

Material We realized a prospective study on 87 patients diagnosed with AID. We analyzed the initial immune status, for all these patients.

For another group of 53 children, diagnosed with selective IgA immunodeficiency, we realized a six year period survey of the level of the T suppressor lymphocytes, the T helper/T suppressor ratio, and of the presence of auto antibodies: Anti DNA, rheumatoid factor (RF).

Results 8 patients (8%), from the group diagnosed with AID, were also identified with selective deficit in IgA at the moment of the initial diagnosis.

In the group of 53 patients with underlying IgA immunodeficiency, 2 patients developed over the 6 years of the survey, a significant titer of anti DNA antibodies. In one patient the presence of the RF was detected, 4 children presented a decrease of the T suppressor level, with a rise of the immune ratio. None of these patients presented clinical signs suggesting an AID.

Conclusions The Ig A immunodeficiency may be a risk factor for subsequent AID. There is a higher risk for AID in patients who develop anti DNA antibodies, RF or a persistent decrease of the T suppressor lymphocytes.

489 INTERLEUKIN PHENOTYPE IN PATIENTS WITH PFAPA

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Background PFAPA is a chronic condition including recurrent fever episodes, aphthous stomatitis, pharyngitis, adenitis. According to a previous study, even between febrile attacks, there is increasing of pro-inflammatory mediators.

Aims

1. To evaluate serum interleukin phenotype between febrile episode in PFAPA patients from our clinic;
2. To establish correlation between C reactive protein (CRP) and pro-inflammatory interleukins: tumor necrosis factor-alpha (TNF α), interleukin-8 (IL-8);
3. To evaluate link between CRP and anti-inflammatory interleukins: interleukin-10 (IL-10);
4. To identify a sensitive biological marker to estimate PFAPA evolution.

Methods Authors analyzed 2 groups: "PFAPA group" represented by 6 patients and "control group" containing 4 no-PFAPA patients. Inclusion criteria: patients up to 10 years of age that fulfilled PFAPA diagnosis criteria; patients between febrile attacks; negative procalcitonin (PCT) blood value in order to exclude bacterial infections for study patients. Exclusion criteria: patients during febrile attacks. Both groups patients were tested for serum levels of PCT, CRP, IL-8, TNF α , IL-10. Data was statistically analyzed using independent "t" test.

Results Both group patients have normal serum levels for interleukins 8/10 and high TNF α values. Mean value for TNF α was 11.26 pg/ml in PFAPA group and 13.2 pg/ml in no-PFAPA group. Regarding CRP values, mean value for PFAPA patients was 19.72 (range between 2.4-95) as compare to 5.04 in no-PFAPA patients.

Conclusions TNF α , IL-8, IL-10 aren't useful to appreciate PFAPA evolution pattern. CRP remains a sensitive marker for disease activity in PFAPA patients, even out of fever attacks. Our study didn't confirm previous study data.

490 RISK FACTORS OF ASTHMA EXACERBATION IN CHILDREN

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Introduction Asthma is chronic disease which in recent years prevalence shows increase rate. In this study we analyze triggers that parents or child will tell as a risk factor for asthma exacerbation in children with asthma:

Aim Presenting cases treated in pulmonology clinic during their exacerbation and triggers that can lead to asthma exacerbation.

Method It is a prospective study, we include 92 children who came with symptoms of asthma exacerbation in pulmonology clinic. Asthma was classified according to GINA classification and evaluate from parent/caregiver or child about risk factors that lead to exacerbation. Factors were listed by GINA.

Results Asthma exacerbation symptoms at children that were examined are cough(100%),difficult breathing(96%) and wheezing(24%) and chest tightness. From all children in our study 34% had one trigger, 16% 2 triggers and the others had more than 3 trigers that lead to asthma exacerbation. Triggers of asthma exacerbation are changing weather(cold air) (36%), viral infection(48%), passive smoking (36%), pollen(16.6%) and 25% of parents don't know risk factors that lead to asthma exacerbation. Most of the children in the study lives in town (75%).

