

The Effects of Iron Treatment upon Viscosity for Children with Cyanotic Congenital Heart Disease

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Introduction: This study was planned to determine the effects iron treatment on viscosity in children with cyanotic congenital heart defect.

Methods: A total of 39 patients with cyanotic congenital heart defect involving 20 girls (51%), 19 boys (49%) were evaluated. Their average ages were $9,9 \pm 6,2$ years, and average weight was $33 \pm 18,4$ kg. The patients were categorized into two groups with iron deficiency and without iron deficiency according to their ferritin levels. Iron treatment with two values was applied to the group diagnosed with iron deficiency for three months. Clinical and laboratory findings of both groups were evaluated initially and after three months and their viscosity measurements were carried out.

Results: Iron deficiency was identified in 21(53,8%) out of 39 patients. Average hemoglobin and hematocrit values increased from $14,8 \pm 2,4$ gr/dl to $16,0 \pm 2,0$ ($p=0,003$), from $45,8 \pm 7,5\%$ to $47,6 \pm 7,2\%$ ($p=0,052$) respectively. Viscosity value, however; decreased from average $5,6 \pm 1,0$ c poise to $5,5 \pm 1,0$ c poise by displaying very little reduction ($p=0,741$). However, following iron treatment;

O₂sat value increased from average 71,7% to 75% and complaints such as headache, visual haze,

frequent sinusitis attacks decreased.

Conclusion: It was observed that iron treatment increased hemoglobin and hematocrit levels without raising viscosity and enabled an amelioration in clinical symptoms of patients with cyanotic congenital heart defect.