomings in the management of intellectual property of enterprises in our country and suggests solutions to this current situation.
Keywords: Intellectual Property Management.

1. Анализ текущей ситуации с управлением интеллектуальной собственностью предприятий в Китае

① Система организации интеллектуальной собственности предприятия не является надежной

В настоящее время очень немногие предприятия в нашей стране имеют специализированные агентства по правам интеллектуальной собственности. Согласно опросу, лишь несколько крупных и средних предприятий среди опрошенных предприятий имеют институты IPM. Большинство предприятий не имеют ни созданных институтов IPM, ни соответствующих систем IPM, не говоря уже об интеграции прав

интеллектуальной собственности во весь процесс технологических инноваций, производства и эксплуатации предприятия[77].

② Разработка, использование и защита прав интеллектуальной собственности явно недостаточны

Китайские предприятия недостаточно хорошо осведомлены о правах интеллектуальной собственности на инновационные достижения, им не хватает концепции IPM и они плохо используют методы защиты интеллектуальной собственности для защиты своих законных прав и интересов.

③ Отсутствие опыта в области управления и эксплуатации интеллектуальной собственности

В настоящее время многие предприятия в нашей стране не имеют специализированного персонала по управлению интеллектуальной собственностью. Поскольку многие предприятия рассматривают управление правами интеллектуальной собственности как юридический вопрос, им не хватает специализированного персонала, который тесно интегрирует управление правами интеллектуальной собственности предприятий с бизнесом предприятий, в результате чего предприятия, даже если они получить права интеллектуальной собственности, они неуправляемы или плохо управляются, а коэффициент использования низкий.

④ Неполное содержание управления интеллектуальной собственностью

Что касается политики, связанной с присвоением прав интеллектуальной собственности, отечественные предприятия обычно четко договариваются о присвоении прав интеллектуальной собственности в форме контрактов при сотрудничестве в области разработки, но на самом деле внутренняя политика предприятия в области владения интеллектуальной собственностью неясна, управление несовершенно, и существуют проблемы такие, как неясное право собственности, слабая защита и серьезная потеря прав интеллектуальной собственности при управлении.Например, что касается механизмов стимулирования инноваций, хотя Патентное законодательство нашей страны еще в 1984 году предусматривало, что подразделения могут предоставлять соответствующие вознаграждения изобретателям или дизайнерам, на практике интересы многих изобретателей и дизайнеров не могут быть эффективно гарантированы.Существует серьезная нехватка корпоративных механизмов вознаграждения и стимулирования, что снижает энтузиазм и креативность научно-технического персонала.Что

[77] Ли Чжэнхуа. Исследование стратегий защиты интеллектуальной собственности предприятий [J] Business Research, 2004, (21).

касается рассмотрения споров об интеллектуальной собственности, китайские предприятия часто напрямую выбирают методы судебного разбирательства при возникновении споров, игнорируя превентивный эффект IPM в спорах об интеллектуальной собственности, и из-за отсутствия базового управления правами интеллектуальной собственности они часто теряют лучшее время для судебной защиты из-за доказательств, срока давности и другие причины[78].

2. Меры по реализации стратегии управления интеллектуальной собственностью нашей страны

① Исследования и разработка независимых прав интеллектуальной собственности - единственный способ для китайских предприятий изменить свой пассивный статус

Если китайские компании хотят быть непобедимыми на высококонкурентном международном рынке, они должны овладеть более независимыми правами интеллектуальной собственности и изменить нынешнюю модель выживания, основанную на имитации и внедрении технологий.В нынешний специфический исторический период в Китае наши компании начали полагаться на внедрение технологий, но за внедрение технологий необходимо платить высокие лицензионные сборы, а при экспорте продукции они часто ограничены правами интеллектуальной собственности других лиц.

② Совершенствование системы управления интеллектуальной собственностью является важным содержанием управления интеллектуальной собственностью предприятий в нашей стране

Предприятия должны рассматривать соответствующую правовую систему, сформулированную государством, как важное содержание системы стратегического управления интеллектуальной собственностью предприятия. Предприятия могут формулировать внутренние правила и подзаконные акты для защиты прав интеллектуальной собственности в соответствии со своими собственными реальными потребностями. С точки зрения управления патентными заявками, чтобы эффективно занять рынок, они должны активно внедрять различные типы патентных заявок, такие как “защитные” и “резервные”, в соответствии с потребностями развития. Это необходимо для предотвращения растраты и потери активов интеллектуальной собственности, а также потери прав со стороны внутренних сотрудников предприятия.

③ Обращайте внимание на защиту прав интеллектуальной собственности и эффективно защищайте свои собственные законные права и интересы

[78] Юй Тао. Анализ модели управления интеллектуальной собственностью иностранных предприятий [J] Электронная интеллектуальная собственность, 2003, (06).

Вообще говоря, осведомленность предприятий о правах интеллектуальной собственности в нашей стране относительно слаба. С одной стороны, они сознательно или неосознанно нарушают права интеллектуальной собственности других. Например, несанкционированное копирование, продажа и использование пиратского программного обеспечения без разрешения владельца авторских прав является относительно распространенным явлением; с другой стороны, с другой стороны, явление нарушения прав самими нашими предприятиями очень заметно, потеря интеллектуальных активов серьезна, а осведомленность о защите прав невелика.При корпоративных слияниях, реструктуризациях и совместных предприятиях права интеллектуальной собственности используются бесплатно или их стоимость серьезно занижена, а распространение корпоративной коммерческой тайны из-за притока талантов привело к убыткам для операций. Это также очень распространено. Поэтому предприятия нашей страны должны не только соблюдать закон и быть честными, но и научиться использовать законное оружие для защиты своих прав и интересов.

④ Усилить подготовку специализированного персонала в области управления интеллектуальной собственностью предприятий.

Управление правами интеллектуальной собственности предприятий является высокопрофессиональным, техническим и юридическим и предъявляет высокие требования к персоналу по управлению интеллектуальной собственностью.Управление правами интеллектуальной собственности предприятий в конечном счете должно осуществляться в руках менеджеров по интеллектуальной собственности, поэтому качество менеджеров по интеллектуальной собственности оказывает большое влияние на уровень управления интеллектуальной собственностью предприятий.Поскольку интеллектуальная собственность сама по себе является всеобъемлющим юридическим правом и нематериальной собственностью, которая охватывает юридические, экономические, научно-технические, управленческие и другие аспекты, управление правами интеллектуальной собственности предприятий требует комплексного характера и требует персонала по управлению интеллектуальной собственностью, обладающего сочетанием комплексных знаний, управленческих и сервисных возможностей.Энергичное развитие талантов в области управления интеллектуальной собственностью на таких предприятиях является важным аспектом будущего образования в области интеллектуальной собственности и подготовки кадров в области управленческого образования.

Короче говоря, опыту в этих областях стоит поучиться у аналогичных предприятий в нашей стране.Но у разных компаний есть свои особенности.Предприятия должны осуществлять управление правами интеллектуальной собственности в соответствии со своей собственной

конкурентной средой и возможностями технических исследований, а также в сочетании с собственной стратегией развития компании.Предприятия должны создать надежную систему управления интеллектуальной собственностью, создать надежную систему защиты интеллектуальной собственности, использовать права интеллектуальной собственности в истинном смысле для повышения основной конкурентоспособности предприятий, постоянно совершенствовать свои собственные исследования и разработки и независимые инновационные возможности, расширять пространство выживания и развития предприятий и стремиться в конечном итоге достичь всестороннее развитие экономики нашей страны.

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ТЕКУЩАЯ СИТУАЦИЯ, ПРОБЛЕМЫ И КОНТРМЕРЫ УПРАВЛЕНИЯ ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТЬЮ ПРЕДПРИЯТИЙ В КИТАЕ

Аннотация: Эффективное управление интеллектуальной собственностью является эффективным инструментом для современных предприятий по повышению их основной конкурентоспособности.Управление и защита прав интеллектуальной собственности в нашей стране начались относительно поздно, и, как правило, наблюдаются такие явления, как слабая осведомленность предприятий об управлении интеллектуальной собственностью и низкий уровень управления интеллектуальной собственностью.В связи с этой ситуацией в настоящем документе выдвигаются такие предложения, как разработка стратегии в области интеллектуальной собственности, разработка системы управления интеллектуальной собственностью и создание организации по управлению интеллектуальной собственностью.

Ключевые слова: Интеллектуальная собственность, современное предприятие, управление интеллектуальной собственностью.

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CURRENT SITUATION, PROBLEMS AND COUNTERMEASURES OF INTELLECTUAL PROPERTY MANAGEMENT OF ENTERPRISES IN CHINA

Summary: Effective intellectual property management is an effective tool for modern enterprises to improve their core competitiveness.The management and protection of intellectual property rights in our country began relatively late, and, as a rule, there are such phenomena as weak awareness of enterprises about the management of intellectual property and a low level of intellectual property management.In connection with this situation, proposals such as the development of an intellectual property strategy are put forward in this

document, development of an intellectual property management system and creation of an intellectual property management organization.

Keywords: Intellectual property, modern enterprise, intellectual property management.

1. Текущая ситуация и существующие проблемы механизма управления интеллектуальной собственностью китайских предприятий

Человечество вступило в новую эру экономики знаний. Права интеллектуальной собственности стали главным воплощением богатства современного общества. Конкурентоспособность предприятий все чаще проявляется как соревнование научно-технической мощи между предприятиями. Количество и качество прав интеллектуальной собственности, принадлежащих предприятиям, сильно повлияет на право предприятиям участвовать, выступать и конкурировать. Конкурентное преимущество.Китайские предприятия также все больше и больше осознают ценность прав интеллектуальной собственности, таких как товарные знаки, патенты и коммерческие секреты для предприятий, и начали уделять внимание эксплуатации прав интеллектуальной собственности и управлению ими в повседневном управлении предприятиями.Это может быть подтверждено ростом числа прав интеллектуальной собственности в нашей стране в последние годы.Количество внутренних патентных заявок, принятых в нашей стране, увеличилось с 692 750 в 2010 году до 994 964 в сентябре 2011 года; количество патентных лицензий увеличилось с 539 223 в 2010 году до 646 937 в 2011 году.Значительное увеличение числа патентных заявок и разрешений показывает, что китайские предприятия начали уделять внимание защите, управлению и использованию прав интеллектуальной собственности предприятий, но по сравнению с развитыми странами китайские предприятия все еще сталкиваются с рядом проблем в области управления интеллектуальной собственностью[79].

(1) С точки зрения самого предприятия, у китайских предприятий все еще есть много проблем в том, как построить и улучшить механизм управления интеллектуальной собственностью, в основном проявляющийся в следующих моментах：

Прежде всего, хотя некоторые инновационные предприятия подняли управление правами интеллектуальной собственности до уровня корпоративной стратегии, в действительности управление правами интеллектуальной собственности на большинстве предприятий по-прежнему ограничивается управлением разработкой проектов,

[79] Ян Синьхуа.Краткий анализ текущей ситуации и развития системы управления интеллектуальной собственностью предприятий в нашей стране. Китайские изобретения и патенты.2011（6.

управлением прикладными проектами и т.д., Отсутствием общего планирования развития, еще не интегрировали стратегия интеллектуальной собственности органично вписывается в общую стратегию предприятия, и все еще не осознают необходимость создания всеобъемлющей системы управления интеллектуальной собственностью на глобальном и стратегическом уровне, и не смогли сформировать всеобъемлющую и стандартизированную систему управления интеллектуальной собственностью предприятия в целом.

Во-вторых, управление правами интеллектуальной собственности предприятий в нашей стране обычно носит временный характер, и специальные отделы интеллектуальной собственности и персонал создаются редко. В настоящее время большинство предприятий в нашей стране приняли некоторые относительно простые меры по защите прав интеллектуальной собственности, но часто отсутствуют независимые системы и правила, специально касающиеся прав интеллектуальной собственности. Вопросы, связанные с управлением интеллектуальной собственностью, в основном временно представлены Министерством технологий, Министерством по правовым вопросам и другие отделы. Немногие предприятия создали соответствующий штатный персонал, отвечающий за вопросы интеллектуальной собственности, не говоря уже о подготовке и бюджете прав интеллектуальной собственности.Это делает практически невозможным для предприятий осуществлять профессиональное и систематическое управление правами интеллектуальной собственности[80].

В-третьих, предприятиям не хватает способности к самостоятельному внедрению инноваций, и необходимо улучшить количество и качество прав интеллектуальной собственности. Китайским компаниям всегда не хватало чувства инноваций. В целом, осведомленность китайских компаний о правах интеллектуальной собственности очень слаба. Многие компании предпочли бы потратить огромные суммы инвестиций и рекламы, чем вкладывать время и энергию в научные исследования и разработку технологий. Даже компании с независимыми правами интеллектуальной собственности, как правило, недостаточно внедряют корпоративные права интеллектуальной собственности, которые серьезно препятствуют преобразованию знаний и технологий в производительность и не могут принести предприятиям большую прибыль и конкурентные преимущества.

(2) С внешней точки зрения предприятия, внешняя среда управления интеллектуальной собственностью предприятий в нашей стране также не

[80] Фэн Сяоцин.Предварительное обсуждение стратегии предприятий в области интеллектуальной собственности.Журнал социальных наук университета Сянтань.2000（5）.

является оптимистичной, что в основном проявляется в следующих моментах :

① Существующая в нашей стране правовая система интеллектуальной собственности нуждается в срочном совершенствовании. Хотя соответствующие законы об интеллектуальной собственности, такие как патентное право и закон о товарных знаках, были пересмотрены и усовершенствованы в последние годы, существуют законы и нормативные акты, тесно связанные с их производством и коммерческой деятельностью, которые срочно необходимы некоторым предприятиям.

② Осведомленность о защите интеллектуальной собственности во всем обществе невысока. Плановая экономическая система, внедряемая моей страной в течение длительного времени в прошлом, привела к жесткости системы управления достижениями знаний. Все общество еще не знакомо с системой правовой защиты прав интеллектуальной собственности, и существует недостаток понимания и осмысления управления и защиты знаний. права интеллектуальной собственности. Большинство людей часто игнорируют полученные научные исследования и инновационные достижения. Подайте заявку на защиту интеллектуальной собственности. С другой стороны, из-за недостаточной осведомленности о правах интеллектуальной собственности люди не только не обращают внимания на права интеллектуальной собственности, но и не знают, как уважать права интеллектуальной собственности других.

③ Управление правами интеллектуальной собственности соответствующими правительственными департаментами по интеллектуальной собственности все еще несовершенно. Исходя из предпосылки постоянного совершенствования правовой системы интеллектуальной собственности, также необходима надежная защита интеллектуальной собственности правоохранительными органами. В настоящее время права интеллектуальной собственности в нашей стране по-прежнему управляются отдельно. Вопросы, связанные с патентами, находятся в ведении Администрации интеллектуальной собственности в соответствии с действующей системой управления в нашей стране, в то время как правами интеллектуальной собственности, такими как товарные знаки и авторские права, управляют другие департаменты, и отсутствует взаимная координация между этими органами управления отделы.Кроме того, система оценки активов интеллектуальной собственности в нашей стране и система сделок с интеллектуальной собственностью также несовершенны. Эти проблемы стали препятствиями для использования и передачи прав интеллектуальной собственности на предприятиях нашей страны.

④ Всему обществу не хватает специализированных учреждений и соответствующих талантов для управления интеллектуальной собственностью предприятий.В настоящее время широко распространенными учреждениями, занимающимися правами интеллектуальной собственности в обществе, являются в основном коммерческие посреднические структуры, такие как агентства по подаче заявок на патенты и товарные знаки, но не хватает агентств по оценке активов интеллектуальной собственности, профессиональных агентств по расследованию интеллектуальной собственности и консалтинговых агентств.Во всем обществе меньше специалистов, обладающих навыками управления интеллектуальной собственностью, и они не могут предоставлять эффективные услуги по управлению интеллектуальной собственностью и ее защите большинству предприятий.

2. Исследование контрмер для усиления управления правами интеллектуальной собственности предприятий в нашей стране

В современном обществе способность к самостоятельному внедрению инноваций является ключом к оценке того, обладает ли страна основной конкурентоспособностью. Чтобы повысить конкурентоспособность наших предприятий, мы должны уделять стратегическое внимание управлению правами интеллектуальной собственности и их защите. Необходимо прилагать усилия как на уровне правительства, так и на уровне предприятий, а также постоянно повышать осведомленность всего общества о правах интеллектуальной собственности.

(1) Правительство должно создать необходимую правовую среду для управления и защиты прав интеллектуальной собственности предприятий во всех аспектах законодательства и правоприменения.

(2) Следует приложить усилия для культивирования и повышения осведомленности о правах интеллектуальной собственности во всем обществе.

(3) С точки зрения предприятий, права интеллектуальной собственности являются важным оружием для предприятий, позволяющим им постоянно внедрять инновации и участвовать в рыночной конкуренции.

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ДЕФИЦИТ ЙОДА КАК ФАКТОР РИСКА РАЗВИТИЯ ТИРЕОИДНОЙ ПАТОЛОГИИ

Аннотация: Практически треть населения мира проживает в регионах йодного дефицита. При потреблении йода меньше 50 мкг в сутки зоб, как правило, имеет эндемическое распространение, а если оно оказывается меньше 25 мкг, могут встречаться случаи йододефицитного гипотиреоза.

Ключевые слова: йод, зоб, дефицит, гипотиреоз.

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IODINE DEFICIENCY AS A RISK FACTOR FOR THE DEVELOPMENT OF THYROID PATHOLOGY

Resume: Almost a third of the world's population lives in regions of iodine deficiency. When iodine intake is less than 50 micrograms per day, goiter, as a rule, has an endemic, distribution, and if it is less than 25 micrograms, cases of iodine deficiency hypothyroidism may occur.

Key words: Iodine, goiter, deficiency, hypothyroidism.

Заболевания щитовидной железы (ШЖ) относятся к наиболее частой патологии человека. Их распространённость варьирует в разных регионах, что в первую очередь зависит от уровня потребления йода. Эпидемиологические исследования нарушений функций ЩЖ имеют ряд ограничений, например, в плане определения понятий манифестного и субклинического. При узловом зобе может развиваться функциональная автономия ЩЖ, приводящая к развитию тиреотоксикоза, распространённость которого в этой связи может значимо возрасти В начале осуществления программ массовой йодной профилактики, особенно среди лиц старше 40 лет. Кроме того, на этом фоне может возрасти распространённость аутоиммунного тиреоидита и, как исхода данного заболевания, гипотиреоза. Йод индуцированный тиреотоксикоз

развивается наиболее часто в регионах тяжёлого йодного дефицита, особенно если происходит быстрое и избыточное повышение потребления йода.

Работ, посвящённых изучению распространённости аутоиммунных заболеваний ЩЖ в регионах йодного дефицита, достаточно мало к примеру, в сицилийском исследовании была изучена распространённость функциональной автономии ЩЖ в зависимости от йододефицитности региона. Распространённость функциональной автономии щж была значительно выше в зоне с дефицитом йода: 4,4% общего объёма пациентов по сравнению с 2,7% в благополучных по содержанию йода регионах. в регионах с нормальным потреблением йода в большинстве случаев заболевания ЩЖ бывают аутоиммунными, включающими первичный атрофический гипотиреоз, тиреоидит Хашимото (аутоиммунный тиреоидит) и болезнь Грейвса. Общего тироксина (Т.), уровней антител к тиреопероксидазе и тиреоглобулину (ТГ). По данным исследования распространённость гипотиреоза в общей популяции составила 4,6% (0,3% манифестного и 4,3% субклинического), что соответствует более 9,5 млн человек с неучтенной недостаточностью ЩЖ, распространённость гипертиреоза составила 1,3% (0,5% манифестного и 0,7% субклинического), что соответствовало 2 млн 600 тыс. человек с неучтённым гипертиреозом.

Наиболее частая причина тиреотоксикоза болезнь Грейвса, за ней по распространённости следует многоузловой токсический зоб, после чего более редкие причины, такие как солитарная токсическая аденома, тиреоидиты и др. Пик заболеваемости болезнью Грейвса находится между 20 и 49 годами, но в некоторых этнических группах приходится на более старший возраст (после 60 лет) Также следует отметить, что в исследова-ниях используют разные точки распределения/ разделения пациентов в зависимости от уровня ТТГ - от 0,1 до 0,5 мЕд/л, что также отража ется на промежуточных и конечных результатах исследований.

Обеспеченность региона йодом также имеет значение, так как даже умеренный его дефицит приводит к кратному увеличению случаев тиреотоксикоза, обусловленного наличием УТЗ, причём данная разница проявляется в старшей возрастной группе (50 лет и старше). Таким образом, по существующим в литературе данным общая распространённость субклинического гипертиреоза, не считая незарегистрированных случаев манифестного тиреотоксикоза, распространённость которого по минимальным подсчётам в 1,5-2 раза превышает официальную статистику, варьирует от 1,0 до 9,7% в зависимости от региона, при этом она наиболее высока среди лиц старше 50 лет. Среди факторов риска можно безоговорочно определить только женский пол, так как женщины в 5-10 раз чаще болеют аутоиммунными заболеваниями.

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СРАВНИТЕЛЬНАЯ МОРФОЛОГИЯ ЭНДОТЕЛИЯ ЛИМФАТИЧЕСКИХ КАПИЛЛЯРОВ БРЮШИНЫ И ИХ ОТНОШЕНИЕ К МЕЗОТЕЛИЮ

Аннотация: Клетки мезотелия брюшины у животных всегда бывают меньшей величины, чем эндотелия соответствующих лимфатических капилляров, и у разных млекопитающих обладают различным сродством с серебром. Большой аргирофильностью обладают клетки мезотелия у собаки и крысы, чем у кролика.

Ключевые слова: лимфатических капилляров, кролика, крысы, серебром.

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COMPARATIVE MORPHOLOGY OF THE PERITONEAL LYMPHATIC CAPILLARIES AND THEIR RELATION TO THE MESOTHELIA

Resume: the cells of the peritoneal mesothelium in animals are always smaller than the endothelium of the corresponding lymphatic capillaries and in different mammals they have different affinities for silver. Mesothelial cells in dogs and rats are more argyrophillic than in rabbits.

Key words: lymphatic capillaries, rabbit, rat, silver.

Данные наших исследований свидетельствует, что у млекопитающих, как и у человека, эндотелий лимфатических капилляров брюшины имеет клеточное строение и обладает большим полиморфизмом. У кошки, кролика, крысы, морской свинки клетки эндотелия лимфатических капилляров имеют звездчатую форму. Обычно звездчатые

клетки широкие, но иногда они удлиняются и приобретают полигональную форму, где длина превалирует над шириной, что, как мы полагаем, зависит от сокращения, причем в этом случае стенки этих капилляров и сосудов были как бы гофрированы. Величина клеток эндотелия лимфатических капилляров у разных животных различна у морской свинки она равняется 80 Х 60, 80 Х 100 мк и пр., у кролика – 80 Х 50, 100 Х 40, 120 Х 40 мк, у кошки 120 -80, 120 Х 60, 150 Х 40 мк., у собаки- 100 Х 120, 120 Х 90, 130 Х 100 мк, у крысы- 80 Х 25, 100 Х 30, 140 Х 35 мк. Из приведенного видно, что наибольшей величиной отличаются клетки эндотелия у собаки и кошки. По ходу лимфатических капилляров встречаются лакунарные расширения и колбообразные вздутия.

Ядра бывают овальные и округлые, что зависит от формы клеток. Отношение ядер к серебру различно, оно то коричневые (у морской свинки), то светло желтые (у кролика). Ядра имеют меньшее сродство с серебром, чем цитоплазма клеток эндотелия, м выделяются в виде светлых полей на фоне более темной цитоплазмы. Величина ядер: 30 Х 20, 20Х 10, 10Х 10, 25Х10 мк и др.

Особенности строения брюшины у животных отражаются и на ее лимфатической системе. Так, у морской свинки мы наблюдали в юрюшине, покрывающий желудок, люки выстланынные эндотелием. Люки имели продольное направление и величину 0,25 Х 2,5 мм 0,3Х 3 мм 0,4Х 3мм. У кошки, как у человека и собаки, в диафрагмальной брюшине расположены

люки веретенообразной формы величиной 0,2Х 5мм 0,3 Х 2 мм 1, 2 Х 0,3 мм, выстланные клетками эндотелия полигональной формы. Лимфатические капилляры брюшины передней стенки живота лежат на глубине 14- 16 мк, а местами до 48 мк под мезотелием. В брюшине, покрывающей диафрагму, они расположены более повехностно – на глубине 4-12 мк, иногда прилегая непосредственно к мезотелию. В отводящих лимфатических сосудах клетки удлиняются, приобретают вытянутую ромбовидную или веретенообразную форму. Мезотелий брюшины. Клетки мезотелия брюшины по величине меньше соответствующих клеток эндотелия лимфатических капилляров, их строение более стабильно, и мы никогда не наблюдали перепывов клеточных границ. Величина клеток мезотелия брюшины передней стенки живота у морской свинки равняется 40 Х 20, 60 Х 40, 45 Х 40 мк и др., у кошки – 50 Х 40, 60 Х 40, 50 Х 30, 40 Х 40 мк и т. д., у собаки – 40 Х 50, 30 Х 30, 40 Х 40 мк и пр. Клетки обычно широкие, но бывают и узкие. Большим полиморфизмом характеризуются клетки мезотелия диафрагмальной брюшины у белых крыс.

У собаки в брюшине, покрывающей переднюю стенку живота, также наблюдаются клетки двух видов: одни имеют коричневую цитоплазму и светлые ядра, а другие светло - желтую зернистую цитоплазму и темные

ядра. По ходу аргирофильных границ клеток мезотелия наблюдаются расширения в виде зерен (у кролика в брюшине, покрывающий диафрагму) или колец с просветлением в центре (у кошки, белой крысы, собаки). Эти расширения имеют величину от 1 до 10 мк. В цитоплазме клеток мезотелия млекопитающих часто располагаются аргирофильные включения. Они могут быть более крупные (4 - 8 мк), как, например, у кошки, или меньше – у собаки и лежат в цитоплазме в виде зерен (1- 2 мк).

Таким образом, у млекопитающих (собаки, кошки, белой крысы, кролика и морской свинки) клетки эндотелия лимфатических капилляров пристеночной и висцеральной брюшины характеризуется полиморфизмом. Обращает внимание то, что в клетках эндотелия лимфатических капилляров млекопитающих, как и у человека, наблюдаются, хотя и в меньшей степени, свободные аргирофильные включения точечные и в виде темных колец с просветлением в центре. Оказывается, что эти включения рассеяны в цитоплазме клеток у собаки и крысы, а у кошки они лежат в виде скоплений

и цитоплазма представляет, как бы зернистой. Этих включений меньше в клетках эндотелия у морской свинки и кролика. Таким образом, аргирофильных включений, которые характеризуют интенсивность всасывания коллоидов (то есть белков) больше у тех млекопитающих (собака, кошка, крыса), которые питаются смешанной пищей, и меньше у кролика и морской свинки, получающих исключительно растительную пищу.

У млекопитающих обычно границы клкток эндотелия замкнутые, но иногда в них наблюдаются перерывы. На полученных препаратах мы наблюдали прерывистость, клеточных границ, которая сочеталась с множественными аргирофильными включениями в цитоплазме; при замкнутости границ клеток количество включений уменьшалось.

Лимфатические капилляры брюшины у млекопитающих лежат на глубине от 12 до 18 мк на передней стенке живота, а в диафрагмальной брюшине, как и у человека, - более поверхностно от 4 до 12 мк, местами прилегая к мезотелию. Клетки мезотелия брюшины у исследованных млекопитающих всегда бывают меньшей величины, чем эндотелия соответствующих лимфатических капилляров, и у разных млекопитающих обладают различным сродством с серебром.

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СИЛЫ И ФАКТОРЫ, СПОСОБСТВУЮЩИЕ ТОКУ ЛИМФЫ

Аннотация: Строения стенку лимфатических капилляров и сосудов обладает выраженной способностью перестраиваться и приспособливатсия. В токе лимфы в органах и оттоке из них важное значение имеют три постоянных условия: деятелность сердца, vis artergo лимфообразивания и сократимость стенки лимфотических сосудов, с которой тесно связана и функция клапанов-шлюзов. Движение лимфы в этом обширном русле может происходить только при активном участки самой стенки сосудов.

Ключевые слова: сердце, лимфотические сосуды, базальная мембрана.

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FORCES AND FACTORS CONTRIBUTING TO LYMPH FLOW

Annotation: The structure of the wall of lymphatic capillaries and vessels has a pronounced ability to rebuild and adapt. In the flow of lymph in the organs and outflow from them, three constant conditions are important: the activity of the heart, the vis artergo of lymph formation, and the contractility of the wall of the lymphatic vessels, with which the function of sluice valves is closely related. The movement of lymph in this vast channel can only occur with the active parts of the vessel wall itself.

Key words: heart, lymphatic vessels, basement membrane.

Строению лимфатических сосудов посвящено много работ. Д.Д.Зербино (1962), В.Д.Понамарева (1968) отмечают, что как в грудном протоке, так и в большинстве лимфатических сосудов обнаруживается хорошо развитый мышечный слой, гладкие волокна которого идут в косом, циркулярном и продольном направлениях. Rudbeck (1653) первый установил, что лимфатические сосуды снабжены клапанами, строение и формы которых не отличаются от венозных клапанов. Развитие клапанов лимфатических сосудов изучал Kampmeier (1931). Клапаны закладываются на 4-м месяце утробной жизни в виде плоских кольцевых разрастаний эндотелия. В лимфатических сосудах туловища клапаны расположены гуще, чем в сосудах конечностей. Экспериментальные исследования

показали, что лимфатические сосуды обладают физиологическим тонусом, а их стенки способностью к сокращению и расслаблению. По Huntington, лимфатические системы возникает независимо от венозной в виде изолированных мезенхимальных пространств, выстланных характерным для лимфатических капилляров эндотелием. Результаты изучения нами как внутриорганных, так и отводящих лимфатических сосудов органов грудной и брюшной полостей у плодов и новорожденных дают основания считать, что лимфатические сосуды закладываются в мезенхиме от эмбриональных венозных мешков. Эндотелий лимфатических капилляров лищен базальной мембраны, способствует слиянию их в один сосуд в начале изолированных каналов. Первый представлен капиллярами, стенка которых образована только эндотелием, в стенке же центрального отрезка выявляются все три слоя, лимфатического сосуда. Так как периферическая и центральная части лимфатического сосуда формируются на слияния описанных зачатков, то можно предположить, что на ранних стадиях развития сосуд на всем его протяжении является, по сути, капилляром. Таким образом, лимфатические сосуды формируются, как правило, путем слияния полосов зачатков. Изучение полюсов имеет существенное значение в том отношении, что на их основе образуются будущие клапаны лимфатических сосудов. Прежде всего следует указать на зачатки, у которых дистальный полюс, обращенный в сторону капилляров, бывает расширен и служит как бы его основанием. На внутренней поверхности клапана эндотелий удлиненный, вытянутый по оси сосуда, на наружной многоугольной формы. В экстраорганных лимфатических сосудах встречаются четки, дно которых не имеет описанной борозды, а значит и губ. Четки соединяются между собой так, что дно одной сливается шейкой другой. И в таких случаях нет морфологических предпосылок для образования полулунных клапанов. Шейки дистальной четки не всегда открывается в центре дна проксимальной. Различия форм четок бывают так хорошо выражены, что можно легко отличить лимфатический сосуд одного органа от другого. Причем это различие касается не только капилляров, но также и отводящих сосудов. Таким образом, в лимфатической системе, как и в других системах, выражена неразрывная связь между формой и функцией. Подводя итог приведенным данным, можно сказать, что закладки клапанов взаимосвязана со слиянием зачатков развивающихся сосудов, а форма их обусловлена морфологическими особенностями полюсов зачатков. Отсутствие базальной мембраны несомненно способствует активному слиянию зачатков, за которым наступает период организации стенки лимфатических сосудов. Этот процесс является решающим в формировании клапанов. На этой стадии развития лимфатической системы клапаны состоит из двух слоев эндотелия, образующих складку, которая легко уступает давлению инъецируемой в сосуды массы. Таким образом, организация стенки

лимфатических сосудов и тесно связанных с ней клапанов является единым процессом, проходящим определенные стадии. Таким образом, в капиллярах при слиянии зачатков создаются условия для образования клапанов, хотя капилляры, как известно, и лишены последних. При изучении формы клапанов внутриорганных сосудов эффективным оказался метод инъекции лимфатических сосудов, названный нами методом индикации. Форма клапана при его раскрытии зависит от места расположении отверстия. Из приведенного описания формы клапанов внутриорганных сосудов можно заключить, что они принимают активное участие в токе лимфы. Функцию этих клапанов можно сравнить с действием открывающихся и закрывающихся шлюзов. Движение лимфы по сосудам, имеющим клапаны- шлюзы, можно представить в таком виде. После заполнения лимфой периферической четки ее клапан закрывается, и лимфа под действием сокращающихся мышечных волокон стенки выталкивается через открытый клапан в вышележащую четку. Внутриорганные лимфатические сосуды большинства органов представляют сильно развитию систему. Обращает внимание явное несоответствие между внутриорганными и отводящими сосудами. Таким образом, по ходу внутриорганных сосудов должен быть аппарат, регулирующий поступлению лимфы в экстраорганные сосуды и далее в главные коллекторы. В образовании клапанов-шлюзов участвует не только внутренняя, но и средняя оболочка стенки сосуда. Морфологическим условиям нужно считать наличие мембран, в достаточной степени эластичных, чтобы совершать колебательные движения, физиологическим периодически выступающую разность давления крови по одну и другую сторону мембраны. Лимфатические сосуды, как известно, связаны с окружающими соединительнотканными структурами и могут находиться в тесных топографических отношениях с органами, обладающими сократительной (артерии) способностью. Таким образом, изменения, возникшие в окружающих структурах, оказывают влияние и на стенку лимфатического сосуда, а это может не только повлечь за собой нарушение тока лимфы, но и привезти к изменению самого процесса лимфообразования и биохимического состава лимфы. Horstmann (1952), применяя гистологические и экспериментальные методы, исследовал клапаны брыжеечных сосудов у крыс, кроликов и человека. По его мнению, клапанный сегмент (отрезок между двумя клапанами) представляет функциональное единство. Из приведенного описания клапанов внутриорганных лимфатических сосудов вытекает, что при жизни стенки и клапаны сосудов активно участвует в движении лимфы. Сложность строения клапанов обусловлена тем, что в их организации принимают участие не только внутренний, но и средний слои стенки лимфатического сосуда. Таким образом, к стенке отводящих

лимфатических сосудов печени направляются нервы, содержащие волокна трех видов:

толстые мякотные—чувствительные,

тонкие мякотные—вероятнее всего,

и безмякотные—симпатические.

Лимфатическая система обладает выраженной способностью перестраиваться и приспосабливаться для работы в новых условиях. Вследствие этого важную роль стала играть стенка сосуда, доказательством чего является не только значительное развитие мышечного слоя с его сложным ходом волокон, но и тесно связанная с ним деятельность клапанного аппарата. Таким образом, в токе лимфы в органах и оттоке из них важное значение имеют три постоянные условия: деятельность сердца, vis a tergo лимфообразования и сократимость стенки лимфатических сосудов, с которой тесно связана и функция клапанов-шлюзов.

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АЭРОКОСМИЧЕСКИЙ МОНИТОРИНГ ОСОБО ОХРАНЯЕМЫХ ПРИРОДНЫХ ТЕРРИТОРИЙ В УЖУРСКОМ РАЙОНЕ

Аннотация: В современном мире постоянно растут потребности человечества, достижения научно-технического прогресса и одновременно с этим, параллельно, возрастает негативное воздействие на условия существования народонаселения. В данной статье рассмотрены проблемы антропогенного воздействия, выявления проблем и их решение. Влияния воздействий на памятники природы и на природные заповедники, заказники.

Ключевые слова: памятник природы, антропогенное воздействие, природопользования, окружающая среда, природные территории.

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AEROSPACE MONITORING OF SPECIALLY PROTECTED NATURAL AREAS IN THE UZHURSKY DISTRICT

Annotation: This article discusses the problems of anthropogenic impact, identification of problems and their solution. The effects of impacts on natural monuments and on nature reserves, nature reserves.

Key words: natural monument, anthropogenic impact, nature management, environment, natural territories.

Особо охраняемые природные территории (ООПТ) – участки земли, водной поверхности и воздушного пространства над ними, где

располагаются природные комплексы и объекты, которые имеют особое природоохранное, научное, культурное, эстетическое, рекреационное и оздоровительное значение, которые изъяты решениями органов государственной власти полностью или частично из хозяйственного использования и для которых установлен режим особой охраны.

Земли в основном заняты остепененными лугами и степями северной части Хакасско-Минусинской котловины. Место, где горные хребты близко подходят друг к другу, носит название Ужурские Ворота и является памятником природы. В районе расположены государственные заказники "Солгонский кряж», «Пойма реки Сереж» и «Березовая дубрава», в которых сохраняются виды птиц и животных, занесенные в Красную книгу России и Красноярского края.

В Ужурском районе расположено множество водоемов с песчаными или заболоченными берегами, соленых и пресных озер, изобилующих рыбой. Пресные озера Малый и Большой Косоголь-излюбленные места отдыха местных рыбаков. Озеро Учум-одно из самых известных целебных озер Сибири. Оно расположено в Ужурском районе на юге Качинской степи, в 30 км южнее города Ужур, среди восточных отрогов Кузнецкого Алатау. Озеро Учум находится в узкой, тесной горной долине. С северной и западной сторон к его берегам сплошной обрывистой грядой подступают горы, возвышающиеся над озером на 200-250 м. на восточной стороне озера долина более пологая, постепенно переходящая в холмистую, мелкосопочную степь.

Учум — горько-соленое, бессточное озеро. Основную ценность представляют его озерная и подземная минеральная вода, а также лечебные грязи. По составу озерная вода сульфатно-хлоридная, натриево-калиевая, щелочная. В ней присутствует и ряд других соединений, в том числе соли кальция, магния, кремниевой кислоты. В значительных количествах, достигающих 200—600 мг на литр воды, в придонном слое присутствует сероводород. Содержание солей в озерной влаге непостоянное, за многолетний период оно изменялось обычно от 20 до 35 г на литр. В последние годы минерализация снизилась и чаще не превышает 20 г. Это объясняется увеличением размеров озера, его опреснением. По данным анализов, соленость воды у дна в центральной части озера почти в два раза выше, чем у поверхности.

В грязях озера присутствуют сульфаты кальция и натрия, углекислый кальций и магний, хлористый натрий, а также органические вещества: железо, марганец, медь, свинец, ванадий, титан, ряд других микроэлементов. Учумским грязям свойственно высокое — до 3 г на литр грязевого раствора — содержание сероводорода. По составу грязь обычно однородная, черного цвета, бархатисто-маслянистая, мягкая на ощупь, эластичная, легко намазывается и смывается. Запах ее резкий, сероводородный. По своим лечебным свойствам наибольшую ценность, по

мнению врачей и ученых, представляет нижний слой залежи в центральной части озера. Это наиболее древние иловые озерные отложения высококоллоидные, а вследствие этого обладающие высокой теплоемкостью, теплоудерживающей способностью, оказывающие при их использовании сильное стимулирующее влияние.

Недалеко от озера располагается археологический памятник — Учумская писаница, которая датируется железным веком. Петроглифы были обнаружены в 1847 г. На Южном склоне горы Учум выбиты изображения людей, животных, сосудов, схватки хищников, сцены охоты и тамговые знаки.

На данный момент в стране существует потребность в немедленном изменении ситуации, при которой наблюдается пренебрежительное отношение людей к окружающей среде. Подобное отношение к окружающей среде способствует появлению глобальных экологических проблем, которые препятствуют удовлетворению нужд и потребностей населения в должной мере. Для устранения проблем требуется применения серьезных мер государственного воздействия, властям следует обеспечить свободный доступ граждан к информации о природных процессах и экологических проблемах.

Экологические проблемы не могут решаться только на одном из уровней государственной власти: необходима согласованная деятельность региональных органов власти и местного самоуправления с органами государственного управления и субъектами хозяйствования при четком распределении прав и ответственности каждого субъекта за улучшение ситуации в области окружающей среды.

Таким образом, деятельность государства в сфере охраны окружающей среды должна обеспечивать сбалансирование потребностей общества и возможности окружающей среды, а также реализацию стратегии государства в сфере рационального природопользования направленной на соблюдение общепризнанных и закрепленных в законодательстве прав человека в области охраны окружающей среды, гарантированные Конституцией РФ.

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COVID-19 КАСАЛЛИГИДА БУЙРАКЛАР ЭГРИ-БУГРИ КАНАЛЧАЛАРИНИНГ ПАТОМОРФОЛОГИЯСИ

Резюме. Ушбу тадқиқотда 2021 йилда COVID-19 касаллигидан вафот этган 86 нафар беморларни буйраклари эгри-бугри каналчаларнинг патоморфологик ўзгаришлари урганилган. Бунда беморларнинг SARS-CoV-2 вируси таъсирида шикастланган буйракларининг пўслоқ қават оралиқ тўқимасида шиш, дистрофия, некробиоз ва деструкция каби ўзгаришлар ривожланганлиги, натижада каналчалар деформацияланиб, эпителийси дистрофия ва деструкцияга учраганлиги, интерстицийсида нордон гликозамингликанлар кўп тўпланиб, гидрофиллиги ошиши, суюқлик шимилиши, тўқима тузилмалари титилиб, деструкцияланиши кузатилди.

