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БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

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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-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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APPLICATION OF IMMUNOHISTOCHEMICAL METHODS OF INVESTIGATION FOR CHOOSING TREATMENT TACTIC

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Introduction. Many studies include apoptotic processes in the pathogenesis of nodular goiter on the background of autoimmune thyroiditis (AIT). However, data about the markers involved in the regulation of apoptosis and proliferation in thyroid gland parenchyma in AIT are not sufficiently studied and sometimes are contradictory, which requires some systematization in order to optimize the diagnosis and next method of treatment. Therefore, morphological and immunocytochemical studies of thyroid puncture material are performed on individual drugs, which lead to additional puncture biopsies and make the morphological identification impossible. The best option for preoperative cytological diagnosis of thyroid pathology is the sequential cytomorphological and immunocytochemical examination of the same smear of puncture material. The main treatment of autoimmune thyroiditis (AIT) is conservative. The objective of the study was to determine the choice of surgery volume in patients with nodular goiter and AIT, taking into account the activity of apoptosis, index of proliferative activity.

Material and methods. 35 patients with nodular goiter and autoimmune thyroiditis were included in the study. The patients were divided into two subgroups: subgroup 1 consisted of 18 patients with the single-nodular goiter and subgroup 2 consisted of 17 patients with multi-nodular goiter. The age of patients ranged from 22 to 53 years. The duration of the disease was 1 to 15 years. The patients were examined in Chernivtsi Regional Endocrine Specialized Clinic (2019-2022). We determined the activity of the apoptosis index of proliferative activity; TSH level 0.4-4.0 MUn/mL, taking into account the dose of replacement therapy; thyroid peroxidase antibodies (Ab) level 75-850.15 IU/mL; thyroglobulin (TG) Ab level 55.0-155.50 IU/ mL; the volume of the node or nodes, according to thyroid ultrasound, from 0.50 to 10.0cm3. To start an immunohistochemical

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