МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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embryos (embryos 4.0-13.0 mm long) by the methods of histological examination, production of graphic reconstructions and morphometry.

Results. It has been established that in the fourth week of embryonic development (embryos 4.0-6.0 mm long), the beginning of the liver is already well formed. It is represented by a conglomerate of epithelial cords that grow into a transverse septum that surrounds the duodenum and the transverse bay on three sides. In the above-mentioned conglomerate, two parts can already be well separated: the cranial part, the liver beginning, and the caudal part, the gallbladder beginning. At this stage of development, the liver is supplied with blood by two venous systems: umbilical veins (right and left), as well as yolk-mesenteric veins, which pass from the yolk sac to the body of the embryo.

In embryos 5.0 mm long, the number of epithelial cords that form the beginning of the liver increases markedly, and the size of the liver during this period reaches: cranio-caudal - 420 μm, dorso-ventral - 320 μm, and transverse - 280 μm.

In the fifth week of intrauterine development (embryos 7.0-8.0 mm long), the beginning of the liver significantly increases in size. It occupies the cranio-ventral part of the abdominal cavity, its transverse size in an embryo 7.5 mm long is 1.4 mm. The right liver lobe is much larger than the left one and reaches the back wall of the abdominal cavity, but is not fixed to it. The liver surrounds the beginning of the stomach on three sides.

In embryos 9.0 mm long (the beginning of the sixth week of intrauterine development), the liver, which is intensively increasing in volume, occupies not only the cranio-ventral, but also the middle part of the abdominal cavity. The transverse size of the liver is 2.0 mm.

At the end of the embryonic period (embryos 11.0–13.0 mm long), the liver continues to increase in size. Its cross-sectional size in an embryo 13.5 mm long is 2.3 mm. The liver occupies the cranio-ventral and middle parts of the abdominal cavity of the embryo. The right part continues to grow ahead of the left part of the organ.

At this stage of development, the spleen is already fully formed. In addition, the embryos of this age group are forming the cecum, the ascending, transverse and descending parts of the colon.

Conclusions. So, on the basis of the conducted set of morphological research methods, it was established that during the embryonic period of human intrauterine development, the liver is laid down and its intensive development takes place. It was not possible to determine certain regularity in the growth of the liver parenchyma, as well as in the formation of lobules. The structure of the liver is created as a result of the complex correlative relationships of vessels, mesenchyme, and cell bundles of beams.

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MORPHOLOGICAL CHARACTERISTICS OF THE PAROTID GLAND

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Introduction. Formation of the organs is a very complicated process which is not definitively studied nowadays. It is very important to study the structure of the organs and systems in association with the basic processes of morphogenesis on the basis of the findings of embryogenesis. The study of the development and forming of the topography of the parotid gland during the prenatal period human ontogenesis is of great importance for integral understanding of the structural and functional organization of the salivary apparatus and the oral cavity on the whole. The analysis of scientific literature dealing with the parotid gland anatomy is indicative of a fragmentariness and discrepancy of the data, pertaining to the syntopy and chronology of the topographic and anatomical changes during the fetal period of human ontogenesis.

The aim of the study. The objective of the study was to investigate variant anatomy as well as topographic and anatomical peculiarities of the human parotid gland and surrounding structures in fetuses.

Material and methods. The parotid gland was examined in 25 human fetuses, 130,0-375,0 mm of the parietal and coccygeal length (PCL). Methods applied in the course of the study were thing section of the parotid gland and parotid-masticatory area under the control of a binocular magnifying glass; macro- and microscopy; morphometry; computed 3-D design.

Results. The parotid gland is found to be located in fetuses with 130,0-375,0 mm of PCL in a deep depression posteriorly the branch of the lower jaw, in the posterior mandibular fossa. A greater part of the gland is located between the mandible and sternocleidomastoid muscle penetrating deeply between these structures. The skin of this particular region is thin, movable. The subcutaneous pot is thin and fused with the skin. The structure of the parotid gland of 4-10month human fetuses is anatomically changeable which is manifested by different shape (oval, leaf-shaped, horseshoe-like, triangle, irregular tetragonal), location and syntopy. Computed 3-D design of the gland presents its volumetric description which is the most practical one – in the shape of trilateral pyramid turned to the malar arch by its base, and to the mandibular angle – by its apex. A number of structures pass through the tissue of the parotid gland including facial nerve, posterior mandibular vein, external carotid artery, auricular-temporal nerve. The parotid duct is formed due to the fusion of two extra-organ lobular branches which in their turn are formed by means of fusion of several upper and lower lobular ducts emerging from the gland tissue passing through its capsule. The direction of the parotid gland is arch-like, with upward convexity. Passing along the external surface of the mastication muscle the parotid duct touches the upper extremity of the adipose body of the cheek and penetrates through the buccal muscle into the oral vestibule where it opens in the shape of a papilla of the parotid duct. The length of the parotid duct in the fetuses of the third trimester is 8,0-26,0 mm, diameter of the lumen is within 0,8-2,5 mm. The parotid duct is projected on the skin of the face from both sides along the line from antilobium to the mouth angle. The wall of the parotid duct consists of the connective tissue rich in elastic fibers and epithelium lying the lumen of the duct. The epithelium consists of two layers, deep cubic and superficial cylindrical.

Conclusions. So, morphogenesis and topographic formation of the human parotid gland in fetuses are influenced by a total effect of spatial and temporal factors associated with the dynamics and close syntopic correlation of organs, vascular-nervous formations and fascial-cellular structures of the parotid area. At the end of the 10^{th} month of the prenatal development the parotid gland under the microscope demonstrates its practically definite shape, although histological processes of differentiation in it are not completed yet. A study of the specific characteristics and consistent patterns of the morphogenesis and dynamics of the spatiotemporal changes of the salivary glands will make it possible to reveal new findings, pertaining to the emergence of variants of their structure, the preconditions of the onset of the congenital malformations and acquired diseases.

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RESULTS OF ELECTRON MICROSCOPIC ANALYSIS OF THE USE OF AUTOLOGOUS MESOCONCENTRATE PRODUCTS - PLASMA RICH IN GROWTH FACTORS (PRGF)

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Introduction. The use of blood plasma in the medical industry and practice has not only made geographical progress, but also significantly expanded the indications for therapeutic and prophylactic treatment. The scientific vector focuses not only on growth factors, but also on a fibrin fiber-based matrix that preserves the natural processes of blood clotting, which is due to the conversion of soluble fibrinogen into an irreversible fibrin gel, of which platelet-rich plasma is and remains an integral part. Proper protocol ordering of fibrin strands ensures the formation of a three-dimensional structure that serves not only as a biological framework with multifunctional properties, but also contains all genetic information with full stimulating content, with a spectrum of active trophic and repair factors - growth factors, in particular, of platelet origin. This study will provide an understanding of the differentiation of mesoconcentrate products by fibrin fiber diameter and density for their clinical use, the formation of a matrix base with the preservation of interfibrin spaces for continuous processes of trophic support and constant physiological remodeling.