### 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

#### СЕКЦІЯ 1

### ОСНОВИ МОРФОЛОГІЇ ОРГАНІЗМУ ЛЮДИНИ І ТВАРИН, АКТУАЛЬНІ ПИТАННЯ ПАТОЛОГІЧНОЇ АНАТОМІЇ ТА СУДОВОЇ МЕДИЦИНИ

#### Antoniuk O. P.

## THE TOPOGRAPHO-ANATOMICAL RELATIONS AND FORMATION OF PHYSIOLOGICAL ATRESIA IN HUMAN EMBRYOGENESIS.

Department of Anatomy, Clinical Anatomy and Operative Surgery Bukovinian State Medical University

**Introduction.** The process of physiological atresia is inherent in the digestive, respiratory, genitourinary and biliary systems, as well as in the natural openings of the head - the eye slit, external nasal openings, external and internal auditory canals. This phenomenon is a natural process in the development of the organism in the early stages of prenatal human ontogenesis. Tubular organs and openings temporarily lose their lumen, and then recanalization occurs - restoration of the cavity of the organ, duct, or opening. The disappearance of epithelial occlusion has a close correlation with the formation of villi and restructuring of the epithelial layer, at this time mesenchyme tissue with vessels penetrates the epithelium from the side of the intestinal wall.

**The aim of the study.** To find out the peculiarities of the syntopy and trace the chronological changes morphometric parameters of the physiological atresia of human embryogenesis.

**Research material and methods.** The study was conducted on: 24 embryos 4.0-12.0 mm PCL; 22 prenatal period of 14.0-78.0 mm PCL; 14 newborns. Series of histological and topographic-anatomical sections, morphometric, microscopic, histological, reconstruction and statistical methods were used for the research.

**Results.** Embryos 6.5-6.8 mm PCL below the tracheo-pulmonary rudiment have no lumen of the esophagus due to the presence of an epithelial "plug". Cranially and caudal to it, the lumen of the esophagus is lined with a single-layered, mostly cylindrical epithelium. The cells of the epithelial "plug" are smaller (6-7 µm) than the cells of the single-layer cylindrical epithelium. During the embryonic period, intensive processes of interaction between the rudiments of the esophagus, trachea, lungs, and heart take place. The rudiments of the esophagus increase in size, protrusions of the organ are formed in both the frontal and sagittal planes. The process of formation of the mucous membrane of the esophagus begins, as well as the fusion of the rudiments of the diaphragm, close topographic-anatomical relationships with the vagus nerves are established. In embryos with a length of 5.0-.5 mm PCL lumen of the beginning of the esophagus due to intensive development of the epithelium is almost absent, which should be considered as the stage of the formation of an epithelial "plug" - physiological atresia. As a result of significant proliferation of the epithelium of the mucous membrane of the esophagus, physiological atresia of its lumen occurs. There is a complete demarcation of the rudiments of the trachea and esophagus, physiological atresia of the esophagus is manifested not only in the proliferation of the epithelium and thickening of the epithelial layer, but also in the absence of a lumen at some levels of the esophagus. The proliferation process does not correspond to the development of endodermal and mesodermal rudiments. The endodermal element develops more intensively than the mesodermal element and covers the narrow lumen of the intestinal tube. We observed the first stage of physiological atresia of the duodenum in embryos with a length of 5.5-6.0 mm PCL at the point of transition of the stomach into the duodenum.

**Conclusions.** In the structure of physiological atresia of organs of the digestive system in human embryogenesis, the main feature is the formation of vacuoles. Three stages of the development of physiological atresia can be distinguished: 1st - relative rest, when there are no vacuoles in the epithelial layer of the esophagus, esophageal sphincter, gall bladder - embryos 7-10 mm PCL; 2nd - internal restructuring, which is characterized by intensive development of organs - pre-fetuses 10-27 mm PCL; 3rd - the process of restoration of the lumen of the 3rd - the process of

restoration of the lumen of organs and ducts - fetuses 24-37 mm PCL. 3rd - the process of restoring the lumen of organs and ducts - pre-fetuses 29-39 mm PCL.

## Boichuk O.M. MORPHOGENETIC CHARACTERISTICS OF HUMAN PARASITE SINUSES

Mykola Turkevych Department of Human Anatomy Bukovinian State Medical University

**Introduction.** According to the literature, the development of the sinuses begins at 5-17 weeks of prenatal development, they form as a result of the growth of the mucous tunic of the nasal passages into the adjacent tissue. In the development of each sinus, two phases are actually distinguished. The first phase is characterized by ingrowth of the mucous tunic of the nasal cavity into the cartilaginous capsule of the nose where there are individual concavities and clefts at the site of cartilage resorption. However, this phase is quickly replaced by the next one, which differs from the first only in that the growth of the mucous membrane now occurs in the developing bone. Acute diseases of the paranasal sinuses are one of the most widespread pathologies in the practice of pediatric otolaryngologists. According to the literature, the frequency of acute ethmoiditis is 17%, and in combination with damage to other sinuses - 25%. Sphenoiditis in children practically does not occur independently, but more frequently in combination with ethmoiditis. Starting from the age of 5, there is a significant development of the acute frontitis. New technologies make it possible to conduct an examination of the sinuses and to receive the data on their condition.

The aim of the study. To find out the age-related changes in the structure and topographicanatomical connections of the paranasal sinuses between each other and adjacent formations in human ontogenesis.

**Materials and methods**. The research was carried out on 25 specimens of the facial area of corpses of people of all age groups, as well as by studying 80 computer tomograms of the human head. A series of histological sections from the museum of Mykola Turkevych Department of Human Anatomy of Bukovinian State Medical University had been used for the research.

**Results.** The conducted studies have shown that at the age of 2-3 years, the sphenoid sinus has a rather pronounced shape and size. In adults, the shape of the opening of the sphenoid sinus is round, sometimes the size is equal to the needle head. In sinuses of medium size, the shape of the opening is oval. The slit-like shape of the openings is found in very large sinuses. The ethmoidal labyrinth cells are well marked in newborns. Their number is relatively stable in all age periods. Due to a more expedient anatomical location, the frontal sinuses are affected by the inflammatory process rarer than others. However, the significant variability of their anatomical structure defines the variety of clinical symptoms of frontitis. Frontal sinuses are characterized by the pronounced asymmetry. Due to the wide variety of shapes and sizes of the frontal sinuses, it is very difficult to apply a standard section of the trepanation hole.

**Conclusions.** In elderly and older people, the clinical symptoms of sinus pathology are very minor, which may be explained by the reactivity of harmful substances.

#### Garvasiuk O.V.

# DIAGNOSTICS OF PRETERM MATURING OF CHORIAL PLACENTAL TREE AGAINST IRON-DEFICIENCY ANEMIA OF GRAVIDAS IN GESTATIONAL ASPECT

Department of Pathological Anatomy Bukovinian State Medical University

**Introduction.** Iron-deficiency anemia in pregnant women can complicate the diagnosis of processes affecting the maturation of the chorial placental tree (premature maturation of chorial villi, delayed maturation of chorial villi, formation of abnormal types of chorial villi).

The aim of the study. To provide recommendations for the diagnosis of disturbances in the maturation of the chorial placental tree, particularly preterm maturation against the background of iron-deficiency anemia in pregnant women.

Material and methods. The study focused on preterm maturation of the chorial placental