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 Immuno-Cap, 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%) patients of the author 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 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.

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Sleep-disordered Breathing in Obese and Eutrophic Adolescents, Asthmatics and not Asthmatics, in the Hospital Infantil of Mexico Federico Gómez

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Background: Sleep-disordered breathing (SDB) has been studied in obese adults but there are few studies on adolescents. This study analyzed the frequency of SDB in obese adolescents and controls with and without asthma.

Methods: A cross-sectional comparative study, 27 obese adolescents 10 to 18 years old with body mass index (BMI) \( \geq 95th \text{ percentile} \), of whom 17 (43%) had mild intermittent asthma (MIA) according to GINA 2005 guidelines and 23 (57%) without asthma, plus a group of 20 eutrophics adolescents (BMI = percentile 50th-84th), 50% (n = 10) with MIA and 50% (n = 10) healthy. All patients underwent overnight polysomnography, primary snoring (PS) was diagnosed with recording of snoring and apnea/hypopnea index (AHI) <1 and sleep apnea/hypopnea syndrome (SAHS) with an AHI \( \geq 1 \) plus oxygen desaturations >4% baseline, bradycardia or tachycardia. We obtained measures of central tendency, dispersion and t student test for different groups.

Results: In obese adolescents with and without asthma SAHS was found in 72.5% (n = 29), PS was diagnosed in 20% (n = 8) and the subgroup analysis of obese show that same number of asthmatic and non asthmatic had SAHS (70.5%, 74%, respectively). The subgroup analysis of asthmatics and healthy eutrophic had SAHS (60% (n = 6), 0% (n = 0) respectively. Globally AHI in the obese group was 2.05 \( \pm 3.48 \) compared to healthy eutrophic (0.40 \( \pm 0.26 \)) with \( P = 0.0016 \), significant differences were obtained in the analysis of subgroups; the IAH in obese adolescents with asthma (3.41 \( \pm 3.47 \) and obese without asthma (2.60 \( \pm 2.55 \)) with \( P = 0.0701 \). In the eutropic group differences there were significant differences: eutrophic asthmatics (IAH: 2.15 \( \pm 0.26 \)) and 0.40 \( \pm 0.26 \) healthy eutrophic \( P = 0.0047 \).

Conclusions: SDB is more common in obese adolescents. In eutrophic asthmatic adolescents SAHS was more frequent than in healthy, probably by the presence of co-morbidities such as rhinitis, hypertrophy of tonsils and all patients were classified as MIA. Adolescents who are obese have an increased risk of SDB compared with the group of healthy adolescents.

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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 linear general model of Cohort 2 CFS 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.

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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 videolaryngoscopy and
the lesions of each patients was recorded. Serum IgE levels and eosinophil levels were evaluated in all patients. All assays were carried out in duplicate. Skin prick tests on the forearm were performed in all patients using standardized latex extract containing high ammonia natural rubber latex, and a full set of 35 common. In addition, venom SPT was performed on one patient based on the subject’s clinical history. Positive tests were counted as wheals of 3 mm in diameter after 20 minutes. Commercial extracts used were manufactured by Alyostal ST-IR. None of intraderal tests were performed.

**Results:** The group of 30 patients included 10 male and 20 female subjects. Descriptive: The lifetime prevalence of asthma was 7.1% (age group = Matthias Richter, February 2012)

To measure and compare pulmonary function tests in morbid adolescents, aged between 10 to 17 year old adolescents. Cross-sectional, prospective study in 10 to 17 year old adolescents. Half of the group was divided into 4 groups: 1) Eutrophic adolescents (BMI < 10%); 2) Obese adolescents (BMI > 10% and < 10%); 3) Adolescents with morbid obesity (BMI > 35); 4) Adolescents with morbid obesity (BMI > 35 or BMI > P99). All of them underwent complete medical history, measurements and pulmonary function tests (plethysmography) using a Sensor Medics VMAX plethysmograph. Results: We used descriptive statistics, measurement of standard deviation, standard error, confidence interval95%, we analyzed in groups using analysis of variance (ANOVA) with a Tukey post hoc analysis. Significance was taken as P < 0.05 for all tests. Functional Residual Capacity (FRC) and Expiratory Reserve Volume (ERV) decrease sharply comparing the 3 groups: FRC P < .03 obese versus eutrophic and P < 0.031 eutrophic versus morbid obese. ERV P < .001 eutrophic versus obese and P < .003 eutrophic versus morbid.

**Conclusions:** The results clearly show that within the group of higher BMI and eutrophic group the aortic diameter was larger among the obese adolescents with intermittent asthma compared to normal population. The BMI is a major health issue in the world. It is associated with a range of adverse consequences and its prevalence appears to be increasing among children and adolescents. The effects of ventilatory function have been widely studied in adults but there are scarce studies in children and even more, in specific population as in morbid obese adolescents. Knowledge of early complications on the lung by pulmonary function tests allow the development of new management strategies aimed at the sporting activity in patients with morbid obesity.

**Objective:** To measure and compare pulmonary function tests in morbid obese, obese and eutrophic.

**Methods:** Transversal prospective protocol, in a group of morbidly obese, obese without asthma, and eutrophic adolescents, aged between 11 and 17 years, divided into 3 groups: 1) Eutrophic adolescents (BMI < p85); 2) obese adolescents (BMI > p95 and <p99); and 3) Adolescents with morbid obesity (BMI > 35 or BMI > P99). All of them underwent complete medical history, measurements and pulmonary function tests (plethysmography) using a Sensor Medics VMAX plethysmograph. Results: We used descriptive statistics, measurement of standard deviation, standard error, confidence interval95%, we analyzed in groups using analysis of variance (ANOVA) with a Tukey post hoc analysis. Significance was taken as P < 0.05 for all tests. Functional Residual Capacity (FRC) and Expiratory Reserve Volume (ERV) decrease sharply comparing the 3 groups: FRC P < .03 eutrophic versus obese and P < .031 eutrophic versus morbid obese. ERV P < .001 eutrophic versus obese and P < .003 eutrophic versus morbid.

**Conclusions:** The results clearly show that within the group of higher BMI and eutrophic group the aortic diameter was larger among the obese adolescents with intermittent asthma. There was no difference in the diameter of the aorta of the obese adolescents with and without intermittent asthma.