Conclusions: Additional research is required to understand the cellular and molecular mechanisms that link COPD and lung cancer, in an effort to discover new methods of prevention and treatment.

256
Risk Factors of Recurrent Upper Respiratory Infections in Children under 5 Years, Habana Vieja
Xiomara Lopez Campos, MD,1 Mirta Alvarez Castello, MD,2 and Juliette Massip, MD.1,2,Hogar Materno Leonor Pérez, Havana, Cuba; 1Allergy Society from Cuba, Havana; 2Cuba Bioestatistics Society, Havana, Cuba.

Background: Upper Respiratory Infections are the most common diseases in childhood. It is possible to get even with no risk factors; although, if there are more factors, the higher it is the probability of illness.

Methods: It was carried out an analytic study of cases and controls to identify risk factors associated with Recurrent Upper Respiratory Infections (RURI) in children under 5 years old from Habana Vieja municipality between January and June of the 2008, 40 children with RURI were studied selected by convenience sampling and 40 controls. Surveys were relatives. The group of cases was compared with the group control and then it was analyzed if the exhibition factor was associated to the RURI by means of the test of square chi, for that which was considered as significant a $P<0.05$ in which case the test of odds ratio was applied (OR) to determine if really the factor or characteristic is or not of risk.

Results: The most common was RURI was Adenoiditis with 18 cases (45%). All the cases had personal and family history of allergy, compared with 37.5% and 62.5% respectively in controls; (OR = 25.4 $P = 0.0001$ and OR = 16.3 $P = 0.001$). The adequate breastfeeding was more frequent in controls (OR = 2.5 $P = 0.048$). 70% of the cases were exposed to the smoke of the tobacco, and controls only 25% (OR = 8.2). 92.5% of the homes of the cases and 70% of the controls had animals, especially dogs. The cold (92.5%), temperature changes (80%) and humidity (80%) were considered environmental risk factors in this study (OR = 14.5 $P <0.001$; OR = 16.5 $P <0.001$; OR = 13.2 $P <0.002$).

Conclusions: Risk factors affecting the RURI are: personal and family history of allergy, inadequate breastfeeding, exposure to the smoke of tobacco and the presence of domestic animals, cold, changing weather and humidity.

257
Long Term Asbestos Exposure as a Cause of Eozinophilic Pleural Effusions
Biserka Jovkovska Kaeva, MD, PhD, and Zoran Arsovski, MD, MSc. Outpatient Department, Clinic of Pulmonology and Allergy, Skopje, Macedonia; Allergy and Clinical Immunology, Clinic of Pulmonology and Allergy, Skopje, Macedonia.

Background: Exposure to asbestos can cause several different types of pleural disease: first diffuse malignant mesothelioma, plural plaques or calcification, loculated pleural abnormality called “rounded atelectasis” and benign pleural effusions (PE).

Objective: To determine the frequency of various pleural diseases related to asbestos exposure.

Methods: A retrospective analysis of 6 cases of PE related to the occupational asbestos exposure (AE) was made, after exclusion of other possible causes of PE. They were evaluated in the period of 7 years.

Results: All cases were male and almost all were more than 60 years old. All cases had more then 30 years from the first occupational AE (5 in building construction and sixt in mine). All of them reported pleuritic chest pain, or feeling heavy in their chest. The chest radiographs showed small to moderate-sized PE, which was bilateral by tree patients (pts) by the others with pleural calcifications in one of them. One of the pts had 3 episodes of PE and evidence of parenhimal asbestosis. PE was serous exudate and serosanguineous in 2 pts, with polymorphonuclear leucocytes, mononuclear cells and eosinophils (EO). We have evaluated the number of EO in the pleural fluid (PF), from the smear of PF colored by May-Grunwald-Giems. The PF differential WBC consisted predominately EO and mononuclear cells. At 4 pts more than 30% EO were found in the PF and 21% and 17% in other 2 pts respectively. During the follow up period of 3 years no other cause of PE has been found and there has been no evidence of mesothelioma in all the pts.

Conclusions: Exposure to asbestos can cause PE with predominant presence of EO cells.

258
A Novel Therapeutical Option in Resistant Ganglionar and Cutaneous Tuberculosis
Laura Vidali,1 Damiani Palafico,2 Araceli Hernández-Lagunes,3 and José Palafico.1,2 Immunology and Allergy, Hospital Ángeles Xalapa, Xalapa, Mexico; 2Surgery, General Hospital of Mexico, Mexico City, Mexico; 3Pathology Department, CEMEV, Xalapa, Mexico; 4Pneumology and Thoracic Surgery, Hospital Ángeles Xalapa, Mexico.

