

Inflammation and clinical immunology

Immunoglobulins specific for common allergens and their dependence on heavy metal concentrations in the blood.

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Introduction:

Various environmental factors can induce epithelial and inflammatory changes. At some stage, the high concentrations of light and heavy metals' may trigger the allergic reaction to various epitops, including very common epitops like dog fur, cat hair, the mites.

Objective:

The present study describes the effect of cooper, magnesium, cadmium and lead on the production and the concentration of specific antibodies in class E for selected allergens.

Material and Methods:

80 children, (37 female and 43 male) who were admitted to allergist for allergy diagnosis. Patients underwent serological laboratory tests, as well as the concentration of light and heavy metals in serum was estimated. The nomination of some specific immunoglobulines in E class was estimated. The data was then statistically analysed

Results:

The mean tire of the specific antibodies for cat hair (0,48), dog fur(0,28), Cladosp.herbarum (0,01), Alt.alternata(0,18), D.pteronysinus(1,32), and D.farinae(1,13) was calculated in 0 to 6 point scale. A strong correlation between the tire of the antibodies and the concentrations of metals was not found. The strongest correlation was found between magnesium and antibodies specific for D.pteronysinus(0,33) and D.farinae.(0,37). The median of the tire of antibodies was 0.

Conclusions:

The tire of antibodies specific to inhalant allergens does not correlate strongly with the environmental exposition to light and heavy metals.