rest onset with asthma symptoms at adulthood. Only 32% were submitted to skin prick tests; 4.5% suffered difficult asthma control; 56% of patients had overweight or obesity; 17.8% suffered Diabetes Mellitus type II, 37.5% had Articular Systemic Hypertension and 3.75% had Ischemic Cardiopathy; 60% of patients had Gastroesophageal reflux symptoms, and 5% presented Obstructive sleep apnea. Most of the patients had a good control in Asthma Control Test (ACT).

Conclusions: Asthma can initiate at any age, the advanced age is not directly associated to certain changes in airway remodeling, or not major disease severity. There’s a high persistence of co-morbidities. This study shows that it’s necessary to study this age group further, a group that is gradually on the increase.

335 Control of Asthma and Its Relationship to Quality of Life in Adolescents
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Background: Asthma in adolescence is an important cause of morbidity, affecting significantly the quality of life. In order to facilitate the management of asthma control and allow a better assessment of quality of life, symptoms can be evaluated with questionnaires that reflect the multifactorial nature of the disease.

Objective: Assessing asthma control and its impact on quality of life in adolescents followed up in specialized ambulatory.

Methods: A cross-sectional study included 120 patients from a center of reference, between 10 and 20 years, with a mean age of 13.8 years and 66% male. Asthma was classified according to the GINA (2009) and 8% of patients had intermittent asthma, 9% mild, 64% moderate and 19% severe persistent asthma. At the time of consultation were applied two questionnaires previously validated in Brazil: Asthma Control Test (ACT) and Pediatric Asthma Quality of Life Questionnaire Adapted (PAQLQ-A). The ACT included 5 items that assess asthma symptoms, use of rescue medication, influence of disease on daily activities and patient perception of control of the disease, giving a maximum score of 25. Patients with a score >18 were considered controlled. The PAQLQ-A is composed of 23 questions, divided into 3 areas: limitation of activities, symptoms and emotional function. The responses are evaluated using a 7-point scale, with higher value indicating the minimum limitation. In this study the data were statistically analyzed by Spearman correlation, with significant value < 0.05.

Results: Comparisons were made between the areas of PAQLQ-A versus results of the ACT. Thus, correlating ACT and the area of symptoms was found an r = 0.7. In the emotional function was found an r = 0.55 and in limitation of activities an r = 0.49. The 3 correlations were statistically significant with P < 0.001.

Conclusions: The use of questionnaires to assess quality of life and evaluation of disease control showed great potential to improve health care in chronic patients. Questionnaires are easy to apply and may allow a broader assessment of disease and better recognition of the patient’s perception regarding their limitations and symptoms.

336 The Leukotriene C4 Synthase (A-444C) Promoter Polymorphism in Venezuelan Individuals with Asthma
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Background: Asthma affects approximately 300 million individuals of all ages and ethnic groups worldwide. Previous studies have reported weak associations between leukotriene C4 synthase (LTC4S) promoter polymorphism with the asthma phenotype, bronchial responsiveness to methacholine, and the severity of asthma regardless of aspirin sensitivity. The aim of the present study was to study the association between leukotriene C4 synthase A-444C promoter polymorphism and susceptibility to asthma.

Methods: Whole blood was collected from 144 ethnically mixed Venezuelan subjects, classified in 2 groups: patients with asthma (n = 90) and healthy individuals (n = 54). The LTC4S A-444C polymorphism was analyzed by PCR-RFLP by using MspI restriction endonuclease. Frequencies were determined by direct counting and Fisher’s exact test was applied to determine frequency differences between groups.

Results: No difference in the distribution of the frequencies LTC4S (A-444C) variants among control and patients was found. However, although no significant, the genotype AC of LTC4S was increased in control group (20%) compared with asthma patients (12%) (P = 0.09, OR = 0.54, 95% CI, 0.2181-1.3583).

Conclusions: These preliminary results suggest that LTC4S polymorphisms are not associated with the development of asthma and further studies are needed to determine the role of genetic factors in this disease.
Conclusions: *Helicobacter pylori* colonization seems to protect against allergic disorders in comparison with the effect of respiratory tract infections. The hygiene hypothesis may be better explained when this kind of gastrointestinal and respiratory tract infections are subtly differentiated.

**ATOPIC DERMATITIS**

### 338 Early Clinical Differential Diagnosis between Infant Atopic Dermatitis and Seborrheic Eczema

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**Background:** Clinical differential diagnosis between atopic dermatitis and seborrheic eczema is sometimes difficult. Early differential diagnosis is important, since atopic dermatitis can be more difficult to treat and may be associated with asthma and allergic rhinitis.

**Methods:** In a cohort study, 96 infants with high risk for atopic dermatitis were followed up from the maternal ward until they completed one year of age. The infants were submitted to complete skin examination, monthly, for a 1 year period. A full skin examination was performed and any sign of eczema was registered. Therapy with hydrocortisone 1% cream was prescribed. Eczema onset time, skin distribution, response to therapy and the presence of pruritus were evaluated.

