МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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Results. In patients with chronic pancreatitis (CP), OA exacerbations were predominant. The clinical presentation was characterized by pain during active and passive movements, especially in the morning or after considerable overexertion, limited joint range of motion, and joint deformity due to proliferative changes, indicating OA progression. Analysis of IL-18 levels showed an upward trend in 18 patients, with significantly elevated levels in 34 patients compared to the practically healthy group ($p<0.001$), correlating with malondialdehyde and CRP levels ($r=0.52$; $p<0.05$). IL-10 levels (an anti-inflammatory cytokine) in 18 patients were comparable to those in the practically healthy group, suggesting balanced immune response processes. In the second group, IL-10 levels were significantly elevated compared to the healthy control group ($p<0.001$). Concurrent increases in IL-18 and IL-10 may indicate activation of the cytokine defense system, which can be seen as a compensatory response under chronic systemic inflammation conditions.

Conclusion. The immune system in patients with chronic pancreatitis and osteoarthritis appears to be directed toward compensation, balancing between cytokine activation and protective processes (as indicated by IL-18 and IL-10 levels), thereby sustaining low-grade chronic inflammation.

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THE FUNCTIONAL STATE OF THE GALL BLADDER IN PATIENTS WITH ISCHEMIC HEART DISEASE AND OBESITY BASED ON THERAPEUTIC CORRECTION DUE TO ROSUVASTATIN AND MOSAPRIDE

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Introduction. Cholesterosis is one of the most common diseases of the gallbladder. The frequency of the disease, according to surgeons, varies from 2.4 to 39.0%, according to pathologists – from 2.1 to 46.0%. According to the sonography of the gastrointestinal tract, the frequency of detection of cholesterosis in the gastroenterology clinic is 8.1-40.3%. Cholesterosis is often combined with cholesterol calculi, which gives reason for some authors to consider this disease as a pre-stage of gallstone disease. In some cases, cholesterosis is considered as one of the manifestations of the lipid distress syndrome, that is, a complex of diseases, the pathogenesis of which is based on hyperlipidemia and dyslipoproteinemia. In this regard, cholesterosis is often detected in patients with obesity, which is also a component of the lipid distress syndrome. Recognizing more than a century ago lipid infiltration of the gallbladder wall as the basis of future stones, unfortunately, did not change approaches to the treatment of cholesterosis, and advances in the diagnosis of this pathology did not contribute to significant strategic changes in treatment. Cholesterosis is one of the indications for cholecystectomy. Postcholecystectomy syndrome is a cause of disability. It can be associated with both technical errors of surgical intervention and functional disorders caused by the "loss" of functions of the gastrointestinal tract. Cholesterolemia and postcholecystectomy syndrome lead to a significant decrease in the quality of life of patients and even to disability.

The aim of the study. To detect the effect of rosuvastatin and mosapride on the course of chronic cholecystitis and cholesterosis of the gallbladder in patients with coronary heart disease, cardiosclerosis and obesity, on the functional state of the endothelium, the intensity of oxidative and nitrosative stress, which are factors in the progression of the main and comorbid diseases.

Material and methods. To study the effectiveness of the proposed regimen of pharmacotherapy, studies were conducted on the dynamics of treatment in 60 patients with coronary heart disease (CHD), cardiosclerosis, obesity I-II degree with chronic cholecystitis (CC) (30 patients) and a combination of CHD, cardiosclerosis, obesity I-II degree, CC and cholesterosis of the gallbladder (30 people). 1 group (control) received ursodeoxycholic acid (UDCA) (0,5 g per night), hypolipidemic drug atorvastatin (A) (10 mg 1 time per day) and prokinetic domperidone (10 mg 3 times per day). Group 2 (main) as a comparison received rosuvastatin (R) (10 mg 1 time per day), mosapride (5 mg 3 times per day) for 1 month and UDCA (0,5 g per night).

