atopic story were analyzed. A standard base of 21 allergens from LETI laboratory was used.

**Results:** Seven hundred and fifty two children with SPT were studied; they were divided into 2 groups. Group A corresponding to children between 6 and 24 months of age, group B corresponding to children between 25 months and 5 years of age. In group A 76 SPT and group B 676 SPT were performed. The total number of SPT positive to 1 or more allergens was 46.4%. (Group A: 6.4%, group B 40%). The most prevalent allergens according to age were: group A: grass 16%, egg 16%, cat dander 10% and house dust mite (Dermatophagoides pteronyssinus and farinae) 10%. Group B: grass 15%, house dust mite 13.6%, fungal allergens (Aspergillus an Alternaria) 11.4%, trees 9% and cat dander 6.6%.

**Conclusions:** A high sensitization percentage to grass and egg is seen under 24 months of age. Egg sensitization diminishes significantly over 2 years of age, on the other hand house dust mite and fungal sensitization increases with age which could be explained by a longer exposure time in genetically predisposed children. Forty-six percent of the children are sensitized to 1 or more allergens which make us question the classical indication that SPT will be done over 4 years of age. When high suspicion of atopic history, a SPT should be performed independently of patient age.

**574 Prevalence Allergic Diseases and Allergic Sensitization among Urban Office Workers as Compared with a Forest Service Workers**

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**Background:** Asthma, allergic rhinitis (AR), and atopic dermatitis (AD) are the most prevalent allergic diseases and number of studies has shown an increase in prevalence of both all over the world in recent years. Although little about the prevalence of asthma, AR, and AD in Korean adults. And the incident sensitization to common allergens in the setting of sensitization to an occupational allergen has not been described. Our aim was to determine the prevalence of living and working place in adults. And also, determines the sensitization to common allergens in subjects with incident sensitization to a work-related allergen.

**Methods:** We performed questionnaire survey and allergy skin prick test with 27 common inhalant allergens among 294 subjects (response rate, 94.9%, n = 279) age 19 to 54 years in Seoul and forest service workers. One hundred thirty four subjects were forest service workers and 145 subjects were urban office workers.

**Results:** The mean age was 33.7 ± 7.6 years. There were 141 man and 138 women. A history of asthma was noted in 3.8% and a history of AR was scored for photoaging by physical examination and coloration was measured by a colorimeter.

**Results:** There was no observed difference in wheal and flare response to histamine when patients were stratified by age alone. However, photoaging was significantly correlated with decreased skin reactivity to histamine on the upper back (a sun-exposed area) as compared to the lower back (a sun-protected area). In patients with the most severely sun-damaged skin, there was a trend toward decreased skin reactivity in all areas.

**Conclusions:** Skin test reactivity to histamine is negatively correlated to the degree of photoaging and is independent of patients’ chronological age. This result has clinical implications for patients with significant photoaging, suggesting that care should be taken to perform skin testing on anatomic sites in sun-protected areas. In patients with severe photoaging, allergen-specific IgE testing should be considered to avoid possible false-negative interpretation of skin-prick testing.

**576 Hla and Chronic Urticaria with Positive Autologous Serum Skin Test among Brazilians**

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**Background:** Many autoimmune diseases are associated with certain alleles of the human leukocyte antigen (HLA) system, and recent studies have shown that, in many cases, chronic urticaria has autoimmune etiology. An association between class I and II alleles of the major histocompatibility complex (MHC) and idiopathic chronic urticaria (ICU) has previously been observed in different populations, but there are still no studies on Brazilian populations in this respect. The involvement of MHC classes I and II (loci A, B and DR) in Brazilian patients with ICU and a positive autologous serum skin test (ASST) was investigated and compared with a healthy population group.