Conclusion Our study shows that viral infection and cold air are very common triggers of asthma exacerbation especially in small children while in children older than 5 years passive smoking is very present (36%) as risk factor.

491 PARAMETERS OF IMMUNE SYSTEM DISREGULATION DURING HERPES SIMPLEX VIRUS INFECTION IN CHILDHOOD

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Introduction An important characteristic of the herpes simplex viruse, is their ability to persist in the tissues of their hosts for many years after initial infection as intracellular viruses. Characteristic life of virus (hronic persistent and ciclic replication) in organisms is often followed by immune dysregulation.

Materials and methods: Clinically manifestations in patients with herpesvirus infections were examined. We analysed: white blood cell count, hemoglobin level, serum immunoglobulins level, enzymes of cell destruction, oxidative metabolism of the peripheral blood phagocytes as ability of NBT reduction, serum level of IFN- γ IL-4 and DHEAS, cortisol were mesured by ELISA test.

Results Our patients had and all of them had positive ELISA test on viruse-HSV. Our parameters approved low level of hemoglobin, monocytosis, lymphocytosis, virocytosis and leukopenia. Our patients had high level LDH, CPK, low ability of NBT reduction. High levels of IFN γ followed high levels of LDH, CPK, GOT and GPT.

Conclusion Chronic activation of immune system is background of patogenetic mechanisms during herpes simplex virus infection. Different level of DHEAS and cortisol are part of regulatory mechanisms of immune response across endocrine system. Increase levels of DHEAS in our patients can display chronic inflammation. Absence of increase level of cortisol may suggestion that our patients had a little "acute" fase of infection opposite a lot of chronic disorders. Analyse of immunoregulatory mechanisms is essential to order level and place of damage cells, tissue and organs. It is important for therapy and prognosis of disease.

492 ATOPIC DERMATITIS ASSOCIATED WITH OBSTRUCTIVE BRONCHITIS IN EARLY CHILDHOOD

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Introduction Atopic dermatitis and obstructive bronchitis are very often in our doctor's office and these diseases require strong commitments, frequent examinations and allergy tests.

Objective Association of atopic dermatitis and obstructive bronchitis in children at age of 0–3 years.

Material and Methods We processed the data for 476 children treated during the period of 3 years. We used the data from children's medical records, laboratory tests and reports of pulmo-allergology examinations. For processing the data we used analytic and descriptive method.

Results We processed the data for 476 children at age of 0–3 years for the period from 2009–2011. We found atopic dermatitis in 141 children (29.6%), atopic dermatitis associated with obstructive bronchitis in 63 children (44.6%). Family anamnesis was positive in 86 children (60.9%). The results from laboratory tests showed that the total IgE had increased in 54 children (67 children were tested), Eosinophiles were increased in all of them and we found positive specific IgE in 23 children (42 children were tested). We put 35 children on antihistaminic prevention. We used bronchodilators in the treatment of acute attacks. All of the children who have increased IgE and positive specific IgE are examined regularly, not only from the family physicians, but also from pediatric pulmonologists. So, the percentage of hospitalized children is about 1.5%.

Conclusion Early diagnosis and laboratory detection of atopic dermatitis and obstructive bronchial diseases as well, are of great importance for normal growth and development of children.

493

INFLUENCE OF HALOTHERAPY ON OXIDANT-ANTIOXIDANT PROCESSES IN CHILDREN WITH DERMATO-RESPIRATORY SYNDROME AT THE PERIOD OF EXACERBATION OF ATOPIC DERMATITIS

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Methods 69 children aged from 2 to 15 years old with DRS. The group was made of 35 children with DRS, received traditional complex of medicinal measures with included halotherapy - treatment under the conditions of artificial microclimate of saline caves.

