## МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»



## МАТЕРІАЛИ

105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ присвяченої 80-річчю БДМУ 05, 07, 12 лютого 2024 року

Конференція внесена до Реєстру заходів безперервного професійного розвитку, які проводитимуться у 2024 році № 3700679

УДК 001:378.12(477.85)

ББК 72:74.58

M 34

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.

ББК 72:74.58

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.

Загальна редакція: професор Геруш І.В., професорка Грицюк М.І., професор Безрук В.В.

Наукові рецензенти: професор Братенко М.К. професор Булик Р.Є. професор Гринчук Ф.В. професор Давиденко І.С. професор Дейнека С.Є. професорка Денисенко О.І. професор Заморський I.I. професорка Колоскова О.К. професор Коновчук В.М. професор Пенішкевич Я.І. професорка Хухліна О.С. професор Слободян О.М. професорка Ткачук С.С. професорка Тодоріко Л.Д. професор Юзько О.М. професорка Годованець О.І.

ISBN 978-617-519-077-7

<sup>©</sup> Буковинський державний медичний університет, 2024

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-anatomical changes during the fetal period of human ontogenesis.

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

**Material and methods.** The parotid gland was examined on 25 human fetuses, 130,0-375,0 mm of the parietal-coccygeal length (PCL). The following methods were applied in the course of the study: 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, leafshaped, 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<sup>th</sup> 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.

## Lazaruk O.V. FEATURES OF MORPHOLOGICAL DIAGNOSTICS OF CYTOLOGICAL MATERIAL IN AUTOIMMUNE THYROIDITIS

Department of Pathological Anatomy Bukovynian State Medical University

**Introduction.** The study of chronic, lymphocytic thyroiditis began in 1912. The number of patients with this pathology increases every year. Diagnosis of the disease is not difficult, but establishing the malignancy of nodules associated with thyroiditis is quite ambiguous. Chronic autoimmune thyroiditis (AIT) has stages. Hyperthyroidism prevails in the initial stage. This is a state of increased production of T3 and T4 hormones of the thyroid gland (TG), which later turns

into hypothyroidism. Morphological features of the tissue and nodes of the thyroid gland in response to inflammation include increased cell proliferation and growth.

Macroscopically, in the early stages of the disease, the gland is enlarged and has increased blood supply. Hypoplasia of the gland is diagnosed in the later stages. In 10-12% of cases of AIT, there is pronounced atrophy of thyroid follicles and pronounced hyaline fibrosis, the so-called fibrous variant that does not go beyond the gland. Depending on the presence of hyper- and hypofunction of the gland, thyrocytes have different functional activity and morphological characteristics. During histological examination, the tissue of the gland is represented by a microand macrofollicular structure with a decrease in colloid production and pronounced lymphoid infiltration of the parenchyma. Thyrocytes in various stages of necrosis are located in the zone of reduced number of follicles. Groups of thyrocytes are located in layers surrounded by macrophages, plasma cells and leukocytes. Hürthle cells are located between layers of thyrocytes with pronounced polymorphism.

The aim of the study. To establish the peculiarities of morphological (cytological) criteria that will allow to improve the differential diagnosis of benign nodes from suspicious and malignant ones.

**Material and methods.** Ultrasound guided fine needle aspiration biopsy was performed on a 53 nodules of the thyroid gland. Glasses with smears of material from the thyroid gland were taken for examination under a microscope.

**Results.** Thyroid cells change as a result of acidification of the environment, which occurs in the course of a long-term inflammatory process. While comparing the histological examination of thyroid tissue sections, cells of increased size with acidophilic staining attract special attention. In the literature, they are called Hürthle cells. Their feature is a significant number of mitochondria compared to other cells. The ratio of follicular structures to the stromal component changes towards the stroma. The amount of colloid produced by the gland decreases with a decrease in its concentration. Areas replaced by follicles from the lymphoid tissue generally cease to function as the endocrine gland.

Squamous metaplasia of follicular cells can be observed with a long course of AIT. Other associated features involve mild anisonucleosis, giant cells, histiocytes, scanty colloid, epithelioid cells, plasma cells, focal changes and eosinophils.

**Conclusions**. The cytological conclusion must be classified according to the categories of the reporting system of cytopathology of nodular formations of the thyroid gland - Bethesda 2017. Against the background of chronic inflammation, the tendency to the formation of malignant tumors is very high. The combination of morphological characteristics, namely pronounced thyrocyte proliferation, nuclear granularity, and nuclear polymorphism in thyroid nodules indicate a high risk of nodule malignancy.

## Lopushniak L. Ya. FETAL ANATOMICAL VARIABILITY OF THE SUPERFICIAL MUSCLES OF THE ANTERIOR CERVICAL REGION

Mykola Turkevych Department of Human Anatomy Bukovinian State Medical University

**Introduction.** The study of the development and establishment of correlational relationships of organs and structures of the neck in the fetal period of human ontogenesis is caused by the theoretical and practical interest of both morphologists and clinicians to find out the prerequisites for the occurrence of congenital and acquired pathology of muscles, fascial-cellular formations, organs and vascular-nervous structures.

The aim of the study. Identify the anatomical variability of the superficial muscles of the anterior cervical region during the fetal period of human development.

**Material and methods**. The study was conducted on 75 preparations of human fetuses without external signs of anatomical deviations or developmental anomalies using a complex of morphological research methods.