the treatment of Helicobacter pylori-associated pathology have shown a direct correlation between the duration of remission and the course of the drug.

Given the leading place in the structure of digestive diseases in children IDUGIT, one of the determining predictors of the development of which is *H. pylori*, in order to determine its regional frequency retrospectively analyzed 368 "Medical cards of inpatients" children aged 7-18 years who were hospitalized in the gastroenterology department of the regional children's clinical hospital in Chernivtsi during 2010-2014.

The analysis showed that 216 children were infected with *H. pylori*, which is 58.7%. The dynamics of the frequency of *H. pylori* (+) IDUGIT for a five-year period showed fluctuations: a gradual decrease from 2010 to 2012 (from 59.1% to 56.7%) with a further increase in 2014 (60.6%). There was a difference in the frequency of *H. pylori* infection among children with IDUGIT depending on the place of residence. Despite the preservation of the general trend of the dynamics of the prevalence of *H. pylori* among children in Chernivtsi and districts of the region, significantly higher rates were found among people in the regional center (68.5% vs. 31.5%, $p < 0.05$).

The prevalence of Helicobacter pylori was analyzed for infection in children depending on age. It was found that among children aged 7-11 years the frequency of infection is slightly higher than among persons aged 12-18 years (68% and 57.2%, $p > 0.05$). However, the analysis of the dynamics of the indicator established an inverse correlation of weak strength between the age of the child and the frequency of H. pylori infection ($\varphi = 0.107$).

The structure of H. pylori infection in children with IDUGIT is represented by such nosological forms as chronic gastritis (CG), chronic gastroduodenitis (CGD), chronic duodenitis (CD), peptic ulcer (PUD) and duodenal ulcer. The highest frequency of Helicobacter pylori infection was found in people with HGD, in the second place - with VH, the third - with HG.

According to the results of retrospective analysis, it was found that the frequency of H. pylori infection among children of Chernivtsi region with IDUGIT is 58.7% with probably higher rates among patients with CGD and a tendency to decrease in frequency with age.

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## MARKERS OF ATOPIC REACTIVITY IN THE PUPILS, WITH SEVERE BRONCHIAL ASTHMA

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One of the most pressing problems of modern pediatric is allergic disease in children, including bronchial asthma (BA). In different regions of Ukraine this figure ranges from 5 to 9% of child population. Imposing the controlling asthma therapy in children should be considered a feature of the phenotype, defined heterogeneous mechanisms of development, however, is almost identical clinical symptoms. Based on the above, taking into account the performance of atopic reactivity in children that reflect the specific pathogenic mechanisms of realization of asthma, in a comprehensive study of patients will personalize the treatment of asthma and thereby improve treatment of the disease.

Considering this fact the objective of our scientific study was to increase the effectiveness of treatment phenotype of severe asthma in school-age children, taking into account the diagnostic value of indicators atopic reactivity. 60 school-age children with asthma in the remission period were comprehensively examined in the Pulmonology Department of Chernivtsi Regional Children's Clinical Hospital.

Over the course of the disease the patients were divided into two clinical groups. The first (I) clinical group consisted of 30 patients who had been registered severe asthma. The second (II) clinical group formed 30 patients, which was defined moderately severe asthma. For the main clinical features group were not differ. All children performed immunological blood test II - III levels. The contents of serum total immunoglobulin E (IgE), interleukin-4 (IL-4) and interleukin-5 (IL-5) was determined by enzyme-linked immunosorbent assay (ELISA).

The content of total Ig E in serum virtually all surveyed our patients (95,1%) higher than the population normal of healthy children (120 IU/ml), but in patient of the first clinical group it was somewhat higher. Thus, the concentration of total immunoglobulin E in serum pupils with severe asthma was 813,5 IU/ml, and those of other clinical 685,3 IU/ml (p>0,05). Whey content of total IgE, which exceeded 545,3 IU/ml, was recorded in 56,6% of children first clinical group and only in 43,4% of the second (p>0,05) comparison group.

Comparative analysis of the IL-4 and IL-5 concentration in serum by clinical students in both groups revealed no differences likely, however, marked a half of growth in single patients for severe asthma. Thus, the average concentration of IL-4 in serum of first clinical group children was 10,6±2,1 pg/ml, and in those of the second group - 7,2±2,5 pg/ml (p>0,05). The average content of interleukin-5 in the clinical group was 35,8±15,7 pg/ml and 8,6±4,3 pg/ml (p>0,05), respectively, and testified four times a day in excess of the marker first clinical group. Despite the lack of significant differences of these cytokines concentration in the blood serum of children at the comparison groups, nearly one in three patients (36,4%) on the phenotype of severe asthma recorded significantly increased content of IL-4 (more than 10,0 pg/ml), while the patients the second group - only 15,5% of cases (pφ<0,05). This specificity (SP) of the above concentrations of IL-4 in peripheral blood of pupils as the verification test of severe asthma phenotype was 84,6% (95% CI 75,9-91,1), but sensitivity (Se) - only 36,4% (95% CI 26,9-46,6), the odds ratio was 3,1 (95% CI 1,5-6,2). On the one hand, it highlights the presence of other inflammatory subphenotype in children with severe asthma phenotype, and the other site the high specificity of this test in the verification of asthma-phenotype.

Thus, concentration of total immunoglobulin E in serum exceeding 545,3 IU/ml in 2 times increased the chances of the presence of severe asthma in children. For the phenotype of severe asthma in 3,1 times increased the risk of high concentration of IL-4 and IL-5 in serum, but this paraclinical test rather suitable for verification of this phenotype (SP – 84,6% (95% CI 75,9-91,1)) than for its detection (Se– 36,4% (95% CI 26,9-46,6)).

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## SELECTED ANAMNESTIC AND IMMUNOLOGICAL RISK MARKERS IN SCHOOLCHILDREN FOR ATOPIC BRONCHIAL ASTHMA

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Bronchial asthma (BA) in child patients remains an urgent medical and social problem whose prevalence, according to epidemiological studies conducted in child populations, ranges from 5% to 10%, and reaches up to 30% in some countries. It has become obvious that childhood asthma cannot be regarded as a single disease with established mechanisms and laws of development and progress, so studying clinical and paraclinical features of the course of its individual phenotypes is an unsolved but urgent task, since it concerns the identification of predictors and elaboration of differentiated treatment approaches.

To study anamnestic features and increase of total serum IgE, interleukins-4 and -5 concentrations as risk factors for atopic phenotype of bronchial asthma in school-aged children.

A cohort of 64 school-aged children with persisting bronchial asthma (PBA), receiving inpatient treatment for acute conditions in the Chernivtsi Regional Children's Clinical Hospital, was formed by simple random sampling, in order to achieve the set objective. Clinical group I consisted of 38 children with atopic phenotype of BA (APhBA), which was verified taking into account the history of atopic diseases, i.e. atopic genotype realized in the amount of not less than one positive response in prick-tests by non-bacterial allergens). Clinical group II included 26 patients with PBA without any signs of atopy. The groups were comparable in the main clinical characteristics.

Among the school-aged children with BA without manifestations of atopy, BA severity correlated significantly with the frequency of daytime symptoms ($r = 0.68$, $p < 0.01$), episodes of short-acting selective β2-agonists use ($r = 0.85$, $P < 0.01$), restricted exercise tolerance ($r = 0.56$, $p <$