Asthma and allergy in pollinosis children: an 11-year follow-up of specific immunotherapy

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Abstract

Background: Pollen immunotherapy is effective in hay fever and asthma in children, although there are few studies on the long-term benefit.

Methods: We conducted a longitudinal follow up for 11 years of specific immunotherapy (SIT) for birch and or grass pollen allergy in children (n=28) who took part in the preventive allergic treatment (PAT) study. Bronchial hyperresponsiveness (BHR) to methacholine, conjunctival provocation tests (CPT), and the skin sensitivity to common allergens (SPT) were done. A matched group of patients who had not received immunotherapy served as controls.

Results: Eight years after of discontinuation of IT, 11 children with and 11 children without IT could be investigated. In the SIT group 2 had asthma compared to 7 in the control group. The skin and conjunctival sensitivity in the SIT group decreased more (n.s.). Birch pollen counts were measured during the pollen seasons in every year from 1992 to 1995 and in the year 1997. The years 1993 and 1995 had high levels of birch pollen counts compared to the other years.

When all the children were considered, scores for asthma symptoms and BHR was higher in these years.

PEF variation decreased with age in both groups.

Conclusions: SIT for hay fever for three years induced a clinical remission 8 years after discontinuation of immunotherapy accompanied by a reduction in the degree of BHR, conjunctival sensitivity, number of allergen sensitizations, and occurrence of asthma symptoms.