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Molecular approach to optimal choice of specific immunotherapy of patients with sensitization to weed pollen allergens**Zubchenko S** and **Danylo Halytsky**

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Introduction: The problem of pollen allergy including pollen of weeds is important for the population of Western Ukraine, including Lviv region.

Aim: Aim of this study is to compare possibility of SPT and component diagnostics to select appropriate specific immunotherapy.

Materials & Methods: 48 patients of both the sexes, aged 18-65 years, residents of Lviv region with seasonal allergic rhinitis/conjunctivitis, were selected according to primary stay in the first week of August this year. SPT performed to extract pollen allergens from local sources including a mixture of weeds, grasses and extracts of ambrosia, ragweed and timothy. ImmunoCAP was used for molecular researches of sIgE.

Results: In 50% of patients, positive SPT was found to mixture of weed, extracts of ambrosia, ragweed and grass mixtures. This indicated co-sensitization to various sources of allergens. 30% of patients had mono-sensitization to weeds pollen, and 20% mono-sensitization to grass pollen. However, simultaneous sensitization to pollen of ambrosia, ragweed and timothy has not been proven by molecular researches. Instead, 20% of patients identified sensitization to ragweed and ambrosia, 30% of people identified mono-sensitization to ambrosia and 20% mono-sensitization to ragweed. Most (70%) of patients with mono-sensitization to pollen of weeds identified specific IgE to Art v1 and/or Art v3, and/or Amb a1. False positive results of SPT indicated that co-sensitization to grasses and weeds can be explained by the presence of sIgE for cross-reactive markers of profilin Phl p 12 and polcalcin-Phl p 7.

Conclusion: On the basis of SPT and molecular researches, doctor takes a fundamentally different decision on the selection of extracts for specific allergen immunotherapy. Optimal allergic immunotherapy is based on the identification of primary sensitizer and cross-reactivity markers.

Biography

Zubchenko S is pursuing her PhD in Medical Sciences and is an Assistant Professor at Danylo Halytsky Lviv National Medical University in Department of Clinical Immunology and Allergology. She is a Clinical Immunologist and Allergologist. She was a participant of numerous congresses, conferences, training courses, which are organized by EAACI.

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