CLINICO-MORPHOLOGICAL ASPECTS OF RESPIRATORY DISTRESS SYNDROME

Zokhidova Sanoat Khomidovna, PhD, Associate Professor,
Samarkand State Medical University,
Samarkand, Uzbekistan

Abstract. Currently, due to insufficient lung tissue development in young children, negative changes and complications arise. This, in turn, requires a detailed identification of the clinical and morphological signs of respiratory distress syndrome and the development of a comprehensive treatment plan. [1, 2]

Keywords: bronchi, mucus, pneumonia, adaptation, reaction, complication, currently, sign, identification, prenatal, hypoplasia, macropreparation, distress, morphology, structure.

КЛИНИКО-МОРФОЛОГИЧЕСКИЕ АСПЕКТЫ РЕСПИРАТОРНОГО ДИСТРЕСС-СИНДРОМА

Зохидова Саноат Хомидовна, PhD, доцент
Самаркандский государственный медицинский университет,
Самарканд, Узбекистан

Аннотация. В настоящее время вследствие недостаточного развития лёгочной ткани у детей раннего возраста возникают различные патологические изменения и осложнения. Это, в свою очередь, требует детального выявления клинико-морфологических признаков респираторного дистресс-синдрома и разработки комплексного плана лечения данного заболевания [1, 2].

Ключевые слова: бронхи, слизь, пневмония, адаптация, реакция, осложнение, современность, признак, выявление, пренатальный период, гипоплазия, макропрепарат, дистресс, морфология, строение.

Introduction. Despite modern medical advances, microscopic analysis of the lungs of newborns who died from respiratory distress syndrome has proven clinical and morphological features of acute pulmonary insufficiency in the form of

primary diffuse atelectasis, dystelectasis, and the formation of hyaline membranes. At the same time, respiratory distress syndrome in infants is a pathological process in the neonatal period of premature babies that has not yet been described in detail. [3,5].

Among the clinical and morphological forms of respiratory distress syndrome in the CIS countries, the accumulation of hyaline membranes, the passage of amniotic fluid into the respiratory tract, diffuse dystelectasis, atelectasis, and hemorrhages have been studied. In scientific publications, respiratory distress syndrome is divided into certain types, and type 1 is a form of hyaline membrane formation. This form accounts for 50-70% of infant deaths in the United States. Type 2 aspiration syndrome is a type characterized by dyselectasis, atelectasis, and hemorrhage into the lung tissue. [4].

Study Objective. Study of morphological and clinical changes in organs in infant respiratory distress syndrome.

Materials and methods. Postmortem studies included 69 cases of infants weighing 501-999 grams (gestational age 22-28 weeks). Clinical, morphological, autopsy, and morphometric methods were used.

Results. Structural changes in the cortical part of the cerebral hemispheres, the cranial nerves, and blood vessels of premature infants with respiratory distress syndrome who died were identified;

- The dynamics of structural changes in the cortical part of the cerebral hemispheres, the cranial nerves, and blood vessels of infants born with respiratory distress syndrome and who died in early life were revealed;
- Taking into account the periods in which the infants lived, differences in the clinical-morphological and morphometric aspects of structural changes in the cortical part of the cerebral hemispheres and the medulla oblongata were revealed;

It was proved that the mechanism of death in the cortical part of the cerebral hemispheres and the medulla oblongata of infants born with respiratory distress syndrome and subsequently dying does not differ significantly at different periods of pregnancy. It was proved that in respiratory distress syndrome, the

differentiation of nerve cells remains unchanged from early to late gestational periods, the morphometric indicators of medulla oblongata cells reach high levels as gestational periods increase, the number of nerve cells in the cortical part of the brain and medulla oblongata increases with increasing gestational age, the vascular component, perineuronal and perivascular spaces are also inextricably linked to the duration of the last period from the lethal outcome. (1-figure.)

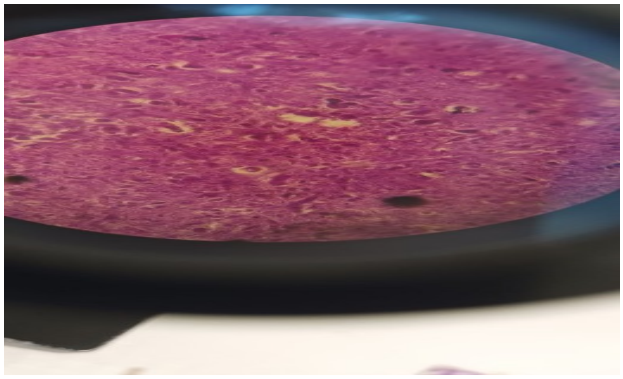

Figure 1. Appearance of elongated brain neurons and blood vessels in respiratory distress syndrome. (Stain name: Hematoxylin-eosin.)

The medulla oblongata nerve cells, blood vessel size increase, pericellular and perivascular space size decrease, damaged cells, blood vessel volume increase, survival period were studied. In respiratory distress syndrome, hypoxic changes in medulla oblongata cells, perineural space enlargement, diapedetic hemorrhages and perivascular spaces increase due to increased permeability of the blood vessel wall, and after comparing the aspects of the mechanism of death, it was found that the decrease in hypoxic signs in the medulla oblongata with increasing survival period increased the survival rate in respiratory distress syndrome. (2-figure.)

