Assessment of Thyroid Dysfunction in Children with Beta – Thalassemia Major Attending Outpatient Clinic, Fayoum University Hospital

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Abstract:

Background: Thalassemic patients need regular and frequent blood transfusion. So these patients suffer from iron overload and consequently endocrine complication such as hypothyroidism.

Aim of the study: This work was aiming to assess the thyroid dysfunction in Beta- thalassemia major children attending outpatient clinic, Fayoum university hospital to highlight the problem in Fayoum government for early detection and timely treatment of such complication**.**

Subjects and Methods: Across sectional study was conducted to 70 thalassemic patients (5-16 years) who are on regular blood transfusion. Patients are subjected to full history taking , medical examination and laboratory investigation including, complete blood count, serum ferritin level and thyroid function tests . 70 age and sex matched children without thalassemia constituted the control group.

Results: Four (5.7%) children of the thalassemic patients (70 children) were found to have primary subclinical hypothyroidism. Also there is positive correlation between age of patients (*p* value <0.001), frequency of blood transfusion (*p* value <0.01) and developing iron overload and consequently hypothyroidism . For subjects who use iron chelating agents, they still suffer from iron overload and under risk of developing hypothyroidism, so they need closer and more regular follow up.

Conclusion: Hypothyroidism is one of the endocrinopathies that may complicate beta thalassemia major, so regular and close follow up is required for early detection and treatment.

Key words: Beta thalassemia major, Iron overload, Hypothyroidism.