Калит сўзлар: Covid-19, SARS-CoV-2 вируси, буйраклар, эгри-бугри каналчалар, конг томирлар, қон куйилишлар, склеротик ўзгаришлар.

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PATHOMORPHOLOGY OF KIDNEY CURVUE-REBINUS DUCT IN COVID-19 DISEASE

Resume. In this study, the pathomorphological changes of the convoluted tubules of the kidneys of 86 patients who died from the disease of COVID-19 in 2021 were studied. In this case, changes such as edema, dystrophy, necrobiosis, and destruction have developed in the interstitial tissue of the kidneys damaged by the SARS-CoV-2 virus, as a result of which the tubules are deformed, the epithelium undergoes dystrophy and destruction, sour glycosamineglycans accumulate in the interstitium, increase hydrophilicity, fluid absorption, tissue structures it was observed that it was destroyed.

Key words: Covid-19, SARS-CoV-2 virus, kidneys, convoluted tubules, blood vessels, burns, sclerotic changes.

Долзарблиги: SARS-CoV-2 вирусининг S-оқсили ангиотензинни ўзгартирувчи 2тур ферменти(ACE2) рецепторларига ўхшаш ва унинг экспрессияланиши SARS-CoV вирусидан 10 баробар кучлидир. SARS-CoV-2 вируси ҳар қандай аъзо ёки тўқимани шикастлаганда унинг кучли репликацияланиши виремия, иммун бузилишлар, гипоксияга сабаб бўлади. Бу касалликнинг туб патогенлик моҳияти деструктив-продуктив тромбоваскулит ва гиперкоагуляцияли синдром, микроангиопатия ва иммун тизимнинг фалажланиши ҳисобланади **[**1,2,3,4].

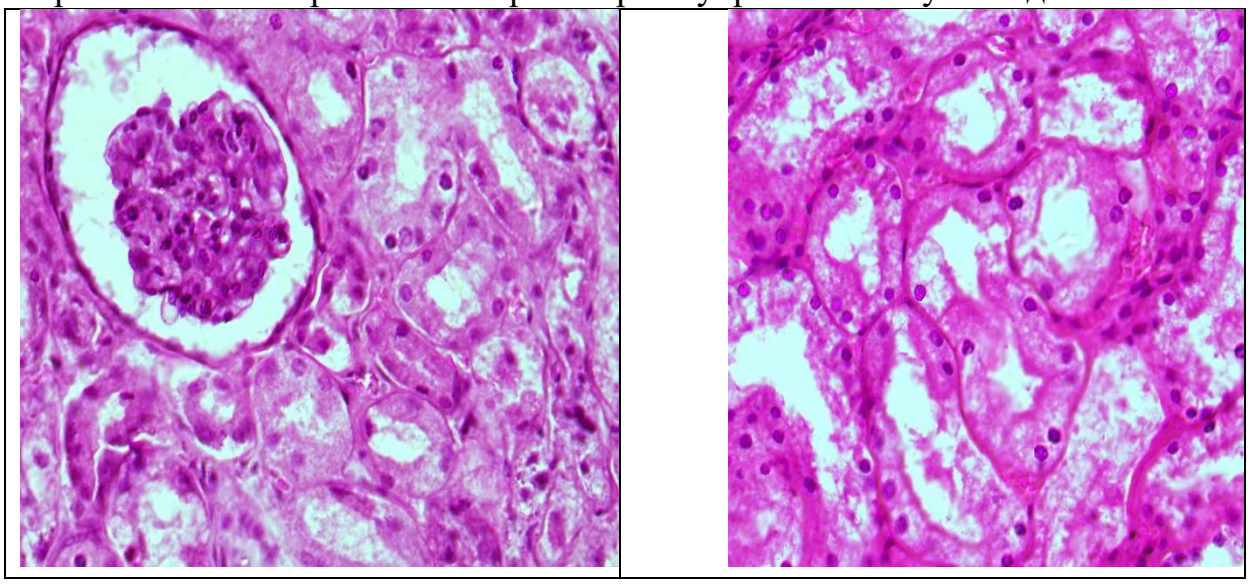
Ишнинг мақсад ва вазифалари: COVID-19 касаллигидан вафот этганларнинг касаллик тарихи ва аутопсия баённомалари маълумотлари ўрганилиб, ретроспектив тахлил ўтказилиб, буйракларнинг буйраклар эгри-бугри каналчаларид**а** юзага келадиган патоморфологик ўзгаришларни ўрганиш.

Материал ва услублар: 2021 йили бахор ва ёз ойларида COVID-19дан вафот этган ва РПАМ да текширилган 86 нафар беморларни касаллик тарихи, аутопсия баённомаси маълумотлари таҳлил қилинди. Аутопсияда аъзолардан олинган кесим бўлакчалари 10% фосфат буферда тайёрланган формалин эритмасида 72 соат қотирилди, гематоксилин – эозин усулида бўялди.

Натижалар: беморлар биоптатлари ўрганилганда буйрак тўқимасида SARS-CoV-2 вирусининг S-оқсили ACE2-ферментига репликацияланиши буйрак пўслоқ қавати оралиқ тўқимаси орқали қон томирлари ва каналчалар деворидаги эпителий ҳужайраларини шикастлаши кузхатилди. COVID-19 касаллигининг асорати - ўткир буйрак етишмовчилигидан ўлган беморлар буйраги пўстлоқ қавати ўрганилганда тўқимасининг барча қисми кучли шиш ва дистрофияга учраганлиги кузатилди. Каналчалар гистотопографияси кескин бузилганлиги, айниқса эгри-бугри каналчаларнинг проксимал қисми эпителийси вакуоляр ва гиалин-томчили оқсилли дистрофияга учраганлиги аниқланди (1-расм). Ушбу каналчалар эпителийси дистрофия ҳисобига бўкиб катталашганлиги, цитоплазмасида рангсиз вакуолалар ва эозинофилли оқсилли моддалар мавжудлиги кузатилди. Айрим эпителийларнинг каналча бўшлиғига қараган юзаси бузилганлиги, цитоплазмадаги моддалар бўшлиқга тушганлиги аниқланди. Каналчалар орасидаги интерстициал тўқимада ҳам шиш, дезорганизация ривожланганлиги, айрим соҳаларида лимфоид ҳужайралар пайдо бўлганлиги аниқланди.

SARS-CoV-2 вируси ўзи шикастлаган тўқимада деструктив-продуктив тромбоваскулит ва гиперкоагуляцияли синдром, микроангиопатия ва иммун тизимнинг фалажланиши қўзғатади. Ушбу патогенетик таъсиротлар оқибатида буйрак эгри-бугри каналчаларида ҳам кучли даражада патоморфологик ўзгаришлар ривожланганлиги аниқланди. Проксимал эгри-бугри каналчалар эпителийси цитоплазмаси вакуолизацияланиб, оқсилларининг нотўғри тўпланишидан ҳар хил шаклга

кирганлиги кузатилди. айримлари кучли шишга учраб, юзаси бузилганлиги, цитоплазма моддалари бўшлиғига тушганлиги аниқланди (2-расм). Эпителий ядролари бетартиб жойлашган ва турли даражада кариопикноз ва кариолизис жараёнларига учраганлиги кузатилди.



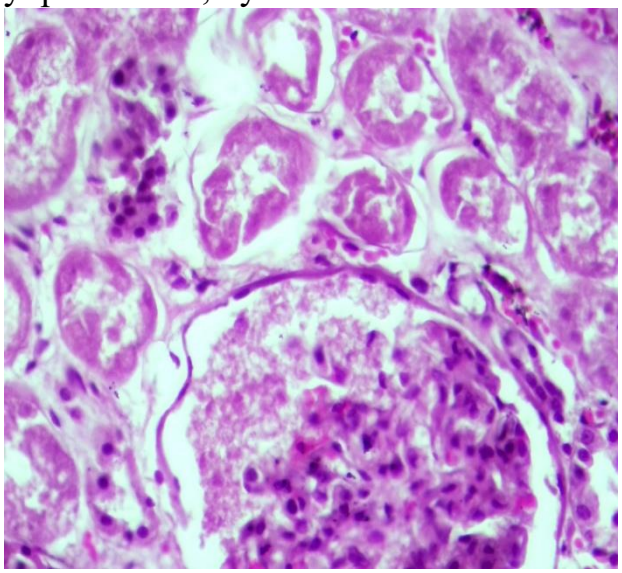
1-расм. Буйрак пўстлоқ қавати, коронавирус таъсирида ўзгарган эгри-бугри каналчалар ва каптокчисининг умумий кўриниши. Бўёқ: Г-Э. Кат: 10х40.

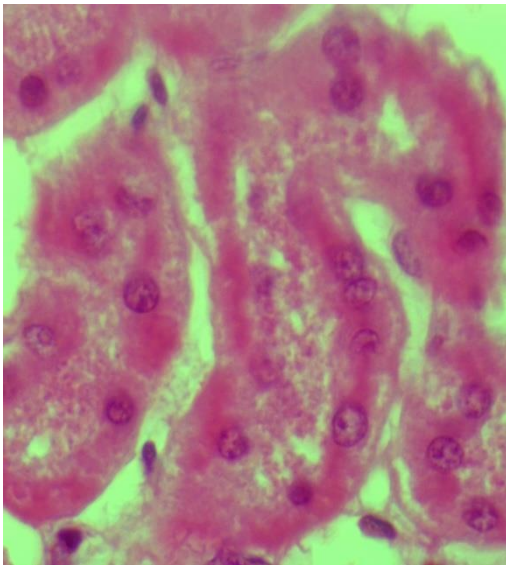
2-расм. Буйрак пўстлоқ қавати, каналчалар эпителийсининг кучли дистрофия ва шишга учраганлигидан ҳажми кенгайган, эпителийси деструкцияланган. Бўёқ: Г-Э. Кат: 10х40.

COVID-19 касаллигида буйракларнинг барча қисмлари шикастланиб, каптокча капиллярлар тўрида фильтрация бузилиб, бирламчи сийдик таркибига оқсиллар кўпроқ ўтиши натижасида, каптокча бўшлиғида эозинофилли қумоқ-қумоқ шаклдаги оқсилли модда тўпланганлиги кузатилди. Морфологик жиҳатдан проксимал эгри-бугри каналчалар эпителийси цитоплазмасида гиалин-томчили оқсилли дистрофия ривожланганлиги аниқланди (3-расм). Коронавирус таъсирида буйрак пўстлоқ қават оралиқ тўқимасида шиш ва дезорганизация жараёнлари ривожланганлиги аниқланди. Оралиқ тўқиманинг айрим соҳаларида лимфоид инфильтрация пайдо бўлганлигини буйракнинг вирусли шикастланишини тасдиқлайди. Микроскопнинг катта объективида ўрганилганда эгри-бугри каналчаларнинг ўлчамлари ва шакли ўзгарганлиги, бўшлиғининг оқсилли модда билан тўлганлиги аниқланди (4-расм). Коронавируснинг бевосита таъсири оқибатида каналчалар эпителийси кучли даражада оқсилли дистрофияга учраганлиги, цитокинли ҳужум таъсирида оралиқ тўқимада шиш ва яллиғланиш жараёни ривожланганлиги кузатилди. Каналчалар бўшлиғидаги бирламчи сийдик таркибида оқсилларнинг кўплигидан, каналча эпителийсига таъсир кўрсатиб, оқсилли гиалин-томчили дистрофия ривожлантиргани

аниқланди. Натижада эпителий ядролари бетартиб жойлашиб, ҳар хил даражада кариолизис ва кариопикнозга учраганлиги аниқланди.

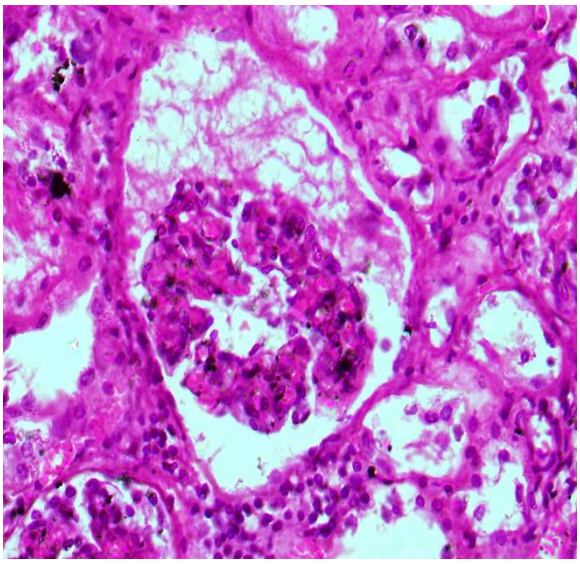
Буйракларга SARS-CoV-2 вируси кучли репликацияланиш, виремия, иммун бузилишлар, цитокинли ҳужум ва гипоксияни ривожлантириши оқибатида буйрак тўқимасининг барча тузилмалари шикастланди. Натижада буйрак каптокчалари бўшлиғида оқсилли модданинг тўпланишидан, каптокча кескин катталашади, капиллярлар тўри сиқилиб, четга сурилади, ташқи пардаси чўзилиб, юпқалашганлиги аниқланди (5-расм). Каптокча атрофида ва каналчалар орасида лимфоид инфильтрация пайдо бўлганлиги, натижада интерстициал тўқима кенгайиб, деструкцияланганлиги кузатилди. Каналчаларнинг барча қисми тўлиқ ҳолда деструкцияланганлиги, эпителийси дистрофия ва некрозга учраганлиги, бўшлиғи кенгайганлиги аниқланди

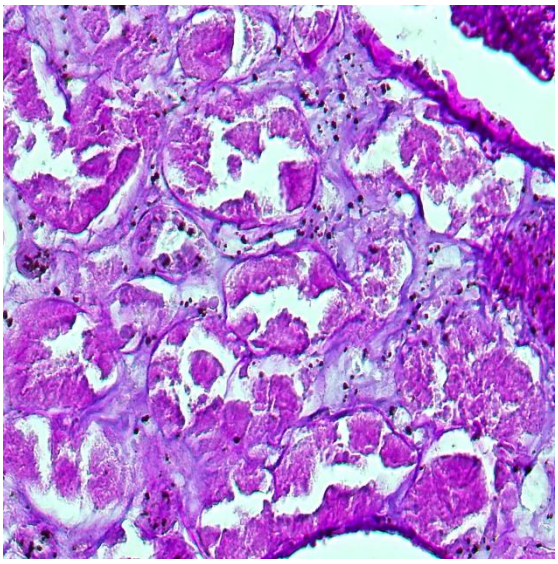




3-расм. Буйрак пўстлоқ қавати, каптокчи бўшлиғида оқсилли модданинг тўпланиши, каналчалар оралиқ тўқима шиши ҳисобига коллапсланиши. Бўёқ: Г-Э. Кат: 10х40.

4-расм. Буйрак пўстлоқ қавати, проксимал эгри-бугри каналчалар эпителийсида гиалин-томчили оқсилли дистрофия. Бўёқ: Г-Э. Кат: 10х40.





5-расм. Буйрак пўстлоқ қавати, каптокчи бўшлиғида оқсилли модда тўпланиши, каналчаларнинг кучли деструкцияланиши. Бўёқ: Г-Э. Кат: 10х40.

6-расм. Буйрак пўстлоқ қавати, оралиқ тўқимада нордон гликозамингликанларнинг кўп тўпланиши. Бўёқ: альцеин кўки. Кат: 10х40.

COVID-19 касаллиги таъсирида буйрак тўқимасида ривожланган метаболик ва дистрофик ўзгаришларни аниқлашда, қайси турдаги моддаларнинг кўпайиши, бошқаларининг камайишини аниқлаш учун гистокимёвий усулларда текшириш аниқ натижа берди. Юқорида кўрсатилган вируснинг патогенетик таъсирлари оқибатида кўпинча оралиқ тўқимада нордон гликозамингликанлар кўп тўпланиб, гидрофиллик хусусиятини пайдо қилади, натижада суюқлик шимилиб, тўқима тузилмалари шишга, дистрофияга ва некробиозга учрайди. Расмда SARS-CoV-2 вируси таъсирида буйрак пўстлоқ қавати оралиқ тўқимасида тўпланган нордон гликозамингликанлар альцеин кўки билан кўкиш рангга бўялганлиги кузатилди (6-расм). Натижада буйрак пўстлоқ қавати интерстицийси диффуз ҳолда нордон мукополисахаридлар билан тўлганлиги, кенгайганлиги, дистрофияга ва шишга учраганлиги аниқланди. Натижада эгри-бугри каналчалар деформацияланиб, эпителийси дистрофия ва некробиозга учраганлиги аниқланди. Некробиоз жараёнининг кучли даражада ривожланганлигидан, эпителий ҳужайралари ўзининг гистотопографик тузилишини батомом бузганлиги аниқланди.

Хулоса:

SARS-CoV-2 вирусининг S-оқсили буйрак пўстлоқ қавати оралиқ тўқимаси ва каналчалар базал мембранасидаги 2-ангиотензинни ўзгартирувчи фермент (ACE2)га репликацияланиб, буйрак тўқима тузилмаларида кучли даражадаги патоморфологик ўзгаришларни ривожлантирди.

Дастлаб буйрак пўслоқ қават оралиқ тўқимасида шиш, дистрофия, некробиоз ва деструкция каби ўзгаришлар ривожланганлиги, натижада каналчалар деформацияланиб, эпителийси дистрофия ва деструкцияга учраганлиги кузатилди.

Буйрак тўқимаси интерстицийсида SARS-CoV-2 вируси шикастлаши оқибатида нордон гликозамингликанлар кўп тўпланиб, гидрофиллиги ошади, суюқлик шимилади, тўқима тузилмалари титилиб, деструкцияланади.

SARS-CoV-2 вируси таъсирида буйрак тўқимасидан аксарият ҳолларда қон томирлар, каптокчалар ва проксимал каналчалар кучли патоморфологик ўзгаришга учраганлигидан ўткир буйрак етишмовчилиги ривожланиши кузатилади.

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COVID-19 ТАЪСИРИДА БУЙРАК ИНТЕРСТИЦИЙСИДА РИВОЖЛАНАДИГАН ПАТОМОРФОЛОГИК ЎЗГАРИШЛАР

Резюме. Ушбу тадқиқотда 2021 йилда COVID-19 касаллигидан вафот этган 86 нафар беморларни буйракларнинг оралиқ тўқимасида юзага келадиган патоморфологик ўзгаришлари таҳлил қилинган. Бунда буйраклар интерстицийси бириктирувчи тўқимасининг асосий моддасида нордон гликозамингликанлар тўпланиши ва склеротик ўзгаришларни ривожланишини гистокимёвий текширишлар орқали ўрганилган.

Калит сўзлар: Covid-19, SARS-CoV-2 вируси, буйраклар, интерстициал тўқима, мукополисахаридлар, гликозоаминогликанлар, склеротик ўзгаришлар, альциан кўки.

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PATHOMORPHOLOGICAL CHANGES DEVELOPING IN THE KIDNEY INTERSTITUTE UNDER THE INFLUENCE OF COVID-19

Abstract. In this study, 86 patients who died of COVID-19 in 2021 were analyzed for pathomorphological changes occurring in the interstitial tissue of the kidneys. Accumulation of acidic glycosaminoglycans and the development of sclerotic changes in the main substance of the connective tissue of the kidney interstitium were studied by histochemical tests.

Key words: Covid-19, SARS-CoV-2 virus, kidneys, interstitial tissue, mucopolysaccharides, glycosaminoglycans, sclerotic changes, altzian blue.

Долзарблиги: SARS-CoV-2 вируси тўқима ва ҳужайралар тўсиқларидан тез ва осон ўта олади, COVID-19 касаллигининг пролифератив даврида вирус билан шикастланган барча аъзоларда ўткир носпецифик пролифератив яллиғланиш кузатилади. Буйраклар оралиқ

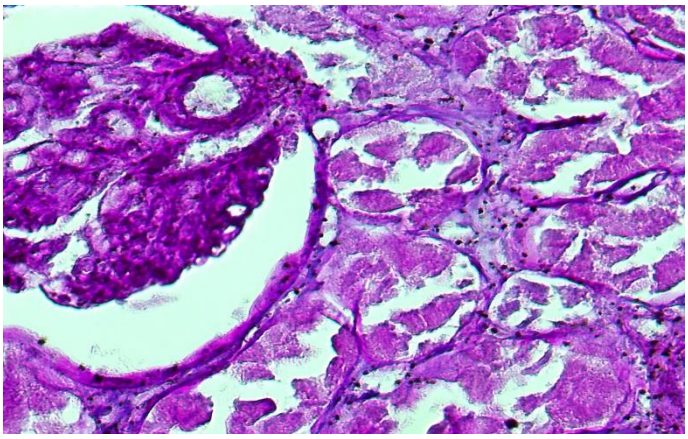
тўқимасида ҳам мос равишда диффуз шиш, дезорганизация, плазморрагия, склеротик ўзгаришлар юзага келади **[**1,2,3,4].

Ишнинг мақсад ва вазифалари: COVID-19 касаллигидан вафот этган беморлар буйраклари тўқимасининг умумморфологик ва гистокимёвий бўяш орқали юзага келадиган патоморфологик ўзгаришларни ўрганиш.

Материал ва услублар: 2021 йили бахор ва ёз ойларида COVID-19дан вафот этган ва РПАМ-да текширилган 86 нафар беморларнинг аутопсияда буйракларидан олинган кесим бўлакчалари 10% фосфат буферда тайёрланган формалин эритмасида 72 соат қотирилди, гематоксилин – эозин усули, ван-Гизон, альциан кўки билан бўялиб ўрганилди.

Натижа: беморлар биоптатлари ўрганилганда SARS-CoV-2 вируси таъсирида буйрак тўқимасида дастлаб интерстиций оралиғининг шиши, кенгайиши, унда жойлашган бириктирувчи тўқиманинг асосий моддаси бўлган мукополисахаридлар таркибини ўзгариши, нордон гликозамингликанлар тўпланиши махсус бўёқ альциан кўки билан ишлов берилганда ёркин намоён бўлиб, бунда оралиқ модданинг тўқ кўкга бўялиши, юз берди (1-расм).

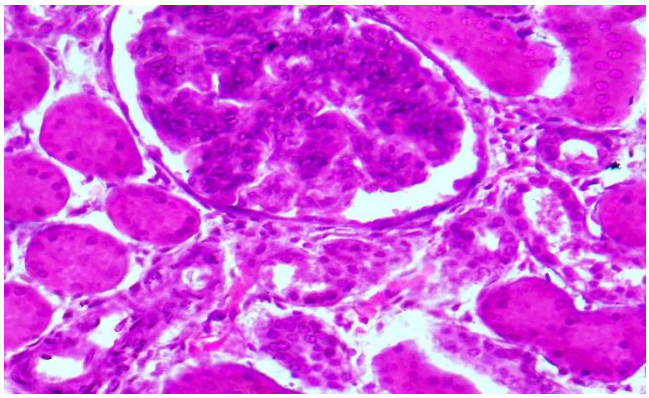
Буйраклар пўстлоқ қавати микроскопик ўрганилганда оралиқ тўқимаси кескин шишга учраганлиги, толали тузилмалари мукоид ва фибриноид бўкишга учраши, гомогенлашуви ва бўялишини бузилганлиги кузатилди (2-расм). Оралиқ тўқима ҳужайралари бетартиб жойлашганлиги ва айримлари пролифератив фаоллик даражасига ўтганлиги аниқланди.



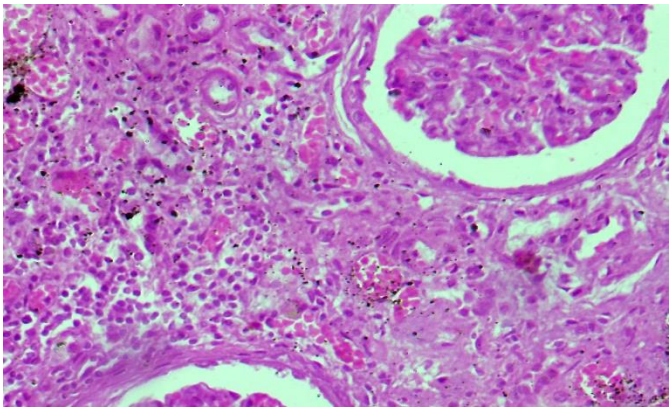
1-расм. COVID-19 касаллигининг авж олиш даврида вафот этган бемор М., 36 ёш, буйрак пўслоқ қавати оралиқ тўқимаси кенгайган, альциан кўки билан тўқ кўкга бўялган. Бўёқ: Альциан кўки. Кат: 10х40.

Буйракларнинг пўстлоқ қавати оралиқ тўқимасида касалликнинг бу даврида гематоксилин-эозин билан тўқ бўяладиган бириктирувчи тўқима оқсиллари кўпроқ синтезланганлиги ва плазма оқсиллари ҳам сизилиб чиқиб, оралиқ моддани тўлдирганлиги кузатилди. Натижада буйракнинг

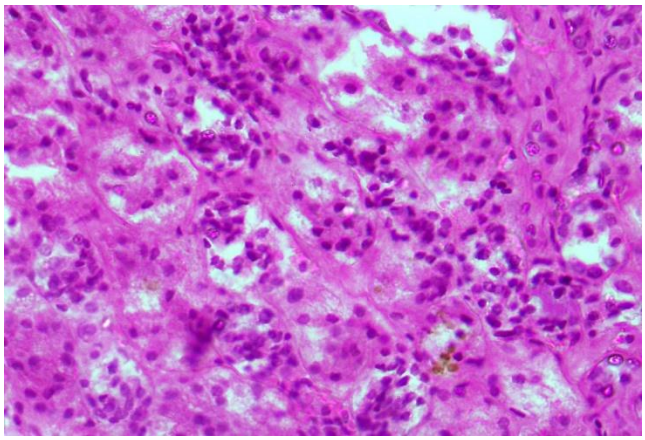
оралиқ тўқимаси кескин кенгайиб, тўқима тузилмалари билан тўлганлиги аниқланди. Оралиқ тўқимада лимфоид ҳужайралар ва макрофаглардан иборат инфильтрат пайдо бўлганлиги қайд этилди (3-расм). Буйрак мағиз қавати оралиқ тўқимасида ҳам кучли шиш, лимфоид инфильтрация, лимфоид фолликулалар шаклланиши кузатилди (4-расм). Мағиз қаватда жойлашган генли қавузлоғи ва йиғувчи каналлар эпителийси вакуол дистрофияга учраганлиги, каналчалар эпителийси деструкцияланганлиги аниқланди.



2-расм. COVID-19 касаллигининг авж олиш даврида вафот этган бемор Р., 41 ёш, буйрак пўстлоқ қавати оралиқ тўқимаси шишган, тўқима тузилмалари фрагментацияланган. Бўёқ: Г-Э. Кат: 10х40.



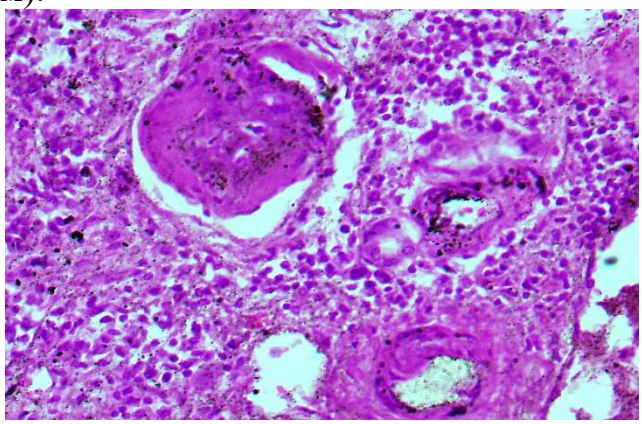
3-расм. COVID-19 касаллигининг пролифератив даврида вафот этган бемор С., 51 ёш, пўстлоқ қават оралиқ тўқимаси оқсилли модда кўпайганлиги ва лимфоид инфильтрация ҳисобига қалинлашган. Бўёқ: Г-Э. Кат: 10х40.



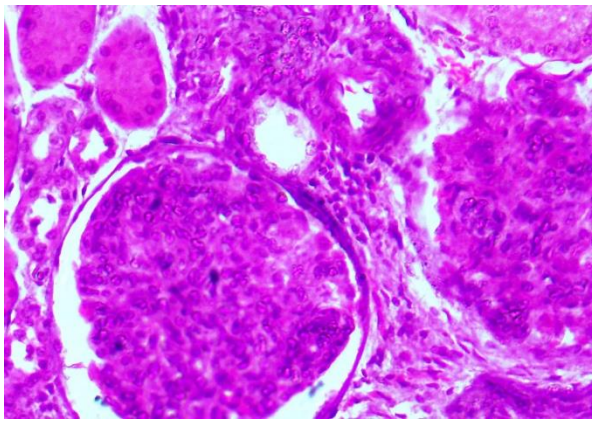
4-расм. COVID-19 касаллигининг пролифератив даврида вафот этган бемор С., 51 ёш, буйрак мағиз қавати оралиқ тўқимасида лимфоид ҳужайраларнинг тўпланиши. Бўёқ: Г-Э. Кат: 10х40.

COVID-19 касаллигининг пролифератив даврида буйракнинг пўстлоқ қавати оралиқ тўқимасида шикастланган каптокчалар ва қон томирлар атрофида лимфоид инфильтрация кучли ривожланиши, каналчалар эпителийсини атрофияси, деструкцияланганлиги аниқланди. Бу соҳанинг оралиқ тўқимасини кескин кенгайганлиги, диффуз ва зич ҳолда лимфо-гистиоцитар ҳужайралар билан инфильтрацияланганлиги кузатилди (4-расм).

COVID-19 касаллигини пролиферация даврида зарарланган буйраклар тўқималарида бириктирувчи тўқиманинг ёш ҳужайраларидан фибробласт ва гистиобластларнинг пролиферацияси ва склерози ривожланганлиги аниқланди. Гистокимёвий жиҳатдан буйрак пўстлоқ қавати оралиқ тўқимасида бириктирувчи тўқиманинг ўсиб кўпайиши билан бир вақтда оралиқ модда таркибидаги нордон гликозамингликанлар миқдори ҳам кўпайганлиги альциан кўки билан бўяб кўрилганда оралиқ тўқимада тўқ кўк рангга бўялган модданинг кўпайганлиги бу жараённи тасдиқлади (5-расм).

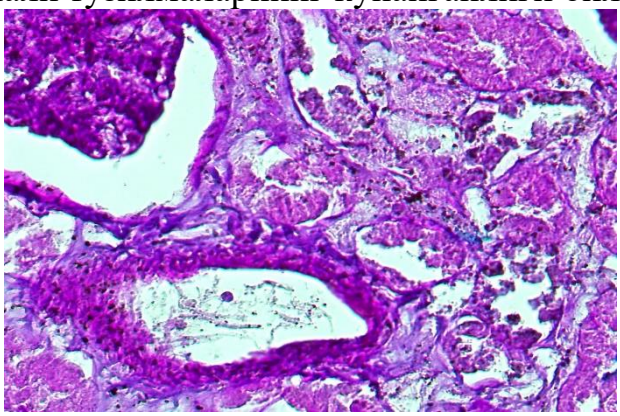


5-расм. COVID-19 касаллигининг пролифератив даврида ўлган касал А., 64 ёш, буйрак пўстлоқ қавати оралиқ тўқимасининг кучли даражада лимфоид инфильтрация билан қопланиши. Бўёқ: Г-Э. Кат: 10х40.

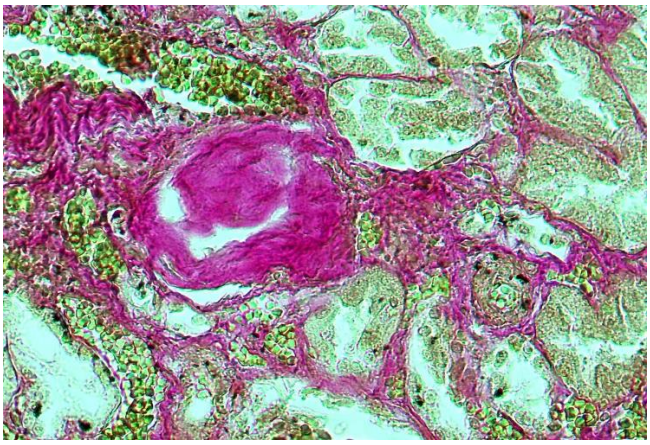


6-расм. COVID-19 касаллигининг пролифератив даврида ўлган касал Б., 54 ёш, буйрак каптокчаси ва оралиқ тўқимасида бириктирувчи тўқиманинг ўсиб кўпайиши. Бўёқ: Г-Э. Кат: 10х40.

COVID-19 касаллигининг пролифератив даврида буйрак тўқимаси интерстицийсида пролифератив яллиғланиш инфильтрати билан бир қаторда бириктирувчи тўқима ҳужайраларининг пролиферацияланиб, кўпайиши ва охир-оқибатда бириктирувчи тўқиманинг ўсиши ван-Гизон бўёғида бўялганда склерозга учраган каптокча ва оралиқ тўқимада ҳам бириктирувчи тўқиманинг ўсиб кўпайиши (3.2.10-расм), у жойларда қизил рангга бўялган толали тузилмаларнинг кўпайганлиги билан тасдиқланди.



7-расм. COVID-19 касаллигининг пролифератив даврида вафот этган бемор Б., 54 ёш, буйрак пўстлоқ қавати оралиқ тўқимасида кўк рангга бўялган нордон гликозамингликанларнинг тўпланиши. Бўёқ: альциан кўки. Кат: 10х40.



8-расм. COVID-19 касаллигининг пролифератив даврида вафот этган беиор Б., 54 ёш, склерозга учраган каптокча ва оралиқ тўқимада бириктирувчи тўқима толаларининг кўпайиши. Бўёқ: ван-Гизон. Кат: 10х40.

Хулоса

Буйрак тўқимаси SARS-CoV-2 вируси билан шикастлангандан кейин дастлаб интерстиций оралиғида жойлашган бириктирувчи тўқиманинг асосий моддаси таркибидаги мукополисахаридлар миқдорини ўзгариши, нордон гликозамингликанларни тўпланиши олиб келган, бу моддалар махсус бўёқ альциан кўки билан ишлов берилганда оралиқ модданинг тўқ кўкга бўялиши билан намоён бўлди. Ушбу интерстиций соҳаларида шиш, лимфо-гистиоцитар инфильтрация, бириктирувчи тўқиманинг пролиферацияси, склеротик ўзгаришлари кузатилди.

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О ДАЛЬНЕЙШЕМ СОВЕРШЕНСТВОВАНИИ ПРЕДОСТАВЛЕНИЯ БАНКОВСКИХ УСЛУГ НАСЕЛЕНИЮ

Аннотация. В данной статье подробно описаны реформы в банковской системе за счет предоставления банковских услуг населению и современных технологий.

Ключевые слова: банковское обслуживание, потребности населения, исламские финансы, коммерческие цели и др.

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ON THE FURTHER IMPROVEMENT OF THE PROVISION OF BANKING SERVICES TO THE POPULATION

Abstract. This article describes in detail the reforms in the banking system through the provision of banking services to the population and modern technologies.

Key words: banking services, needs of the population, Islamic finance, commercial purposes, etc.

Коммерческие банки представляют собой особый тип предприятий, подобно экономической организации. Он заинтересован в собственных конкретных результатах и повышении эффективности производства своего оборудования за счет самостоятельного ведения бизнеса. Представляя собой социальную базу общества, коммерческие банки участвуют как система в управлении экономикой и выступают проводниками политики ЦБ в денежно-кредитной и процентной сфере. Развитие коммерческих банков даже в узком смысле есть совокупность общественного продукта. Деньги, кредит и экономические категории служат основой для увеличения его сущности. Банки участвуют в движении этих категорий, т. е. банки определяют денежное обращение, кредит как кредитор народного хозяйства, а кредит осуществляет процентную политику. С переходом к рыночным отношениям коммерческие банки становятся важным компонентом инфраструктуры, мобилизующей свободные денежные ресурсы в своих интересах. Возникновение двухуровневой системы банков было следствием необходимости обеспечения стабильности денежного обращения, на этом во многом базировалось «здоровье» экономики. Банки,

получившие право регулировать денежное обращение на национальном уровне, в дальнейшем станут либо полноправными государственными банками, либо банками с прочными связями с государством, что позволит им осуществлять денежно-кредитную политику государства. В зависимости от операций, осуществляемых банками, они делятся на эмиссионные и коммерческие банки.

Финансовая доступность является краеугольным камнем не только справедливого и равноправного общества, но и процветающей экономики. Расширение доступа к финансовым услугам и доступа к финансированию может внести решающий вклад в экономическое развитие, обеспечивая социальную мобильность и гарантируя, что максимальное число людей сможет полноценно и эффективно участвовать в экономической жизни. По данным Всемирного банка, доступ к финансовым услугам «означает, что физические и юридические лица имеют доступ к полезным и доступным финансовым продуктам, и услугам, отвечающим их потребностям, — транзакциям, платежам, сбережениям, кредитам и страхованию — предоставляемым ответственным и устойчивым образом». Финансовая доступность помогает решить ряд социальных проблем, таких как экономический рост, занятость, бедность и равенство доходов как в развитых, так и в развивающихся странах. Однако проблемы и проблемы, связанные с расширением доступа к финансовым услугам, особенно остро стоят в развивающихся странах. Это положительно связано с ростом ВВП, до 14% в развивающихся странах. Как ключевой элемент социальной интеграции, финансовая интеграция особенно полезна для решения проблемы неравенства доходов и бедности за счет расширения возможностей продвижения для обездоленных слоев населения в странах с развивающейся экономикой. Доступ к транзакционному счету обычно рассматривается как первый шаг к расширению доступа к финансовым услугам, поскольку он позволяет людям совершать и получать платежи, а также экономить свои деньги. Это означает, что им легче жить, двигаться к достижению своих целей, готовиться к чрезвычайным ситуациям, развивать свой бизнес, инвестировать в образование и здравоохранение, а также получать более легкий доступ к другим финансовым услугам, таким как страхование и кредит. Скептицизм в отношении традиционных финансовых услуг также играет роль в доступе к финансированию. Существует огромный потенциал альтернативных инструментов, которые помогут большему количеству людей стать частью инвестиционной экосистемы. Например, исламские финансы обеспечивают всеобъемлющую основу для расширения доступа к финансовым услугам посредством принципа распределения рисков и через каналы перераспределения ислама.

Главную цель деятельности коммерческих банков можно в общем виде выразить как предложение и предоставление финансовых услуг.

Переработан и усовершенствован один из основных нормативных документов, регулирующих деятельность банков - «Правила регулирования деятельности коммерческих банков», разработанные Базельским комитетом по банковскому надзору; в нем учтены требования нового плана счетов и упомянутого выше порядка классификации активов коммерческих банков. Он ужесточает требования к банковскому капиталу, вводит новые пруденциальные правила, в том числе правила операций банков с ценными бумагами и инвестициями, о наибольшем риске на одного вкладчика. Реформа банковской системы в соответствии с требованиями рыночной экономики связана с реформой экономики в целом. Проводимая в республике масштабная программа приватизации должна обеспечить рост экономической активности, а значит, и спроса на банковские кредиты и услуги. Уникальность банковской системы Узбекистана можно увидеть в том, что многие коммерческие банки, официально зарегистрированные как банки определенной специальности (инвестиционные, ипотечные и т.д.), вынуждены действовать как универсальный банк. В мире часто достаточно проводить простые банковско-кредитные операции. В условиях современной плюралистической экономики необходимо учитывать новую реальность, которая выражается в том, что банки работают в многоотраслевой сфере финансовых услуг, а не в узком сегменте услуг, под которым традиционно понимается банковский сектор. Изменения в сфере финансовых услуг сегодня связаны с такими базовыми понятиями, как технология, процентный риск, конкуренция за клиента, адекватность инвестиций. Это один из важнейших элементов, который формирует, регулирует и управляет заемными средствами на рынках коммерческих банков.

Сегодня коммерческие банки оснащены достаточным техническим оборудованием, располагают необходимой информационной базой и квалифицированным персоналом, что делает их одними из основных участников рынка ценных бумаг. На рынке ценных бумаг банки выступают одновременно как инвесторы и эмитенты. Стабильное финансовое состояние банков по сравнению с другими хозяйствующими субъектами позволяет им участвовать в сделках на рынке ценных бумаг. Еще одной причиной активного участия коммерческих банков на фондовом рынке республики является стремление продать свои акции в сфере увеличения уставного капитала банков. На сегодняшний день коммерческие банки не начали работу с депозитными и коллективными сертификатами на фондовом рынке. Кроме того, банки также служат своим клиентам в качестве финансовых брокеров. Выполнение банками таких функций создает благоприятные условия для участия предприятий, организаций в операциях на рынке ценных бумаг. Сегодня в связи с тем, что процессы, связанные с приватизацией государственного имущества республики, получили широкое распространение, рынок государственных

ценных бумаг является более активным по сравнению с рынком ценных бумаг, принадлежащих предприятиям. Потому что коммерческие банки могут оказывать услуги клиентам на уровне банковского кредитного процента, а не кредитовать другую лизинговую организацию на лизинговые услуги, тем самым снижая стоимость лизинговых услуг. Кроме того, он имеет возможность привлечения необходимых средств и, в то же время, технически достаточно клиентоориентирован.

