

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



## **МАТЕРІАЛИ**

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Конференція внесена до Реєстру заходів безперервного професійного розвитку,  
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the protein fraction of human vitreous body were measured in the location of the classic Stokes polarimeter.

**Results.** The analysis of vitreous body layers obtained by the method of microscopic polarization tomography found a linear range (24 hours) of postmortem changes in the magnitude of statistical moments of the 1st-4th orders, which characterize the coordinate distributions of circular birefringence by the postmortem time duration.

We obtained dynamic time-dependent changes in the statistical moments of the 1st-4th orders:  $SM_1$  decreases within the range of average values determined for all groups of samples from 0,58 to 0,14,  $SM_2$  – from 0,36 to 0,08,  $SM_3$  – increases from 0,31 to 0,91,  $SM_4$  – from 0,48 to 1,31. The most sensitive to postmortem changes in the polycrystalline structure of such samples were temporal changes in  $SM_3$  asymmetry and  $SM_4$  excess, which characterize the circular birefringence value distributions of the vitreous body protein fraction.

The quantitative improvement of the sensitivity of the method of microscopic polarization in reproduction of circular birefringence size distributions was manifested in the increase in the slope angles of the linear dependences of postmortem changes in the magnitude of statistical moments of higher orders, characterizing the size of distributions of the differential element of the protein fraction in the layers of the vitreous body of corpses with different postmortem time. We found the maximum level of accuracy in determining the time within 24-25 minutes in a time interval of 24 hours.

**Conclusion.** The effectiveness of the method of polarization microscopic tomography of circular birefringence of the protein fraction of human vitreous body layers in determining the postmortem time has been demonstrated. The sensitivity range of the method is up to 24 hours with the accuracy of the postmortem time determination within 24-25 minutes.

**Yasinskyi M.M.**

## **MORPHOLOGICAL ASPECTS OF TEMPORAL MANDIBLE JOINT DYSFUNCTION**

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**Introduction.** The thesis deals with the replacement of dental defects which occupies a significant place in the field of orthopedic dentistry. Among the main causes of the teeth loss caries and its complications can be identified, as well as inflammatory and dystrophic-inflammatory diseases of periodontal tissues, and traumas. However, the prosthetics with these structures has many disadvantages, one of the main are: the change in the oral cavity microflora and the decrease in the reactivity of the prosthetic bed mucous membrane tissues at the point of contact with both the elements of the removable prosthesis and the entire oral cavity.

**The aim of the study.** Establish the taxonomic composition, population level and microecological parameters of the prosthetic bed mucous membrane microbiota in patients with a set prosthetic appliance with partial removable dentures.

**Material and methods.** Microbiological (bacteriological and mycotic) examination of gum mucus secretion in patients with partial loss of teeth has been performed. The control group consisted of 50 patients (23 men and 27 women) who had no problems adapting to removable denture during the last 6 months and did not have any infectious and noncommunicable diseases.

**Results.** In practically healthy people, the main microbiota of the gum mucosa surface is represented by *Streptococcus salivarius*. An additional microbiota is represented by *S. sanguis*. Other microorganisms, presented by the constancy index, the incidence frequency, the Margalef species richness index and the Whittaker species diversity index, and the Simpson and Berger-Parker species domination index are detected as occasional microorganisms in the biota.

In patients with partial loss of teeth, the listed ecological indices, *S. aureus* is often found and is the leading causative agent of the inflammatory process. Infrequent are *S. epidermis*, *S. hemolyticus*, *S. pyogenus*, *E. coli*, *Acinetobacter* spp., *B. sattaralis*, *N. flavescens*, *M. lacunata* and *C. albicans*. In 47 patients, 26 strains of microorganisms belonging to 16 different taxonomic groups have been isolated and identified, which, according to the Margaleff species richness index

and the Whittaker species diversity index, testifies to the fact that in the biotope, after partial loss of teeth, spatial, nutritional and other conditions are created for development of microbiota.

Taxonomic composition destabilization on the population level of microecological indices of the "macroorganism - microbiota" ecosystem of the prosthetic bed mucous membrane in patients with the dental arch defects with partial removable dentures is associated with disorders of each taxon dominance both in the biotope and in the macroorganism - microbiota ecosystem. This reduces the dominance level, participation in self-regulation and relationships in the ecosystem of autochthonous obligate and facultative bacteria (bacteria of the *Lactobacillus* genus, *Bacteroides*, *S. Salivarius*, *S. sanguis*, *S. mitis*, *S. mutans*, *S. epidermidis*) and promotes growth of opportunistic (*S. anginosus*, *S. Pyogenus*, *S. faecalis*, *S. Haemolyticus*, *E. Coli*, *K. Pneumonia*, *P. aeruginosa*, *C. Albicans*) microorganisms that become the leading agents of the inflammatory process.

**Conclusions.** Microorganisms' associations consisting of 2, 3, and 4 microorganism species belonging to different taxonomic groups persist on gum mucosa in most patients (78.72%) with partial loss of teeth.

**Zabrodskaja O.S.**

## **FEATURES OF ANATOMICAL FORMATION OF THE UMBILICAL VEIN IN PREFETUSES**

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**Introduction** The study the development and formation of the topography of the branches of the umbilical vein and portal hepatic vein (PHV) in human prenatal ontogenesis is necessary both to establish the general patterns of liver histogenesis and to understand the content of the shaping processes that lead to the development of malformations of the aforementioned structures prenatal diagnosis.

**Aim.** To study the features of the topography of the umbilical vein in the prefetal period of human ontogenesis.

**Research material and methods.** For the study, 12 objects of prefetuses were used. To achieve this goal, a complex of morphological research methods was used, which includes the method of morphometry, the production and study of a series of histological sections, macro- and microscopy, conventional and fine preparation under the control of an MBS-10 microscope, injection of vessels with the following radiography.

**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 of prefetuses of the 7th week of development (14.0-20.0 mm PCL) was studied on 16 series of histological sections. It enters the liver in the area of the anterior edge of the left sagittal groove and is covered from below by the liver tissue. Along the way, it gives off 2-3 left lateral branches with a diameter of 40-50 microns, branching in the left lobe of the organ, and 1-2 right ones, entering the square lobe. The outer diameter of the UV, at the site of its entry into the liver, is  $118.0 \pm 17.2 \mu\text{m}$  (prefetuses 6 weeks old), which increases to  $152.0 \pm 7.9 \mu\text{m}$  during the 7th week. The PHV diameter during the 7th week of development increases from  $210.0 \pm 22.8 \mu\text{m}$  (6-week pre-fetuses) to  $311.0 \pm 17.2 \mu\text{m}$  (7-week pre-fetuses). The right paramedian vein is directed ventrocranially and branches within the future VII and partially VIII segments, the lateral one extends down and enters the future V, VI segments of the liver. UV and PHV of prefetuses of the 8th week of development were studied on 12 series of histological sections of prefetuses 21.0-30.0 mm PCL. The UV enters the liver parenchyma in the region of the anterior edge of the left sagittal sulcus and passes in the anterior-posterior direction within its anterior part. From below, the vein is covered by liver tissue. Along the course of the UV, it gives off 2-3 left lateral branches with a diameter of 98-102 microns, branching in the left lobe of the liver, within the future II, III and partially I and IV segments, and 1-2 right ones, entering the square lobe, ending in the future IV segment.