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 respectively eutrophic versus obese and in the frame of a longitudinal repeated cross-sectional epidemiological study to measure and compare pulmonary function tests in morbid obesity. Cross-sectional, prospective study in 10 to 17 year old adolescents. In conclusion skin Prick tests were found to be highly positive and in the adiposity group 20.2/22.4/27.7 kg/m². Expressing the mean values and the 95% CI, we found to be positive in 66.7% of the patients: The most common allergen was milk (53.3%) and grass pollen (52.3%).

**Conclusions:** In conclusion skin Prick tests were found to be highly positive in patients with benign lesions of vocal cords compared to normal population. Thus we can speculate that allergy may play a role in pathophysiology of these lesions. Further research is needed to identify the underlying pathways mediating the laryngeal response to allergy so that improved diagnostic and therapeutic techniques can be developed.

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**Echocardiographic Findings in Obese Adolescents with and without Asthma**

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**Background:** To detect echocardiographic alterations in the diameter of the aorta in relation to the diameter and ventricular volume in obese adolescents with or without intermittent asthma as well as in eutrophic adolescents with or without asthma.

**Methods:** Cross-sectional, prospective study in 10 to 17 year old adolescents. They were stratified into 4 groups based on the intermittent asthma diagnosis (GINA classification) and in the Body Mass Index [BMI] (Obesity: BMI higher than the percentile 95%; eutrophic: BMI percentile 10 to 85% according to CDC). Anthropometry and echocardiogram tests were done on all adolescents. Measures of central tendency were obtained (mean and 95% confidence interval [CI]) and data were analyzed through corrected ANOVA post HOC.

**Results:** One hundred and ninety-four subjects were studied and divided into 4 groups: obese with intermittent asthma (OA) [N = 72], obese without asthma (OnA) [N = 73], eutrophics with intermittent asthma (EA) [N = 22], eutrophics without asthma (EnA) [N = 27]. Expressing the mean values and the 95% CI, we obtained the relation of the aorta with the left ventricular diastolic diameter indexed to the body surface (millimeters [mm]) in OA = 1.105 (1.047–1.164), OnA = 1.130 (1.061–1.192), EA = 0.921 (0.885–0.988), EnA = 0.967 (0.873–1.061) [P < 0.05 EA vs OA y OnA]. For the aorta in relation to the left ventricular diastolic volume in mm/milliliters [mL] the values were: OA = 0.648, (0.624–0.673), OnA = 0.645 (0.623–0.666), EA = 0.649 (0.620–0.679), EnA = 0.650 (0.615–0.684) [P > 0.05]. The aorta values in relation to the stroke volume [mm/mL] were: AO = 0.250 (0.230–0.271), OnA = 0.253 (0.231–0.255), EA = 0.259 (0.240–0.279), EnA = 0.260 (0.241–0.278) [P > 0.05].

**Conclusions:** The diameter of the aorta in relation to the left ventricular diastolic diameter was lower in eutrophic adolescents with intermittent asthma. There was no difference in the diameter of the aorta of the obese adolescents with and without intermittent asthma.

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**Asthma Prevalence and Body Mass Index in Children**

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**Background:** Overweight seems to be a growing problem associated with diseases which are increase during the last decades. As an example both the BMI (Body Mass Index) and the asthma prevalence are increasing. The question is whether a link exists between these changes or whether the increase is independent of each other.

**Methods:** In the frame of a longitudinal repeated cross-sectional epidemiological study 4925 children in total have been medical checked up. A questionnaire was filled out by the parents. Among other things data were gathered concerning anamnesis, physical measurements, and physician diagnosed diseases, like asthma. Describing the overweight in children’s age until 15 years the BMI was divided in percentiles <10%, 10 to 25%, 25 to 75%, 75 to 90%, >90% respectively >97%. The full data set was available for 3946 children (80.1% of all participants).

**Results:** Descriptive: The lifetime prevalence of asthma was 7.1% (age group until 15 years). The BMI was for the overweight group of 6/8/15 year old kids; 18.1/20.1/24.5 kg/m² and in the adiposity group 20.2/22.4/27.7 kg/m² respectively. Frequent air way infections and parental predisposition enhance the risk for asthma (4.1 vs 10.9%); boys are more affected than girls (8.1 vs 6.1%). Starting with the 10%-BMI-percentile the asthma prevalence increases using the above mentioned intervals from 3.6% up to 8.3% for children with overweight (>90%-BMI-percentile). Analytical: The logistic regression adjusted for relevant confounders (gender, smoking and passive smoking, parental predisposition, pets (like cats), duration of breastfeeding, socioeconomic status) confirms the descriptive results. The BMI dependent adjusted Odds Ratio (aOR) (range for asthma was 1.6 (95% CI, 1.0-2.7; P = 0.048).

**Conclusions:** The results clearly show that within the group of higher BMI more asthma will detected. Contrary to other studies this study may not confirm that the dependence on asthma from the BMI is bimodal since no higher asthma prevalence was observed in the lower and lowest BMI classes. Up to now this pilot study does not answer the question about the underlying processes.
obese. We also found a decrease in FEV1 comparing the 3 groups with a $P < .011$ morbid versus eutrophic and $P < .049$ morbid versus obese.

**Conclusions:** Our results confirm the findings of others, who have shown that lung volumes especially FRC and ERV decrease as body weight increases. Obese patients have a combination of mechanical and inflammatory effects that result in pulmonary disability.

