

**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
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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.

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The aim of the study to develop modern criteria for forensic medical diagnosis of the volume of blood loss on the basis of differential Mueller-matrix tomography of circular dichroism of the polycrystalline component of biological tissues.

Material and methods. Biological tissues were collected: muscles, skin, spleen, kidneys, liver, and blood from 62 deceased persons with varying degrees of blood loss from 0 mm³ to 3500 mm³. The research was carried out using the method of Mueller-matrix tomography of biological tissues.

Results. The obtained results of the tomographic reproduction of the coordinate distributions of the circular dichroism value illustrate the presence of differences between the coordinate distributions of the histological sections of the biological tissues of the dead with different degrees of blood loss. The revealed fact of different distribution structures of circular birefringence of samples of biological tissues can be explained by the fact that the main factor in the formation of the coordinate structure of circular dichroism is the concentration of formed elements of blood. Therefore, with an increase in the degree of blood loss, the level and magnitude of the coordinate distribution of circular dichroism decreases. The obtained results demonstrate: SM₁ varies from 0,185 to 0,053; SM₂ - from 0,17 to 0,049; SM₃ - from 0,31 to 1,88; SM₄ from 0,45 to 2,45.

Conclusions. For all studied biological samples, the range of sensitivity of the method of differential Mueller-matrix tomography of the circular dichroism of the polycrystalline component to the change in the volume of blood loss is the maximum level of 0mm³-2500 mm³. The accuracy of the method ranges from: $\Delta V=0\text{mm}^3\text{-}2500\text{ mm}^3 \leftrightarrow 86\%\text{-}92\%$

Yasinskyi M.M.

APPROACH TO REHABILITATING PATIENTS WITH TEMPOROMANDIBULAR JOINT MUSCLE-JOINT DYSFUNCTION COMPLICATED BY PERIODONTITIS

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Introduction. Combining temporomandibular joint disorders (TMD) and periodontal disease leads to the inability to differentiate the patient's condition into separate nosological forms. Only a complex of diagnostic tests to refine clinical symptoms allows the development of the algorithms for preventive and therapeutic measures aimed at patient's recovery. The issue of timely diagnosis and rational treatment of patients with occlusion-related disorders of the masticatory apparatus is relevant in modern dentistry. The increasing relevance of rehabilitating such patients is due to the growing population with defects in dental arches, occlusion pathology and certain consequences of therapeutic, surgical, orthopedic and orthodontic treatment.

The aim of the study is to find out the ways of the rehabilitating patients with temporomandibular joint disorders (TMD) muscle-joint dysfunction complicated by periodontitis.

Materials and methods. The study of the anatomical features of the temporomandibular joint was carried out on 29 patients of the muscle-joint dysfunction complicated by periodontitis by the methods of modeling, miometry, radiography.

Results. Traditional treatment of localized traumatic periodontitis begins with the elimination of the traumatic factor that irritates the periodontal tissues by restoring contact points between teeth. The fundamental basis of orthopedic interventions in the comprehensive treatment of periodontal diseases is the elimination or reduction of traumatic overloading of the periodontium by restoring the spatial position of the lower jaw and selective grinding of teeth. However, there is no consensus on the optimal timing of this procedure. Most researchers believe that this intervention should be performed only in the presence of clinical signs of periodontal disease. Only some authors recommend starting the procedure before clinical signs of the disease appear.

One of the contraindications for selective grinding of teeth is acute and chronic TMD with MSD-associated pain syndrome. Selective grinding is indicated at the remission stage because it is difficult to fully examine the patient, obtain impressions for diagnostic models, determine and study the nature of tooth contact in different phases of articulation when pain is present. The ideal occlusion that dental professionals aim for in the treatment of patients is not limited to just having

even dental arches in Angle's Class I relationship. It should be a harmonious interaction between muscles, nerves, dental arches, periodontium, and joints. Modern diagnostic and treatment methods in the field of neuromuscular dentistry provide a deep understanding of the role of occlusion in the development of TMD and periodontal diseases, the objectivity of the data obtained, allowing for the resolution of complex situations in dental treatment, and achieving an effective and planned outcome. These methods not only ensure complete functional and aesthetic dental rehabilitation but also contribute to improving the patient's overall health, mood, and attitude toward life. Therefore, the treatment of such patients remains a rather challenging path for both the dentist and the patient.

Considering all of the above, we believe that the search for modern methods of prevention and treatment of localized periodontitis in young individuals associated with TMD of the temporomandibular joint, when the muscular component is manifested, remains quite relevant.

Conclusions. It involves the development of a complex of measures aimed at the rational elimination of occlusal disturbances with control using computerized jaw movement scanning with the T-scan Novus apparatus ("TEKSKAN" USA - areas of application: non-removable and removable dental prostheses, periodontal pathology, implant prostheses, TMD, etc.) and with active pharmacological effects on the main pathogenetic mechanisms of localized periodontitis development in the mentioned patients.

Zabrodska O.S.

DIFFICULTIES OF ENTERING THE UMBILICAL VEIN INTO THE LIVER PARENCHYMA

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Introduction. The study of the development and configuration of the branches of the umbilical vein (UV) and the portal hepatic vein (PHV) during human intrauterine ontogenesis is of crucial importance for establishing general patterns of liver histogenesis. This research is important for understanding the underlying processes that form these structures, contributing to a better understanding of malformations and facilitating prenatal diagnosis.

The aim of the study. The study of the features of the topography of the umbilical vein in the prefetal period of human ontogenesis is the focus of this study.

Research material and methods. 10 prefetal samples were used in this study. The research methodology uses a complex approach involving morphological research methods. These methods included morphometry, the creation and examination of a series of histological sections, both macro- and microscopically, as well as plain and thin dissection under the MBS-10 microscope. In addition, a vessel injection was performed followed by radiography to increase the depth of the analysis.

Results. At the beginning of the prefetal period of development (7th week), the liver occupies the cranioventral and middle sections of the abdominal cavity. Its transverse size is 4.8 mm (prefetus 19.8 mm parieto-coccygeal length (PCL)) and 5.1 mm (prefetus 20.0 mm PCL). At present, under the influence of correlative processes caused by the development.

UV in fetuses at the 7th week of development (14.0-20.0 mm PCL) was studied through 16 series of histological sections. UV enters the liver near the front edge of the left sagittal furrow, hiding below the liver tissue. Along the way, UV emits 2-3 left side branches, each with a diameter of 40 to 50 microns, which later branch out in the left part of the organ.

The external diameter of the UV at the point of entry into the liver is $118.0 \pm 17.2 \mu\text{m}$ in 6-week-old fetuses, increasing to $152.0 \pm 7.9 \mu\text{m}$ by the 7th week. Simultaneously, the diameter of the portal hepatic vein (PHV) increases from $210.0 \pm 22.8 \mu\text{m}$ in 6-week-old fetuses to $311.0 \pm 17.2 \mu\text{m}$ in 7-week-old fetuses during the same period of development.

The right paramedian vein flows ventrocranially, dividing within the expected VII and partially VIII segments. At the same time, the lateral branch descends and enters the future V and VI segments of the liver. The UV and PHV in preterm fetuses during the 8th week of development were studied using 12 series of histological sections from 21.0-30.0 mm PCL samples.