

Progowe stężenie pyłku roślin niezbędne do wywołania objawów alergicznych

Threshold pollen count necessary to evoke allergic symptoms

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Summary

The purpose of this study was to analyze the relation between clinical picture of allergic disease and the level of pollen count the patients are exposed to. **Material and method.** We analyzed the severity of allergic rhinitis, conjunctivitis and bronchial asthma in a group of 640 subjects from Warsaw area with hypersensitivity to hazel, alder, grass, mugwort, plantain, nettle, *Alternaria* and *Cladosporium* allergens. Aerobiological measurements, patients' symptoms score cards and the results of physical examination were analyzed. **Results.** First symptoms in patients allergic to grass were visible during exposure to the concentration of 20 pollen grains in 1 m³ of air (25% subjects sensitised to grass pollen). Symptoms were noted in all the subjects sensitized to grass pollen at a concentration of approximately 50 grains/m³ of air. During exposure to the concentration of 65 pollen grains per m³ the symptoms were strengthened. Several hours' exposure to grass pollen concentration exceeding 120 grains/m³ cause dyspnoea in some patients. Similar intensive symptoms occurred after exposure to alder, birch and mugwort pollen. Patients with positive skin prick tests to plantain and nettle pollen allergens experienced symptoms of low intensity or even none symptoms during pollination period. Subjects with hypersensitivity to *Alternaria* allergens experienced symptoms during exposure to the concentration of approximately 80 spores in 1 m³ of air, while patients sensitised to *Cladosporium* allergens, during exposure to the concentration of over 2800 spores in 1 m³ of air. The dominant symptom occurring in patients sensitized to fungal allergens was loss of nasal patency, and dyspnoea as well as recurring cough at higher concentrations. **Conclusions.** Clinical symptoms of allergic disease were connected to the concentration and the kind of aeroallergen the subjects were exposed to.