МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ’Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

М А Т Е Р І А Л И

104-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
06, 08, 13 лютого 2023 року

Конференція внесена до Реєстру заходів безперервного професійного розвитку,
які проводитимуться у 2023 році №5500074

Чернівці – 2023

reaction, monoclonal antibodies to the following antigens were used: Mouse Human Ki-67 FITC Clone MIB-1; Anti-p53 Protein Monoclonal Antibody, FITC Conjugated, Clone DO-7; Mouse Anti-Human Apoptosis Regulator Bcl-2 (BCL2).

Results. The immunohistochemical examination of punctates in the two subgroups of patients revealed a significant suppression of apoptotic processes against the expressed activation of proliferative processes. Comparing the indicators of proliferation and apoptosis, patients of the second subgroup had increased Ki-67, Bcl-2, p53 compared to patients from the first subgroup.

Conclusions. A retrospective comparison of ultrasound data, thyroid hormonal capacity, TPOAb and TGAb, Ki-67, Bcl-2, p53 levels showed that patients from the first subgroup had a significantly lower preoperative volume of non-nodular lobe of the gland compared to patients from the second subgroup. Patients with nodular goiter associated with AIT should be given preference for operative treatment due to higher proliferative activity.

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MORPHOGENES OF MAXILLARY IN THE FETAL PERIOD OF HUMAN ONTOGENESIS

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Introduction. Research on the development and structure of the sinuses at any structural level is aimed at elucidating the mechanisms and pathogenesis of diseases and finding effective treatment methods.

The aim of the study. To trace the morphogenesis of maxillary sinuses in human fetuses.

Material and methods. The features of development and formation of topographic and anatomical relationships of the walls of the maxillary sinuses were studied on 25 biological objects during 3-5 months of fetal ontogenesis by means of morphological research methods (histological, graphic and plastic reconstruction, preparation, morphometry).

Results. The development of maxillary sinuses during the 9th week of the fetal period (beginning of the 3rd month, prenatal 31.0-41.0 mm TCD) was studied on 8 series of histological preparations. It is established that at the beginning of the 3rd month of the intrauterine period of development due to the insertion of the mucous membrane of the middle nasal passage above the base of the lower nasal cavity into the adjacent mesenchyme, the rudiment of the maxillary sinus is formed. In the studied fetuses, the shape of the maxillary sinus approaches oval. Its anteroposterior size is 0.3 ± 0.2 mm, transverse – 0.02 ± 0.05 mm and vertical – 0.06 ± 0.02 mm.

The development of these structures at the end of the 3rd month of development was studied on 6 prenatal subjects from 42.0 to 79.0 mm TCD. At this stage, the development of maxillary sinuses continues, their anteroposterior size increases to 1.1-1.3 mm, transverse – to 0.15-0.18 mm and vertical – 0.13-0.22 mm. Their shape, as in previous prenatal subjects remains oval.

The development of maxillary sinuses in fetuses of the 4th month (81.0-135.0 mm TCD) was studied at 7 sites. At the beginning of the fetal period of human development, the maxillary sinus on the frontal sections has an elongated oval shape, which connects with the nasal cavity through a slit-like opening located within the middle nasal passage. The lower wall of the sinus is 1.0 mm above the bottom of the nasal cavity. It is separated from the lower nasal passage by a layer of loose connective tissue 0.45-0.5 mm thick, from the middle – 0.5-0.65 mm, and from the orbit – 0.6-0.74 mm. At this stage, the process of forming the glands of the mucous membrane of the maxillary sinuses by inserting the epithelium into the subordinate mesenchyme. The height of the mucous membrane in these areas reaches 0.20-0.21 mm, and its thickness is 0.2 ± 0.3 mm. These areas are located at the base of the lower nasal cavity.

