The use of iron chelating therapy for thalassemia major

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Morbidity and mortality in thalassemia is linked closely to the adequacy of chelation. Desferrioxamine had been used for a long time as a parenteral iron chelating agent, but oral iron chelators has become the alternative of parenteral therapy. Herein, we aimed to share our experiences regarding to deferasirox use in thalassemia patients.

In this study, deferasirox treatment was used in transfusion dependent 36 talassemia major patients they were named as group 1. Thirty-seven patients, who had taken desferrioxamine, were accepted as control group and named as group 2. The complete blood count, BUN, creatine, AST, ALT levels were checked monthly after the onset of treatment. Ferritin levels were checked once in every three months. Quantitative protein levels in 24 hour urine samples were recorded. Eye examinations, hearing evaluations and echocardiographic tests were checked yearly. Side effects during treatment and compliance to the medication were checked and recorded for these two groups.

The difference between ferritin levels of DFX and DFO groups checked in three months periods was statistically insignificant. The difference between BUN and creatine and AST levels were statistically insignificant, but a marked increase in ALT levels were observed in DFX group. There was no significant difference between pretreatment and after treatment echocardiographic evaluations. Neither immunologic nor ocular side effects were observed in both groups but sensorineural and conductive type hearing losses were detected in DFO group

The compliance of DFX group was perfect but in DFO group 6 patients (16,2%) were noncompliant. Due to similar ferritin levels between the two groups, absence of severe side effects, single oral dosage and better compliance with the medication; DFX treatment is found to be superior to DFO especially in pediatric population.

Keywords: Thalassemia, deferasirox, desferrioxamine treatment, medical cooperation.