**Methods:** DNA was extracted from the blood of 42 patients with ICU (28 women; mean age ± SD: 44 ± 12 years; range: 19 to 88 years) and MHC classes I and II alleles were determined using the polymerase chain reaction (PCR) and a laboratory test for oligonucleotide hybridization using a single-filament probe. The frequencies of these alleles in patients with chronic urticaria were compared with the frequencies in 1000 genetically unrelated voluntary blood donors from the same region of Brazil. The diagnosis of idiopathic chronic urticaria was based on the patients’ clinical histories and routine laboratory tests. Only the patients with positive ASSTs were selected. The allele distribution results from the patient and control groups were analyzed using odds ratios and 95% confidence intervals.

**Results:** No statistically significant differences were found between the ASST-positive patients with chronic urticaria and the control group, in relation to the MHC classes I and II alleles studied.

**Conclusions:** We found that in this population group, there was no specific association between the HLA alleles studied (HLA-A, HLA-B and DRB1) and ASST-positive chronic urticaria. We believe that further population

**575 Photoaging Attenuates Skin Test Response to Histamine More Than Natural Aging**

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**Background:** Clinical experience suggests that skin test reactivity is often decreased in photo-exposed skin versus sun-protected skin in older individuals. The current study was designed to address whether photoaging or natural aging of skin causes a greater diminution in skin test response.

**Methods:** Prick-puncture skin tests to histamine were performed on sun-exposed and sun-protected areas in younger (n = 61, age 20–50) and older (n = 63, age 60–87) adult volunteers who were recruited for skin prick testing because of suspect allergic rhinitis and/or allergic asthma. The skin was scored for photoaging by physical examination and coloration was measured by a colorimeter.

**Results:** There was no observed difference in wheal and flare response to histamine when patients were stratified by age alone. However, photoaging was significantly correlated with decreased skin reactivity to histamine on the upper back (a sun-exposed area) as compared to the lower back (a sun-protected area). In patients with the most severely sun-damaged skin, there was a trend toward decreased skin reactivity in all areas.

**Conclusions:** Skin test reactivity to histamine is negatively correlated to the degree of photoaging and is independent of patients’ chronological age. This result has clinical implications for patients with significant photoaging, suggesting that care should be taken to perform skin testing on anatomic sites in sun-protected areas. In patients with severe photoaging, allergen-specific IgE testing should be considered to avoid possible false-negative interpretation of skin-prick testing.
studies are needed in order to investigate the possible existence of this association.

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CD63 Expression, IL3 Receptor, IGG Autoantibody and Autologous Serum Skin Test Accuracy in Patients with Chronic Urticaria in Brazil
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Background: Recently, a laboratory technique called basophil activation test (BAT) using flow cytometry (FC) got demonstrated through the expression of CD63 molecules that basophils of atopics donors can be activated when stimulated by serum of patients with CU (supposedly autoimmune). This paper aims to analyze the autologous serum skin test (ASST) in relation to the BAT as well as evaluating the IL3 receptor (CD123) and nonspecific autoantibodies IgG bound to basophils of patients with chronic urticaria.

Methods: We studied 33 adults (24 women) with CU with a mean age of 42.5 ± 14 years, of which 22 with ASST positive and 11 with ASST negative. It was done through the analysis by FC of CD63 molecules expression on basophils from an atopic donor after stimulation by serum of these patients. We used as control the serum from 4 volunteers (without urticaria). Also we researched the CD123 molecule expression and IgG nonspecific autoantibodies in basophils from patients with CU.

Results: We found 21 (63.6%) patients with positive BAT, of these 14 (66.6%) were ASST positive and 7 (33.3%) were ASST negative. Taking as parameter the BAT, we found an accuracy of 54.5% for the ASST, a sensitivity of 66%, specificity 33%, positive predictive value of 63% and negative predictive value of 36%. Comparing the expression intensity (mean with SD) of IgG autoantibodies in patients’ basophils with positive and negative ASST there was not statistical difference (for a P < 0.05); the same was true when comparing the autoantibodies (IgG) between groups with BAT positive and with BAT negative. We also didn’t find statistical difference (for a P < 0.05) of receptor expression of IL3 (CD123) between the groups.