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НУТРИТИВНАЯ ПОДДЕРЖКА У БОЛЬНЫХ С ДЫХАТЕЛЬНОЙ НЕДОСТАТОЧНОСТЬЮ

Статья посвящена вопросам оказания помощи больным с новой коронавирусной инфекцией. Акцент сделан на статусе питания и методах его коррекции у больных COVID-19 в критических состояниях. Подчеркивается, что тяжелые больные COVID-19 достаточно часто имеют признаки нутритивной недостаточности, что связано с возрастом пациентов и их полиморбидностью. Кроме того, течение заболевания зачастую осложняется развитием дыхательной недостаточности, требующей проведения искусственной вентиляции легких. Обсуждаются сроки начала нутритивной поддержки, потребности в белке и калориях, а также способы доставки необходимого количества нутриентов и энергии. Подчеркивается, что проведение нутритивной поддержки требует преемственности между отделениями стационара и поликлиникой, а также индивидуального подхода к каждому пациенту.

Ключевые слова: COVID-19, нутритивная недостаточность, энтеральное питание.

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NUTRITIONAL SUPPORT IN PATIENTS WITH RESPIRATORY INSUFFICIENCY

The manuscript is devoted to medical care in patients with a new coronavirus infection. Nutritional status and methods of its correction in severe patients with COVID-19 are discussed. It is emphasized that severe patients with COVID-19 often have signs of nutritional deficiency that is associated with their age and comorbidities. Moreover, COVID-19 is often complicated by respiratory failure and need for mechanical ventilation. The time of nutritional support onset, needs for proteins and calories and delivery the required amount of nutrients and energy are analyzed. The author concludes that nutritional support requires continuity between hospital departments and outpatient clinics, as well as individualized approach to each patient.

Keywords: COVID-19, nutritional deficiency, enteral nutrition.

В конце 2019 года в провинции Хубэй Китайской Народной Республики была зафиксирована вспышка новой коронавирусной инфекции. Эпицентр заболевания находился в городе Ухань. В дальнейшем вирус распространился практически по всему миру. Всемирная организация здравоохранения (ВОЗ) присвоила инфекции официальное название COVID-19 аббревиатура от англ. «COrona VIrus Disease 2019 г.», а ее возбудителю — SARS-CoV-2 (SARS — Severe Acute Respiratory Syndrome). 11 марта 2020 г. ВОЗ объявила о пандемии COVID-19. До недавнего времени коронавирусам не уделяли пристального внимания, т.к. в клинической картине заболеваний превалировали нетяжелые симптомы инфекции верхних дыхательных путей. Летальные исходы регистрировались редко. Однако в конце 2002 г. в Китае был обнаружен коронавирус SARS-CoV, отнесенный к возбудителям атипичной пневмонии, течение которой сопровождалось развитием тяжелого острого респираторного синдрома (ТОРС), в англоязычной литературе SARS. Выявленный вирус относился к роду Betacoronavirus. Было установлено, что природным резервуаром SARS-CoV являются мыши, а промежуточными хозяевами — верблюды и гималайские циветты. За время эпидемии в 37 странах мира заболели около 8000 человек, из них 774 пациента умерли. Начиная с 2004 г. информации о новых случаях инфицирования SARS-CoV не поступало. В 2012 г. в Саудовской Аравии были зарегистрированы первые случаи инфицирования коронавирусом ближневосточного респираторного синдрома — Middle East respiratory syndrome-related coronavirus (MERS-CoV), также относящегося к роду Betacoronavirus. Основным природным резервуаром коронавирусов MERS-CoV являются одногорбые верблюды (дромадеры). Сообщается о 2519 случаях инфекции, вызванной MERS-CoV, за период с 2012 г. по 31 января 2020 г., 866 больных погибли. 82% наблюдений зарегистрированы на территории Саудовской Аравии. Новый коронавирус SARS-CoV-2 представляет собой одноцепочечный РНК-содержащий вирус, относящийся к роду Betacoronavirus. Инкубационный период для COVID-

19 составляет от 2 до 14 суток. На начальном этапе превалируют симптомы острой респираторной вирусной инфекции: повышение температуры, кашель, одышка, утомляемость, ощущение заложенности в грудной клетке и др. Среди клинических вариантов течения COVID-19 выделяют: острую респираторную вирусную инфекцию (поражение только верхних отделов дыхательных путей), пневмонию без острой дыхательной недостаточности (ОДН), пневмонию с ОДН, острый респираторный дистресс-синдром (ОРДС), сепсис и септический шок (при присоединении бактериальной инфекции) [3, 4]. По степени тяжести COVID-19 ранжируется на легкое, среднетяжелое, тяжелое и крайне тяжелое течение. Около 80% случаев протекают в легкой и среднетяжелой формах, 15% — в виде тяжелой и 5% — в крайне тяжелой. Больные с тяжелым и крайне тяжелым течением проходят лечение в отделениях реанимации и интенсивной терапии (ОРИТ), куда они обычно поступают с диагнозом внебольничная пневмония, осложненная ОДН, ОРДС, полиорганная недостаточность, сепсис и септический шок [4, 5]. Согласно данным, полученным от исследователей из Китая, средний возраст пациентов составляет 55 лет. Наиболее тяжелые формы COVID-19 чаще развиваются у больных старше 60 лет, лиц мужского пола и имеющих сопутствующие заболевания [5]. Среди коморбидной патологии превалируют: артериальная гипертензия и другие сердечно-сосудистые заболевания, сахарный диабет, ожирение, хроническая обструктивная болезнь легких. Патогенез COVID-19 до конца не изучен. Однако необходимо выделить два аспекта развития заболевания: тропность вируса к эпителию верхних дыхательных путей и развитие гипервоспаления с «цитокиновым штормом» при тяжелом течении [6]. Характерным профилем цитокинов, связанным с тяжелым течением COVID-19, является повышение уровня интерлейкинов (ИЛ) 2, 6, 7, фактора некроза опухоли, гранулоцитарного колониестимулирующего фактора и др. Высокие уровни ИЛ-6 — один из факторов неблагоприятного исхода заболевания. Лечение COVID-19 носит симптоматический характер, рекомендаций, полученных на основании рандомизированных клинических исследований, не выработано. Имеются сведения о позитивном влиянии на течение COVID-19 отдельных групп лекарственных препаратов, в частности противомалярийных, однако все они пока не подтверждены многоцентровыми исследованиями [7]. Среди госпитализированных пациентов выделяется группа больных в критических состояниях (КС), требующих перевода в ОРИТ и проведения искусственной вентиляции легких (ИВЛ) [4]. При этом отмечается, что наибольшую пользу приносят режимы респираторной терапии в прон-позиции (prone position) — на животе. Согласно публикациям, врачам анестезиологам-реаниматологам в основном приходится лечить больных пожилого и старческого возраста с сопутствующей полиморбидной патологией [5]. Эти пациенты часто имеют исходную нутритивную

недостаточность (НН), которая усугубляется в процессе лечения. Кроме того, у многих пожилых пациентов мышечная масса на момент госпитализации снижена, и в процессе лечения на фоне активации катаболизма наблюдается отрицательная динамика. Установлено, что уменьшение мышечной массы ассоциировано с негативным прогнозом исхода [8]. У части пациентов COVID-19 может сопровождаться симптомами, характерными для поражения желудочно-кишечного тракта: тошнотой, рвотой, диареей, что снижает потребление пищи и затрудняет ее усвоение [5]. Основные положения диагностики и лечения НН у больных в КС достаточно подробно описаны в клинических рекомендациях, недавно опубликованных Европейским обществом клинического питания и метаболизма (ESPEN) [9]. Однако у больных COVID-19 имеется ряд особенностей, которые необходимо учитывать. Это прежде всего высокая частота встречаемости НН у лиц старше 60 лет, развитие «цитокинового шторма» и связанного с ним ОРДС, необходимость прон-позиции для проведения ИВЛ и, соответственно, потенциальное снижение переносимости энтерального питания (ЭП), загруженность персонала, высокая контагиозность вируса, что требует минимизации контакта с оборудованием и пациентами, возможные побочные эффекты прокинетиков на фоне лечения некоторыми препаратами (например, противомалярийными). В настоящий момент ESPEN опубликовала препринт, в котором предпринята попытка систематизировать рекомендации по нутритивной поддержке (НП) при COVID-19 [10]. Аналогичные публикации представлены ассоциациями, занимающимися нарушениями питания в Великобритании, Бразилии, Испании [11, 12, 13]. Необходимо отметить, что общие принципы НП для больных COVID-19 в КС идентичны тем, которые выработаны для реанимационных больных. Вместе с тем представляется актуальным обсудить некоторые специфические аспекты нутритивного обеспечения больных с COVID-19 в КС. Большинство пациентов COVID-19 в КС, поступающих в ОРИТ, относятся к лицам старше 60 лет, риск НН у них исходно высок. Поэтому всем больным необходимо провести скрининг пищевого статуса [14]. В дальнейшем программа НП должна основываться на полученных результатах. Наиболее удобной и валидированной является шкала NRS-2002 (Nutritional Risk Screening), предложенная ESPEN [15]. Возможно применение и шкалы NUTRIC, которая разработана специально для больных в КС [16]. К ее особенностям необходимо отнести акцент на тяжесть состояния больного и оценку сопутствующей патологии, а не на показатели статуса питания. При невозможности удовлетворения потребностей больных в белке и энергии с помощью перорального питания в течение первых 48 часов необходимо начинать нутритивную терапию. Методом выбора является ЭП. Если оно противопоказано, то в зависимости от исходного нутритивного статуса в течение 3—7 дней от

момента поступления в ОРИТ назначается парентеральное питание (ПП) [17]. Наиболее распространенный способ ЭП — доставка питательных смесей через зонд, введенный в желудок, т.к. это наиболее физиологично. При таком доступе существует риск непереносимости зондового питания у больных COVID-19 в КС, обусловленный рядом обстоятельств: высокий остаточный объем желудка из-за нарушения моторики (стресс, назначение многочисленных подавляющих моторику препаратов), прон-позиция. В связи с этим проведение ЭП требует тщательного мониторинга. Для повышения переносимости ЭП традиционно используются прокинетики: блокатор DA2 -рецепторов метоклопрамид (по 10 мг 3 раза в сут) и агонист рецепторов мотилина, макролидный антибиотик эритромицин (3—7 мг/кг сут). У больных с COVID-19 применение этих препаратов должно учитывать характер базисной терапии. Установлено, что у пациентов, получающих хлорохин и гидроксихлорохин, назначение эритромицина, метоклопрамида и домперидона может приводить к увеличению интервала QT на электрокардиограмме, увеличивая риск желудочковых аритмий При проведении ЭП в прон-позиции возрастает риск регургитации и аспирации желудочного содержимого. Клиницисты неоднозначно относятся к ЭП у больных, находящихся в положении на животе. Для улучшения усвояемости пищи и снижения количества осложнений рекомендуется поднять головной конец тела пациента на 20—25°. Если назначение прокинетиков неэффективно или невозможно из-за базисной терапии, то используют постпилорическое кормление, для чего устанавливают назоинтестинальный зонд.

При этом стоит рассмотреть возможность использования полуэлементных смесей [10]. Отношение к ПП у больных в КС сдержанное, хотя имеются сведения о его безопасности [18]. ПП проводят при противопоказаниях к ЭП или при невозможности доставить нужное количество белка и энергии энтеральным путем (дополнительное ПП). В зависимости от состояния пациента ПП начинают в первые 3—7 дней от момента поступления в ОРИТ. При выборе срока начала ПП (если имеются показания) необходимо учитывать исходный пищевой статус пациента. При высоком риске НН и у истощенных больных целесообразно проводить раннее ПП, начиная с 3-х суток. В любом случае в первые два дня пребывания больного COVID-19 в ОРИТ рекомендуется воздерживаться от ПП для предотвращения перекармливания пациентов, а в дальнейшем постепенно увеличивать количество вводимых калорий и белка. При определении нутритивных потребностей в рекомендациях ESPEN предлагают ориентироваться на расчетные методы [10]. Это связано с двумя обстоятельствами: крайне высокой нагрузкой на персонал ОРИТ и повышением риска инфицирования при дополнительных манипуляциях. Даже при возможности проведения непрямой калориметрии ее используют редко.

Современные подходы к введению энергетических субстратов предусматривают ступенчатое увеличение калоража. Считается целесообразным достижение 100% значений от расчетных показателей доставки энергии к 4-м суткам пребывания в ОРИТ [9]. Ориентиром является 20—25 ккал/кг сут. Аналогичный подход используется и для доставки белка: к 4-м суткам целевой ориентир — 1,3 г/кг сут [17]. Такая реализация НП ассоциирована с более благоприятным прогнозом заболевания. Основываясь на положении, что 100 г аминокислот для парентерального введения соответствуют 83 г белка [19], аминокислоты при ПП необходимо вводить в дозе около 1,56 г/кг сут. У больных COVID-19 в КС с ожирением для определения потребностей предлагается использовать скорректированный вес, определенный по формуле: скорректированный вес=идеальный вес+(реальный вес– –идеальный вес)×0,33 [10]. Еще раз хочется повторить, что общие принципы проведения НП у больных COVID-19 в КС соответствуют рекомендациям для реанимационных больных. Назначение углеводов не должно превышать 5 г/кг сут, а ориентир для жиров — 1,0—1,5 г/кг сут. Доставка микронутриентов и витаминов препаратами для ЭП и ПП дозируется в соответствии с суточными потребностями. Такой подход обусловлен данными, что низкий уровень содержания в организме или потребления витаминов А, Е, В6 и В12, а также цинка и селена связывают с неблагоприятными клиническими исходами вирусных инфекций [20]. В связи с этим, по мнению китайских клиницистов, дополнительное введение микронутриентов следует рассмотреть при особых обстоятельствах или при невозможности стандартной доставки в случае проведения НП [21]. У многих больных с COVID-19 в КС в связи с дыхательной недостаточностью на фоне пневмонии и ОРДС возникает потребность в ИВЛ. Кроме того, современные концепции подразумевают рестриктивную тактику инфузионной терапии у таких больных, это необходимо учитывать при планировании НП. Еще один аспект, на который необходимо обратить внимание и который нечасто обсуждается в литературе, — это проведение седации у больных на ИВЛ.

При развитии ОРДС для синхронизации с респиратором часто назначается постоянная инфузия пропофола. В инструкции производителя определена максимальная скорость введения — 4 мг/кг час. На практике обычно расходуется около 20 мл 1% раствора пропофола в час на одного пациента. В 20 мл 1% раствора пропофола (1 ампула) содержится около 2 г жира, соответственно за сутки пациент может получать до 48 г жира и 500 ккал. Это следует помнить при определении калорийности НП. Во избежание избыточного введения калорий и развития осложнений (перекармливание, рефидинг-синдром) необходимо сокращать почасовую скорость введения смесей для ЭП. Калорийность 1% пропофола ≈ 1 ккал/мл, что соответствует энергетической ценности стандартных

полимерных смесей для ЭП. При планировании ЭП клиницист должен акцентировать внимание на нескольких аспектах. Это прежде всего: необходимость постепенного увеличения доставки белка и энергии с достижением расчетных величин к 4-м суткам пребывания в ОРИТ, степень усвояемости смесей пациентом, уровень волемии. В условиях избыточной нагрузки на персонал и риска заражения для проведения ЭП лучше всего применять специальные насосы (энтероматы), которые позволяют программировать и поддерживать заданную скорость введения смеси при минимальном участии персонала.

Начинать введение смесей рекомендуют со скорости 20 мл/ч с постепенным ее увеличением, ориентируясь на потребности больного в нутриентах и энергии, учитывая переносимость препаратов. Препаратами выбора для ЭП являются смеси, содержащие большое количество белка в малом объеме. В качестве примера можно привести Фрезубин Интенсив (Fresenius Kabi). Высокое содержание белка (10 г в 100 мл) позволяет доставить расчетное количество протеинов в остром периоде заболевания без избыточного введения калорий. В одном мешке содержится 500 мл смеси, при весе пациента в 75 кг вводимая доза белка составляет около 0,7 г/кг сут, а энергии — 620 ккал, что соответствует рекомендациям ESPEN для больных в КС [9]. Отдельной проблемой у больных COVID-19 с ОРДС является нутритивная поддержка пациентов на ИВЛ в пронпозиции. Вероятность усвоения пищи в положении на животе снижается. Одним из решений этой проблемы является использование гиперкалорийных гипернитрогенных смесей. Так, в препарате Фрезубин 2 ккал ВП (Fresenius Kabi) содержится 10 г белка в 100 мл и 1,5 ккал в 1 мл. Назначение гиперкалорических смесей снижает время эвакуации из желудка и сопряжено с меньшей вероятностью непереносимости питания у больных в прон-позиции. Кроме того, за счет увеличения в смеси доли жиров по отношению к углеводам снижается дыхательный коэффициент. Использование Фрезубин 2 ккал ВП позволяет снизить объем волемической нагрузки у больных с ОРДС. При развитии диа рейного синдрома предпочтение отдается аналогичному препарату, содержащему пищевые волокна. Выбор правильной схемы ЭП представляет непростую задачу для клинициста. Сопутствующая патология зачастую диктует назначение различных смесей и их комбинацию для лечения пациента.

Так, у больных с сахарным диабетом предпочтение отдается специальным препаратам с низким гликемическим индексом, а у пациентов с синдромом мальабсорбции возможно применение полуэлементных смесей. Темой, ставшей актуальной в связи с COVID-19 и недостаточно обсуждаемой в литературе, является НП у больных с дыхательной недостаточностью, не требующей интубации трахеи и перевода на инвазивную ИВЛ. Таким пациентам часто назначается высокопоточная оксигенация через носовые канюли и неинвазивная

вентиляция легких через маску. Отношение к этим методам неоднозначное, и связано это в том числе с генерацией аэрозолей и возможностью инфицирования персонала. Сообщается, что при проведении высокопоточной оксигенации пациенты получают недостаточное количество белка и энергии с обычной пищей [22]. В связи с этим рекомендуется назначать пероральное дополнительное питание в виде сипинга, которое в малом объеме позволяет доставить значимое количество белка и энергии — например, напиток Суппортан (Fresenius Kabi) (в 100 мл содержится 10 г белка, в 1 мл — 1,5 ккал). При неинвазивной ИВЛ зондовое питание технически трудно осуществимо вследствие негерметичности прилегания маски к лицу из-за назогастрального зонда. Обычно рассматриваются два варианта. Если респираторная поддержка проводится дискретно, то назначают пероральное дополнительное питание, при непрерывной процедуре возможно назначение периферического ПП препаратами «три в одном» [10]. В последнее время мы пересматриваем свое отношение к ПП.

Если несколько лет назад слышны были только негативные отзывы, то сейчас мы понимаем, что до 20% больных ОРИТ, а в реанимационных отделениях, где преобладают хирургические больные, и больше нуждаются в ПП. Парентеральное введение смесей может рассматриваться как единственный вид НП у пациентов с непереносимостью ЭП, высокими свищами, кровотечениями из желудочно-кишечного тракта. Однако чаще используют дополнительное ПП как компонент НП. Это происходит в случаях невозможности в течение 3—7 дней добиться расчетных показателей по доставке белка и энергии. При правильном проведении число осложнений ПП не различается с ЭП. Кроме того, в прон-позиции использование ПП позволяет ввести необходимое количество белков и энергии без риска осложнений. При обсуждении ПП применительно к больным COVID-19 с ОРДС необходимо выделить два фактора: форму выпуска и состав препаратов. Наиболее востребованы препараты «три в одном», которые снижают нагрузку на персонал, уменьшают вероятность инфицирования, позволяют ограничить введение жидкости за счет оптимального субстратного состава [23]. Назначение препарата «три в одном» «СМОФКабивен» (Fresenius Kabi) (выпускаются препараты как для центрального, так и для периферического ПП) позволяет получить еще одно преимущество, т.к. в его состав входит рыбий жир. Активными веществами в рыбьем жире являются длинноцепочечные жирные кислоты семейства ω-3 — эйкозапентаеновая и докозагексаеновая, обладающие выраженным противовоспалительным эффектом. В рекомендациях ESPEN у больных в КС рекомендуется использовать только жировые эмульсии, в состав которых входит рыбий жир с ω-3 жирными кислотами [9]. В систематическом обзоре и метаанализе (49 рандомизированных клинических исследований, 3641 пациент) продемонстрировано, что

включение в состав ПП ω-3 жирных кислот приводит к уменьшению в сравнении со стандартным ПП риска развития инфекционных осложнений, длительности пребывания в ОРИТ и стационаре [24]. Необходимость мониторинга НП у больных в КС сомнений не вызывает. Для этих целей общепринятым считается создание локальных протоколов оценки результатов НП [25]. Контроль ее эффективности и наличия побочных эффектов (рефидинг-синдром) осуществляют на основании клинических признаков, инструментальных методов исследований (непрямая калориметрия, оценка состава тела) и лабораторных методов (уровень глюкозы, электролитов, триглицеридов, азотистый баланс и пр.). При проведении ЭП необходимо контролировать остаточный объем желудка, который не должен превышать 500 мл в течение 6 часов. При таких значениях следует назначить прокинетики или начать постпилорическое кормление. Контроль за уровнем фосфатов в крови позволяет предотвратить развитие рефидинг-синдрома. Критичными считаются величины ниже 0,65 ммоль/л.

Гипофосфатемия связана с увеличением длительности ИВЛ [12]. После экстубации трахеи и перевода больного на самостоятельное дыхание пристальное внимание клиницистов к НП и пищевому статусу больных ослабевать не должно. В этот момент признаки НН только усиливаются, и часто регистрируется снижение мышечной массы, что негативно сказывается на процессах выздоровления и реабилитации [26]. Согласно рекомендациям ESPEN, на этом этапе потребности в энергии и белке возрастают соответственно до 30 ккал/кг и 1,5—2,0 г/кг сут [9]. Кроме того, сочетание НП с реабилитационными мероприятиями под руководством специалиста позволяет увеличивать мышечную массу больных, что позитивно влияет на исход заболевания. После перевода из ОРИТ меняется лечащий доктор и на смену анестезиологу-реаниматологу приходит профильный специалист, который, к сожалению, не всегда уделяет НП должное внимание. В публикациях последних лет сообщается об ухудшении статуса питания пациентов после их перевода из ОРИТ [27]. Это связано прежде всего с недостаточным поступлением белка и энергии при переходе с зондового и ПП на пероральное. Высказывается точка зрения о необходимости продолжения зондового питания до момента, когда пациент сможет обеспечить себя достаточным количеством нутриентов и энергии за счет перорального питания, часто в комбинации с пероральным дополнительным питанием методом сипинга. Еще одна проблема, с которой сталкиваются прежде всего анестезиологи-реаниматологи у больных, перенесших длительную ИВЛ, это дисфагия. Сообщается, что частота развития дисфагии после перевода на самостоятельное дыхание варьирует от 3 до 62% у больных, находившихся на ИВЛ более 5 суток [28]. В другом исследовании показано, что частота встречаемости дисфагии достигает 84% [29]. Независимым фактором

риска этого осложнения являлась длительность ИВЛ более 7 суток. У больных с дисфагией достоверно чаще возникали септические осложнения (пневмония), увеличивались время госпитализации и показатели летальности. Такие пациенты находятся в группе риска нарушения питания и должны консультироваться врачами — оториноларингологом и логопедом. В практику ОРИТ необходимо внедрить методику оценки глотания у больных, которым ранее проводилась трахеостомия или длительная ИВЛ через интубационную трубку [30]. Для преодоления проблем с глотанием используется специальное пероральное питание с модифицированной консистенцией, которое позволяет обеспечить пациентов необходимым количеством энергии и нутриентов. Существует несколько видов такого питания в виде йогуртов или кремов. Например, Фрезубин Йогурт (Fresenius Kabi) выпускается во флаконах по 125 мл и содержит 9,4 г белка и 188 ккал энергии, а в аналогичной по объему упаковке Фрезубин 2 ккал Крем (Fresenius Kabi) — 12,5 г белка и 250 ккал. Использование продуктов с модифицированной консистенцией или добавление их в пищу позволяет справиться с явлениями дисфагии и восстановить обычное питание. Если проблему дисфагии быстро решить не удается, то рекомендуется вернуться к введению смесей через зонд, а при сохраняющемся даже при постпилорическом питании риске аспирации рассмотреть возможность проведения ПП. При этом необходимо удалить зонд из желудка и продолжить лечебные мероприятия для купирования явлений дисфагии и обучения пациента глотанию [10]. В проведении НП важно соблюдать преемственность между ОРИТ, профильным отделением и поликлиническим этапом. В настоящий момент методом выбора НП у амбулаторных больных является пероральное дополнительное питание методом сипинга, которое позволяет обеспечивать больного нутриентами и энергией в процессе реабилитации и преодоления последствий синдрома постинтенсивной терапии. Таким образом, при развитии у пациентов COVID-19 тяжелой дыхательной недостаточности на фоне внебольничной пневмонии и ОРДС они рассматриваются как больные в КС и лечатся в условиях ОРИТ. НП поддержка является важным компонентом курации таких пациентов. При проведении НП должен соблюдаться принцип преемственности между отделениями пребывания больного и учитываться особенности течения заболевания. Оценка риска НН и мониторинг состояния питания в сочетании с широкой линейкой продуктов для ЭП и ПП позволяют индивидуализировать лечение больных с COVID-19 и оптимизировать прогноз заболевания.

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ОЦЕНКА ЭФФЕКТИВНОСТИ ПРОТОКОЛА ПРОФИЛАКТИКИ РАЗВИТИЯ НОЗОКОМИАЛЬНОЙ ПНЕВМОНИИ, СВЯЗАННОЙ С ИСКУССТВЕННОЙ ВЕНТИЛЯЦИЕЙ ЛЕГКИХ В ОТДЕЛЕНИИ НЕЙРОРЕАНИМАЦИИ РНЦЭМП АФ

Цель исследования. Оценка частоты и тяжести нозокомиальной пневмонии (НП), связанной с проведением искусственной вентиляции легких (ИВЛ), у больных отделения реанимации и интенсивной терапии (ОРИТ) в условиях использования специализированных средств для ухода за полостью рта и санации трахеобронхиального дерева (ТБД) и без них.

Материал и методы. Рандомизированное открытое в параллельных группах моноцентровое исследование в ОРИТ общего профиля, в которое включено 79 больных. Причиной длительной ИВЛ у включенных пациентов было угнетение сознания вследствие отека головного мозга при черепно-мозговой травме (ЧМТ) или инсульте. Пациенты рандомизированы на 2 группы: 1-я группа профилактики по протоколу, 2-я группа — стандартного ухода. В 1-й группе больных с целью профилактики НП ИВЛ использовали комплексный протокол: тепловлагообменные фильтры Clear-Therm с портом luerlock, антимикробные дыхательные контуры для ИВЛ Silver Knight, закрытые аспирационные системы для санации ТБД, наборы для ухода за полостью рта Oral Care Kit. Обработку полости рта больным 1-й группы проводили 3 раза в сутки по внедренному протоколу, который включал: осмотр, промывание полости рта раствором 0,05 % хлоргексидина, чистку зубов и десен, повторное промывание хлоргексидином, тщательную санацию. Во 2-й группе пациентов использовали стандартные средства, и санацию полости рта проводили стандартно 1–2 раза в сутки.

Результаты. Внедрение протокола ухода за полостью рта позволило уменьшить развитие ранней пневмонии (частота ранней НП ИВЛ — 6,6 и 33 % в 1-й и 2-й группах соответственно; p = 0,00167), увеличить время до манифестации пневмонии (которое составило в 1-й группе 7,5 ± 4,6 дня, во 2-й — 5,3 ± 6,5 дня; p = 0,00182) и уменьшить ее тяжесть (оценка по CPIS на 7-е сутки 5,96 ± 3,2 и 7,2 ± 2,43 балла в 1-й и 2-й группах; p = 0,046; величина P/F на 7-е сутки 304,84 ± 22 и 255,9 ± 43 в 1-й и 2-й группах; p = 0,001). Мультивариантный анализ продемонстрировал, что наибольшее значение из всех профилактических мероприятий имеет внедрение протокола ухода за полостью рта (ОШ 0,21; 95% ДИ 0,15–0,61; p = 0,00014). Микробиологический мониторинг

позволил выявить уменьшение степени колонизации полости рта патогенными и условно патогенными микроорганизмами: Klebsiella pneumoniae — снижение КОЕ с 106 до 104 (p < 0,001), Streptococcus pneumoniae — снижение КОЕ с 107 до 103 (p < 0,001), метициллин-резистентный золотистый стафилококк (MRSA) — снижение КОЕ с 105 до 103 (p < 0,001), Proteus mirabilis — снижение КОЕ с 107 до 103 (p < 0,001).

Вывод. Внедрение протокола специализированного ухода за полостью рта позволяет уменьшить частоту развития ранней НП ИВЛ, уменьшить ее тяжесть, увеличить продолжительность ИВЛ до манифестации пневмонии.

Ключевые слова: НП ИВЛ, ВАП, нозокомиальная вентилятор-ассоциированная пневмония, ОРИТ, профилактика пневмонии.

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EVALUATION OF THE EFFICIENCY OF THE PROTOCOL FOR THE PREVENTION OF THE DEVELOPMENT OF NOSOCOMIAL PNEUMONIA ASSOCIATED WITH ARTIFICIAL LUNG VENTILATION IN THE DEPARTMENT OF NEUROREANIMATION OF RNCEMPA AF

Objective: to evaluate effi cacy of VAP prophylaxis bundle.

Methods: 79 ICU pts were included in RCT. Th e reason of invasive mechanical ventilation was the depression of consciousness due to stroke or head injury. Th e pts were randomized to VAP prophylaxis bundle group 1 or to standard care group 2. In fi rst group we used bundle including fi lter and HME, special antimicrobial ventilator circuit, closed aspiration system and special oral hygiene system. Th e oral care performed 3 time per 24 hours with visual inspection, 0,05 % chlorhexidine solution washing, dental and gun cleaning, only closed system aspiration.

Results: VAP prophylaxis bundle decrease early onset VAP — 6.6 and 33 % in 1 and 2 groups respectively (p = 0.00167), increase VAP free-day — 7.5 ± 4.6 day in 1 group and 5.3 ± 6.5 day, (p = 0.00182) in group 2; decrease severity of VAP — CPIS on day 7 was 5.96 ± 3.2 and 7.2 ± 2.43 in 1 and 2 groups (p = 0.046), P/F on day 7 — 304.84 ± 22 and 255.9 ± 43 in 1 and 2 groups (p = 0.001). Th e multivariate analysis show that oral care protocol was he most signifi cant part of bundle (OR 0.21, 0.15–0.61 95 % CI; p = 0.00014). Microbiology data show decrease of CFU colonization Klebsiella pneumoniae from 106 to 104 (p < 0.001), Streptococcus pneumoniae from 107 to 103 (p <

0.001), MRSA from 105 to 103 (p < 0.001), Proteus mirabilis from 107 to 103 (p < 0.001).

Conclusions: VAP prophylaxis bundle decrease "early onset" VAP, severity of VAP, increase VAP free day.

Keywords: NP, VAP, ICU, VAP prophylaxis.

Введение. Нозокомиальная пневмония (НП) является одной из основных причин увеличения летальности у пациентов в отделениях реанимации и интенсивной терапии (ОРИТ), и особенно у больных с нарушением сознания. Распространенность НП в ОРИТ РФ по эпидемиологическим данным сильно занижена. По расчетам Центрального НИИ эпидемиологии, реальное число внутрибольничных инфекций и НП в России в 50 раз выше, чем указывают данные официальной статистики, и составляет 2,0–2,5 млн случаев в год, а ежегодные экономические потери, связанные с развитием нозокомиальных инфекционных осложнений, превышают 5 млрд рублей [1]. Средняя заболеваемость нозокомиальными инфекциями в Европе составляет 5,7 на 100 госпитализаций (4,5–8,5) [2]. По данным ВОЗ, в развитых странах нозокомиальные инфекции (НИ) переносят 5–10 % пациентов в стационаре и 25 % в ОРИТ. В развивающихся странах частота НИ в ОРИТ достигает 40 % [3]. В ОРИТ на долю НП приходится 25 % всех инфекционных осложнений, на лечение НП расходуется более половины антимикробных препаратов, назначаемых в этом отделении [4]. Из всех случаев нозокомиальной пневмонии, регистрируемых в стационаре, 70–80 % развивается в ОРИТ. Это увеличивает длительность лечения в среднем на неделю и приводит к затратам, превышающим 40 000 долл. на пациента [5–7].

Нозокомиальная пневмония, связанная с ИВЛ (НП ИВЛ), или вентилятор-ассоциированная пневмония (ВАП), — наиболее жизнеугрожающее проявление нозокомиальной инфекции. На долю НП ИВЛ приходится до 86% случаев НП у хирургических больных [8, 9]. Мультицентровые исследования показали, что НП ИВЛ является наиболее часто встречающейся госпитальной инфекцией у больных, требующих ИВЛ [10]. Заболеваемость НП при проведении ИВЛ составляет от 3 до 10 случаев на 1000 госпитализаций [11], а плотность инцидентности — 1,2–8,5 случая на 1000 дней ИВЛ [12, 13]. Развитие НП ИВЛ увеличивает среднюю стоимость лечения пациента на сумму от 2089 до 30 000 евро [14, 15]. Развитие пневмонии на фоне ИВЛсущественно ухудшает результаты лечения. Уровень летальности при НП ИВЛ мало изменился за последние 20 лет и остается достаточно высоким, достигая в некоторых субпопуляциях больных 70 % [5]. Атрибутивная летальность остается на уровне 27– 50 %. При этом летальность возрастает, когда НП ИВЛ рецидивирует в ходе интенсивной терапии [16, 17]. Профилактика является краеугольным камнем проблемы НП. Осуществление эффективной

профилактической программы способствует снижению частоты развития этого жизнеугрожающего осложнения, позволяет сократить продолжительность респираторной поддержки и срок пребывания в ОРИТ, а также затраты на лечение. Успешное предупреждение нозокомиальных инфекций ведет к снижению селективного давления антимикробных препаратов, применяемых для их лечения, и, соответственно, к улучшению микроэкологической ситуации в стационаре.

Программа профилактики НП основана на понимании факторов риска и включает комплекс взаимосвязанных мероприятий организационного, технического и медицинского характера, усиливающих антиинфекционную защиту самого пациента и снижающих вероятность контаминации и инфицирования. Относительно простые подходы и манипуляции способны существенно уменьшить риск развития НП. Об этом красноречиво свидетельствуют результаты работы тех учреждений, где плотность заболеваемости НП удалось сократить до 3,7 случая на 1000 дней ИВЛ [18]. Некоторые основные мероприятия, направленные на устранение модифицируемых факторов риска НП, имеют достаточно высокую степень обоснованности [17, 19– 21]. Среди них: общие рекомендации по инфекционному контролю, мероприятия, направленные на сокращение продолжительности инвазивной респираторной поддержки, борьба с экзогенным инфицированием и профилактика орофарингеальной колонизации и аспирации, а также рекомендации по уходу за интубированными больными. При этом адекватный туалет ротоглотки (аспирация слизи специальным катетером, полоскание рта, чистка зубов, обработка ротоглотки раствором хлоргексидина не менее 2 раз в сутки), а также применение закрытых аспирационных систем (ЗАС) для санации трахеобронхиального дерева (ТБД) относятся к уровню рекомендаций В [22, 23].

Таблица 1. **Характеристика исследуемых групп больных при поступлении**

Параметры	1-я группа (*n* = 39)	2-я группа (*n* = 40)	*p*
Возраст	40,2 ± 15,6	39,5 ± 17,2	0,43
Мужской пол	*n* = 32	*n* = 34	0,68
APACHE II	17,9 ± 4,9	18,2 ± 5,3	0,231
Черепно-мозговая травма	*n* = 29	*n* = 33	0,72
Инсульт	*n* = 10	*n* = 7	0,8
SOFA	4,44 ± 2	4,7 ± 1,2	0,289
Шкала комы Глазго	6,3 ± 1,5	6,8 ± 2	0,50

Цель исследования. Оценка эффективности внедрения протокола ухода за полостью рта в отношении уменьшения частоты и тяжести НП ИВЛ у больных в ОРИТ.

Материалы и методы. Рандомизированное открытое в параллельных группах моноцентровое исследование в отделении нейрореанимации РНЦЭМП АФ. В исследование включено 79 больных, поступивших в ОРИТ в период с 01.03.2021 по 01.12.2021, которым была интубирована трахея в связи с нарушением сознания (8 и менее баллов по шкале комы Глазго, ШКГ), и находившихся на ИВЛ более 48 ч. Основной причиной продленной ИВЛ являлось угнетение сознания вследствие черепно-мозговой травмы (ЧМТ) (78 % больных) и инсульта (22 % больных).

Вне зависимости от пола и возраста больные были рандомизированы на 2 группы путем случайного числа (четное/нечетное):

1) группа профилактики по протоколу;

2) группа стандартного подхода.

Характеристика групп представлена в табл.1.

Между группами пациентов не было статистически достоверного различия по количеству включенных в исследование мужчин и женщин и возрасту. Соотношение пациентов с ЧМТ и инсультом в группах было одинаковым. Уровень сознания больных по шкале комы Глазго в обеих группах соответствовал тяжелому отеку головного мозга. Тяжесть состояния больных 1-й и 2-й групп по шкале APACHE II при поступлении достоверно не отличалась. Тяжесть органной дисфункции по шкале SOFA была определена главным образом нарушением сознания больных и соответствовала в динамике в среднем 6 ± 2,3 балла в 1-й и 2-й группах. В исследование не включали пациентов с имеющимися при поступлении в ОРИТ признаками воспалительных изменений в дыхательных путях и факторами, предрасполагающими к ним. Критерии исключения: аспирация, внебольничная пневмония, хронические или специфические болезни легких, оппортунистические инфекции у больных с иммунодефицитными состояниями в анамнезе, ушиб и/или повреждение легких, гемопневмоторакс.

В группе пациентов профилактики по протоколу использовали:

- тепловлагообменные фильтры Clear-Therm с портом luer lock (Intersurgical Ltd.);
- антимикробные дыхательные контуры для ИВЛ Silver Knight (Intersurgical Ltd.);
- закрытые аспирационные системы для санации ТБД (Kimberly-Clark);
- наборы для ухода за полостью рта Oral Care Kit (Kimberly-Clark).

Больным 1-й группы после интубации трахеи проводили ИВЛ при помощи антимикробных дыхательных контуров Silver Knight и тепловлагообменных фильтров ClearTherm. Контур меняли 1 раз в 72 ч, фильтр — 1 раз в 24 ч и/или по мере загрязнения. Санацию ТБД проводили только при помощи ЗАС. Перед включением в исследование больным

проводили осмотр полости рта и определяли план ухода и обработки. Всем пациентам 1-й группы каждые 6 ч измеряли давление в манжете эндотрахеальной трубки и проверяли герметичность. Уход и обработку проводил обученный средний медицинский персонал 3 раза в сутки согласно алгоритму

Алгоритм ухода за полостью рта:

1. Оценка жизненно важных функций гемодинамики и дыхания. Увеличение давления в манжете эндотрахеальной трубки до 100 мм рт. ст. и подготовка отсоса для санации полости рта, трахеи и надманжеточного пространства.

2. Обеспечение положения головы на боку, визуальная оценка мягких тканей полости рта.

3. Обработка полости рта салфеткой, пропитанной водным раствором 0,05 % хлоргексидина.

4. Обработка зубов и десен зубной щеткой. При отсутствии зубов и признаках кровотечения — только промывание.

5. Промывка и повторная обработка полости рта салфеткой, пропитанной водным раствором 0,05 % хлоргексидина.

6. Тщательная санация полости рта и надманжеточного пространства. Уменьшение давления в манжете эндотрахеальной трубки до 25–35 мм рт. ст., проверка герметичности.

7. Выполнение всех этапов процедуры трижды в сутки. Все вышеперечисленное и являлось оригинальным протоколом профилактики НП ИВЛ.

Пациентам, включенным во 2-ю группу, ИВЛ проводили через обычный гофрированный контур с его сменой 1 раз в 72 ч, использовали бактериальный фильтр с тепловлагообменными свойствами, санацию трахеи выполняли стерильными катетерами открытым способом. Уход за полостью рта этим пациентам проводили 1–2 раза в сутки. Уход заключался в промывании и санации полости рта, без использования специальных приспособлений и чистки зубов и десен. Пациентам 1-й группы до и после процедуры ухода и всем пациентам 2-й группы проводили микробиологические исследования отделяемого полости рта с целью выявления и оценки количества единиц потенциально патогенных микроорганизмов. Всем пациентам, включенным в исследование, проводили стандартную комплексную интенсивную терапию, включающую: продленную ИВЛ в протективном режиме под контролем кислотно-основного состояния и газового состава крови; мониторинг внутричерепного давления по показаниям, инфузионную терапию сбалансированными растворами кристаллоидов с целью поддержания нормоволемии и электролитного баланса; поддержание среднего артериального давления на уровне 85–90 мм рт. ст.; аналгезию и седацию по показаниям; профилактику стресс-повреждений ЖКТ и

тромбоэмболических осложнений; нутритивную поддержку энтеральными питательными смесями из расчета 25–30 ккал на 1 кг массы тела. После манифестации инфекционных осложнений назначали антимикробную терапию согласно стратификации пациента по риску наличия резистентной микрофлоры.

