



## Poster - Diagnosis of Allergy

### 311 - Sensitization to five common aero-allergens in children suffering from atopic eczema as examined by atopy patch tests, skin prick-tests and specific IgE

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**Background:** Although the role of allergy in atopic eczema (AE) is still controversial, some patients with atopic eczema suffer from exacerbation of skin lesions after contact with or inhalation of aeroallergens. From the histological examinations of the skin after contact with aeroallergens it is known that the delayed-type hypersensitivity reactions mediated by allergen-specific T cells can take a part in pathogenesis of atopic eczema. Atopy patch tests (APT) represent a useful tool for detection of such hypersensitivity.

**Methods:** We examined hypersensitivity to common aero-allergens (birch pollen, grass pollen, cat dander, house-dust mites) using APT, skin prick-tests (SPT) and specific IgE in 27 children suffering from atopic eczema. Results of all methods were then compared.

**Results:** Delayed-type hypersensitivity was found out (using APT) in 16 patients (59%), immediate type of hypersensitivity was found out (using SPT) in 13 patients (48%), using specific IgE in 15 patients (55%). Only immediate type of hypersensitivity was proved in 5 patients (18%), only delayed-type hypersensitivity in 6 patients (22%). Both types of hypersensitivity occurred concomitantly in 11 patients (41%). In 32 cases the type of hypersensitivity differed in the same allergen. A significant ( $p < 0.0005$ ) positive correlation was found between SPT and specific IgE. Correlation of clinical symptoms of AE and positivity of tests was in 7 patients (26%) in IgE mediated hypersensitivity and in 10 patients (37%) in delayed-type hypersensitivity.

**Conclusions:** Various aero-allergens can influence substantially the course of atopic eczema not only via specific IgE, but as well by specific T cell-mediated reactions. Therefore testing for hypersensitivity to aero-allergens both using SPT and/or specific IgE, and atopy patch tests could be useful.