### 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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(1404.00±350.30) (p<0.001), which is 3.05 times increased compared to the PHI group. However, the content of this indicator in patients with prostate and duodenum CagA+VacA+ is 1.27 times (p<0.001) higher in comparison with the group of patients with prognosis and duodenum CagA+VacA-/CagA-VacA+. In the presence of concomitant pathology, the content of sVCAM-1 in patients with prostate cancer and duodenum CagA+VacA+ (3384.55±299.4) (p<0.05) is 6.87 times increased in comparison with the group of prostate cancer, and in patients with prostate cancer and duodenum CagA+VacA-/CagA-VacA+ (1654.00±145.56) (p<0.05) - 3.37 times, respectively. However, assessing the effect of toxigenic strains and hypertension and diabetes mellitus on the pancreas and duodenum, it was found that this indicator was 2.04 times (p<0.001) increased in the group of patients with CagA+VacA+ pancreas and duodenum in combination with hypertension and diabetes mellitus 2 compared with the group patients with PS and duodenum CagA+VacA-/CagA-VacA+ in combination with hypertension and T2DM.

**Conclusions.** The combination of pathologies, namely peptic ulcers of the stomach and duodenum, arterial hypertension and type 2 diabetes mellitus contributes, to the development of endothelial dysfunction by increasing the level of sVCAM-1.

#### Dudka I.V.

# THE SIGNIFICANCE OF OXIDATIVE STRESS IN THE PROGRESSION OF CHRONIC PANCREATITIS AGAINST THE BACKGROUND OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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**Introduction.** Numerous studies have been devoted to studying the intensity of lipid peroxidation (LPO) processes and the state of antioxidant defense factors (AOD) in patients with inflammatory pathology of the digestive system, pulmonological pathology, since the intensification of oxidative stress (OS) can contribute both to the development of diseases, significantly affect their course, and contribute to their progression with the development of functional organ failure. The frequency of chronic pancreatitis (CP) comorbidity with chronic obstructive pulmonary disease (COPD) has significantly increased recently, and it may be accompanied by changes in oxidant-antioxidant homeostasis and activate a cascade of reactions of mutual burdening of these pathologies.

The aim of the study. To define the state of oxidant-antioxidant homeostasis by studying the intensity of lipid peroxidation, oxidative modification of proteins (OMP) and the state of individual factors of the AOD system in the development and course of CP, depending on the comorbid COPD presence.

Material and methods. 317 patients were examined, including 62 patients with isolated CP (Group 1), 132 CP patients with comorbid COPD (Group 2), 123 patients with isolated COPD (Group 3). The content in blood of isolated double bonds in compounds, conjugate dienes, ketodienes and conjugate trienes, malonic aldehyde, reduced glutathione, the activity of catalase, glutathione-S-transferase, glutathione peroxidase were evaluated in all patients.

**Results.** The results showed that in CP patients with an isolated course, reliable activation of LPO processes was registered against the background of the AOD factors of the body system imbalance. This point of view is supported by the increase of LPO finish products content in the blood, namely, in observation Group 1, the reliable increase of MA plasma and erythrocytes 1.7 times (p<0.05), as well as the increase of IDB content in the blood 1.8 times compared to AHP (apparently healthy persons) (p<0.05).

The OS intensity analysis according to the above indicators in comorbid CP patients with COPD in the acute phase of both diseases indicates the maximum OS intensity among the compared groups, namely, the reliable increase of MA plasma and erythrocyte levels by 1.9 and 2.0 times, respectively (p<0.05), as well as the 2.2-time increase of the IDB content in the blood compared to AHP (p<0.05). The more intensive increase of the intermediate LPO product level in Group 3 was also established: CD and CD&CT -1.9 times, which indicates decompensation of LPO processes in

patients with comorbidity, and probably exceeds the figures in groups with isolated CP and COPD courses (p<0.05). Markers of the OMP intensity significant increase were established in Group 2 patients: AKDNPH NS exceeded the indicator in the AHP 2.7 times (p<0.05).

