

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



## **МАТЕРІАЛИ**

**104-ї підсумкової науково-практичної конференції  
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Конференція внесена до Реєстру заходів безперервного професійного розвитку,  
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**Чернівці – 2023**

by Welch's t-test:  $t(25,971) = -5,670$ ,  $p < 0.05$  (right upper extremity) and  $t(26,175) = -5,754$ ,  $p < 0.05$  (left upper extremity). Taking into account the results of the distribution of the lengths of the upper limbs depending on the sport type, it shows that there was a significant difference in the average value of the length depending on the sport type. Since  $p = 0.25 < 0.05$ , the difference between the medians of the groups is statistically significant. As a result of the Conover-Iman test, significantly differs from all other lengths of upper limbs of football players. When comparing the lengths of both upper limbs of the studied young boys and young girls, no significant difference in the average length of the right and left upper limbs was found  $t(255.92) = -0.172$ ,  $p = 0.864$ .

**Conclusions.** By comparing the length of the right and left upper limbs of the studied students of the main group, depending on the sport type, there was a significant difference in the average value (football players have the smallest length of the upper limbs: right -  $69.77 \pm 2.0$  cm, of them  $70.39 \pm 2.00$  cm in young boys and  $67.90 \pm 2.00$  cm in young girls, left -  $70.28 \pm 2.0$  cm, of them  $71.41 \pm 2.00$  cm in young boys and  $68.72 \pm 2.00$  cm in young girls, while volleyball players have the largest: right -  $76.20 \pm 2.0$  cm, of them  $77.32 \pm 2.00$  cm in young boys and  $74.22 \pm 2.00$  cm in young girls, and left -  $77.00 \pm 2.0$  cm, of them  $78.43 \pm 2.00$  cm in young boys and  $75.92 \pm 2.00$  cm in young girls). A significant factor for the length of both upper limbs is height (based on the conducted regression analysis). A model for predicting the length of the upper limbs was derived:  $y = 0.422 * x$ , (where  $y$  – the length of the right upper limb,  $x$  – height).

**Kavun M.P.**

## **DEVELOPMENT OF THE LIVER IN HUMAN FETUSES**

*Mykola Turkevych Department of Human Anatomy  
Bukovina State Medical University*

**Introduction.** The importance of embryological research for the correct understanding and clarification of the causes of congenital diseases, variants of the structure and abnormalities of the development of organs is currently not in doubt. Their results contribute to the development of new effective methods of surgical interventions and the prevention of errors in the diagnosis of birth defects.

**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 fetuses.

**Material and methods.** We have studied the characteristics of liver in fetal period of human ontogenesis. 15 human preparations fetuses of the different age groups were studied by the methods of histology, making image reconstruction, by the methods of usual and subtle dissections and morphometry.

**Results.** Peculiarities of construction of the liver at the beginning of the fetal period (4 – 5 months of prenatal development) were investigated on 15 corpses of fetus with CRL 81,0-185 mm. We have established that the largest organ of the abdominal cavity of the fetuses of this age group is the liver, which almost completely occupies its upper floor. The liver reaches the lateral surface of the abdominal cavity by its lateral surfaces and covers the stomach, duodenum, transverse colon and loops of the small intestine in the front. In the early fetal period two venous systems are found in the liver. The first one is afferent and consists of the umbilical and the portal veins, through which the blood accumulates from the placenta and the intestines in the liver. The second one is the efferent venous system, consisting of the hepatic veins for blood outflow from the liver parenchyma to the heart. Through the venous duct the oxygenated blood flows to the heart from the umbilical vein system, bypassing the liver. In four-five month old fetuses (with CRL 81,0-185 mm) the umbilical vein entered the abdominal cavity in the middle of the falciform ligament in the upward direction at an angle to the liver. Through the anterior edge of the organ the vessel passes cranially through its lower surface. Later it joins the venous sinus. The venous sinus is presented as an L-shaped broad vessel, connecting the right and the left branches of the intrahepatic part of the portal vein.

In this group of fetuses, the venous duct originates from the venous sinus, which is located at an almost right angle to the right lobe of the liver. The vessel is hourglass-shaped, does not give

the branches, and runs in an upward direction towards the diaphragm. The opening of the venous duct corresponded to that of the umbilical vein.

**Conclusions.** Intra hepatic bile ducts are represented by the right and left hepatic ducts and their branches II-rd and III-rd order during the fourth month of fetal development. Starting from the 4-month intrauterine development, three main hepatic veins are clearly identified: right, middle and left.

**Komar T.V.**

## **FETAL TOPOGRAPHY OF THE GREAT SAPHENOUS VEIN**

*Department of Pathological Anatomy  
Bukovinian State Medical University*

**Introduction.** The great saphenous vein is often used as a material for shunting and transplantation. However, superficial vein grafts of the lower extremities are sometimes unsuitable for surgical interventions due to some anatomical variants. There are only fragmental data in the literature about the variant anatomy of the great saphenous vein in people of different age groups, despite the urgency of the need and the development of additional examination methods.

**The aim** of the study is to find out the topographical and anatomical features of the great saphenous vein in human fetuses of 4-6 months.

**Material and methods.** The study of the topography of the great saphenous vein was carried out on specimens of the lower limbs of 15 human fetuses of 81.0-230.0 mm parietal-coccygeal length (PCL) by the methods of thin dissection, vascular injection and morphometry.

**Results.** In human fetuses of 4-6 months, the great saphenous vein passes directly under the fascia of the lower leg, partly in the subcutaneous tissue, since the formation of the fascia is continuing at this stage of ontogenesis. In the lower leg, the great saphenous vein runs along the medial edge of the tibia and receives superficial veins from the anteromedial surface of the portion. In the knee area, the great saphenous vein goes behind the medial condyle of the femur and is located outside of the sartorius muscle, passing to the anteromedial surface of the thigh. After going in the canalis cruro-popliteus, the great saphenous vein turns deep through the perforated fascia, goes around the lower horn of the sickle-shaped edge of the subcutaneous solution and flows into the femoral vein from its anteromedial side.

Commonly, the great saphenous vein is a continuation of the median marginal vein. In a fetus of 195.0 mm PCL, the left great subcutaneous vein is formed by three tributaries of the medial marginal vein, which, in turn, is a continuation of the posterior venous network of the foot. In the area of the lower leg, the great saphenous vein is presented by the main trunk. At the level of the transition of the tibial area into the knee area from the main trunk of the large saphenous vein at an angle of 45°, the posterior additional saphenous vein originates, which anastomoses with the small saphenous vein. In a fetus of 220.0 mm PCL, the tributaries of the lateral and medial marginal veins participated in the formation of the left anterior additional subcutaneous vein. The great saphenous vein in its initial part anastomosed with the medial marginal vein and went up above the medial bone of the tibia. An asymmetry of the topography of the subcutaneous veins of the right and left lower limbs was revealed in a fetus with a 265.0 mm PCL. The right large saphenous vein anastomoses with the right small saphenous vein at the level of the lower corner of the popliteal fossa. A posterior additional subcutaneous vein was found on the left lower limb of this fetus. At the level of the middle third of the lower leg, two anastomoses were found between the posterior additional and left small subcutaneous veins.

**Conclusions.** In the fetal period of human ontogenesis, the anatomical variability of the great saphenous vein was established, which is characterized by the variability of the topography, bilateral asymmetry of its inflow and the formation of venous anastomoses. The revealed variants of the fetal topography of the great saphenous vein are important for the correct interpretation of phlebographic research data and the individual choice of the most rational method of surgical intervention.