

## CLINICAL ALLERGOLOGICAL CHARACTERISTICS OF ALLERGIC RHINITIS SENSITIVITY TO PLANT FLOWERS AND FOOD ALLERGENS IN CHILDREN

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### Abstract

Allergic diseases are increasingly attracting the attention of doctors of various specialties every year. Additional research has shown that the prevalence of allergic diseases has doubled in all mints every 10 years over the past 30 years. At the moment, the problem of allergic rhinitis can be considered one of the most pressing problems. Allergic disease pathologies contain up to 26% of diseases caused by high sensitivity to plant flower allergens. Most often, a small and adolescent part of the population is more affected by allergic rhinitis (AR), a serious healthcare system problem at the present time. In 40-70% of patients with allergic rhinitis, allergic reactions to plant-containing food are detected. The immunopatological basis for this phenomenon is the intersectional reactivity between plant flowers and plant-containing food allergens (Amlot P., 1987; Valenta R., 1991). Canceling the consumption of food products with this vegetable composition leads to a sharp restriction on the diet of patients.

**Keyword:** Pollinose, dermatophagoides pteronyssinus, dermatophagoides farinae, bronchial asthma.

### Introduction

#### Priority

In 35-68% of children with allergic rhinitis, allergic reactions to plant-containing food are detected. In recent decades, significant changes have occurred in the diet of the population of Uzbekistan: consumption of exotic fruits and vegetables, soybeans, peanards and products contained in them has increased. According to WHO, about 40% of the world's population suffers from a variety of allergic diseases, including the vast majority of food allergies. Various studies show that the prevalence of food allergies ranges from 6% to 82%. In connection with the foregoing, it is a pressing task to study the spectrum of the most important plant flower allergens that lead to sensitization in patients with allergic rhinitis, as well as to improve the methods of diagnosing food allergies in children and to implement new easy-to-repeat and clinically significant tests. The problem of the connection between the concentration of plant flowers in the air and the clinical and immunological parameters of allergies is of great interest. Monitoring the concentration of atmospheric flowers in Uzbekistan in the years to come allows



allergologists from plants imported from different regions and adapted to our country to carry out a new study.

### THE GOAL

The goal is **to** determine the spectrum of flowerbeds and food allergens of plants that cause sensitization in children with allergic rhinitis. Evaluate the clinical characteristics of allergic rhinitis manifestations based on the sensitization of plant flowering and food allergens in children of different ages.

**The method and material of scientific research** were studied for general blood testing, allergological and immunological studies of Vienna blood serum. Allergological anemia, general clinical, allergological, immunological and statistical research methods were used.

### Result and analyses

The National Center for Specialized Allergology Scientific Research examined 45 children between the ages of 6 and 18 who had allergic rhinitis during the fall season

For individual allergens, the sensitivity and specificity for different methods are very different. In this regard, the next stage of the study will be a comparative assessment of the sensitivity and originality of tomatoes, carrots, melons, and apple allergens.—Tables 1-2-3.

Thus, the diagnosis of allergic reactions to tomatoes, the test of the prick, the lowest sensitivity ( $p < 0.01$ ) to other methods were determined, and the detection of IgE-AT in the bloodstream was characterized by the highest specificity ( $p < 0.01$ ). )

**Table-1**

**A comparative assessment of various methods of determining sensitivity to tomato allergens.**

Motion	Sensitive (%% )	Specific (%% )
1. Prick test	45,8±3,72	82,5±3,58
2. Unidentified IgE-AT	88,6±2,82	80,5±3,69
Reliability of differents P	$P_{1,2} < 0.01$	

**Table-2**

**A comparative assessment of various methods of determining sensitivity to allergens in carrots.**

Motion	Sensitive (%% )	Specific (%% )
1. Prick test	50,8±3,72	82,5±2,58
2. Unidentified IgE-AT	87,6±3,65	70,5±3,58
Reliability of differents P	$P_{1,2} < 0.01$	



**Table-3****A comparative assessment of various methods of determining sensitivity to poultry allergens.**

Motion	Sensitive (%% )	Specific (%% )
1. Prick test	35,8±3,72	75,5±2,58
2. Identified IgE-AT	78,6±3,65	87,5±3,58
Reliability of differentials P	$P_{1,2}<0.01$	

**Table-4****A comparative assessment of various methods of determining sensitivity to allergens in apples.**

Motion	Sensitive (%% )	Specific (%% )
3. Prick test	20,8±3,72	92,5±2,58
2. Identified IgE-AT	87,6±3,65	88,5±3,58
Reliability of differentials P	$P_{1,2}<0.01$	

The sensitivity of IgE-AT detection in the diagnosis of allergic reactions for carrots is higher than in conducting a prik test ( $p<0.01$ ), but the specificity indicators for all two research methods did not differ significantly (table 15). Detecting IgE-AT in the detection of apple allergies was the most sensitive method, but lower than the prik test by specificity ( $p<0.01$ ), while the prik test had the least sensitivity ( $p<0.01$ ) (table 16). .

Using various diagnostic methods in children with allergic rhinitis (prick test and determination of IgE-AT in serum), the results of our study allow us to detect sensitivity to different types of plant allergens.

Positive test results were found in more than half of the patients tested (at 54,17%, IgE-AT allergens were detected on food plants in the bloodstream, positive pricks tests were obtained at 56.9%). Reactions with nuts, carrots, tomatoes, potatoes, apples and melon allergens have been identified most frequently. The originality of both research methods was higher and about 80%. The sensitivity of the methods was significantly changing: the lowest figure was recorded in the prik test ( $39,67\pm0.72\%$ ), the highest was recorded in the detection of IgE-AT ( $86,13\pm1,02\%$ ). In this regard, according to the results obtained in children with allergic rhinitis, it is possible to conclude that the standardization of diagnostic methods for each food allergen should be developed separately.

**Summary**

1. A distinctive feature of sensitization structure in patients with allergic rhinitis is the dominant role of allergens of plant flowers (according to various diagnostic methods (82.5-97.50%).
2. Clinical symptoms of allergic rhinitis: squeezing and ending in the nose, sneezing, rhinoracy, the presence of food allergy symptoms for plant products in 58.9 percent of patients in children; (often when consuming apples, nuts, carrots, tomatoes, oranges)
3. Detection of IgE-AT in the bloodstream to food plant allergens showed the highest values of sensitivity and originality ( $p<0.01$ ).



4. The results of the study reflected the need to conduct a prik test with known allergens and identify IgE-AT as diagnostic methods for developing individual diets for patients with sensitivity to plant flower allergens.

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