

**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

**Чернівці – 2024**

УДК 001:378.12(477.85)

ББК 72:74.58

М 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.

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ISBN 978-617-519-077-7

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tree at gestational ages of 29-32 and 33-36 weeks, combined with iron-deficiency anemia in pregnant women. The investigation was based on histological preparations stained with hematoxylin and eosin. In each placenta, 400 chorionic villi were examined in random fields of view and classified according to criteria, resulting in the percentage ratio between different types of chorionic villi. The mean arithmetic value and its standard error were calculated for each study group. Statistical analysis of the digital data was performed using the two-sided unpaired Student's t-test. Differences with  $p \leq 0.05$  were considered statistically significant.

**Results.** Taking into account the study results, we obtained digital parameters, or other norm criteria for cases of preterm maturation against IDA. Specifically, for the gestational age of 29-32 weeks: For stem "early" chorionic villi, the criterion should be 2.4-5.8% instead of the norm of 0.7-4.1%. For stem "late" chorionic villi, the criterion should be 5.5-13.3% instead of 1.6-9.4%. For intermediate immature chorionic villi, the criterion should be 9.6-19.8% instead of 4.5-14.7%. For intermediate mature chorionic villi, the criterion should be 14.0-37.6% instead of 25.8-49.4%. For terminal chorionic villi, the criterion should be 10.6-36.0% instead of 23.3-48.7%. For terminal "specialized" chorionic villi, the criterion should be 0.8-3.8% instead of 2.3-5.3%.

For the gestational age of 33-36 weeks: For intermediate immature chorionic villi, the criterion should be 3.1-7.1% instead of 1.1-5.1%. For intermediate mature chorionic villi, the criterion should be 16.8-30.4% instead of 8.4-32.4%. For terminal "specialized" chorionic villi, the criterion should be 1.2-9.1% instead of 4.2-14.0%.

**Conclusions.** The obtained results of our study can be used as practical recommendations for the diagnosis of preterm maturation of the chorionic placental tree against the background of iron-deficiency anemia in pregnant women.

**Karatieieva S.Yu.**

## **COMPARISON OF ANATOMICAL PARAMETERS OF FOOTBALL PLAYERS OF BUKOVYNA**

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**Introduction.** In our opinion, although many methods are currently available to assess the anatomical parameters of the body, there is no criterion methodology specifically defined for football players. Any coach wants to achieve the maximum possible result, especially in football.

**The aim of the study.** To establish the anatomical parameters of the "University" football masters team of Ukraine,

**Material and methods.** A study was conducted on 32 respondents aged from 16 to 18 years. The main group was made up of 16 players of the "University" football team of masters of sports of Ukraine. The control group consisted of 16 young boys that are studying at a higher education institution in Bukovyna. The representatives of the main group were practically healthy, masters of sports of Ukraine, who systematically trained intensively and participated in championships of Ukraine among higher educational institutions, under the leadership of the team coach. Training took place 3-4 times a week, 1.5 hours on average. The subjects of the control group were also practically healthy young men and additionally did not play sports. Anthropometric examination included determination of total (body length and body weight) parameters and partial (length of upper and lower limbs, thigh length, thigh circumference in the upper third, in the middle and lower third).

**Results.** According to the results, the length of the right upper limbs is on average  $78.50 \pm 2.02$  cm, the left -  $78.75 \pm 2.02$  cm. The length of the right lower limbs is  $92.63 \pm 2.06$  cm, the left -  $92.44 \pm 2.06$  cm. The average length of the right and left thigh is  $52.25 \pm 2.04$  cm. The circumference of the thigh in the upper third on the right is  $55.31 \pm 2.03$  cm, on the left -  $54.18 \pm 2.03$  cm, in the middle third on the right thigh, the indicator was  $49.13 \pm 2.01$  cm, on the left -  $52.44 \pm 2.01$  cm, in the lower third on the right, the average indicator is  $44.31 \pm 2.06$  cm, while on the left -  $45.00 \pm 2.06$  cm.

**Conclusions.** Football players have a lower body weight ( $\pm 2.54$  kg), in contrast to the studied control group, taking into account the fact that the height in both groups is almost the same. It was established that the upper limbs of football players are longer on the right by  $\pm 2.22$  cm, on the left by  $\pm 2.42$  cm, than the upper limbs of representatives of the control group. The right lower limbs are longer by  $\pm 4.5$  cm, the left by  $\pm 4.35$  cm. The circumference of the thigh in the upper third of football players on the right prevails by  $\pm 2.22$  cm, on the left by  $\pm 5.00$  cm; the thigh circumference in the middle on the right is greater by  $\pm 4.56$  cm, on the left there is almost no difference; the thigh circumference in the lower third is greater on the right by  $\pm 1.12$  cm, on the left by  $1.6$  cm.

**Kavun M.P.**

## **STRUCTURE OF THE LIVER IN HUMAN EMBRYOS**

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**Introduction.** The study of the development and formation of the topography of the liver is necessary both to establish the general patterns of liver histogenesis and to identify the processes that lead 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 development of the liver 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 lobe of the liver is much larger than the left 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