### 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.

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ear stick. The method of darsonvalization has the following therapeutic effects: acaricidal and bactericidal – due to the action of spark discharge and ozone generated in the near electrode space of the apparatus for darsonvalization; analgesic and antipruritic effects – by increasing the sensitivity threshold of pain and tactile exteroreceptors; immunostimulating effect also due to the action of a spark discharge, which stimulates phagocytosis and the release of biologically active substances that stimulate the humoral part of the immune system. Using this technique in the period 2012-2023, we treated (62) patients with Stop Demodex® gel, 58 patients with Spregal, and 10 people with Navibleftm TTO Intensive Care micellar foam. The course of darsonvalization with the specified means lasted 10 days with the subsequent break for two weeks and repeated treatment. This treatment regimen corresponds to the full life cycle of the mite (15 days), as all treatments act only on adults ticks.

Results. Itching, swelling and redness of the eyelids after the first course of treatment decreased in 96.5% of patients using Spregal®. If at primary eyelash microscopy in the microscope slide 8-15 ticks in the investigated area were revealed, then after the first course of treatment with Spregal their number decreased to 1-2 in the investigated area. After re-treatment, the percentage of negative microscopic eyelash tests approached 100%. Almost similar data were obtained when combining darsonvalisation with the topical use of Stop Demodex® gel or Navibleftm TTO Intensive Care micellar foam. Darsonvalization method involves contacting specific agents with the maximum number of parasites, even deep ones. In our opinion, the spark charge, due to the action on smooth muscle cells of meibomian and sebaceous glands, stimulates the release of their secretion together with the demodex mite, which is exposed to specific drugs previously applied to the skin. To prevent recurrence of the disease, we recommend daily regular therapeutic eyelid hygiene. For this purpose, it is necessary to carry out self-massage of eyelids about 1-2 minutes after a warm compress. The compress is usually performed using cotton swabs, immersed in hot water, squeezed and applied to closed eyelids for 1-2 minutes. Thermal procedures help to improve local metabolic processes and drain the excretory ducts of the meibomian glands. Self-massage is performed after applying an indifferent eye gel to the eyelash growth area, which helps to clean the surface of the eyelids from toxic agents, scales and crusts. We also recommend using Blephaclean wipes, Dermazol or Nizoral shampoo to treat the free lid margin, especially in patients with demodicosis of the facial skin and seborrheic blepharitis or dermatitis.

**Conclusions.** A complex etiopathogenetic method of treatment of demodicosis blepharitis by application of specific drugs on the skin of the eyelids and subsequent darsonvalization of the eyelids is an easy-to-use, affordable and effective way to treat demodicosis. Daily observance of therapeutic eyelid hygiene (self-massage with a cleansing gel after warm compresses) can significantly reduce the likelihood of exacerbation of demodicosis blepharoconjunctivitis.

# Maksymyuk V.V. ROLE OF THE HEREDITARY FACTORS IN PREDICTING THE COURSE OF ACUTE PANCREATITIS

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**Introduction.** An important role in the course of acute pancreatitis, hereat, is played by genetically determined defense mechanisms aimed at preventing an intrapancreatic activation of enzymes. One of such fundamental mechanisms is the neutralizing effect of the secretory pancreatic trypsin inhibitor (the serine protease inhibitor of Kazal's type I - SPINK1).

**The aim of the study.** Study of genetically determined defense mechanisms aimed at preventing intrapancreatic enzyme activation.

**Material and methods.** A comprehensive examination of 37 patients admitted to the hospital with acute pancreatitis signs was conducted.

**Results.** The research involved 37 people with different forms of acute pancreatitis. Among them: 25 (67.6%) men and 12 (34.2%) women. The presence of the favourable "wild type" N-allele ("wild type", WT) - 73,0% (27) of people was detected in the majority of the subjects. The pathological "mutant" S – variant was

identified in 27,0% (10) of people. Hereat, there were 45.9% (17) of the cases of homozygous carriers of the "wild" NN-genotype (N34), NS-heterozygous (N34S) - 51,4% (19) of the cases. One (2,7%) patient was a homozygous carrier of the mutant S- allele (SS-genotype, 34S).

