Methods: With informed parenteral consent, we included children with asthma, who attended for the first time to Allergy Department and collected data on clinical history, respiratory function and allergic sensitization. Asthma severity was classified using the GINA guide. We intertegated the data into regression models to identify allergen sensitization most strongly associated with asthma severity.

Results: We included 260 children with ages ranging from 3 to 18 years old (mean 11.5 ± 2.85). Male/female ratio: 1.4:1. 72.3% had mild asthma; 23.8% moderate asthma and 3.8% severe asthma. Skin prick testing with aeroallergens was performed. Most of the children were sensitized to at least one aeroallergen (89.6%). Male gender and the number of positive skin tests correlated to asthma severity. Among allergic children 72.1% had more than one allergic disease. Total serum IgE did not correlate with the number of sensitizing aeroallergens, neither with asthma severity. Dust mite was the most frequent sensitization. Cat and molds were associated with a greater risk of having moderate and severe asthma. We found a progressive sensitization with age.

Conclusions: Sensitization to some perennial indoor allergens, particularly cat and molds, were strongly associated with asthma severity.

Association of Asthma and IgE Levels
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Background: Asthma is a multifactorial chronic inflammatory disease that presents with varying degrees of bronchospasm which can be triggered by multiple causes. One of the best known triggers is allergies, or contact with allergens that have different immunological mechanisms leading to activation of the inflammatory process characteristic of asthma. Immunoglobulin E is a protein that normally rises in the allergic process and used as a marker.

Objectives: To assess the prevalence of IgE as a key factor in asthma and to estimate the incidence of non-IgE-mediated asthma.

Methods: 50 Patients (72% female and 28% male) aged 12 and 50 years old, diagnosed with asthma who met the inclusion and exclusion criteria, were taken from the Allergy and Immunology department. A complete medical history was performed, and the diagnosis was confirmed through a clinical history and spirometric criteria, according to GINA 2007. Subsequently, total IgE in serum were measured by electrochemiluminescence using the Cobascore equipment. Significant differences were observed and regression analyses were performed to determine the factors associated with asthma severity.

Results: 72% of the patients in the study, had an elevated total IgE which suggests that this group has an allergic cause as a trigger for their disease, meanwhile the cause for the remaining patients were due to other causes. The results obtained can be incorporated into a clinical practice, providing a guide to initiate treatment, and the importance of early diagnosis of asthma.

Conclusions: Evaluation of serum IgE levels should be considered in asthmatic patients in order to determine the specific etiologic treatment. Additionally, these results enhance the importance of a multidisciplinary working diagnosis, and management of this condition, considering that up to a quarter of asthma patients may have Non-IgE mediated etiology

Effect of Ascorbic Acid on Airway Hyperresponsiveness in Bronchial Asthma
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Introduction: Ascorbic acid has been reported to have a role in the decrease of airway responsiveness in animal models. This data has been based on the regulation of airway tone and modulation of airway reactivity by ascorbic acid. Human studies show that ascorbic acid has a protective effect against the increase in bronchial responsiveness induced by ozone, and nitrogendioxide. We hypothesized that ascorbic acid may attenuate bronchial hyperresponsive-ness in bronchial asthma.

Methods: We studied 15 mild asthma patients and 13 healthy non smoker controls. These patients were measured plasma ascorbic acid levels with 2,4-DNPH (dinitrophenyhydrazine) method and checked methacholine challenge with Chi method before and 1 hour after ascorbic acid intake (3 gm). To assess chronic effect of ascorbic acid on airway responsiveness, these participants were checked again plasma ascorbic acid and methacholine challenge after daily intake of ascorbic acid (1 gm) for 2 weeks.

Results: There were no significant differences in plasma ascorbic acid levels in asthma patients and controls. Bronchial hyperresponsiveness was decreased after ascorbic acid intake (3 gm) in asthma patients, but not statistically significant. This decrease was persisted with daily 1 g of ascorbic acid intake for 2 weeks. PC20FEV1 were not correlated to plasma ascorbic acid levels in asthma patients.

Conclusions: In mild bronchial asthma, Airway hyperresponsiveness may be ameliorated by ascorbic acid supplementation. But further studies are necessary to address the question of the effectiveness of ascorbic acid in bronchial asthma.