Conclusions: Taking as parameter the BAT for diagnosis of autoimmune CU this study found that ASST is accurate about 55%. There was no statistical difference when comparing the expression of IgG nonspecific autoantibodies and CD123 molecule, between groups.

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Comparison of the Modified Autologous Serum Skin Test and the CD63 Basophil Activation Test in Chronic Urticaria
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Background: The modified CD63 basophil activation test in the diagnosis of chronic autoimmun urticaria was first described in 2004 by Szegedi et al. We demonstrated that the strongly sensitized basophils of atopic donors can be successfully used without the addition of IL-3 for the in vitro evaluation of autoimmun urticaria. Positive correlation was found between the basophil CD63 expression test and the autolog serum skin test (ASST), and between the CD63 test and the gold standard histamine release assay.

Methods: We examined 50 patients with chronic ordinary urticaria and with the help of a validated questionnaire urticaria score index was calculated.

ASST with the patient’s own diluted (1:10, 1:100) and undiluted sera, and CD63 basophil activation test on atopic donor basophils were performed. Pearson’s exact test was used to analyze the correlation between the results of the CD63 assay and the urticaria score index.

Results: Based on our results ASST performed with diluted sera of chronic urticaria patients did not show correlation with the results of the CD63 assay. A significant correlation was found between the CD63 assay and the score index representing severity of disease.

Conclusions: ASST with diluted sera of chronic urticaria patients does not have any additional information on the diagnosis of autoimmun urticaria. In the CD63 basophil activation assay the degree of the CD63 cell surface expression can give information on the severity of the clinical signs.

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The Frequency of Positivity in Autologous Serum Skin Test in Patients with Chronic Idiopatic Urticaria
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Background: Describe the frequency of positive results in autologous serum skin test among patients with chronic urticaria.

Methods: Trans-sectional study of patients with CIU referred to treatment in policlinica geral do Rio de Janeiro, Brazil. Autolog serum intradermal injections were used to established the sensitivity. Negative and positive controls were made with 0.9% intradermal saline solution and skin prick test with histamina 1:100 solution. Autoreactivity was considered positive when wheal reached 3 mm at least, 1,5 mm larger than saline solution at 30 minute interval. Antihistamines drugs were interrupted 72 hours before test. Dates on race, age, sex, and informations about length and how often the symptoms persisted, personal history of atopy (PHA) and angioedema (AE), autoimmune disease (AID) and physical (PF) and not physical factors (NPF) related with the worsening of urticaria were registered during appointment. K square and t student tests were used in this work.

Results: Eighteen patients, from 2008, march to 2011, march, were investigated (15 f; 12 w; age 50,67 ± 16,93 yr). Eleven patients presented positive AAST (61.1%) with a mean wheal diameter = 9,64 ± 2,66 mm (negative control = 6,33 ± 3,63 mm; P < 0,001). All of the positive ast occurred in patients over 60 years old. The mean length of the disease was 21,78 ± 22,95 months. Continuous symptoms were saw in 83.3%, pruritis, the major one (94.4%). Angioedema and PHA were present in 61.1% and 27.8%, respectively. NPF of symptoms worsening like drugs, food, emotional stress or alcoholic beverages were complaint of 72.2% of individuals, whereas 22.2% complained about worsening with colinergic PF or dermographism. Joint pain (33.3%) were the complain the most frequent and 7 patients, mainly whose with positive ASST, had elevated thyroid antibody levels (n = 5; P > 0.05).

Conclusions: The positive ast frequency was 61%, comparable to values found in the literature. Association among social-demographic and clinical aspects was not observed. We emphasize the prevalence of joint pain and angioedema as associated symptoms and the more frequency of AID laboratory finds. The procedure proved safe and precise and worth value in the screening diagnosis of autoimmun etioly for patients with CIU.

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Eleven Cases of Angioedema with Eosinophilia Treated in a Single Hospital in Japan
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