

## A study of physical growth parameters in patients of Thalassemia major.

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### Abstract:

**Introduction:** Thalassemia is the most common genetic disorder all over the world as per WHO and so pose a major public health burden in this millennium affecting the growth and the general well being of a large number of children. **Aims & Objectives:** To analyze physical growth in patients of thalassemia major and to determine association between pre blood transfusion haemoglobin levels and serum ferritin with the growth parameters. **Materials and Methods:** Cross sectional study including 72 children with B-thalassemia major under the age of 12 years coming to civil hospital for regular blood transfusion. Height and weight of the child were measured using standard techniques every time the child came for blood transfusion along with pre transfusion haemoglobin. Serum ferritin was repeated every 3months. The effect of serum ferritin and pre transfusion haemoglobin on physical growth was studied. **Results:** Out of total 72 patients, there was a slight preponderance of males (54.1%) compared with females (46.9%). Of total 31 short statured, 15(48.3%) were females and 16(41.7%) were males. 20 out of total 31(64.5%) short statured patients had serum ferritin >2000ng/ml. The patients with a mean transfusion haemoglobin <9g/dl were 40 (55.5%), out of which 20 patients have short stature (64.5% of the total short stature). **Conclusion:** Regular blood transfusions can maintain pre transfusion haemoglobin levels, but if serum ferritin levels are higher than the desired levels, patients' physical growth can be affected. Thus, along with maintaining haemoglobin levels, it is important to have effective iron chelation therapy to minimize retardation of growth in patients with transfusion-dependent thalassemia. Thalassemia patients requiring regular blood transfusions need better strategies for removing excess iron.

**Key words:** Physical growth, Pre transfusion haemoglobin, Serum ferritin, Thalassemia.

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