

SENSITIZATION PROFILE OF CHILDREN LIVING IN MAGNITOGORSK CITY AND SURROUNDING AREAS

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Background.

The aim of the study was to study children respiratory sensitization in Magnitogorsk city and surrounding areas.

Methods.

55 children with established environmental sensitization and diagnosed atopic diseases (bronchial asthma/allergic rhinitis/atopic dermatitis from 1 to 18 years-old (average age - 7 years) were examined by the ImmunoCAP method - specific IgE (slg E) for house dust mites (HDM), set of tree and grass pollen allergens, and a cat. All patients were divided into three groups depending on their residence (Picture 1).

Results.

Environmental sensitization to Dermatophagoides pteronissinus (D.p.)/Dermatophagoides farinae (D.f.) was detected in 100% of cases (55 children).

The average slgE values HDM is:

Magnitogorsk:

D.p. 10.86 ± 5.02 kU/l;

D.f. 7.05 ± 3.92 kU/l .

Verkhneursalsk:

D.p. 9.25 ± 5.93 kU/l;

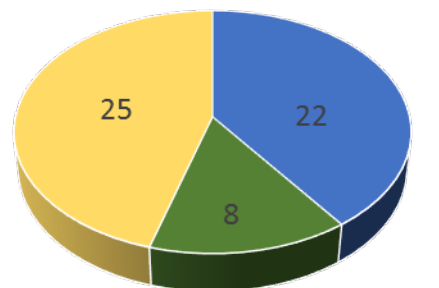
D.f. 6.47 ± 3.49 kU/l .

Beloretsk:

D.p. 17.58 ± 5.04 kU/l;

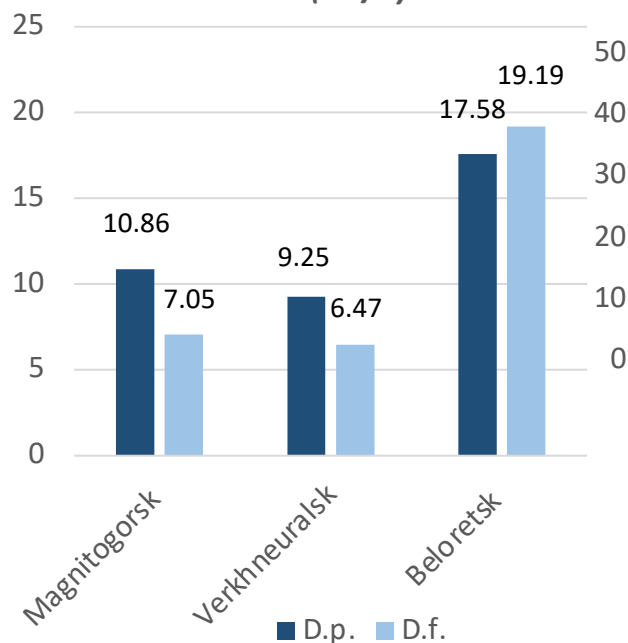
D.f. 19.19 ± 6.57 kU/l.

Picture 1. Patients division into groups depending on their residence

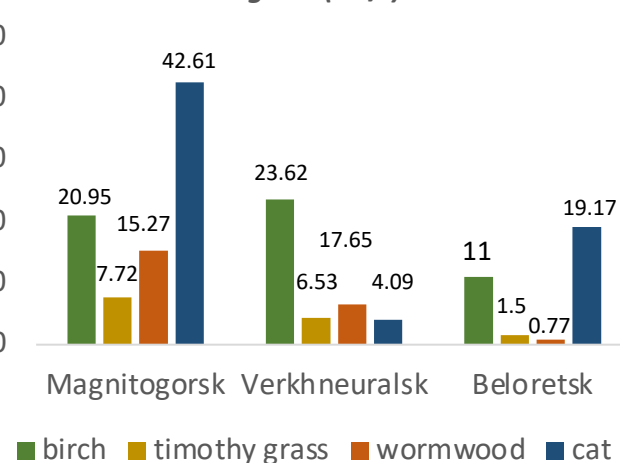


- Magnitogorsk city
- Verkhneursalsk city, Chelyabinsk region
- Beloretsk city, Bashkiria region

Picture 2. The average slgE values HDM (kU/l)



Picture 3. The average slgE values of allergens (kU/l)



Although reliable data have not yet been obtained, meanwhile, the values of slgE to HDM in children living in Bashkiria are more significant (Picture 2).

Among epidermal allergens, sensitivity to cat dander was higher in Magnitogorsk (42.61 ± 9.8 kU/l), that significantly exceeded the average values for patients from Verkhneursalsk (4.09 ± 2.48 kU/l) and Beloretsk (19.17 ± 6.3 kU/l) ($p < 0.05$) (Picture 3).

Conclusion. Only one third of patients with environmental sensitization to HDM living in Magnitogorsk and nearby territories did not show sensitivity to other respiratory allergens.