

## 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  $\alpha$  and  $\beta$  globin chains. In major  $\beta$ -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 cratinine 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 labratory evaluation for endocrine glands specially parathyroid is recommended since early second decay of life.

**Keywords:** Hypocalcemia, Hypoparathyroidism, Beta-Thalassemia

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