

**CLINICAL RESULTS OF ELIMINATION OF INFLAMMATION FOCUS AND SANITATION OF ABDOMINAL CAVITY IN ACUTE PERITONITIS**

*Xalimov Aziz Olim o'g'li* - Assistant of the Department of Clinical Skills Training on Simulators, Bukhara State Medical Institute named after Abu Ali ibn Sina, Uzbekistan,

**ABSTRACT.** Acute peritonitis is an inflammatory process that develops in the visceral and parietal membranes of the abdominal cavity, which can lead to severe general intoxication and life-threatening multiple organ failure. The main cause of the disease is the onset of inflammation resulting from infection entering the abdominal cavity. Etiologically, peritonitis is classified into primary, secondary, and tertiary forms, with secondary purulent peritonitis being the most common. The clinical course is divided into three stages: reactive, toxic, and terminal. At each stage, the severity of clinical manifestations and the body's compensatory capabilities differ. Diagnosis is based on patient history, clinical examination, and laboratory and instrumental studies. Laparoscopy and laparocentesis are considered the most reliable diagnostic methods. The primary treatment approach is surgical intervention, as conservative therapy is ineffective. During surgery, it is necessary to eliminate the source of peritonitis, sanitize the abdominal cavity, provide drainage, and, if required, perform intestinal decompression. Relaparotomy and planned relaparoscopy play crucial roles in cases of severe and recurrent peritonitis. The course and outcome of acute peritonitis are determined by the patient's general condition, the extent of inflammation, the timeliness of surgical intervention, and the level of comprehensive intensive care provided.

**Keywords:** acute peritonitis, purulent inflammation, abdominal sepsis, laparoscopy, sanitation, drainage, relaparotomy.

**КЛИНИЧЕСКИЕ РЕЗУЛЬТАТЫ УСТРАНЕНИЯ ОЧАГА ВОСПАЛЕНИЯ И САНАЦИИ БРЮШНОЙ ПОЛОСТИ ПРИ ОСТРОМ ПЕРИТОНИТЕ**

*Халимов Азиз Олим угли* - Ассистент кафедры обучения клиническим навыкам на симуляторах, Бухарского государственного медицинского института имени Абу Али ибн Сины, Узбекистан,

**АННОТАЦИЯ.** Острый перитонит — это воспалительный процесс, развивающийся в висцеральной и париетальной оболочках брюшной полости, который может привести к тяжелой общей интоксикации в организме и жизнеугрожающей полиорганной недостаточности. Основная причина заболевания - начало воспаления в результате попадания инфекции в брюшную полость. С этиологической точки зрения перитонит подразделяется на первичную, вторичную и третичную формы, среди которых наиболее распространен вторичный гнойный перитонит. На каждом этапе различается тяжесть клинических проявлений и компенсаторные

возможности организма. Диагностика основывается на анамнезе, клиническом осмотре, лабораторных и инструментальных исследованиях. Наиболее надежными методами признаны лапароскопия и лапароцентез. Основным методом лечения является хирургическое вмешательство, так как консервативная терапия неэффективна. В процессе операции требуется устранение источника перитонита, санация брюшной полости, дренирование и при необходимости декомпрессия кишечника. Релапаротомия и программированная релапароскопия играют важную роль в случаях тяжелого и обратимого перитонита. Течение и исход острого перитонита определяется общим состоянием пациента, степенью распространенности воспаления, своевременностью хирургического вмешательства и уровнем оказания комплексной реанимационной помощи.

**Ключевые слова:** острый перитонит, гнойное воспаление, абдоминальный сепсис, лапароскопия, санация, дренаж, релапаротомия.

**Introduction.** Acute peritonitis is an inflammation of the visceral and parietal peritoneum of varying severity, which is accompanied by severe general and local symptoms in the human body and leads to serious, destructive disorders of vital organs and systems in a short period of time. The urgency of treating acute peritonitis is determined by the high incidence and mortality rate of this complication. In widespread forms of peritonitis (70%), the average mortality rate is 20-40%. Among patients with peritonitis in the terminal stage, this indicator increases sharply, reaching 60-70%, and these patients account for up to 20% of all cases of peritonitis.

According to the extent of peritonitis (A.M. Karyakin 1968)

Local (limited) peritonitis - the inflammatory process is localized in no more than 2 out of 9 anatomical areas of the abdominal cavity. Exudate can pass through natural drainage pathways into adjacent peritoneal areas.

