

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



МАТЕРІАЛИ

**107-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
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АНАЛІЗ ТА УЗАГАЛЬНЕННЯ НОВИХ ФУНДАМЕНТАЛЬНИХ
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У БУКОВИНСЬКОМУ ДЕРЖАВНОМУ МЕДИЧНОМУ УНІВЕРСИТЕТІ»**

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Матеріали підсумкової 107-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету «Актуальні питання теоретичної (фундаментальної), експериментальної та клінічної медицини: аналіз та узагальнення нових фундаментальних (теоретичних) і клінічних (прикладних) результатів виконання науково-дослідних робіт у Буковинському державному медичному університеті» (м. Чернівці, 02, 04, 09 лютого 2026 р.) – Чернівці: Медуніверситет, 2026. – 425 с. іл.

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Наукові рецензенти:
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fallopian tubes immersed in the recto-uterine recess in fetuses of 9-10 months. In newborns, the fallopian tubes regain a horizontal position. The ovaries in fetuses of 4-6 months have the shape of a flattened elongated trihedral pyramid with a thickness of 0.96 ± 0.05 mm at the 4th month to 2.00 ± 0.42 mm at the 6th month. At 7-8 months of intrauterine development, the ovaries acquire an elongated rounded shape with a thickness of 2.02 ± 0.43 mm at the 7th month to 4.08 ± 0.33 mm at the 8th month. From 9 months to the early neonatal period, the ovaries acquire an oval shape, close to the definitive one.

Conclusion. Periods of intensive increase in morphometric parameters of internal female genital organs were established: uterus – period 4-5 months, ovaries – 5-6 and 9-10 months, fallopian tubes – 5-6, 8-9 months, vagina – 4-5 months and 8-10 months. Regularities of change in morphometric parameters of the uterus were revealed and proven with the establishment of periods of their accelerated and slowed growth. In particular, periods of accelerated development of the width of the uterine fundus of fetuses occurred at 4-5 and 8-10 months. The thickness of the uterus increased evenly up to 9 months, and in the period of 9-10 months a period of accelerated increase was observed.

Protsak T.V.

FEATURES OF MORPHOGENESIS OF THE MAXILLARY SINUSES DURING THE INTRAUTERINE PERIOD OF DEVELOPMENT

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

Introduction. At present, there is no longer any doubt about the urgent need to develop the medical aspects of modern embryology, without which it is impossible to solve such important practical healthcare issues as infertility, treatment and prevention of congenital and hereditary diseases, organ and tissue transplantation, and so on. Numerous anomalies that happen in clinical practice can mostly be explained only by clarifying the origin and interaction of organs and structures, which over time acquire their characteristic form, studying their unusual topography, and deeply understanding the corresponding embryonic phenomena.

The aim of the study. To investigate the features of morphogenesis of the maxillary sinuses during the intrauterine period of development.

Materials and methods. Research on the features of the development and formation of the walls of the maxillary sinuses was conducted on 38 human fetuses and embryos (31.0-375.0 mm cranio-caudal length (CCL)) using histological examination, dissection, and morphometry methods.

Results of the study. It was established that at the beginning of the 3rd month of intrauterine development (fetuses measuring 31.0-41.0 mm CCL), due to the protrusion of the mucous membrane of the middle nasal meatus above the base of the inferior nasal concha into the surrounding mesenchyme, the primordium of the maxillary sinus is revealed. Lateral to the sinus primordium is the cartilaginous capsule of the lateral wall of the nasal cavity. At this stage of development, the shape of the maxillary sinus approaches an oval form. Its anteroposterior size is 0.4-0.5 mm, transverse size 0.03-0.08 mm, and vertical size 0.07-0.08 mm. By the end of the 3rd month of development, the anteroposterior size of the maxillary sinuses increases to 1.1-1.3 mm, the transverse – to 0.16-0.19 mm, and the vertical – to 0.14-0.23 mm.