Background: Transfer factor was first described in 1955 and constitutes a Dialyzable Leukocyte Extract. It has been widely used in several infectious diseases and malignancies with satisfactory results. Although not yet fully clarified, among the mechanisms of action the most accepted is the enhancement of the cellular immunity.

Methods: We tested transfer factor in a 1 year old and 3 months patient diagnosed with Ganglionar Tuberculosis. 1 week after the administran of the Bacillus Calmette-Guérin vaccination, the present developed fever, cervical, submandibular, supraclavicular, inguinal and axillary lymphadenopathy. Later on the patient developed cutaneous clinical manifestations of tuberculosis such as scrofuloderma, fistulas, hypertrophic scars and ultimately, queloids. The patient had previously undergone short-term strictly supervised treatment for tuberculosis with very poor results. When the treatment was first administrated, the patient had the following data: Total White Blood Count 12.9 Lymphocytes: 29% (12–46) CD3: 26.3% (59–90) T helper Cells (CD3/CD4) 21.6% (42–58) Cytotoxic T cells (CD3/CD8) 5.1% (17–33) Natural Killer Cells (CD56) 2.1% (3–7) B cells (CD19) 67.6 % (10–0).

Results: At the end of the treatment, the patient’s immune system was enhanced in terms of cell count and improvul of skin manifestations. Total White Blood Count 6.5 Lymphocytes: 51.3% (48.5–53.8) T helper cells (CD3/CD4) 31.2% Cytotoxic T Cells (CD3/CD8) 14.6% Natural Killer cells (CD56) 12.2% B cells (CD19) 98.5%. Cicatrization process was improved, with involution of skin lesions os scrofuloderma and fistulas. Lymphadenopathy was no longer encountered. We have followed the patient for a year and half and no relapses have been encountered.

Conclusions: We consider Transfer Factor a valuable option as adyvant therapy in cases of ganglionar and cutaneous tuberculosis refractory to conventional treatments. To our knowledge, this is the first report of a case of the disease treated satisfactorily with transfer factor.

ALLERGY TO ANTIMICROBIALS

259
Penicillin Allergy Evaluation: Experience from a Drug Allergy Clinic in Kuwait
Mona Al-Ahmad, FRCP,1 Nermina A. Arifhodzic, MD, PhD,2 Ali Al-Onizi,3Nasser Fakim,1 and Nasser Al-Ahmed, MD, ABIM, FRCP.4
1Allergy, AL-Rashed allergy Centre, Kuwait, Kuwait, Kuwait; 2Department of Allergy Clinical Immunology, Kuwait Allergy Centre, Kuwait city, Kuwait; 3Allergy Department, Kuwait allergy Centre, Kuwait, Kuwait; 4Department of Allergy, AL-Rashed allergy Centre, Ministry of Health, State of Kuwait, Kuwait city, Kuwait.
Background: To evaluate a cohort of patients with a suspected beta-lactam allergy history.

Methods: 42 patients with suspected beta-lactam hypersensitivity reactions were evaluated at a drug allergy clinic at a tertiary allergy center. Skin prick tests (SPT) with major determinants (PPL), minor determinants (MDM), penicillin G, amoxicillin, amoxicillin, intradermal tests (ID) and specific IgE determination were done. If all tests were negative, a drug challenge was performed.

Results: 42 patients were enrolled (mean age 39 years, 71.4% female and 28.6% males). History of atopy was present in 59.5%. The offending antibiotics were amoxicillin and amoxicillin/clavulanic acid in 28 (66.6%), penicillin in 10 (23.8%), and ampicillin in 4 (9.5%). Specific IgE to penicillin was negative in almost all patients with history of penicillin allergy (41 patients, 97.6%). SPT and ID tests were positive in 11 patients (26.1%) as follows: 3 patients (7.1%) had positive SPT to PPL, 1 patient (2.4%) SPT to MDM, 2 patients (4.8%) SPT to Penicillin G, 1 patient (2.4%) SPT to Ampicillin, 1 patient (2.4%) SPT to Amoxicillin, 8 patients (19%) ID to PPL, 3 patients (7.1%) ID to Penicillin G, 3 patients (7.1%) ID to Ampicillin. Only 1 patient had both positive specific IgE and skin tests. The remaining 31 patients (73.8%) underwent a drug challenge with the culprit antibiotic with no reported reactions.

