detailed clinic history was collected in all cases. The statistical analysis was performed with the program SPSS14.

Results: We obtained a total of 519 patients with positive skin prick test between January 2009 and March 2011. This group comprised 47% females and 53% male, with a mean age of 19 years between 3 to 79 years. We have 253 patients with atopic dermatitis (AR) and asthma (A), 173 with RA and 93 with A. 55% of the patients reacted to one allergen extract (AE) and 45% of the patients reacted with 2 or more AE. The most frequently indoor allergens with positive skin prick test were Dpt (65.1%), Dermatophagoides farinae (DF) in 32.3%, CE(31.7%), Cockroach (11.5%). Among the outdoor allergens ash was positive in 23.3%, Ligustrum (18.8%) oak (17.7%) birch (13.6%) Western Juniperus (9.6%), Ulm (8.6%).

Conclusions: The most frequently positivity skin prick test were Dpt, DF, CE, ASh, Prov, Oak. The reactivity to allergens was more common in males, and there are 3 peaks of age of positivity on prick test (7–12 years, 25–29 years and 36 years).

224 Risk Factors and Their Impact on Development and Severity of Allergic Diseases in the CIS-Region

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Background: This paper presents the results of influence of risk factors (RF) on development and severity of allergic diseases (ADs) in the CIS-region (CIS-R).

Methods: ISACA and ARIA studies results, data on atopic dermatitis, Republic Ministries of Health Statistical Reports as well as literature data has been analyzed.

Results: It has been established that in industrialized areas, ADs is 2 to 3 times higher than the incidence in rural areas. The highest incidence is noted in ecologically unfavorable regions of low mountains where suffering from ADs is more often met. In the medium mountains ADs appear with less intensity, in conditions of high mountains ADs are extremely rare. The maximum prevalence of ADs has been observed at the experience of working in hazardous conditions from 5 years and above. A high degree of contamination airpollutions (CO2, NO2, SO2 etc.) in the industrial cities correlated with the prevalence of respiratory allergies and other ADs were observed. Frequent cause and significant allergens, as identified in patients with different ADs in CIS-R were domestic, epidermal, pollen and fungous allergens. The main triggers which involved in the development or exacerbation of ADs in Azerbaijan, Armenia, Russia and Uzbekistan are: house dust mites, pollen of trees and plants, pet allergens. In Belarus, Kazakhstan, Turkmenistan, Ukraine, Moldova, the cause-important allergens are: pollen of trees, grasses and weeds. Among the most significant risk F for ADs should be noted: burdened by heredity (65.5–75.9%), high frequency of SARS in history (16.2–77%), passive smoking (43.1–62.5%), poor social conditions (17–42%) the presence of pets in the apartment (12.5–17%). Children (7–8 years) were more susceptible to environmental RF as compared with teenagers (13–14 years). In Tajikistan and Turkmenistan, ADs were closely related with poor social conditions, low household income and large-family.

Conclusions: Epidemiologic studies are of great theoretical and practical significance as they provide impartial evaluation and reliable data on ADs prevalence and the most important allergens. Climatic and geographical conditions of the environment and ecological situation in the region are significant RF, requiring consideration in determining the probability of a genetic predisposition to ADs.

225 Monitoring of Air-Pollutants Concentration in Children with Allergic Diseases

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Background: All over the world, increases the incidence of allergy, asthma and autoimmune diseases. Both young and elderly people are at risk. Therefore, on time diagnostics of these changes and the improvement of patient’s quality of life is the most important task for doctors worldwide.

Methods: Patients by random selection were interviewed and subsequently examined: 535 schoolchildren of Kutaisi, aged 7 to 14. Stepwise diagnostics of allergic factors included: 1. Questionnaire screening according to the international ISAAC questionnaire. 2. To identify the specific allergens in serum. 3. To define air pollutant concentration in the environment with the help of Burkard Trap (Burkhard Pollen Trap donated by the WAO).