**Results:** 87 (96%) infants fulfilled the study criteria (physical examination at least 10 months). Fifty four (62%) infants had signs of eczema during one year follow up. Atopic dermatitis was diagnosed in 14 (16%) patients and seborrheic eczema in 30 (34.5%) infants, with 10 (11.5%) classified as: both eczemas. Atopic eczema onset was mainly between 2 and 4 months and seborrheic eczema between 1 week and 3 months, with an important coincident period. Facial eczema had similar onset and semiological aspect for both diseases in its beginning. Head eczema was present in 40 (74%) eczema infants, 33 (82.5%) with a posterior diagnosis of seborrheic eczema and 7 (17.5%) with atopic dermatitis. After 3 to 5 months, axillary and groin folds eczema were the main signs of seborrheic dermatitis diagnosis, while face, neck and limbs were the main eczema sites in atopic dermatitis. The 10 infants with dubious eczema just after 6 months could have a more accurate eczema diagnosis. Hanifin et Rajka diagnostic criteria for infants showed to be useful just after 6 months, since some of its criteria are evolutive. All patients improved with hydrocortisone cream, but seborrheic eczema infants had a better response and prognosis, with complete eczema resolution until 8 months. The presence of pruritus could be securely established just after 6 months of age.

**Conclusions:** Continuous follow up is indispensable for Infant atopic dermatitis differential diagnosis with seborrheic eczema. Eczema distribution and therapy response are the best predictors for differential diagnosis in infant eczema.

### 339 Sensitization to Contactants in Patients with Atopic Dermatitis

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**Background:** Atopic dermatitis (AD) is a chronic inflammatory pruritic skin disease with extensive interindividual variation and multiple internal and external factors. In this study, we evaluated whether the atopic dermatitis severity (SCORAD index), gender, age, age onset or the presence of Allergic rhinitis (AR), Allergic conjunctivitis (AC) or Asthma has an influence on contact sensitization to common contactant allergens.

**Methods:** 30 AD patients were evaluated in the Division of Allergy of Federal University of São Paulo. AD was diagnosed according to the Hanifin and Rajka’s criteria and all patients were currently under regular treatment. Questionnaire (age, gender, age at onset, presence of AR, Asthma or AC), clinical examination and skin patch tests were carried out on all patients at the beginning of the study. Patients in regular use of oral CE; topical CE and/or calcineurin inhibitor use or having active AD lesions in the back were excluded from the study. Patch test was applied onto the upper back with 8 mm chambers attached with hypoallergenic tape and removed after 48 hours. The interpretation of the test reactions was performed at 48th and 96th hour.

**Results:** Positive Patch-test reaction occurred in 14/30 (46.6%). Among those with positive patch-test, Nickel was responsible for 42.8% and Thimerosal for 28.5%. All patients finished the study and no adverse reactions occurred. Positive and negative Patch-test groups found no statistically significant difference (P > 0.05) when comparing: SCORAD index, sex, age, age of onset and presence of AC, AR or asthma.

**Conclusions:** According to our results, sensitization to common contact allergens in AD patients was more frequent than in normal subjects. Although we did not found an explanation to these findings, indiscriminate exposure to topical products should be avoided so that new sensitization or risk of deteriorating AD occurs. The benefits of avoidance to the contactants considered positive should be evaluated in the follow-up of these patients.

### 340 Sensitization to Aeroallergens and Risk of Respiratory Allergy in Atopic Dermatitis Children

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**Background:** Infants and young children with atopic dermatitis (AD) are at great risk of developing respiratory allergy later in life with rhinitis, eye symptoms, and sometimes asthma. The aim of our study was to describe the sensitization patterns to inhalants in our young patients with AD and to assess the relation between early sensitization to aeroallergens and the development of respiratory allergy.

**Methods:** 80 children diagnosed of AD, aged from 11 to 34 months, were included (51 male and 29 female). Seventy two of these 80 were followed up to 7 years of age. Except a clinical examination, total IgE level was investigated by ELISA, and analysis of specific IgE antibodies to aeroallergens was performed with MAST CLA Allergen specific IgE Assay. Nonparametric tests were used in comparative analysis.

**Results:** 79% of our infants with AD had increased level of total IgE (mean: 387 kU/L). Sensitization to infant atopic allergens was determined in 52 atopic dermatitis children (65%). The most relevant results were: 39 patients (48.8%) were sensitized to pets, 36 patients (45.0%) were sensitized to house-dust mites, 25 patients (31.3%) were sensitized to pollen, 17 patients (21.5%) were sensitized to molds. During the follow up, 48% of patients developed asthma and 52% allergic rhinitis. The mean age of respiratory allergy onset was 29.8 ± 3.9 months. At the end of our study the cumulative prevalence of respiratory allergy symptoms was significantly higher in children with inhalant sensitization compared to children without sensitization to aeroallergens (71% vs 18%, P < 0.001). The risk of asthma in that group also was significantly higher (68% vs 14%, P < 0.001).

**Conclusions:** Early sensitization to aeroallergens in AD children is associated with increased risk of development of respiratory allergic symptoms later in life.

### 341 Quality of Life in Pediatric Patients with Atopic Dermatitis

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**Background:** Atopic dermatitis (AD) is a common skin condition. The aim of this study was to evaluate the impact of AD on the quality of life of