

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



## **МАТЕРІАЛИ**

**104-ї підсумкової науково-практичної конференції  
з міжнародною участю  
професорсько-викладацького персоналу  
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ  
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the left uterine tube – from  $12,9\pm 3,78$  mm to  $21,0\pm 3,38$  mm. The stages of the uterine tube formation are determined – from curved (at the beginning of the fetal period), zigzag and spiraled (in the middle of the fetal period) to the curved spiraled shape (at the end of the fetal period and in neonates). The regularities found are evidenced by the analysis of morphometric parameters of the uterine tubes by means of Mann-Whitney U-criterion, and they are indicative of a reliable difference in their parameters ( $p<0,05$ ) in 8-month fetuses ( $16,0\pm 0,79$  mm – of the right uterine tube,  $14,9\pm 1,34$  mm – of the left one) and in 9-month fetuses ( $22,6\pm 1,51$  mm – of the right uterine tube,  $20,8\pm 1,83$  mm – of the left one).

**Rak R.O.**

## **RELEVANCE OF THE RESEARCH OF VASCULAR-NERVE FORMATIONS OF THE PELVIS**

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**Introduction.** The study of the topographical and anatomical features of vascular-nerve formations of the pelvis has always been the focus of attention of surgeons of various specialties because one of the most important condition for successful operations is a deep understanding as the structure of organs, as understanding of the syntopy and features of the structure of vascular-nerve formations. The importance of clarifying information about the nerves and blood vessels of the pelvis throughout the entire period of human ontogenesis is undeniable, since their adequate blood supply and innervation is very important for the normal functioning of tissues and organs.

**Aim.** The study of the topographical and anatomical features of vascular-nerve formations of the pelvis

**Material and methods.** The topographic and anatomical features of the vascular-nerve formations of the pelvis, their variants of departure from the main trunks, branching and location of small branches are important in practical medicine for successful performance of surgical interventions in children and adults in the field of surgery, gynecology, urology, oncology, and also play very important role for successful diagnosis and treatment of pathology related to vascular-nerve structures (varicose veins of the small pelvis, in particular, hemorrhoidal veins, varicocele, chronic pelvic pain syndrome; effective local anesthesia during childbirth, etc.).

**Results.** Surgical interventions in the area of the small pelvis are quite frequent, but they are very difficult to perform due to the anatomically limited space and a significant number of structures damage of which can lead to the loss of important functions or even have a fatal outcome. Our literature research shows that the topographical and anatomical features of the vascular-nerve formations of the pelvis are characterized by a variety of topographical positions.

**Conclusions.** The lack of systematization of information regarding syntopical correlations, variants of the structure of vascular-nerve formations of the pelvis and their interconnections, lack of information regarding their chronological sequence of topographic-anatomical transformations at all stages of ontogenesis determine the need for further scientific research using modern methods of morphological research.

**Reshetilova N.B.**

## **MORPHOLOGY OF THE THIRD VENTRICLE DURING 13-16 WEEKS OF PRENATAL PERIOD OF HUMAN ONTOGENESIS**

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**Introduction.** Measurement ventricles gives the most information about the degree of development of atrophic processes in the brain, shape, appearance, stages, nature and causes of hydrocephalus. However, to determine the change in these dimensions, it is necessary to compare them values with the norm.

**The aim of the study.** Examine the peculiarity of the formation of the third ventricle in different ontogenetic periods.

**Material and methods.** Studies of the morphology of the walls of the third ventricle were conducted on 15 human cadavers by methods of histology, dissection and morphometry.

**Results.** Most of the structures of the third ventricle are present at the 13th week of fetal development. The form of cavity is diamond. Its length is  $6,2 \pm 0,58$  mm, width -  $2,45 \pm 0,25$  mm. The roof consists of the medullar and mesenchymal layers. Depth of the epithelial plate is  $8,0 \pm 1,68$  mm. Mesenchymal layer of roof is thinner. It is rich in blood vessels, most of which are located mainly along the lateral margins. Epithelial plate forms a series of wrinkles, which are elongated in the sagittal direction. Medial wrinkles are significantly lower than the lateral. Their structure is more complex due to its branching into smaller, secondary wrinkles.

At the beginning of the 14th week the length of ventricle is  $6,7 \pm 0,93$  mm, width -  $3,3 \pm 0,69$  mm. At this stage the external surface of the roof is flat, and the internal one has a complex relief because it has a lot of wrinkles. The tops of wrinkles are covered with hills, which are the most pronounced in the posterior part of the roof. A few wrinkles have a common base and their free end is thickened.

After 15 weeks the length of the third ventricle reaches  $7,1 \pm 1,27$  mm, width -  $3,6 \pm 0,51$  mm. The length of the roof plate reaches  $18,0 \pm 2,52$  mm, width of anterior part -  $3,7 \pm 0,59$  mm and the posterior one -  $1,5 \pm 0,22$  mm. The total thickness of the roof is  $0,06 \pm 0,06$  mm. In the anterior roof lines cover the entire inner surface of epithelial plate, the thickness of which reaches  $14,0 \pm 2,1$  mm. At this stage of the size of the hypothalamus increases. The zone of matrix almost disappears. It turns into a narrow strip, which is located along the wall of the third ventricle. Migratory layer loses its isolation and spreads laterally. Hypothalamic nuclei are isolated and lose touch with each other and the matrix.

In fetuses after 16 weeks of embryonic development the length of the third ventricle reaches  $7,5 \pm 1,42$  mm, width -  $3,8 \pm 0,68$  mm. The roof of the diencephalon is sharply bent outward. Wrinkles cover the entire inner surface of the roof.

Thus, during the fourth month of embryonic development the configuration of the third ventricle of the brain remains diamond-shaped. Its length increases from 6.2 mm to 7.5 mm, and width - from 2.45 mm to 3.8 mm. Also, the size of the roof plate of diencephalon change. During these four weeks the length of the roof of the third ventricle increases further. The structure of the vascular plexus becomes much more complicated.

**Conclusions.** Therefore, starting from the fourth month the third ventricle gradually takes a complex shape inherent to a newborn ventricle.

**Sarkisova Yu.V.**

## **POLARIZATION MICROSCOPIC TOMOGRAPHY AS A PROSPECTIVE METHOD FOR ESTABLISHING THE POSTMORTEM INTERVAL**

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**Introduction.** Laser polarimetric methods for the assessment of biological tissues are a promising scientific direction of research, which is based on the study of changes in the light beam that passed through the object. They have proven themselves well in application in the practical work of forensic medical experts. In this study, we propose to consider the possibilities of using this technique in establishing the postmortem time in the analysis of the human vitreous body.

The **aim** of the work is to develop new objective criteria for establishing the postmortem time using polarization microscopic tomography of circular birefringence of the protein fraction of human vitreous body layers.

**Materials and methods.** We collected research material from the anterior chamber of the eye in the amount of 5 ml (n=52). We examined cadavers with previously known postmortem time from 1 to 36 hours who died as a result of cardiovascular pathology. Exclusion criteria: craniocerebral injury and eyeball injury, laboratory confirmed presence of any exogenous intoxications. The research material was divided into groups: the postmortem time intervals of 1, 4, 8, 12, 18, 24, 36 hours, respectively. The distributions of the parameters of circular birefringence of