control with an interval of 3 months by means of AST-test. Dynamics of bronchial obstruction syndrome severity on admission to hospital with exacerbation was assessed by the point scale and reflected the efficacy of relieving therapy.

According to the acetylation rate schoolchildren suffering from late-onset asthma formed two clinical groups. The 1st clinical group included 34 children suffering from late-onset asthma phenotype with slow acetylation status, 38 children with late-onset asthma and fast acetylation mechanism formed the 2nd clinical group.

The analysis of quick relieving therapy efficacy in members of the clinical groups marked a better relief effect in the 1st clinical group of children than among schoolchildren with late-onset asthma phenotype and fast acetylation status. The efficacy indices of relieving therapy were found to be better in children with late-onset asthma phenotype and slow acetylation mechanism. It was probably explained in these patients due to longer drug metabolism in their organisms and therefore prolongation of clinical effect with more aggressive combined bronchodilation therapy.

The discrete analysis of ACT-test indices found a slight improvement of asthma symptoms control in children with late-onset asthma phenotype and slow acetylation mechanism due to mainly limited activity and less required β2-agonists of a short action. The improvement of the total control symptoms of the disease was found mostly at the expense of the daily and night symptoms regress and less activity reduce which results in reduced requirement of fast-acting bronchial spasmolytics.

Thus, efficacy indices of relieving treatment were better in children with late-onset asthma phenotype and slow acetylation mechanism, and the results of basic treatment were better in patients with late-onset asthma and fast acetylation status.

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PECULIARITIES OF CEREBRAL BLOOD FLOW IN CHILDREN WITH HEADACHE

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Headache is a very common and nonspecific sign of a number of diseases. It may be associated with eye disorders, inflammation of the sinuses, manifestation of vegetative dysfunction, hypertension etc. Headache can have different localization and character, may be accompanied by dizziness, nausea and even loss of consciousness. In most cases, children with headache are trying to unsuccessfully cure it for a long time and therefore require a detailed examination and install the root causes of the disease. Frequently, headache in children has a vascular mechanism, due to violation of vascular tone of the brain and disorders of cerebral circulation.

The purpose of the work was to assess the state of cerebral blood flow according to data of rheoencephalography (REG) in children with headache.

The study involved 22 children in age from 9 to 17 years old. All patients underwent a comprehensive clinical, laboratory and instrumental examination. Particular attention paid to the results of REG study, which evaluated the state of cerebral blood flow. Evaluation included blood supply, vascular tone, the tone of arterioles and venous drainage in internal carotid artery basin (ICAB) and vertebro-basilar basin (VBB). All data processed by the generally accepted rules for medical statistics.

The average age of patients was 14,1 ± 2,5 ages, among them were 12 girls and 10 boys. Normal blood supply in ICAB was observed in 3 children (13,6 + 0,5 %). Dyscoordination of blood supply (increased on one side and low on the opposite) was present in 5 children (22,7 ± 0,6 %), hypovolemia and hypervolemia were present in 7 children each (by 31,8 ± 0,8 %). Normal blood supply in VBB happened in 4 children (18,2 ± 0,6 %), dyscoordination, hypovolemia and hypervolemia occurred in 6 children each (by 27,3 ± 0,7 %). Significantly more often incidents of violation of cerebral vascular blood supply occurred ($p<0,001$).

Vascular tone in ICAB and VBB was elevated in 20 children (90,9 ± 1,3 %) and reduced only in 2 children (9,1 ± 0,4 %) ($p<0,001$). The tone of arterioles was normal in 2 children (9,1 ± 0,4 %), dystonia occurred in 4 children (18,2 + 0,6 %), hypotonia – in 10 children (45,4 + 0,9 %) and hypertonia – in 6 children (27,3 + 0,7 %). Significantly more frequent were incidents of changed tone of arterioles ($p<0,001$). Venous outflow was not broken in 14 children (63,6 ± 1,1 %), broken – in 8 children (36,4 ± 0,8 %) ($p<0,01$). In all children with violated venous outflow was observed increased vascular tone and hypertonus of arterioles.

So, in almost all children with headache it had vascular genesis. Were found changes of blood flow in ICAB and VBB. Headache was caused by spasm of cerebral vessels, blood flow dyscoordination in right and left hemispheres and venous blood stasis.

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THE INDICATORS OF ATOPIC REACTIVITY OF CHILDREN WITH EARLY-ONSET BRONCHIAL ASTHMA

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Bronchial asthma (BA) is one of the most common and impressive problems in pediatrics now. Despite the improvement in treatment, modern approaches to pathogenesis of the disease and development of diagnostic criteria and treatment strategy, the incidences of asthma are significantly growing day by day. According to epidemiological studies conducted in different countries, the population suffering from bronchial asthma ranges from 2 to 30 % of children.

