Aim. To obtain new morphometric data on the rectum structure and its relationship with bones on the prenatal stage.

Material and Methods. The present investigation was based on the study of the sectional material of 25 human fetuses both sexes of 16–22 weeks gestation from collection of Human Anatomy Department, OrSMU. It was used by macromicroscopic preparation, the method of cuts according to N. I. Pirogov, histology method.

Results and Discussion. The rectum is cylindrical in shape, without bends, its diameter increases from 2.66±0.5 to 4.56±0.8 mm during the studied period. The thickness of the rectal wall is 0.5±0.03 mm. At the level of pelvic inlet the distance from the rectum to lateral walls of the small pelvis cavity is 4.5±0.07 mm on the right and 5.1±0.07 mm on the left side. The distance from the rectum to anterior wall of the cavity is on average 7.2±0.07 mm, to posterior wall — 0.3±0.07 mm. At the level of pelvic outlet the rectum surrounded by perineal muscles is located in the center of the pelvic diaphragm of the perineum, the distance between the rectum and internal surface of the sciatic bones was 2.43±0.3 mm on the right side, 2.96±0.3 mm on the left.

Conclusions. The detailed knowledge of the developmental anatomy of the rectum will help to the clinicians and fetal surgeons.

ANATOMICAL VARIATIONS AND DIMENSIONS OF ARTERIES IN THE POSTERIORCIRCLE OF WILLIS

Shatri Jeton [1], Cerkezi Selim [2], Ballazhi Meriton [3], Bexheti Sadi [4]

[1] Department of Anatomy, Faculty of Medicine, University of Pristina «Hasan Prishtina», Pristina. Kosovo; [2] Department of Anatomy, Faculty of Medicine, University of Tetovo. Republic of Macedonia; [3] Department of Anatomy, Faculty of Medicine, University of Tetovo. Republic of Macedonia; [4] Department of Anatomy, Faculty of Medicine, University of Tetovo. Republic of Macedonia
bexhetisadi@gmail.com

Key words: *the circle of Willis, variations of posterior part, diameters of arteries, length of arteries*

Background. The circle of Willis (COW) as an anastomotic polygon at the base of the brain, forms an important collateral network to maintain cerebral blood perfusion. Most of the variations have been reported on posterior cerebral and posterior communicating arteries.

Aim. The aim of this study was to investigate different anatomic variations and dimensions of posterior part of the COW and their prevalence.

Material and Methods. This is an observative descriptive study performed at the University Clinical Center, Clinic of Radiology. A randomized sample of 513 angiographic examinations in adult patients of both sexes without clinical manifestations for cerebrovascular disease who were instructed to exploration is included.

Results and Discussion. The complete anterior part of COW is common with 77.7% of the all subjects, while the posterior part had a complete structure in 27.6% of the cases. The prevalence of unilateral FTPComA was 14.7% and bilateral FTPComA was found in 12.9%, while hypoplasia or absence of both PCoAin 45.8%. All dimensions of the arteries are larger in male than female, except the diameter of PCoA that is larger in female ($p<0.05$). Significant differences were found in diameters of arteries between the younger and theolder age groups.

Conclusions. Similar to other studies, most variations are related to the posterior part of the circle of Willis. Thus, knowledge of the variations, diameter and the length of the arteries of the circle of Willis has a great importance in interventional radiology for various endovascular interventions as well as during anatomy lessons.

MODERN METHODS OF DIAGNOSIS AND SURGERY OF INTRADERMAL PAPILLOMAS OF THE MAMMARY GLANDS

Shestopalova A. D.

M. Gorky Donetsk National Medical University, Donetsk
ntiy_work@mail.ru

Key words: *mammary gland, ductal papilloma, sonography, galactoductography, ductoscopy, laser surgery*

Aim. Analysis of diagnostic results and minimally invasive laser treatment of intrapropate papillomas (IPP).

Material and Methods. A retrospective analysis of 64 clinical cases from the mammary gland (MG). The main group — 28 patients after minimally invasive laser operations under the supervision of ultrasound, control group — 36 women who underwent resection of MG. Runway processing was carried out based on the use of 2 kJ of energy to destroy 1 cm^3 of tissue. To study local changes 3 days after the laser destruction of the runway, 15 women underwent histological examination of the biopsy specimens.

Results and Discussion. Allocations from the left nipple were 43 patients, 21 — from the right. 79% of the precipitations were spontaneous. Hemorrhagic nature of the secretion was observed in 26.5% of patients, serous-hemorrhagic — in 32.4% and serous — in 41.1%. Cytologically papillary complexes are found in 29% of cases. Sonographically, the runway was found in 6 women, radiographically in 23. The galactoductography was used in 58 cases. Visualization of the runway during duskoscopy — in 88% of cases. As a result of the complex diagnos-

tic approach, an accurate preoperative diagnosis was obtained in 97.2% of patients.