By etiology, peritonitis is divided into primary, secondary, and tertiary forms. Primary peritonitis is extremely rare, the development of which is caused by the entry of infection into the abdominal cavity through hematogenous, lymphogenous, or cryptogenous routes. Infection can also enter the abdominal cavity as a result of a purulent process or rupture of an abscess by internal organs.

The most common type is secondary peritonitis, which develops as a result of infection due to damage to the abdominal organs or surgical diseases. The main variants of secondary peritonitis include appendicular, cholecystopancreatitis, perforative (gastric or duodenal ulcer, Crohn's disease, etc.), traumatic, necrotic, postoperative, and gynecological peritonitis. Secondary widespread purulent peritonitis (WDP) is the most severe and problematic form in clinical practice, most often accompanied by severe abdominal sepsis.

Tertiary peritonitis includes mild, prolonged forms of purulent inflammation, observed in patients with weakened immunity and severe general condition against the background of secondary peritonitis. In this form, clinical signs are often not clearly manifested.

Peritonitis, especially in its widespread forms, requires surgical treatment. Surgical intervention is the only effective way to eliminate peritonitis, and conservative treatment does not yield results independently. The main stages of surgical intervention in ICRP are the elimination of the primary source of infection, sanitation and rational drainage of the abdominal cavity, elimination of intestinal paresis, drainage of the intestine, and completion of the main operation, during which the patient's further treatment tactics are determined.

Diagnosis of peritonitis is carried out regularly, comprehensively, and in stages. The main clinical and additional laboratory-instrumental examinations play an important role.

The first stage of the main clinical examination is the collection of anamneses. It determines the onset of the disease, the nature of the pain, the dynamics of its development, symptoms such as vomiting, fever, thirst, absence of stool and gas, as well as previous surgical diseases. Often, the pain begins suddenly, sharply, diffusely, as if stabbed. Vomiting initially occurs with nutrients, then with bile or intestinal contents, with an unpleasant odor.

Upon external examination, the patient's general condition is severe, the skin is pale, the lips are bluish, and there is an expression of suffering on the face. Body temperature is usually 38-39 °C. Breathing is superficial, the abdomen does not participate in the breathing process, the abdominal wall is immobile, and the muscles are tense.

Palpation reveals Shchetkin-Blumberg's sign, "boards-like stiffness" of the abdominal muscles, and protective tension of the peritoneal wall. Rectal examination reveals drooping of the rectal wall and pain on palpation, while vaginal examination reveals drooping of the posterior uterine arch and pain upon slight touch to the neck.

During percussion, in the presence of pneumoperitoneum, a tympanic sound is detected under the diaphragm, and when fluid accumulates, dullness of the sound is detected. In intestinal paresis, high tympanitis is heard. On auscultation, "dead silence" is observed - the absence of intestinal peristalsis. Excitation of the phrenic nerve can be accompanied by hiccups, vomiting, and difficulty breathing.

Other common symptoms include dry and covered tongue, increased body temperature, tachycardia, and decreased arterial pressure. All these signs indicate the severity of the inflammatory process and the degree of intoxication.

**Differential diagnosis of peritonitis.** Peritonitis often develops as a result of inflammatory or destructive changes in the abdominal organs. However, in some cases (about 15%), the clinical signs are unclear and intertwine with other acute surgical diseases. Therefore, in differential diagnosis, the nature of the pain attack, dyspeptic symptoms, Shchetkin-Blumberg sign, temperature, laboratory parameters, and instrumental examination results are of decisive importance.

### 1. Differentiation with acute pancreatitis

Symptoms	Peritonitis	Acute pancreatitis
Pain	Persistent, diffuse	Severe, in the epigastric region,

	(abdominal)	backward (waistward) irradiation
Vomiting	First a couple of times, then decreases	Unstoppable, doesn't give relief
Abdominal muscle tension	Strong, "wooden stomach"	Initially weak or absent
Shyotkin-Blumberg badge	Positive	Usually negative
Body temperature	Elevated	Normal at the beginning
Laboratory indicator	Leukocytosis, ESR ↑	Diastase in blood and urine ↑↑
Instrumental	Fluid, gas levels on X-ray/USG	Pancreatic edema, decreased ecogenicity on ultrasound/CT

## 2. Distinguishing by acute mechanical intestinal obstruction

Symptoms	Peritonitis	Acute intestinal obstruction
Peristalsis	Decreased or none	Increased at first, then disappears
Abdominal view	Tense, painful	Swollen, asymmetrical, visible peristalsis
Vomiting	Few	Increased, fecal vomiting
X-ray	Free gas in abdominal cavity	"Clauber's Cups" - liquid and gas levels
Shyotkin-Blumberg badge	Positive	Negative at first, then positive (if there is a perforation)

In the surgical treatment of IOP, midline laparotomy is most often performed, as this method allows for a complete examination and sanitation of all parts of the abdominal cavity.