At the beginning of the fetal period in humans, the maxillary sinus has an oval shape and is located near the base of the inferior nasal concha. The floor of the sinus is topographically located 1.0 mm above the floor of the nasal cavity. It is separated from the inferior nasal meatus by a layer of loose connective tissue 0.45-0.5 mm thick, from the middle nasal meatus – by 0.6-0.65 mm, and from the orbit by – 0.7-0.74 mm. At the 5th month of intrauterine development, the variability in the shape of the right and left maxillary sinuses can be represented by the following types: round, oval, and spherical-oval. The anteroposterior size of the right maxillary sinus is 2.1-2.3 mm, the transverse size is 0.18-0.22 mm, and the vertical size is 0.22-0.3 mm, while the sizes of the left maxillary sinus are respectively 0.19-2.1 mm, 0.18-0.20 mm, and 0.23-0.25 mm. The

sinus is bounded by the hard framework of the maxilla. "In 6-month-old fetuses (14 observations), asymmetry in the shape and size of the maxillary sinuses is first detected. During the 8th to 10th months, intensive development of the maxillary sinuses takes place. On the right side, an oval shape is observed in 50 % of cases, round in 33 %, and round-oval in 17 %. On the left, a round sinus shape occurs in 58 % of cases, oval in 33 %, and round-oval in 9 %. At this stage of development, the maxillary sinus is located behind the initial section of the inferior nasal concha. During the 8th to 10th months, intensive development of the maxillary sinuses continues. The anteroposterior size of the right maxillary sinus is 5.0-5.5 mm, the transverse size is 1.0-1.2 mm, and the vertical size is 2.0-2.5 mm; the respective sizes of the left maxillary sinus are 4.5-5.0 mm, 0.8-1.0 mm, and 1.9-2.2 mm.

Conclusion. Therefore, based on the conducted complex morphological research methods, it was established that during the intrauterine period there is the initiation and intensive development of the maxillary sinuses.

Savka I.H.

FORENSIC-MEDICAL ANALYSIS OF GUNSHOT TRAUMA

Department of Forensic Medicine and Medical Law

Bukovinian State Medical University

Introduction. Gunshot injuries are now one of the leading causes of violent death worldwide. If during peacetime, cases of gunshot wounds among civilian people were rare, mainly due to suicide or careless handling of weapons, then with the beginning of Russia's full-scale invasion of the territory of our state, the statistics began to change dramatically. Thus, according to available statistical information, the number of violent deaths in 2022 increased by approximately 1.5 times compared to 2021, and the number of deaths from gunshot wounds increased by 38 times. This once again confirms the importance of the topic under study in today's conditions. Murders caused by firearms are one of the important evidence of war crimes, which necessitates a comprehensive forensic analysis of such injuries.

The aim of the study. To perform a comprehensive forensic assessment of expert cases with gunshot injuries.

Material and methods. As research materials, we collected, analyzed and processed 45 expert cases with gunshot injuries that were in the work of the departments of forensic medical examination of corpses and departments of forensic medical criminalistics of regional bureaus of forensic medical examination of various regions of Ukraine in the period from 2020 to 2024. Forensic medical analysis of the collected cases was carried out using morphometric methods, computer modeling, descriptive statistics methods, comparative analysis and establishing correlations.

Results. The main number of injured men falls on the 1st and 2nd periods of mature (80%) and youthful (17.8%) age. The majority of fatal injuries (68.9%) were caused by shots from firearms to the head; of all gunshot wounds, 64.4% were single, and 88.9% were penetrating and in the vast majority of cases (69.0%) were caused by an unidentified weapon. The average length of the wound channel in the body of the victims according to forensic medical examinations was 21.5 ± 0.61 cm. The dimensions of the wound channel in its middle part are twice as large as those in its initial part and 1.6 times larger than those in its final part, and the dimensions of the initial gunshot wounds are on average three times larger than those in the input ones.

Conclusions. An increase in the caliber of the bullet directly affects the increase in the size of the tissue defect, the width of the deposition ring, and the diameters of the middle and final parts of the wound channel. At the same time, the increase in bullet mass directly affects the increase in the diameter of the entrance wound, tissue defect, and width of the deposition ring, diameters of the wound channel in its initial, middle and final parts.