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Also he usually has 2 times per year respiratory diseases, with bacterial complications, such as purulent otitis, obstructive bronchitis each times.

Parameters immunological blood test were changed. In immunological blood test was detected decreased levels of CD3+-lymphocytes, CD3+CD8+-cytotoxic lymphocytes, CD19 +-lymphocytes, IgE - 1750 ME/l.

Decreased level of IGF - 0,83 mkg/ml.

Gene panel of boy identifies one pathogenic variant in STAT5B c.1975C>T (p.Arg659Cys), heterozygous.

Family history: a positive allergic family history was presented. A positive genetic tests of family history also were detected. In mother and sister uncertain significance heterozygous varients (STAT5B c.1975C>T (p.Arg659Cys) were detected.

Conclusions. Analysis of genes has become indispensable for diagnostic process and appropriate next steps for prognosis.

Kolisnyk Viktoriia

THE ROLE OF PROTEIN CALCIUM-SENSITIVE RECEPTOR IN THE COURSE OF WHEEZING IN CHILDREN

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Introduction. Currently, it is known about many trigger factors that provoke wheezing in children. Today it is known about various mechanisms of the development of wheezing, but the electrolyte exchange and a number of proteins, in particular the protein of calcium-sensitive receptors (CaSR), remain quite relevant in its study. CaSR is a unique G protein-coupled receptor (GPCR) activated by extracellular Ca2+ and other physiological cations, including Mg2+, amino acids, and polyamines.

Aim. To Investigate the levels of CaSR, electrolytes and their correlation in the development and course of wheezing.

Matherial and methods: we studied a group of children with wheezing of mild and moderate degrees (n=20), and a group of healthy children who did not have any manifestations of upper respiratory tract diseases (controls) (n=20), aged from 3

months to 6 years. We were interested in investigating of the CaSR protein level in the dynamics of the disease, thus blood sampling took place at the beginning (group 1) and at the end of the disease, already in the absence of clinical signs (group 2). Attention was also paid to the electrolytes, such as calcium and phosphorus.

Results. When analyzing the data received, it was found that the level of CaSR in group 1 and group 2 were significant decreased compared to the controls (6.03 (4.30; 7.00) and 13.31 (12.34;13.90), $p<0,5$; 6.014 (4.28;7.01) and 13.31 (12.34;13.90), $p<0,5$ respectively. We got the correlation: CaSR with phosphorus and calcium with vitamin D in group 1 and phosphorus with calcium in group 2.

Conclusions: Based on the results of the study, we can assume that CaSR protein levels have a role in the development and/or course of wheezing and are closely correlated with electrolyte metabolism.

Koval Victoria

IL-6 AS A DAMAGE MARKER OF LUNGS IN CHILDREN WITH ACUTE LEUKEMIA

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Acute leukemia (AL) is the most common cancer in children. Due to improvement of diagnosis, treatment and prognosis at recent years, more attention is paid to study complications of AL, including pulmonary ones.

Interleukin-6 (IL-6) is one of the most important mediators of the acute phase of inflammation. Studying the level of IL-6 in exhaled breath condensate (EBC) in children with AL can assess the state of the alveolar component of the blood–air barrier (BAB) and to analyze the inflammatory processes in lungs in children with AL.

The purpose of the study is to identify damage markers of the alveolar component of the BAB of lungs in children with AL by measuring the level of IL-6 in EBC.

Materials and methods. A study of 51 children aged 6-18 years with AL was conducted in Kharkiv City Children's Clinical Hospital №16. The control group included 15 practically healthy children. All examined children were divided into 2 groups: 1st