

عنوان مقاله:

Serum and Urine Level of Zinc in Patients with Minor Beta Thalassemic in Ali-asghar Hospital During the Years 2005-2006

محل انتشار:

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خلاصه مقاله:

Introduction and Objective: Zinc as the second trace element of the human body plays an important role in numerous functions. A large number of research studies have showed serum zinc deficiency and excess urinary excretion in patients with major beta thalassemia, but few studies revealed excess urinary zinc excretion in minor beta thalassemia and no study investigated serum zinc levels in this group. This study aimed to measure serum and urine zinc level in patients with minor beta thalassemia. **Materials and Methods:** The study was observational and cross-sectional. Blood and 24-hour urine samples were collected from carriers of beta thalassemia who attended Ali Asghar Hospital for blood transfusions for their children. They had documented hemoglobin electrophoresis for their status. The serum and urine zinc levels were measured by atomic absorption spectrophotometer. Student's t test was used for comparison of groups. **Results:** The average level of zinc in the serum and urine of the male cases was 69 ± 10 $\mu\text{g/dl}$ and 714 ± 162 $\mu\text{g/dl}$ and in the female cases was 58 ± 11 $\mu\text{g/dl}$ and 751 ± 162 $\mu\text{g/dl}$ respectively and was 64 ± 12 $\mu\text{g/dl}$ and 730 ± 120 $\mu\text{g/dl}$ totally. The obtained serum zinc was lower and the urine zinc was higher in minor beta thalassemic persons than the amounts mentioned by references for the subjects of the same sex and age. The serum zinc level of anemic patients with minor beta thalassemia was lower (63 ± 11 vs 72 ± 13 $\mu\text{g/dl}$) and the urine zinc level was higher (792 ± 183 vs 673 ± 202 $\mu\text{g/dl}$) than non-anemic patients. **Conclusion:** Minor beta thalassemics have lower serum zinc level and due to abundant roles of zinc can make benefit from zinc supplementation. This decrement may be attributed to tubulopathy in these patients

کلمات کلیدی:

Minor thalassemia, Zinc, Urine, Serum

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