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## PHENOTYPIC HETEROGENEITY OF SEVERE ASTHMA IN SCHOOLCHILDREN DEPENDING ON THE TYPE OF BRONCHIAL INFLAMMATION

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Bronchial asthma and recurrent bronchitis occupy the leading place among chronic and recurrent respiratory diseases in children age. Special importance of problem of these diseases gets in view of the provisions that recurrent respiratory diseases in children is the debut of chronic bronchopulmonary pathology of adult period of life. One of the important aspects of inadequate asthma control is determined by its phenotypic heterogeneity. The question of differentiation asthma phenotypes of childhood-determining the particular aspects of the disease and individual approaches to treatment is a major controversial problems in allergology. Currently phenotyping of disease occurs in the two areas: clinical, pathophysiological, molecular markers and variants of response to therapy.

The objective was to analyze of clinical, laboratory and instrumental parameters in children of school age, suffering from severe bronchial asthma, depending on the character of bronchial inflammation.

On the basis of a comprehensive survey of school children was shown heterogeneity of severe asthma due to the type of bronchial inflammation. It was found that in children with severe asthma and eosinophilic bronchial inflammation, nonspecific airway hyperresponsiveness is implemented mainly by probably more expressive bronchospasm and bronchial hyperreactivity. During the attack this cohort of school children characterize by intensive signs of bronchial obstruction syndrome and, at the same time, the best response to baseline antiinflammatory preventive treatment (due to ACT test results and the dynamics of nitrogen monoxide metabolites).

Patel P.P., Mittal M.M., Sazhyn S.I.

## LEVEL OF ASTHMA CONTROL IN SCHOOL-AGE CHILDREN WITH EXERCISE-INDUCED ASTHMA PHENOTYPE AND DIFFERENCE TYPE OF ACETYLATOR

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Background. Bronchial asthma is one of the most common chronic allergic diseases in childhood. Despite the concept of international consensus documents which states that the control under the symptoms of the disease can be achieved in persons who used prophylactic treatment, in practice aspect is dominated persons with partly or uncontrolled asthma. Inadequate effect from the proposed scheme of the basic therapy enables researchers to consider that bronchial asthma not as a single disease but a group of asthmatic diseases. Such different phenotypes of asthma may vary in response to treatment, prognosis, inflammatory patterns and in susceptibility to environmental exposure

The purpose of investigation: to evaluate the asthma control level in children with exercise-induced bronchial asthma depending of acetylating processes.

Materials and methods. On the base of the Children Clinical Hospital (Chernivtsi) retrospectively were examined 46 children who are afflicted with exercise-induced bronchial asthma. According to the type of acetylator were formed two clinical groups. The first (I) group included 25 patients with slow type of acetylation, the second (II) clinical group formed 21 patients with fast acetylator type. No significant differences by sex, age and place of residence have been shown a correctly formed clinical comparison group.

Asthma control level was evaluated by Asthma Control Test (ACT).

Results. The average value of level of asthma control by ACT in both groups have not been significantly different and was 15,6 (95% confidential interval (CI) 12,3-18,0) and 17,1 (95% CI 14,5-19,7),  $P < 0.05$ . However in children with exercise-induced asthma phenotype and fast acetylator the frequency of uncontrolled asthma was in twice higher that of patients with a similar phenotype and slow acetylators processes ( $53,8 \pm 9,9\%$  versus  $25,0 \pm 9,4\%$ ,  $P > 0,05$ ).

Conclusion. Despite an antiinflammatory treatment the frequency of uncontrolled bronchial asthma in children with slow type of acetylator was in twice higher in comparison with patients with fast acetylation process, which recommend to prescribe longer (up to six months) basic therapy to achieve control under the symptoms of the disease.