After opening the abdominal cavity, the pathological fluid is drained using an electro-aspirator (or, in rare cases, with gauze napkins), then an abdominal revision is performed, the condition is assessed, and the source of peritonitis is radically eliminated or isolated from the free abdominal cavity.

The aim of the study is to study the frequency of detection, treatment tactics, surgical methods, indications, type, volume and nature of the disease in patients with acute peritonitis in the Republic of Uzbekistan, as well as to improve the results of treatment of this category of patients.

The total number of patients with peritonitis in the studied group was 62 (5%), of which 53% had local peritonitis and 47% had diffuse peritonitis. The most common cause of peritonitis was destructive appendicitis, which was observed in 44% of cases. The mortality rate in the group of patients with diffuse peritonitis was high and amounted to 14.5%. Therefore, the problem of effective treatment of diffuse peritonitis remains relevant today.

## REFERENCES

1. 1. Карьякин А.М. Перитонит и его хирургическое лечение. – М.: Медицина, 1968.

2. Гостищев В.К. Острый перитонит. Клиника, диагностика и лечение. – М.: ГЭОТАР-Медиа, 2014.
3. Савельев В.С., Гостищев В.К. Общая хирургия. – М.: Медицина, 2016.
4. Шамова Н.М., Нечаева О.Ю. Современные подходы к диагностике и лечению распространенного перитонита. // Вестник хирургии им. Грекова. – 2019. – Т.178, №2. – С. 45–52.
5. Ходжаев А.А., Нормуродов А.А. Абдоминальный сепсис и перитонит. – Тошкент: ИЛМ, 2019.
6. Турсунов Ш.А., Бекназаров Р.А. Жаррохлик инфекциялари. – Тошкент: Тиббиёт нашриёти, 2020.
7. Bhangu A., Nepogodiev D., et al. Safety of relaparotomy for diffuse peritonitis: an international multicentre study. *Annals of Surgery*, 2019; 269(5): 911–918.
8. Sartelli M., Catena F., et al. WSES guidelines for management of severe intra-abdominal infections. *World Journal of Emergency Surgery*, 2020; 15(1): 51–65.
9. World Health Organization. Global guidelines for the prevention of surgical site infection. – Geneva: WHO Press, 2018.
10. Халилов Ж.А., Ахмедов Ш.А. Перитонитнинг диагностикаси ва даволаш усуллари. // Ўзбекистон хирургия журналы, 2021, №3. – Б. 24–29.

#### **ИСПОЛЬЗОВАННАЯ ЛИТЕРАТУРА:**

1. Kariyakin A.M. Peritonitis and its surgical treatment. - М.: Medicine, 1968.
2. Gostishev V.K. Acute Peritonitis. Clinical presentation, diagnosis and treatment. Moscow: GEOTAR-Media, 2014.
3. Savelev V.S., Gostishev V.K. General Surgery. - Тошкент, 2016.
4. Shamova N.M., Nechayeva O.Yu. Modern approaches to the diagnosis and treatment of diffuse peritonitis. // Bulletin of Surgery named after Grekov. - 2019. - T.178, No2. - P. 45-52.
5. Khodzhaev A.A., Normurodov A.A. Abdominal sepsis and peritonitis. - Тошкент, 2019.
6. Tursunov Sh.A., Beknazarov R.A. Surgical Infections. - Tashkent: Medical Publishing House, 2020.
7. Bhangu A., Nepogodiev D., et al. Safety of relaparotomy for diffuse peritonitis: an international multicenter study. *Annals of Surgery*, 2019; 269 (5): 911-918.
8. Sartelli M., Catena F., et al. WSES guidelines for the management of severe intra-abdominal infections. *World Journal of Emergency Surgery*, 2020; 15 (1): 51-65.
9. World Health Organization. Global guidelines for the prevention of surgical site infection. Geneva: WHO Press, 2018.
10. Khalilov J.A., Akhmedov Sh.A. Methods of diagnosis and treatment of peritonitis. // Journal of Surgery of Uzbekistan, 2021, No3. - Б. 24-29.