period from 2021 to 2024. The pathomorphological study used microslides that were stained with hematoxylin-eosin, and the thickness of the sections was 5-7 microns. The work was carried out in the Laboratory of Morphology, Physiology and Pathology of the endothelium at the Research Institute of Fundamental Sciences of the Abuali ibni Sino State Medical University.

A microscope, model Olympus CX21. FS1, with a Digital Microscope Camera Specification MC-DO 48U (E), was used to study microslides at various magnifications (approx. 18, vol. x4,10,40).

Result of the study. Microscopic examination revealed the following pathomorphological changes in medulloblastomas: solid accumulations of cells, abundance of small cells, cytoplasm were noted in the tissues of which there were few, the nuclei have an oval shape, with hyperchromasia, numerous mitoses and pseudorozetes, which has important diagnostic significance. We have determined that there are variants of medulloblastoma that differ in morphological structure.

Conclusions. The results of the study indicate that a variety of pathomorphological changes in medulloblastomas, timely diagnosis and morphological verification contribute to improving the health of sick children, the development of new methods of early diagnosis and the provision of high-quality medical care can prevent the development of complications.

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MORPHOMETRIC CHARACTERISTICS OF THE HUMAN FETAL UTERINE TUBES DURING THE LATE FETAL PERIOD

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Purpose of the study. To investigate the topographical, anatomical, and morphometric characteristics of the uterine tubes during the late fetal period of ontogenesis.

Material and methods. The study material consisted of uterine tubes (autopsy specimens) obtained from 10 fetuses at 37–40 weeks of gestation, deceased from causes unrelated to genital tract pathology or developmental malformations.

The organometric method was employed to determine the length of the right and left uterine tubes. Following the assessment of morphometric parameters, tissue samples were harvested from all anatomical segments of the uterine tubes (uterine part, isthmus, ampulla) for morphological examination. The specimens were subsequently fixed in a 10% solution of neutral buffered formalin and processed through a graded series of ethanol solutions. The material was then embedded in paraffin wax, and serial sections of 1–3 mcm thickness were prepared. These sections were stained using a standard histological protocol (hematoxylin and eosin). The linear dimensions of the primary structural components of the uterine tube walls were established via morphometric analysis.

Statistical processing was performed using the GraphPad Prism software package, version 8.0. The normality of data distribution was assessed using the Shapiro-Wilk test. For data conforming to a normal distribution, results are presented as the mean (M) and standard deviation (SD). For data deviating from a normal distribution, results are expressed as the median (Me) and interquartile range [Q1; Q3].

Result of the study Macroscopically, the uterine tubes exhibited a tortuous morphology, a whitish smooth surface, and were fully invested by peritoneum.

The organ's curvatures were pronounced, and along its entire length, constrictions ranging in number from 2 to 6 were observed. The most significant constrictions were identified between the uterine part and the isthmus, as well as between the isthmus and the ampulla.

Organometric analysis established the average length parameters of the uterine tubes. In all observations, the length of the right uterine tubes exceeded that of the left, with mean values of 28.1 ±4.21 mm and 27.1 ±5.32 mm, respectively.

Microscopic examination revealed that the tunica mucosa of the uterine tubes forms prominent longitudinal folds. The surface of these folds is lined by a single layer of columnar epithelium. At this developmental stage, differentiation of the epithelial cells into ciliated and secretory types was already evident. The epithelium is demarcated from the lamina propria by a distinct basement membrane. The lamina propria was composed of a broad band of connective tissue, featuring irregularly distributed cells and thin collagen fibers. The mucosal thickness increased from the uterine part towards the ampulla, measuring 85.85 ±22.27 mcm and 108.43 mcm, respectively.

The tunica muscularis of the uterine tubes in human fetuses aged 37 to 40 weeks was formed by spindle-shaped smooth myocytes.

The muscle cells were arranged in an orderly manner, were homogeneous in shape and size, and formed an inner, more prominent, circular layer and an outer longitudinal layer, without a distinct boundary between them. A layer of connective tissue, containing a significant number of blood and lymphatic vessels, was present between the muscular layers. The thickness of the muscularis increased in the direction from the ampulla to the uterine part, measuring 48.18 ±17.31 mcm and 203.43 ±20.75 mcm, respectively.

The tunica serosa of the fetal uterine tubes was well-defined and consisted of loose connective tissue, which contained a substantial quantity of blood and lymphatic vessels, fibroblasts, fibrocytes, isolated adipocytes, and lymphocytes. The thickness of the serosa, similar to the muscularis, increased from the ampulla towards the uterine part, measuring 16.89 ± 5.64 mcm and 22.68 ±6.74 mcm, respectively.

Conclusions.

1. The thickness of the mucosal layer of the human fetal uterine tubes increases from the uterine part towards the ampulla.

2. The thickness of the muscular and serosal layers of the fetal uterine tubes increases in the direction from the ampulla towards the uterine part.

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ И СОЦИАЛЬНОЙ ЗАЩИТЫ НАСЕЛЕНИЯ РЕСПУБЛИКИ ТАДЖИКИСТАН

ГОУ «ТАДЖИКСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ имени АБУАЛИ ИБНИ СИНО»

ИЛМ ВА ТАҲСИЛОТ БАҲРИ СОЛИМИИ МИЛЛАТ

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ТОМ 2

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Душанбе

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