
IMPACT OF FUNGICAL COLONIZATION OF PATIENTS RESPIRATORY TRACT ON THE COURSE OF THE MILD AND MODERATE BRONCHIAL ASTHMA

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Abstract

The aim of the work is to study clinical, anamnestic, functional, allergological and laboratory features in patients with mild and moderate bronchial asthma (BA), depending on the presence of fungal colonization in the respiratory tract. A prospective, open-label study with clinical, functional, laboratory and allergic examination of 106 patients with BA from 18 to 81 years old, mean age (52.7 ± 1.2) years was conducted. The patients were divided into groups, depending on the presence or absence of *Candida* and mold fungi in the sputum. It was found that the presence of *Candida* in the airways of 32,1 % of patients was associated with moderate sputum leukocytosis and increased airway colonization by saprophytic and opportunistic Gram+ bacteria. Colonization of the respiratory tract by mold fungi was observed in 7,5 % patients and prevailed among the younger patients. They had less duration of asthma, smoking experience, atopy, better respiratory function (FVC), with a more increase FEV_1 in a bronchodilator test, more pronounced skin tests to histamine and allergens of mold fungi-mixed, the lower hemoglobin levels in the blood. They had an increase in the colonization of the respiratory tract by opportunistic Gram+ bacteria and *Candida* spp.

Conclusion. The presence of *Candida* in the respiratory tract of patients with mild and moderate bronchial asthma is associated with an increase in the colonization of the respiratory tract by saprophytic and opportunistic Gram+ bacteria, and, in certain limits, it does not have a pronounced adverse effect on the course of asthma. Colonization with mold fungi promotes the formation of pronounced fungal sensitization to mold.

Key words: mild and moderate bronchial asthma, fungal colonization of respiratory tract, *Candida*, mold fungi, skin tests with fungal mixed allergens.

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