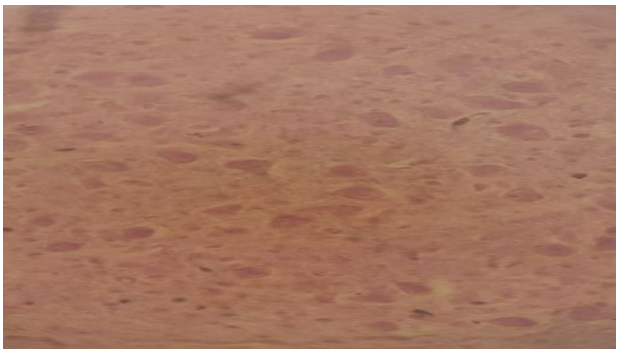

Figure 2. Appearance of elongated brain neurons and blood vessels in respiratory distress syndrome. (Stain name: Hematoxylin-eosin.)

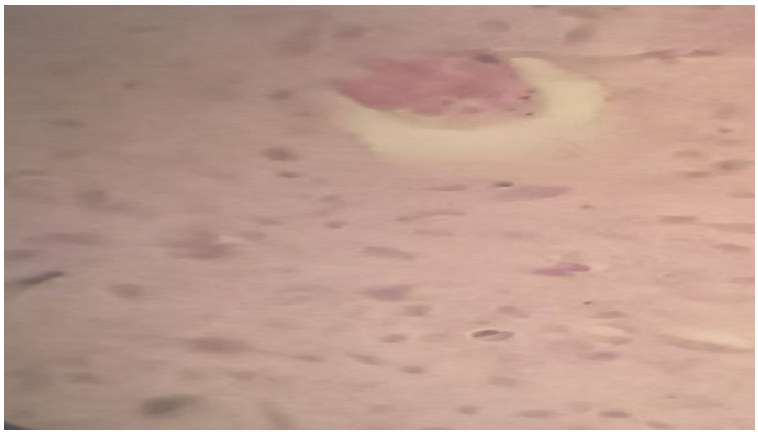

Figure 3. Appearance of brain neurons and blood vessels in respiratory distress syndrome. (Stain name: Hematoxylin-eosin.)

Among the morphological types of respiratory distress syndrome in the CIS countries, the presence of hyaline membranes, aspiration of amniotic fluid into the respiratory tract, atelectasis, dystelectasis, and hemorrhage have been identified. Forms of respiratory distress syndrome are divided into several groups, for example, the form accompanied by the formation of hyaline membranes occupies the main place among them.

Conclusion. In order to describe the manifestation of the criteria of thanatogenesis in the periods of life with respiratory distress syndrome, the levels of effective use of the cortical part of the cerebral hemispheres, perineural and perivascular spaces in the medulla oblongata were formed. Changes in brain structures in the death of infants born with respiratory distress syndrome were proven by improving the knowledge acquired through differential clinical and morphological comparisons throughout the periods of life. It was explained that the brain plays a role in enhancing compensatory reactions in anoxic-ischemic-

hypoxic processes [1,6,7].

Literature:

1. Zagorulko A.K., Novikov N.Yu.Antioxidant I zamestitelnaya surfactantnaya therapy / / 9-y Nasionalny Congress po boleznyam organov dixania: thesis dokl.- M.,1999.- S.340.
2. Kulakova V. I. Perinatalny audit PRI predevremennix rodax. M.: Edinburgh, 2005. c. 224.
3. Orinbasarov S.O., Nadeev A.P. Structure perinatalnoy letalnosti I patomorphologicheskaya characteristic zabolevani legkix U novorojdennix V Regione Priaralya / / Medisina I obrazovanie V Sibiri: setevoe nauchnoe izdanie NGMU. - 30.12.2014. URL: http://www.ngmu.ru/cozo/mos / article/text_full.phpid=1599.
4. Jumanov Z.E., Amonova G.U. Methods of examining the morphology of cranial structures in babies born and died of various periods of life with an atelectatic form of pneumopathy // methodological recommendation. - Tashkent, 2023. - 39 PP.
5. Jumanov Z.E., Amonova G.U. Aspects of morphological changes in the cranial structures of newborns who died from the atelectatic form of pneumopathy // Journal Vestnik vracha. - Samarkand, 2022. - STR. 137-140.
6. Amonova G.U. Republican scientific and practical conference on the topic of pathomorphology of the nervous structure of the cranial brain of infants who died from the atelectatic form of pneumopathy // application of highly innovative technologies in Preventive Medicine. Andijan State Medical institute, 10-11 June 2022. - C. 1072-1073.
7. Amonova G.U. Morphological aspects of the cranial structures of newborns who died from the atelectatic form of pneumopathy, by their length of life / / 4-s'ezd pathologoanatomov Uzbekistana s Mezhdunarodnim uchastiem, posvyatshenny 90-letiyu Akademika M.S. Abdullakhodjaeva, 28-29 November 2022 G. - S. 176-177.