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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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THE EFFICIENCY OF ROSUVASTATIN AND PULMONARY REHABILITATION USAGE IN PATIENTS WITH ASTHMA AND COPD WITH COMORBID DIABETES MELLITUS TYPE 2

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Introduction. Numerous studies show the effectiveness of long-term pulmonary rehabilitation programs for COPD. However, there are few studies demonstrating the effectiveness of short-term programs, especially in patients with concurrent symptoms of asthma and COPD. The pleiotropic properties of rosuvastatin, particularly the reduction of systemic inflammation and the suppression of processes such as NETosis, suggest the potential effectiveness of its use in patients with a combination of asthma, COPD and diabetes mellitus type 2.

The aim of the study. To investigate the impact of a pulmonary rehabilitation program combined with 10 mg of rosuvastatin daily, in addition to the basic treatment prescribed, on the quality of life and exercise tolerance of patients with asthma, COPD and diabetes mellitus type 2.

Material and methods. Thirty-six patients with concurrent asthma, COPD and diabetes mellitus type 2 were examined. I group (n=20) was prescribed rosuvastatin 10 mg per day and pulmonary rehabilitation additionally to triple basic therapy during one month while II group continued to receive only the basic treatment. The pulmonary rehabilitation program included education, breathing exercises, training 5 times a week for 30 minutes, dietary recommendations and psychological consultation. Asthma Control Questionnaire (ACQ), COPD Assessment Test (CAT) and St. George Hospital Respiratory Questionnaire (SGRQ) were used to assess patient's quality of life. Higher scores in the "symptoms," "activity," "impact," and "total" scales of the SGRQ indicated a more pronounced impact of COPD on the patients' quality of life, while lower scores indicated less impact. 6 min walk test (6MWT) was performed to assess exercise tolerance. Disease severity was assessed by calculating the BODE index based on BMI, obstruction (FEV1 % of predicted), the mMRC dyspnea scale, distance covered in the 6MWT.

Results. In the patients of the main group, a significant reduction in CAT scores was found with a decrease of 26%, while in the comparison group it was only 16% ($p<0.05$). In the patients of Group I, a significant decrease in the ACQ score was observed at 41%, while in Group II, it was 31% ($p<0.05$). In the main group, the score on the "symptoms" scale significantly decreased by 30% ($p<0.05$), which is 15% significantly lower ($p<0.05$) than the corresponding value in the comparison group. The median score on the "impact" scale significantly decreased in Group I by 31% ($p<0.05$) after treatment, which was 11% ($p<0.05$) lower than the corresponding value in Group II, which did not significantly differ before and after treatment. The BODE index significantly decreased by 2.5 times in the main group following treatment, while in the II group, it decreased by 1.6 times ($p<0.05$). The severity of dyspnea significantly decreased in both groups, with a reduction of 33% in Group I and 16% in Group II ($p<0.05$). During the 6-minute walk test, it was found that patients in the main group walked a significantly longer distance after treatment, increasing by 19% ($p<0.05$) compared to before treatment. This difference was significant when compared to the corresponding value in the II group, indicating an improvement in exercise tolerance.

Conclusion. Using the ACQ, CAT, and SQRQ questionnaires alongside the BODE index assessment and the 6-minute walk test enables us to evaluate the impact of adding pulmonary rehabilitation and 10 mg of rosuvastatin daily to standard treatment on the quality of life of patients with asthma, COPD, and comorbid type 2 diabetes mellitus. The most significant improvements in quality of life and physical exercise tolerance were observed with the addition of pulmonary rehabilitation and rosuvastatin to the triple basic treatment.