FOOD CROSS-REACTIVITY IN PATIENTS WITH POLLEN ALLERGIES

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Introduction:Pollinosis is a typical allergic disease caused by pollen of wind-pollinated plants, most often manifested by rhinitis, conjunctivitis,bronchospasm which can lead to bronchial asthma. Food allergic reactions in pollinosis are caused by respiratory sensitization to inhaled pollen allergens and is expressed by a cross-nutritional response in patients with pollinosis. The basis of this phenomenon is IgE-mediated cross-reactivity, due to the presence in plants of profilin proteins that have a similar amino acid sequence and spatial configuration of AH molecules between plant pollen, its leaves, fruits and related plants.

The aim of stude is to evaluate food cross-reactivity in patients with pollen allergies.

Materials and methods: the study was conducted in 30 patients (15 men and 15 women) aged from 20 to 40 years with pollinosis in allergological department of .To identify sensitization to pollen allergens and possible cross-sensitization with food allergens components it was provided allergen explorer test (ALEX) – multiples allergen test.

Results: In 30 patients an elevated level of BetV1 (25,1 kUA/L) – major allergen of birch tree,in 12 patients - of Alng1 (15,02 kUA/L) - major allergen of alder, in 6 patients of Cora1.0101 (10 kUA/L) - major allergen of nut-tree. Exept it we found the elevated levels of: tomato – Lyce4 (8,4 kUA/L) in 5 patients, celery Apig1 (12,01 kUA/L) in 4 patients, plum Prup1 (14,03 kUA/L) in3 patients, apple Mald1(9,21 kUA/L) in 9 patients, hazelnut Cora1.0401 (14,53 kUA/L) in 11 patients. Thus, in our study all patients showed high sensitization to a group of PR-10 proteins, which are homologues of BetV1 - major allergen of birch tree.

Conclusions: The presence of cross-reactivity to the BetV1 in 17 % of cases indicates its widespread prevalence in case of sensitization to a major allergen of birch tree BetV1. The presence of sensibilization makes it possible to give recommendations to patients regarding exclusion from the diet of certain food allergens and to expect a high effect of Allergen-specific immunotherapy with this issue of the allergen component.