

range from $6,0 \pm 0,21$ mm to $6,4 \pm 1,60$ mm, and parietal-calcaneal length (PCL) of the fetus. On the basis of regularities found in the morphogenesis of the internal female reproductive organs their critical periods and morphological preconditions of occurring variant and congenital developmental defects were determined. Critical periods coincide with the period of an intensive enlargement of morphometric parameters of the uterus – 4-5 month.

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MORPHOLOGY OF THE THIRD VENTRICLE IN THE 16-20TH WEEKS OF PRENATAL PERIOD OF HUMAN ONTOGENESIS

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The aim of our study is to objectively evaluate the structural transformations of the final brain and its cavities. It is undeniable that pathological changes in the ventricular system of the brain occur in the prenatal period quite often, which determines the relevance and necessity of our study. At the same time, morphological and morphometric parameters of the cavities of the brain are one of the criteria for assessing the ontogenesis of the brain and can serve as a basis for prenatal diagnosis of congenital developmental disorders. The main task of our study was to examine the peculiarity of the formation of the third ventricle in different ontogenetic periods.

To obtain qualitative and quantitative criteria, the present study was carried out on 15 preparations of human embryos and fetuses using morphological methods, such as the study and description of histological and topographic anatomical sections, macroscopy and microscopy, dissection and morphometry. To process the data obtained, the method of variation statistics was used.

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 the 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 loose 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. Lines in the anterior roof 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 changes. 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. Therefore, starting from the fourth month the third ventricle gradually takes the shape inherent in a newborn ventricle.