



FORENSIC ASSESSMENT OF ANTENATAL FETAL DEATH

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ABSTRACT

As part of the legal regulation of medicine, doctors and forensic medical experts are forced to assess defects in medical care in patients who died in medical institutions from a violent cause, with adverse medical outcomes. It is known that the most qualitative study of hospital death is carried out by forensic medical experts. Who identify more defects in medical care than pathologists, respectively, 86.8% and 18 %.

In each case, the submitted medical documentation was examined, including data from multiple prenatal echophetometry. In each case, the afterbirth was examined. Studies of the afterbirth, fetal corpses and newborns were conducted in accordance with generally accepted standards. The obstetric gestation period (post menstrualis) was considered as the gestational age. In one newborn whose life expectancy exceeded the perinatal period, postconceptual age was taken into account as an indicator of gestational age.

Relevance: As part of the legal regulation of medicine, doctors and forensic medical experts are forced to assess defects in medical care in patients who died in medical institutions from a violent cause, with adverse medical outcomes.

It is known that the most qualitative study of hospital death is carried out by forensic medical experts. Who identify more defects in medical care than pathologists, respectively, 86.8% and 18%.

However, in the statistical reporting of the forensic medical service, corpses received from medical institutions are not taken into account, There is no assessment of the specifics of such a burden on the forensic medical expert and on the service as a whole.

Adverse medical outcomes due to treatment defects in forensic medical practice are more likely to occur in the premortal period in surgical patients in intensive care units.

Currently, it is common practice to appoint expert studies within the framework of pre-investigative (prosecutorial) inspections conducted "in the form of a forensic medical study* on medical documents " to identify " what shortcomings and omissions were made in the



therapeutic and diagnostic process", The quality of forensic and medical documents is paid attention by researchers.

In modern forensic medicine, there is no comprehensive approach to assessing defects in medical care for patients in the premortal period associated with intensive treatment, which determines the relevance of the topic, since the activities of forensic medical examination "are aimed at providing full assistance to healthcare institutions in improving the quality of medical care to the population and carrying out preventive measures."

The purpose of the study: Development of a system for verification and evaluation of clinical and pharmacological defects in the provision of medical care in the premortal period to improve the quality of medical care and forensic medical examination of adverse outcomes in medical practice.

Research materials and methods: Analysis of forensic medical examination conclusions of 13 stillborn infants dead in different periods at the Navoi regional branch of the scientific and practical center of forensic medical examination of the Republic.

As a research method, an analysis of the pathomorphological indicators of their corpses was carried out.

Research results: The observations of the main group were represented by fetuses and newborns both in physiologically occurring pregnancy and in various perinatal pathologies (congenital anomalies, intrauterine infections, fetal developmental delay syndrome, chronic intrauterine hypoxia, fetuses from multiple births).

The leading criterion for inclusion in this group was the absence of putrefactive changes and pronounced maceration in the cadaverous material.

In order to study the degree of resistance of the histostructure of fetal organs to autolysis, organ fragments from 23 stillborn fetuses with maceration of 2-3 degrees were additionally examined.

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Liver morphogenesis in the middle and late fetal periods was characterized by an increase in the absolute volume of liver lobules against the background of progressive ingrowth of connective tissue along the branches of the portal vein. The growth of the country was accompanied by the growth and differentiation of the branches of the portal vein and hepatic artery, as well as the biliary system. The most important feature of the development of the fetal liver was a progressive decrease in the activity of its functioning as a pharmacological organ of hematopoiesis. Morphogenesis of the spleen in the same period the period was determined by the formation and further differentiation of white and red pulp, an increase in the volume of all stroma components. The noted qualitative nature of the development of fetal organs allowed only an approximate assessment of gestational age and did not provide the necessary level of objectivity and accuracy of its establishment, while the use of quantitative analysis made it possible to develop a rational methodology for determining gestational age.



An important feature of the morphogenesis of fetal organs was the pronounced gestational heterogeneity of the variance of all histometric indicators in the form of its decrease in indicators characterized by negative and increase in indicators with positive gestational dynamics. Despite the gestational heterogeneity of the variance of each of the histometric indicators studied, the ratio of estimates of its mean to the standard deviation remained approximately constant, while there was no correlation between gestational age and the ratio of estimates of the mean to the standard deviation ($p > 0.190$). This circumstance indicates the constancy of the form of distribution of the values of histometric indicators throughout the studied period of antenatal development.

Conclusion: The liver and spleen are quite informative objects for determining the gestational age of fetuses and newborns in forensic medical expertise and pathoanatomical practice. Morphometric indicators of these organs, such as the hematopoietic activity of the parenchyma and the thickness of the connective tissue capsule of the liver, have varying degrees of pronounced gestational dynamics, the density and diameter of lymphoid nodules, the thickness of the walls of the central arteries and the capsule of the spleen.

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