Results. As a result of the conducted studies, it was established that the increased content of nitrogen monoxide (NO) in patients of the 1st group decreased by 1.2 times ($p<0.05$), and in the 2nd group – by 2.2 times ($p<0.05$) and there was a significant decrease in the activity of inducible NO-synthase (iNOS) in patients of both groups: by 1.4 and 3.1 times, respectively ($p<0.05$). The consequence of optimizing the functional state of the endothelium was a decrease in the content of vasointestinal peptide (VIP) in the blood, which in the patients of the 1st group decreased probably by 1.2 times ($p<0.05$), and in the 2nd group – by 1.6 times ($p<0.05$), which we also attribute to the influence of R.

Conclusions. Rosuvastatin, which is a powerful hypolipidemic agent due to the inhibition of the activity of the enzyme 3-hydroxy-3-methyl-glutaryl-CoA-reductase, which catalyzes the biosynthesis of cholesterol in the liver, as well as promoting the expression of LDL receptors on hepatocytes, which bind to blood LDL and by of endocytosis are absorbed by hepatocytes, thereby reducing the content of proatherogenic LDL in blood serum, in combination with the prokinetic agent mosapride, which is a selective agonist of 5HT4 receptors and an antagonist of 5HT3 receptors and helps to accelerate the passage of food through the gastrointestinal tract, thus reducing the time of absorption of saturated fatty acids, from which proatherogenic lipoproteins are then synthesized, exceed the intensity of the effect of the combination of atorvastatin and domperidone.

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THE EFFECT OF DIFFERENT X-RAY RADIATION DOSES ON THE RAT LIVER LIPID PEROXIDATION PRODUCTS

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Introduction. The problem of low-intensity radiation impact has become particularly acute after the Chernobyl disaster, when a significant number of people and animals were exposed to radiation. The effect of ionizing radiation is primarily initiated by the radiolysis intermediate products of intracellular water and changes in the formation of bioradicals as a result of these processes. Under such conditions, the level of lipid peroxides as the indicators of membrane integrity is changed, and their structure alterations determine the functional consequences of radiation exposure on the organism. At the same time, the literature concerning the impact of low doses ionizing radiation during fractionated irradiation on the liver lipid peroxidation (LPO) is contradictory. A great amount of experimental data has been accumulated regarding the study of sublethal and lethal dose radiation effects on the balance of the "LPO – antioxidants system" (AOS). However, insufficient attention has been given to the changes in this system under prolonged fractionated irradiation over time after its cessation.

The aim of the study. To study the peculiarities of different dose fractionated X-ray irradiation effects on the dynamics of lipid peroxidation (LPO) in the liver at various time points following the exposure.

Materials and methods. The research was conducted on 48 white non-linear male rats weighing 120-150 g, which were kept on a standard vivarium diet. Fractional total irradiation of the animals with X-rays was performed for 30 days with an interval of 24 hours using the X-ray diagnostic unit 12 P6: exposure dose rate 0.258 mCl/s, voltage 90 kV, current 40 mA, aluminum filter, skin-to-focus distance 48 cm. The total doses were 0.3 Gy (group 1); 0.6 Gy (group 2); 0.9 Gy (group 3); and 1.2 Gy (group 4), respectively. The control group consisted of intact rats, which were decapitated at the same time as the experimental animals. The status of LPO was assessed by the content of its primary product – dien conjugates (DC) and secondary product – malondialdehyde (MDA) in the liver homogenate. Statistical analysis was performed using the Student's t-test. The results of the studies were expressed as a percentage control.

Results. DCs are products of oxidative destruction of polyunsaturated fatty acids. Thirty-day fractional X-ray irradiation of animals with total doses of 0.3 Gy (group 1), 0.6 Gy (group 2), 0.9 Gy (group 3), and 1.2 Gy (group 4) on the first day caused directional changes in the DC content in groups 2, 3, and 4, while in group 2, there was an insignificant increase. Subsequently, there was a