

# SENSITIZATION TO ALLERGENIC COMPONENTS OF HOUSE DUST MITES IN CHILDREN WITH BRONCHIAL ASTHMA IN KHARKIV REGION

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**Abstract.** *The aim* of the work is to determine the molecular profile of sensitization to house dust mites in children with bronchial asthma in the Kharkiv region.

**Object and methods of study.** 42 children aged from 6 to 18 years were under observation. Evaluation of the sensitization profile was performed by the method of multicomponent photometric analysis ALEX.

**Results and discussion.** Boys predominated among the patients — 76 %. Patients had intermittent (46 %), mild persistent (31 %), moderate persistent (15 %) and severe persistent asthma (8 %). Allergic rhinitis was noted in 88 % of patients. Elevated IgE levels were observed in 69 % of patients. The median IgE is 385.50 [122.75; 991.00] kU/L. Sensitization to house dust mites was detected in 23 (54 %) patients, of which monosensitization — 10 %; co-sensitization with other aeroallergens — 44 %. Among pediatric patients in the Kharkiv region, the leading sensitization is sensitization to *D. farinae* (44 %) and *D. pteronyssinus* (48 %). Molecular sensitization profile: Der f1 — 38.1 %; Der f2 — 38.1 %; Der p1 — 33.33 %; Der p2 — 38.1 %; Der p5 — 14.29 %; Der p7 — 16.67 %; Der p10 — 9.52 %; Der p20 — 2.38 %; Der p23 — 26.19 %. Only minor components (Der p5, 7, 10, 20 or 21) were found in 7.14 % of patients, which proves the need for molecular diagnosis when prescribing immunotherapy. Among the «new» allergens for our region — *Blomia tropicalis* — sensitization in 11.9 %; molecular profile: Blo t1 — 2.38 %; Blo t10 — 9.52 %; Blo t21 — 4.76 %. Isolated cases of sensitization to ticks *Glycyphagus domesticus*, *Tyrophagus putrescentiae*, *Lepidoglyphus destructor* have been identified.

**Conclusions.** Differences in sensitization to molecular components of house dust mites in children of the Kharkiv region were proved. It should be taken into account in the diagnosis and treatment of patients with allergic diseases.

**Key words:** bronchial asthma, sensitization, house dust mites, molecular components.

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