

# Sensitization prevalence of children (0-18 year) with atopic dermatitis to airborne and food allergens in Sakarya province of Turkey

## Abstract

**Introduction:** This is a part of extensive research including food and inhalant allergen sensitizations evaluated in the same study in a moist Sakarya province of Turkey, Sakarya.

**Aim:** Aim of this study was to explore what kind of allergens play a role in sensitizations of atopic dermatitis patients during childhood in Sakarya Province of Turkey.

**Methods:** 191 patients, 0-18 years of age, who thought to have atopic dermatitis referred to only pediatric allergy outpatient clinic in Sakarya for an allergic evaluation between May 2013-April 2015. Multiple skin prick test system was used as a test apparatus to detect sensitization. For dust mite testing Dermat. pter./farinae; animals: cat/dog; molds: *Alternaria/Cladosporium*; grasses: meadow fescue, nettle, mugwort, fathen, weed mix, cereal mix and grass mix; trees: cypress, ash, pine and olive; for foods: cow's milk, egg, peanut, hazelnut and fish extracts were utilized. Skin prick test evaluation criteria are as follows: Equal positive response to histamine was accepted as (3+), which is assumed to be significant sensitization.

**Results:** In overall; 80/191 (42%) children showed  $\geq$  (3+) response. According to 80 patients' evaluation: there were  $\geq$  (3+) sensitizations to pollen groups (28/80: 35%); mites group (33%); grasses (26%); foods (23%); trees (9%); molds (8%) and animals (3%). In atopic dermatitis patients below 5 years of age: in overall; 57/150 (38%) children showed  $\geq$  (3+) response. There were  $\geq$  (3+) sensitizations to mites group (22/57: 39%); foods (32%); pollen groups (18%); grasses (14%); molds (9%); trees (4%) and animals (4%). In atopic dermatitis patients above 5 years of age: in overall; 23/41 (56%) children showed  $\geq$  (3+) response. There were  $\geq$  (3+) sensitizations to pollen groups (18/23: 78%); grasses (57%); trees (22%); mites group (17%); and molds (4%).

**Conclusion:** As expected, there were significant allergies mostly to pollens, mites and foods in atopic dermatitis patients. Also, low overall sensitization rate (<10% to molds) is of interest in our eczema patients whom referred to us from humid Sakarya province. In eczema patients below 5 years of age, 32% of food allergy was as expected. In eczema patients above 5 years of age, increasing rate of (56%) sensitization make them possible atopic and develop allergic disease in their future life.

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## Conflicts of interest

Authors declare that there is no conflict of interest.