Results of investigation and conclusions The analysis of the data obtained allowed to reveal that children in the period of atopic dermatitis exacerbation manifest a considerable increase in the intensity of oxidant processes on admission relatively-DK-1,318±0,015, MDA-2,020±0,023, OMP/% of protein 55±0,121, OMP Units of optic density/1 gr protein - 0,526±0,025 OMP/1 ml serum - 3.30±0.41, MMP 1- 0,598±0,047, MMP 2-0,600±0,006 (p<0,005) and decrease antioxidant processes KAT- 16.21± 0.67 mkmol/ml, AABS- 0,321±0.83 mmol/ml. On discharge the indexes in both groups of children lowered, had reliability with control, only in group of children receiving halotherapy relatively DK - 0,878±0,015, OMP/% protein - 48±0,087, OMP Units of optic density/1 gr protein - 0,459±0,015, OMP/1 ml serum - 2.94±0.12, MMP 1- 0,250±0,015, MMP 2- 0,325±0,008; KAT- 36.57±0.37 mkmol/ml, AABS- 0,662±0.78 mmol/ml (p<0,005). Halotherapy possesses antioxidant action and we recommend to include it into the complex of treatment of children with dermat-respiratory syndrome, in exacerbation of atopic dermatitis on the stage of in-patient department.

494

SPREADING OF BRONCHIAL ASTHMA AND RISK FACTORS IN CHILDREN'S POPULATION OF TBILISI AND BATUMI (ADJARIA REGION)

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Goal Study of spreading of bronchial asthma (BA) and risk factors in the climate of the region of Georgia in children's populations of Tbilisi and Batumi.

Materials and methods Study included 4559 children of Tbilisi and Batumi of 5–16 age, 2193 girls, 2366 boys. Children's population was selected by cluster method. At the first stage identification of BA symptoms was provided based on the questionnaire. At the second stage clinical-allergological study of 389 children with positive answers took place. Obtained data were processed by means of SPSS/v12.5 software. Evaluation of degree of association between probability of disease and certain risk-factor was provided based on tetrachoric table (2x2).

Obtained results BA symptoms were analysed, distribution frequency by sex, set of diagnostic criteria was reliably high (p=0.002) among boys. Obtained results showed that in Batumi BA diagnosis was made in 6.4% of cases and on Tbilisi - in 4.6% of cases.

Clinical-allergological study showed that among children with BA number of boys exceeded girls (p<0.01). BA factors included: humidity (76.4%), weather (56.9%), cloudy and rainy weather (44.3%), season (24.6%), tobacco smell (29.8%), respiratory infections (34.2%), dust (28.5%), physical load (19.7%), medicament sensibilization (11.2%) etc.

Conclusion Epidemiological study showed high BA frequency in Batumi (6.4%), compared with Tbilisi children's population (4.6%). Identification of risk factors provides basis for development of prevention programs. Data of BA spreading obtained by this study are dramatically different from official data (0.4%) showing high frequency of hipodiagnosics of bronchial asthma in region (p<0.01).

495

MATERNAL AND ENDOGENOUS IGA PROTECTION IN INFANTS WITH RESPIRATORY TRACT INFECTIONS

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Background Intestinal Ig A protection in infants relies both on maternal human milk sIgA (secretory immunoglobulin A) controlled by chemokines like CCL28, with roles of amplifying mammary secretion and passive gut epithelium transfer, and endogenous production. Probiotic strains from human milk and their substrate oligosaccharides derived from lactosis may stimulate local Ig A production in infants.

Objectives Assessing the levels of IgA in human milk and in infant's serum and lactosis levels from human milk, in breastfed infants with respiratory tract infections.

Methods We have evaluated 40 pairs mother- infant, healthy mothers, infants with respiratory tract infections. Human milk samples were analysed for physical and chemical properties on an ultrasonic infrared spectrometric analyser (ph, temperature, density, conductivity, fat composition, lactosis levels). Ig A, Ig M, IgG levels and protein profiles from human milk were measured after centrifugation by immunoturbidimetry method on a spectrophotometer and by protein electrophoresis with cellulose acetate membrane respectively. Serum Ig A, Ig M, IgG levels from infants were determined using the same immunoturbidimetry method. Pearson correlations were studied in accordance to study's objectives.

Results Positive correlations statistically significant (p<0.05) were found both between serum IgA and Ig G and human milk IgG.