МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

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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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coccygeal length (PCL)) aged from 5 to 9 weeks of IUD. A complex of modern methods of morphological research (anthropometry, morphometry, microscopy, 3D computer reconstruction, statistical analysis) was applied.

Results. On the specimens of embryos 7.0-7.5 mm PCL (5^{th} week of IUD), the primary renal hilus, together with changes in the shape of the metanephros to oval (5^{th} week of IUD) and elongated (6^{th} week of IUD), changes orientation from ventral to medial. In the middle of the 6^{th} week of IUD due to the dichotomous division of the diverticulum of the mesonephric duct, the rudiment of the renal pelvis is formed, at the end of the 6^{th} week of IUD, the number of generations is three (the rudiments of the major calices appear), and at the beginning of the 7^{th} week of IUD, the rudiments of minor calices are formed. It was found out that the transformation of the epithelium of the rudiment of the renal pelvis takes place from a simple pseudostratified columnar one with predominantly basal arrangement of nuclei in 5-week-old embryos, with a median position of nuclei in 6-week-old embryos, with an apical arrangement of nuclei – in 7-weeks to the two-layer epithelium of the renal pelvis at the beginning of the 9^{th} week of IUD with the formation of the layers of the mucous membrane and adventitia Metanephros during the 5^{th}-9^{th} weeks of IUD move from their place of origin at the level of the sacral part of the spinal column in the cranial direction to the primordia of the adrenal glands at the level of the upper lumbar vertebrae, which is accompanied by the development of renal vessels from two sources: intraorgan (islets of angiogenesis in the metanephrogenic blastema) and extra-organ (budding of the renal vessels from the aorta and inferior vena cava) with their union at the end of the 6th week of IUD. Anatomical factors that contribute to the migration of the metanephros from the pelvis to the lumbar region are uneven, rapid syntopic changes in the retroperitoneal mass adjacent to the organ – the rudiment of the cortex of the adrenal glands, celiac ganglia and nerve branches, as well as the growth of the metanephros itself and placed above organs – the heart, lungs and liver.

Conclusions. Metanephros during the 5^{th}-9^{th} weeks of IUD move from their place of origin at the level of the sacral part of the spinal column in the cranial direction to the primordia of the adrenal glands at the level of the upper lumbar vertebrae, which is accompanied by the development of renal vessels from two sources. The end of the 8^{th} - the beginning of the 9^{th} weeks of IUD, during which there is an uneven dynamics of growth in the volume of the CPSK, recanalization of the ureteropelvic junction, cloacal membrane rupture. On the 9^{th} week of IUD, the rise of the metanephros stops due to the loss of dense connections with the adjacent organs, caused by the proliferation of mesenchyme in the adipose capsule of the kidney and fascial structures.

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EARLY MORPHOGENESIS OF THE STRUCTURES OF THE FLOOR OF THE HUMAN ORAL CAVITY

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Introduction. The floor of the human oral cavity in the narrow, anatomical sense is a muscle-aponeurotic lamina, represented by mylohyoid, chin-tongue, genioglossus and their fascia. In a broad, topographical sense, it is a complex of soft tissues, which consists of muscles, fascia, salivary glands, blood and lymphatic vessels, lymph nodes, the anterior part of the tongue which are bound anteriorly and laterally by the inner surface of the mandible, and posteriorly by the anterior surface of the hyoid bone. The floor of the oral cavity is projected onto the region of the suprahyoid triangle of the neck, which serves as a place for surgical access to its structures. Understanding the morphogenesis and embryological transformations of the floor of the oral cavity during the intrauterine development (IUD) allows to create a morphological basis for the interpretation of the etiology of the congenital malformations of its structures.

The aim of the study. To determine the peculiarities and chronology of the sources of the rudiments of the structures of the floor of the oral cavity in the embryonic period of human ontogenesis.

Material and methods. Serial histological sections of 16 human embryos (4.0-13.0 mm parietal-coccygeal length) were studied using the methods of microscopy, three-dimensional reconstruction, morphometry and statistical analysis.

Results. Based on the material, our study confirms that the rudiments of the floor of the oral cavity originate primarily from the mesenchyme of the mandibular process of the first and second branchial arches. The posterior portion of the tongue, however, is derived from the laryngeal-pharyngeal lingual swelling of the pharynx, which stems from the third and, partially, the fourth branchial arches. At the end of the 4th week of IUD, lateral masses of premyoblastic structure are observed on the floor of the oral cavity, which spread from the area of the rudiment of the mandible dorsally to the source of the hyoid bone, where they later merge with the medial, subhyoid, condensed mesenchyme. At the beginning of the 5th week of IUD, the lingual premyoblastic mass dorsally unites with the diaphragmatic mass, forming a lingual-subhyoid-diaphragmatic mesenchymal band. At the 5th week of IUD, it is possible to identify the medial ventral mass (the source of the geniohyoid and genioglossus muscles) and the lateral dorsal mass (the source of the hyoglossus, chondroglossus, and stylohyoid). The chondroglossus is separated from the hyoglossus by the fibers of the geniohyoid and originates from the medial surface and the base of the lesser horn of the hyoid bone, goes cranially, intertwining with the internal tongue muscles, which lie between the pyoglossus and geniohyoid. The medial ventral premyoblastic mass extends from the region of mandibular symphysis to the prehyoid mass and dorsally and cranially to the tongue region. The lateral dorsal premyoblastic mass extends from the prehyoid area and the medial part of the styloid process to the posterolateral part of the tongue. The genioglossus originates from the rudiment of the mandible, which extends fan-shaped to the tongue. The geniohyoid goes to the rudiment of the hyoid bone. The rudiments of the hyoglossus and stylohyoid extend over the dorsum and postero-lateral side of the tongue from the hyoid bone and the styloid process to the tip of the tongue. At the beginning of the 6th week of IUD, all the muscles of the floor of the oral cavity are clearly differentiated and increased in size.

Conclusions. During the 5th-6th weeks of the intrauterine development, intensive processes of differentiation of the branchial apparatus, histogenesis of striated muscle tissue and the sources of skeletal muscles take place, therefore the period from the end of the 5th to the beginning of the 6th week of prenatal development should be considered critical in view of the possible time of the appearance of variants of the structure of the muscles of the floor of the oral cavity and the possibilities of occurrence of birth defects.

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GROWTH RATES OF THE PANCREATIC HEAD IN THE PRENATAL PERIOD OF HUMAN ONTOGENESIS

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Introduction. Knowledge of the morphological and morphofunctional regularities of human prenatal ontogeny, in particular, of the pancreas, can serve as a reliable means for a correct understanding of the essence of the processes occurring during intrauterine life, for the study of critical periods in the development of the embryo, and provides an opportunity to search for ways to prevent congenital deformities and anomalies. Research on medical embryology emphasizes its importance for theory and practice and creates prospects for the practical use of embryology data in the antenatal prevention of fetal diseases, as well as methods of postnatal correction.

The aim of the study. To find out the peculiarities of the dynamics of the morphometric parameters of the pancreas in the prenatal period of human ontogenesis.

Material and methods. A complex of morphometric research methods (anthropometry, morphometry, macroscopy, microscopy of series of histological sections, statistical analysis) examined 5 embryos of 5-6 weeks of development and 14 human pre-fetuses aged from 6 to 12 weeks (24.7-73.5 mm parietal coccygeal length (TCL)). The methods of variational statistics were used to determine the average value (M) and its error (m), as well as the degree of reliability (p).