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**Difficult-to-treat Asthma with Idiopathic Chronic Eosinophilic Pneumonia**

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**Background:** Idiopathic chronic eosinophilic pneumonia (ICEP) is a rare disorder of unknown cause characterised by subacute or chronic respiratory and general symptoms, alveolar and/or blood eosinophilia, and peripheral pulmonary infiltrates on chest imaging. Interestingly, some but not all patients diagnosed with ICEP have a history of asthma, whilst others may develop asthma after a diagnosis of ICEP has been made.

**Methods:** We present this rare and interesting case, because ICEP is a rare complication of asthma, although it is seldom mentioned in reviews and textbooks on asthma. Asthma in patients with ICEP is relatively severe and get worse after diagnosis of ICEP.

**Results:** A 70-year-old woman with a history of asthma and chronic rhinitis with polyps (diagnosed in 2003), nonsmoker, history of allergies negative. She suffered from frequent exacerbations of asthma (7 times a year with repeated courses of oral corticosteroids). In 2006 she had sudden fever, weight loss, malaise and impaired dyspnea with productive cough, mild chest pain on sternum and respiratory failure. A chest radiograph demonstrated bibasilar infiltrates. Peripheral blood smear showed a newly developed, marked eosinophilia, and a chest X-rays and HRCT scan revealed a diffuse patchy nodular infiltrate in all lung fields. Serum-precipitating antibodies against Aspergillus antigens negative, no cutaneous reactivity to Aspergillus antigen, negative findings for parasitic infections, no central bronchiectasis on previous HRCT, ANCA, ANA, ENA negative. She received an intensive course of corticosteroids with complete resolution of symptoms and the eosinophilia, as well as decreased infiltrates on chest radiograph. Doses of corticosteroids slowly reduced a maintained until June 2009. Her asthma often exacerbates so far and needs intermittent courses of corticosteroids, is difficult-to-treat, but without any relapses of ICEP.

**Conclusions:** Clinicians should consider pulmonary eosinophilia in the differential diagnosis of patients treated for asthma who develop pulmonary infiltrates with dyspnea.

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**Diagnosis and Management of Post-radiation Pneumonitis in Patients with Asthma**

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**Background:** Lung cancer remains the leading cause of cancer-related deaths among men and women in the civilized world. A notable number of patients undergo radiation in various stages of the treatment process and its tumor-related side effect is pneumonitis. Our aim was to investigate the diagnostic and treatment methods of post-radiation pneumonitis particularly in asthma patients.

**Methods:** A literature search was performed in PubMed to identify relevant studies published until June 2011. Lung cancer, post-radiation pneumonitis, therapy and asthma were the key words used for the search.

**Results:** Post-radiation pneumonitis is a clinical situation demanding early diagnosis in asthma patients, but the latter is often underestimated. Pneumonitis is clinically revealed by dyspnea, cough, fever and usually begins up to 12 weeks after the start of radiation treatment. Radiographically, it appears as diffuse or patchy consolidation and/or ground glass opacities. Pulmonary function decline is correlated to decreased values of forced expiratory volume in the 1st second (FEV1) and diffusing capacity of the lung for carbon monoxide (DLCO). The effects on normal tissue may mimic or hide tumor recurrence. Smoking cessation causes changes of total lung capacity and vital capacity and this may have consequences on lung volume results in dose volume histogram analysis, targeting precision, oxygenation changes, tumor biology (gene expression) and prognosis. NCI Common Toxicity Criteria (CTC V3.0) assessments are usually performed weekly during radiotherapy and at regular follow-up visits. Complication rates vary with dose, fractionation, schedule duration, technique, photons’ energy, irradiated volume, dose escalation, accelerated fractionation schemes, fields, co-morbidities and concurrent chemo-radiotherapy.

**Conclusions:** The crucially deteriorating on therapy effect of pneumonitis leads to the realization that alertness and constant attention is not only strongly advised, but compulsory in asthma patients.

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**Pathogenesis of Radiation-induced Pneumonitis in Patients with Chronic Obstructive Pulmonary Disease**

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**Background:** Chest radiation is a common therapeutic approach in the management of lung cancer, as well as in other malignancies, rendering radiation-induced pneumonitis a rather commonly reported adverse event. A large proportion of patients undergoing radiation have underlying chronic obstructive pulmonary disease (COPD). We aim to elucidate the pathogenetic pathways implicated in radiation-induced pneumonitis particularly in this subgroup of patients.

**Methods:** A literature search was performed in PubMed to identify relevant studies published until June 2011.

**Results:** The incidence of radiation-induced pneumonitis after conventional irradiation in COPD is about 7 to 10% in the moderate although symptomatic forms and about 1 to 3% in the severe forms. Radiation-induced pneumonitis seems to be an acute-phase reaction, taking primarily place in the most radiosensitive subunit of the lung, the alveolar/capillary complex. Reactive oxygen species, generated by radiation, initiate a cascade of molecular events that alter the cytokine milieu of the microenvironment, creating inflammation and chronic oxidative stress. COPD is characterized by a chronic inflammatory state in the lung, also generating reactive oxidant species. Biological markers intrinsic to the patient, such as early variations of certain cytokines (IL-6, IL-10, TGF-β) seem to be implicated and studies are under way to determine their role. The standard dose-volume metrics, such as V20, V13 and mean lung dose, are major factors influencing the clinical course of radiation-induced pneumonitis.

**Conclusions:** Understanding the underlying pathogenesis of radiation-induced pneumonitis may help improve optimal delivery of treatment plans, minimize the risks and increasing the therapeutic ratio in patients with COPD.

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**Medication Responses in Chronic Fatigue Syndrome (CFS) and Non-CFS Subjects**

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