Results: Investigation included questionnaire screening with the use of the international ISAAC questionnaire. The questionnaires for children aged 7 to 10 years were filled in by their parents; school children of 11 to 14 answered the questions themselves. Questionnaire screening allowed select the group of children with already diagnosed and with primarily diagnosed allergic diseases. From mentioned above 3 groups of children: I group 57 people (10.7%) children with primarily diagnosed allergic diseases; II group-68 persons (12.7%) children with already diagnosed allergic diseases; III group-410 persons (77.6%) practically healthy children with no deviations according to ISAAC questionnaire. The next phase of the examination consisted of ImmunoCAP100 tests in II group 68 children with already diagnosed allergic diseases. There was determined the highest level of Phadiatop (inhaled environmental allergens) was positive in 35% of patient. We gave them the information and recommendation of air –pollens concentration according to Burkard Trap research. The use of allows accurately define the concentration of air pollutants in the environment including the pollen of trees, grass and weeds in particular geographical area in different seasons of the year.

Conclusions: Burkard Trap is committed to helping physicians identify the causative allergens in this complex mini environment, there are necessary condition for final verification of allergic diseases, which makes it possible to form successfully the basis of preventive therapy and appropriate undertake preventive measures.

226 Analysis of an After-Care Questionnaire in Allergic People to Dust Mites Using Anti-Dust Mites Bed Covers

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Background: The goal of the study was to assess in a declarative way, the symptoms felt by the patients and the impact of micro-woven cotton (MWC) and a non woven polyester polyamide (NWP) anti-dust mites bed covers on allergic volunteers to dust mites.

Methods: This study is a descriptive survey based on an after-care questionnaire handed out to a group of 419 volunteers allergic to dust mites. 109 questionnaires have been used. Regarding the allergy, we asked questions in order to assess the most annoying symptoms. The discomfort level felt was assessed using scores that ranged from 0 (no discomfort) to 10 (severe discomfort). Values, expressed as mean ± SEM, were compared using 2-way ANOVA.

Results: The discomfort level felt by the allergic volunteers to dust mites has significantly decreased after the anti-dust mite’s bed cover use (7.1 ± 0.2 versus 2.6 ± 0.2). After the anti-dust mites bed cover use, the discomfort level noticed decreased significantly and in a similar way no matter the age brackets. Thus, after the use of an anti-dust mites bed cover, it ranged between 2.1 and 2.3. The discomfort level felt after the anti-dust mites bed cover use was similar whatever the symptom. The reduction of the percentage of the discomfort level in volunteers having used MWC anti-dust mites bed covers was similar to the percentage of the volunteers having used NWP anti-dust mites bed covers (62.9 ± 3.1% vs. 60.7 ± 4.2%).
Conclusions: To conclude, the use of anti-dust mites bed cover permits to significantly reduce the symptoms felt by allergic patients to dust mites. Moreover, it underlines the fact that the use of MWC anti-dust mite’s bed cover or NWP anti-dust mites bed cover had a similar efficiency on the reduction of symptoms felt.

POSTER SESSION

227 Changing Scenario of Airborne Allergens in Bangalore, India
Anand Pendakur, MBBS, DLO, and Balaji Ramdas, MBBS. 1 Allergy Asthma ENT Clinic, Indian College of Allergy Asthma and Applied Immunology, Bangalore, India; 2 Community Medicine, Indian Academy of Allergy, Bangalore, India. With phenomenal growth of Bangalore city and a distinct shift of its arboretum in the last 2 decades, change in allergen profile has been suspected. Earlier studies reported the pollen of Parthenium, Albizia, Cassia, Ageratum and Ricinus, and dust mites D. pteronyssinus and D. farinae to be the commonest airborne allergens (Anand P and Agashe SN, Ind Journal Otolaryngol, Vol 36, no 2, 1984 and Channabasavannav GP, Final Report: Research Project H Dust Mites, DST, Gov Ind June 1983). Present study involved skin prick tests done on 134 patients of respiratory allergy with standard protocol. 82 male and 52 female patients with moderate–severe persistent allergic rhinitis, rhinoconjunctivitis and asthma were the study subjects with mean age of 30.2 ± 13.8 years. 30 were asthmatics and 64 were asthmatics with rhinitis. Cynodon dactylon (22.4%) and Pennisetum typhoides (5.9%) are the commonest grass pollen allergens. Artemesia scoparia (15.7%), Parthenium hysterophorus (8.9%), Ageratum conyzoides (8.2%) and Helianthus annuus (8.2%) are the commonest weed pollen allergens. Prosopis juliflora (14.2%), Cassia siamea (10.5%) and Ricinus communis (8.9%) are the commonest tree pollen allergens. D. pteronyssinus (58.9%) and D. farinae (47%) are the commonest indoor allergens. House dust mites have remained the predominant indoor allergens even now. Present study shows significant change in the type of pollen allergens. Cynodon, Artemesia and Prosopis have replaced Parthenium and Albizia as the predominant allergens in 2 decades. Helianthus annuus and Pennisetum typhoides, which were insignificant in the past, have emerged as significant allergens. Molds as airborne allergens have become very significant. Bangalore has grown enormously in the last 2 decades. Innumerable vacant lands and swampy areas covered by weeds like Parthenium, have become buildings. Helianthus is cultivated on a large scale all around as a commercial crop. Large outskirts around the city have become residential and, office and commercial hubs resulting in a considerable change in pollen allergen flora. This change in the pollen allergen profile is an important guideline for allergy diagnosis and immunotherapy. This evidence may have significant application to the management of allergy patients in other major cities of India like Hyderabad, Chennai, Delhi, Mumbai and Kolkata as well.