Now, according to the Global Strategy for prevention and treatment of asthma, it is considered that with the most adequate therapy, basic clinical manifestation of disease can be controlled. Although the clinical practice is indicative of the fact that by means of standard treatment regimens the diseases can be controlled only in every second patient. It is probably associated with phenotypic features of the disease, and various terms of the debut in particular.

According to scientific views, early-onset asthma is associated with atopic mechanism of the disease. Taking into account this knowledge considering the indication of basic treatment of asthma its efficacy may likely be increased.

Considering this fact the objective of our scientific study was the following: to assess the efficacy of atopic reactivity in children with early-onset BA in order to improve disease control.

To achieve this aim we have conducted our study following the three main tasks: to analyze the dynamics of skin hypersensitivity in clinical groups between early and late onset asthma; to study the level of interleukin -4 (IL-4) in clinical groups; to study clinical-epidemiological index of BA basic therapy effectiveness in school-age children.

50 school-age children with BA were subjected to a comprehensive examination. The distribution of children into the groups of comparison was performed according to the age since the disease onset: patients with onset of BA younger than 3 years – early-onset asthma (I group) and older than 6 years - the late-onset (II group). The groups did not vary significantly by sex, age and severity of the disease.

All the patients underwent the assessment of genetic index (GI) for atopic diseases (number of relatives of patients allergic to the total number of family members), allergic history, the content of IL-4 and intradermal allergy tests with non-bacterial allergens.

The results of the study were evaluated from the perspective of clinical epidemiology to the definition of relative risk (RR), absolute risk (AR), odds ratio (OR) indicating their confidence intervals (95% CI). Comparison of atopy available in children with different phenotypes of BA showed that the average GI in both groups of comparison did not differ. Although GI more than 0,19 was recorded in 40,0% children with early-onset asthma and only in 28,0% patients of II group ($R\varphi>0,05$). The distinctiveness of atopy in children with different phenotypes of BA showed that allergic history was found in almost all people from the first group (96,0±3,9%) and only in one out of three patients in the second one (69,57±9,2% ($P<0,05$)). Allergic skin tests were positive in 92,3% of children from the first group and in 56,0% in the second group. The level of interleukine -4 more than 3,6 pg/ml was in 80% patients from the first clinical group and in 66% children from the second clinical group. The indicators of high diagnostic value of IL-4 in the blood serum to identify the phenotype of early-onset asthma in children relatively to the late-onset one were associated with the absolute risk – 0,17, relative risk – 1,47 (95% CI 1,2-1,7) and odds ratio – 2,1 (95% CI 1,1-3,9). At the same time, there is a strong significant correlation between the content of interleukin -4 in the serum and skin hypersensitivity of an immediate type to epidermal allergens, which confirmed an active participation of this cytokine in the implementation of atopic inflammation process in the body.

So, eosinophilic mechanisms of inflammation in the bronchi dominate in the vast majority of children with early-onset asthma, as significantly higher sensitivity to house dust allergens and the tendency to a higher content of Il-4 were found. The associations found in the studies should be considered in the administration of the individual monitoring treatment of BA in children.

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POLYMORPHISM OF EDWARDS SYNDROME

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Chromosomal diseases occupy one of the leading places in the structure of congenital and hereditary diseases of human. The diagnosis of most hereditary syndromes bases on the characteristic of its clinical features. Edwards Syndrome (OMIM 601161) (or trisomy 18) is characterized by an additional 18 chromosome and manifests by multiple congenital malformations. Firstly described in 1960. By J. Edwards Edwards Syndrome occupies the second place after Down Syndrome of all chromosomal aberrations in newborns. The prevalence of the syndrome is 1:3000 - 1:8000 in the population and 1 % - among all autosomal trysomy, more often diagnosed in females. Clinical manifestations of the syndrome in children are quite variable, but the most typical phenotypic characteristics are: low birth weight (about 2177-2340 grams for in-term newborns), "bird" profile of the face, extremities abnormalities (deformation of the hands, feet). Typical are microcephaly, protruding head, deformed and low-set ears, micrognathia, short eye slits, ptosis. Anomalies of the skeleton are short neck, broad chest, narrow hips, a limited withdrawal of the hip joints, bent position of the fingers, feet deformity, hypoplasia of nails and dermatoglyphics change by increasing the numerous of arcs on the fingers.

The purpose of the study was to familiarize physicians with diagnostic criteria of Edwards Syndrome on the example of own clinical observations. We used clinical and genealogical, syndromologic, cytogenetic (karyotyping) methods.

Probands T. - a girl, aged 1 day from VIII unintended pregnancy on a background of iron deficiency anemia, chronic cholecystitis, polyhydramnios, preterm labor at term 35-36 weeks, newborn weight - 1600 g, length - 46 cm. Ballard Score - 21 (gestation age - 32 weeks).

Clinical-genealogical research of proband family. Mother - 47 years old, father – 50 years old. In history - contact with chemicals (herbicides, pesticides) and heavy physical labor. Parents are not relatives. Heredity in the