ALLERGIC RHINITIS AS A "BARRIER" DISEASE OF THE RESPIRATORY EPITHELIUM: THE ROLE OF TOPICAL ECTOINE

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Abstract. The aim of this paper is to analyze the current data on the Epithelial Barrier Hypothesis in the pathogenesis of allergic rhinitis, and to explore the role of topical ectoine in its management.

Allergic rhinitis (AR) is the most common IgE-mediated inflammatory disease of the nasal mucosa caused by exposure to allergens and represents a significant global socioeconomic burden. Current studies indicate the presence of impaired epithelial barrier function and increased permeability of the respiratory epithelium to allergens and pathogens in patients with AR. Respiratory barrier defects result from numerous exogenous and endogenous triggers that disrupt the integrity of the epithelium, contributing to the development of AR. Impaired barrier function of the respiratory epithelium leads to the development of frequent viral diseases as an important trigger factor for the exacerbation of allergic inflammation, especially in children. In recent years, there has been increasing interest in the use of alternative and complementary therapies to better control symptoms and alleviate the condition of patients with AR. One such non-pharmacological intervention is ectoine. Clinical studies indicate that ectoine not only alleviates the symptoms of AR, but also strengthens the barrier function of the mucosa, which helps protect it from allergens, infectious agents and pollutants.

Key words: allergic rhinitis, respiratory epithelium, barrier function, ectoine, ectobreath.