

Molecular approach to optimal choice of specific immunotherapy of patients with sensitization to weed pollen allergens

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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: Compare possibility of SPT and component diagnostics to select appropriate specific immunotherapy.

Materials and methods: 48 patients of both sexes, aged 18-65 years, residents of Lviv region with seasonal allergic rhinitis / conjunctivitis, selected according to primary stay in the first week of August this year. SPT performed to extracts of pollen allergens from local sources, including a mixture of weeds, grasses and extracts of ambrosia, ragweed, timothy ("Immunologist", Ukraine). For molecular researches of sIgE have used ImmunoCAP (Thermo Scientific, Uppsala, Sweden).

Results: In 50% of patients found positive SPT to mixture of weed, extracts of ambrosia, ragweed and grass mixtures. This indicated to co-sensitization to various sources of allergens. 30% of patients had monosensitization to weeds pollen, and 20% - monosensitization 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 - monosensitization to ambrosia, and 20% - monosensitization to ragweed. Most (70%) of patients with monosensitization 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 based on the identification of primary sensitizer and cross-reactivity markers.

Key words: weeds, component diagnostic, primary sensitizer, cross-reactivity, allergen immunotherapy.

Biography:

I am Ph.D. in Medical Sciences and assistant professor. I live in Ukraine. I work in the Danylo Halytsky Lviv National Medical University at the Department of Clinical Immunology and Allergology. I work as a doctor of clinical immunologist and allergologist too. I am working towards Molecular Allergology, repeatedly attended courses Molecular school Allergy and Immunology in Vienna and took active part in the work of Ukrainian School of the Molecular Allergology and Immunology, was participant of numerous congresses, conferences, training courses, which are organized by EAACI, valid member of which I am now.