

Review article

Allergy to green peas: Clinical manifestations, diagnosis and pathogenesis

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ABSTRACT

The study aims to analyse the clinical manifestations and pathogenesis of green pea allergy, compare the effectiveness of modern methods of diagnosing this disease, and develop recommendations. The methodology included an assessment of the pathogenetic mechanisms of green pea allergy, an analysis of the main clinical manifestations of the disease, a comparison of the main diagnostic methods, and a synthesis of the data obtained into a single whole to describe the specifics of the disease. The study determined that the main allergens of green peas are Pis s 1 and Pis s 2 proteins, which belong to the family of storage proteins and demonstrate high immunogenicity and stability to heat treatment. These proteins were found to be the main factors of cross-reactivity with other legumes such as peanuts, chickpeas and lentils. Provocative tests demonstrated the highest sensitivity and specificity (100%) of all diagnostic methods, but due to the risk of anaphylaxis, their use is limited to specialised clinics. Molecular allergology has proven to be effective in identifying specific allergenic proteins and managing cross-sensitisation. Regional and social factors also influence the prevalence of green pea allergy, including dietary habits, urbanisation and environmental conditions. In the paediatric population, allergy most often manifests itself in the form of skin reactions and anaphylaxis, which emphasises the need for early diagnosis in this group. The study confirmed the need to introduce molecular allergology to improve diagnostic accuracy and personalised treatment of green pea allergy.

Keywords: anaphylaxis, immune response, legumes, proteins, cross-reactivity,