

Insulin-like growth factor-1 and zinc in children with Beta thalassemia minor

Beta talasemi minörlü çocuklarda insülin benzeri büyüme faktörü-1 ve çinko

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Letter to the Editor

To the Editor

The article by Karamifar H. et al published in the recent issue of Turkish Hematology on Insulin-like growth factor-1 in children with β -Thalassemia minor called our attention, because we have also studied growth retardation and ILGF-1 in thalassemia major patients [1]. Our previous studies revealed zinc deficiency in Turkish children with β -Thalassemia major. We have studied zinc levels not only in plasma or serum but also in erythrocytes (RBC), hair and urine of the patients by atomic absorpsiyon spectrophotometer and found chronic Zinc (Zn) deficiency (low blood and hair Zn levels) associated with hyperzincuria and growth retardation [2]. Furthermore, we have demonstrated increased linear growth in Thalassemia-major patients when they were supplemented with daily Zn sulphate, in a controlled manner, indicating the fact that Zn was responsible from short stature in these patients [3] ILGF-1 (initially named as somatomedin-C) levels were also measured in some of the thalassemia major patients and found to be low (4) It was an established fact that zinc plays an important role in the synthesis of ILGF-1 in liver [4,5].

It is well documented that normal growth and development in human subjects is not only hormone dependant but is also greatly influenced by nutritional status. Nutritional zinc deficiency occurring in children and infants has been recognized in different parts of the world including the USA [6,7]. It has been shown that trace element Zn affects growth and development in children when it is deficient [6-8].

Therefore, we strongly suggest the authors that they further study zinc status in their thalassemia-minor patients.

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Author Reply

All the cases has already been on zinc supplement because zinc deficiency is common in Iran. We mentioned the first report of zinc deficiency in Iran in Turkish Journal of Hematology 2008; 25: 211.

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