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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even dental arches in Angle's Class I relationship. It should be a harmonious interaction between muscles, nerves, dental arches, periodontium, and joints. Modern diagnostic and treatment methods in the field of neuromuscular dentistry provide a deep understanding of the role of occlusion in the development of TMD and periodontal diseases, the objectivity of the data obtained, allowing for the resolution of complex situations in dental treatment, and achieving an effective and planned outcome. These methods not only ensure complete functional and aesthetic dental rehabilitation but also contribute to improving the patient's overall health, mood, and attitude toward life. Therefore, the treatment of such patients remains a rather challenging path for both the dentist and the patient.

Considering all of the above, we believe that the search for modern methods of prevention and treatment of localized periodontitis in young individuals associated with TMD of the temporomandibular joint, when the muscular component is manifested, remains quite relevant.

Conclusions. It involves the development of a complex of measures aimed at the rational elimination of occlusal disturbances with control using computerized jaw movement scanning with the T-scan Novus apparatus ("TEKSKAN" USA - areas of application: non-removable and removable dental prostheses, periodontal pathology, implant prostheses, TMD, etc.) and with active pharmacological effects on the main pathogenetic mechanisms of localized periodontitis development in the mentioned patients.

Zabrodska O.S.

DIFFICULTIES OF ENTERING THE UMBILICAL VEIN INTO THE LIVER PARENCHYMA

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Introduction. The study of the development and configuration of the branches of the umbilical vein (UV) and the portal hepatic vein (PHV) during human intrauterine ontogenesis is of crucial importance for establishing general patterns of liver histogenesis. This research is important for understanding the underlying processes that form these structures, contributing to a better understanding of malformations and facilitating prenatal diagnosis.

The aim of the study. The study of the features of the topography of the umbilical vein in the prefetal period of human ontogenesis is the focus of this study.

Research material and methods. 10 prefetal samples were used in this study. The research methodology uses a complex approach involving morphological research methods. These methods included morphometry, the creation and examination of a series of histological sections, both macro- and microscopically, as well as plain and thin dissection under the MBS-10 microscope. In addition, a vessel injection was performed followed by radiography to increase the depth of the analysis.

Results. At the beginning of the prefetal period of development (7th week), the liver occupies the cranioventral and middle sections of the abdominal cavity. Its transverse size is 4.8 mm (prefetus 19.8 mm parieto-coccygeal length (PCL)) and 5.1 mm (prefetus 20.0 mm PCL). At present, under the influence of correlative processes caused by the development.

UV in fetuses at the 7th week of development (14.0-20.0 mm PCL) was studied through 16 series of histological sections. UV enters the liver near the front edge of the left sagittal furrow, hiding below the liver tissue. Along the way, UV emits 2-3 left side branches, each with a diameter of 40 to 50 microns, which later branch out in the left part of the organ.

The external diameter of the UV at the point of entry into the liver is 118.0±17.2 μm in 6-week-old fetuses, increasing to 152.0±7.9 μm by the 7th week. Simultaneously, the diameter of the portal hepatic vein (PHV) increases from 210.0±22.8 μm in 6-week-old fetuses to 311.0±17.2 μm in 7-week-old fetuses during the same period of development.

The right paramedian vein flows ventrocranially, dividing within the expected VII and partially VIII segments. At the same time, the lateral branch descends and enters the future V and VI segments of the liver. The UV and PHV in preterm fetuses during the 8th week of development were studied using 12 series of histological sections from 21.0-30.0 mm PCL samples.

UV enters the liver parenchyma near the front edge of the left sagittal furrow, passing in an anteroposterior direction in its anterior part. The liver tissue covers the vein from below. Along the entire trajectory, UV emits 2-3 left side branches, each with a diameter of 98 to 102 microns. These branches pass to the left lobe of the liver, in particular to the future II, III and partially I and IV segments.

Conclusions. By the end of the intrauterine development phase, the intrahepatic arrangement of venous vessels, including the umbilical and portal hepatic veins, as well as their branches of the first and second order, acquires distinctive characteristics similar to the final structure.

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FORENSIC-MEDICAL EXAMINATION INJURIES CAUSED BY AUTOMATIC FIREARMS CHAMBERED IN 5.45MM CALIBER

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Introduction. In this scientific work, new possibilities have been demonstrated for identifying the type of projectile in injuries caused by automatic firearms chambered in 5.45mm caliber.

The aim of study. To improve the forensic medical diagnosis of projectile type in injuries from automatic firearms chambered in 5.45x39mm caliber by using three-dimensional modeling of basic elements within the wound channel.

Materials and methods. The series of experimental shots was conducted using an AKS-74U firearm, with a bullet caliber of 5.45x39mm. Shots were fired using a standardized device designed for testing various types of firearms, equipped with a projectile velocity recorder VBH-2020. As the research material, Roma Plastilina Number 1 ballistic clay, manufactured in the USA, was used for conducting standardized ballistic tests. In front of each block, fresh pigskin with a subcutaneous fat layer measuring near 2.0 cm in thickness was affixed. After the shots were fired, photographic documentation of the obtained results was conducted. Morphological features of individual elements within the wound channel were measured using conventional measurement tools, and also after their three-dimensional modeling using graphic editors such as “Agisoft Photoscan” and “3ds max”. The obtained measurement results were processed using methods of variation statistics, utilizing descriptive tools and establishing correlation relationships between specific sets of digital data.

Results. Direct and strong correlations (ranging from 0.60 to 0.72) have been established between the initial velocity, kinetic energy, specific energy, and the diameter of the entry wound in three-dimensional modeling, as well as the diameters of the wound channel in its central portion, measured both by conventional measuring tools and based on the results of their three-dimensional modeling ($p \leq 0.05$). Furthermore, inverse correlation relationships of moderate strength (ranging from -0.63 to -0.66) have been detected between the initial velocity, kinetic energy, specific energy, and the presence of collar deposition around the entry wound ($p \leq 0.05$).

Conclusions. The produced conditions allow to conduct the differentiation in diagnosing the type of projectile, the identification and study of new characteristics of basic elements in firearm-related injuries. The use of modern three-dimensional modeling techniques in the practice of forensic medicine allows for the creation of three-dimensional models of individual components of firearm-related injuries.

Банул Б.Ю.

РОЗВИТОК ПАРАМЕЗОНЕФРАЛЬНИХ ПРОТОК ТА ЇХ ПОХІДНИХ У ПЛОДІВ ЛЮДИНИ

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Вступ. Важливе практичне значення для акушер-гінекологів має вивчення розвитку маткових труб та їх похідних саме в ембріональному періоді онтогенезу людини. Для того