

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ  
«БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



## **МАТЕРІАЛИ**

**101 – ї**

**підсумкової наукової конференції**

**професорсько-викладацького персоналу**

**Вищого державного навчального закладу України**

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To determine age peculiarities in the structure and topography of the fetal ovaries as well as similar and different tendencies in changes of the ovarian morphological parameters of the two groups of fetuses, remote in time.

The study was conducted in the two groups of human fetuses, 4-10 months of development, 161.0-500.0 mm of the parietal-calcaneal length. The first group consisting of 35 specimens divided into 7 subgroups according to the month of development (4-10), collected with fetuses died during 2017-2019. The second group included specimens of fetuses collected during 1970-1990. The length of the ovary in both groups increases gradually from the 4th to the 10th month with a certain delay during the 6th month. The majority of the ovarian parameters of 9-10 month fetuses do not differ reliably, which is indicative of a complete development of the ovarian definite structure at the 9th month of the intrauterine development. Comparison of the parameters of the two groups of fetal specimens, remote in time, is indicative of the fact that in the majority of the parameters they do not differ. Although in modern studies the length of the right ovary in 8-month fetuses, and the length of the left ovary in 7-month fetuses is shorter than that of the archival specimens. Similarly the width of the left ovary in 4-month fetuses appears to be reliably shorter than that of the archival specimens. The thickness of the right ovary of 7 and 10-month modern fetuses is reliably less than that of the appropriate groups of the archival specimens. The thickness of the left ovary of modern fetuses is reliably less than that of the archival specimens during the 10th month.

Reliable difference was found only in 2 pairs of the parameters included in 42 pairs of the examined morphometric parameters of both groups. It is indicative of inconsiderable changes of these parameters during the period of 27-49 years.

**Reshetilova N.B.**

#### **SOME FEATURES IN THE STRUCTURE OF THE WALLS OF THE BRAIN CAVITIES DURING 2-4 MONTHS OF PRENATAL DEVELOPMENT**

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To study the features of the formation and structure of the third and lateral ventricles of the brain in the early period of human ontogeny. It is undeniable that pathological changes in the ventricular system of the brain occur frequently in the prenatal period, which causes the urgency and necessity of our investigation.

Studies were carried out on 90 preparations of embryos, fetuses, fetuses and newborns with the help of morphological methods, such as the study and description of histological and topographic anatomical sections, macro and microscopy, the manufacture of plastic and graphic reconstructions, preparation and morphometry.

According to our studies, from 4 to 12 weeks of the intrauterine period of development, the formation of brain structures, especially fissures, occurs very intensively. At the 8th week of development, when a longitudinal groove is already formed, a matrix, intermediate and marginal layers are distinguished in the wall of the cerebral bladder. In the proposed location of the corpus callosum, the elements of the commissural plate are clearly distinguished in the form of a rounded cell species. The shape of the third ventricle approaches the rhombus, but it extends sharply in length in comparison with the growth in width.

The length of the third ventricle is  $3,7 \pm 0,65$  mm, and the width is  $0,59 \pm 0,10$  mm.

At the end of the second month of development, protrusions appear on the inner surface of the intensively growing anterior cerebral blisters, from which later the vascular plexus of the lateral and third ventricles develops.

At the 9th week of development, the subcortical nodes are partially formed and surrounded from the sides by small convex hemispheres. The caudate nucleus appears in the cavity of the lateral ventricle, and the lenticular in the form of a small accumulation of cells is formed on the side of the cavity of the ventricle.



Hypothalamus cells develop rapidly. So, the congestion in the anterior part is the paraventricular nucleus. From the ventral and ventrolateral side there are cellular strands directed toward the laying of the supraoptic core. Cellular elements are densely and unevenly distributed. In the posterior part there is a congestion of irregular rounded form - a bookmark of mamillary bodies.

The complexity of the shape of the lateral ventricle at this stage of development is due to the formation of a collateral groove that separates the hippocampal gyrus from the lower temporal lobes and the presence of a lateral that separates the temporal region.

The intensity of development of the cavities and structures of the brain in the early period of ontogenesis is very high. On the 8-9th week, the ventricles of the anterior cerebral vesicle (lateral and third) and the nuclei in their walls begin to form.

**Riabyi S.I.**

**ROLE OF PROTEOLYTIC AND FIBRINOLYTIC ACTIVITIES OF INTESTINAL WALL  
TISSUES IN SUTURED AREA HEALING UNDER THE CONDITIONS OF  
ANASTOMOTIC LEAKAGE DEVELOPMENT**

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Despite the reduction of share of full-size operations in abdominal surgery, anastomotic leakage (AL) continues to be quite serious complications after operations on the hollow digestive organs. It has been proved that tissues ischemia, kind of suture material and technical approach have a significant impact on the intestinal anastomosis healing. Local changes of some biochemical processes in the intestinal tissues directly into the sutured area, their influence on regeneration and leakage occurrence are insufficient studied.

Purpose of the research: to study the influence of specific changes of proteolytic and fibrinolytic activities of intestinal tissues directly into the region of sutures on regenerative properties of anastomosis under experimental conditions of their leakage development. The investigation has been performed on 72 albino nonlinear rats undergoing AL model. In 12, 24, 48, 72 hours and 5 days following a surgical interference euthanasia of the animals was performed under anesthesia and the samples of the intestinal tissue in the region of sutures were taken for specific tests. The levels of proteolytic activity by the lysis of: azoalbumin (AA), azocollagen (ACg), azocasein (ACs) and the indices of fibrinolytic activity: total (TFA), nonenzymatic (NFA), enzymatic (EFA) have been researched. The reparative processes in the sutured zone of intestinal wall were evaluated by pathomorphology examination stained by hematoxylin-eosin, Van Gison, and Slinchenko methods.

According to the obtained data a reliable steady activation of tissues proteolysis has been revealed in the animals of the experimental group in comparison with the control one. So, in 12-24h. following the operation a reliably higher activity of lysis of AA, ACs and ACg was detected in the animals of the experimental group ( $p < 0,001$ ). It testifies to an increase of proteolytic modification of the low- and high-molecular proteins. At this period of observation in the animals with AL there occurs a proved rise of TFA into serous layer of intestinal wall, both at the expense of NFA and EFA ( $p < 0,001$ ). Pathomorphology examination of the anastomotic area in the experimental group of has revealed more intense neutrophilic infiltration in the submucosal layer of the intestinal wall extending to muscle and serous membranes, also expressed venous plethora and hemorrhages into serous membrane. On the contrary, the animals of control group the fibrinous mesh into channel of the thread and between the serous membranes was not observed. During a later period (48-72 h.) we observed a tendency to rise of the indices of tissue proteolysis in submucosal layer of intestinal wall, especially indices of ACg lysis, which were one and a half time higher than in control group. An elevation of the tissue fibrinolytic activity was detected in the animals with AL, largely at the expense of EFA which exceeded twice the control data. The histological signs of regeneration disturbances in this period of observation were significant diastasis between the serous membranes of intestine touching only in the area of the connected