**Conclusions.** The isolated course of chronic pancreatitis in the exacerbation phase is accompanied by the significant intensity of oxidative stress with an increase of intermediate and final metabolites of lipid peroxidation (within 1.6-1.8 times) in the blood, oxidative modification of proteins (1.5 times) (p < 0.05) against the background of a significant imbalance of AOD factors (glutathione deficiency -1.5 times), activation of glutathione-dependent enzymes and catalase -1.2-1.4 times) (p < 0.05). The isolated course of COPD in the exacerbation phase is accompanied by the lower intensity of oxidative stress due to a slight reliable increase of intermediate and final metabolites of lipid peroxidation (1.2-1.5 times) in the blood, but the OS higher intensity due to the activation of oxidative modification of proteins (2.6 times): the imbalance of AOD factors (glutathione deficiency -1.2 times, activation of glutathione-dependent enzymes and catalase -1.2-1.4 times) (p < 0.05).

### Dudka T.V.

## THERAPEUTIC CORRECTION OF CHANGES IN PATIENTS WITH COPD AND ACCOMPANYING CHRONIC NON-CALCULOUS CHOLECYSTITIS

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**Introduction.** Therapeutic correction of changes in patients with COPD and accompanying chronic non-calculous cholecystitis is vitally important for the patient successful management.

The aim of the study. To investigate the efficacy of roflumilast, ursodeoxycholic and ribonucleinic acids in patients with COPD with an accompanying chronic non-stone cholecystitis.

**Materials and methods.** The study involved 40 patients with COPD (Group B), in the acute phase with an accompanying CNC in the acute phase and 20 practically healthy individuals (PHI). Patients of the control group (group 2) received berodual, UA500 mg overnight for 30 days, under the conditions of infective exacerbation of COPD - antibiotic therapy. Group 1 (study, 20 people) received roflumilast 500 mg additionally once a day, nucleinas 500 mg 3 times daily for 30 days.

We determined: the ventilation function of the lungs with the help of a computer spirograph, the state of the gallbladder by ultrasonography (US), physical properties of bile, microscopic examination of bile sediment, bacteriological and biochemical research: the lipid complex, cholic acid (CA) content were determined, lithogenicity coefficients were also calculated: cholate-cholesterol coefficient (CCC) and cholate-bilirubin (CBC), morphofunctional state of erythrocytes.

**Results.** The results obtained in the study of the dynamics of treatment and their analysis indicate that exposure to complex therapy, amelioration, reducing the signs of exacerbation of COPD and CNC, a significant improvement of quality of life in patients of group 1 were noticed sooner. Figures of external respiration functions (FER) in dynamics of treatment in patients with COPD with an accompanying CNC show higher efficiency of the proposed therapy too. In particular, the rate of forced expiration for the first second after treatment in patients of group 1 increased by 31,5% (p<0,05), while patients in group 2 - by 14,0% (p<0,05) probable presence of intergroup differences (p<0,05). Taking into consideration the fact that the treatment of patients of group 1 included antioxidant preparation nucleinas - dynamic performance and the intensity of lipid peroxidation were significantly different from baseline in all periods of observation. For instance, the content of MA (malonic aldehyde) in plasma after treatment in group 1 decreased by 1,7 times (p<0,05), while in group 2 - 1,2 times (p<0,05) with significant difference between groups (p<0,05).

Biochemical analysis of blood and bile for bilirubin after treatment indicates its significant reduction in patients of group 1 - by 1,7 times in blood (p<0,05) and 27,7% (p<0,05) in bile. In patients of group 2, due to the influence of the UA, bilirubin in bile decreased by 7,8% (p<0,05), and the content of bilirubin in blood decreased by 13,0% (p<0,05).

Conclusions. The use of roflumilast in combination with berodual, ursodeoxycholic and