

POSSIBILITIES OF USING ERDOSTEINE IN THE COMPREHENSIVE TREATMENT OF PATIENTS WITH NEUTROPHILIC INFLAMMATION TYPE OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE COMBINED WITH GASTROESOPHAGEAL REFLUX DISEASE AND SECONDARY BRONCHIECTASIS

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Abstract. Chronic obstructive pulmonary disease (COPD) remains one of the leading causes of disability and mortality worldwide. The presence of comorbid conditions such as gastroesophageal reflux disease (GERD) and secondary bronchiectasis (BE) significantly complicates the course of COPD, reduces the efficacy of standard therapy, increases the frequency of exacerbations, and worsens patients' quality of life.

Objective. To assess the effect of erdosteine on symptom progression and inflammatory response markers in patients with a neutrophilic inflammation phenotype of COPD combined with GERD and secondary BE.

Materials and Methods. A total of 68 patients were enrolled and divided into two study groups: COPD+GERD (IIa) and COPD+GERD+BE (IIb). Clinical symptoms (cough, dyspnea, sputum production) and serum levels of CRP and IL-6 were assessed on days 0, 30, and 180 of treatment. Statistical analysis included the Student's t-test and Fisher's exact test.

Results. Both study groups demonstrated a reduction in the frequency of symptoms by day 180. The most pronounced improvements were observed in dyspnea during physical activity and at rest, and in the frequency of productive cough. In both groups, serum CRP and IL-6 levels decreased; however, the reduction was more prominent in group IIa, where the decrease in IL-6 on day 180 was statistically significant ($p < 0.05$). In group IIb, inflammatory markers also decreased, though the dynamic was less pronounced, likely due to the more intense systemic inflammation observed in patients with secondary bronchiectasis.

Conclusions. Erdosteine, as part of comprehensive therapy in patients with comorbidities—including neutrophilic phenotype COPD, GERD, and secondary bronchiectasis—was associated with a significant reduction in clinical symptoms and systemic inflammation markers in both groups. This effect is more pronounced in patients with COPD and GERD compared to those with COPD, GERD, and secondary bronchiectasis. The positive dynamics of the indicators are more evident in the COPD+GERD group as early as day 30 of treatment and in the COPD+GERD+secondary bronchiectasis group by day 180 of therapy.

Key words: Chronic obstructive pulmonary disease, gastroesophageal reflux disease, bronchiectasis, erdosteine, CRP, interleukin, comorbidity.