Conclusions: One fourth of patients with history of beta-lactam hypersensitivity reactions were confirmed after testing. A combination of skin testing, specific IgE and drug challenge is necessary since none has sufficient sensitivity to be used alone.

260

Association Between Genetic Polymorphisms of ABCC2 Transporter and the Susceptibility to Maculopapular Eruption Induced by Antituberculosis Drugs

Sang-Hoon Kim, MD, PhD,1 Sang-Hoon Kim, MD,2 Jae-Hyung Lee, MD,1 Byoung-Hoon Lee, MD,3 and Young-Koo Jee, MD, PhD.1

1Internal Medicine, Eulji Hospital Eulji University School of Medicine, Seoul, South Korea; 2Department of Internal Medicine, Hanyang University College of Medicine, Seoul, South Korea; 3Eulji Hospital Eulji University School of Medicine, Seoul, South Korea; 4Internal Medicine, Dankook University College of Medicine, Cheonan, South Korea.

Background: ATP-binding cassette (ABC) transporter proteins play an important role in drug disposition. Polymorphisms of ABC transporter genes (ABCC2 and ABCB1) may be risk markers for maculopapular eruption (MPE) induced by unusual accumulation of antituberculosis drugs (ATD) itself or metabolites.

Methods: We compared genotype distributions of single nucleotide polymorphisms and haplotypes in ABCC2 and ABCB1 genes between 62 ATD-induced MPE cases and 159 ATD-tolerant controls using multivariate logistic regression analysis.

Results: Among the 7 selected SNPs of ABCC2, -1549G>A in promoter and IVS3-49C>T in intron were associated with ATD-induced MPE (P = 0.032 and P = 0.029, respectively). ABCC2 haplotype1 [G-C-C-G] was significantly associated with ATD-induced MPE (P = 0.032, OR = 0.35, 95% CI, 0.29-0.95). However, there was no significant association between other genetic polymorphisms in ABCB1 and ATD-induced MPE.

Conclusions: These results suggest that genetic variations of ABCC2 are a potential risk factor for ATD-induced MPE.

261

The Real Use of Beta-Lactams after "Penicillin Allergic" Label Removal

Shai Cohen, MD,1 Areen Khateeb-Alabassi, MHA,2 David Nusem, MD,3 and Josef Panassof, MD.1

1Allergy Clinic Lin Medical Center, Bruce Rappaport Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel; 2Allergy Clinic Lin Medical Center, School of Public Health, University of Haifa, Haifa, Israel; 3Allergy Clinic Lin Medical Center, Haifa, Israel.

Background: The "penicillin allergic" label becomes very common, thus preventing from many patients the use of one of the most efficient antibiotic drugs, with the lowest cost and toxic effects. However, approximately 80% of patients with a history of penicillin allergy have negative results if they are skin tested and can actually use this drug class. We sought to determine whether in real life, removal of the label is implemented to the treatment of beta-lactams when it is required.

Methods: A retrospective study that includes all penicillin allergy history-positive/penicillin skin test-negative/oral amoxicillin challenge-non reactive individuals who had been tested in advance of need between the years 2000 to 2009 at one medical center (n = 140). To uncover late reactions, they were offered after the test a 5 day course of amoxicillin. The study tool was a phone-questionnaire assessing the patients’ confidence in their test results, and whether they have used penicillin since testing.

Results: 106 patients (76%) agreed to participate in the survey. Ninety-nine patients (93%) chose to take the 5 day course of amoxicillin. From this group of patients twenty-seven (27.2%) answered that they feel intermediate insecurity and fourteen (14.1%) that they feel complete insecurity to receive penicillin. Since having the test seventy 2 (72.7%) of the 99 needed penicillin. Sixty-two (86.1%) indeed took a beta-lactam while 10 patients (13.9%) chose to receive another antibiotic class due to their or their physician’s disbelief in the test. All the patients (n = 7) who chose not to take the course of amoxicillin after the test stated that they feel complete insecurity to receive penicillin. Four (57.1%) of these patients had a disease that requires a beta-lactam antibiotic and actually, none of them agreed to take one (P = 0.01).

Conclusions: A negative penicillin test done in advance of need even when includes an oral challenge may not be enough to convince patients that they can use beta-lactams. Our study suggests that giving a 5 day course of amoxicillin after the test increases the patients’ confidence in the results.