МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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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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channel, as well as between the mentioned gunshot characteristics and the diameter of the entry wound (with a value of 0.61, p=0.02).

Conclusions. The increase of the initial velocity of a bullet, its kinetic and specific energy affects in direct ratio the diameter increase of the entry wound and the exit wound channel, when fired from the CZ83 automatic loaded with 7.65×17mm browning. In addition, the capabilities of the modern three-dimensional modeling make it possible to create electronic archives of the main elements of gunshot wounds, to record their dimensions with 10-fold accuracy, and to conduct differential diagnosis between certain types of firearms cartridges.

Shylan K.V.

APPLICATION OF THE METHOD OF MUELLER-MATRIX TOMOGRAPHY OF TISSUES AND BLOOD FOR PRECISE DETERMINATION OF BLOOD LOSS DEGREE

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Introduction. Accurate determination of blood loss degree is very important for forensic medical experts, as it helps to objectively assess traumatic injuries, determine the circumstances of death, and contribute to justice in legal proceedings. Determining blood loss volume is especially important in cases of violent death, accidents, and in cases of massive blood loss due to disease. Modern methods often have limited accuracy, which can affect the objectivity of conclusions and lead to possible errors in judicial decisions. Therefore, it is urgent to develop more accurate technologies, such as the laser polarimetry method, to increase the reliability of forensic medical examinations, improve the quality of forensic conclusions, and contribute to a more objective determination of the causes and circumstances of death.

The aim of the study. Development of objective forensic criteria for digital differential Mueller-matrix tomographic diagnostics of the volume of acute blood loss.

Material and methods. Samples of biological tissues and blood were collected from 82 deceased people with various degrees of blood loss in the range from 0 mm^3 to 3000 mm^3. The study was conducted using the Mueller-matrix tomography method of biological tissues according to proposed algorithm.

Results. The obtained results of the tomographic reproduction of the coordinate distributions of the circular dichroism value illustrate the existence of differences between the coordinate distributions of values for histological sections of biological tissues of deceased people with different degrees of blood loss. Therefore, the change in the values of statistical moments for biological tissues at different values of blood loss is established: SM_1 varies from 0,096 to 0,024; SM_2 - from 0,21 to 0,057; SM_3 - from 0,48 to 2,04; SM_4 - from 0,23 to 2,84.

Conclusions. For all studied biological samples, the method of differential Mueller-matrix tomography of the circular dichroism of the polycrystalline component demonstrates sensitivity to changes in the volume of blood loss in the range of 0 mm^3 - 2500 mm^3. The accuracy of this method ranges from 86% to 92%, which ensures high reliability in the analysis of biological tissues of deceased people with varying degrees of blood loss.

Yasinskyi M.M.

COMPREHENSIVE APPROACH TO THE REHABILITATION OF PATIENTS WITH TEMPOROMANDIBULAR JOINT DYSFUNCTION COMPLICATED BY PERIODONTITIS

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Intoduction. The co-occurrence of temporomandibular joint disorders (TMD) and periodontal disease complicates the clinical picture, making it difficult to isolate each condition as a distinct nosological form. Only through a comprehensive set of diagnostic evaluations can the clinical manifestations be accurately refined, enabling the development of preventive and therapeutic algorithms aimed at patient recovery. Timely diagnosis and rational treatment of

patients with occlusion-related dysfunctions in the masticatory system remain highly relevant in modern dentistry. This relevance is driven by the growing number of patients presenting with dental arch defects, occlusion pathology, and the consequences of various dental treatments, including therapeutic, surgical, orthopedic, and orthodontic interventions.

The aim of the study. To identify optimal rehabilitation strategies for patients with temporomandibular joint dysfunction (TMD) involving muscle-joint dysfunction complicated by periodontitis.

Materials and methods. The study involved the examination of 29 patients with muscle-joint dysfunction complicated by periodontitis. The investigation was conducted using methods such as anatomical modeling, miometry, and radiography.

Results. Traditional treatment of localized traumatic periodontitis begins with the removal of traumatic factors affecting periodontal tissues, typically by restoring proper contact points between teeth. In the comprehensive treatment of periodontal diseases, orthopedic interventions focus on eliminating or reducing traumatic overload on the periodontium by correcting the spatial position of the lower jaw and performing selective tooth grinding. However, opinions differ regarding the optimal timing for this procedure. While most researchers suggest that selective grinding should be performed only when clinical signs of periodontal disease are evident, some recommend earlier intervention, even before symptoms appear.

A major contraindication for selective tooth grinding is acute or chronic TMD accompanied by muscle-related pain. In such cases, selective grinding is recommended only during remission, as pain complicates thorough patient examination and the study of tooth contact during articulation phases. Optimal occlusion, which is the goal of dental treatment, extends beyond aligning dental arches in Angle's Class I relationship. It requires a harmonious balance between muscles, nerves, dental arches, periodontium, and joints.

Modern diagnostic and treatment methods in neuromuscular dentistry offer a more profound understanding of the role of occlusion in TMD and periodontal diseases. These approaches allow for the resolution of complex dental issues, yielding functional and aesthetic rehabilitation while also enhancing the patient's general well-being. Given the intricate nature of TMD and periodontal treatment, successful outcomes demand a high level of collaboration between the dentist and the patient.

In view of these challenges, exploring innovative methods for preventing and treating localized periodontitis in young individuals with TMD-related muscular components remains a pressing issue.

Conclusion. The rehabilitation of patients with temporomandibular joint dysfunction complicated by periodontitis requires a comprehensive approach. This includes addressing occlusal disturbances using computerized jaw movement analysis with the T-scan Novus system, which is applied in various cases such as fixed and removable prosthetics, periodontal pathology, implant prostheses, and TMD management. Moreover, targeted pharmacological treatment addressing the key pathogenetic mechanisms of localized periodontitis is crucial for effective rehabilitation in such patients.

Zabrodska O.S.

PROBLEMS OF ACCESS TO THE UMBILICAL VEIN THROUGH THE LIVER PARENCHYMA

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Introduction. The investigation of the development and structure of the branches of the umbilical vein (UV) and the portal hepatic vein (PHV) during human intrauterine development is vital for identifying the general principles of liver histogenesis. This research provides key insights into the processes shaping these structures, enhancing our understanding of congenital abnormalities and aiding in the advancement of prenatal diagnostics.