# Serum copper and zinc levels of children with asthma

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Abstract:

Introduction:

Zinc is as an essential micronutrient for normal growth and health that have important effects on biologic actions including enzyme activity, and release of insulin, homeostasis, cardiovascular, immune function and DNA construction. Childhood asthma is a respiratory disease with increased airway inflammation and airway obstruction was associated with infiltration and accumulation of neutrophils in the airways eosinophil caused to the production of oxidants and inflammation. The aim of this study was determine serum level of copper and zinc in pediatric with asthma.

Methods:

In a case-control study that performed in pediatric department of Tabriz University of Medical Science on pediatric with asthma, serum level of copper and zinc in pediatric with asthma evaluated.

Results:

68 of children were boy and 32 of them were girl. Mean age children with asthma was 5.68 ± 2.52 year and mean age control group children

was 5.12 ± 3.65 year(P=0.375). Mean copper level in children with asthma was 98.52 ± 30.78 and mean copper level in control group children was 75.48 ± 15.77.

Mean Zinc level in children with asthma was 20.12 ± 10.14 and mean copper level in control group children was 25.20 ± 8.95.

Conclusion:

Mean copper level in children with asthma was significantly higher than mean copper level in control group children (P<0.001). Mean zinc level in children with asthma was significantly higher than mean zinc level in control group children (P=0.009).

Key Words:

Asthma, Copper, Zinc