After examining 8 drugs on the fetus of the 5th month of development (17-20 weeks, 136.0-185.0 mm TCD), we found that the maxillary sinus is located in the body of the upper jaw lateral to the base of the lower nasal cavity. There is an increase in the height of the sinuses and a relative decrease in the diameter of the natural hole. The lower wall of the sinus is located 1.0-1.4 mm above the bottom of the nasal cavity. It is separated from the lower nasal passage by a layer of connective tissue 0.5-0.55 mm thick, from the middle nasal passage - 0.7-0.75 mm, and from the orbit - 0.8-0.86 mm. At the 5th month of fetal development, the variability of the shape of the right and left maxillary sinuses can be traced and they can be represented by the following types: spherical, oval and spherical-oval. The anteroposterior size of the right maxillary sinus is 2.0-2.2 mm, transverse – 0.18-0.21 mm, vertical – 0.25-0.3 mm, and the size of the left maxillary sinus, respectively, is equal to: 1.8-2,0 mm, 0.16-0.19 mm, 0.23-0.25 mm. It should be noted that the sinus is limited by the rigid skeleton of the upper jaw. At this stage of fetal development in the mucous membrane are clearly detected blood vessels and glands.

Conclusions. So, based on the study, it can be concluded that the rudiment of the maxillary sinus appears in the middle of the prenatal period of development. In the fetal period there is a further formation of the maxillary sinuses, there are changes mainly quantitative in nature (increasing the size of the maxillary sinuses), and this process continues in subsequent age periods of ontogenesis.

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ON THE NEED TO DEVELOP A TOPOGRAPHIC CLASSIFICATION OF THE MANDIBULAR CANAL IN TOOTHLESS PATIENTS FOR PRACTICAL USE BY DENTISTS

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Introduction. During the clinical analysis of topographic and anatomical features of the mandibular canal, practicing dentists often encounter specific difficulties, even if it is possible to use the CT method in their work. When teeth are lost, the neurovascular roots of the same name also undergo pathological changes with reflection on the central neurovascular bundle, which lies in the mandibular canal, which should provide nutrition and innervation of its toothless segments and is a frequent ethiopathogenic factor of irreversible bone atrophy. Under these conditions, it is pretty challenging to differentiate structural anatomical formations (artery, vein, nerve), and to identify the morphological structure of the neurovascular bundle through its degeneration due to tooth loss and "twisting" due to atrophic processes of bone tissue. At the same time, the use of Hounsfield units (Hu) or conventional international grayness units (CIGU) in the analysis of computer tomograms of the patient's lower jaw, despite the availability of these methods for determining the density of hard, soft, and connective tissues, does not remove the relevance of significant discussions among scientists regarding their evidence.

The aim of the study is to determine the need to develop an informative classification of the topography of the human mandibular canal in bone atrophy in toothless patients.

Material and research methods. We analyzed 109 digital CT scans of toothless distal segments of atrophied bone tissue of the lower jaw, equally on the left and right sides, in male and female Ukrainians aged 25 to 75. Morphometric and 3D reconstruction analyses are summarised using the standardized software "Vatech original 2020". Digital analysis was performed using statistical nonparametric research methods.

By grouping the average values (M) in the studied areas of the left and right sides, in particular, in the projection of 3.6, 3.7, 4.6, 4.7 tooth, the average (MM) morphometric values were obtained using a simple mathematical calculation, which characterizes the laying of the canal in the toothless distal segments.

Research results. The morphological development of the human body, in its various ontogenetic periods, is characterized by individual multifactorial processes, has a specific genetic determination, and is characterized by its individuality. However, the comprehensively analyzed statistical material and the obtained digital 3D reconstruction models provide an understanding of the topography of the mandibular canal in bone atrophy caused by tooth loss and emphasize the differences in the canal laying relative to the buccal, lingual sides or the edge of the base of the lower jaw. Bone tissue acquires "unstable" atrophic manifestations in case of the loss of teeth, particularly the masticatory ones, with their inherent anatomical features of the roots and their