assessed the symptoms of upper airway cough syndrome, asthma medication use and associated risk factors. Parents were asked their views of these assessments as an alternative to attending clinic utilising a Likert questionnaire cuing at 1 not at all and at 6 a lot. All children performed pulmonary function tests at the clinic and these were compared to the ACT scores. The RAP was compared to Physician assessment of Asthma and associated co morbidities.

Results One hundred and nine questionnaires were distributed with 102 fully completed. The M: F was 1.8:1. The mean age was 9.1. Asthma severity was mild in 23 (23%), moderate in 59 (59%) and severe in 18 (18%). The positive predictive value of ACT versus pulmonary function tests was 89%. The RAP identified 19 (18.6%) children with good asthma control but significant UACS symptoms. Fifty six (55%) parents would utilise the questionnaire to obviate a clinic visit, if rapid access to the clinic was available.

Conclusion Questionnaire assessment can adequately identify the absence of asthma and UACS symptoms in children and is acceptable to more than half of parents attending an asthma clinic.

485 REGULATORY T CELLS SUBSETS IN CHILDREN WITH SLE

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In the case of SLE, Treg deficiencies have been described in mouse models of SLE. However, there are somehow conflicting data in the literature on whether Treg cells in human SLE are numerically and/or functionally impaired. We aimed to quantify CD4+CD25+Foxp3+ T cells in children with SLE and to correlate these findings with their disease activity scores and drug therapy. We enrolled 37 pediatric SLE patients and 20 healthy children. The disease activity was assessed by measuring serum levels of anti-dsDNA antibody and by using scores of SLEDAI. The CD4+CD25+, CD4+CD25^{bright} and CD4+CD25^{dim} cells in patients were significantly increased than controls. There was no significant difference in the FoxP3% gated on CD4+CD25^{bright}, CD4+CD25^{dim} and CD4+CD25-cells in patients and controls and between different grades of activity, different lines of treatments and patients outcomes as regards all studied values. There was no significant correlation between any of studied parameters with SLEDAI score except gated lymphocytes which have significant negative correlation. The increase of CD4+ CD25+ T cells in pediatric patients with active SLE may be a result of increased usage of corticosteroids that affect the phenotype of the T cells without affection on its regulatory suppression function indicated by FoxP3.

486 PRENATAL ALLERGEN EXPOSURE FACILITATED AIRWAY REMODELING BY AIRBORNE ALLERGEN STIMULI IN POSTNATAL LIFE

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Background Murine asthma models are mainly created through adulthood sensitization, but lack airway remodeling hallmarks.

Aims This study aimed to examine airway remodeling in the prenatally-sensitized murine asthma model.

Methods FVB/N fetuses were exposed to aluminum-free ovalbumin (OVA) of 50 µg on gestational day 14, and subjected to aerosolized OVA challenge in their postnatal life. Lung sections were examined after hematoxylin-eosin, periodic acid-Schiff, and Masson's trichrome stainings.

Results Following prenatal OVA sensitization, neither the neonate nor the adult showed any evidence of inflammatory cell infiltration

and airway remodeling. Postnatal aerosolized OVA stress elicited extensive peribronchial and perivascular eosinophilic inflammation. The allergic airways were plugged by exfoliated epithelia and mucus. We identified two distinct patterns of epithelial desquamation: complete denudation of airway epithelia, exposing fragmented basement membrane; and peeling of columnar epithelia, leaving a single layer of basal cells adherent to basement membrane. There was subepithelial collagenosis in extrapulmonary airways and smooth muscle hyperplasia was evident in terminal airways. Prenatally OVA-primed mice had no mucin-positive goblet cells in intrapulmonary airways as normal mice, but showed goblet cell metaplasia in large intrapulmonary airways even following mechanical saline stress. However, goblet cell metaplasia spread distally towards small terminal airways after aerosolized OVA challenge. Asthma models through adulthood sensitization only exhibited peribronchial or perivascular inflammation and goblet cell metaplasia.

Conclusions Fetal OVA exposure intensified airway responsiveness to airborne OVA stimuli in postnatal life to cause pathognomonic structural alterations in the lung.

487 THE INFLUENCE OF INHALED CORTICOTHERAPY ON THE GROWTH AND DEVELOPMENT IN ASTHMATIC CHILDREN

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Background Inhaled corticotherapy is the main anti-inflammatory controller type therapy in asthmatic children. Impaired growth as a result of long-term corticotherapy remains a disputed issue of topical interest for both endocrinologists, pneumologists and pediatricians.

Objective The study evaluates the influence of long term small dose inhaled corticotherapy on growth and somatic development in asthmatic children.

Methods Observational analytical study on 2 samples of subjects. The study group: 100 asthmatic children with small dose inhaled corticotherapy (beclomethasone dipropionate Becotide 200–400 µg/day or fluticasone propionate Flixotide 100–300 µg/day), for 24 months therapy. The control group: 100 healthy children. Both groups were divided in 5 homogeneous age subgroups, between 5–19 years of age. For both groups the relevant anthropometric landmarks for assessing growth were measured in dynamics at every 6 months, in a 2 years follow-up: body height, shank and plant length growth; thorax, skull, hip, shank and arm circumference growth. The statistical SPSS software was utilized and the index t-test was calculated (p>0.84).

Results Comparative evaluation of anthropometric indices after 1 year, respectively 2 years of medication in all age subgroups revealed a minimum reducing of the growth rate in the study group without statistical significance.

Conclusions Inhaled corticotherapy in small doses in a long term therapy (2 years) doesn't significantly affect growth and somatic development in asthmatic children.

488 THE DEFICIT IN IMMUNOGLOBULIN A, AUTOIMMUNITY RISK

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Introduction and objectives The immunodeficiencies (ID), by the subsequent impairing of the immunoregulation, may be at the origin of certain autoimmune diseases (AID).

The deficit in immunoglobulin A is one of the most frequent ID associated with AID.

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 significative 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 clasified 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%), polen(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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