ALLERGIC RHINITIS

228 PCR Analysis of Microorganisms in Chronic Rhinosinusitis with Nasal Polyps
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Background: Chronic rhinosinusitis (CRS) with nasal polyps is characterized by tissue eosinophilia, which is speculated to be related to Staphylococcus superantigen and fungus, in European and U.S patients. However, Japanese patients with CRS with nasal polyps showed 2 distinct phenotypes of eosinophilic and neutrophilic inflammation (Hirotsu et al 2011). We attempted to analyze the microorganisms from nasal polyps of Japanese patients by PCR method.
Methods: Eleven specimens of nasal polyps with CRS were collected for examination by endoscopic sinus surgery. All specimens were treated with 70% ethanol and physiologic saline to eliminate microorganisms outside of the nasal polyps. Bacterial and fungal culture was performed for 2 weeks using 5 different culture media. We detected 16S rRNA bacteria and 18S rDNA ITS-26S rDNA fungus, and then identified species of microorganisms by direct-sequence. In addition, the number of eosinophils in the nasal polyps was counted.
Results: No bacteria or fungus were recovered from any of the nasal polyps by culture method. By the PCR analysis, DNA for bacteria could not be detected, whereas 7 samples of the nasal polyps showed amplification of fungal DNA such as Candida parapsilosis, Candida glabrata, and Rhodotorula etc. Grocott dyeing for the nasal polyps, however, showed no intracellular presence of fungus. The number of the eosinophils in the nasal poly with the patients with the presence of fungal DNA (240 ± 191) was significantly (P < 0.05) higher than that in the absence (56 ± 40).
Conclusions: The present study suggests the participation of fungus in eosinophilic CRS with nasal polyps.

229 Incidence of Allergy to Artemisia Vulgaris and Salsola Kali in Sabzevar cCty
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Background: Artemisia vulgaris and Salsola kali are common plants in North hemisphere (eg in Iran). The pollens of Artemisia vulgaris is major aeroallergen in late summer usually 10 to 14% patients that suffering from allergic rhinitis in summer have allergy to Artemisia vulgaris. The pollens of Salsola kali major aeroallergen in early summer. Usually 53 to 76% patients that suffering from allergic rhinitis in summer have allergy to Salsola kali.
Methods: In one search in Sabzevar, we studied 47 patients with allergic rhinitis. They were tested with prick test.
Results: In this study, were known that 27 patients (58%) had allergy to Artemisia vulgaris and 43 patients (92%) had allergy to Salsola kali.
Conclusions: This study showed that incidence of allergy to Artemisia vulgaris and Salsola kali in Sabzevar is more common than usual.

230 The Prevalence of Allergic Rhinitis in Adolescent in La Paz, Bolivia (3600 m.s.n.m.)
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Background: Allergic Rhinitis is the most prevalent illness in allergy. We didn’t know the prevalence about it to 3600 m.s.n.m. It exist paper about prevalence at least altitude in 10 to 30% in different places. The purpose of this study is showing the prevalence of the allergic rhinitis in students in the city of La Paz, Bolivia.
Methods: We realize a question form with the methodology ISAAC in student into 13 to 18 years old in schools of the La Paz. We choose urban zones. We realize this study in February 2009.
Results: We get 250 questionnaires in adolescent and were completely right only 245. Of these 245 questionnaires 64% (157) were women and 36% (88) men. To the first question: Any time in your life have you had a problem with sneezing or a runny, or a blocked nose when you did not have a cold or the flu? They respond yes in the 60% (147 persons). To the second question: In