

Original Paper

## Efficacy of deferoxamine- deferiprone on cardiac function of patients with major thalassemia

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### Abstract

**Background and Objective:** Deferoxamin is the current “gold standard” chelator in comparison with new chelators. Combined therapy of Deferiprone and deferoxamin reduces the cardiac iron overload in patients with major thalassemia. This study was done to evaluate the effect of defriprone-deferoxamine on heart function in patients with major thalassemia.

**Methods:** In this historical cohort study, 8 patients with major beta thalassemia treated by subcutaneous deferoxamine were randomly selected and LVEF (the rate of blood that exited from heart in each beat) and serum ferritin were measured. The patients were treated by deferiprone (50-100 mg/kg/day) compained with dferoxamine (30-50 mg/kg as 3 times in a week). In the end of each year, LVEF and serum ferritin of patients were measured.

**Results:** The ferritin level changed from 3243.12 in the first year to 2672.75 mg/kg at the end of third year. The mean of LVEF changed from 71.12% to 64.62 %. The correlation of serum ferritin and LVEF only at the end of third year was significant ( $P < 0.05$ ).

**Conclusion:** Combined therapy of deferiprone-deferoxamine during 3 years reduces ferritin and LVEF in patients with major thalassemia.

**Keywords:** Thalassemia major, Deferiprone, Deferoxamine, Ferritin, LVEF

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