On distributing all the patients according to the etiological agent it was found out that the frequency of the NN and NS-genotypes in patients with biliary pancreatitis made up 52,6% (10) and 47,7% (9), respectively and did not differ statistically from that in patients with pancreatitis of nonbiliary genesis – 33,3% (6) and 61,1% (11) respectively ( $\chi$ 2 = 0,003, p = 0,95 and  $\chi$ 2 = 0,68, p = 0,4 respectively).

While analyzing the group of patients with acute edematous biliary pancreatitis, it was established that the homozygous carriers of the favourable "wild" N allele and heterozygous occurred with the same frequency - 50% (5) and 50% (5), respectively. However, a tendency towards a domination of the NS-genotype was established in patients with edematous pancreatitis of nonbiliary genesis as compared with the NN-genotype whose frequency of detection made up 85,7% (6) and 14,3% (1), respectively. However, such differences were not significant statistically ( $\chi 2 = 2,00$ , p = 0,16). No homozygous carriers of the mutant S-allele were detected in patients with acute edematous pancreatitis.

In patients with acute destructive pancreatitis of biliary and nonbiliary genesis the frequency of detecting genotypes NN (N34) and NS (N34S) did not differ significantly: 55,5% (5) and 44,5% (4) versus 45,5% (5) and 45,5% (5) respectively ( $\chi 2 = 0,001$ , p = 0,97 and  $\chi 2 = 0,114$ , p = 0,74 respectively).

**Conclusions.** Thus, the frequency of the NN and NS-genotypes of the SPINK1 gene in the patients examined did not differ significantly from patients with various forms of acute pancreatitis. The carriage of the unfavourable SS-genotype, in our opinion, may be a contributory factor for the onset of the disease and a potentiation of its further progression, as well as a prognostic marker of a severe clinical course of acute pancreatitis with the development of necrotic lesions of the pancreas.

#### Mazur O.O.

## MICROBIOTA OF THE MAXILLARY SINUSES OF CHRONIC PURULENT RHINOSINUSITIS IN PATIENTS WITH TYPE 1 DIABETES MELLITUS

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**Introduction.** Understanding the microbiota of the maxillary sinuses in chronic rhinosinusitis is important for developing new treatment strategies, such as targeted antibiotics or probiotics, that can restore a healthy bacterial balance and alleviate symptoms.

The aim of the study was to determine the species and population composition of the microbiota of chronic purulent maxillary rhinosinusitis in patients with type 1 diabetes mellitus of moderate severity type 1 diabetes mellitus (DM) and 10 patients with CPRS of the same age without concomitant pathology.

**Material and methods.** Bacteriological and mycological methods were used to study the species, population level quantitative characteristics of the microbiota of the maxillary sinus biotope in 38 patients with chronic purulent rhinosinusitis (CPRS) with type 1 diabetes mellitus (DM) and 10 patients without CPRS of the same age pathology.

**Results.** In patients with CPRS, combined with type 1 diabetes mellitus with moderate severity, bacteria of the genus *Bifidobacterium* and *Lactobacillus*, as well as bacteria of the genus *Streptococcus* (*S.salivarius*, *S.sanguis*, *S.mitis*, *L.lactis*), *Corynebacterium*. Against this background, the contents of the maxillary sinus cavity are contaminated with pathogenic and opportunistic bacteria of the genus *Prevotella*, *Fusobacterium*, *Streptococcus* (*S.pneumoniae*, *S.pyogenes*, *S.viridans*), *Staphylococcus* (*S.aurens*, *S.epidermidis*), *H.influenzae* .catarrhalis, *E.coli* and yeast fungi of the genus *Candida*. Such changes have led to violations of the dominance of indigenous obligate bacteria in the microbiocenosis.

CPRS in patients with type 1 diabetes disrupts microbial associations. In patients with HCV, the number of associations consisting of 3 species increases 2.7 times, but the number of