Conclusions:

Girls with increased BMI show reduced indicators in all phases of Serkin's test, this witnesses that they have hidden heart insufficiency.

Boys with elevated BMI show decreased continuity of breath holding in the third phase, with no changes in the second phase. It is assumed that no reduction in the duration of breath during the second phasein boys is due to the fact that the increase in body weight is associated with intensive development of muscle tissue and not with obesity. However, the decreased continuity of breath holding in the third phase indicates the presence of hidden circulatory insufficiency, which may be due to excessive physical activity.

IMMUNE FUNCTIONAL RELATIONSHIPS IN CHILDREN WITH BRONCHITIS

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Introduction. We therefore used this technique to evaluate the presence of airway and lung inflammation in children with the acute bronchitis, pneumonia, chronic lung disease. Because the underlying mechanisms of lung inflammatory response in children with the chronic lung disease has not yet been completely elucidated [1-2].

Aim is to improve diagnosis of immunological disorders in children with respiratory diseases, which include the study of cellular, humoral immunity and levels of cytokine (IL-4, IL-6) in induced sputum.

Materials and methods. The 105 patients were recruited from Regional Children Clinical Hospital (RCCH), Kharkiv, Ukrainian. The Head of RCCH is Muratov G.R., the head of pediatric department of KNMU is prof. Senatorova G.S. Children with the acute bronchitis (n=38) aged on average (6,9±2,4) years who had been admitted to the pulmonology department served as group 1. The age distribution in the 1 group was as follows: 15(39,5±7,9%) children, 2-5 years and 23(60,5±7,9%) children. The patient with the acute pneumonia (n=35) aged on average (8,0±2,3) years served as group 2. The age distribution in the 2 group was as follows: 7(20,0±6,8%) children, 2-5 years and 28(80,0±6,8%) children, 6-14 years. Fifteen children with the chronic lung disease (n=15), aged on average (8,0±2,3) years, which had lung fibrosis, served as group 3. The age distribution in the 3 group was as follows: 6(40,0±13,1%) children, 2-5 years and 9(60,0±13,1%) children, 6-14 years. Healthy controls (n =18) were negative for allergies and respiratory diseases. Control group consisted of 6 (33,3±11,4%) patients, 2-5 years and 12 (66,7±11,4%) patients, 6-14 years. Respiratory diseases was defined according to the Ukrainian protocol of diagnosis and treatment lung diseases in children. he sputum was induced with inhalation of ultrasonically nebulized hypertonic (2,7-5%) saline solution. To determine the biochemical analysis of sputum induced after inhalation of hypertonic saline, we analyzed sputum induced in children subjects.

Results. In children with bronchitis we observed significant strong correlations between sputum IL -4 and the percentage of blood CD8-cells ($r = 0,605$, $p<0.05$), and the percentage of blood CD16-cells ($r = 0,609$, $p<0.05$), levels of blood IgG ($r = 0,658$, $p<0.05$).The levels of IL-4 in the induced sputum of patients with the pneumonia correlated strongly with the percentage of blood CD22- lymphocytes ($r = 0,857$, $p<0.05$).Sputum IL-4 levels in children with the lung fibrosis correlated with percentage of blood CD2- lymphocytes ($r = 0,771$, $p<0.05$), and with levels of blood CD4/CD8-cells($r = 0,716$ $p<0.05$). In induced sputum of children with bronchitis, the concentrations of IL-6 and percentage of blood CD2- lymphocytes ($r = -0,635$), and the percentage of blood CD22- lymphocytes ($r = -0,511$), were significant correlated ($p< 0.05$). In the sub-

jects with pneumonia the percentage of blood CD4- cells (r =-0,785, p< 0.05), was correlated with the IL-6.

Conclusion. There were inversely correlations, which was associated with the dissociation of blood inflammatory cells in airway from the development of inflammation and specific local and humoral response.

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SALT TASTE SENSITIVITY IN A COMMUNITY OF STUDENTS.

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The sodium ion is one of the most important risk factors in the development of arterial hypertension. Salt intake is related to the salt taste sensitivity threshold and the salt good taste level. A higher threshold reflects a higher salt consumption than normal. Salt sensibility responds to various physiological mechanisms and salt taste is directly modified by ethnicity, cultural and socio-economical factors. For example, several authors have reported that blacks retain more sodium than whites and due to this they have lower salt sensitivity.

The aim of study is to determine the dependence of the salt threshold of sensitivity in a community of students of our University.

Materials and methods. The study included 96 healthy students from the Grodno State Medical University. The research group included 45 women and 51 men, mean age 21 (18, 26) years, height 173 (164, 178) cm, weight 60 (55, 73) kg, without arterial hypertension, 8 vegetarians and 88 non-vegetarians. We divided students according to the nationality into 4 groups: group 1 – students from South-East Asia (n = 27), group 2 – African students (n = 24). group 3 – students from Turkmenistan (n = 24), group 4 – students from Belarus (n = 21). Taste threshold for salt was determined by applying a solution of sodium chloride in an increasing concentration on the anterolateral surface of the tongue. For test we used a set of 8 NaCl dilutions from 0.005 to 2.56% with a twofold increase in the concentration of each subsequent sample. For the taste threshold for salt took the lowest concentration at which the examinee feels the taste of salt.

Results: The Kruskal - Wallis test revealed the difference at salt sensitivity among students of different national groups (H = 52,08, p =0,0001). The step Mann - Whitney test showed the difference between Byelorussian students and groups of other nations (group 4 – 0,01 (0,01; 0,01) and group 1 – 0,32 (0,16; 0,32), group 2 – 0,32 (0,16; 0,32), group 3 – 0,32 (0,16; 0,32), p<0.01)). There were no significant differences in groups according to gender and vegetarianism.

Conclusion: The differences in taste threshold for salt have been not revealed between students of the Foreign Faculty. It was the difference between Byelorussian and Foreign students based on various dietary behaviors.