МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

М А Т Е Р І А Л И

105-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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is the zygomatic process of the maxillary bone, and it is limited by the front, top, back, middle and bottom walls. The front wall of the maxillary sinus is located between the infraorbital edge of the eye socket and the cellular process of the upper jaw. It is covered with a cheek. On the outer surface of the bone wall, under the infraorbital hole, there was a canine fossa, the depth of which was equal to 5.2-8.3 mm. The height of the front wall of the sinus was 27.0-35.0 mm. Its transverse size ranged from 18.0 mm to 23.0 mm. The upper wall of the maxillary sinus is formed by the orbital surface of the maxillary bone, which is also the lower wall of the eye socket. The medial edge of the projected sinus was located on the border between the inner edge of the lower and medial walls of the eye socket. Its lateral edge corresponded topographically to the inferior orbital fissure on 20 preparations (80%). The posterior wall of the maxillary sinus corresponded topographically to the maxillary hump. In 22 preparations (88%), the posterior upper edge of the sinus adjoined the posterior cells of the lattice labyrinth. On one preparation (4%), it was located near the wall of the sphenoid sinus. The lower wall of the maxillary sinus is formed by the cellular process of the upper jaw. Depending on pneumatization, its bottom was located at different levels relative to the lower wall of the nasal cavity.

The medial (nasal) surface of the maxillary sinus simultaneously formed part of the side wall of the nasal cavity. In the thickness of its anterior part, there was a nasolacrimal duct, which ended in the lower nasal passage under the lower concha. If in the area of the lower nasal passage the medial wall of the sinus is represented by bone tissue and is covered with a mucous membrane, then in the middle nasal passage, in its middle part, the bone tissue is significantly thinned and even absent. The bony walls of the maxillary sinuses atrophy. The spongy substance is sharply reduced. Maxillary sinus height ranged from 27.0 mm to 37.0 mm, width from 21.0 mm to 26.0 mm, and anteroposterior dimension from 27.5 mm to 33.0 mm. On the basis of radiological data, it can be concluded that in elderly people, more often than in the previous age period (mature), thinning of the walls of the maxillary sinuses can be traced: in the mature period - in more than 1/2 of the cases, and in the elderly - in 3/ 4 cases. At the end of the summer period, there is a decrease in the height of the sinuses by 0.7 mm, which reaches an average of 34.5 mm; the depth of the sinus is 42.0 mm and the width is 25.2 mm. On the radiographs of the elderly, as in the previous age group, the difference between the pneumatized and non-pneumatized areas of the upper jaw is smoothed out, the borders of the maxillary sinuses are very unclear, the projections of the shadows of the skull bones, which are layered on the sinuses, are barely noticeable.

Conclusions. So, on the basis of the conducted complex of morphological research methods, it was established that during elderly period of a human life, reverse processes of human ontogenesis occur, involutional changes occur in the walls of the maxillary sinuses.

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THE IMPORTANCE TO STUDY VASCULAR AND NERVE FORMATIONS OF THE PELVIS IN FETUSES

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Introduction. The human body possesses a certain degree of variabilities and structural variants, especially at different stages of its development. Anatomical variants are extremely interesting and worthy of special consideration by anatomists, forensic pathologists and clinicians. Many anatomical variants do not require special clinical attention, but some of them may present diagnostic problems or cause adverse clinical symptoms.

The aim of the study is to make a literature review on the issues of the topographical and anatomical features of the vascular and nerve formations in the pelvis presenting a variety of topographical positions.

Materials and methods. Authentic English articles and the works of Ukrainian researchers on the issues of topographic anatomy of the vessels and nerves in the pelvis were reviewed by means of analytical, descriptive and comparative methods.

Results. Intensive implementation of perinatal prevention and treatment of congenital defects requires up-to-date approaches and methods or research of intrauterine development. Qualified fulfilment and interpretation of the results of up-to-date diagnostic methods including CT and MRI, proper performance of perinatal surgery and autopsies become possible only when clinical and anatomical studies are comprehensive. Nowadays, certain defects found during the embryonic development can be treated by means of intrauterine surgery. It requires special knowledge of anatomical features and patterns of development.

Our literature review shows that topographical and anatomical features of the vascular and nerve formations in the pelvis are characterized by a variety of topographical positions.

For successful performance of prenatal and neonatal surgery, modern medicine requires more accurate information about age-related anatomical variability in the structure of the human organs, and peculiarities of their blood and nerve supply, as well as origin of vessels and nerves. Surgery on the organs of the minor pelvis are quite common, but they are particularly complicated to perform due to anatomically limited space and a significant amount of important structures which damage can lead to loss of functions or even have a fatal outcome. One of the most dangerous complications in pelvic surgery is bleeding that can be prevented or arrested by ligation of appropriate internal iliac arteries.

Conclusion. 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.

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IMPROVING THE ACCURACY OF DETERMINING THE POST-MORTEM INTERVAL USING THE METHOD OF LASER POLARIZATION MICROSCOPY

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Introduction. The urgency of developing new methods for diagnosing the postmortem interval is determined by the need to improve the accuracy and objectivity of determining the time of death. Existing methods, although effective, have their limitations and peculiarities, such as the influence of external factors on the accuracy of determinations. The development of new approaches based on modern technologies, such as the analysis of molecular and biochemical changes, as well as the use of modern physical methods can increase the objectivity and reliability of the results. This is of great importance for the further development of forensic science and practice, contributing to the improvement of forensic examinations and investigations.

The aim of the study. To demonstrate the effectiveness of laser polarization microscopy of circular birefringence images of the human vitreous body (VB) in determining the postmortem interval.

Materials and methods. For the study, human VB was selected from cadavers (n=98) who died of cardiac death with a precisely known postmortem interval. The study did not include materials for craniocerebral and eye injuries, as well as for poisoning with any substances - which could affect the obtained results. Measurements of the distributions of changes in the values of light scattering and absorption of radiation during the passage of the beam through the VB were carried out using a Stokes polarimeter of a classical design.

Results. The results of the analysis of images of the structure of the polycrystalline fraction of the VB by the method of microscopic polarization tomography showed a linear interval of changes in the values of statistical moments of the 1st-4th order, which indicates a linear increase of postmortem changes in the range from 1 to 36 hours. These dynamic changes corresponded to the following values: SM_1 decreased within the average values from 0.67 to 0.19, SM_2 – from 0.74 to 0.22, SM_3 increased from 0.26 to 1.12, SM_4 – from 0.53 to 2.06. Temporal changes in asymmetry and excess turned out to be the most significant postmortem changes in protein structure.