

the peculiarities of the nature of airway inflammation by the study of the characteristics of the cellular structure of induced sputum in school-age children with bronchial asthma with early and late onset.

**Materials and methods.** There has been examined 46 school age children suffering from persistent bronchial asthma. A cytological analysis of induced by inhalation of hypertonic solutions (3%, 5%, 7%) of sodium chloride sputum has been performed by the method of Pavord I.D. in the modification of Pizzichini M.M. (1996). Into the first (I) clinical group 21 child with early onset of bronchial asthma (up to 3 years) has been gotten, the second (II) group has been consisted of 25 children with a late debut (at 6 years and later) of the disease.

**Results.** The cellular composition of the induced sputum of children of I clinical group was: eosinophilic granulocytes  $3,95 \pm 1,3\%$ , neutrophilic granulocytes  $49,9 \pm 4,1\%$ , mast cells  $0,38 \pm 0,3\%$ , alveolar macrophages  $30,0 \pm 4,5\%$ , lymphocytes  $15,8 \pm 2,9\%$ , epithelial cells  $47,8 \pm 4,7\%$ . In the cytogram of bronchial secretions in patients with late onset asthma there have been included, respectively: eosinophils  $14,2 \pm 4,3\%$  ( $P < 0,05$ ), neutrophils  $46,3 \pm 4,8\%$  ( $P > 0,05$ ), mast cells  $0,5 \pm 0,3\%$  ( $P > 0,05$ ), macrophages,  $29,7 \pm 4,5\%$  ( $P > 0,05$ ), lymphocytes  $9,3 \pm 2,8\%$  ( $P > 0,05$ ) and epithelial cells  $40,4 \pm 3,2\%$  ( $P > 0,05$ ).

**Conclusions.** On the basis of a complex investigation of 46 children suffering from bronchial asthma, it has been stated that early-onset disease characterized by a more expressive damage of the epithelial layer of the airways due to their neutrophil-lymphocytic inflammation, and in patients with late-onset asthma phenotype the eosinophil-macrophagal variant of inflammatory response in the bronchi has been determined.

### THE MODERN POSSIBILITIES OF INCREASING THE EFFICIENCY OF BASIC THERAPY OF SCHOOL-AGE CHILDREN'S BRONCHIAL ASTHMA

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Purpose of the study: To increase the effectiveness of the basic therapy with the use of Nucleinat in its complex for the treatment of school-age children's bronchial asthma (BA). Material and Methods: 98 school-age children with BA in the period of remission were examination with a double blind, randomized, placebo controlled method. All the patients were divided into two groups. Patients of I group were administered Nucleinat in the basic therapy, the second – placebo with the same scheme. Bronchial hypersensitivity (BHS) was estimated by the findings of PC20H and PD20H. It was calculated the absolute risk (AR), relative risk (RR) and odds ratio (OR) realisation of event at the 1st group children to control group

with them 95% CI. The effectiveness of the basic treatment was analyzed with next indexes: decrease of absolute risk (DAR), relative risk (DRR) and the minimum number of the patient which should be treated to have one positive result (MNP). Results. Children in I group after the treatment were characterized by higher risk reduction BHS relatively to second. The relative risk of the positive change of BHS in I group was 1,9 (95% CI 1,3-9,3), the absolute risk – 0,3 with odds ratio – 3,3 (95% CI 1,7-6,1). Under the influence of Nucleinat in the basic therapy revealed lowering of absolute risk of distinct BHS and could see 25,8%, DRR – 54,8% (95% CI 44,5-64,8) and MNP was equal to 1,8 (95% CI 0,1-7,1). Conclusions. The use of Nucleinat in the combined therapy for children's BA ensures a significant reduction in BHS. The inclusion of Nucleinat in the basic therapy led to an increase the effectiveness of BA treatment in every second patient.

**Summary.** The effect of Nucleinat included in the basic therapy of BA has been analyzed by means of double-blind, placebo-controlled method in 98 school age children. The application of the Nucleinat in complex therapy of the BA was accompanied by decrease of BHS due to the possible reduction of the inflammatory process activity in the airways. The use of Nucleinat in the basic therapy of the school-age children led to an increase the effectiveness of BA treatment in every second patient.

### MARKERS OF A METABOLIC SYNDROME IN CHILDREN WITH OBESITY

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Timeliness: obesity refers to one of the most widespread endocrine-metabolic diseases among children and adolescents.

Goal of research: to study the occurrence of main components of metabolic syndrome among children and adolescents with obesity for early detection of high-risk groups and prevention program development.

Materials and methods. we have analyzed 797 medical records of school-aged inpatients proceeding with the treatment for obesity in endocrinology department of regional children's clinical hospital as of from 2005 to 2008.

Outcomes: Among 797 school-aged children (444 boys and 353 girls of 7-17 years old) the final diagnosis was: pubertate dyspituitarism with impaired fat metabolism of one degree or another in 87,0 % cases, constitutive exogenous obesity in 12,5 % cases and Laurence-Moon-Biedl-Bardet syndrome in 4 children. The first degree obesity was diagnosed in 12,0%, the second degree was diagnosed in