Original Paper

The frequency of hypoparathyroidism in patients with Beta-thalassemia in Hamadan - Iran

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Abstract

Background and Objective: The thalassemic syndromes are genetically structural disturbance of α and β globin chains. In major β-thalassemia the life expectancy depended on frequent blood transfusions that lead to over storage and deposition of Iron in different body-organs (Hemochromatosis) including parathyroid glands, which may cause hypoparathyroidism. This study was done to evaluate the frequency of hypoparathyroidism in thalassemic patients referred to teaching hospitals in Hamedan – Iran.

Materials and Methods: This descriptive, cross-sectional study was done on 56 thalassemic patients, which received blood transfusion. Serum Ca, P, PTH, total protein, albumin, Ferritin and BUN creatinine were checked two weeks after last transfusion. The hypoparathyroidism was defined when calcium was less than 8mg/dl and phosphorus more than 5.5mg/dl and PTH less than 10 ng/dl.

Results: In this study, 14.2% of patients had hypoparathyroidism. 37.5% of hypoparathyroid ones had clinical manifestation of hypocalcemia. There were statistically meaningful association (P<0.05) between The hypoparathyroidism with desferal administration, splenectomy and diabetes.

Conclusion: This study showed that the frequency of hypoparathyroidism in Beta-thalassemic patients receiving blood transfusion was relatively high, so clinical and laboratory evaluation for endocrine glands specially parathyroid is recommended since early second decay of life.

Keywords: Hypocalcemia, Hypoparathyroidism, Beta-Thalassemia

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Received 13 Feb 2008       Revised 10 Nov 2008    Accepted 13 Dec 2008