

Relation between hair zinc content-age in healthy and diabetic patients

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Background and Aims: Zinc is one of the vital minerals for many biological functions and plays an important role in human nutrition and health. Zinc deficiency is associated with significant physiologic and functional impairment, which has been reported in subjects with type 2 diabetic.

Methods: In this study, the content of hair Zinc of healthy and diabetic subjects lived in Tehran was determined by atomic absorption spectrometer. Hair samples were collected from 129 subjects consists of 100 healthy and 29 diabetics. All statistical analysis was done by statistical software for social sciences.

Results: The mean Zinc concentration of healthy subjects was 184.30 ± 55.95 and in diabetic 172.77 ± 34.97 $\mu\text{g/g}$. Both healthy and diabetics Zinc concentration was within the normal range. Maximum content of Zinc was measured in 21-30 years aged healthy group subjects. Significant correlation was observed between hair Zinc content and age in healthy and diabetic patients, also between hair Zinc content and Body Mass Index in healthy population ($P < 0.05$).

Conclusions: The present study showed that hair Zinc of Iranian population are in normal range and female subjects have higher concentration of Zinc content than males in both healthy and diabetic groups.

Keywords: Zinc; Healthy; Diabetic