

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ



**МАТЕРІАЛИ**  
**106-ї підсумкової науково-практичної конференції**  
**з міжнародною участю**  
**професорсько-викладацького колективу**  
**БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ**  
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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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**The aim of the study** is to establish the anatomical characteristics of thigh parameters of students of Bukovyna who play football and handball, followed by modeling for sports selection.

**Material and methods.** Students of higher educational institutions of Bukovyna (n=129), of which young boys - n=69 and young girls - n=60. The subjects were divided into a main group - 89 students who improved by playing football and handball and a control group - 40 students who did not do the sports. Students of the main group, in addition to the physical activity that was included in the program of their specialty during the year, attended sports sections in football and handball during the year. Medium-intensity training took place under the control of a trainer, the frequency of training was  $3.43 \pm 1.26$  days/week (90 minutes each). Students of the control group did not do the sports. The initial survey was conducted in 2021 year, and the same students were resurveyed in 2022 year. All subjects were subjected to an anthropometric study, according to the method of P.P. Shaparenka (thigh circumference in the upper third, in the middle third and in the lower third, body weight, height).

**Results.** It was found that when comparing the first and second measurement, the thigh circumference indicators at the second measurement (in dynamics after one year) were slightly higher in students who played football (young boys and young girls) in the upper, middle and lower thirds than in students who played handball (for students who played football  $\pm 3.43$  cm, for students who played handball  $\pm 2.12$  cm). The model for predicting the circumference of the thigh in the upper third on the right:  $Cpr = \beta_1 + \beta_2 + 0.493w - 0.135h$ , where  $Cpr$  is the circumference of the thigh in the upper third (right),  $w$  is body weight,  $h$  is height,  $\beta_1 = (49.735$  for girls and  $44.489$  for young men),  $\beta_2 = (-1.391$  for the soccer group;  $-2.321$  for the handball group), on the left:  $Cpl = \beta_1 + \beta_2 + 0.465w$ , where  $Cpl$  is the circumference of the thigh in the upper third (left),  $w$  is body weight,  $\beta_1 = (25.736$  for girls and  $20.147$  for boys),  $\beta_2 = (-1.333$  for the football group;  $-0.515$  for the handball group).

The model for predicting the circumference of the thigh in the middle of the right:  $Cmr = \beta_1 + \beta_2 + 0.460w - 0.183h$ , where  $Cmr$  is the circumference of the thigh in the middle of the right,  $w$  is body weight,  $h$  is height;  $\beta_1 = (52.567$  for young girls and  $48.930$  for young boys),  $\beta_2 = (-2.235$  for the football group;  $-1.968$  for the handball group); on the left:  $Cml = \beta_1 + \beta_2 + 0.449w$ , where  $Cml$  is the thigh circumference in the middle of the left,  $w$  is body weight;  $\beta_1 = (20.716$  for young girls and  $20.943$  for young boys),  $\beta_2 = (-0.254$  for the football group;  $-1.405$  for the handball group). The model for predicting the circumference of the thigh in the lower third of the right:  $Cdr = \beta_1 + \beta_2 + 0.418w$ , where  $Cdr$  is the circumference of the thigh in the lower third of the right,  $w$  is body weight,  $\beta_1 = (25.560$  for young girls and  $20.165$  for young boys),  $\beta_2 = (-0.039$  for the football group;  $0.061$  for the handball group); on the left:  $Cdl = \beta_1 + \beta_2 + 0.387w$ , where  $Cdl$  is the thigh circumference in the lower third on the left,  $w$  is body weight;  $\beta_1 = (24.638$  for young girls and  $18.523$  for young boys),  $\beta_2 = (-0.379$  for the football group;  $-0.261$  for the handball group).

**Conclusions.** So, it is established that for significant predictors for predicting thigh circumference on the right in the upper and middle third are gender, sport, height and body weight, in the lower third are gender, sport and body weight, on the left are gender, sport and body weight.

**Kavun M.P.**  
**LIVER TOPOGRAPHY IN HUMAN EMBRYOS**  
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**Introduction.** The study of the development and formation of the liver topography is necessary both to establish the general patterns of liver histogenesis and to identify the processes leading to the occurrence of congenital malformations of the organ.

**The aim of the study.** The purpose of the work is to establish the peculiarities of the structure and morphogenesis of the liver in the intrauterine period of development, in particular, in human embryos.

**Material and methods.** The study of the peculiarities of the liver development in the embryonic period of human ontogenesis was carried out on 20 histological preparations of human

embryos (embryos 4.0-13.0 mm long) by the methods of histological examination, production of graphic reconstructions and morphometry.

**Results.** It has been established that in the fourth week of embryonic development (embryos 4.0-6.0 mm long), the beginning of the liver is already well formed. It is represented by a conglomerate of epithelial cords that grow into a transverse septum that surrounds the duodenum and the transverse bay on three sides. In the above-mentioned conglomerate, two parts can already be well separated: the cranial part, the liver beginning, and the caudal part, the gallbladder beginning. At this stage of development, the liver is supplied with blood by two venous systems: umbilical veins (right and left), as well as yolk-mesenteric veins, which pass from the yolk sac to the body of the embryo.

In embryos 5.0 mm long, the number of epithelial cords that form the beginning of the liver increases markedly, and the size of the liver during this period reaches: cranio-caudal - 420  $\mu\text{m}$ , dorso-ventral - 320  $\mu\text{m}$ , and transverse - 280  $\mu\text{m}$ .

In the fifth week of intrauterine development (embryos 7.0-8.0 mm long), the beginning of the liver significantly increases in size. It occupies the cranio-ventral part of the abdominal cavity, its transverse size in an embryo 7.5 mm long is 1.4 mm. The right liver lobe is much larger than the left one and reaches the back wall of the abdominal cavity, but is not fixed to it. The liver surrounds the beginning of the stomach on three sides.

In embryos 9.0 mm long (the beginning of the sixth week of intrauterine development), the liver, which is intensively increasing in volume, occupies not only the cranio-ventral, but also the middle part of the abdominal cavity. The transverse size of the liver is 2.0 mm.

At the end of the embryonic period (embryos 11.0-13.0 mm long), the liver continues to increase in size. Its cross-sectional size in an embryo 13.5 mm long is 2.3 mm. The liver occupies the cranio-ventral and middle parts of the abdominal cavity of the embryo. The right part continues to grow ahead of the left part of the organ.

At this stage of development, the spleen is already fully formed. In addition, the embryos of this age group are forming the cecum, the ascending, transverse and descending parts of the colon.

**Conclusions.** So, on the basis of the conducted set of morphological research methods, it was established that during the embryonic period of human intrauterine development, the liver is laid down and its intensive development takes place. It was not possible to determine certain regularity in the growth of the liver parenchyma, as well as in the formation of lobules. The structure of the liver is created as a result of the complex correlative relationships of vessels, mesenchyme, and cell bundles of beams.

**Lavriv L.P.**

## **MORPHOLOGICAL CHARACTERISTICS OF THE PAROTID GLAND**

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**Introduction.** Formation of the organs is a very complicated process which is not definitively studied nowadays. It is very important to study the structure of the organs and systems in association with the basic processes of morphogenesis on the basis of the findings of embryogenesis. The study of the development and forming of the topography of the parotid gland during the prenatal period human ontogenesis is of great importance for integral understanding of the structural and functional organization of the salivary apparatus and the oral cavity on the whole. 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 and anatomical changes during the fetal period of human ontogenesis.

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

**Material and methods.** The parotid gland was examined in 25 human fetuses, 130,0-375,0 mm of the parietal and coccygeal length (PCL). Methods applied in the course of the study were