Всем больным исключали потенциальные факторы риска развития НП ИВЛ и проводили стандартные меры ее профилактики: санация надманжеточного пространства, профилактика аспирации, контроль остаточного объема желудка, подъем головного конца на 45 градусов. Антибактериальную профилактику пневмонии не проводили. Диагноз пневмонии устанавливали на основании наличия прогрессирующей инфильтрации при рентгенографии грудной клетки по меньшей мере через 48 ч после начала ИВЛ и при регистрации одного из следующих критериев:

■ гипертермия до 38 °С и выше;

■ количество лейкоцитов 10 и более тыс. и/или палочкоядерный сдвиг лейкоцитарной формулы 12 % и более;

■ гнойный характер отделяемого из дыхательных путей. Объективно диагноз НП подтверждали оценкой по шкале CPIS (Clinical Pulmonary Infection Score), диагноз подтверждали при оценке по шкале 7 и более баллов. Микробиологическим подтверждением диагноза являлось выделение нозокомиальных возбудителей пневмонии из ТБД в количестве КОЕ 104 и более. Пневмонию, развившуюся через 48–96 ч от начала ИВЛ, определяли как раннюю, позднее 96 ч от начала ИВЛ — как позднюю [24].

Сбор и анализ данных Пол, возраст и диагноз включенных в исследование больных устанавливали при первичной диагностике непосредственно после госпитализации. Данные наблюдения пациентов, результаты лабораторных и инструментальных методов исследования регистрировали в клинической информационной системе «Орбита». Расширенный лабораторный мониторинг всем пациентам проводили ежедневно. Клинические признаки НП ИВЛ и синдрома системной воспалительной реакции (тахикардия, гиперпноэ, температурная реакция, аускультативный контроль дыхательных шумов, характер отделяемого из ТБД) регистрировали в медицинской документации каждые 6 часов. Рентгенографическое обследование грудной клетки выполняли через сутки на протяжении всего времени пребывания больных в ОРИТ. В 1, 3, 5, 7 и 10-е сутки выполняли микробиологическое исследование отделяемого из ТБД. Статистический анализ данных проводили с помощью программ SPSS 12.0 и MS Office Excel. Достоверность различия средних по группам проверяли при помощи дисперсионного анализа, применимость этого метода — при помощи анализа размера групп и характера распределения, включая расчет коэффициента эксцентриситета. Достоверность различия частот определяли при помощи критерия хи-квадрат (χ2) (для таблиц 2 ™2

— в точном решении Фишера). Для анализа связи непрерывных переменных использовали корреляционный и непараметрический корреляционный анализ. Все расчеты определения относительного риска и логистический регрессионный анализ проводили в программе SPSS 14.0 для Windows.

Результаты исследования. Конечными точками исследования являлись: частота, время начала и продолжительность НП ИВЛ, длительность пребывания в ОРИТ и летальность на 28-е сутки. Частота развития НП ИВЛ в группе специализированного ухода составила 77 % (n = 30), а в группе стандартного ухода — 82,5 % (n = 33), при этом различия статистически недостоверны (p = 0,079). Вместе с тем среднее время до манифестации НП ИВЛ в 1-й группе больных было достоверно большим и составляло 7,5 ± 4,6 суток, во 2-й группе пневмония развивалась в среднем спустя 5,3 ± 6,5 суток от начала ИВЛ (p = 0,00182). У 2 (6,6 %) больных в группе специализированного ухода была диагностирована ранняя пневмония, а в группе стандартного ухода ранняя пневмония развилась в 11 (33 %) случаях (p = 0,00167). Среднее время до манифестации НП ИВЛ в 1-й группе больных было достоверно большим и составляло 7,5 ± 4,6 суток, во 2-й группе пневмония развивалась в среднем спустя 5,3 ± 6,5 суток от начала ИВЛ (p = 0,00182).

При оценке частоты пневмонии установлено, что оценка по шкале CPIS соответствовала на 3-и сутки 2,28 ± 0,65 и 2,1 ± 0,76 балла (p = 0,36), на 5-е сутки 5,76 ± 2,1 и 6,5 ± 2,8 балла (p = 0,083) и на 7-е сутки 5,96 ± 3,2 и 7,2 ± 2,43 балла (p = 0,046) в 1-й и 2-й группах соответственно. Эти результаты свидетельствуют и о большей тяжести пневмонии в группе больных со стандартным уходом. Увеличение тяжести пневмонии подтверждает степень выраженности дыхательной недостаточности, которая отражается сни жением индекса оксигенации. Величина P/F на 7-е сутки составляла 304,84 ± 22 и 255,9 ± 43 в 1-й и 2-й группах соответственно (p = 0,001). Результаты исследования продемонстрировали также и уменьшение продолжительности ИВЛ в группе специализированного ухода, однако эти различия статистически недостоверны. ИВЛ в 1-й группе больных проводили в течение 16,8 ± 7,6 суток, во 2-й группе — в течение 18,5 ± 8,9 суток (p = 0,0602). Такую же картину наблюдали и при анализе длительности пребывания больных в ОРИТ, которая составила 19,8 ± 8,8 и 21,4 ± 10,3 дня в 1-й и 2-й группах соответственно (p = 0,076). Летальность пациентов в группах также достоверно не различалась, число умерших больных в 1-й группе — 7, во 2-й — 5 пациентов (p = 0,377) (табл. 2). Эффективность различных компонентов профилактических мероприятий НП представлена в табл. 3. Мультивариантный анализ продемонстрировал, что наибольшее значение из всех переменных имеет внедрение протокола ухода за полостью рта.

Микробиологический анализ отделяемого из ТБД у пациентов 1-й и 2-й групп продемонстрировал, что раннюю пневмонию у пациентов со специализированным уходом вызывали Klebsiella pneumoniae (n = 1) и метициллин-чувствительный золотистый стафилококк (MSSA) (n = 1); позднюю пневмонию вызывали Klebsiella pneumoniae (n = 15), Acinetobacter baumannii (n = 6), метициллин-резистентный золотистый стафилококк (MRSA) (n = 3), Proteus mirabilis (n = 4). У пациентов со стандартным уходом причиной развития ранней НП ИВЛ являлись Klebsiella pneumoniae (n = 3), Streptococcus pneumoniae (n = 5), MSSA (n = 2), Pseudomonas aeruginosa (n = 1), а поздней пневмонии — Klebsiella pneumoniae (n = 10), Acinetobacter baumannii (n = 7), MRSA (n = 3), Pseudomonas aeruginosa (n = 1), Candida spp. (n = 1). Вбольшинстве случаев у пациентов 1-й и 2-й групп раннюю и позднюю НП ИВЛ вызывала Klebsiella pneumoniae. У больных со стандартным уходом возбудителем пневмонии являлся в том числе и пневмококк, чего не было отмечено при специализированном уходе. Возбудителями поздней пневмонии являлись частые представители нозокомиальной флоры, такие как: Klebsiella pneumoniae Acinetobacter baumannii, Pseudomonas aeruginosa, MRSA и даже Candida spp. Однако при анализе результатов микробиологического исследования отделяемого полости рта отмечено достоверное снижение колониеобразующих единиц (КОЕ) в том числе и патогенных микроорганизмов после процедур специализированного ухода (рис. 1).

Обсуждение. Результаты настоящего исследования демонстрируют, что внедрение протокола ухода за полостью рта способствует увеличению срока ИВЛ без пневмонии, снижению степени риска развития и уменьшению ее тяжести. Анализ времени манифестации НП ИВЛ доказывает, что специализированный протокол у пациентов на ИВЛ приводит к уменьшению частоты развития ранней НП. Микробиологический мониторинг возбудителей ранней и поздней НП ИВЛ демонстрирует, что ранняя пневмония в группе пациентов без специализированного ухода за полостью рта в 7 из 11 случаев была вызвана такими бактериями, как S. aureus (MSSA) и Streptococcus pneumoniae, в то время как позднюю НП ИВЛ у пациентов обеих групп в основном вызывали устойчивые нозокомиальные возбудители: Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa, MRSA и др. Такая микробиологическая картина поздней пневмонии была продемонстрирована и многими другими исследованиями **[**25–27]. Снижение частоты ранней пневмонии, вызванной условно патогенными бактериями у больных после внедрения протокола обработки полости рта, позволяет его позиционировать как эффективное профилактическое мероприятие.

Таблица 2. Характеристика нозокомиальной пневмонии, связанной с искусственной вентиляцией легких

Показатели	1-я группа (*n* = 39)	2-я группа (*n* = 40)	*p*
Частота НП ИВЛ, *n* (%)	30 (77)	33 (82,5)	0,079
Раннее начало НП ИВЛ, *n* (%)	2 (6,6 %)	11 (33 %)	0,00167
Количество дней ИВЛ до начала НП	7,5 ± 4,6	5,3 ± 6,5	0,00182
Продолжительность ИВЛ, сутки	16,8 ± 7,6	18,5 ± 8,9	0,0602
Длительность пребывания в ОРИТ, сутки	19,8 ± 8,8	21,4 ± 10,3	0,076
Летальность, %	7	5	0,377

ИВЛ — искусственная вентиляция легких; НП ИВЛ — нозокомиальная пневмония, связанная с ИВЛ; ОРИТ — отделение реанимации и интенсивной терапии.

Таблица 3. Мультивариантный анализ эффективности профилактических мероприятий

Критерии	Отношение шансов	95% ДИ	*p*
Подъем головного конца на 45 градусов	1,02	0,5–6,7	0,62
Санация надманжеточного пространства	0,81	0,53–1,94	0,903
Использование закрытых аспирационных систем	0,85	0,33–6,12	0,815
Программа ухода за полостью рта	0,21	0,15–0,61	0,00014

95% ДИ — 95%-й доверительный интервал.

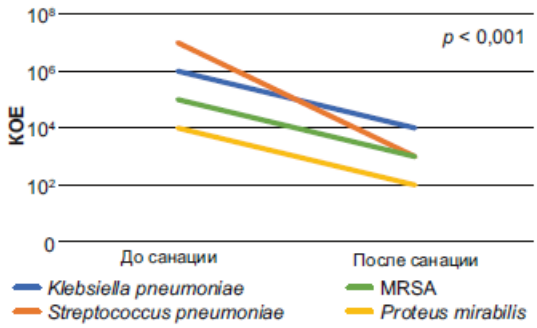


РИС. 1. Динамика КОЕ микроорганизмов после процедуры ухода за полостью рта

Рекомендуемые на сегодняшний день профилактические мероприятия НП ИВЛ подразделяются на меры по профилактике аспирации и регургитации контаминированного отделяемого из ротоглотки в нижние дыхательные пути [28–31] и меры, направленные

уменьшение обсеменения и микробной контаминации полости рта и ротоглотки, включая селективную деконтаминацию ЖКТ [32–34]. Однако даже при использовании самых современных расходных материалов и мер полностью предотвратить попадание секрета из ротоглотки в трахею крайне трудно [35], поэтому меры по уменьшению бактериального загрязнения ротоглотки являются определяющими среди профилактических мероприятий. Кроме того, нет данных о влиянии промывания полости рта хлоргексидином на рост бактериальной резистентности. Внедренный протокол специализированного ухода аналогично процедурам промывания полости рта не способствует увеличению устойчивости микроорганизмов, а дополнительная механическая очистка зубов, десен и мягких тканей полости рта, в отличие от простого промывания, способствует более тщательной механической очистке и, как следствие, уменьшению орофарингеальной колонизации.

Исследования, в которых изучали гигиену полости рта, демонстрируют увеличение количества зубного налета пропорционально длительности пребывания больного в ОРИТ, что, в свою очередь, коррелирует с увеличением частоты внутрибольничных инфекций [36, 37]. А изучение внедрения протоколов гигиены полости рта в домах престарелых позволяет сделать вывод о положительном их влиянии в отношении уменьшения частоты развития пневмонии у пожилых пациентов [38–39]. Снижение частоты ранней НП ИВЛ и ее отсроченное начало, установленное в настоящем исследовании, подтверждают эффективность внедрения протокола ухода за полостью рта как профилактического мероприятия. Отсутствие различий между группами пациентов в продолжительности ИВЛ, пребывании в ОРИТ и летальности подтверждает, что факторы, влияющие на исход пациентов с тяжелой ЧМТ и инсультом, не ограничены развитием даже тяжелой НП. Заключение. Применение протокола профилактики НП у пациентов, нуждающихся в длительной ИВЛ, позволяет уменьшить частоту развития ранней НП ИВЛ и снизить риск ее развития, а также способствует увеличению времени до манифестации пневмонии.

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СРАВНЕНИЕ ТВОРЧЕСТВА ЛЕОНАРДО ДА ВИНЧИ И МИКЕЛАНДЖЕЛО БУОНАРРОТИ

Аннотация: В данной статье рассматривается противостояние между работами Леонардо да Винчи «Битва при Ангиари» и Микеланджело Буонарроти «Битва при Кашине».

Ключевые слова: творчество, возрождение, история.

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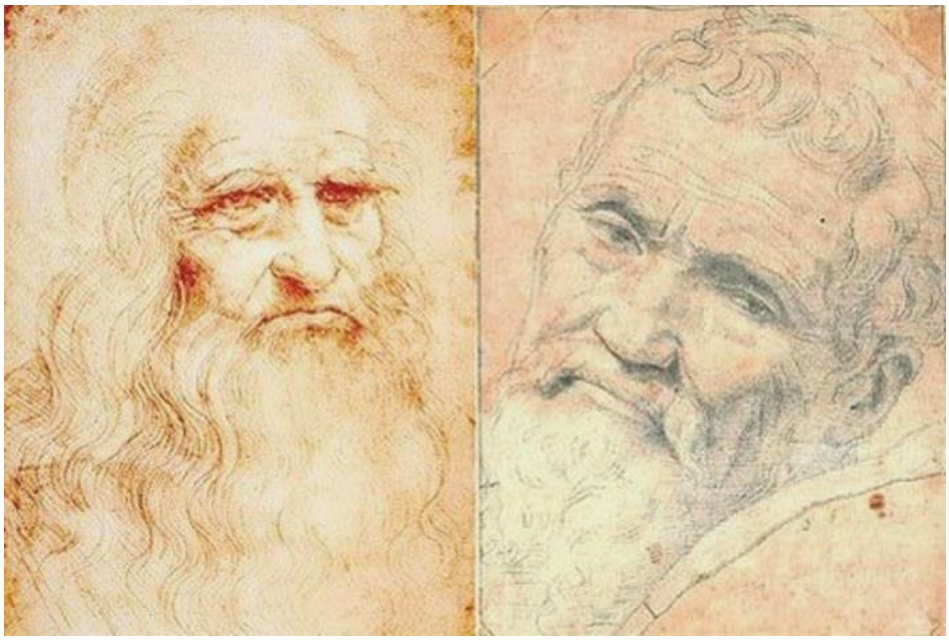
COMPARISON OF LEONARDO DA VINCI AND MICHELANGELO BUONARROTI

Annotation: This article examines the confrontation between the works of Leonardo da Vinci Vinci's "The Battle of Anghiari" and Michelangelo Buonarroti's "The Battle of Cascina".

Keywords: creativity, revival, history.

ВВЕДЕНИЕ

Самым ярким примером соперничества гениев кисти является конфликт между несравненным Леонардо да Винчи и непревзойденным Микеланджело Буонарроти.

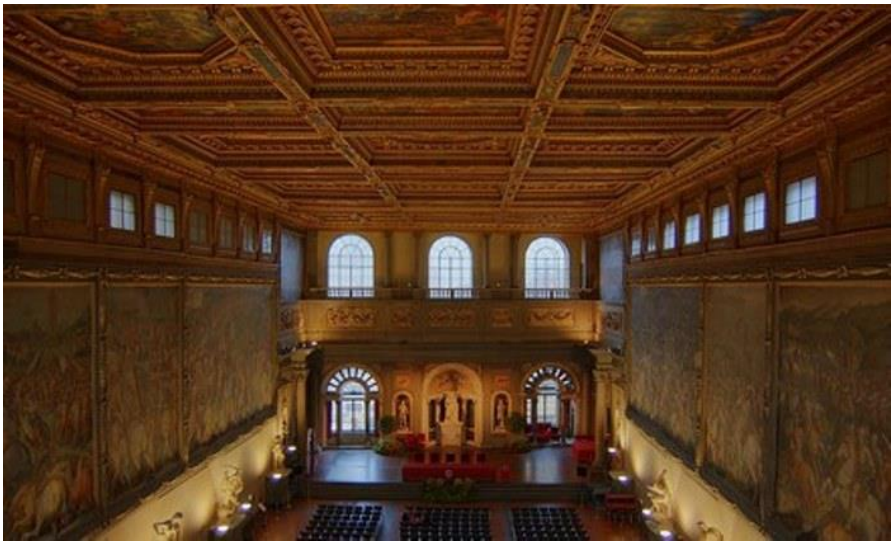


Леонардо да Винчи и Микеланджело Буонаротти

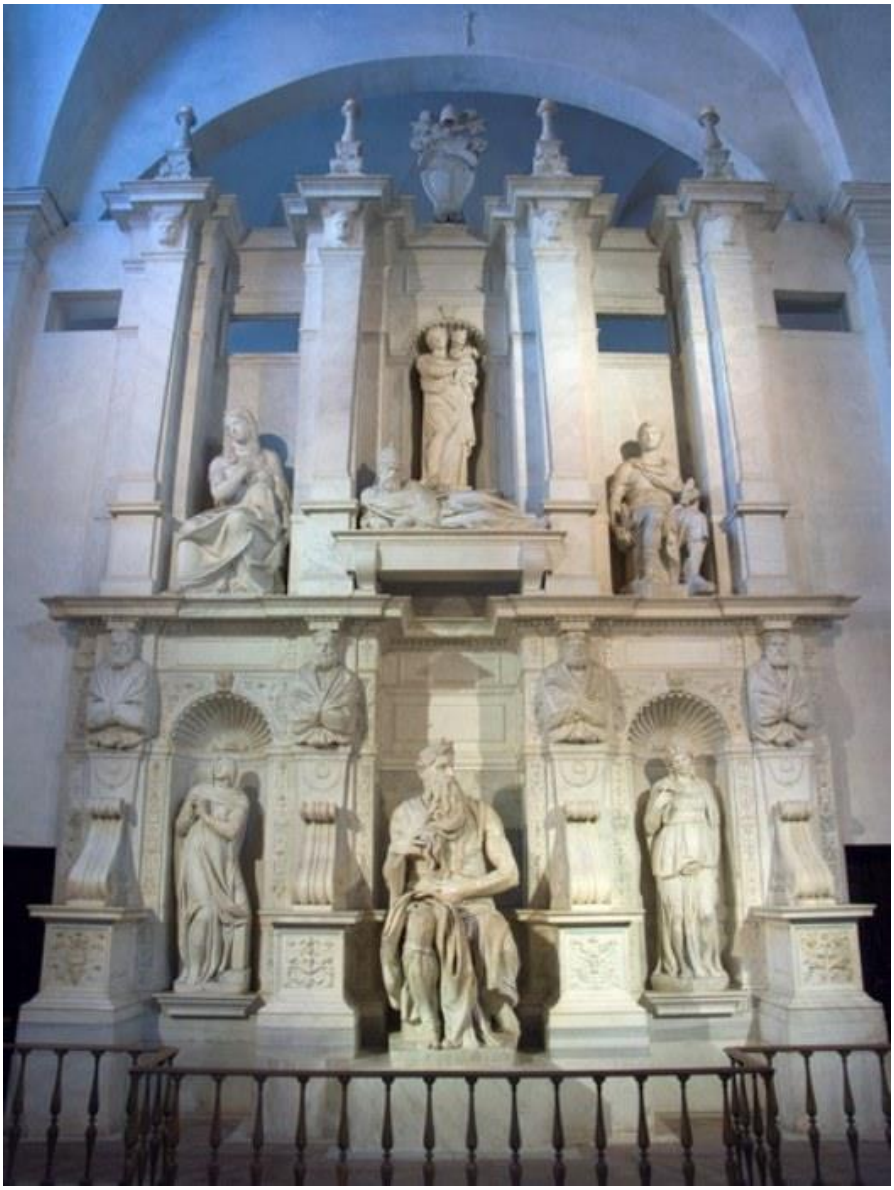
Эти два гения работали в пересекающиеся времена, в разных местах и в разных стилях, что разжигало пламя вражды между ними. Хотя они жили в одну эпоху, они принадлежали к разным поколениям. В результате их взгляды на искусство также были полярно противоположными**.**

Создание картин для Большого Совета

Буонарроти, амбициозный молодой аристократ, мечтал превзойти "универсальный гений" да Винчи, который не был выходцем из аристократической среды, но обладал непоколебимым престижем. Микеланджело же крайне ревниво относился к репутации величайшего художника эпохи Возрождения и искренне считал, что превосходит его в художественном таланте. Однажды обоих пригласили украсить Большой совет Палаццо Веккьо в 1504 году.



Зал Большого Совета Палаццо Веккио



Палаццо Веккио

Их картины должны были быть размещены на противоположных стенах. Палаццо Веккьо - это городская ратуша Флоренции. Местные власти хотели отметить военные заслуги Флоренции в битве против Пизы. Мэр Пьеро Содерини пригласил Микеланджело и да Винчи для создания картин для Большого совета ратуши. В то время Леонардо да Винчи был известен как превосходный художник, а Микеланджело только постигал азы своей профессии.

Начало творческого соперничества

Их творческое соперничество началось с того, что за ними наблюдало все население Флоренции. Да Винчи выбрал эпизод борьбы двух всадников за знамя во время битвы за Британию.



Эскиз Леонардо да Винчи

Микеланджело планировал изобразить победу Флоренции над пизанским войском в битве при Казине в 1346 году, но его главной целью было создать нечто совершенно противоположное работе Леонардо, поэтому вместо героического эпизода битвы, он выбрал бытовой: купавшихся в реке воинов застает врасплох призыв к оружию, и они собираются в спешке.



Копия картины Микеланджело

Леонардо начал работу в 1503 году, Микеланджело последовал за ним позже.

Незавершенный творческий поединок

Однако битва титанов так и не закончилась. В 1505 году Микеланджело был вызван папой Юлием II и получил заказ на строительство гробницы-мавзолея. Верхняя часть картины да Винчи не успела высохнуть достаточно быстро, и краски смешалась. В результате Леонардо отказался от проекта. Это был единственный раз, когда Микеланджело и да Винчи работали над одним и тем же проектом. Их незаконченные картины висели в одной комнате почти десять лет (1505-1512). Однако фреска перешла к другому художнику, и они разошлись, больше не встречаясь; в 1512 году картина Микеланджело была расчленена Бартоломео Бандинелли; в середине XVI века помещение было расширено и перестроено в зал суда. Во время этой реконструкции были утрачены знаменитые произведения. В том числе “Битва при Кашине” Микеланджело и “Битва при Ангиари” Леонардо да Винчи. С эскизов да Винчи и Микеланджело были сняты копии, благодаря которым мы сегодня можем восстановить оба произведения и судить о творческом поединке двух великих художников Возрождения. Картину да Винчи удалось реконструировать по предварительным наброскам и копиям XVII века, картину Микеланджело – по эскизам и рисункам, воспроизводящим отдельные фигуры, и по копии XVI века.

Заключение

Наверное, творческий поединок остался незавершенным неслучайно: кто бы ни был признан лучшим на тот момент, все-таки невозможно сопоставлять творчество двух великих гениев. И любые соревнования тут бессмысленны.

Использованные источники:

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ХИРУРГИЧЕСКОЕ ЛЕЧЕНИЕ ПОСЛЕОПЕРАЦИОННОГО ЖЕЛЧЕИСТЕЧЕНИЯ НА ФОНЕ ОЖИРЕНИЯ В НЕОТЛОЖНОЙ ХИРУРГИИ

Резюме: Для успешного лечения больных с гнойным холангитом применено двухэтапные и трехэтапные хирургические вмешательства с постепенной декомпрессией и промыванием желчных протоков лекарственной смесью с антибиотиком, а также одновременное внутрипортальное введение антибиотика того же, что в составе промывной лекарственной смеси. Наиболее часто первым этапом было выполнение эндоскопической папиллосфинктеротомии с литоэкстракцией и установкой назобилиарного дренажа для декомпрессии желчных протоков и регуляции внутрипротокового давления. По улучшению состояния больных через 3-4 дня выполняли эндоскопическую холецистэктомию с установкой дренажной трубки в холедох по направлению двенадцатиперстной кишки.

Этим создавалась промывная система в желчных протоках: через назобилиарный дренаж капельно вводили лекарственную смесь с антибиотиком, а через дренажную трубку в холедохе она вытекала наружу. У наиболее тяжелых больных выполняли открытые холецистэктомии, во время которых дополнительно осуществляли канюлирование пупочной вены для внутрипортального введения антибиотика на фоне промываний желчных протоков лекарственной смесью с тем же антибиотиком.

Это предупреждало возникновение микроабсцессов и абсцессов печени и более надежно ликвидировало воспалительные явления в желчных протоках.

Ключевая слова: хирургическая лечения, послеоперационный период, желчеотделения, ожирения, неотложная хирургия.

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SURGICAL TREATMENT OF POSTOPERATIVE BILE DISCHARGE ON THE BACKGROUND OF OBESITY IN EMERGENCY SURGERY

Resume: For the successful treatment of patients with purulent cholangitis, two-stage and three-stage surgical interventions were used with gradual decompression and washing of the bile ducts with a drug mixture with an antibiotic, as well as simultaneous intraportal administration of an antibiotic of the same as in the composition of the flushing drug mixture. Most often, the first stage was the performance of endoscopic papillosphincterotomy with lithoextraction and installation of nasobiliary drainage for decompression of the bile ducts and regulation of intra-flow pressure. To improve the condition of patients, after 3-4 days, endoscopic cholecystectomy was performed with the installation of a drainage tube into the choledoch in the direction of the duodenum.

This created a flushing system in the bile ducts: a medicinal mixture with an antibiotic was drip-fed through the nasobiliary drainage, and it flowed out through the drainage tube in the choledoch. In the most severe patients, open cholecystectomies were performed, during which the umbilical vein was additionally cannulated for intraportal administration of an antibiotic against the background of bile duct flushing with a medicinal mixture with the same antibiotic.

This prevented the occurrence of microabcesses and liver abscesses and more reliably eliminated inflammatory phenomena in the bile ducts.

Keywords: surgical treatment, postoperative period, bile secretion, obesity, emergency surgery.

Актуальность. При анализе мировой статистики заболеваемости органов гепатопанкреатодуоденальной зоны за последние несколько десятилетий отмечено неуклонное увеличение количества пациентов с данной патологией, осложненной развитием синдрома механической желтухи (МЖ) **[**2,6]. Механическая желтуха при патологии органов гепатопанкреатодуоденальной области встречается от 12,0 до 45,2%, следует отметить, что при доброкачественной патологии уровень колеблется от 4,8 до 22,5%, а при злокачественных поражениях органов указанной локализации составляет от 36,6 до 47,0% **[**5]. В половине случаев причиной возникновения МЖ являются конкременты в желчной системе, новообразования печени, желчных протоков, большого дуоденального сосочка (БДС), поджелудочной железы, желчного пузыря (40%) **[**4,7]. Среди других доброкачественных причин, вызывающих механическую желтуху, особое место занимают стенозы и атрезии желчевыводящих путей, а также острые воспалительные заболевания – холангит и панкреатит **[**1,3], требующие к себе особого хирургического подхода.

Цель исследования. Улучшить хирургическое лечение послеоперационного желчеотделения на фоне ожирения в неотложной хирургии.

Материал и методы исследования. Под нашим наблюдением находилось 92 больных с холедохолитиазом, осложненным гнойным холангитом. Среди них было 13 чел. с сочетанием холедохолитиаза и язвенной болезни. Все пациенты были разделены на 2 группы. Первую составили 40 чел., получавших традиционное хирургическое лечение, вторую - 52 чел., получавших разработанное хирургическое лечение. Обе группы больных были примерно одинаковы по возрасту, выраженности клинических проявлений, тяжести сопутствующих заболеваний. Особенностями хирургического лечения пациентов обеих групп были следующие.

Результаты исследования. При традиционном лечении пациентам выполняли хирургические вмешательства выполняли в первые 3 суток после госпитализации. Выбор сроков, вида и объема операции осуществляли исходя из следующих положений: выраженности признаков острого холецистита, длительности и выраженности механической желтухи, возраста пациентов, наличия явных признаков холангита, местного или распространенного перитонита, тяжести сопутствующих заболеваний, общего состояния больных. В случаях наличия признаков деструктивного холецистита с распространенным перитонитом производили экстренные хирургические вмешательства после кратковременной (2-3 часа) предоперационной подготовки в палате интенсивной терапии. В период предоперационной подготовки пациенты получали медикаментозные средства, коррегирующие состояние сердечно-сосудистой системы, органов дыхания, почек, метаболические процессы, а также антибактериальные средства, спазмолитики, дезинтоксикационные препараты, витамины С и группы В. Одновременно больных дообследовали и консультировали врачами смежных специальностей. В срочном порядке (в ближайшие 2-3 дня) оперировали пациентов с признаками гнойного холангита, у которых механическая желтуха нарастала или не снижалась.

Исходя из этих положений, сохранным больным с признаками местного или распространенного перитонита удаление желчного пузыря выполняли посредством открытых операций холецистэктомий с холедохолитотомией, интраоперационной холангиографией и наружным дренированием общего желчного протока по Холстеду-Пиковскому, а также дренированием подпеченочного пространства. Пациентам с тяжелым общим состоянием или в случаях непредвиденных осложнений во время наркоза ограничивались холецистэктомией с наружным дренированием холедоха и подпеченочного пространства. У наиболее соматически тяжелых пациентов с выраженной желтухой и интоксикацией осуществляли холецистостомии под местной анестезией с холецистохолангиографией для выяснения проходимости пузырного протока для оттока желчи наружу. Восстановление проходимости

холедоха осуществляли эндоскопической папиллосфинтеротомией с литоэкстракцией, а по улучшению состояния пациентов выполняли холецистэктомию. В случаях выраженного болевого синдрома при ущемлении камней в большом дуоденальном сосочке наряду с лапароскопической холецистэктомией выполняли эндоскопическую папиллосфинктеротомию с литоэкстракцией.

В раннем послеоперационном периоде продолжали интенсивную терапию. Она включала лекарственные препараты той же направленности, что в предоперационном периоде, с добавлением обезболивающих средств и препаратов парентерального питания. Кроме того, осуществляли соответствующий уход за больными с обязательным наблюдением за количеством и характером выделяемой по дренажной трубке желчи.

Разработанное хирургическое лечение, кроме перечисленных тактических и лечебных мероприятий, включало: 1 - более раннее выполнение срочных хирургических вмешательств (в ближайшие 1-2 суток); 2 - применение различных вариантов комбинации малоинвазивных хирургических вмешательств. 3 - поэтапное (в 2-3 этапа) их выполнение с промежутками в 3-8 дней; Чаще всего первым этапом хирургического лечения было выполнение эндоскопической палиллосфинктеротомии с удалением камней из холедоха и установлением назобилиарного дренажа. Вторым этапом производили лапароскопическую холецистэктомию с наружным дренированием холедоха для создания промывной системы. В случаях безуспешных попыток удаления камней из холедоха во время эндоскопической папиллосфинктеротомии устанавливали назобилиарный дренаж, вторым этапом осуществляли литоэкстракцию с рентгеновским контролем просвета холедоха путем эндоскопической ретроградной панкреатохолангиографии, третьим этапом выполняли лапароскопическую холецистэктомию. У наиболее тяжелых больных эту операцию дополняли наружным дренированием холедоха для создания промывной системы. При наличии выраженного воспаления желчного пузыря с признаками распространенного или местного перитонита, в качестве первого этапа хирургического лечения, выполняли традиционные холецистэктомии или холецистэктомии через мини-доступ с интраоперационной холангиографией и наружным дренированием холедоха по Холстеду-Пиковскому, дренированием подпеченоного пространства и канюлированием пупочной вены для внутрипортального введения лекарственных препаратов в послеоперационном периоде, а затем спустя 3-4 дня осуществляли эндоскопическую папиллосфинктеротомию с удалением камней из холедоха и установкой назобилиарного дренажа в качестве второго этапа операции.

Для более быстрого снижения воспалительных явлений в желчных протоках и предупреждения образования микроабсцессов или абсцессов в печени осуществляли постепенную декомпрессию желчных протоков и

промывание их лекарственной смесью с антибиотиком. Для этого во время установки назобилиарного дренажа брали желчь на бакпосев, а к его наружному концу подсоединяли аппарат Вальдмана и измеряли внутрипротоковое давление. После этого аппарат Вальдмана отсоединяли, а наружный конец назобилиарного дренажа изгибали в виде колена и размещали на высоте 18 см над уровнем правой среднеподмышечной линии, тем самым создавали внутрипротоковое давление равное 180 мм водного столба. В каждый последующий день изгиб дренажной трубки снижали на 2 см по отношению к установленному ранее уровню и доводили его до 12 см. Вновь аппаратом Вальдмана измеряли внутрипротоковое давление, которое составляло теперь 120 мм водного столба. В процессе лечения в ближайшие 6-8 дней состояние пациентов улучшалось, механическая желтуха снижалась, явления интоксикации уменьшались. На этом фоне больным выполняли эндоскопическую холецистэктомию, во время которой устанавливали дренаж в холедох по направлению к двенадцатиперстной кишке, создавая при этом систему для промываний желчных протоков. Лекарственную смесь вводили по назобилиарному дренажу, а она, промывая желчные протоки, вытекала наружу по дренажной трубке, установленной в холедохе по направлению двенадцатиперстной кишки. Промывание желчных путей осуществляли лекарственной смесью, состоящей из теплого 37^0С 0,9% раствора хлорида натрия 100 мл, 1,0 раствора антибиотика (соответственно чувствительности микрофлоры желчи), теплого 37^0С 0,25% раствора новокаина 100 мл, теплого 37^0С раствора метрагила 59 мл, 0,2% раствора гидротартрата платифиллина 1,0 мл, преднизолона 30 мг, раствора гепарина 5000 ЕД. Эту лекарственную смесь вводили со скоростью 20 капель в 1 минуту с помощью обычной инфузионной системы. Такое промывание желчных протоков осуществляли 7-8 дней. После получения стерильного результата бакпосева желчи его прекращали и назобилиарный зонд извлекали. Наружное дренирование холедоха сохраняли до уменьшения количества вытекаемой желчи в пределах 60-100 мл в сутки.

При выявлении признаков холангита во время операции холецистэктомии, брали желчь для бакисследования и выполняли наружное дренирование холедоха по Холстеду-Пиковскому трубкой, поведенной по направлению к двенадцатиперстной кишке с последующим дренированием по описанной выше методике и с постепенным снижением изогнутого колена дренажной трубки до 12 см над уровнем среднеподмышечной линии. Через 3-4 дня после операции больным устанавливали назобилиарный дренаж и осуществляли промывание желчных протоков указанной выше лекарственной смесью

В случаях, когда больным после установки назобилиарного дренажа выполняли открытые операции холецистэктомии, то, кроме проведения наружного дренажа в холедох через культю пузырного протока,

осуществляли реканализацию пупочной вены с введением в нее пупочного катетера размером № 8 или № 10. В послеоперационном периоде ежедневно в течение 6-8 суток через данный катетер 2 раза в сутки вводили внутрипортально раствор 1,0 антибиотика в 250 мл 0,9% раствора хлорида натрия со скоростью 20 капель в 1 минуту (в соответствии с чувствительностью микрофлоры желчи). Кроме того, одновременно желчные протоки промывали через назобилирный зонд указанным выше промывным раствором, содержащим тот же антибиотик, что вводился внутрипеченочно.

Обсуждение. В соответствии с описанными тактическими подходами к лечению больных, в группе лиц, получавших традиционное хирургическое лечение, были выполнены следующие виды хирургических вмешательств (таблица 1).

Таблица 1

Этапы и виды хирургических вмешательств при традиционном лечении больных

№ п/п	Этапы и виды хирургических вмешательств	Количество
1.	Открытая холецистэктомия, холедохолитотомия, интраоперационная холангиография, наружное дренирование холедоха, дренирование подпеченочного пространства	21 21
2.	1-й этап: открытая холецистэктомия, наружное дренирование холедоха, дренирование подпеченочного пространства. 2-й этап: эндоскопическая папиллосфинктеротомия с литоэкстракцией	2 2
3.	1-й этап: лапароскопическая холецистэктомия, наружное дренирование холедоха, дренирование подпеченочного пространства. 2-й этап: эндоскопическая папиллосфинктеротомия с литоэкстракцией	15 15
4.	1-й этап: холецистостомия, холецистохолангиография. 2-й этап: эндоскопическая папиллосфинктеротомия с литоэкстакцией. 3 -й этап: открытая холецистэктомия	2 2
Всего		40 40

Из таблицы 1 видно, что основным видом хирургического вмешательства была открытая холецистэктомия, холедохолитотомия с интраоперационной холангиографией, наружным дренированием холедоха и дренированием подпеченочного пространства (21 операция). Этот же вид операции выполняли при распространенном перитоните (2 операции), дополняя его санацией (промыванием) брюшной полости и ее дренированием. Однако доступ был срединный и для сокращения длительности операции ограничивались наружным дренированием холедоха, откладывая рентгеновское обследование внепеченочных

желчных ходов на послеоперационный период. К числу малоинвазивных операций следует отнести лапароскопические холецистэктомии с наружным дренированием холедоха и подпеченочного пространства в качестве первого этапа. Вторым этапом было выполнение эндоскопической папиллосфинктеротомии с литоэкстракцией.

О результатах лечения судили по количеству послеоперационных осложнений и летальности. Послеоперационные осложнения имели место у 14 пациентов данной группы, из них 6 чел. умерло (таблица 2).

Таблица 2

Послеоперационные осложнения и их исходы у больных при традиционном хирургическом лечении

№ п/п	Виды послеоперационных осложнений	Количество	Умерло больных
1.	Печеночно-почечная недостаточность	2	1
2.	Микроабсцессы печени, сепсис	2	2
3.	Острые язвы желудка с кровотечением	1	1
4.	Продолжающийся перитонит	1	1
5.	Послеоперационный панкреатит	1	-
6.	Острая сердечно-сосудистая недостаточность	2	1
7.	Тромбофлебит нижних конечностей	3	-
8.	Пневмонии	2	-
Всего		14 (35,0%)	6 (15,0%)

Из сведений, изложенных в таблице 2, видно, что наиболее грозными осложнениями были: печеночно-почечная недостаточность, микроабсцессы печени с сепсисом, острые язвы желудка с кровотечением, продолжающийся перитонит и острая сердечно-сосудистая недостаточность, приведшие в общей сложности к 6 летальным исходам. Другие послеоперационные осложнения завершились благоприятным исходом. Следует отметить, что 4 больных умерли после экстренных операций, 2 - после срочных, выполненных в связи нарастанием желтухи и явлений холангита.

При разработанном хирургическом лечении операции выполняли в 2 или 3 этапа. Этапы и виды хирургических вмешательств пациентов данной группы представлены в таблице 3.

Таблица 3

Этапы и виды хирургических вмешательств при разработанном лечении

№ п/п	Этапы и виды хирургических вмешательств	Количество
1.	1-й этап - холецистэктомия через мини-доступ с наружным дренированием холедоха, ИОХГ, дренирование подпеченочного пространства; 2-й этап - эндоскопическая папиллосфинктеротомия с удалением камней из холедоха, НБД	9
2.	1-й этап - традиционная холецистэктомия с холедохолитомией и наружным дренированием холедоха, ИОХГ, канюлирование пупочной вены и дренирование подпеченочного пространства; 2 - й этап - НБД	18
3.	1-й этап - традиционная холецистэктомия с наружным дренированием холедоха, ИОХГ, канюлирование пупочной вены и дренирование подпеченочного пространства; 2-й этап - эндоскопическая папиллосфинктеротомия с удалением камней из холедоха, НБД	2
4.	1-й этап - эндоскопическая папиллосфинктеротомия с удалением камней из холедоха, ЭРПХГ, НБД; 2-й этап - ЛСХЭ с наружным дренированием холедоха и дренированием подпеченочного пространства	17
5.	1-й этап - эндоскопическая папиллосфинктеротомия, ЭРПХГ, НБД; 2-й этап - открытая традиционная холецистэктомия с холедохолитотомией, ИОХГ, наружное дренирование холедоха, дренирование подпеченочного пространства, канюлирование пупочной вены	2
6.	1-й этап - эндоскопическая папиллосфинктеротомия, ЭРПХГ, НБД; 2-й этап - литоэкстракция, ЭРПХГ; 3-й этап - ЛСХЭ с наружным дренированием холедоха и дренированием подпеченочного пространства	4
Всего		52

Условные обозначения: ИОХГ - интраоперационная холангиография; ЛСХЭ - лапароскопическая холецистэктомия; НБД - назобилиарный дренаж; ЭРПХГ - йэндоскопическая ретроградная панкреатохолангиография.

Оценку результатов лечения больных осуществляли по тем же критериям, что и пациентов, получавших традиционное лечение. Учитывали число послеоперационных осложнений и летальность (таблица 4).

Таблица 4

Послеоперационные осложнения и их исходы у больных при разработанном хирургическом лечении

№ п/п	Виды послеоперационных осложнений	Количество	Умерло больных
1.	Печеночно-почечная недостаточность	2	1
2.	Кровотечения из большого дуоденального сосочка	2	-
3.	Послеоперационный панкреатит	2	2
4.	Продолжающийся перитонит	1	1
5.	Нарушение мозгового кровообращения	1	1
6.	Тромбофлебит нижних конечностей	1	-
7.	Пневмонии	2	-
Всего		11 (21,2%)	5 (9,6%)

Сведения, изложенные в таблице 4, показывают, послеоперационные осложнения развились у 11 больных (21,2%), в 5 случаях (9,6%) они закончились летальными исходами. Все летальные исходы наступили после экстренных операций. Следует отметить, что в связи с применением малоинвазивных технологий отмечались специфические для этих операций послеоперационные осложнения - кровотечения из большого дуоденального сосочка (у 2 чел.) и послеоперационные панкреатиты (2 наблюдения). Применение сочетания внутрипортального введения антибиотика с промыванием желчных протоков лекарственной смесью с тем же антибиотиком наиболее благоприятно сказалось на течении послеоперационного периода.

