The investigation of the relation between the age groups and the allergens according to the skin prick test results of allergic rhinitis patients in Istanbul, Turkey

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Abstract

Objectives: To show the relationship between age groups and aeroallergens in skin prick tests of allergic rhinitis (AR) patients who live in Istanbul.

Methods: The results of SPT tests, performed for 13 allergens, of 5489 AR patients who applied to the ENT outpatient clinic between March and August 2008 were examined retrospectively. Patients were separated into 6 groups according to ages. Group 1: 1–10 years old; Group 2: 11–20 years old; Group 3: 21–30 years old; Group 4: 31–40 years old; Group 5: 41–50 years old; and Group 6: 50+ years old.

Results: A total of 55% of the patients had a positive SPT reaction to one or more aeroallergens. The most seen aeroallergens in our patients were Dermatophagoides farinae (18.7%) and Dermatophagoides pteronysinus (16.5%). The SPT negativity and positivity of the age groups were analyzed statistically and it was seen that the negativity increases with age (p < 0.05). SPT positivity was highest in Group 4 at 24.17%; the least positivity, with a rate of 10.97%, was observed Group 6. In the analysis of the age groups according to SPT reaction to red oak, aspergillus fumigatus, house dust mites, and cat and dog mites, we found significant differences between the groups (p < 0.05).

Conclusion: In our study we saw that the sensitivity to aeroallergens decreases with age. This finding is caused by the development of tolerance (with time) to the allergen in the environment by the immune system. This tolerance develops mainly by natural desensitization and involution of the immune system. For this reason, long-term, conservative therapy is also important along with the medical therapy.

Key words: aeroallergen, allergic Rhinitis, skin prick test

References