

EV0944

ePoster Viewing

Mycology

Mould allergy in atopic patients in Saint-Petersburg, Russia

Y. Kozlova¹, A. Sobolev¹, O. Aak², E. Burygina², N. Klimko¹

¹Department of Clinical Mycology Allergology and Immunology- I.Metchnikov North-Western State Medical University, Saint-Petersburg, Russia

²Kashkin Research Institute of Medical Mycology- I.Metchnikov North-Western State Medical University, Saint-Petersburg, Russia

Introduction. Micromycetes are among the most common environmental aeroallergens. According to the different data, frequency of mold allergy varies within wide limits and may comprise from 6 to 24% among general population and 44% among atopic patients. National data of mold allergy prevalence is limited.

Objectives: to determine the prevalence and main clinical forms of mold allergy in patients with atopic diseases in Saint-Petersburg, Russia.

Methods. Prospective multicenter study was performed in 2009-2014. Eligibility criteria were combination of fungal sensitization (level of IgE antibodies to mold allergens in serum class ≥ 1) and clinical manifestations of allergy (allergic rhinitis, asthma, atopic dermatitis, urticaria and angioedema). Total IgE level in serum was determined by enzyme immunoassay. Specific IgE levels were determined using Multiple Allergen Simultaneous Test (MAST, Hitachi, USA) to fungal allergens. All patients with asthma passed lung function test. In case of allergic bronchopulmonary aspergillosis (ABPA) computed tomography of the chest was performed.

Results. The study included 1107 patients with various forms of atopic diseases: ABPA, asthma, allergic rhinitis, atopic dermatitis, urticaria, and angioedema. Mold allergy was detected in 241 patients that represented 22% of the total number of atopic patients. The highest frequency of fungal sensitization was connected with *Aspergillus* spp. (62%). Occurrence of sensitization to other micromycetes: *Penicillium* spp. – 54%, *Alternaria* spp. – 41%, *Mucor* spp.– 34%, *Cladosporium* spp.– 31%, and *Rhizopus* spp. – 4%. Total IgE level ranged from 1 to 2729 U/ml (median - 545).

Frequency of mold allergy in patients with asthma was 40%, allergic rhinitis – 16%, angioedema – 10%, urticaria – 6%, and atopic dermatitis – 6%. In patients with asthma in 2% of cases ABPA was diagnosed. Severe asthma with fungal sensitization was detected in 5% of patients with asthma.

Conclusion. Mold allergy was diagnosed in 22% of patients with atopic diseases in Saint-Petersburg. The most frequent cause of fungal sensitization were *Aspergillus* and *Penicillium* spp. Frequency of mold allergy in patients with asthma was 41%, allergic rhinitis – 16%, angioedema – 10%, urticaria – 6%, and atopic dermatitis – 6%.