Inflammation and clinical immunology

The analysis of corelation between class E specific antibodies for inhalant allergens and concentrations of metals in a group of pediatric patiens.

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Introduction: Various environmental pollutants, especially metal derivatives, can induce epithelial and inflammatory changes in human body. Is it also known that some metals' concentrations may trigger the alergic reaction to various epitops, as well as the increased production of antibodies.

Objective: The present study describes the effect of zinc, magnesium, cadmium and lead on the production and the concentration of specific antibodies in class E.

Material and Methods: 64 children, (29 female and 35 male; mean age: 9,48)) who were admitted to allergist for allergy diagnostics underwent serological tests, as well as the concentration of light and heavy metals in serum was tested. The nomination of specific immunoglobulines in E class was estimated. The data was statistically analysed.

Results:

The mean tire of the specific antibodies for Betula(0,2951) Corylus(0,2131),Phleum(0,5902), Secale Cereale(0,4098), Artemisia(0,2131), Plantago Lanceolata(0,1803) was calculated. No strong correlation between the tire of the specific trees', grass' and weeds' antibodies and the concentrations of metals were found. The strongest correlation was found between magnesium and antibodies specific for trees' (0,330.) The median of he 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.