Обращает внимание на отсутствие в данное группе больных такого опасного для жизни пациентов осложнения как микроабсцессы в печени. Это обусловлено применением у больных поэтапного снижения внутрипротокового давления в желчных путях после операции с промыванием их лекарственной смесью с антибиотиком. У наиболее тяжелых больных при выполнении открытой холецистэктомии с канюлированием пупочной вены такой результат достигнут за счет одновременного промывания желчных протоков лекарственной смесью с антибиотиком и введением капельным способом того же антибиотика внутрипортально.

Вывод. При хирургическом лечении больных с гнойным холангитом, обусловленным холедохолитиазом, применение поэтапного снижения внутрипротокого давления в желчных путях после операции с промыванием желчных протоков лекарственной смесью с антибиотиком в

течение 6-8 суток способствует предупреждению образования внутрипеченочных микроабсцессов и развитию сепсиса. У наиболее тяжелых пациентов выполнение открытых операций холецистэктомий с канюлированием пупочной вены и созданием промывной системы в желчных протоках обеспечивают одновременное их промывание лекарственной смесью с антибиотиком и внутрипортальное введение того же антибиотика. Такое сочетание антибиотикотерапии благоприятно сказывается на течении послеоперационного периода.

Таким образом, мы видим, что за последнее десятилетие значительно изменилась тактика хирургического лечения пациентов с механической желтухой, наибольшую популярность приобретают малоинвазивные методы протезирования желчеотводящей функции. Все больше внедряются комбинированные гибридные способы лечения доброкачественных структур желчевыводящей системы и малотравматичные способы разгрузки при злокачественной патологии.

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РОЛЬ ЛИТЕРАТУРЫ КАК ОБЪЕКТ ФОРМИРОВАНИЯ И РАЗВИТИЯ РЕЧЕВОЙ КУЛЬТУРЫ В ШКОЛАХ

Аннотация: В статье речь идет о культуре речи учащихся на основе художественной литературы.

Ключевые слова: Эстетических, патриотических, фонетика, лингвистическая, культурологическая, орфоэпические.

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THE ROLE OF LITERATURE AS AN OBJECT FOR THE FORMATION AND DEVELOPMENT OF SPEECH CULTURE IN SCHOOLS

Abstract: The article deals with the culture of students' speech on the basis of fiction.

Key words: Aesthetic, patriotic, phonetics, linguistic, cultural, orthoepic.

Изучение русского языка учащимися, для которых русских язык не является родным, как известно, направлено на реализацию основных целей: образовательную и воспитательную, познавательную икоммуникативную.

Судьба подрастающего поколения, обучения и воспитания в духе высокой нравственности с ориентацией на общечеловеческие ценности является основной задачей современной школы. В осуществлении этой задачи большая роль принадлежит литературе. Как классическая, так и современная литература содержит в себе немалый материал для целенаправленного воспитания у учащихся активной жизненной

позиции, нравственно -эстетических, патриотических, интернациональных, гражданских качеств. В процессе изучения произведения русской классической и современной литературы активизируетсяречевая и мыслительная деятельности учащихся, расширяется их читательский кругозор, воспитывается художественный вкус.

Русская классическая и современная литература, чтобы быть одним из эффективных средств для решения поставленных целей, обладает всеми необходимыми качествами и достоинствами. В качестве источника и средства изучения русского языка, формирования языковых навыков - выступает художественный текст. При чтении художественного материала совершенствуются нравственные приоритеты, развивается эмоционально-ценностная сфера, лингвистическая, культурологическая информация обогащает общую культуру путем освоения, так как художественные произведения являются основным и важнейшим инструментом познания языка народа, его культуры и менталитета. Оригинальные образцы литературных текстов содержат навыки модели русского общения, коммуникативную особенность. Все это позволяет говорить о русской литературе как материале богатого дидактического характера. Оно обуславливает необходимость дальнейшего совершенствования процесса изучения русской литературы в школе. Особенно эта проблеме актуальна в национальной школе. Решение этих задач будет способствовать более глубокому овладению учащимися идейно-художественным богатством иноязычной литературы, глубокому восприятию ими эстетических и нравственных идеалов писателя.

Важное место в формировании приемов преподавания принадлежит формам и методам, которыми пользуется учитель. В решении задачи совершенствования литературного образования школьников в условиях современной школы возникла необходимость творческого подхода к использованию традиционных форм работы по изучению литературы. Учебные занятия, собеседование, практикум, семинары, дискуссии, деловые игрыурок-инсценировка, защита реферата, конференция - формы, которые целесообразно использовать как метод для изучения литературы и творчества писателя.

Методически обоснованная последовательность этих форм зависимостиот степени возрастания форм, приемов и средств обучения, с учетом возрастных и национальных особенностей, психологии учащихся, целенаправленность материала с разноуровневой языковой и речевой подготовкой.

Следующая последовательность и сочетаемость активных форм уроков показалась наиболее приемлемой для классов: в 5 классе – чтение и пересказ текста; в 6 классе – чтение – пересказ – выучивание слов; в 7 классе собеседование- рассказ-диспут; 8 классе – собеседование – практикум – пересказ – диспут – доклад; в 9 классе - собеседование -

практикум - лекция - урок-беседа - урок-доклад - семинар - диспут; в 10 классе - собеседование - лекция - семинар - диспут - защита реферата - дискуссия; в II классе - лекция - семинар - дискуссия - деловая игра - урок-концерт - урок-инсценировка - Круглый стол -конференция.

Если с 5 по 8 класс занятия носят ознакомительный, деструктивный, игровой, дискуссионный характер, то в 9 классе занятия носят в основном обучающий характер, а в 10 классе учащиеся проявляют самостоятельную деятельность при овладении материала. Проявления творческих способностей учащихся, выбор форм учебных занятий, ориентированных на возможность максимального, дальнейшего развития самостоятельности мышления определяет учебный процесс 11 класса.

Произведения русской литературы позволяют решать не только с реализацию основных целей процесса обучения, но и с решением различных учебных задач - «от практических языковых до формирования навыков комплексного филологического анализа художественного произведения». В школах с нерусской аудитории тексты художественной литературы чаще всего используются как материал для формирования различных видов речевой деятельности.

Для развития русской речевой деятельности школьника, текст художественного произведения обладает всеми составляющими, необходимыми для его развития. Языковое богатство русского языка, художественное мастерство писателей и поэтов, которые являются подлинным образцом русской литературной речи, демонстрирует обучающим образец русской культуры и мысли. При изучении в национальных школах произведений русской художественной литературы у учащихся происходит знакомство с новым образом жизни; языковыми и грамматическими конструкциями, необходимых в процессе изучения языковых норм; обогащается лексический запас учащихся; совершенствуется их фонетическая культура; улучшается орфоэпические навыки школьника, расширяются круг познания и усваивания значимыхэлементов в процессе речевого общения, этикетные формулы. Исходя из выше сказанного, работа с текстами художественной литературы оказывают непосредственное влияние на развитие речевых способностей учащихся с нерусской речевой культуры.

Поэтический текст, с которымзнакомится ученик, организует работу по формированию и развитию в речи фонетических норм: отрабатывается произношение звуков и интонационных конструкций, уделяется особое внимание правильному ударению в словах. «Работа над произносительными ошибками не может быть успешной без постоянного контроля преподавателя и самоконтроля учащихся, причем не только на уроках фонетики, но и на других уроках» (Н.С.Новиковой «Глагол в

тексте»), в том числе и на тех занятиях, когда организуется изучение художественного текста.

Материал по русской литературе, умело подобранный преподавателем, обогащает лексический запас школьника, позволяет улучшить словарный багаж. В пособии «Загадочная русская душа» авторы пишу: «В результате последовательной работы над материалами пособия учащиеся получают не только речевые, но и языковые умения, связанные с определением прямого и переносного значения слов, использованием возможностей многозначного слова в собственной речевой практике, различением фразеологических единиц и свободных словосочетаний». Начало цикла занятий с урока-собеседования обусловлено тем, что прежде всего важно выявить читательские интересы и склонности учащихся для определения характера дальнейшей работы с ними. Значение уроков-практикумов мы объясняем необходимостью проведения предварительных занятий, где отрабатывались бы навыки работы с литературой - конспектирование, тестирование, аннотирование, рецензирование и так далее.

В старших классахнаиболее подходящей формой изложения материала литературного произведения и литературы является лекция в форме рассказа. В силу своего возраста ученики еще не в состоянии полностью воспринимать поток информации на русском языке, поэтому рассказ не следует перегружать обилием информации, необходимо рассказ иллюстрировать в виде презентации, выбрать самые основные и интересные факты, с использованием средств наглядности, материалов из родной литературы. Примером может послужить творчество Чехова. При изучении произведений великого русского писателя часто используется перевод рассказов Чехова на русский язык Абдулла Каххаром.

Использования различных активных форм занятий при изучении изучение русского языка и литературыи его эффективность применения во многом зависит от того, в какой мере и каким образом использованы на уроках материалы сравнительно-сопоставительного анализа по узбекской литературе, русской классике, материалы по национальному искусству и культуре, истории и краеведению.

Необходимо уделять особое внимание отбору литературного материала, который должен быть интересен учащимся и нести познавательный и образовательный характер, вызвать у них знакомые ассоциации и образы.

В школьную программу в основном включены творчества великих русских писателей и поэтов. Учебные материалы строятся на основе лучших образцов русской классической и современной литературы (А.С.Пушкин, Н.В.Гоголь, И.А.Бунин, А.А.Ахматова, С.А.Есенин и многие другие). Объектом изучения служат знаменитые произведения русских писателей, которые удачно переведены на узбекский язык (Ойбек,

Миртемир, Чулпан, А.Кодирий, Г.Гулям, А.Каххар, Зулфия и др). Как законченные произведения, так и отрывки из известных литературных источников становятся материалом для самостоятельного изучения русского языка и литературы. Использование текстов разных жанров позволяет воспроизвести русскую речь в различных коммуникативных ситуациях. Художественный текст как материал, таким образом, становится наполненной основой речевых тем и ситуаций общения. Его познавательная функция позволяет вовлечь учащихся в активный речевой процесс, способствует развитию таких важных качеств умений, как логическое построение собственной точки зрения на русском языке, обмен мнениями по поводу полученной информации, участие в дискуссии по обсуждаемой проблеме и другие.

Реализовать познавательное умения на практике позволяет учащимся выполнение различных заданий. Можно привести различные примеры их формулировок, исходя от объекта обучения. Каждый класс, начиная с 5 по 11, использует тот познавательный метод, который способствует дальнейшему росту знания. Расскажите, опишите, представьте себе, прокомментируйте, вспомните, охарактеризуйте, ответьте, передайте смысл другими словами, придумайте, сопоставьте, сравните, соотнесите, объясните, обратите внимание – вот основные, методы, используемые в образовательной системе изучения русского языка и литературы.

Таким образом, работа с художественным текстом способствует формированию и развитию речевой культуры учащихся. Поэтапная и целенаправленная работа должна быть организовано на основе учета языковых особенностей учащихся и соответствующая определенному этапу их обучения. Логическим продолжением занятия могут стать и внеаудиторные мероприятия, которые способствуют познавательную деятельность учащихся. Тексты художественных произведений - это именно тот полноценный источник русского языка, который способствует формированию и развитию речевой культуры наших учащихся.

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АНАТОМО-МОРФОЛОГИЧЕСКИЕ ПРИЗНАКИ НЕКОТОРЫХ ВИДОВ РАСТЕНИЙ АДЫРОВ ALCEA ROSEA И ACANTHOPHYLLUM PULCHRUM И БИОЛОГИЯ ПРОРАСТАНИЯ ИХ СЕМЯН

Аннотация. В статье представленны Био-экологические особенности Acanthophyllum pulchrum Bunge и Alcea rosea большое внимание уделено изучению биологии прорастания семян, знания механизма прорастания семян этих растений в условиях Андижанских адыров способствует выявлению адаптационных механизмов в стрессовых условиях предгорных зон и в дальнейшем можно разработать методы сохранения генофонда этих растений.

Ключевые слова: Alcea rosea, Acanthophyllum pulchrum Bunge, морфология, анатомия, сапонины, всхожесть семян, антропогенный фактор, эрозия, дегратация.

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ANATOMICAL AND MORPHOLOGICAL FEATURES OF SOME PLANT SPECIES OFADYRS ALCEA ROSEA AND ACANTHOPHYLLUM PULCHRUM AND THE BIOLOGY OF THEIR SEEDGERMINATION

Annotation. The article presents the Bio-ecological features of Acanthophyllum pulchrum Bunge and Alcea rosea. Much attention is paid to the study of the biology of seed germination, knowledge of the mechanism of seed germination of these plants in the conditions of Andijan adyrs helps to identify adaptation mechanisms in stressful conditions of foothill zones, and in the future it is possible to develop methods for preserving the gene pool of these plants.

Key words: Alcea rosea, Acanthophyllum pulchrum Bunge, morphology, anatomy, saponins, seed germination, anthropogenic factor, erosion, degradation.

Введение. Изучение экологии и ботаники предгорных районов проводили разные ученые с разными целями.

Труды по изучению биоэкологических особенностей растений Андижанских адыров очень мало. Но следует отметить, изучения сапониносных и лекарственных растений представляет большой интерес. В сегодняшний день адыры Андижанской области находятся под сильным антропогенным воздействием из-за перенаселения людей и освоениям этих земель. Поэтому объектом наших исследований стали растения из рода Acanthophyllum и Alseo Rosea. Морфологические особенности растений рода Acanthophyllum была подробно изучена Ниязовым Б.Н [5]. Также многими учеными были изучены анатомо-морфологические строения различных видов растений родов Acanthophyllum (Мадумаров.Т) [3], анатомическое строение многолетних корней некоторых видов растений рода Acanthophyllum (Рузматов Э.Ю., Туйчиева Д.С., Юлдашева О.Э) [8].

Alseo Rosea имеющая важное значение в фармацевтике, изучалась для получения лекарств, например, изучена технология разработки лекарственных препаратов на основе стеблей шток-розы (Н. Туланова) [10], химический состав и ее применение в народной медицине (Дроздова Ирина Леонидовна) [1], морфо-биологические особенности Alcea rosea L. в условиях Ташкентской области (Салихов С.А) [9]. В настоящее время стоит актуальный вопрос изучения связи биологических особенностей растений с экологией их мест произрастаний. Особенно в этот период, когда предгорные зоны находятся под влиянием антропогенных факторов.

Познание анатомо-морфологических признаков, и влияния экологии на некоторые видыполезных растений произрастающие в этих местностях поможет выявить засоленность почв в тех местах и разработать методы восстановления деградированных почв. Почвы на адырах подвержены ирригационной эрозии, преимущественно в средней и сильной степени [7].

В этой статье мы описали биологические оссобенности шток розы и колючелистника, а также механизмы произрастания их семян. Плоды растений являются носителями генофонда видов, сохранения которого особенно актуально в стрессовых условиях обитания, каковыми являются адыры подверженные антропогенному влиянию.

Методология работы. Сбор и определения растений мы провели согласно пособиям М.Б. Фардеева и В.Е. Прохорова [10]. Морфология семян и плодов по методике, разработанной Н.Н. Каденом и С.А. Смирновой (1971) [2].

Лабораторная всхожесть изучена, исходя из биологии вида, по методике М.Г. Николаевой, М.В. Разумовой, В.Н. Гладковой (1985) [6].

Проращивания проводили при положительной температуре +4-6°С, в лабораторных условиях при +15-20°С, при повышенной температуре при +25-30°С в чашках Петри на дистиллированной воде. Опыт повторялся несколько раз, нарушая покой семян промывая их в дистиллированной воде, держа в холодильнике по 1-2 недели, удаляя перикард.

При изучении анатомо- морфологических признаков Alseo rosea мы использовали живые и гербарные образцы побегов (с листвой и без нее), цветки, листья на различных стадиях роста.

Цветки шток розы розовой более мелкие, б. ч. до 2 см в диам., никогда не превышают 3 см, тычиночная трубка цилиндрическая, чаще опушенная, а не голая, мерикарпии бескрылые. Все растение покрыто густыми бархатистыми волосками. Венчики красно-лиловы. Имеет расходящихся лучами волосиков вдоль стебля и листьев, и липкий сок. Листья очередные, простые, лопастные с пальчатым жилкованием, имеют прилистники. Цветки обоеполые, радиально- симметричные, с прицветниками в форме наружной чашечки. Околоцветник состоит из пяти створчатых, отдельных либо сросшихся в основании чашелистиков и, как правило, пяти лепестков, которые в свою очередь срастаются с тычиночной трубкой.

Семена шток-розы хорошо приспособлено к жестким условиям среды, благодаря различным механизмам и способам защиты. Плод – одно гнездовый, вскрывающаяся 2 створками. При плодах сохраняется высохшая чашечка и прицветники. Семена мелкие, 5 мм длины, 4.5 мм ширины, морщинистые, округло почковидные, темно коричневые с периспермом. Зародыш с 2 симметрично согнутыми семядолями. Масса 1000 шт. семян – до 1 г. Лабораторная всхожесть семян при +25-28℃ составило 70%, прорастание началось на 5 день. всхожесть при подземном посеве на богарном участке – 80%, на условно-поливном -8.7%. Всхожесть семян позволяет понять механизмы адаптации растений к условиям среды, а также поможет выявит ингибирующие факторы, способствующие снижению всхожести.

Биология прорастания семян и способы стимуляции всхожести

	Семейство вид	Период максимальной всхожести, месяц, год	Максимальная всхожесть%	Оптимальный режим	Обработка семян	Срок снижения всожести (годы)
	Мальвовые Шток роза розовая	3 мес	70,0	25-28	Промывание водой	

Центральное место в оценке всхожести является реальная семенная продуктивность, под которой понимают число жизнеспособных семян, продуцируемых особью.

Acanthophyllum *pulchrum* Bunge Полукустарник высотой 10- 20 см или подушковидный кустарничек. Травянистые стебли тонко-железисто

опушенные. Листья шиловидно-колючие 2- 3.5 см длины и 0.1-1.5 мм ширины, сверху желобчатые, тонко-железисто-опушенные. Прицветники продолговатые, лодкообразные, по краям пленчатые, колючие короче чашечки. Чашечка продолговато цилиндрическая, 7-8 мм длины, железистоволосистая, с острыми, но не колючими зубцами. Характерна своеобразная подушечная форма роста. Стебель у самой почвы многократно ветвится, при этом в разные стороны отходят многочисленные побеги, которые, в свою очередь, неоднократно разветвляются. Все растение приобретает форму полушария или подушки, нередко колючей. Очень колючие подушки образуют некоторые виды колючелистника (Acanthophyllumв 1.5 раза длиннее чашечки. Плодоносят в июне – июле. Подушки бывают рыхлыми или компактными; и те, и другие очень медленно растут; в год побеги удлиняются всего на несколько миллиметров, а возраст отдельных экземпляров исчисляется столетиями. Плотная подушка лучше прогревается солнечными лучами, побеги ее хорошо защищены от иссушающего действия ветра, внутри подушек создается свой микроклимат

Содержит сапонины - вещества, которые при взбалтывании с водой дают обильную пену. Сапонины присутствуют во всех частях растения, но больше всего их в паренхимных клетках подземных органов. Использование гвоздичных в медицине также связано с наличием в этих растениях сапонинов.

Биология прорастания семян. Семена полупустынных растений хорошо приспособлено к жестким условиям среды, благодаря различным механизмам и способам защиты. Плод – верхняя многосемянная (3-4 семени) коробочка, вскрывающаяся 2 створками. При плодах сохраняется высохшая чашечка и прицветники. Семена мелкие, 1.9 мм длины, 1.5 мм ширины, морщинистые, округло почковидные, темно коричневые с периспермом. Зародыш с 2 симметрично согнутыми семядолями. Масса 1000 шт. семян – 1.88 г. Определение массы 1000 семян по фракциям дает возможность установить прямую связь между крупностью и массой семян

Лабораторная всхожесть семян при +20-25°С составило 11%, прорастание началось на 7 день. Грунтовая всхожесть при подзимнем посеве на богарном участке – 22.1%, на условно-поливном-8.7% (Мусаева, 1975, 1983) [4].

Биология прорастания семян и способы стимуляции всхожести

Семейство вид	Период максимальной всхожести, месяц, год	Максимальная всхожесть%	Оптимальный режим	Обработка семян	Срок снижения всхожести (годы)

Acanthophyllum pulchrum Bunge	5 месяцев	20,0	+20-25	Солнечный обогрев	

Всхожесть семян является ответной реакцией аридных растений на свет и температуру, изменяющихся в зависимости от места происхождения, времени созревания семян и особенно - морфологии плодов, а также их расположения на материнском растении. Возникновения специальных приспособлений для тех или иных способов расселения является показателем толерантности вида к определенным экологическим условиям. Экологический оптимум прорастания семян (температура, свет, норма осадков, воздействие солей и т.д) тесно связан с анатомическим строением покровов плодов и семян, а также наличием в них веществ, ингибирующих прорастание.

Заключение. Таким образом, знанием морфологических и анатомические особенности некоторых растений можно определить экологический оптимум произрастания семян, а это в свою очередь поможет выявить изменения происходящие в их среде обитания. Нам известно, что множество адыров находятся под сильным антропогенным влияниям, из-за освоения этих земель происходит уничтожения экологических ниш произрастающие в этих условиях. Но не следует забывать, что множество тех растений имеют большое значения в медицине и разработка методов по предотвращении эрозии, и сохранения популяции является актуальной задачей экологии и биологии.

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ФИЗИЧЕСКАЯ КУЛЬТУРА И СПОРТ КАК ФАКТОР ФОРМИРОВАНИЯ СОЦИАЛЬНОГО ЗДОРОВЬЯ МОЛОДЁЖИ

Аннотация: в этой статье освещается роль физической культуры и спорта в нашей повседневной жизни, важность здорового образа жизни в обществе и идея социального благополучия.

Ключевые слова. Физическое воспитание, спорт, здоровый образ жизни, социальное здоровье, фактор, молодёжь.

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PHYSICAL EDUCATION AND SPORT AS A FACTOR OF YOUTH SOCIAL HEALTH FORMATION

Annotation: This article highlights the role of physical culture and sports in our daily lives, the importance of a healthy lifestyle in society, and the idea of social well-being.

Key words. Physical education, sport, healthy lifestyle, healthcare, factor, youth.

В современном обществе физическая культура и спорт являются одним из наиболее сложных и многогранных процессов общественной жизни. В последние десятилетия XX века и в начале XXI века одной из основных задач ученых работающих во всех областях науки стала задача разработки комплекса мер, которые бы позволили сохранить и укрепить здоровье человека, продлить его активную жизнь, преодолеть различного рода болезни. Но одни только достижения в области медицины, генетики, экологии не способны сделать человека здоровым. Решение такой задачи невозможно без повышения социальной значимости физической культуры и спорта, без достижения понимания населением важности физической активности, без формирования взгляда на физическую культуру и спорт, как на факторы здоровья, здорового образа жизни.

Здоровье социально как по своей сущности, так и по форме детерминации различных сфер жизнедеятельности. В настоящее время человечество столкнулось с целым рядом глобальных вызовов. Это

необратимые антропогенные изменения экологической ситуации, вооружение человека новейшими средствами воздействия преобразования природы и самого себя, отсутствие необходимой социальной базы здравоохранительного движения.

Целенаправленное создание условий, адекватных гуманистическому образу жизни, требует сегодня глубокой мировоззренческой переориентации общества в отношении здоровья не только всего населения, но и в том числе и здоровья подрастающего поколения как важнейшей социальной ценности.

В ситуации, сложившейся в настоящее время в социальной сфере, особое беспокойство вызывает ухудшающееся состояние здоровья населения и особенно молодежи, как особой социально-демографической категории. При этом не нуждается в доказательствах тот факт, что молодое поколение представляет собой репродуктивный, интеллектуальный, экономический, социальный, политический и культурный резерв будущего общества. Из этого контингента будут в будущем пополняются трудовые ресурсы, комплектоваться Вооруженные силы.

Несмотря на многообразие спортивных мероприятий и всеобщую пропаганду здорового образа жизни, не все подходят к занятию спортом систематизировано. Как правило, усиленное внимание к спорту у людей просыпается только при необходимости сбросить вес или поправить фигуру перед сезоном отпусков или непосредственно перед спортивными соревнованиями. Также мало кто интересуется тем, какие физические нагрузки необходимы разным людям, в зависимости от возраста, пола, веса и состояния здоровья. Чтобы поддерживать в норме свое здоровье и основные жизненно важные органы тела, необходимы регулярные физические занятия с постепенным увеличением нагрузки на организм. Только соблюдение систематических занятий спортом способствует улучшению настроения человека, повышает физическую выносливость и помогает предотвратить возникновение болезни.

Благодаря достижениям науки и техники, медицина во многом избавила человека от опасности ряда инфекционных заболеваний, дала ему различные способы и средства лечения болезней. Вместе с тем, двадцатый век принес уменьшение объема двигательной активности человека, увеличение нервно-психического и других видов стресса, химического загрязнения внешней и внутренней среды и другие негативные явления, связанные с научно-техническим прогрессом.

Образ жизни современного человека характеризуется гиподинамией и гипокинезией, перееданием, информационной загруженностью, психоэмоциональным перенапряжением, злоупотреблением лекарственными препаратами и т.д., что приводит в конечном счете к развитию так называемых болезней цивилизации.

Распространенность среди учащихся школ и студентов курения, употребления алкоголя и наркотиков свидетельствует о том, что существующие методы формирования культуры здорового образа жизни пока не дают желаемых результатов. Эффективность существующих методов гигиенического воспитания, используемых как в школе, так и в семье требует существенной корректировки.

Физическая культура – часть общей культуры общества, самое широкое, собирательное понятие, которое включает все достижения, накопленные в процессе общественно-исторической практики: уровень здоровья, спортивного мастерства, науки, произведений искусства, связанных с физическим воспитанием, а также материальные (технические) ценности (спортивные сооружения, инвентарь и т.д.). Под физической культурой понимают совокупность всех присущих данному обществу целей, задач, средств, форм мероприятий, способствующих развитию и совершенствованию физической и духовной конституции людей.

Спорт, вне всякого сомнения – одно из главных средств воспитания движений, совершенствования их тонкой и точной координации, развития необходимых человеку двигательных физических качеств. Но не только. В процессе занятий спортом закаляется его воля, характер, совершенствуется умение управлять собой, быстро и правильно ориентироваться в разнообразных сложных ситуациях, своевременно принимать решения, разумно рисковать или воздерживаться от риска.

Сфера физической культуры населения взаимосвязана с жизнедеятельностью цеголого ряда социальных институтов (семья, здравоохранение, образование, спорт, армия и др.). Каждый из институтов, “задействованный” в процессе производства и воспроизводства физической культуры, имеет свою структуру, характеризующуюся определенным способом связи элементов, составляющих целое.

Сегодня, в век технического прогресса, когда снижается уровень здоровья населения при большой технической нагрузке и недостаточной двигательной активности, роль физической культуры и спорта еще более возрастает. Не вызывает сомнения, что насыщенный эмоциональный фон в достаточной степени снижает уровень здоровья и самочувствия студентов, травмирует их психику.

В связи с этим особую актуальность приобретает поиск наиболее адекватных путей и методов укрепления психофизического состояния студентов, выявление психолого-педагогических условий оптимизации данного процесса, разработка оздоровительных технологий, способных снизить физиологическую и психологическую цену адаптации и обеспечить формирование устойчивых установок на здоровый образ жизни.

Здоровый образ жизни во многом зависит от ценностной ориентации студента, мировоззрения, социального и нравственного опыта. Общественные нормы, ценности здорового образа жизни принимаются студентами как личностно значимые, но не всегда совпадают с ценностями, выработанными общественным сознанием.

Физическая культура личности характеризуется уровнем ее образования в сфере физической культуры, оптимальной физической подготовленности, что находит отражение в здоровом стиле жизни, в видах и формах активной физкультурно-спортивной деятельности. К критериям, положенным в оценку степени сформированности физической культуры личности, можно отнести:

• степень потребности в физической культуре и способы ее удовлетворения;

• интенсивность участия в физкультурно-спортивной деятельности (затрачиваемое время, регулярность);

• характер сложности и творческий уровень этой деятельности; выраженность эмоционально-волевых и нравственных проявлений данного человека в физкультурно-спортивной деятельности (самостоятельность, настойчивость, трудолюбие, целеустремленность, самообладание, дисциплинированность, коллективизм, патриотизм);

• проявление самоорганизации, самообразования, самовоспитания и само-

совершенствования в физической культуре;

• уровень физического совершенства и отношения к нему; владение средствами, методами, умениями и навыками, необходимыми для самостоятельного физического совершенствования;

• системность и глубина усвоения научно-практических знаний по физической культуре для творческого использования в практике физкультурно-спортивной деятельности;

• широту диапазона и регулярность использования знаний, умений, навыков

и опыта физкультурно-спортивной деятельности в организации здорового стиля жизни, в учебной и профессиональной деятельности.

Таким образом, как интегрированный результат физического воспитания, самоподготовки студента сформированность физической культуры личности будущего специалиста должна проявляться в его активном отношении к своему здоровью, физическим возможностям и способностям, в образе (стиле) жизни, в быту и профессиональной деятельности.

Формирование здоровой личности невозможно без наличия твердых жизненных позиций в человеке, обусловленных грамотным и осмысленным отношением к своему здоровью; окружающей среде, в которой он проживает, обществу;

развитию культуры спорта, способствующей регулированию физического состояние человека с учетом индивидуальных особенностей организма; рациональному распределению свободного времени, отдавая приоритет активному отдыху,

все это в совокупности - непременно приводит к гармоничному единству всех

компонентов здоровья человека и целостному развитию личности.

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К ВОПРОСУ О ВНЕДРЕНИИ КЛАСТЕРНО-МОДУЛЬНОГО МЕТОДА В УЧЕБНЫЙ ПРОЦЕСС ПО ФИЗИЧЕСКОМУ ВОСПИТАНИЮ СТУДЕНТОВ

Аннотация. В статье рассматриваются актуальные вопросы внедрения новых информационных технологий в учебный процесс по физическому воспитанию студентов. Раскрывается сущность кластерно-модульного метода и его роль в структуре образовательного процесса физического воспитания студенческой молодёжи.

Ключевые слова: кластерно-модульный метод, кластерный анализ, индивидуальный подход.

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TO THE QUESTION OF THE INTRODUCTION OF THE CLUSTER-MODULAR METHOD IN THE EDUCATIONAL PROCESS FOR THE PHYSICAL EDUCATION OF STUDENTS

Annotation.This article conducted and studied the issues related to the usage of Modern Information Technology for students in Physical Training. Furthermore, the article includes practical usage and role of Cluster-modular method in Physical Training classes.

Keywords: cluster-modular method, cluster analysis, individual approach.

Проблема совершенствования процесса физического воспитания студентов уже многие годы является предметом внимания специалистов [2,4,5,6,7 и др.]. Высшие учебные заведения комплектуются преимущественно из юношей и девушек, только что окончивших среднюю школу. Опыт показывает, что уровень физической подготовки основной массы абитуриентов остается низким, наблюдается тенденция к некоторому снижению уровня разносторонней физической подготовки [4]. Анализ литературных источников свидетельствует об ухудшении физического развития и физической подготовленности молодого поколения, прогрессировании дефицита двигательной активности студенческой молодежи [3,7].

Задача повышения эффективности физического воспитания подрастающего поколения являлась и является наиболее значимой на протяжении последних десятилетий.

В теории и на практике активно разрабатывались вопросы дифференциации, индивидуализации и профилизации обучения, интеграции содержания образования, внедрялась идея гуманизации [7]. Модернизация образовательной системы в нашей стране коснулась и вузовского физического воспитания.

По мнению специалистов, необходимо отказаться от жесткой нормативности, обязательности и авторитарности, подстраивания под заданный из вне стандарта, сформировать заинтересованное отношение студента к предмету, пробудить интерес к возможности строительства здорового тела, формирования собственного здоровья.

При формировании физической культуры у занимающихся акцент смещался на ее двигательный компонент в ущерб интеллектуальному и социально-психологическому [2].

Стратегическими направлениями преобразований в системе образовательных учреждений являются оптимизация учебной, психологической и физической нагрузки учащейся молодежи, создание условий для формирования и развития двигательной подготовленности обучающихся.

Обучение в вузе характеризуется значительным эмоциональным и интеллектуальным напряжением основных психологических функций, гипокинезией, наличием стрессовых ситуаций.

Как свидетельствуют материалы ряда публикаций, приоритетной задачей научного обоснования физического воспитания следует считать изучение процесса адаптации организма студентов к новым условиям работы на производстве, в учебной деятельности, изобилующей большим количеством новых факторов, нагружающих психоэмоциональную и двигательную сферу студентов (3).

По мнению специалистов, (3,6), студенты с более высокой двигательной подготовленностью лучше адаптируются к вузовским условиям и различным негативным факторам окружающей среды (социально-бытовым условиям, эмоциональному стрессу и др.).

Практические пути решения данной проблемы обусловлены, в первую очередь, изысканием новых форм, средств, методов дальнейшего повышения уровня физического развития, совершенствования двигательного режима студентов и реализацией индивидуального подхода к их физическому воспитанию.

Студенты представляют особую группу риска, которая чаще, чем другие социальные группы, подвергается действию неблагоприятных факторов окружающей среды, страдает различными заболеваниями.

В последние годы отмечается рост количества студентов, имеющих отставание в физическом развитии и функциональной подготовленности. (7).

Многие студенты не в полном объеме готовы к выполнению нагрузок, предусмотренных стандартной учебной программой.

Таким студентам трудно выполнять программу учебных занятий, построенных в рамках тренировочных режимов (в соответствии с физиологически обоснованными стандартами для данной возрастной группы) Это связанно с несоответствием нормативных тестов уровню физической подготовленности значительного числа студентов.

Положение усугубляется отсутствием у большинства студентов необходимой мотивации к занятиям физической культурой. Такие студенты нередко пассивны на практических занятиях, они избегают физических нагрузок, не проявляют настойчивости в достижении результатов, необходимых для оптимального функционирования всех систем организма. Остается важной задача активизации физической деятельности таких студентов. Это приводит к необходимости разрабатывать новые методики в обучении двигательным действиям студентов.

Методы контроля и оценки состояния здоровья и физического развития и подготовленности студентов соответствуют дидактической структуре кластерно-модульного метода.

Одним из достоинств модульной технологии является ее уникальность. Индивидуализация физического воспитания студентов, отстающих в физическом развитии и подготовленности, является одной из главных проблем учебного процесса в вузе.

Перспективным направлением решения этого вопроса является создание многоканальной системы информационных связей (от преподавателя или источника знаний - к студентам).

Реализовать возможности индивидуализации обучения можно только на основе обоснованной перестройки систем и методов преподавания физического воспитания, при которых прямые и обратные информационные связи со студентами станут многоканальными, а методы управления процесса физического воспитания - замкнутыми, т. е. использующими индивидуальные особенности. В этом отношении интерес представляет разработка новых оздоровительных и информационных технологий, базирующихся на достижениях программированного метода обучения и компьютеризации учебного процесса по физическому воспитанию.

Специфика новых информационных технологий по физическому воспитанию студентов с низким уровнем физической подготовленности предусматривает программно-методическое обеспечение занятий, наличие

современных технических средств (автоматизированных обучающих и диагностических систем на базе ЭВМ).

В настоящее время интерес представляет разработка новых информационных технологий, базирующихся на достижениях модульного подхода обучения и компьютеризации учебного процесса по физическому воспитанию. Специфика новых информационных технологий по физическому воспитанию студентов предусматривает программно-методическое обеспечение занятий, наличие современных компьютерных средств (1).

Правильная оценка функционального и физического состояния имеет огромное значение, так как позволяет не только изучать влияние физических упражнений на организм, но и помогает диагностировать развитие и подготовленность студентов, устанавливать приспосабливаемость к физической нагрузке, определять ее оптимальность и т. п.

Кластер (информативное понятие) - незаполненная область файловой системы, участок (ячейка) неиспользованной памяти информационного носителя. Чем больше незаполненных ячеек (кластеров), к примеру, на жестком диске, тем труднее поиск необходимой информации. Мыслительная деятельность, доминирующей мотивацией которой выступает постановка и решение личностно-значимой проблемы, может быть разделена на системные «кванты».

Модуль может быть представлен как учебный элемент в форме стандартизированного буклета, состоящего из следующих компонентов:

- точно сформулированная учебная цель;
- список необходимого оборудования материалов;
- список смежных учебных элементов;
- собственно, учебный материал в виде краткого конкретного текста, сопровождаемый подробными иллюстрациями;
- практические занятия для отработки двигательных навыков. В настоящее время остро стоит вопрос о поисках современных педагогических технологий, о разработке научных основ систематизации и анализа новых технологий обучения в физическом воспитании в условиях в высшие школы.

Считается, что в физическом воспитании внедрение новых информационных технологий обучения может решить самые разнообразные задачи: сообщение знаний, контроль за ходом их усвоения, демонстрация иллюстративного материала.

Е.Б. Соловьева (1996) считает важнейшей проблемой организации процесса физического воспитания поиск системы обучения, позволяющей контролировать в процессе учебной деятельности степень усвоения студентами нагрузок, полученных во время занятий, что дает возможность индивидуализировать физическое развитие личности.

Информационная перегрузка головного мозга вследствие эмоционального и интеллектуального напряжения (особенно в период экзаменационной сессии) вызывает так называемые информационные неврозы (2). Эти патологические состояния вследствие умственного нервного переутомления вызывают соматические и вегетативные изменения.

Думается, что каждый из студентов чувствовал эти изменения, связанные с истощением функциональных возможностей нервной системы, выражающиеся в потливости, слабости, потере аппетита, быстрой утомляемости и раздражительности. Поэтому физическая культура и спорт в условиях напряженного умственного труда, дефицита времени, ограниченности двигательной активности (возможно, нежелания или просто лени) приобретают профилактическое значение, являясь средством реабилитации и восстановления оптимального (для молодого человека) психофизиологического состояния, помогают познать свой организм, научиться стимулировать его действия, уметь снять нервно-мышечное напряжение и психоэмоциональное утомление (8). Это подтверждено в различных исследованиях, где статистически доказано снижение заболеваемости у студентов, повышение физической работоспособности и интеллектуальных возможностей у тех, кто целенаправленно (в период всех 4-5 лет обучения) использовал систему реабилитационных восстановительных мер.

Моделирование служит методом «опосредованного практического или теоретического оперирования объектом, при котором исследуется непосредственно не сам интересующий нас объект, а используется вспомогательная искусственная или естественная система («квазиобъект»), находящаяся в определенном объективном соответствии с познаваемым объектом, способная замещать его на определенных этапах познания и дающая при ее исследовании в конечном счете информацию о самом моделируемом объекте».

Деятельность преподавателя должна рассматриваться не только как предоставление каждому студенту структурированной, целенаправленной и мотивированной информации о понятийно-методологическом содержании, способах деятельности в областях использования знаний из различных разделов физического воспитания, но и как прямое и косвенное управление преподавателем физической активностью студентов по овладению навыками и умениями в соответствии с поставленными учебными целями.

Использование компьютеров в физическом воспитании дает большие возможности. В первую очередь это связано с легкостью обмена информации по Интернету.

Подводя итог, необходимо отметить, что индивидуализация уроков физического воспитания означает разработку систему динамического

наблюдения (мониторинга) за физическим развитием, физической подготовленностью и двигательной активностью студентов. Организация мониторинга во многом определяется научно-методологической основой понятия «индивидуальная физическая подготовленность».

Для адекватной, многофакторной оценки состояния здоровья студента и его физической подготовленности необходим системный подход. Это возможно осуществлять только с помощью современных информационных технологий, кластерно-модульного метода обучения, который в физическом воспитании студентов используется лишь фрагментарно.

Применение современных информационных технологий позволяет радикально изменить стиль работы, обеспечить быстрый доступ к разнообразной информации и многое другое.

Все вышесказанное указывает на необходимость поиска новых форм оценки качества знаний, умений и навыков студентов по физической культуре.

В связи с вышеизложенным, внедрение современных информационных технологий в учебный процесс по физическому воспитанию студентов сегодня представляется весьма актуальным.

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ТЕЧЕНИЕ НАРУШЕНИЙ ГЕМОКОАГУЛЯЦИИ И ГЕМОДИНАМИКИ У ПАЦИЕНТОВ С МНОЖЕСТВЕННОЙ МИЕЛОМОЙ

Резюме. Статья посвящена тому факту, что моноклональные иммуноглобулины, циркулирующие в крови, могут создавать необходимые условия для развития нарушений в различных органах и системах, включая систему гемостаза, удаляться из процесса свертывания крови из-за того, что тромбоциты "окружены" парапротеином, кроме того, моноклональный белок может образовывать комплексы с различными факторами свертывания крови, тем самым препятствуя их участию

Кроме того, в статье указывается, что диспротеинемия и высокое значение коллоидно-осмотического давления плазмы приводят к накоплению элементов крови во всех формах, их заилению и разрушению, а затем выбросу в кровоток факторов, активирующих ферментативный каскад свертывания.

