A usefulness of atopy patch tests in children suffering from atopic eczema as compared to the tests of immediate hypersensitivity

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Background: In addition to common used testing of immediate hypersensitivity (skin prick-tests, specific IgE), atopy patch tests (APT) are increasingly carried out in patients suffering from atopic eczema to detect delayed type hypersensitivity reactions.

Methods: We tested a group of 32 children with atopic eczema for hypersensitivity to five common airborne allergens (birch and grass pollen, cat dander, house-dust mites) using skin prick test (SPT), specific IgE and APT. Results of these tests were then compared with patients’ personal history of eczema exacerbations.

Results: Delayed type hypersensitivity to tested allergens (positive APT) was proven in 21 children (66%), immediate type hypersensitivity (positive SPT and/or specific IgE) in 17 children (53%). APTs alone were positive in 7 patients (22%), whereas SPT and/or specific IgE alone were positive in 5 patients (16%). Both types of hypersensitivity were found out in 15 patients (47%). The results of APT correlated better (13 patients; 41%) with personal history of eczema exacerbations as compared to SPT and/or specific IgE (8 patients; 25%).

Conclusion: Atopy patch testing could elucidate the mechanisms contributing to atopic eczema exacerbations. It represents a perspective diagnostic tool with a great potential for improving the care for atopic eczema patients.