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**Title:** The association between clinical features of asthma and impact of one-year sublingual immunotherapy on immunological system of atopic children

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**Body:** Background. Clinical efficacy of sublingual immunotherapy has been already proven and is found to be high. Its influence on immunological system of patients suffering from bronchial asthma was also examined. Although, it is still unclear how the polysensitization, coexistence of other atopic disease and asthma control step influence the response to treatment with specific immunotherapy. Aim. Evaluation of the impact of one-year sublingual immunotherapy on selected markers of immunological response in dependence of different individual and clinical factors of children suffering from atopic asthma and allergic rhinitis. Materials and methods. Twenty five patients aged  $8.1 \pm 3.1$  years (5-15 years olds), 21 boys and 4 girls, suffering from asthma and allergic rhinitis, shortlisted for sublingual immunotherapy, were included in the study. Th1 cells and Th2 cells percentage, Bcl-2 expression in T cells and basophil activation in peripheral blood were measured with flow cytometry. The association between clinical features of asthma and influence of SLIT on immunological parameters was evaluated with exact Fisher test. Results. No association between the influence of one-year sublingual immunotherapy on immunological system and patients' age, polysensitization, asthma control step or coexistence of any other atopic diseases was observed. Conclusion. Basing on our results we can't point to any subgroup isolated in the study, which response of immunological system to sublingual immunotherapy would be more satisfying, than any other.