Ключевые слова: миелома, гемодинамика, гемокоагуляция, иммуноглобулин.

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THE COURSE OF HEMOCOAGULATION AND HEMODYNAMIC DISORDERS IN PATIENTS WITH MULTIPLE MYELOMA

Resume. The article is devoted to the fact that monoclonal immunoglobulins circulating in the blood can create the necessary conditions for the development of disorders in various organs and systems, including the hemostasis system, to be removed from the blood clotting process due to the fact that platelets are "surrounded" by paraprotein, in addition, monoclonal protein can form complexes with various blood clotting factors, thereby preventing their participation

In addition, the article indicates that dysproteinemia and a high value of colloidal osmotic plasma pressure lead to the accumulation of blood elements in

all forms, their siltation and destruction, and then the release into the bloodstream of factors that activate the enzymatic cascade of coagulation.

Key words: myeloma, hemodynamics, hemocoagulation, immunoglobulin.

Актуальность. Миеломная болезнь – онкологическое заболевание системы кроветворения, которое относят к парапротеинемическим лейкозам. Миелома (плазмоцитома) относится к неизлечимым заболеваниям, однако поддается терапии, которая позволяет добиться длительной ремиссии. Заболевание протекает с низким пролиферативным потенциалом опухолевых клеток, поражающих преимущественно костный мозг и кости, иногда лимфоузлы и лимфоидную ткань кишечника, селезенку, почки и другие внутренние органы [4].

Миелома – это атипичный сбой в работе белых плазматических клеток и начала их активного, аномального деления. Плазматические клетки в норме отвечают за выработку гуморального иммунного ответа в борьбе с вирусами и эндогенными инфекциями [1]. Аномальные плазматические клетки начинают производство парапротеинов (видоизмененного белка), которые постепенно накапливаются во всем организме и препятствуют работе органов [6]. Миеломные клетки быстро кумулируются в костном мозге, разрушают здоровые ткани и приводят к развитию остеопороза и частым переломам.

На начальных этапах болезни злокачественные клетки формируются в костном мозге, вызывают воспалительные процессы и разрушение костей – чаще ребер, позвоночника, черепа. По мере прогрессирования воспалительный процесс распространяется в кровь и развивается миелома крови. Данное состояние характеризуется: нарушением (ростом) вязкости крови в связи с присутствием в ней большого количества парапротеинов и дефектами кроветворения; снижением иммунитета из-за уменьшения числа иммуноглобулинов; поражением почек в связи с оседанием в клубочках и почечных канальцах видоизмененных белков [1].

Причина заболевания не установлена окончательно, в большинстве своем миеломой крови болеют люди после лучевых поражений, долгое время имеющие контакт с нефтеперерабатывающими продуктами и другими нездоровыми компонентами, и загрязнениями в окружающей среде. Но эти факторы могут быть только сопутствующими [5]. Основной причиной можно назвать возрастные изменения организма. Болезнь может передаваться генетически. Это зависит от мутации гена, детерминирующего созревание В-лимфоцитов. Кроме того, значение имеет степень ожирения. У человека, страдающего ожирением, нарушен обмен веществ, на этом фоне может манифестировать озлокачествление клеток [3].

Цель исследования. Изучить особенности нарушений в системе гемостаза у больных множественной миеломой в различные периоды заболевания.

Материалы и методы исследования. В ходе данной работы было обследовано 104 больных, находящихся на лечении в клинике АГМИ 25 пациентов в возрасте от 51 до 78 лет с впервые выявленной ММ, 29 больных, ответивших на терапию в возрасте от 33 до 73 лет и 50 больных, не ответивших на терапию в возрасте от 40 до 81 года. Контрольную группу составили 94, сопоставимых по полу и возрасту практически здоровых лица.

Результаты исследования. В соответствии с поставленными задачами, мы, прежде всего, оценили состояние тромбоцитарного и плазменного звеньев гемостаза у пациентов с впервые выявленной ММ до начала проведения противомиеломной терапии.

В ходе исследования больных в дебюте заболевания установлено статистически значимое по сравнению с нормой повышение активности фактора VIII (220% против 104%, $p<0,05$), активности и уровня фактора Виллебранда (200% против 97%; 154% против 107% соответственно), концентрации фибриногена (3,19 г/л против 2,52 г/л). По мнению ряда исследователей, повышение указанных коагуляционных параметров свидетельствует об активности процесса ангиогенеза в костном мозге, свойственного больным ММ (Minnema M.C.,2003). Известно, что развитию гиперкоагуляционных изменений способствует угнетение фибринолитической активности крови, которое у больных опухолевыми заболеваниями связывают с повышенной экспрессией ингибиторов фибринолиза (PAI-1, PAI-2, u-PAR) под влиянием провоспалительных цитокинов, выделяемых опухолью. Результаты нашего исследования, основанные на значимом удлинении времени Хагеман-зависимого лизиса эуглобулиновой фракции плазмы, подтверждают наличие угнетения фибринолиза у пациентов с впервые выявленной ММ.

У пациентов обследованной группы отмечалась также выраженная активация кровяных пластинок. Достоверно, по сравнению с нормой, у больных была повышена сумма активных форм тромбоцитов (32,8 против 25,5, $p<0,05$) и число тромбоцитов, вовлеченных в агрегаты (10,1 против 7,0, $p<0,05$). Это согласуется с выявленными у них признаками гиперкоагуляции, для которой, как известно, характерно усиление генерации тромбина -наиболее сильного индуктора тромбоцитарных реакций. Полученные нами данные в ходе изучения особенностей тромбоцитарного звена системы гемостаза у больных ММ практически совпадают с результатами других исследователей, отметивших усиление внутрисосудистой активации тромбоцитов под влиянием синтезируемых патологических парапротеинов. Наряду с вышеприведенными исследованиями у пациентов с впервые выявленной ММ до начала терапии

была проведена оценка активности естественных антикоагулянтов. Ни в целом по группе, ни по отдельности у больных не выявлено снижения активности антитромбина. Медиана активности другой группы естественных антикоагулянтов - протеинов С и S в целом по группе также не выходила за пределы нормальных колебаний и составляла 76,7% и 75,7% соответственно при принятой нижней границе нормы 65%. Однако индивидуальный анализ результатов исследования выявил снижение активности протеинов С и S у трети больных (в 31% случаев для протеина Сив 27% - для протеина S).

Учитывая, что тромботические осложнения наиболее характерны для пациентов с впервые выявленным онкологическим заболеванием, в том числе ММ, нам представлялось важным оценить не только отдельные составляющие системы протеина С (протеины С и S), но и ее функционирование в целом. С этой целью мы использовали тест генерации тромбина в постановке с тромбомодулином, и на основании степени снижения показателей ETP и Peak оценили общий вклад системы протеина С в угнетение генерации тромбина. У пациентов исследуемой группы установлено статистически значимое снижение степени угнетения показателей ETP и Peak на 53% и 44% против 67,8% и 59,7% ($p<0,05$) соответственно в контрольной группе. Полученные данные свидетельствуют об угнетении функционирования данной системы антикоагулянтной защиты у пациентов исследованной группы. Причиной подобного нарушения могут быть как снижение активности отдельных антикоагулянтов - протеинов С и S, так и наличие резистентности к активированному протеину С врожденного и/или приобретенного характера.

Таким образом, в целом по группе у больных с впервые выявленной ММ до начала лечения имелись явные признаки гиперкоагуляции, которые, с одной стороны, проявлялись активацией кровяных пластинок, увеличением активности прокоагулянтов, а с другой - угнетением фибринолиза и антикоагулянтной системы протеина С.

Вывод. Пациенты без тромботических эпизодов в прошлом наиболее подвержены развитию гиперкоагуляции, особенно в начале индукционной терапии и в период ответа, и, следовательно, имеют высокий риск развития тромботических осложнений именно в данные фазы заболевания.

Наличие в анамнезе тромботических эпизодов и/или заболеваний, предрасполагающих к их развитию, является фактором риска развития гиперкоагуляционных нарушений до начала проведения пациентам специальной терапии и в период прогрессии заболевания.

С целью обеспечения индивидуальной оценки особенностей гемостатического дисбаланса и предотвращения тромбоэмболических осложнений у больных ММ следует провести тщательный сбор анамнестических данных о наличии у них тромботических эпизодов в

прошлом и комплексную оценку состояния гемостаза с учетом про- и антикоагулянтных факторов.

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ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ПРЕДПРИНИМАТЕЛЬСКОЙ ДЕЯТЕЛЬНОСТИ В СФЕРЕ ДОРОЖНОГО СТРОИТЕЛЬСТВА

Аннотация: В статье рассматриваются проблемы развития сети автомобильных дорог и поиск путей их решения за счет развития предпринимательства в дорожно-строительной отрасли.

Ключевые слова: предпринимательство, дорожно-строительный комплекс, государственно-частное партнерство.

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INCREASING THE EFFICIENCY OF BUSINESS ACTIVITIES IN THE ROAD CONSTRUCTION SPHERE

Abstract: The article deals with the problems of development of the road network and the search for ways to solve them through the development of entrepreneurship in the road construction industry.

Key words: entrepreneurship, road construction complex, Rosavtodor, public-private partnership.

Учитывая тот факт, что страны Центральной Азии не имеют выхода к морю, чтобы реализовать свой производственный и торговый потенциал, очень важно развивать сухопутную и воздушную транспортную инфраструктуру и усовершенствовать техническое обеспечение данной сферы.

Усовершенствование транспортной сферы и системы логистики в первую очередь приводят к сокращению производственных расходов, снижает расходы, связанные с рисками по перевозкам и хранениям продукции. Во-вторых, это является привлекательным показателем как для местных производителей, так и для внешних инвесторов. Кроме того, развитая транспортная инфраструктура способствует развитию туризма, предоставляет безопасную и быструю перевозку пассажиров и грузов и тем самым вносит вклад на социальное развитие. Узбекистан стремится достичь высоких темпов экономического развития. Быстрый доступ к источникам производства, безопасная и эффективная доставка продукции являются ключевым фактором реализации экспортного потенциала страны. В Узбекистане автомобильный транспорт является самой большой составляющей всей транспортной инфраструктуры. Общая длина сухопутных дорог составляет 184,000 километров. Из них 42695 — дороги общего пользования.

Основной целью развития предпринимательства в дорожностроительном комплексе Узбекистана является ускорение роста экономики страны, улучшение качества жизни населения, увеличение мобильности населения и повышения конкурентоспособности узбекских товаров и услуг за счет снижения транспортной составляющей в себестоимости конечной продукции.

Дорожно-строительное хозяйство представляет собой обслуживающую систему, обеспечивающую экономику страны транспортными взаимосвязями и включающую в себя автомобильные дороги общего пользования, а также юридических и физических лиц, образующих единый комплекс, осуществляющий все виды работ по проектированию, строительству, реконструкции, ремонту и содержанию автодорог общего пользования.

Одной из главных проблем дорожной отрасли Узбекистана в современных условиях является поддержание нормативного уровня эксплуатационного состояния автомобильных дорог. В условиях, когда интенсивность и грузонапряженность возрастают опережающими темпами, необходимо обеспечить работоспособность дорог на весь период эксплуатации.

От качества работы пассажирского и грузового автотранспорта зависит себестоимость товаров и услуг, производительность труда, конкурентоспособность и эффективность работы всех отраслей экономики страны.

Развитие сети автодорог определяет интенсивность обмена товарами и услугами, возможность освоения новых территорий и ресурсов, способствует повышению инвестиционного потенциала регионов и росту качества жизни населения. Узбекский внутренний рынок не может успешно развиваться без развития сети автомобильных дорог. Развитая

дорожная сеть стимулирует повышение конкурентоспособности отечественных товаров за счет снижения затрат на производство и транспортировку продукции.

Рост уровня автомобилизации, увеличение объемов грузовых и пассажирских перевозок и, как следствие, рост интенсивности движения требуют развития и совершенствования дорожно-строительного комплекса.

Существующая дорожная сеть не отвечает потребностям экономики Республики Узбекистан. Из-за несоответствия уровня развития дорожной сети спросу на автомобильные перевозки экономика и население страны несут значительные потери.

Республиканская целевая программа устанавливает следующие приоритетные задачи развития дорожного хозяйства Узбексиатана:

- формирование единой сети федеральных, региональных и местных автомобильных дорог, отвечающей растущей интенсивности перевозок автомобильным транспортом и обеспечивающей круглогодичные связи между регионами и населенными пунктами стран;

- сохранение существующей дорожной сети путем произведения своевременных работ по содержанию автомобильной дороги;

- повышение качества автомобильных дорог за счет модернизации применяемых технологий.

Для достижения поставленной цели решения задач по развитию транспортной инфраструктуры Республики Узбекистан и повышению эффективности предпринимательских структур дорожно-строительного комплекса необходимо:

- на всех уровнях перейти к системе управления дорожным хозяйством, ориентированной на достижении целевых показателей транспортно-эксплуатационного состояния и развития сети автомобильных дорог;

- внедрить систему долгосрочных контрактов, ориентированную на достижение целевых показателей транспортно-эксплуатационного состояния. В связи с тем, что основная часть проектов строительства и реконструкции рассчитывается на инвестиционный цикл от 3 до 5 и более лет. В настоящее время действует годичный бюджетный цикл, который позволяет с минимальным риском заключать только краткосрочные контракты. В свою очередь краткосрочные контракты не позволяют эффективно влиять на сезонные или иные колебания роста цен на материалы, конструкции, топливо, эксплуатацию техники, не способствуют полноценному переходу к рыночным отношениям, привлечению крупных подрядных организаций к содержанию объектов строительства, обеспечивающих повышенное качество работ и долговечность возводимых конструкций. В связи с этим ухудшается финансовая устойчивость и перспективы развития предпринимательских

структур, они боятся закупать дорогостоящую специализированную технику и работать над внедрением новых технологий из-за риска простоя техники или невозможности использования технологии;

- совершенствовать систему проведения конкурсов на заключение государственных контрактов на проведение дорожных работ;

- использовать механизмы государственно-частного партнерства, строительство платных автомобильных дорог.

Повышение требований к рынку дорожно-строительной отрасли ставит предпринимательские структуры перед необходимостью поиска повышения своей конкурентоспособности, создания хозяйствующих систем, соответствующих международным стандартам, в том числе современных систем менеджмента качества.

Реализация вышеперечисленных и ряда других реформ в рамках Постановления способствует дальнейшему усовершенствованию системы транспортной инфраструктуры и тем самым поможет развивать конкурентоспособность национальной экономики и реализовать производственный и экспортный потенциал Узбекистана.

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СТРАТЕГИЯ ПОВЫШЕНИЯ СОЦИАЛЬНО-ЭКОНОМИЧЕСКОЙ ЭФФЕКТИВНОСТИ ПРЕДПРИНИМАТЕЛЬСКОЙ ДЕЯТЕЛЬНОСТИ В ОБЛАСТИ ДОРОЖНОГО СТРОИТЕЛЬСТВА

Аннотация: в статье рассматривается стратегия повышения социально-экономической эффективности предпринимательской деятельности в области дорожного строительства.

Ключевые слова: Автодорожная инфраструктура, инновационная деятельность, критерии оценки эффективности, социально-экономическая эффективность, финансирование.

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STRATEGY FOR INCREASING THE SOCIO-ECONOMIC EFFICIENCY OF BUSINESS ACTIVITIES IN THE FIELD OF ROAD CONSTRUCTION

Abstract: The article deals with the strategy of increasing the socio-economic efficiency of entrepreneurial activity in the field of road construction.

Keywords: Road infrastructure, innovation activity, performance evaluation criteria, social and economic efficiency, financing.

Сложившийся уровень состояния автодорожной сети в РУз требует перехода на новый уровень понимания качества, оценка которого определяется на основе не отдельных параметров автодорожных работ, а показателей состояния автодорожной инфраструктуры в целом. Наилучшие достижения в этой области реализуются путем внедрения передовых технологий, современных материалов и изделий, что позволит перейти на инновационный путь развития отечественного автодорожного хозяйства.

На сегодняшний день главными целями эффективного развития автодорожной инфраструктуры, являются:

- формирование единого экономического и транспортного пространства;
- создание условий для реализации конституционного права на свободу перемещения людей и товаров на основе модернизации и поэтапного развития сети автомобильных дорог общего пользования, отвечающей интересам граждан, грузовладельцев и общества в целом;
- формирование пассажиро- и грузопроводящей системы, обеспечивающей эффективное функционирование и гармоничное развитие всех видов транспорта;
- содействование решению социальных проблем населения, освоению и развитию территорий, интенсификации производства.

Для достижения выше поставленных целей необходимо решение следующих задач:

1) обеспечение модернизации, ремонта и содержания существующей сети автодорог федерального и регионального значения в целях ее сохранения и улучшения транспортно-эксплуатационного состояния;

2) решения социальных проблем сельского населения, т.е. обеспечение развития и совершенствования сети местных автомобильных дорог для связи населенных пунктов с автодорожной сетью общего пользования;

3) решение проблем пропуска транзитных транспортных потоков путем строительства обходов;

4) повышение эффективности системы государственного управления автомобильными дорогами на региональном уровне;

5) рациональное использование региональных бюджетных средств, направляемых на совершенствование и развитие дорожной сети;

6) повышение качества автодорожных работ на основе внедрения новейших достижений научно-технического прогресса;

7) повышение безопасности автодорожного движения и снижение негативного воздействия автодорожного и транспортного комплекса на окружающую природную среду.

Следует отметить, что уровень показателей социально-экономического развития регионов напрямую зависит от транспортно-эксплуатационного, организационного, технического состояния автодорожной инфраструктуры. Практический опыт показывает: наибольший эффект от применения инновационных технологий достигается, если этот процесс распространяется на все стадии жизненного цикла автомобильной дороги – от ее проектирования до строительства и последующей эксплуатации.

Инновационная деятельность в автодорожном хозяйстве направлена на использование прогрессивных дорожно-строительных материалов, ресурсо- и энергосберегающих технологий, применение эффективных средств инженерного оборудования и обустройства дорог, современных информационных технологий и систем связи, на обеспечение действующих требований автодорожной экологии. При организации массового внедрения инноваций их оценку целесообразно осуществлять по критерию текущей эффективности в сфере эксплуатации, поскольку наибольшие объемы освоения инновационных продуктов следует ожидать на работах по ремонту и содержанию автомобильных дорог как наиболее востребованных в условиях экономического спада в автодорожном хозяйстве. Однако этот критерий не является единственным. Обозначим существующие критерии оценки эффективности инноваций.

Экономические косвенные эффекты	Социальные косвенные эффекты
Сокращение оборотных средств народного хозяйства, заключенных в грузах круглогодичного производства и потребления	Улучшение медицинского обслуживания жителей сельских районов
Сокращение массы оборотных средств в товарах, находящихся на складах	Улучшение работы народного образования в сельских районах
Сокращение потерь народного хозяйства от изъятия ценных земель из сельскохозяйственного производства	Улучшение культурно-бытового обслуживания сельского населения
Сокращение потерь от дорожно-транспортных происшествий	Улучшение социально-демографической структуры сельского населения
Ускоренное развитие отраслей материального производства	Рекреационный эффект
Освоение новых природных ресурсов и развитие новых производств	Сокращение моральных потерь в результате уменьшения числа дорожно-транспортных происшествий
Сокращение затрат народного хозяйства в сельскохозяйственное производство	Сокращение времени пребывания в пути пассажиров
Сокращение затрат в непроизводственные отрасли (сельское здравоохранение, народное образование, коммунально-бытовое обслуживание населения и т.д.)	-
Расширение торговых связей	-

Виды косвенных эффектов

Развитие автодорожной инфраструктуры является неотъемлемой частью комплекса мер, направленных на возрождение села. Отсутствие подъездов с твердым покрытием к сельским населенным пунктам негативно отражается на развитии инфраструктуры деревни,

увеличиваются затраты на перевозку сельскохозяйственной продукции, возрастают потери урожая. Кроме того, отсутствие автомобильных дорог увеличивает потери времени пребывания пассажиров в пути. Наличие же разветвленной сети автодорог общего пользования позволит создать сельскому населению достойные условия жизнедеятельности, обеспечит дальнейшее социально-экономическое развитие сельских территорий.

Основные источники финансирования включают в себя: государственные гранты и субсидии; субсидии, предоставляемые территориальными или муниципальными органами, заинтересованными в строительстве объекта; займы международных финансовых организаций; различные облигационные займы; финансирование из частных источников.

Еще одним источником финансирования автодорожного хозяйства является механизм государственно-частного партнерства (ГЧП). Государственночастное партнерство (в зарубежных странах принято использовать термин "public-private partnership") представляет собой юридически оформленное сотрудничество уполномоченных органов государственной (публичной) власти и субъектов частого предпринимательства, направленное на решение общественно значимых задач. Основными отличительными признаками ГЧП от других форм отношений государства и частного бизнеса являются:

1) длительные сроки действия соглашений о партнерстве;

2) специфическая форма финансирования проекта (за счет частных инвестиций, дополненных государственными финансовыми, материальными и/или природными ресурсами);

3) распределение ответственности и рисков между партнерами на основе соответствующих договоренностей сторон;

4) совместная деятельность государства в лице органов исполнительной власти всех уровней и бизнеса, представленного национальными или зарубежными предприятиями, где каждая из сторон имеет собственные цели и решает конкретные задачи.

Привлечение средств частных инвесторов к строительству, эксплуатации, содержанию автодорог осуществляется различными формами: подрядные отношения, арендные отношения, концессия и передача объекта в частную собственность (приватизация объекта). Подводя итог вышесказанному, можно сделать вывод, что в результате инновационного развития автодорожной инфраструктуры выделяют следующие виды эффектов.

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ТЕЧЕНИЕ ПОСТОВАРИЭКТОМИЧЕСКОГО СИНДРОМА У МОЛОДЫХ ЖЕНЩИН, ВОПРОСЫ ДИАГНОСТИКИ И ЛЕЧЕНИЯ СОВРЕМЕННЫМИ МЕТОДАМИ

Резюме: В современной медицине постовариэктомический синдром рассматривается как предиктор метаболического синдрома у молодых женщин. По результатам анализа различных клинико-диагностических материалов было показано, что женщины с постовариэктомическим синдромом после 40 лет имеют значительно больше метаболических нарушений.

В этой статье рассматривается широкий спектр современных методов диагностики, лечения и профилактики у молодых женщин после постовариэктомии.

Ключевые слова: постовариэктомический синдром, метаболический синдром, инсулинорезистентность.

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THE COURSE OF POSTOVARIECTOMY SYNDROME IN YOUNG WOMEN, ISSUES OF DIAGNOSIS AND TREATMENT BY MODERN METHODS

Resume: In modern medicine, postovariectomy syndrome is considered as a predictor of metabolic syndrome in young women. According to the results of the analysis of various clinical and diagnostic materials, it was shown that women with postovariectomy syndrome after 40 years have significantly more metabolic disorders.

This article discusses a wide range of modern methods of diagnosis, treatment and prevention in young women after postovariectomy.

Key words: postovariectomy syndrome, metabolic syndrome, insulin resistance.

Актуальность проблемы: В последние годы наблюдается рост гинекологических заболеваний, таких как доброкачественные опухоли

матки и ее придатков, эндометриоз, которые, как и другие отрасли медицины, требуют радикального хирургического вмешательства в области акушерской гинекологии [2,6].

Хирургическое прекращение функции яичников у 60-80% пациенток репродуктивного возраста сопровождается развитием рака из-за недостатка половых стероидов [1,8].

В последние годы фундаментальные исследования показали, что различные типы рецепторов эстрогена, прогестерона и тестостерона расположены не только в основных органах-мишенях: матке и молочных железах, но и в различных экстрагенитальных структурах: центральной нервной системе, костной ткани, эндотелии сосудов, кардиомиоцитах, урогенитальном тракте, слизистых оболочках матки, ротовая полость, гортань, кишечник [3,5].

Таким образом, можно предположить, что хирургическое прекращение функции яичников сопровождается целым комплексом патологических системных изменений в женском организме.

Однако уменьшение количества эстрогенов вследствие овариэктомии приводит к значительному повышению гонадотропной функции гипофиза в соответствии с законом отрицательной обратной связи между половыми стероидами и концентрациями гонадотропина. Повышенная секреция ФСГ и ЛГ гипофизом у женщин после овариэктомии отмечалась многими авторами» [1,4] и является основной причиной появления «горячих вспышки» – основной симптомокомплекс Poes. Эти авторы обнаружили взаимосвязь между титрами гонадотропинов в моче и тяжестью polar.

Недостаточная изученность механизмов адаптационных реакций при синдроме хирургической деактивации функции яичников, особенно в раннем послеоперационном периоде и отсутствие единых подходов к коррекции возникших осложнений, послужили основой для данного исследования.

Цель исследования. Усовершенствование профилактики тяжелых проявлений постовариэктомического синдрома проведением патогенетически обоснованной терапии в раннем послеоперационном периоде.

Материалы и методы тисследования: для решения поставленных задач мы обследовали 60 пациенток с диагнозом синдром постовариэктомии в обл. Андижана.

Результаты исследования. Операция по удалению органа – двусторонняя овариэктомия у женщин репродуктивного возраста (в 82% случаев – наряду с гистерэктомией), она определяет развитие постовариэктомического синдрома у 87,5% пациенток в послеоперационном периоде.

У молодых женщин с первого дня после удаления яичников развивается острый дефицит эстрогенов, который сопровождается повышением уровня ФСГ в крови в 2,7 раза и вегето-сосудистыми заболеваниями у 65% женщин.

В обследованных группах постовариэктомический синдром развивается при отсутствии заместительной гормональной терапии, с первого дня периода после операции, причем у 87,5% пациенток, у 27,5% из них сформировались среднетяжелые и тяжелые формы.

Трансдермальная заместительная гормональная терапия, проводимая с первого дня послеоперационного периода у этой группы женщин, оказывает гормонозамещающее и гормономодулирующее действие, способствуя восстановлению вегетативной регуляции на центральном и периферическом уровнях, что определяет положительную клиническую динамику у 67,5% пациенток.

На фоне заместительной гормональной терапии у пациентов патологический уровень гонадотропинов снижается в 2,3 раза по сравнению с пациентами без заместительной гормональной терапии у пациентов.

Применение заместительной гормональной терапии, оказывающей благотворное влияние на психоэмоциональную сферу, высокую вегетативную регуляцию, показатели гемодинамики, гемостаза, гормональный профиль и метаболически-эндокринные проявления гормонального баланса, обеспечивает снижение частоты развития poes до 22,5%. Близкий и долгосрочный период после оперы.

С первого дня после операции комбинация заместительной гормональной терапии с иглоукалыванием может значительно уменьшить изменения в нервно-психической, метаболической и эндокринной сферах, гемодинамике и снизить риск развития постовариэктомического синдрома до 15% в ближайшем и отдаленном периоде после операции.

Вывод. Работа углубляет знания об этиопатогенезе постовариэктомичес-кого синдрома, особенно нейроэндокринных нарушений, развивающихся в ранние сроки после удаления яичников, а также механизмах действия терапии, направленной на профилактику развития ПОЭС.

Практические рекомендации позволяют применять целенаправленно ЗРТ и РТ для высокоэффективной профилактики ПОЭС у данного контингента женщин с положительными результатами в 95% случаев.

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ТЕРАПИЯ ПАНИЧЕСКИХ РАССТРОЙСТВ В КАРДИОЛОГИЧЕСКОЙ ПРАКТИКЕ

Аннотация: Приводятся результаты успешного применения комбинированной терапии панических расстройств с использованием небензодиазепинового анксиолитика буспирона (Спитомин) и индивидуальной краткосрочной когнитивно-поведенческой психотерапии. Данная терапия может быть рекомендована для лечения панических и тревожных расстройств в общемедицинской практике.

Ключевые слова: неврология, кардиология, паническое расстройство, тревога, когнитивно-поведенческая психотерапия, сердечно-сосудистые заболевания, анксиолитик, буспирон.

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THERAPY OF PANIC DISORDERS IN CARDIOLOGICAL PRACTICE

Abstract: The results of the successful use of combination therapy for panic disorders using the nonbenzodiazepine anxiolytic buspirone (Spitomin) and individual short-term cognitive-behavioral psychotherapy are presented. This therapy can be recommended for the treatment of panic and anxiety disorders in general medical practice.

Keywords: neurology, cardiology, panic disorder, anxiety, cognitive-behavioral psychotherapy, cardiovascular disease, anxiolytic, buspirone.

ВВЕДЕНИЕ

Первичное обращение пациентов, страдающих паническим расстройством, в общемедицинскую сеть и несвоевременная постановка диагноза по-прежнему остаются актуальной проблемой, встречающейся в общей популяции, по дан ным эпидемиологических исследований, в 3–6% случаев **[**1].

МАТЕРИАЛЫ И МЕТОДЫ

Наиболее часто панический приступ манифестирует симптомами со стороны сердечно-сосудистой системы – он начинается с внезапно появляющегося «сильного сердцебиения», ощущения «перебоев»,

«остановки», дискомфорта или боли в области сердца. При этом больные могут отмечать, что частота сердечных сокращений (ЧСС) не увеличивается, но биение сердца распространяется по всему телу, возникают ощущения «провалов», «перебоев», «замирания» или «остановки сердца». В ходе панического приступа ощущения со стороны сердечно- сосудистой системы продолжают доминировать в структуре жалоб, что определяется представлениями об особой значимости сердца в жизни человека.

РЕЗУЛЬТАТЫ И ОБСУЖДЕНИЕ

Нами изучены возможности применения препарата Спитомин (буспирон) в лечении панического и других расстройств тревожного спектра [2].

В исследование вошли 30 пациентов (1-я группа), обратившихся для амбулаторного лечения по поводу панического расстройства и подписавших информированное согласие. Критериями включения в исследование являлись возраст от 18 до 58 лет, возможность проведения лечения в амбулаторных условиях, верифицированный диагноз панического расстройства (F41.0) в соответствии с МКБ-10. Для исключения клинически схожих состояний другой этиологии проводилась тщательная дифференциальная диагностика. Критериями исключения были острые и хронические соматические заболевания в стадии декомпенсации, период беременности и лактации у женщин, нарушения метаболизма или онкологические заболевания, эпилепсия, органические заболевания центральной нервной системы (ЦНС), актуальная лекарственная и алкогольная зависимость, психотические состояния и расстройства зрелой личности. Сравнение проводили с пациентами (n=30; 2-я группа) с паническим расстройством, проходившими амбулаторное лечение только с использованием индивидуальной когнитивно-поведенческой психотерапии [3].

Исследование было открытым и длилось 6 нед, пациентам проводилась активная терапия. Если больные к моменту начала исследования принимали другие психотропные препараты, им назначали дополнительно 1-недельный период *wash-out*. Паци енты основной (1-й) группы получали комбинированную терапию, им назначали Спитомин (буспирон) в дозе 30 мг/сут (по 10 мг 3 раза в день) в течение 6 нед, а также курс индивидуальной краткосрочной директивной когнитивно-поведенческой психотерапии, всего 12–15 сеансов (2–3 раза в неделю).

Таблица 1

Распределение больных по возрасту; n (%)

Возраст, годы	1-я группа	2-я группа
До 20	1 (3,3)	2 (6,6)
20–29	7 (23,4)	8 (26,6)

30–39	12 (40,0)	10 (33,6)
40–49	8 (26,6)	7 (23,4)
50–58	2 (6,7)	3 (10,0)
Всего	30 (100)	30 (100)
Средний возраст, годы (M±m)34,8±1,435,9±1,5		

В ходе наблюдения оценивали тревожную и паническую симптоматику по шкале тревоги Гамильтона (HARS), шкале депрессии Монтгомери–Асберга (MADRS), методике Спилбергера–Ханина, шкале общего клинического впечатления (CGI). Состояние пациентов оценивали до назначения препарата Спитомин (буспирона), а затем на 7, 14, 28 и 42-й дни терапии. Клинико-психологическое наблюдение было постоянным в процессе лечения пациентов на всем протяжении обсервационной программы.

Протокол исследования включал паспортные данные, социальные, анамнестические, клинические и экспериментально-психологические показатели. Математико-статистическая обработка данных осуществлена с помощью пакета статистических программ Statistica 6.0, SPSS for Windows 12.0.

В 1-й группе было 14 (46,7%) мужчин и 16 (53,3%) женщин, во 2-й – 12 (40%) мужчин и 18 (60%) женщин; достоверных различий между группами в зависимости от пола больных не было.

Средний возраст пациентов в 1-й группе составлял 34,8±1,4 года, во 2-й – 35,9±1,5 года (без достоверных различий; табл. 1). Как видно из приведенных в табл. 1 данных, наиболее часто диагноз панического расстройства наблюдался в возрастной группе от 30 до 39 лет.

Исследование выявило, что показатели ситуативной тревожности у пациентов 1-й группы высокие (67,4±1,1 балла; норма – до 30 баллов); легко возникают тревожное состояние в стрессовых ситуациях, выраженное беспокойство, напряжение. После лечения показатель становился достоверно ниже, чем при поступлении ($p<0,001$), однако оставался высоким (50,23±2,16 балла). У пациентов 2-й группы до лечения показатель ситуативной тревожности практически не отличался от такового в 1-й группе (68,1±1,4 балла); снижение его за время лечения было достоверно значимым (58,67±1,80 балла), но выраженным в меньшей степени, чем в основной группе.

До начала комбинированной терапии у пациентов с паническим расстройством показатель личностной тревоги значительно превышал норму (55,23±1,70 балла), что указывает на склонность к переживанию тревоги, обусловленную личностными качествами, как и у пациентов 2-й группы (55,41±1,60 балла).

ЗАКЛЮЧЕНИЕ

Таким образом, можно говорить о том, что комбинированная терапия панического расстройства с использованием препарата Спитомин (буспирона) и когнитивно- поведенческой психотерапии является оптимальным методам лечения, хотя и не лишенным недостатков других краткосрочных методов. Хорошая переносимость препарата позволила всем включенным в исследование пациентам закончить его. Опыт данной обсервационной программы позволит врачам-психиатрам-психотерапевтам, кардиологам, неврологам и врачам общей практики лучше ознакомиться с возможностями применения препарата Спитомин (буспирон) в лечении больных с паническими расстройствами, а значит – повысить его эффективность.

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ОСНОВНЫЕ ИНТЕРАКТИВНЫЕ МЕТОДЫ ОБУЧЕНИЯ В ВУЗЕ. ИСПОЛЬЗОВАНИЕ ИГР ПРИ ОБУЧЕНИИ ИНОСТРАННОМУ ЯЗЫКУ В ВУЗЕ

Аннотация: В практике преподавания в вузе лекции остаются одной из стандартных форм преподавания теоретических основ любой учебной дисциплины. В учебном процессе складывается ряд ситуаций, когда лекционная форма обучения не может быть заменена никакой другой.

Ключевые слова: учебной, лекции, которые объединяют процесс познания студентов.

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BASIC INTERACTIVE METHODS OF LEARNING AT THE UNIVERSITY. THE USE OF GAMES IN TEACHING A FOREIGN LANGUAGE AT THE UNIVERSITY

Annotation: In the practice of teaching at a university, lectures remain one of the standard forms of teaching the theoretical foundations of any academic discipline. In the educational process, there are a number of situations where the lecture form of education cannot be replaced by any other.

Key words: educational, lectures that unite the process of students' cognition.

Лекция выполняет следующие функции:
информационную (излагает необходимые сведения),
стимулирующую (пробуждает интерес к теме),
воспитывающую,
развивающую (дает оценку явлениям, развивает мышление),
ориентирующую (в проблеме, в литературе),
разъясняющую (направленная прежде всего на формирование основных понятий науки),
убеждающую (с акцентом на системе доказательств).

Интерактивные лекции – это лекции, которые объединяют в себе аспекты традиционной лекции и интерактивных форм обучения:

дискуссии, беседы, разборы конкретных ситуаций, демонстрации слайдов или учебных фильмов, мозгового штурма и т.д. Выделяют следующие виды интерактивных лекций.

Лекция вдвоем (бинарная лекция) – это разновидность чтения **лекции проблемного содержания** в форме диалога двух преподавателей (либо как представителей двух научных школ, либо как теоретика и практика). Необходимы: демонстрация культуры дискуссии, вовлечение в обсуждение проблемы студентов.

Лекция с заранее запланированными ошибками – рассчитана на стимулирование студентов к постоянному контролю предлагаемой информации (поиск ошибки: содержательной, методологической, методической, орфографической). Задача слушателя заключается в том, чтобы по ходу лекции отмечать в конспекте замеченные ошибки и назвать их в конце лекции. На разбор ошибок отводится 10-15 минут. В ходе этого разбора даются правильные ответы на вопросы - преподавателем, слушателями или совместно. Количество запланированных ошибок зависит от специфики учебного материала, дидактических и воспитательных целей лекции, уровня подготовленности слушателей. Данный вид лекции лучше всего проводить в завершение темы или раздела учебной дисциплины, когда у слушателей сформированы основные понятия и представления.

Проблемная лекция – на этой лекции новое знание вводится через проблемность вопроса, задачи или ситуации. При этом процесс познания студентов в сотрудничестве и диалоге с преподавателем приближается к исследовательской деятельности. Содержание проблемы раскрывается путем организации поиска ее решения или суммирования и анализа традиционных и современных точек зрения.

Проблемная лекция начинается с вопросов, с постановки проблемы, которую в ходе изложения материала необходимо решить. Проблемные вопросы отличаются от не проблемных тем, что скрытая в них проблема требует не однотипного решения, то есть, готовой схемы решения в прошлом опыте нет. Лекция строится таким образом, чтобы обусловить появление вопроса в сознании студента. Учебный материал представляется в форме учебной проблемы. Она имеет логическую форму познавательной задачи, отмечающей некоторые противоречия в ее условиях и завершающейся вопросами, которые это противоречие объективирует. Проблемная ситуация возникает после обнаружения противоречий в исходных данных учебной проблемы. Для проблемного изложения отбираются важнейшие разделы курса, которые составляют основное концептуальное содержание учебной дисциплины, являются наиболее важными для профессиональной деятельности и наиболее сложными для усвоения слушателей. Учебные проблемы должны быть доступными по своей трудности для слушателей.

Лекция - пресс-конференция. Форма проведения лекции близка к форме проведения пресс-конференций, только со следующими изменениями. Преподаватель называет тему лекции и просит студентов письменно задавать ему вопросы по данной теме. Каждый студент должен в течение 2-3 минут сформулировать наиболее интересующие его вопросы, написать на бумажке и передать преподавателю. Затем преподаватель в течение 3-5 минут сортирует вопросы по их смысловому содержанию и начинает читать лекцию. Изложение материала строится не как ответ на каждый заданный вопрос, а в виде связного раскрытия темы, в процессе которого формулируются соответствующие ответы. В завершение лекции преподаватель проводит итоговую оценку вопросов как отражения знаний и интересов слушателей. Лекцию-пресс-конференцию лучше всего проводить в начале изучения темы или раздела, в середине и в конце. В начале изучения темы основная цель лекции - выявление круга интересов и потребностей обучаемых, степени их подготовленности к работе, отношение к предмету. На лекции-пресс- конференции в качестве лекторов могут участвовать два-три преподавателя разных предметных областей.

Лекция-беседа, или «диалог с аудиторией», является наиболее распространенной и сравнительно простой формой активного вовлечения студентов в учебный процесс. Эта лекция предполагает непосредственный контакт преподавателя с аудиторией. К участию в лекции-беседе можно привлечь различными приемами, так, например, активизация студентов вопросами в начале лекции и по ее ходу, как уже описывалось в проблемной лекции, вопросы могут, быть информационного и проблемного характера, для выяснения мнений и уровня осведомленности по рассматриваемой теме, степени их готовности к восприятию последующего материала. Вопросы адресуются всей аудитории. Слушатели отвечают с мест. Если преподаватель замечает, что кто-то из обучаемых не участвует в ходе беседы, то вопрос можно адресовать лично тому слушателю, или спросить его мнение по обсуждаемой проблеме. Для экономии времени вопросы рекомендуется формулировать так, чтобы на них можно было давать однозначные ответы.

Лекция-дискуссия. В отличие от лекции-беседы здесь преподаватель при изложении лекционного материала не только использует ответы слушателей на свои вопросы, но и организует свободный обмен мнениями в интервалах между логическими разделами. Дискуссия - это взаимодействие преподавателя и учащегося, свободный обмен мнениями, идеями и взглядами по исследуемому вопросу. По ходу лекции-дискуссии преподаватель приводит отдельные примеры в виде ситуаций или кратко сформулированных проблем и предлагает студентам коротко обсудить, затем краткий анализ, выводы и лекция продолжается.

Лекция с разбором конкретных ситуаций. Данная лекция по форме похожа на лекцию-дискуссию, однако, на обсуждение

преподаватель ставит не вопросы, а конкретную ситуацию. Обычно, такая ситуация представляется устно или в очень короткой видеозаписи, диафильме. Поэтому изложение ее должно быть очень кратким, но содержать достаточную информацию для оценки характерного явления и обсуждения. Слушатели анализируют и обсуждают эти микроситуации и обсуждают их сообща, всей аудиторией. Преподаватель старается активизировать участие в обсуждении отдельными вопросами, обращенными к отдельным обучаемым, представляет различные мнения, чтобы развить дискуссию, стремясь направить ее в нужное направление. Затем, опираясь на правильные высказывания и анализируя неправильные, ненавязчиво, но убедительно подводит слушателей к коллективному выводу или обобщению. Иногда обсуждение микроситуации используется в качестве пролога к последующей части лекции.

