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1705

**Diagnostic values of nasal lavage assessment for early identification of allergic rhinitis**

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Allergic rhinitis (AR) is one of the global problems that affects quality of life, activity level, school performance, is one of the risk factors of forming asthma. Therefore early identification and timely started treatment of AR is very important. The aim of our study was to assess diagnostic value of epithelial immune tension of the nasal lavage for identification of AR. We studied 100 patients (aged 3–15 years), who were divided into two groups: 60 patients with AR and 40 patients with AR plus asthma. The control group was presented by 20 children of the same age. We performed: cytological assessment of nasal secret, percentage of Th1, Th2 lymphocytes in the nasal lavage by specific marking (CD29, CD45), percentage Th1, Th2 lymphocytes in blood, total IgE, bronchial hyper responsiveness (using provocation tests). The study showed that Th2 type cytokines were significantly high in the nasal lavage as well as in blood in both study groups compared with control. In all cases with high Th2 was elevated eosinophiles in nasal secrete and total IgE level. In 66% of I group were reviled the bronchial hyper responsiveness, compared with second group were bronchial hyper responsiveness was in all cases (100%). The Th2 and total IgE was not show significant difference between the I and II group. So we can conclude that assessment of immune and cytological tension of nasal lavage is one of the noninvasive, accessible, screening diagnostic tests for early identification of AR and detection of the risk group of asthma.

1706

**Allergic rhinitis and matrix metalloproteinases**

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**Background:** Allergic rhinitis is an inflammatory disease of upper airway associated with continuing allergen exposure and is characterized by nasal mucosa tissue remodeling. Matrix metalloproteinases (MMPs) are a group of zinc-dependent endopeptidases that have an essential role in degradation of extracellular matrix. It is believed that MMPs play a key role in tissue remodeling process.

The purpose of this study was to assess the role of MMPs in allergic rhinitis.

**Methods:** Articles between the years 1980 and 2009 were searched in Medline. The key words 'allergic rhinitis and matrix metalloproteinase' were used. The related papers were reviewed and summarized.

**Results:** We found that only a few studies have investigated the airway remodeling in allergic rhinitis. Increased level of MMPs (particularly MMP-2 and MMP-9) and their association with nasal fibrosis and remodeling have been reported in a few animal models as well as patients with allergic rhinitis. Moreover an association between clinical efficacy of some allergic rhinitis drugs and their suppressive effect on MMPs production has been suggested.

**Conclusion:** These findings suggest that it is necessary to conduct more studies concerning the expression of other members of MMP families in allergic rhinitis, the effects of allergic rhinitis drugs on MMPs expression as well as evaluating the role of MMP inhibitors on allergic rhinitis in animal models.

1707

**Clinical relevance of no-grass pollen allergies in Italy: The Rainbow Trial, a multicentre prospective observational study**

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**Background:** Apart from grass allergy, several pollen sensitizations and respiratory allergies such as tree, olive, cupressus, ragweed and parietaria are quite common in Mediterranean area. Specific geographical distribution of these allergens are also well known. So far the are few data regarding the clinical impact of this allergies in term of symptoms and risk of asthma.

**Study Aim:** To evaluate, by means of a multicentre, prospective observational trial, the severity in term of symptoms and symptomatic drugs use and the presence of asthma in subjects with tree or olive, or ragweed or cupressus or parietaria allergy.

**Patients and Methods:** Consecutive patients suffering of respiratory allergies (rhinoconjunctivitis and/or mild moderate asthma) due to one of the described allergens were enrolled after their informed consent. During the relevant pollen season symptom (6-item with a 0–3 scale) and medication scores (SS and MS) were evaluated. Global score (GS) was calculated as the sum of SS and MS. Asthma symptoms (cough, wheezing, dyspnea) if present, were also, calculated. A total of 62 patients were enrolled.

**Results:** Monosensitive patients were 58% polisensitive 42%. Distribution of allergies was the following: tree 17% of population: ragweed 17%; olive 8%; cupressus 11%; parietaria 43%. Asthma was detected in 80% of olive allergic subjects, in 52% of parietaria and in 54% of ragweed patients. No asthma was observed in tree and cupressus allergic patients. GS was higher in Parietaria and olive allergic patients (21 ± 3 and 18.4 ± 4 respectively) in comparison with ragweed and tree allergic subjects (15 ± 5). These differences were not statistically significant.

**Conclusion:** Parietaria and olive allergy are associated with a more severe clinical picture in comparison with tree and cupressus allergy.

1708

**Airborne allergens sensitisation profile in an outpatient population**

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**Background:** The profile of sensitization to aeroallergens in a population depends on several factors and its identification can help to adapt diagnosis and treatment strategies to the community.

**Aim:** Characterizing a sample of outpatients from Immuno-Allergology (IA) clinic regarding sensitization to airborne allergens and its relation to clinic.

**Methods:** First-time patients from Hospital de Santa Maria IA clinic (Jul/07–Mar/08) answered a clinical questionnaire and were submitted to a standard battery of skin prick tests (SPT) to dust mites, pollens (grass, weeds, trees), fungi, epithelia and latex.

**Results:** Seven hundred and fifty-four patients were evaluated \*C 63% female, mean age 34.8 ± 17 years (1–85 years). 87% have at least one positive SPT. The most prevalent aeroallergen groups are mites (59%: 52% Dpt; 48% Df; 31% Eurog; 28% Lepido; 23% Tyro), grasses (36%), weeds (25%: 13% Pariet 11% Artem; 9% Plant) and epithelia (23%); 12% Dog; 10% Cat; 1% Feathers). We obtained 3% positive SPT to latex (19% in health care workers); 24% of these patients reported symptoms on contact with latex (of which 60% are health professionals). We found 11% mono-sensitized (MS) and 89% poly-sensitized (PS) patients. Within MS, the most prevalent allergens are dust mites (62%), weeds (22%) and grasses (20%). Regarding PS, 24% have positive SPT for two allergen groups and 76% for