## 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

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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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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.

Загальна редакція: професор Геруш І.В., професорка Грицюк М.І., професор Безрук В.В.

Наукові рецензенти: професор Братенко М.К. професор Булик Р.С. професор Гринчук Ф.В. професор Давиденко І.С. професор Дейнека С.Є. професорка Денисенко О.І. професор Заморський І.І. професорка Колоскова О.К. професор Коновчук В.М. професор Пенішкевич Я.І. професорка Хухліна О.С. професор Слободян О.М. професорка Ткачук С.С. професорка Тодоріко Л.Д. професор Юзько О.М. професорка Годованець О.І.

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significantly different from the norm on the 5th day, with a value of 75.15% of the physiological level, and on the 7th day, with a value of 87.54%. Only on the 10th day was an unreliable difference from the average indicator with 99.13% to its value. In the experimental group, on the 3rd day, a sharp and reliable decrease in the number of highly differentiated pools of epitheliocytes and the dominance of cells in the III stage of differentiation was observed, the number of which reached the value of  $44.0\pm1.5\%$ . As a result, at this time, the CDI value decreased relative to the indicator of intact animals to 69.85% of its level. At the end of the observation, the CDI value reliably exceeded the level of intact animals by 4.12%. The most significant decrease in the value of ARM in animals of the control group was detected on the 3rd day, which in percentage value was 76% of the value of intact animals. On the 5th day, the value of "ARM +" increased slightly (only by 4%) to 80% of the physiological norm, and on the 7th day by another 5.5% to 85.5%. Even at the end of the experiment, the "RAM +" indicator in the animals of the control group was significantly lower than that of the intact animals - 90% of it.

**Conclusion.** Therefore, due to the additional local anti-inflammatory effect of the developed complex of drugs, it became possible to achieve the normalization of the damaged local non-specific reactivity of the oral mucosa faster (on average, for 3-4 days), and the stimulating regenerative effect promotes more rapid differentiation of epitheliocytes and complete restoration of the damaged area of the gums in a shorter time (on average, 2 -3 days) treatment terms.

#### Kotelban A.V.

### CHARACTERISTICS OF TRACE ELEMENTS BALANCE IN CHILDREN AND ITS IMPACT ON DENTAL STATUS

Department of Paediatric Dentistry Bukovinian State Medical University

**Introduction**. Today, the incidence of dental caries is pandemic. According to the WHO, its prevalence in different countries ranges from 80 to 98% in the world. There can be more than 100 reasons for the risk of developing caries. These include nutrition, fluoride content, oral hygiene, heredity, and ecology. Both the entry of trace elements into the human body and their assimilation are undeniably important because they participate in almost all biological processes of body tissues. The most studied are iron, copper, manganese, zinc, iodine, fluorine and some others. The sources of their intake are diet, water consumption and, to a lesser extent, absorption through the skin or during inhalation from the air. Given the importance of micronutrient balance in order to maintain children's health in general, and dental health in particular, studies examining the relationship between micronutrient levels in dentally healthy children and children with caries are relevant.

**The aim of the study.** To evaluate the features of trace element provision of the body in children living in Bukovyna by determining Fe, Cu, Zn and Mg in the hair.

**Matherial and methods**. To solve the goal, we examined 95 children aged 6 years living in Bukovyna. The following observation groups were selected: Group I - 69 children suffering from caries, and Group II - 26 dentally healthy children. In order to determine stable indicators accumulated over a long period of time, we analyzed children's hair for Fe, Cu, Zn and Mg content by atomic absorption spectrophotometry. The degree of probability of the obtained results was statistically assessed.

**Results**. As a result of our research, in the hair of children with caries, it was found that copper and zinc were probably lower, by 24.93% and 77.93%, respectively, compared to dentally healthy children, which negatively affects the processes of mineralization and contributes to the demineralization of teeth. The level of iron and magnesium was 33.43% and 59.83% higher in children with dental caries. We determined the content of trace elements depending on the intensity of caries damage to the teeth: the highest values of copper, zinc and iron - under the conditions of a low level of caries intensity, the lowest – under the conditions of a very high level. Magnesium concentration increased with an increase in the number of carious-affected teeth.

**Conclusions.** So, we have established an imbalance in the micronutrient supply system for children with caries, which indicates the need for its correction during the development of therapeutic and preventive measures.

## Kuzniak B.V. PERIODONTOLOGICAL STATUS OF CHILDREN AGED 12 AND 15

Department of Paediatric Dentistry

# Bukovinian State Medical University

**Introduction.** Caries, periodontal tissue diseases, maxillofacial anomalies and deformations are the most common dental nosologies both in Ukraine and in the world, regardless of age. Periodontal disease is the second most common group of diseases after caries. Every year, there is an increase in the prevalence of periodontal tissue damage in some regions, even up to 80-95% of cases. It is generally accepted to examine the state of periodontal tissues in 15-year-old children, however, numerous literature data indicate a high prevalence of the disease already in 12-year-olds. In this regard, studying the periodontological status in children of different age groups is relevant.

**The aim of** the research is to study the prevalence and clinical features of the course of periodontal tissue diseases in children aged 12 and 15.

**Materials and methods.** To establish the periodontal status of children in Bukovyna, we examined 83 children aged 12 and 15. The following observation groups were selected: I - 43 children aged 12 years, II - 40 children aged 15 years. The condition of the periodontal tissues was evaluated according to the indexes of PMA (1960) in the modification of Parma and CPI (1997). The hygienic condition of the oral cavity was determined using the Silness-Loe and Stallard indexes. The degree of probability of the obtained results was statistically evaluated.

**The results.** As a result of a dental examination of children of various ages, a high prevalence of periodontal tissue diseases among children of Bukovyna was established. It was revealed that the indices of PMA and CPI were probably worse in 12-year-old children compared to 15-year-old children. In particular, the value of the Schiller-Pysarev test is higher by 10.56% in 12-year-old and by 11.80% in 15-year-old children, sextants with calculus and bleeding are higher in 12-year-olds by 86.27% and 50.57, respectively %, and in 15-year-olds - by 82.05% and 57.54%.

**Conclusions**. Thus, taking into account the high prevalence of periodontal tissue diseases in children of various ages in Bukovina, there is a need for a detailed paraclinical study of the pathogenetic mechanisms of their formation, which will become the basis for improving diagnostic methods and developing adapted treatment and prevention programs.

#### Kuzniak N.B.

### DEFINING THE PROBLEM, STRUCTURE AND RELATIVE NUMBER OF MANDIBULAR FRACTURES AND THEIR COMPLICATIONS

Department of Surgical Dentistry and Oral Surgery

Bukovinian State Medical University

**Introduction.** The modern stage in the development of surgical dentistry is characterized by a scientific-practical advance both in clinical and methodological areas. It means a new stage that changed theoretical ideas on the issues of traumatism, organization of medical aid to the patients, diagnostic and therapeutic tactics in case of mandibular fractures and their complications.

The aim of the study. Increasing the efficiency of providing medical care to victims with complicated mandibular fractures based on improvement of diagnostic and surgical tactics.

**Materials and methods.** Optimization of treatment of patients with traumatic fractures of the lower jaw by means of a comprehensive approach to diagnostics, treatment and rehabilitation of the victims with fractures of the lower jaw based on a comprehensive study of pathogenic mechanism of development of possible complications with injuries of the lower jaw.

**Results.** A long-term study of clinical-pathogenic aspects of traumatic injuries of the maxillofacial area preceded the formation of an independent clinical issue of a comprehensive treatment of the fractures of the lower jaw.