Видеолекции. Лекция преподавателя записывается на видеопленку. Методом нелинейного монтажа она может быть дополнена мультимедиа приложениями, иллюстрирующими изложение лекции. Несомненным достоинством такого способа изложения теоретического материала является возможность прослушать лекцию в любое удобное время, повторно обращаясь к наиболее трудным местам. Видео-лекции могут быть доставлены на видеокассетах или компакт-дисках. Видео-лекция может транслироваться через телекоммуникации в учебные центры непосредственно из вуза. Такие лекции ничем не отличаются от традиционных, читаемых в аудитории.

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СОВРЕМЕННЫЕ ТЕХНОЛОГИИ УПРАВЛЕНИЯ ОРГАНИЗАЦИЕЙ

УДК 338

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СИСТЕМНЫЙ ПОДХОД В ИНТЕГРИРОВАНИИ ИНСТРУМЕНТОВ ИНТЕРНЕТ-МАРКЕТИНГ

Аннотация: в публикации затрагивается тема системного подхода к интернет-маркетингу, который позволит компаниям правильно позиционировать информацию в поисковых системах и предоставлять ценный контент, который заинтересует получателей. Автоматизация маркетинга позволит компаниям не только преодолеть период экономического кризиса с наименьшими потерями, но и увеличить долю на рынке.

Ключевые слова: система интернет-маркетинга, интегрированный маркетинг, социальные сети, согласованная информация, автоматизации маркетинга.

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A SYSTEMATIC APPROACH TO THE INTEGRATION OF INTERNET MARKETING TOOLS

Abstract: the publication touches on the topic of a systematic approach to Internet marketing, which will allow companies to correctly position information in search engines and provide valuable content that will interest recipients. Marketing automation will allow companies not only to overcome the period of economic crisis with the least losses, but also to increase their market share.

Key words: Internet marketing system, integrated marketing, social media, coordinated information, marketing automation.

Комплексный маркетинг заключается в использовании различных, скоординированных маркетинговых, рекламных и PR-мероприятий. Грамотная интеграция многих инструментов дает лучшие результаты, чем разрозненные маркетинговые мероприятия.

Согласно определению Американской ассоциации рекламных агентств, интегрированный маркетинг (Integrated Marketing Communication – IMC) – это метод достижения маркетинговых целей посредством различных, скоординированных мероприятий, которые должны поддерживать друг друга, приводя к усилению достигнутого эффекта.

Речь идет не только об использовании множества различных видов деятельности, но и об их правильной синхронизации, что позволяет добиться синергетического эффекта. Умело совмещенные маркетинговые и рекламные кампании в разных каналах коммуникации дают лучшие результаты, чем разрозненные действия.

Каждый из каналов коммуникации имеет свои ограничения и ни один из них не охватит всех потенциальных потребителей. Благодаря синхронизации множества медиа маркетологи увеличивают шансы на более широкое распространение своего контента и, как следствие, достижение лучшего эффекта продаж.

Интегрированный маркетинг ставит потенциального клиента в центр своей деятельности и стремится максимально эффективно окружить его, в соответствии с принципом «360 градусов».

Комплексная коммуникация с потребителями должна происходить с использованием как онлайн, так и оффлайн активностей. Маркетологи усиливают свое сообщение, комбинируя возможности веб-сайтов, блогов, социальных сетей, маркетинга по электронной почте, традиционной рекламы, программ лояльности или пресс-релизов, опубликованных в электронных и традиционных СМИ.

Потенциальные клиенты обычно ищут информацию о товарах и услугах в Интернете. Для маркетологов важным становится поисковый маркетинг, цель которого – заставить потребителей найти нужную страницу и заинтересоваться ее содержанием. Необходимо правильно позиционировать в поисковых системах и предоставлять ценный контент, который заинтересует получателей.

Деятельность в социальных сетях также важна для интегрированного маркетинга. Их цель – привлечь потребителей и завоевать их интерес. Контент, публикуемый компаниями в социальных сетях, не обязательно напрямую связан с продуктами или услугами, которые они продают. Их цель – вызвать у аудитории любопытство, предоставить ей контент, который она сочтет привлекательным, важным или развлекательным.

Эта деятельность должна соответствовать прямому общению с получателями, которое осуществляется посредством мероприятий прямого маркетинга: почтовых рассылок или текстовых сообщений.

Эффективность такого типа кампаний возрастает с уровнем персонализации контента, которую обеспечивает система автоматизации маркетинга.

Эти возможности поддерживаются типичной рекламой (например, баннерными кампаниями) и PR-деятельностью (например, публикацией пресс-релизов). Применение соответствующих функций зависит от потребностей и возможностей конкретного бренда. Правильная координация отдельных действий дает возможность значительно усилить их эффект.

Создание и внедрение такой согласованной стратегии становится возможным благодаря использованию автоматизации маркетинга, которая объединяет различные маркетинговые функции.

Это чрезвычайно эффективное маркетинговое решение, которое объединяет различные маркетинговые мероприятия в одном месте, позволяет эффективно и интуитивно управлять ими, а также постоянно отслеживает и анализирует эффект от кампаний, позволяя их оптимизировать.

Автоматизация маркетинга позволяет проводить прямые маркетинговые мероприятия, общаться через социальные сети, управлять программами лояльности или создавать и публиковать пресс-релизы. Система собирает данные о потенциальных и текущих клиентах, персонализирует общение с ними и проводит их через весь процесс продаж с помощью передовых алгоритмов. Это позволяет постоянно отслеживать эффективность маркетинговых кампаний и уровень достижения поставленных целей.

Автоматизация маркетинга дает возможность осуществлять последовательную, многоканальную коммуникацию с аудиторией как в офлайне, так и в онлайне. Это возможно, как с помощью комплексных инструментов, включенных в систему, так и благодаря интеграции с внешними инструментами и сервисами, такими как Facebook, Twitter или YouTube.

Усилия онлайн-маркетинга зависят от типа бизнеса и конечной цели, но одно можно сказать точно: рост Интернета сделал наличие веб-сайта и продвижение бизнеса в Интернете с помощью различных форм интернет-маркетинга необходимостью. Независимо от типа и размера бизнеса, интернет-маркетинг – это ценный способ привлечь нужных клиентов за меньшие деньги. Первый шаг к успеху – понять, что такое интернет-маркетинг и как бизнес может в нем участвовать. Чтобы начать, не обязательно быть экспертом. При правильной стратегии интернет-маркетинга бизнес будет быстро расти и развиваться.

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ПРОЕКТНОЕ УПРАВЛЕНИЕ НА ПРЕДПРИЯТИИ

Аннотация: в статье рассмотрены особенности проектного управления на предприятии. Разъяснено, какую задачу можно считать проектом, из каких этапов он состоит. Представлены инструменты эффективного управления проектом. Подчеркиваются преимущества, недостатки и особенности данного подхода для предприятия.

Ключевые слова: проектный менеджмент, цели проекта, критерии, этапы, жизненный цикл, проектирование, управление изменениями.

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PROJECT MANAGEMENT AT THE ENTERPRISE

Abstract: the article discusses the features of project management at the enterprise. It is explained what task can be considered a project, what stages it consists of. Effective project management tools are presented. The advantages, disadvantages and features of this approach for the enterprise are emphasized.

Key words: project management, project objectives, criteria, stages, life cycle, design, change management.

Проектный менеджмент на сегодняшний день признан самым эффективным методом управления. «Проектный менеджмент – это инструмент планирования и разработки планов компаний». [1] Необходимо обратить внимание на то, что «управление проектами является эффективным средством для управления любыми изменениями и позволяет руководителю добиваться целей проекта не только за счет организаторских способностей, но и с помощью определенного набора мероприятий и процедур, что требует профессиональной подготовки в области проектного управления». [4]

Поскольку организации продолжают стремиться к окупаемости инвестиций и удовлетворению потребностей клиентов, управление проектами становится важнейшим инструментом, приводящим организации к огромному успеху. Успешное управление проектами - это не новая причуда или стратегия, а скорее прагматичный подход к работе.

Проекты в компании могут быть абсолютно различны, начиная с проектирование и выпуска на рынок новых товаров или услуг, проведения бизнес-процесса и даже создания бизнеса с нуля. В сущности любого проекта закладывается понятие «изменения», а проектный менеджмент – эффективной технологией управления изменениями в бизнесе. Проектирование – это процесс разработки проекта.

Проект – это мероприятие с ограниченными рамками времени, по итогу которого создаются уникальные продукты или достигаются определенные цели.

Ограниченность во времени выражается в старте проекта и моменте завершения. По итогу достижения целей проект считается оконченным.

Уникальность проекта, т.е. его неповторимость выражается в том, что при окончании проекта получается новый (еще не существовавший) проект.

Проектный менеджмент – это уникальный метод достижения успеха, с применения достижений НИОКР и новых разработок в той или иной сфере, с достижением оптимальных результатов с эффективным расходом времени и ресурсов, а также с удовлетворением всех потребностей всех субъектов, которые были вовлечены в этот проект. Другими словами – искусство управления людьми, ресурсами и временем компании.

Родиной проектного менеджмента считается США и был создан для организации промышленного производства разнообразных продуктов, как, например, танков, подводных лодок и т.д. На сегодняшний день проектный менеджмент смог пустить свои корни практически во все сферы бизнеса для решения определенных задач:

– проектирование и подготовка к производству новых видов изделий;

– проведение научно-исследовательских и опытно-конструкторских работ;

– разработка программных продуктов и ПО.

Проектный менеджмент вносит ясность в следующие вопросы:

– какого результата мы хотим добиться?

– каким образом мы должны достигнуть этих результатов?

– кто должен реализовать эти планы?

– какие границы времени для реализации цели?

– сколько это все будет стоить?

Таким образом, от абстрактных желаний мы переходим к конкретным целям. С помощью проектного менеджмента компания может перейти к обоснованному проекту, который можно реализовывать на практике и получить конкретный результат так же, как проекты в инженерном деле и технике.

Рассмотрим возможности проектного менеджмента:

– определение направлений своей деятельности;

– конвертирование идей в программы и проекты;

– четкое формулирование целей и результатов;

– выявление критериев успешности;

– определение возможных рисков при реализации проекта;

– эффективное распределение ресурсов компании.

Все это, несомненно, также придаст уверенности сотрудникам фирмы, повысит эффективность их работы и деятельности организации в целом.

У каждого проекта есть свой жизненный цикл. Жизненный цикл проекта – это совокупность этапов с момента появления идеи и реализации идеи. Рассмотрим эти этапы:

– инициация;

– рассмотрение идей;

– выбор лучших вариантов;

– планирование;

– реализация;

– мониторинг;

– подведение итогов.

Опишем эти этапы более подробно. Цель начального этапа – это создание концепции будущего проекта. Концепция нужна для того, чтобы оценить важность, необходимость и реалистичность его реализации. Определение основного замысла дает начало этапа. Далее создается план реализации. С помощью этого плана производится оценка ресурсов, которыми обладает компания. В заключении подводятся итоги о жизнеспособности этих идей и как нужно начать их реализацию.

Следующий этап - это планирование проекта. На этом этапе идет построение модели реализации проекта. Модель координирует деятельность всех субъектов, которые включены в этот проект. Именно

модель задает порядок работы. В модели даются ответы на вопросы «кто?», «что?», «как?». Далее определяется список работ, которые приведут к цели. Затем определяется количество ресурсов для всего списка работ.

Далее этап - исполнение проекта, направлен на непосредственное создание продукта (услуги), ради которых реализуется данный проект. В первую очередь формируется команда, которая будет реализовывать этот проект. Проводится первичный инструктаж и происходит запуск по принятому плану. В ходе работы выполняется корректировка плана и отладка командного взаимодействия. Главным на этом этапе становиться эффективное использование ресурсов компании. Согласно утвержденному плану практические шаги должны обеспечить достижение поставленнных целей компании.

Мониторинг – процесс отслеживания каких-либо параметров или показателей, для которых выставлены пределы отклонения. При завершении плановых работ проект переходит на этап итогового контроля. На этом этапе происходит анализ полученных результатов, т.е. сравнение фактических и плановых показателей.

По итогу завершения проекта происходит процедура составления заключительных отчетов, проведение окончательных расчетов.

Описанные этапы формируют методы управления проектами. В зависимости от характера проекта, он может обходится не всеми этапами, иногда достаточно трех. Иногда из-за специфики проекта каждый этап является подпроектом со своими собственными задачами и целями. Но содержание остается прежним – проект разбит на этапы, которые исполняются строго последовательно.

Цель любого проекта – это то чего хочет добиться компания. Это может быть решение проблемы или задачи, разработка инновационного продукта и т.д.

При написании цели проекта рекомендуется пользоваться критериями SMART, с которыми знакомы многие руководители:

– точность;

– гибкость;

– реалистичность;

– результативность;

– временные ограничения.

Давая ответы на данные вопросы, мы осуществляем проверку соответствия критериям.

1. Есть ли конкретная и достижимая цель?

2. Возможно ли измерить результаты проекта в целом и отдельных его частей?

3. Позволяют ли нам имеющиеся ресурсы добиться поставленной цели?

4. Какова будет польза от реализации данного проекта? Кто получит результаты от реализации проекта?

5. Какие установлены временные рамки для достижения цели?

6. Имеется ли точная дата, кода будет достигнута цель?

«Самый простой способ управление проектами – это разбиение его на последовательные этапы, которые будут реализоваться друг за другом. По такой прямолинейной линии строится классическое проектное управление. Можно провести аналогию с компьютерной игрой. Нельзя перейти на следующий уровень, не пройдя предыдущий уровень. Данный подход ориентирован на проекты, в которых есть строгие ограничения по последовательности выполнения задач. Например, строительство дома – нельзя возводить стены без фундамента». [2]

Рассмотрим сильные стороны классического или традиционного проектного менеджмента.

На сегодняшний день можно все чаще услышать тезис о том, что классический проектный менеджмент устарел, но у него есть неоспоримые плюсы. Основным преимуществом данного подхода является то, что уже на первом этапе заказчик и исполнитель определяют, что они хотят получить по итогу проекта. Включение заказчика в проект способствует тому, что проект более стабилен. Также классический проектный менеджмент способствует эффективному мониторингу показателей и тестирование.

Есть также и слабые стороны классического проектного менеджмента. Основной слабой стороной является то, что отсутствует гибкость и изменчивость в процессе работы.

Данный подход также реализуется в строительстве и инженерных проектах, где отсутствуют изменения во время реализации проектов. Стоит присмотреться к другим системам управления проектами, если ресурсы и время сильно ограничены и могут присутствовать изменения во время проекта.

Сфера управления проектами продолжает меняться по мере роста конкуренции, необходимости быстрого изменения и появления новых технологий на рынке. «Суть проектного управления состоит в понимании того факта, что для разной степени осведомленности и предсказуемости нужны разные подходы к управлению. Применение неэффективных подходов может привести к упущенным возможностям или убыткам, на порядок превышающим дополнительные затраты на внедрение инструментария проектного управления. Безусловным минусом внедрения проектного менеджмента в компании являются дополнительные расходы и бюрократизация процессов. В малых масштабах оно не окупается». [3]

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THE GENERAL CONCEPT OF THE LEGALIZATION OF REVENUE RECEIVED FROM CRIMINAL ACTIVITIES

Abstract. In the course of the study, various approaches to the definition of the concept of legalization of proceeds from crime were analyzed. The author identified gaps in the conceptual apparatus devoted to this issue on the example of the Republic of Uzbekistan. The article contains substantiated recommendations for improving the norms of criminal legislation.

Keywords: criminal law, responsibility, legalization of income, crime, doctrine.

To date, the legalization of revenue received from criminal activities is considered an international crime[81].

Legalization of criminal revenue is a complex systemic phenomenon that must be countered with an adequate state strategy. The concept of improving the criminal and criminal procedure legislation of the Republic of Uzbekistan of May 14, 2018 set exactly this task to the state institutions.

In accordance with the document, it is necessary to conduct an inventory of criminal legislation for its unification and bringing it into alignment with advanced international standards and foreign practices, including transnational crimes, to which the legalization of criminal revenue belongs[82].

Since the adoption of the Law of the Republic of Uzbekistan "On countering the legalization of revenue received from criminal activities, the financing of terrorism and the financing of the proliferation of weapons of mass destruction" dated August 26, 2004,[83] a state system for countering the legalization of criminal revenue has been systematically created in the country, which is aimed to meet modern international standards.

The law defines this crime as follows: "legalization of revenue received from criminal activity is a criminally punishable socially dangerous act, that is a

[81]Karimov Kh., Liability for the legalization of revenue received from criminal activities: a comparative legal analysis // Bulletin of the Academy of the General Prosecutor's Office of the Republic of Uzbekistan - No. 2 (34): 2018, −p.52

[82] The concept of improving the criminal and criminal procedure legislation of the Republic of Uzbekistan. Mode of access: http://lex.uz/docs/3734183

[83] Law of the Republic of Uzbekistan "On International Treaties of the Republic of Uzbekistan". Mode of access: http://lex.uz/docs/4193763

transfer, conversion, or exchange of property, which has been obtained in result of criminal activities, as well as nondisclosure or concealment of original nature, source, location, way of disposal, movement, genuine rights in relation to the property or ownership thereof in the instance if such property has been obtained as a result of criminal activities".

Under the Article 243 of the Criminal Code of the Republic of Uzbekistan[84], legalization of revenue received from criminal activities is a transfer, conversion, or exchange of property, which has been obtained in result of criminal activities, as well as nondisclosure or concealment of original nature, source, location, way of disposal, movement, genuine rights in relation to the property or ownership thereof in the instance if such property has been obtained as a result of criminal activities.

The resolution of Plenum of the Supreme court "On some issues of judicial practice in cases on legalization of revenue received from criminal activities" of 11 February 2011[85], states that under the term legalization of criminal revenue, guilt of giving a legitimate view to the origin of the property obtained through criminal activities should be understood. In this instance, any property provided for in the Article 169 of the Civil Code may be considered as an object of ownership[86].

As a rule, giving a legal appearance to the origin of such property is committed during the financial transactions and other transactions with money or other property[87].

The concept of "legalization" is defined by studying the method of committing an act and its purpose.

In legal science, there are ideas that the "laundering" of revenue is inherent in an integral feature – the goal is to create the appearance of legality of obviously criminal income[88]. We fully support this judgment.

In modern history, the term "money laundering" was first used in the late twentieth century in the United States of America in relation to the proceeds of drug trafficking[89].

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[84] Criminal Code of the Republic of Uzbekistan. Mode of access: http://lex.uz/acts/111457

[85] Resolution of the Plenum of the Supreme Court "On certain issues of judicial practice in cases of legalization of revenue received from criminal activities" dated February 11, 2011. # - 1 Access mode: http://lex.uz/docs/1766551

[86] Civil Code of the Republic of Uzbekistan. Mode of access: http://www.lex.uz/acts/111181

[87]Tulyaganova G., Khidoyatov B. Description of legalization of criminal revenue// Proceedings of the Scientific-Practical Conference of the Republic on the legal aspects of combating corruption and legalization of revenue received from criminal activities. -T., 2019. p.30 Collection of materials of the Scientific and Practical Conference of the Republic on the topic "Legal aspects of combating corruption and legalization of revenue received from criminal activities. - T. 2019. - p. 30)

[88] Larichev, V. D. Improvement of legislation on combating the legalization of revenue received from criminal activities // State and law. − 2003. - No. 2. - p. 100.

[89] Oswald K. Die Implementation gesetzlicher Massnahmen zur Bekämpfung der Geldwasche in der Bundesrepublick Deutschland. Freiburg i.Br.,Max-Planck Institut für auslandisches und internationales Strafrecht. 1997, S. 6 (Oswald K. Implementation of legal measures against money laundering in the Federal Republic of Germany Freiburg I.B., Institute of Foreign Public and International Law. Max Planck. 1997, p. 6.)

In international law, the definition of legalization (laundering) of the revenue from criminal activities was given in the Article 3 of the UN Vienna Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of December 19, 1988[90].

The Vienna Convention of the United Nations of 1988 recognized the "laundering" of money obtained from drug trafficking as a crime.

Thus, the revenue received from criminal activities can be used for the following purposes:

1) covering current expenses of criminals;
2) accumulation;
3) development of criminal activity;
4) investment in the legal economy.

Taking into account these facts, all this leads to the transformation of legalization into a highly profitable and effective criminal production[91].

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ПРАВОВЫЕ ОСНОВЫ ГРАЖДАНСКОГО ОБЩЕСТВА: РОЛЬ ПРИНЦИПОВ ГРАЖДАНСКОГО ПРАВА

Аннотация: статья рассматривает важность принципов гражданского права в современном обществе. В статье объясняется, что принципы гражданского права являются основой правового регулирования гражданско-правовых отношений и определяют содержание и смысл правовых норм.

Автор подчеркивает роль принципов гражданского права в защите прав и интересов граждан и обеспечении справедливости и равенства в гражданском обществе. Статья также описывает различные принципы гражданского права, такие как свобода договора, равенство сторон, защита собственности, добросовестность, законность, свобода действий и исполнение обязательств. Знание принципов гражданского права важно для правоприменения и разрешения конфликтов между сторонами, а также для развития гражданского общества.

Ключевые слова: гражданское общество, обеспечение справедливости, принципы гражданского права, Гражданский кодекс Российской Федерации.

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THE LEGAL FOUNDATIONS OF CIVIL SOCIETY: THE ROLE OF CIVIL LAW PRINCIPLES

Abstract: The article examines the importance of the principles of civil law in modern society. The article explains that the principles of civil law are the basis of legal regulation of civil legal relations and determine the content and meaning of legal norms.

The author emphasizes the role of civil law principles in protecting the rights and interests of citizens and ensuring justice and equality in civil society. The article also describes various principles of civil law, such as freedom of contract, equality of parties, protection of property, good faith, legality, freedom of action and performance of obligations. Knowledge of civil law principles is important for law enforcement and conflict resolution between parties, as well as for the development of civil society.

Key words: civil society, ensuring justice, principles of civil law, the Civil Code of the Russian Federation.

Гражданское право играет важную роль в регулировании отношений между людьми и организациями. Одним из важнейших элементов гражданского права являются его принципы.

Принципы гражданского права – это основные идеи, которые лежат в основе правового регулирования гражданских отношений. Они определяют содержание и смысл правовых норм, а также устанавливают принципы и правила поведения для граждан и организаций.

Понимание принципов гражданского права имеет большое значение для правоприменения и разрешения конфликтов между сторонами. Знание принципов позволяет юристам и судьям принимать обоснованные и справедливые решения в соответствии с духом закона.

Кроме того, понимание принципов гражданского права важно для развития гражданского общества и защиты прав граждан. Граждане, осознавая свои права и обязанности, могут более эффективно защищать свои интересы и бороться за справедливость.

Таким образом, статья по теме «Правовые основы гражданского общества: роль принципов гражданского права» является актуальной и важной, так как позволяет более глубоко понимать основы гражданского права и его роли в современном обществе.

Как справедливо отмечает Д.А. Федюниин: «Принципы гражданского права – это основные идеи, принципы и правила, лежащие в основе правового регулирования гражданских отношений. Они определяют содержание и смысл правовых норм и устанавливают принципы и правила поведения для граждан и организаций, которые участвуют в гражданско-правовых отношениях»[92]. Принципы гражданского права направлены на обеспечение справедливости, равенства и защиты прав и интересов граждан в сфере гражданского оборота.

Принципы гражданского права могут быть законодательно закреплены в гражданском кодексе и других законах, которые регулируют гражданские отношения.

В Российской Федерации принципы гражданского права, такие как свобода договора, защита собственности, добросовестность, равенство сторон, закреплены в Гражданском кодексе РФ[93]. Аналогично, другие страны также могут законодательно закреплять принципы гражданского права в своих соответствующих законах и кодексах.

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[92] См.: *Федюниин Д.А.* Принципы гражданского права // Аллея науки. 2022. Т. 2. № 6 (69). С. 491-495.

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Кроме того, принципы гражданского права могут быть разъяснены и интерпретированы судами в ходе рассмотрения конкретных дел. Судебная практика может служить дополнительным источником права, который помогает уточнить толкование закона и применение принципов гражданского права в различных ситуациях.

Таким образом, законодательное отражение принципов гражданского права может различаться в разных юридических системах, но в большинстве случаев они являются частью законодательства, регулирующего гражданские отношения.

Существует множество классификаций принципов гражданского права, которые разработаны учеными и юристами по всему миру. Различные классификации основываются на разных критериях, таких как функциональный подход, материальный и процессуальный подходы, подходы, основанные на субъектах права и источниках права, и другие. Несмотря на разнообразие классификаций, каждая из них имеет свои преимущества и недостатки, и ни одна не может охватить все принципы гражданского права в их полном объеме. В данной статье будем придерживаться взгляда А.П. Анисимова, т.к. полагаем данный ряд принципов гражданского права, является общим для большинства правовых систем и законодательств. Некоторые из основных принципов гражданского права включают в себя[94]:

Свобода договора – это принцип, согласно которому стороны гражданско-правовых отношений имеют право заключать договоры на условиях, которые они сами считают наиболее выгодными для себя.

Равенство сторон – принцип, который гарантирует, что все стороны гражданско-правовых отношений имеют равные права и возможности, и что никакая из сторон не может быть привилегированной.

Защита собственности – принцип, который гарантирует право собственности на имущество и обязательства по его охране и защите.

Добросовестность – принцип, согласно которому сторон гражданско-правовых отношений должно быть добросовестное поведение, основанное на уважении к правам и интересам других сторон.

Законность – принцип, согласно которому гражданско-правовые отношения должны основываться на законных действиях и соответствовать законодательству.

Свобода действий – принцип, который гарантирует право сторон на свободу действий в рамках закона и договора.

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[94] См.: *Анисимов А.П.* Гражданское право. Общая часть: учебник для среднего профессионального образования / А.П. Анисимов, М.Ю. Козлова, А.Я. Рыженков; под общ. редакцией А.Я. Рыженкова. 5-е изд., перераб. и доп. М.: Юрайт, 2023. С. 44-47.

Исполнение обязательств – принцип, согласно которому стороны должны исполнять свои обязательства по договору или закону добросовестно и своевременно.

Также могут быть установлены другие принципы гражданского права, в зависимости от конкретной правовой системы и законодательства.

Существует несколько классификаций принципов гражданского права, в зависимости от того, какие аспекты правового регулирования они охватывают или как они классифицируются в различных юридических системах. Некоторые из наиболее распространенных классификаций включают в себя:

1. Функциональная классификация, которая разделяет принципы гражданского права на общие и частные. Общие принципы имеют универсальное значение и применяются в любых гражданско-правовых отношениях, в то время как частные принципы устанавливаются в зависимости от конкретного вида отношений (например, купли-продажи, аренды и т.д.).

2. Материальная и процессуальная классификации. Принципы гражданского права могут быть разделены на материальные (относящиеся к содержанию гражданско-правовых отношений, например, свобода договора, защита собственности) и процессуальные (относящиеся к порядку решения споров, например, право на справедливый суд).

3. Классификация по субъектам права. Принципы гражданского права могут быть классифицированы по отношению к субъектам права, например, гражданам или юридическим лицам.

4. Классификация по источникам права. Принципы гражданского права могут быть классифицированы по источникам права, например, на основе закона или на основе обычаев и традиций.

В различных юридических системах может быть использована любая из этих классификаций или их комбинации для описания принципов гражданского права.

Следует упомянуть, что существуют отдельные принципы гражданского права, которые могут быть применимы только к конкретным ситуациям или видам гражданско-правовых отношений. Например, в отношении договоров поставки товаров действует принцип передачи риска случайной гибели или повреждения товара. В отношении договоров подряда применяется принцип ответственности подрядчика за качество выполненных работ.

Отдельные принципы могут быть установлены в законодательстве или судебной практике, и их применение может зависеть от конкретных обстоятельств конкретной ситуации[95].

[95] См.: *Матвеева Е.Ю.* О соотношение основных начал и принципов гражданского права // Закон и власть. 2022. № 3. С. 9-13.

Кроме того, в некоторых юридических системах могут быть установлены специальные принципы гражданского права, которые имеют значение только в рамках этой системы. Например, в Германии существует принцип «Treu und Glauben», что означает «верность и добросовестность», который имеет важное значение в немецком гражданском праве.

Таким образом, отдельные принципы гражданского права могут быть применимы в конкретных ситуациях и в определенных юридических системах.

Как уже отмечалось ранее, принципы гражданского права играют важную роль в Российской Федерации и имеют законодательное отражение в Гражданском кодексе РФ.

Основной ролью принципов гражданского права является обеспечение справедливости, защиты прав и интересов граждан, а также стимулирование развития экономики и общества в целом. В частности, принципы гражданского права определяют права и обязанности граждан и организаций, правила заключения и исполнения договоров, порядок защиты собственности, правовые последствия нарушения договорных обязательств, и т.д.

Принципы гражданского права также являются важным инструментом для разрешения споров и конфликтов в гражданском обществе. Они определяют основные критерии и стандарты, которые должны быть соблюдены при решении судебных дел и разрешении споров между сторонами.

Кроме того, принципы гражданского права помогают гарантировать законность и предсказуемость правоприменительной практики в России. Их применение и соблюдение способствуют укреплению правовой культуры и повышению доверия граждан к системе правосудия и правительству в целом.

Таким образом, роль принципов гражданского права в РФ заключается в обеспечении справедливости, защите прав и интересов граждан, разрешении споров, гарантировании законности и укреплении правовой культуры в обществе.

В заключении статьи можно отметить, что принципы гражданского права являются неотъемлемой частью правовой системы любого государства и играют важную роль в обеспечении справедливости и равенства в гражданском обществе.

Принципы гражданского права определяют правовые нормы и основные правила, которые регулируют гражданско-правовые отношения и защищают права и интересы граждан и организаций. Их знание и понимание являются важными факторами для разрешения конфликтов и развития гражданского общества.

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«БЮДЖЕТ ДЛЯ ГРАЖДАН»: ОПЫТ РЕАЛИЗАЦИИ В САМАРСКОЙ ОБЛАСТИ

Аннотация: статья анализирует опыт реализации программы «бюджет для граждан» на территории Самарской области. В ней рассмотрен процесс участия граждан в формировании бюджета и меры стимулирования заинтересованности граждан в данном процессе. Особое внимание уделено законодательному регулированию программы.

Ключевые слова: бюджет, Самарская область, заочное участие, публичные слушания, формирование бюджета.

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«BUDGET FOR CITIZENS»: EXPERIENCE OF IMPLEMENTATION IN THE SAMARA REGION

Abstract: the article analyzes the experience of implementing the "budget for citizens" program in the Samara region. It considers the process of participation of citizens in the formation of the budget and measures to stimulate

the interest of citizens in this process. Particular attention is paid to the legislative regulation of the program.

Keywords: budget, Samara region, absentee participation, public hearings, budget formation.

С целью обеспечения прозрачности бюджета и вовлечения граждан в его составление и контроль, с 2013 года реализуется международная инициатива «Бюджет для граждан». В рамках этой инициативы, гражданам предоставляется в упрощенной форме бюджетная роспись по субъекту и на уровне Федерации и объясняются механизмы контроля за расходованием государственных средств. С 2016 года уже все субъекты РФ участвуют в данном процессе, а Министерство финансов анализирует лучшие практики предоставления бюджета для граждан, исходя из принципов открытости, достаточности и доступности.

Для реализации Бюджетного Послания Президента Российской Федерации о бюджетной политике в 2014–2016 годах, а также в целях повышения финансовой грамотности граждан и предоставления в доступной форме информации о бюджетной политике Самарской области министерством управления финансами Самарской области был подготовлен информационный материал «Бюджет для граждан», отражающий основные параметры областного бюджета.

Согласно Приказу Минфина России от 22.09.2015 N 145н (ред. от 15.10.2020) «Об утверждении Методических рекомендаций по представлению бюджетов субъектов Российской Федерации и местных бюджетов и отчетов об их исполнении в доступной для граждан форме» финансовым органом Самарской области в лице министерства финансов Самарской области публикуются проект закона о бюджете, закон о бюджете, проекта закона (решения) об исполнении бюджета за отчетный финансовый год [1]. Помимо бюджета Самарской области, публикуются и результаты слушаний о бюджете муниципалитетов и районов.

Немаловажным толчком в продвижении данного проекта послужил Федеральный закон от 02.05.2006 №59-ФЗ «О порядке рассмотрения обращений граждан Российской федерации». Согласно данному Федеральному закону каждый гражданин в целях получения достоверных и актуальных сведений, касающихся бюджета Самарской области, может направить соответствующее обращение к депутату Самарской Губернской думы, а также лично записаться на прием.

Однако, реализация мероприятий по обеспечению прозрачности бюджета, до настоящего времени не до конца обеспечены правовым регулированием. В целом, существует четыре формы непосредственного участия граждан в бюджетном процессе: публичные слушанья, экспертные оценки, инициативное бюджетирование и бюджет для граждан. Первые две дополняют и могут иногда заменять друг друга. В частности,

публичные слушанья, проведение которых является обязанностью органов местного самоуправления, может быть заменено экспертной оценкой комиссией, созданной с участием граждан (общественной комиссией).

В настоящее время не разработано правовой основы участия граждан в публичных слушаньях или иных формах непосредственного участия в бюджетном процессе. В частности, граждане не указаны в числе участников бюджетного процесса в Бюджетном кодексе. Говоря именно о публичных слушаньях и о проблеме вовлечения в них на местном уровне как можно большего числа жителей, предполагается, что для этого будут использованы средства сети Интернет, в первую очередь, портал госуслуг. На территории Самарской области публичные слушания проводятся в три этапа: первый этап – это общественные обсуждения у главных распорядителей средств областного бюджета с представителями общественности. Сроки проведения данного этапа не позднее 15 рабочих дней поле официального опубликования проекта бюджета или предоставления отчета об исполнении областного бюджета в Счетную палату. Второй этап – итоговые слушания, он проходит не позднее 15 рабочих дней после окончания проведения общественных обсуждений. И третий этап представляет собой консультации с представителями общественности по вопросам, не нашедшим своего разрешения по итогам двух первых этапов публичных слушаний. Этот этап проходит в течении 30 рабочих дней после окончания итоговых слушаний [2].

Данная форма заочного участия граждан в отправлении непосредственной демократии хорошо зарекомендовала себя в период противоковидных ограничений. Однако, вызывает вопросы порядок совмещения очной и заочной форм участия граждан в публичных слушаньях, порядок обработки инициатив граждан с активной жизненной позицией, поступивших в процессе реализации проекта инициативного бюджетирования [3].

Говоря о Приволжском Федеральном округе в целом лучшие практики были отмечены в Республиках Башкартостан, Татарстан, Кировской области. В качестве достаточно успешного отмечался проект «Твой конструктор двора», реализованный в 2019 году в г.о Самара в рамках федерального проекта Минстроя России «Формирование комфортной городской среды».

Таким образом, можно сделать выводы о том, размещенная на сайте Минфина информация дает возможность составить представление о направлениях расходования бюджетных средств, сделать выводы об эффективности расходов и целевом использовании средств. Каждый житель теперь имеет возможность получить информацию о том, сколько регион получает доходов, сколько и куда тратит. Вовлечение населения в бюджетный процесс придаст ему еще большую открытость и прозрачность. При наличии у граждан чувства собственной причастности к

бюджетному процессу и возможности высказать свое мнение, можно рассчитывать на то, что население будет добросовестно участвовать как в формировании бюджета, так и в его исполнении.

Использованные источники:

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OLIY TA'LIM MUASSASASI TALABALARINING DASTURLASH KO'NIKMALARINI SHAKLLANTIRISH (C++ DASTURLASH TILI MISOLIDA)

Annotasiya. Maqolada o'qitishning zamonaviy interfaol texnologiyalarining asosiy masalalari qaralgan. Shu bilan birga zamonaviy interfaol texnologiyalaridan foydalangan holda dasturlash asoslarini o'rganishning asosiy vazifalari va samaradorligi yoritilgan.

Kalit so'zlar: o'qitishning zamonaviy texnologiyalari, C++, interfaol texnologiyalar, o'qitishning intefaol vositalari, multimedia, intefaol vositalaridan foydalanish samaradorligi, dasturlash asoslarini o'rganishning intefaol metodlari.

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FORMING PROGRAMMING SKILLS OF STUDENTS OF HIGHER EDUCATION INSTITUTIONS (C++ PROGRAMMING LANGUAGE AS AN EXAMPLE)

Abstract. In the article the basic questions of application of modern interactive methods of training are considered, and also the basic tasks and learning efficiency of a basis programming with application of modern interactive technology are selected.

Keywords: modern technologies of training, C++, interactive technologies, interactive means of training, efficiency application of interactive means, interactive methods of study of a basis programming.

Hozirgi kunda kompyuter texnologiyalari kirib bormagan soha deyarli uchramaydi. Kompyuter texnologiyalardan nafaqat hisoblash ishlarini olib borish uchun, balki hayotga tadbiq qilinadigan elektron darsliklar, rasm va video tasmalarni qayta ishlovchi, katta hajmli ma'lumotlarni o'zida saqlovchi dasturlar yaratish uchun ham foydalaniladi. So'nggi yillarda kompyuter va uning dasturiy ta'minotiga bo'lgan talab va qiziqishlar ortib bormoqda. Bu esa o'z navbatida dasturchidan katta izlanish va mahoratni talab qiladi.

Ma’lumki C tili Denni Richchi tomonidan, C++ tili esa B.Straustrup tomonidan yaratilgan. Ko’p dasturlash tillaridan farqli o’laroq to 1989 yilgacha C tili standarti mavjud emas edi. Bu davrda ishchi qo’llanma sifatida 1978 yilda bosilib chiqqan B.Kernigan va D.Ritchi kitobidan foydalanilar edi. Odatda bu kitobga ilovalar K&R maxsus qisqartmasi bilan belgilanadi. Bu kitobning ikkinchi bosmasi ANSI (American National Standards Institute) ishlab chiqqan va ANSI C deb ataluvchi til standartiga moslashtirilgandir. Bundan tashqari ISO S (International Standard Organization S) standarti ham mavjud. Bu standartlar orasida farq ancha kam. Dastur asosan ANSI S standartiga asoslangan.

Bern Straustrup (Bjarne Stroustrup), AT&T Bell Laboratories xodimi, 1980 yili C++ tili ustida ish boshladi. Hozirgi C tiliga yaqinligini bildiruvchi C++ nomi rasmiy ravishda 1983 yili berildi.

Til birinchi tijorat versiyasi 1985 oktabrida taqdim etilib, xuddi shu yili B.Straustrupning «C++ dasturlash tili» (The C++ Programming Language) kitobi bosilib chiqdi.

Til standarti ustida 1990 yili ANSI (American National Standards Institute) ish boshladi. Bu standart oxirgi varianti 1997 yil noyabrida e’lon qilindi. Hozirgi davrda C++ tili eng ommaviy dasturlash tiliga aylandi.

AKT sohasi uchun yetuk mutaxassislarni tayyorlashda albatta dasturlash asosiy o’rin tutadi. Dasturlashni to’la o’zlashtirgan o’quvchi o’zining fantaziyalari asosida dasturiy maxsulotlarni ishlab chiqishi va yangiliklarni tez o’zlashtira oladi. Quyida biz dasturlashni o’qitishning horij tajribasi asosida ilg’or metodlari haqida gapirib o’tamiz.

Bugungi kunda bakalavriat yo’nalishlari bo’yicha pedagog kadrlar tayyorlashning sifatini ta’minlashda talabalarni ilm-fan taraqqiyotining eng so’nggi yutuqlaridan xabardor qilish,bugungi kunda fan va texnika sohasidagi yangiliklarni o’quv dasturlari mazmuniga kiritish va shular zaminida zamonaviy bilimlarni shakllantirishga zamin yaratish muhim ahamiyat kasb etadi. Binobarin, zamonaviy o’qitish texnologiyalari, ular bilan bog’liq metodik yondashuvlar bo’lajak pedagog kadrlarlarda zaruriy bilimlar, muhim qonuniyatlar, ko’plab fundamental tushunchalarni nisbatan yengil, chuqur va mustahkam shakllantirish uchun qulay sharoit yaratadi.

Ta’lim tizimida dasturlash asoslari yuzasidan bilim va malakalarni shakllantirish va uni rivojlantirish, mazkur jarayonga nisbatan tizimli, kompleks yondashuvni taqozo etadi. Bo’lajak kadrlarning chuqur bilimga, samarali faoliyat yurita olish mahoratiga ega bo’lishi ma’lum fan asoslari borasida unda yetarli nazariy hamda amaliy bilimlarning, ta’lim jarayonida yangi innovatsion texnologiyalaridan unumli foydalanish malakasining qanchalik shakllangan-ligiga bog’liqdir. Shu sababli, ta’lim jarayonini axborotlashtirish, zamonaviy axborot texnologiyalari imkoniyatlaridan, jumladan innovatsion texnologiyalar tizimlarini yaratish va undan ta’lim jarayonida unumli foydalanishning nazariy hamda amaliy asoslarini yaratish tadqiqotimizning dolzarbligini belgilaydi.