Screening for Allergic Bronchopulmonary Aspergillosis in Patients with Aspergillus + Asthma From 2000 to 2010
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Background: Approximately 25% of patients with persistent asthma have immediate skin reactivity to Aspergillus species. The purpose of this study was to screen all patients with immediate hypersensitivity to Aspergillus for evidence of Allergic Bronchopulmonary Aspergillosis (ABPA).
Methods: All patients with asthma underwent immediate cutaneous testing including prick (epicutaneous) with a mix of Aspergillus species and if negative, intradermal at 1000 PNU/mL, Aspergillus fumigatus (Af). Sera were analyzed for total IgE (elevated is \( \geq 417 \text{kU/L} \)) by Phadia ImmunoCap, anti-Af IgE and anti-Af IgG (ABPA range \( \geq 2.0 \)) ELISA, and precipitating antibodies. HRCT of the lungs was ordered next if serology was positive (diagnostic criteria for ABPA required total IgE \( \geq 417 \text{kU/L} \) and both anti-Af IgE and IgG \( \geq 2.0 \) compared to sera from skin test + patients with asthma without ABPA). To avoid bias from patients examined by the author, data were compared using screening from 5 other faculty in the same clinic.

Results: From 2000 to 2010, 864 skin test + patients underwent serologic testing for ABPA from which 81 (9.4%) were diagnostic for ABPA, and in this group, precipitins were positive in 42/81. To address referral bias in screened patients of the author, diagnostic criteria were positive in 49/208 (23.5%) of the patients versus 32/656 (4.8%) of other allergy-immunology faculty. In addition, some 74/884 (8.6%) patients had total IgE \( \geq 417 \text{kU/L} \) and either anti-Af IgE or IgG \( \geq 2.0 \), implying an overall at risk for ABPA population of 155/864 (17.9%). The highest total IgE recorded in a non-ABPA patient with asthma was 192,100 kU/L.

Conclusions: Using total IgE and ELISA determinations to discriminate ABPA from skin test + asthma sera, 9.4% of patients had diagnostic evidence for APBA. Using data from faculty, presumably with less referral bias than the author, results in 4.8% patients with classic diagnostic criteria. This rate conservatively translates into a minimum of approximately 1.2% of patients with persistent asthma having APBA in the upper Midwestern US. The combination of elevated total IgE and precipitins but not elevated anti-Af IgE or IgG in this population has little/no value in diagnosis.

304 Dyspnea in Chronic Fatigue Syndrome (CFS): Comparison of Two Prospective Cross-sectional Studies
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Background: Chronic Fatigue Syndrome (CFS) subjects have many systemic complaints including shortness of breath. Dyspnea was compared in two CFS and control cohorts to characterize potential pathophysiological mechanisms.

Methods: Cohort 1 of 257 CFS and 456 control subjects were compared using the Medical Research Council chronic Dyspnea Scale (MRC Score; range 0–5). Cohort 2 of 106 CFS and 90 controls answered a Dyspnea Severity Score (range 0–20) adapted from the MRC Score. Subsets of both cohorts completed CFS Severity Scores, fatigue, quality of life, and systemic complaints questionnaires. Cohort 2 also responded to other Dyspnea, affective and anxiety instruments. A subset had pulmonary function and total lung capacity (TLC) measurements.

Results: MRC Scores were equivalent for females and males in Cohort 1 CFS (1.92 [1.72–2.16]; mean [95% confidence interval]) and controls (0.31 [0.23–0.39]; \( P < 0.0001 \) by 2-tailed, unpaired Student’s t tests with Bonferroni corrections). Receiver-operator curves identified 2 as the threshold for positive MRC Scores in Cohort 1. This indicated 54% of CFS, but only 3% of controls, had significant Dyspnea. In Cohort 2, the threshold Dyspnea Severity Score of 4 indicated shortness of breath in 67% of CFS and 21% of these controls. Cohort 2 Dyspnea Scores were higher for CFS (7.80 [6.60–9.00]) than controls (2.40 [1.60–3.20]; \( P < 0.0001 \)). CFS had significantly worse fatigue, other CFS defining criteria and quality of life compared to controls. Although CFS had worse depressive affect and anxiety scores, only the controls showed correlations with Dyspnea Score. Pulmonary function was normal in CFS, but Borg scores and sensations of chest pain and dizziness were significantly greater during testing than controls. TLC was normal except for 2 of 16 CFS who had hyperinflation. A general linear model of Cohort 2 responses linked Dyspnea Scores with rapid heart rate, chest pain and dizziness.

Conclusions: Sensory hypersensitivity without airflow limitation contributed to Dyspnea in CFS. Correlates of Dyspnea in controls were distinct from CFS suggesting different mechanisms.

305 Incidence of Allergy in Patients With Benign Lesions of the Vocal Cords: Preliminary Report
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Background: Allergic inflammation commonly affects the upper and lower Airways concurrently. Although allergic nasal and pulmonary effects have been well described, laryngeal effects are not well understood. In this study we investigated the incidence of allergy in patients with benign lesions of the vocal cords and types of allergens causing these reactions.

Methods: The study was approved by the local ethics committee, and written consent was obtained from all patients. A questionnaire made by the investigators taking the latest literature data into consideration were used during the study. Laryngeal examination was done with videolaryngostroscopy and