

# Can oral iron chelation therapies reduce endocrine complications in $\beta$ -thalassemia major patients?

## AUTHOR:

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## Introduction :

$\beta$ -thalassemia major is an autosomal recessive hemoglobinopathy that needs to blood transfusion for the survival of patients with  $\beta$ -thalassemia. Iron overload as a side effect of transfusion causes some endocrine deficiency in these patients. The injectable iron chelators as an only treatment in the past lead to painful among patients. At present, use of oral iron chelator and increase in patients 'compliance has been successful.

## Methods:

72 patients with  $\beta$ -thalassemia major from april 1997 to august 2017 at the children's medical center hospital in tehran, iran, contributed to this research. Depending on the type of iron chelator, individuals were divided into two groups. Group one (39 patients) were receiving oral iron chelator and the group two (33 patients) were taking the injectable once.

## Findings:

72 patients, 49% male and 51% female were assessed. The average age of patients was  $20.4 \pm 5.9$  years. Prevalence of IGT, DM and clinical and subclinical hypothyroidism were 17.94%, 5.1%, 17.4%, and 25.64% in group 1 and 18.1%, 9.02%, 24.5% and 24.3% in group 2 respectively. Hypoparathyroidism was not seen in any case and twenty patients had no endocrine deficiency.

## Conclusion:

The lack of any difference in the incidence of endocrine deficiency between the injectable iron chelator and oral one, suggested use of oral iron chelator as an acceptable treatment among the patients.

## Keyword:

Deferoxamine, deferiprone, endocrine complication,  $\beta$ -thalassemia major, iron chelator

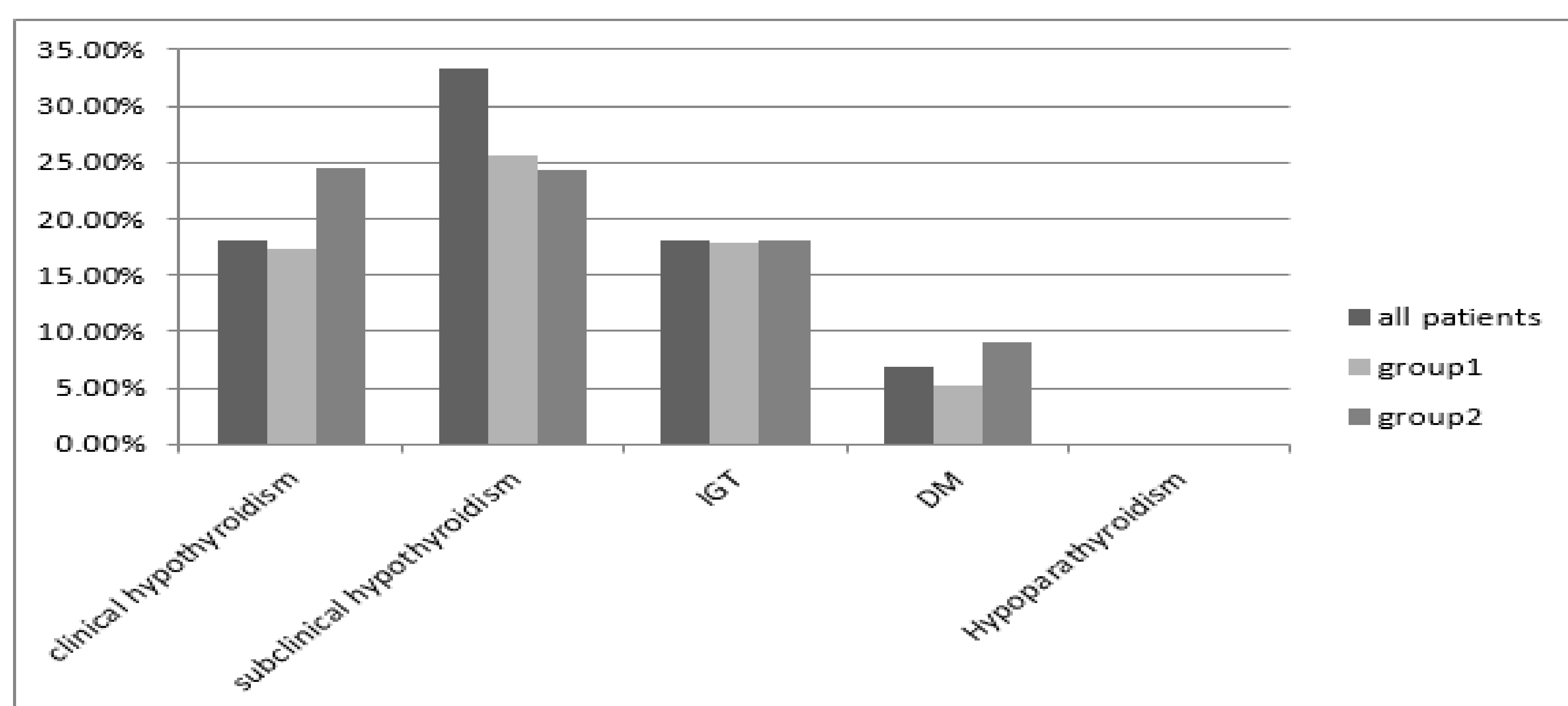


Figure 1