Conclusions. The possibility of treatment in outpatient settings and insignificant traumatic intervention make it possible to avoid postoperative complications and shorten the period of incapacity for work.

A NEW METHOD FOR SEALING THE IATROGENIC RUPTURES OF FETAL MEMBRANES IN THE PROCESS OF FETAL OPERATIONS

Shneiderman M. G., Fatkhudinov T. H., Kostyukov K. V., Shmakov R. G., Arutyunyan I. V., Gladkova K. A., Makarov A. V., Tetruashvili N. K.

National medical research center of obstetrics, gynecology and perinatology named after academician V. I. Kulakov, Moscow, Russia

Key words: *fetoscopic hanging, newborns, fetal membrane, sealing*

Background. The present study is aimed at developing a method for sealing iatrogenic ruptures of amniotic membranes in fetuscopic interventions.

Aim. The applied technique is safe and effective for hermetic sealing of fetal membranes in fetoscopy and allows to reduce the frequency of iatrogenic complications, expand the indications for fetal surgical operations.

Material and Methods. The research contributes to the transition of domestic fetal surgery to high-tech health care and technologies for preserving the health of newborns. In V. I. Kulakov National Medical Research Center of Obstetrics, Gynecology and Perinatology developed a method and created the main components for sealing iatrogenic ruptures: a tissue sealant from the blood components of the mother, plasma enriched with platelets, which can be injected into the region defect of the fetal bladder in the form of a gel and a new type of amniotic catheter. PRP+activator is injected consecutively for 30 seconds through a specially designed amniotic catheter for this procedure, followed by activation of platelet degranulation and polymerization of fibrin directly in the defect area, which effectively seals the trocar hole from the inner and outer surfaces of the membranes and does not cause premature rupture of the membranes.

Results and Discussion. A specially designed amniotic catheter is guided through the trocar into the amniotic fetal cavity and is retained in the latter by inflating the balloon of a round or semilunar shape at the proximal end of the device, thereby allowing it to closely adhere to the fetal membranes and the uterine wall, preventing detachment of the membranes and leakage into the uterine cavity of the inserted through a biological sealant catheter. Thus the sealant reliably closed the place of iatrogenic rupture of the fetal membrane. Thus, the developed technique for hermetic sealing of membranes with the algorithm for introducing sealant components (platelet degranulation activators) for regulating its transition from the liquid state to the solid state and the method of using the new amniotic catheter model make it possible to use this method in clinical practice.

VARIABILITY OF ARTERIES BRANCHING AS A FORM OF TRANSFORMATION OF EMBRYOLOGICAL PATTERN

Shvedavchenko A. I., Nikolenko V. N., Shestakov A. M., Klyeva L. A., Vasyanina K. A., Godi H. F.

Sechenov First Moscow State Medical University (Sechenov University), Russia, Moscow
moloko1978@gmail.com

Key words: *variability of arteries branching, classical variant of branching, artery*

According to the data of the literature and our investigation data, variability of arteries branching is revealed in 15–47% of cases. The classical variant of the coeliac trunk branching (branching into 3 branches), according to the nomenclature method of accounting for branches, is revealed in 72–98% of cases, according to the quantitative method of accounting — in 27–66% of cases. The classical version of the divergence of the branches from the aortic arch is revealed in 64–84% of cases. Some arteries, such as the internal carotid artery (in the neck), the common carotid as well as the external iliac arteries, according to the concept of branching of large paired arteries, as a rule, have no branches and any branching variability. We consider introducing the coefficient of arteries branching, which is calculated according to the usual scheme, for comparative characteristics of branching of different arteries. Arterial branching is genetically determined, but it is transformed into final variations according to the structural features of this region and the features of hemodynamic in the primary arterial vessels.

ARCHICORTEX AND PALEOCORTEX MORPHOGENESIS PECULIARITIES IN ALCOHOL INTOXICATION

Sokolov D. A., Alexeeva N. T., Ilicheva V. N., Kvaratskheliya A. G., Nasonova N. A., Minasyan V. V., Lopatina L. A., Pisarev N. N.

N. N. Burdenko Voronezh State Medical University, Voronezh, Russia
amare-caelum@yandex.ru

Key words: *archicortex, paleocortex, alcohol, neurons*

Aim. The purpose of our study was a comparative hystomorphological characteristic of archicortex and paleocortex in alcohol intoxication.

Material and Methods. The experiment was performed on white mongrel male rats, which were