Subjects showed positive metacholine challenge, PD20 ranging from 20 to 600 mg. The study was performed outside the pollen season, when no symptoms appeared. All patients with allergic asthma showed a clinical and cytological reaction upon allergen-specific challenge (30 min-early phase reaction), while neither clinical or cytological reaction were elicited in non-allergic asthmatic subjects and healthy volunteers upon ASCC.

The study confirms the usefulness of ASCC in allergic inflammation and supports its employment also in patients with single history of allergic asthma.

Studies of Serum sIL-2R, Eosinophil Level and Pulmonary Function in Allergic Asthma After Antigen Provocation

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We performed antigen inhalation provocation tests in 31 allergic asthma patients and 12 normal subjects, and detected pre-provocation and post-provocation pulmonary function, meanwhile determined serum soluble interleukin-2 receptor (sIL-2R), eosinophils (Eos), total serum IgE (TiGE) and specific IgE (sIgE). The results: The post-provocation serum sIL-2R, Eos, TiGE and sIgE of asthma patients were higher than those of normal subjects and before provocation (P<0.01), while FEVI, FVC, sIgE significantly decreased and Raw remarkably increased after provocation compared with those of normal subjects and before provocation (P<0.01). Correlation analysis showed that sIL-2R, Eos were significantly negatively correlated to FEVI, sIgE, and remarkably positively correlated to Raw. The above results indicated that sIL-2R was one of the marker of T cell activation and Eos infiltration played an important role in the changing of pulmonary function. sIL-2R level and Eos number were closely related to the degree of bronchial hyperresponsiveness in asthma patients, and they might be regarded as objective evidences in clinical diagnosis and treatment.

Aspecific Airway Hyperresponsiveness in Mono-Sensitive Sicilian Patients with Allergic Rhinitis Correlates with Serum IgE Levels and Blood Eosinophils during Allergic Pollen Season


Allergic rhinitis has been said to be a risk factor for the development of asthma as suggested by its frequent association with airway hyperreactivity. However, little is known about the effect of natural specific allergen exposure on the bronchial reactivity of mono-sensitive patients with rhinitis in the Southern Mediterranean area, in relation to skin reactivity to allergens, serum IgE levels and blood eosinophils. The significance of the association between allergic rhinitis, asthma and abnormal airway responsiveness with regard to the pathogenesis of asthma is unclear. For this reason, we have studied aspecific bronchial hyperreactivity, in patients with seasonal allergic rhinitis, with reference to the responsible allergen. The aim of the study was to correlate the bronchial responsiveness to methacholine in subjects with allergic rhinitis during and out the pollen season with serum IgE and blood eosinophils. Forty-nine nonsmoking patients with clinical diagnosis of allergic rhinitis and mono-positive skin prick test (SPT) to pollen allergens were enrolled in the study. Twenty patients suffered from seasonal rhinitis to Parietaria pollen, 15 patients to Omalthea pollen and 14 patients to Olea pollen. In all patients lung function measurements (assessed as response to methacholine), serum IgE and eosinophils were measured during and out pollen season. During pollen season out of 49 rhinitis patients demonstrated values of PEF-FEV1 above the asthmatic range whereas out pollen season only 8 patients were in the asthmatic range. By analysing the results with reference to the responsible allergen, during the pollen season 15 out 16 patients were Parietaria-sensitive and out pollen season 7 patients. Finally, in Parietaria-sensitive rhinitis bronchial responsiveness, both during and out pollen season, significantly correlated with serum IgE and with blood eosinophil counts.

Our results are consistent with the hypothesis that Parietaria is much important than Olea and Gramineae as a risk for developing nonspecific bronchial hyperresponsiveness. On the whole, present observations provide further evidence that there is an interrelationship of allergen kind, IgE, eosinophil and bronchial hyperresponsiveness suggesting that they may play a role in the development of bronchial asthma in rhinitis patients.

Clinical and experimental aspects

P2464 Contribution of Separate House Dust Mite Avoidance Measures in Improving Airway Responsiveness. On the whole, present observations provide further evidence that there is an interrelationship of allergen kind, IgE, eosinophil and bronchial hyperresponsiveness suggesting that they may play a role in the development of bronchial asthma in rhinitis patients.

P2466 Nitric Oxide: A Role in Maintenance of Systemic and Pulmonary Vascular Tone in Man

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The aim of this study was to examine whether the vasodilator nitric oxide (NO) has a role in maintaining basal vascular tone in normal man. 10 normal male volunteers aged 26 ± 5 years were studied on two separate occasions in a double blind, placebo controlled cross-over study. They were randomized to receive either a continuous infusion (4 mg/kg/min) of N2O-nitroso-Methyl-L-arginine (NMMDA) with a front-loaded bolus (4 mg/kg) or volume matched placebo. Pulsed wave Doppler echo-