

THE ROLE OF EOSINOPHILS IN THE PATHOGENESIS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND THEIR IMPORTANCE IN TREATMENT SELECTION

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Abstract

Due to the growing amount of scientific data about the pathogenesis of chronic obstructive pulmonary disease (COPD), the role of eosinophils in the development of inflammation in the airways of these patients is becoming increasingly clear. This inflammation is developed not only with the neutrophils, as was long believed, but in about 20-40 % of COPD patients, type 2 inflammation involving eosinophils is a significant component. A number of important functions of eosinophils in maintaining body homeostasis, forming the respiratory tract microbiome, and preventing respiratory tract infections have also been discovered. It has been established that the use of inhaled corticosteroids (ICS) is most justified in COPD patients with frequent exacerbations and high intensity of eosinophilic inflammation in the airways. Based on these findings, the Global Strategy for the Prevention, Treatment and Management of COPD (GOLD Report 2026) recommends considering the use of ICS in patients with repeated exacerbations of COPD with a blood eosinophil count of more than 99 cells/microliter, and with a level of more than 299 cells/microliter, the use of biologic therapy should be considered.

However, the number of issues regarding determining the threshold value of eosinophil levels, the rationality of using eosinophil levels in the blood to assess their content in the respiratory tract, and assessing the risk of recurrent bacterial respiratory tract infections and pneumonia in those taking them remain controversial.

Key words: COPD, eosinophils, inhaled corticosteroids.

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