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IRON DEFICIENCY IN PREGNANT WOMEN WHO ARE BETA-THALASSEMIA CARRIERS

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ABSTRACT

In this study eleven pregnant women with documented previous diagnosis of β-thalassemia trait were evaluated for hemogram and iron status. Four women (36.3%) were iron deficient. This proves that pregnant women with β-thalassemia trait are not exempted from iron deficiency and iron status should be checked in such patient group.

INTRODUCTION

β-thalassemia trait is commonly encountered in Hamdanyia province in Iraq. β-Thalassemia trait (minor) is a common, usually symptomless, abnormality characterized like α-thalassemia trait by a hypochromic, microcytic blood picture (MCV and MCH very low) but high red cell count (>5.5 × 1012/L) and mild anemia (hemoglobin 100–120 g/L), (Hoffbrand & Moss, 2016, p. 79). A lot of studies had been done on pregnant women who have thalassemia major, but little had done to investigate iron status on those who are just carriers of the disease.

Aim of the Study

In this study, pregnant women with documented previous diagnosis of β-thalassemia trait were evaluated for the iron status. This aimed at diagnosing any possible iron deficiency anemia that may be missed by the previous diagnosis of thalassemia minor as the sole cause of anemia in this patient group.

Patients and Methods

Eleven pregnant women with documented previous diagnosis of β-thalassemia trait were included in this study. CBC was measured with serum ferritin.

RESULTS

Four women (36.3%) of the study group were iron deficient. There was no significant relationship between serum ferritin level and hemoglobin level, gestational age and maternal age as shown by statistical data analysis.

DISCUSSION

β-thalassemia trait or heterozygosity for β-thalassemia is usually completely asymptomatic and may therefore be referred to as β-thalassemia minor. In conditions of haemopoietic stress, for example during pregnancy or during intercurrent infections, the patient may become anemic and even require blood transfusion. (Bain, 2006, p. 94). However; concomitant iron deficiency is not uncommon and many studies had shown this relationship. The results of this study have shown this coexistence of β-thalassemia trait and iron deficiency in the included pregnant women.

CONCLUSIONS

Pregnant women who had been diagnosed with β-thalassemia minor are susceptible to develop iron deficiency as well.

Recommendations

Measuring serum ferritin is highly recommended in pregnant women even if they were diagnosed as beta-thalassemia trait.

Raising awareness of potential possibility of iron deficiency among pregnant beta-thalassemia carriers is essential for health care providers.

Following iron status and hemoglobin level after iron therapy has to be evaluated.

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