### 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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#### Nemish I.L.

## THE DIAGNOSTIC ROLE OF NT-proBNP IN CHRONIC CORONARY SYNDROME, CHRONIC OBSTRUCTIVE PULMONARY DISEASE, AND OBESE PATIENTS

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**Introduction.** One of the diagnostically significant markers of heart failure is the N-terminal fragment of the brain natriuretic peptide precursor (NT-proBNP), the level of which is associated with the left ventricular ejection fraction, the development of acute coronary syndrome, as well as with the severity of pulmonary hypertension and severity of right ventricular dysfunction.

The aim of the study. It was to determine the level of NT-proBNP in chronic coronary syndrome (CCS), chronic obstructive pulmonary disease (COPD), and obese patients and find the relationship with indicators of the disease's severity.

**Material and methods.** All patients were divided into the following clinical groups: group 1 - 22 CCS and obese patients, group 2 - 22 COPD and normal body weight patients, group 3 - 22 CCS, COPD and normal body weight patients, group 4 - 22 CCS, COPD and overweight patients and group 5 - 22 CCS, COPD and obese patients. The control group consisted of 20 practically healthy people. Assessment of the COPD severity was based on the results of the BODE index assessment, which included such parameters as body-mass index, obstruction, dyspnea, and exercise capacity.

**Results.** It was found that the NT - proBNP level was lower by 44% in the participants of the second group and higher by 1.7 times, by 1.5 times, and by 1.6 times (p<0.05) in the patients of the third, fourth, and fifth groups compared with CCS and obese patients. In addition, an increase in NT - proBNP level by 3.1 times was noted in CCS, COPD, and normal body weight patients, by 2.8 times in CCS, COPD, and overweight patients, and by 2.9 times in 22 CCS, COPD, and obese patients compared with COPD and normal body weight patients. At the same time, a correlation between NT - pro BNP and forced expiratory volume in 1 second (FEV<sub>1</sub>) after bronchodilation (r=-0.546; p<0.05) and forced expiratory flow at 25% (MEF25) after bronchodilation (r=-0.617; p<0.05) and the BODE index (r=0.503; p<0.05) was found in the CCS, COPD, and obese patients.

**Conclusion.** The obtained data indicate that the determination of the level of NT - proBNP in the blood can be considered a marker of severity and a criterion for predicting the course of the disease in CCS, COPD, and obese patients.

#### Palibroda N.M.

# IMPROVEMENT OF GASTRIC MUCOSA HEALING AFTER ERADICATION OF H. PYLORI IN PATIENTS WITH METABOLIC-ASSOCIATED STEATOHEPATITIS

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**Introduction.** Metabolic-associated fatty liver disease (MAFLD), formerly known as non-alcoholic fatty liver disease is one of the leading causes of liver cirrhosis and hepatocellular carcinoma worldwide. It is considered a hepatic manifestation of metabolic syndrome and type 2 diabetes. In such cases, the gastrointestinal tract is often affected. Early identification and appropriate management of gastrointestinal complications are important for improving both diabetic care and quality of life of the affected patients.

The aim of the study. It is to investigate the effect of L-glutathione on gastric mucosa in patients with metabolic-associated fatty liver disease and diabetes mellitus type 2 after Helicobacter (H.) pylori eradication.

**Material and methods.** This study was conducted on 59 patients with MASH and diabetes mellitus type 2 (31 men and 28 women) with a middle age of 54.2±7,2 years. H. pylori infection in each patient was diagnosed by 2 methods: a rapid urease test and the determination of H.pylori antigen in feces. Quadruple therapy was administered for 14 days as eradication therapy. In addition to basic therapy (group 1), 29 patients were prescribed L-glutathione 2 capsules 2 times a day for six weeks, while the other 30 patients received only basic therapy (group 2). The upper endoscopy,

morphological evaluation of gastric biopsy specimens, liver ultrasonography, liver enzymes (ALT, alanine aminotransferase; AST, aspartate aminotransferase) were evaluated before and after the treatment period.

Results. In both groups, the successful eradication of H.pylori led to a reduction in endoscopic signs of inflammation, stomach and duodenal ulcers healing, epithelialization of gastroduodenal erosions, improvement of gastric mucosa histology and reduction in gastritis activity degree. However, in the main group 1, a more significant clinical improvement was observed compared to group 2, in which dyspepsia (nausea, early satiety, feeling of heaviness in the epigastrium after eating, belching, regurgitation) by the end of treatment was still present in 29.6% of patients, in contrast to 14.8% in group 1 (p<0.001). A significant (p<0.001) decrease in inflammatory cell infiltration was found in both groups. However, patients in group 1 showed better results, as the degree of polymorphonuclear infiltration decreased by 63.9%, mononuclear infiltration by 66.7% (p<0.001), while in group 2 these indicators decreased by 44.1% and 47.4% (p<0.001), respectively. In addition, degenerative and necrotic changes in epithelial cells with multiple cases of gastroduodenal erosions were still present in group 2 patients after six weeks of therapy. Manifestations of atrophy of the gastric mucosa, intestinal metaplasia, and the state of the microcirculatory bed were not statistically different in samples taken before and after treatment in both groups. At the same time, in the main group 1, after 6 weeks of treatment with L-glutathione, the level of transaminases normalized. In group 2, serum ALT and AST levels were higher than the reference range at the end of the treatment period and were significantly higher than those in group 1 (p<0.05).

**Conclusions**. The administration of L-glutathione after anti-helicobacter therapy made it possible to optimize the course of therapy as a whole. According to the results of the study, L-glutathione contributed to a faster regression of inflammatory infiltration of the mucous membrane of the gastroduodenal zone and showed a cell-protective effect.

# Palichuk Yu. I. FORMATION OF HEALTH PRESERVATION CULTURE AMONG HIGHER EDUCATION INSTITUTION (HEI) STUDENTS THROUGH PHYSICAL EDUCATION MEANS

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**Introduction.** The values of student rearing that are focused on acknowledging the worth of the individual, their right to unrestricted growth, and their ability to express themselves become more important in the higher education system. As a result, fostering a culture of health keeping among students during physical education sessions becomes important as a means of improving their overall growth.

**The aim of the study.** To substantiate the pedagogical strategy of building a culture of health preservation for university students through physical education.

**Material and methods.** The following methods contributed to our research: theoretical (literature review, psychological-pedagogical and educational-methodical sources on health issues, health preservation, and physical education in higher education); empirical (observation of educational and educational activities, analysis of results, interviews, surveys); pedagogical experiment (descriptive and formative) contributed to examining the actual state and peculiarities of health preservation culture formation among students.

**Results.** The conducted experiment provided results that demonstrate the higher quality level of application of health preservation and strengthening knowledge and abilities by students in the experimental group in non-standard conditions. Simultaneously, they can plan exercises and health-promoting events under various circumstances while considering the surrounding environment.

An analysis has been conducted on the extent to which students at higher education institutions are forming a culture of health preservation. The descriptive experiment's findings