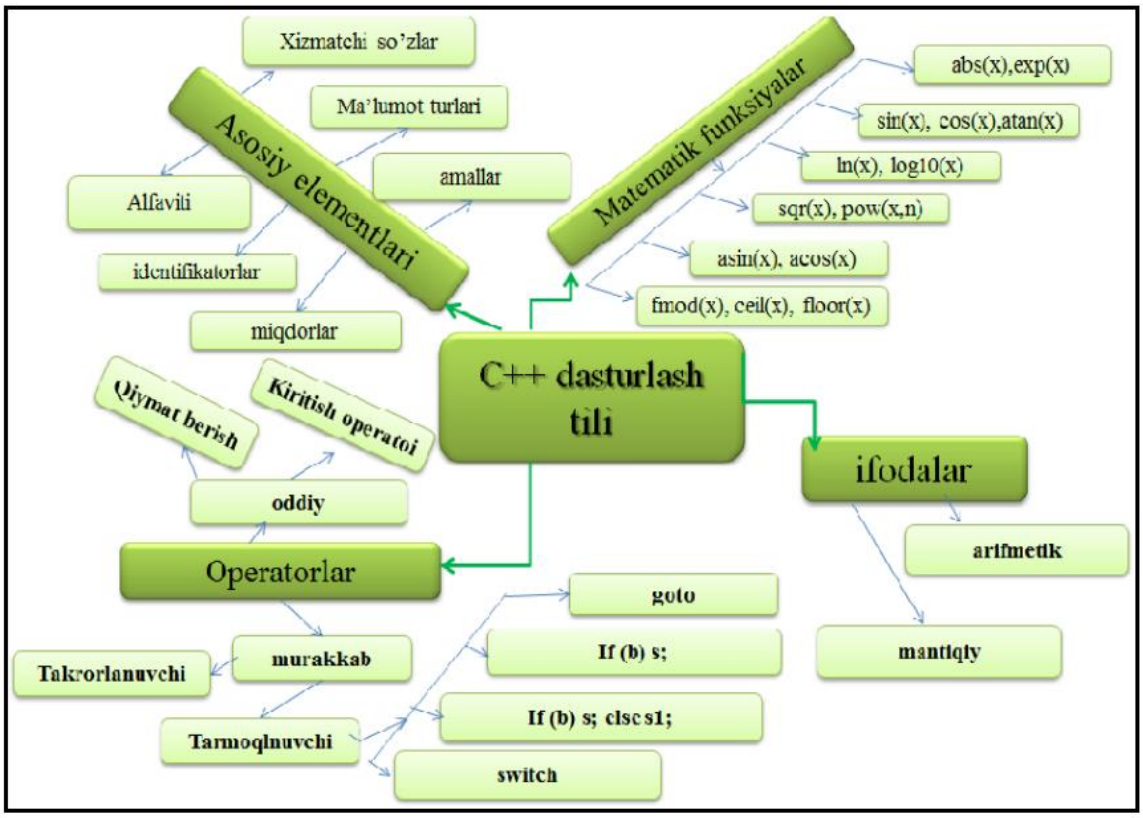
Dasturlash asoslarini o’rganish bo’yicha mashg’ulotlarni innovasion texnologiyalar yordamida tashkil etishdan asosiy maqsad talabalarni axborot va jamiyat, axborot texnologiyalari va tizimlari, ularning jamiyatdagi o’rni va ahamiyati, kompyuterlarga xizmat ko’rsatish, tamoyil va uslublari bilan chuqur hamda har tomonlama amaliy jixatdan tanishtirishdan iboratdir.

Interfaol usullar - bu jamoa bo’lib fikrlashdan iborat deb yuritiladi, ya’ni pedagogik ta’sir etish usullari bo’lib, ta’lim mazmunining tarkibiy qismi hisoblanadi. Bu usullarning o’ziga xosligi shundaki, ular faqat pedagog va talabalarning birgalikda faoliyat ko’rsatishi orqali amalga oshiriladi. Hozirgi kundagi ko’pgina uslubiy innovasiyalar interfaol usullarni qo’llash bilan bog’lik. Biz quyida dasturlash asoslarini o’qitish jarayonida qo’llash mumkin bo’lgan ba’zi bir texnologiyalarni bayon etishga harakat qilamiz.

“SWOT-tahlil” strategiyasi muammoning asosiy to’rt jihatini yoritishga xizmat qiladi. O’quvchilar mavzuning mazmuniga mos muammo-larni atroflicha o’rganish orqali mohiyatini yoritadi, ularni keltirib chiqaruvchi omillarni izlab, hal qilish imkoniyatlarini topadi. C++ dasturlash tilini SWOT tahlilida quyidagicha ifodalanadi:

S	C++ dasturlash tilidan foydalanishning kuchli tomonlari	Ushbu dasturlash tili tizimli dasturlash tili bo’lib, boshqa dasturlash tillarida ham tizimli masalalarni yechishda C++ ga murojaat etiladi.
W	C++ dasturlash tilidan foydalanishning kuchsiz tomonlari	Dasturlash tilining strukturasi murakkabligi.
O	C++ dasturlash tilidan foydalanishning imkoniyatlari (ichki)	C++ dasturlash tilini muk-kammal o’zlashtirgan dasturchi-lar muammoli masalalarni yechishda va yuzaga keladigan xatoliklarni bartaraf yetishda mukammal muhit hisoblanadi.
T	To’siqlar (tashqi)	Ma’lumotlar xavfsizligining to’la ta’minlanmaganligi

Idrok xaritasi usuli– mavzu yoki o’quv materialini grafikli bayon etish usuli bo’lib, axborotlarni tizimli, tartibli va vizual o’zlashti-rish imkonini beradi.



"Sinkveyn" strategiyasi J.Still, K.Meredis, Ch.Temil tomonidan ishlab chiqilgan "O'qish va yozish asosida tanqidiy fikrlashni rivojlantirish dasturi"da har bir talaba va talabalar guruhlarining fikrlash faolligini oshirish, ularda tanqidiy fikrlash qobiliyatini rivojlantirish uchun "Sinkveyn" usulini qo'llash samarali ekanligi aytiladi.

"**Dastur**" mavzusi "Sinkveyn" usulida quyidagicha ifodalanadi:

1-qator:	**Dastur**		
2- qator:	**tizimli**	**amaliy**	
3- qator:	**tekshiradi**	**bajaradi**	**chiqaradi**
4- qator:	**Buyruqlarning tartibangan ketma-ketligi**		
5- qator:	**Mashina kodi**		

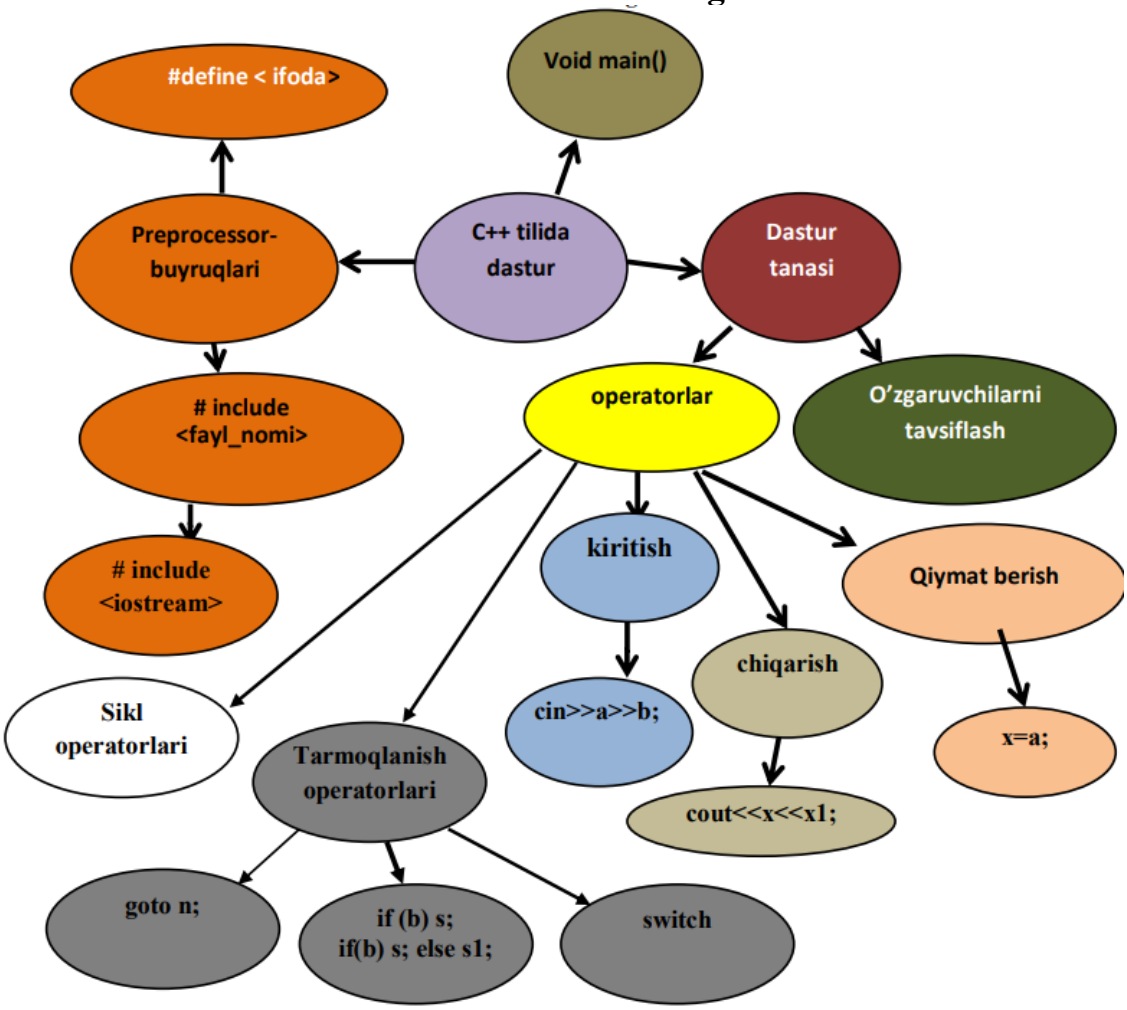
Assesment (baholash) usuli- mustahkamlash, baholash, o'zlashti-rish ko'rsatkichi va amaliy ko'nikmalarini tekshirishga, o'z-o'zini baho-lashga yo'naltirilgan bo'lib, to'rt darajadagi o'zlashtirish jarayonini ichiga oladi. Dasturlash asoslari bo'yicha talabalarga quyidagicha assisement tavsiya etish mumkin. Baholash: har bir katakchadagi javoblar uchun 5 ball yoki 1-5 ball

Test	Qiyosiy tahlil

1.Quyida cout operatori necha marta takrorlanadi?
for (k=1; k<5; k=k+1)
for (j=0; j<5; j=j+1) cout<<k+j;
1) 18 marta 2) 20 marta 3) 4 marta 4) 16 marta 5) 24 marta
2. Dastur natijasini aniqlang:
main()
{ float s; int i; s=0; i=0;
while (i<5) { i=i+1; s=s+1/i; }
cout<<s; return 0; }
1) 0 2) 0.6 3) 0.8 4) 0.4 5) 0.2
	[a,b] oraliqdagi toq sonlar kvadtlarining ko'paytmasini hisoblash dasturini:
	1) Sikl opertoridan foydalanmas-dan;
	2) Sikl opertoridan foydalanib tuzing va natijani tahlil qiling.

3. Dastur natijasini aniqlang: main() { float s; int i; s=0; i=1; do s=s+1/i; i=i-1; while (i<=1) cout<<s; return 0; } 1) 0 2) 0.4 3) 0.8 4) 0.2 5) 0.6	
Tushunchaga sinkveyn yozing "Dastur"	**Parametrli sikl operatorini ishlash tartibini tushuntiring**

"C++tilida dastur" tushunchasiga "Klaster"



Mashg'ulot jarayonida o'qituvchi tomonidan talabalarga strategiyaning mohiyati, afzalliklari haqida yetarlicha ma'lumot berilishi ular tomonidan hal

etiladigan muammo mohiyatining to’la tushunilishini ta’minlash va kutilgan natijaga erishishga yordam beradi.

Mashg’ulotlardagi interfaol usullar o’zaro tushunishga, hamkorlikda faoliyat yuritishga, umumiy, lekin har bir ishtirokchi uchun ahamiyatli masalalarni birgalikda yechishga olib keladigan muloqotni tashkil etish va rivojlantirishni ko’zda tutadi, hamda talabalarda hal etilayotgan masala yuzasidan mantiqiy, izchil fikrlash, ichki mohiyatini tahlil qilish ko’nikmalarini shakllantiradi.

Dasturlash asoslarini o’rganish jarayonida interfaol texnologiyalardan foydalanish quyidagi ijobiy natijalarga erishiladi:

– o’quvchilarning dasturlash asoslari bo’yicha bilim va malakalari shakllanadi;

– o’quvchilarning hisoblash malakalari oshadi;

– dasturlash asoslariga oid amaliy bilimlarda xato va kamchilar kamaytiriladi;

– o’quvchilarning dasturlash asoslariga oid matematik va mantiqiy fikrlash qobiliyatlari o’sadi.

– o’quv jarayonida o’quvchining o’z-o’ziga baho berishi, tanqidiy qarashi rivojlanadi;

– o’quvchi uchun dars qiziqarli o’qitilayotgan predmet mazmuniga aylanadi, o’qish jarayoniga ijodiy yondashuv, ijobiy fikr namoyon bo’ladi;

– har bir o’quvchini o’zi mustaqil fikr yurita olishga, izlanishga, mushohada qilishga olib keladi;

– interfaol usulda o’qitilgan darslarda o’quvchi faqat ta’lim mazmunini o’zlashtiribgina qolmay, balki o’zining tanqidiy va mantiqiy fikrlashishini ham rivojlantiradi.

Xulosa qilib aytganda, dasturlash asoslarini interfaol usullari asosida o’rganishda quyidagi asosiy vazifalarni bajarish lozimligini ta’kidlash mumkin:

– o’qituvchi tomonidan fanning mazmunini aks ettiruvchi sillabus yaratish;

– mashg’ulotlarni zamonaviy interfaol texnologiyalar asosida tashkil etish uslublarini bugungi kun talablari asosida yoritish;

– mashg’ulotlarni interfaol usullar asosida tashkil etishga oid bajarilgan ishlanmalar yuzasidan taqdimotlar yaratish;

– mashg’ulotlarni interfaol texnologiyalar asosida tashkil etish bo’yicha nazorat topshiriqlari va mustaqil ta’lim yuzasidan ko’rsatmalar ishlab chiqish;

– mashg’ulotlarni interfaol texnologiyalar asosida tashkil etish yuzasidan keyslar to’plami, amaliy topshiriqlar, ishlanmalar yaratish va ularni amaliyotga tadbiq etish.

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МЕТОДИКА ПРЕПОДАВАНИЯ ПРОФИЛЬНЫХ ПРЕДМЕТОВ В ОБЛАСТИ ПРОФЕССИОНАЛЬНОГО ДИЗАЙНА С ИСПОЛЬЗОВАНИЕМ 3D-ТЕХНОЛОГИЙ

Аннотация: В данной статье представлена информация о возможностях использования 3D специальных программ компьютерных технологий для повышения качества обучения студентов дизайну одежды. Также в статье представлена информация о критериях, используемых для определения уровня знаний студентов при создании дизайн-проекта одежды.

Ключевые слова: трехмерное проектирование, компьютерные технологии, методика обучения, инновации, конструктор, моделирование, студент, САПР, самостоятельная работа, мышление, творческие способности.

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TEACHING METHODOLOGY FOR SPECIALIZED SUBJECTS IN THE FIELD OF PROFESSIONAL DESIGN USING 3D TECHNOLOGIES

Annotation: This article provides information on the possibilities of using 3D special computer technology programs to improve the quality of teaching students about fashion design. The article also provides information on the criteria used to determine the level of knowledge of students when creating a design project of clothing.

Key words: three-dimensional design, computer technology, teaching methods, innovations, constructor, modeling, student, CAD, independent work, thinking, creativity.

Социально-экономические и культурные изменения в современном обществе требуют качественного изучения проблем развития творческих способностей при подготовке будущих специалистов к профессиональной деятельности на всех уровнях образования. В современных условиях реформирования системы образования, демократизации и гуманизации образования, а также усиления внимания к развитию профессиональной подготовки обучающихся по направлениям «Дизайн интерьера», «Дизайн костюма», «Промышленный дизайн» и другие направления профессионального образования различного профиля в высших учебных заведениях заслуживают особого внимания. Происходящие в жизни общества изменения требуют разработки качественно новых методов и способов воспитания, развития педагогических технологий, формирования творческих и универсальных способностей личности, подготовки кадров, способных решать задачи профессионального характера [1].

Цифровые технологии, получившие сегодня широкое распространение, активно используются в экономике, сфере услуг, а также в образовательном процессе, анализируя свои возможности в использовании цифровых технологий в системе высшего образования, проводятся анализы того, как внедрить их в развитие образовательного процесса.

В качестве методов исследования проводятся научные исследования по формированию научно-обоснованного подхода к внедрению цифровых технологий в высшем образовании, составлению соответствующих выводов, изучению существующей практики, систематизации и обобщению.

В настоящее время можно заметить, что использование физических моделей в области проектирования несколько сократилось. При этом большое внимание уделяется цифровым технологиям для сокращения затрат и максимального увеличения времени.

При реализации этих требований невозможно не использовать системы информационных и компьютерных технологий. [2]

Внедрение технологий компьютерного проектирования позволяет применять принципиально новые подходы к решению ряда задач в области дизайна одежды.

Также модернизация процесса проектирования одежды на основе внедрения компьютерных 3D-технологий позволила решить задачи инженерно-пространственного проектирования и пространственно-формовой визуализации.

Используя пакеты программного обеспечения 3D графики для проектирования объектов, методы моделирования одежды выводят дизайнерскую деятельность на новый уровень.

В основе научного направления под названием «трехмерное геометрическое моделирование одежды» лежит трехмерное исследование

трехмерной поверхности модели одежды, созданной на экране монитора, которая еще не подготовлена.

На сегодняшний день многие специалисты, а также отечественные и зарубежные ученые проводят научные исследования по трехмерному дизайну одежды.

В том числе Е. Е. Александровна проводила научные исследования по использованию автоматических систем проектирования (САПР) при обучении специализированным предметам студентов инженерно-педагогического факультета, Т. Чемодоновна проводила исследования по использованию САПР в общетехнических чертежах, профессор В.А.Обуховец проводил исследования по использованию программ 2D с целью обеспечения организационно-методической подготовки студентов технического высшего учебного заведения к работе с системами автоматизированного проектирования.

В результате научных исследований проектирование одежды в 2D-векторных программах в свое время значительно упростило процесс проектирования одежды.

Но главный недостаток 2D-дизайна в том, что есть только два варианта проверки результата: расчеты вручную и тестирование реальных схем.

Несомненно, в обоих случаях требуются большое уделение времени и большая трата денег.

В 2D моделях невозможно представить конечный продукт, сформированный в процессе проектирования, если он имеет сложный вид, этот процесс ещё более усложнится. Эта ситуация создает потребность в 3D моделировании.

А в программе 3D анализ виртуальных схем намного дешевле и, кроме того, позволяет разработать множество вариантов исполнения конструкций и выбрать наиболее оптимальное решение.

Студенты, которые знают, как создавать эти высококачественные модели, расширят свой визуальный словарный запас.

Будут иметь опыт работы с визуальным приложением, которое включает такие элементы, как текстура, свет, цвет, линия, пространство и форма.

С этой точки зрения необходимо определить конкретные мероприятия, направленные на изменение преподавания современных и профессиональных знаний, реализацию потенциала преподавателей и студентов, развитие личностной активности и инициативной активности студентов, а также способности к самостоятельной работе.

На сегодняшний день использование специальных программ в обучении находится актуальным и востребованным направлением педагогического процесса не только для передачи знаний и умений учащимся, но и для реализации педагогического процесса. 3D-дизайн,

связанный с тенденциями меняющегося современного мира, является одним из перспективных методов обучения по специальным программам, что находит отражение в использовании инновационных технологий в образовании.

Приступая к изучению 3D моделирования, студенты наряду с техническими знаниями должны обладать и теоретическими знаниями по профильным предметам наряду с творчеством. Студенту, знакомому с трехмерными панелями и программным обеспечением для 3D, будет легче общаться с другими знаками творческого процесса. Это, в свою очередь, немного облегчает рабочий процесс. Несомненным является то, что хороший дизайнер должен донести свою идею через эскизы, но использование 3D модели дает дополнительное преимущество.

Хотя это звучит сложно, студенты-дизайнеры должны подходить к 3D моделированию непредвзято, потому что это раскроет их творческий потенциал, повысит эффективность работы, улучшит качество проектирования, научит их работать самостоятельно и думать, принимать решения.

Несмотря на это, вопрос совершенствования обучения проектирования дизайна одежды средствами технологии 3d max студентов-дизайнеров в диссертационных исследованиях до сих пор не рассматривался. Для решения поставленных в работе задач мы используем программу 3D моделирования объектов, анализируя теоретические основы, структурно-системный анализ автоматизированной системы проектирования одежды (САПР), возможности создания объектов дизайна костюма. [3]

Рассмотрим процесс создания вида дизайн-проекта женского платья со складками в программе 3D.

Проанализируем уровень освоения мастерства студентов направления дизайн в 3D средствах по предмету проектирование дизайна одежды по ***трем рекомендуемым областям***.

В данном случае рассматрим в качестве примера создание дизайн-проекта женского платья со складками с высоким уровнем сложности на примере создания в SLO 3d tools.

Оценим овладение учащимися наукой проектирования одежды с помощью 3D-инструментов по набору критериев характеристик создаваемых образов.

1. характеристики созданных образов;
2. техника выполнения;
3. теоретические знания в области 3D моделирования на компьютере.

На наш взгляд, уровень освоения студента должен определяться характеристиками создаваемого 3D-изображения.

Свойства созданных изображений включают в себя следующие критерии.

• уровень художественной выразительности (образности) созданного женского платья;

• новизна элементов платья;

• уникальность образа женских платьев;

• целостность, конкретность, завершенность.

Методика выполнения включает в себя следующие критерии, описывающие технические индикаторы.

• знание техники создания 3D модели в редакторе компьютерной графики CLO3D;

• умение понимать и рассуждать при выборе технических действий;

• имение возможности использования различных графических форматов программ 3D.

• Для оценки теоретических знаний в области компьютерного 3D-моделирования можно применять следующие критерии:

• знание основных принципов создания трехмерного окна;

• грамотное конструктивное решение, раскрывающее художественный замысел объемной композиции;

• умение теоретически анализировать возможности того или иного графического редактора.

На основе выбранных критериев было определено, что студенты-дизайнеры высокого, среднего и низкого уровня пытались создать дизайн-проект женского платья со средним уровнем сложности.

Высокий уровень создания дизайн-проекта женского платья в 3D средствах означает, в первую очередь, что он проявляется в реализации новых дизайнерских идей, выразительности образа и воплощении реализованной концепции.

При этом женское платье отличается завершенностью, конструктивностью, художественной выразительностью, платье должно быть композиционной и образной целостностью.

Средний уровень проявляется в том, что качество нового задания зависит от усвоения теоретического материала, создаваемый образ не имеет эмоциональной насыщенности, низкого уровня проработанности, но в то же время присутствует элемент оригинальности и нестандартный подход к выполнению задач.

Дизайнеры со средним уровнем развития мастерства студентов не имеют высоких результатов по другим дисциплинам творческого цикла, следовательно, не обладают высоким уровнем самостоятельности в выборе методики трехмерного моделирования объектов.

Низкий уровень. Группа студентов с пробелами в знаниях и умениях, необходимых для выполнения творческого задания, имеет низкий уровень развития.

Как правило, у них низкое пространственное воображение, необходимое для реализации творческого проекта.

У них слабое стремление к творческим способностям, самообучению и саморазвитию.

Работоспособность таких студентов очень низкая, вариативность выполняемых заданий полностью отсутствует.

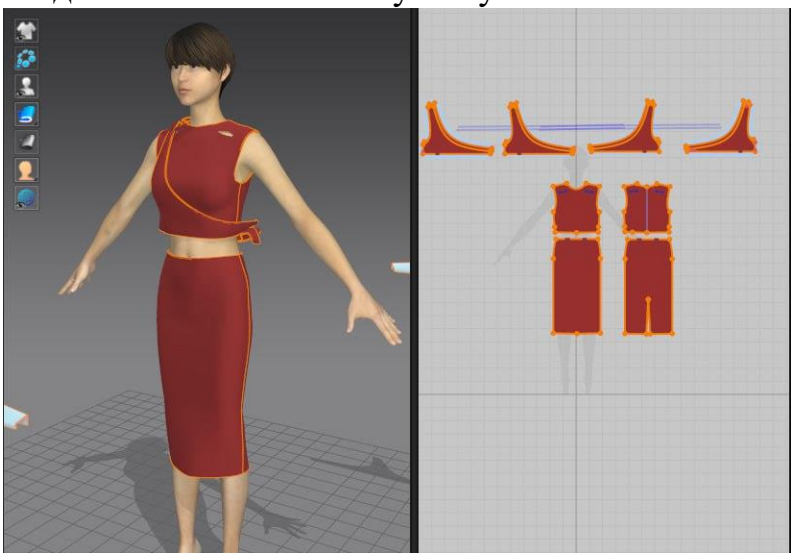


Рис.1. Вид дизайн-проекта женского платья с повышенной сложностью, созданной в программе 3D.

Если студент допускал незначительные ошибки в каждом задании, его работа оценивалась как удовлетворительная. Наконец, студенты, допустившие большое количество критических ошибок или не выполнившие одно из предложенных заданий, оценивались как «неудовлетворительно». Оценка «отлично» диагностируется как «высокий» уровень образовательных результатов. А специальные программы технологии 3D MAX имеют функции, которые можно использовать на всех этапах процесса разработки дизайна одежды. Кроме того, существует академическая версия программы CLO 3D, которая предназначена для компаний индустрии моды, студентов школ моды, чтобы очень легко и быстро создавать дизайны одежды и моделировать пошив одежды. [4]

Как и во всех 3D-программах, весь процесс выполняется в 2D-окне, а результат сразу виден в 3D-окне.

На сегодняшний день существуют очень большие блоки компьютерных программ, которые можно использовать в качестве наглядных пособий в учебном процессе для повышения эффективности изучения предметов.

Эффективность деятельности преподавателя и преподавания зависит не только от уровня знания и педагогического мастерства содержания курса, но и от уровня использования учителем современных информационно-коммуникационных технологий при сборе, обработке и преподавании конкретного учебного материала. [5]

Другими словами, образование в век компьютеров, в том числе обучение студентов-дизайнеров, должно быть пересмотрено и изменена образовательная парадигма, потому что студенты-дизайнеры больше не хотят работать традиционным способом, поэтому преподаватели не должны продолжать учить привычным образом.

Такой подход тесно связан с динамикой развития общества, в котором стремительно увеличиваются потоки информации, появлением новых видов деятельности в неизвестных ранее сферах.

По результатам, полученным в процессе работы, был проведен усовершенствованный вариант проектирования одежды и обучение работе с 3D-инструментами с анализом существующих методик.

Из опыта можно предположить, что такой подход позволяет развивать воображение обучающихся за счет изменений их отношений к получению необходимой информации.

Работа в программах 3D-дизайна пробуждает в студенте творческую активность, то есть умение комбинировать определенную информацию.

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ПРИМЕНЕНИЕ ИММУНОМОДУЛЯТОРОВ ДЛЯ ОПТИМИЗАЦИИ ТЕРАПИИ БРОНХООБСТРУКТИВНОГО СИНДРОМА

Аннотация. Заболевания органов дыхания, в частности бронхообструктивный синдром у детей, относятся к наиболее часто обсуждаемой и дискутируемой патологии. В последние годы достаточно активно изучаются механизмы патогенеза данной патологии для повышения эффективности терапии. Целью работы явилось изучение некоторых механизмов фармакологических эффектов бактериальный лизати для обоснования применения препарата в остром периоде рецидивирующего обструктивного бронхита у детей. Оценено показатели интоксикации, антиоксидантные и иммуномодулирующие механизмы фармакологических эффектов. Обследованы дети в возрасте от 3 до 18 лет, находящиеся на лечении с диагнозом рецидивирующий обструктивный бронхит.

Ключувые слова: брохообструкция, дети, иммуномодуляторы, интоксикация, кашель, хрип.

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APPLICATIONS OF IMMUNOMODULATORS TO OPTIMIZE THERAPYBRONCHOBSTRUCTIVE SYNDROME

Annotation. Respiratory diseases, in particular broncho-obstructive syndrome in children, are among the most frequently discussed and debated pathologies. In recent years, the mechanisms of the pathogenesis of this pathology have been actively studied to improve the effectiveness of therapy. The aim of the work was to study some mechanisms of the pharmacological effects of bacterial lysate to justify the use of the drug in the acute period of recurrent obstructive bronchitis in children. Intoxication indicators, antioxidant and immunomodulatory mechanisms of pharmacological effects were evaluated. Children aged 3 to 18 years old, who are being treated with a diagnosis of recurrent obstructive bronchitis, were examined.

Key words: bronchobstruction, in children, immunomodulators, intoxication, cough, wheezing.

Актуальность. Заболевания органов дыхания, в частности бронхообструктивный синдром у детей, относятся к наиболее часто обсуждаемой и дискутируемой патологии. В последние годы достаточно активно изучаются механизмы патогенеза данной патологии для повышения эффективности терапии: изменение показателей интоксикации, перекисного окисления липидов, антиоксидантного статуса, интерлейкинов [1, 2]. Как правило, данные механизмы патогенеза не имеют специфического характера и являются неспецифическими при различных патологиях [3, 4]. В последние годы активно обсуждается вопрос дифференцированного подхода к диагностике и лечению бронхообструкции у детей, часто болеющих вирусными инфекциями [5, 6]. Это ставит вопрос об актуальности использования препаратов с иммуномодулирующими свойствами в комплексной терапии данного синдрома [7, 8]. Однако, учитывая клинические симптомы острого периода патологии, особенно важны не только иммунокорригирующие свойства препарата, но и оказываемые им антиоксидантный, дезинтоксикационный эффекты [9]. Но многие вопросы, касающиеся фармакодинамики иммуномодулирующих препаратов, недостаточно изучены. Остается часто обсуждаемым вопрос о применении иммуномодулирующих препаратов при обострении заболеваний, в частности рецидивирующего обструктивного бронхита.

Целью работы явилось изучение некоторых механизмов фармакологических эффектов бактериальный лизати для обоснования применения препарата в остром периоде рецидивирующего обструктивного бронхита у детей. Оценено показатели интоксикации, антиоксидантные и иммуномодулирующие механизмы фармакологических эффектов.

Материал и методы исследования. Обследованы дети в возрасте от 3 до 18 лет, находящиеся на лечении в отделении пульмонологии Андижанском ОДММЦ с диагнозом рецидивирующий обструктивный бронхит. Провоцирующим фактором обострения заболевания явилась острая респираторная инфекция. Обследованы две группы пациентов. I (исследуемая) (n=40) группа детей получала базисную терапию и иммунокорректор, II группа детей (сравнения) (n=40) получала только симптоматическое лечение без иммуномодулятора. Пациенты были отобраны методом случайной выборки. Средний возраст пациентов – 11±6 лет. Бактериальный лизати (Исмижен GM Pharmceuticals Ltd, ООО, Грузия произведено: Mefer llac Sanayi S.S) По 1 таблетке 1 раз в день до приёма пищи, непрерывно в течение 10 дней. После 20-дневного перерыва повторить 10-дневный курс приема препарата (согласно инструкции по применению препарата). Факторы, которые обусловливают иммуномодулирующие свойтсва Исмижена- созревание дендритных

клеток, которые специфически стимулируют Т- и В-клетки (лимфоциты); секреция специфического иммуноглобулина А(IgA); активация механизма действия гранулоцитов; В исследовании оценивались клинические симптомы патологии по балльной системе: 2 балла соответствовали ярко выраженным симптомам заболевания; 1 балл – умеренно выраженным; 0 баллов – отсутствию симптомов. Оценены биохимические показатели сыворотки крови: церулоплазмин (метод Равина), малоновый диальдегид (методика С.Г. Конюховой и соавторов), активность каталазы (реакция взаимодействия перекиси водорода с солями молибдата аммония), оксид азота (по нитратам сыворотки крови). Проведено исследование показателей врожденного и адаптивного иммунитета методом проточной цитофлуориметрии на аппарате Cytomics FC 500 (США) и цитокинов (интерлейкина-18, интерлейкина-4 и γ-интерферона) иммуноферментным анализом тест- системами «Вектор БЕСТ» (Россия). Статистическая обработка материала исследования осуществлялась с применением программы «Statistica 6.0». Для статистической обработки результатов проведен сравнительный анализ с использованием парного и непарного критерия t-Стьюдента и χ- квадрата.

Результаты исследования и их обсуждение. Результаты анализа исследований показали достоверные отличия динамики клинических симптомов заболевания у детей, которые получали комплексную терапию с иммунокорректором, в сравнении с пациентами, получавшими только симптоматическую терапию: у детей II группы кашель при выписке из стационара сохранялся у 15% пациентов (табл.). После проведенной комплексной терапии нивелировались такие ведущие клинические симптомы, как кашель, сухие свистящие хрипы, коробочный оттенок перкуторного звука.

Выраженность клинических симптомов рецидивирующего обструктивного бронхита у детей, получавших иммуномодулятор

Симптомы	I группа (стандартная терапия + бактериальный лизати (исмижен))		II группа (стандартная терапия)	
	До терапии	После терапии	До терапии	После терапии
Кашель	40/40 (100%) 1,07±0,05 балла	0/40(0%) 0 баллов*	40/40 (100%) 1,03±0,64 балла	6/40 (15%)# 0,15±0,044 балла*#
Коробочный оттенок перкуторного звука	30/40 (75%) 0,81±0,048 балла	0/40 (0%) 0 баллов*	28/40 (70%) 0,74±0,053 баллов	0/40 (0%) 0 баллов*
Сухие свистящие хрипы	40/40 (100%) 1,89± 0,038 балла	0/40 (0%) 0 баллов*	40/40 (100%) 1,92±0,034 балла	0/40 (0%) 0 баллов*

Примечание: * – выявлены достоверные отличия от показателей до терапии ($p<0,05$); # – выявлены достоверные отличия от показателей I группы после терапии ($p<0,05$).

Данный показатель нормализовался после терапии (отсутствие отклонений от нормы в I группе), что свидетельствует о положительном влиянии препарата на симптомы ецидивирующей бронхообструкции. В группе детей без использования ммуномодулятора у 15% пациентов сохранялось легкое снижение данного показателя осле проведенной терапии. Антиоксидантный фармакологический эффект азоксимера бромида оценивался по биохимическим показателям церулоплазмина и каталазы крови. Влияние препарата на механизмы свободнорадикальных процессов анализировалось по показателям малонового диальдегида. Дезинтоксикационный фармакологический эффект препарата оценен по изменениям показателя оксида азота в сыворотке крови. Полученные нами данные свидетельствуют о том, что у детей до терапии содержание церулоплазмина и активность каталазы в сыворотке крови составили 15,9±0,8 мг% и 0,8±0,1 мккатал/л соответственно у детей I группы и 16,3±0,6 мг% и 0,7±0,2 мккатал/л у детей II группы, что ниже, чем у детей контрольной группы (22,8±0,8 мг% и 12,2±0,2 мккатал/л). Напротив, у пациентов с рецидивирующим бронхитом в период обострения отмечались более высокие значения малонового диальдегида в сыворотке крови детей как I, так и II группы, чем у здоровых детей: 3,5±0,9 мкмоль/л. Показатель оксида азота до терапии имел высокие значения в обеих группах (6,1±0,16 и 6,3±0,22 соответственно) по сравнению с контрольной группой. После проведенной терапии содержание церулоплазмина и активность каталазы в сыворотке крови составили 20,9±0,9 мг% и 1,6±0,3 мккатал/л. Необходимо отметить, что показатели детей группы сравнения были достоверно ниже таковых у пациентов исследуемой группы: 17,9±0,7 мг% и 0,9±0,1 мккатал/л соответственно ($p<0,05$). Содержание малонового диальдегида снижалось после проведенной терапии в обеих группах (3,7±0,4 мг% и 5,1±0,6 мккатал/л соответственно), однако наиболее эффективно – у детей исследуемой группы. Аналогичная динамика наблюдалась в отношении нитритов сыворотки крови. До терапии содержание оксида азота составило в обеих группах 6,1±0,16 и 6,3±0,22 соответственно, после лечения показатель достоверно снизился в I группе пациентов, во II группе имелась лишь тенденция к снижению. Представленные результаты свидетельствуют о снижении показателей интоксикации и повышении резервных возможностей антиоксидантной системы после проведенной терапии с применением иммуномодулятора.

В проведенном нами исследовании проанализированы показатели врожденного и адаптивного иммунитета у детей с рецидивирующим бронхитом при различных видах терапии. Данное исследование выявило в

обеих группах сниженные значения данных показателей по сравнению с возрастной нормой у детей. Проведенные исследования констатируют факт ограниченных резервных возможностей иммунной системы у часто болеющих инфекционными заболеваниями детей, следствием чего является развитие бронхиальной обструкции. В исследовании мы отмечаем повышение цитотоксических лимфоцитов (CD8) при обострении (27,04±0,79% в I группе, 26,92±0,68 во II группе), что является логичным для уничтожения инфекционного фактора при бронхообструктивной патологии. Количество Т-лимфоцитов (CD3+) и (CD4+) до терапии составило 1,64±1,77% и 31,59±0,67% соответственно в I группе и 71,18±1,06% и 31,02±0,74% во II группе. Показатель гуморального иммунитета (CD19+) также имел тенденцию к снижению до терапии данной патологии. В I группе он составил 12,01±1,09%, во II группе – 1,91±0,93%. Показатель аллергической настроенности организма (IgE общий) составил до терапии в обеих группах 193,22±0,56 IU/ml и 189,13±0,72 IU/ml соответственно. (CD56+) составили в группе детей с иммуномодулятором 8,64±0,83%, в группе без его применения – ,62±0,61%. При лечении азоксимером бромидом отмечалось изменение показателей как Т леточного звена иммунитета, так и В-клеточного звена иммунитета. Общее количество Т- имфоцитов (CD3+) и (CD4+) увеличивалось после проведенной терапии бронхообструктивного синдрома и составило 74,99±1,33% и 39,66±1,35% соответственно в I группе, что достоверно выше по сравнению со значениями во II группе (72,19±1,03% и 32,36±1,18% соответственно) ($p<0,05$). Отмечается также достоверное уменьшение количества CD8+ цитотоксических лимфоцитов (18,73±1,13% в I группе). Во II группе показатель CD8+ составил 25,15±0,81%. Как следствие этого индекс соотношения Т-хелперов к Т-цитотоксическим лимфоцитам увеличивается после лечения (CD4/CD8). При анализе гуморального иммунитета также отмечались достоверные изменения. После проведенной терапии с применением азоксимера бромида содержание CD19+ достоверно повышалось в I группе (17,07±0,54%), во II группе составило 12,87±0,32%, а общий IgE снизился в обеих группах детей (85,27±0,83 IU/ml в I группе, 109,12±0,17 во II группе). Исследование выявило влияние иммунокорректора на содержание натуральных киллеров (CD56), показатели которых логично повышались при применении иммуномодулятора (12,88±0,56%). В группе сравнения этот показатель практически не изменялся (8,28±0,26%). Анализ концентрации интерлейкина-4 в сыворотке крови детей с бронхообструктивным синдромом при поступлении в стационар показал его повышение по сравнению с группой здоровых детей. Комплексное лечение с азоксимером бромидом способствовало достоверному снижению содержания интерлейкина-4 ($p<0,05$) и нормализации этого показателя у детей. У детей, получавших только стандартную терапию, показатель IL-4

при поступлении в стационар также превышал нормальные значения, однако после стандартной терапии не отмечалось достоверного снижения содержания провоспалительного цитокина в сыворотке крови. Концентрация противовоспалительного цитокина – γ-интерферона – в сыворотке крови детей, получавших иммуномодулятор в начале терапии, была ниже соответствующего показателя у здоровых детей. Терапия с применением иммуномодулятора способствовала увеличению содержания γ-интерферона в сыворотке крови детей ($p<0,05$). В группе детей, не получавших иммуномодулятор при поступлении, также отмечены низкие значения IFNγ в сыворотке крови. Проведенная симптоматическая терапия не способствовала достоверному повышению содержания представленного противовоспалительного цитокина в сыворотке крови детей.

Полученные в нашем исследовании высокие показатели IL-4 являются акономерным следствием повышения активности Т-лимфоцитов-хелперов прирецидивирующем воспалении бронхов. Следствием повышения уровня овоспалительного IL-4 в сыворотке крови детей при рецидивирующем воспалении бронхов явилась индукция синтеза В-клетками IgE. Наши исследования позволяют сделать заключение о возможности влияния бактериальный лизати на механизмы синтеза провоспалительных цитокинов, в частности IL-4. Препарат вызывал снижение содержания данного цитокина у пациентов, что способствовало эффективному купированию воспаления в бронхах.

Выводы: Таким образом, использование иммунокорректора в составе комплексной противовоспалительной терапии рецидивирующего обструктивного бронхита у детей с преимущественно инфекционными факторами обострения заболевания способствовало положительной клинической динамике, положительно повлияло на показатели активности

антиоксидантой системы и интоксикации организма, оптимизировало некоторые казатели врожденного, адаптивного иммунитета, провоспалительных и противовоспалительных цитокинов. Доказанная эффективность применения бактериальный лизати позволяет рекомендовать данный иммуномодулятор для применения в комплексной терапии рецидивирующей бронхиальной обструкции у детей и разработать персонализированный подход для проведения адекватного противовоспалительного лечения данной патологии на основе анализа изученных показателей.

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