

A study of thyroid function in children with Beta thalassemia major.

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Abstract:

One of the most common endocrine disorder in beta-thalassemia major is Hypothyroidism. The aim of this study was to evaluate thyroid function status in β -thalassemia major patients above the age of 7 years. **Materials & Methods:** This cross sectional study was carried out on beta thalassemia major patients registered at Thalassemia Center of civil hospital, Ahmedabad. A questionnaire was filled out to evaluate the demographic information, information about transfusions and chelation therapy. Growth parameters were evaluated. We assessed serum fT₄, fT₃ and TSH levels in all patients above 7 years with consent and those who were found to have hypothyroidism were subjected to further management. **Results:** 97 patients (7-14 years age) (46 males and 51 females) were enrolled in this study. Hypothyroidism was found in 18 patients (15.3%); 5 patients with primary overt Hypothyroidism, and 13 patients with subclinical primary Hypothyroidism were detected. Out of 18 patients, 8 patients were male and 10 patients were female. 11 patients were above 11 year of age and 6 patients between 9-11 year of age and 1 patient below 9 year. Short stature was found in 62(63.9%) patients. Correlation of Hypothyroidism with serum ferritin level and short stature was significant. Regular transfusion and chelation therapy were associated with ferritin level. **Conclusion:** High prevalence of Hypothyroidism among thalassemia patients signifies the importance of regular screening for evaluation of endocrine function in these patients, especially after 7 year of age and when ferritin levels are high.

Key Words: Beta- thalassemia major, Hypothyroidism, Serum ferritin.

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