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Original Article

Zinc Deficiency in First Year Female Students of Tehran University of Medical Sciences

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Abstract:

Objective: Zinc deficiency is an important health problem in developing countries. The aim of this study was diagnosis of zinc deficiency among young female students of Tehran University of Medical Sciences.

Materials and methods: This cross sectional study evaluated 420 medical and paramedical students of Tehran University in 2005. All of them were female and in the first year of their education. Serum concentrations of zinc were measured by enzymatic method students in whom had sufficient criteria to enroll in the study. Zinc concentration more than 85 µ/dl was considered as normal value. Concentration less than 50 µ/dl was defined as severe zinc deficiency. Mild and moderate deficiencies were described as zinc levels between 50 to 85 µ/dl. Analysis was performed by t-test, chi-square and ANOVA using SPSS software.


Results: Zinc deficiency was found in 7.1% of the participants. In women with body weights between 50.1-60 kg, zinc deficiency was less than patients with body weight of ≤ 50 Kg (p=0.04). In zinc deficient group acne was observed more frequently (p=0.01). Also anemic participants (Hb<12) had lower zinc level than non anemic women (Hb≥12) (p=0.001).

Conclusion: This study found severe and mild to moderate zinc deficiency in 1.4% and 5.7% of female students, respectively. Zinc deficiency is common in anemic students. Zinc supplementation is recommended in anemic patients and in cases of confirmed zinc deficiency.

Keywords:

Zinc deficiency , Nutrition , Acne , BMI , Zinc

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