

Prospective Evaluation of Efficacy and Adherence of Intravenous Iron in Management of Iron Deficiency Anaemia

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Abstract

Background: Worldwide, most common nutritional deficiency anaemia is iron deficiency anaemia. Iron is a key element in the transport and utilization of oxygen and a variety of metabolic pathways. Iron deficiency is a major cause of anaemia and can be associated with fatigue, impaired physical function and reduced quality of life. This burden exists in our context as well and we are trying to establish local treatment protocols.

Aim: To establish the efficacy, safety and adherence of intravenous iron in patients who were intolerant to oral iron formulations (Ferrous Fumarate, Ferrous sulphate, Ferrous Gluconate) available in Al Dhafra Family Medicine Centre. Oral iron is the first line treatment for iron deficiency, however it sometimes cannot be tolerated due to its side effects, relatively slowly response in urgent conditions such as heavy menstrual bleeding, or cannot be used in certain conditions such as pregnancy (second and third trimester), and post certain bariatric surgeries.

Materials and Methods: Prospective, observational, centre-based study carried out in 178 patients (aged 14-59 years), having haemoglobin less than 12g/dl, serum ferritin less than 13 mcg/l and MCV (Mean corpuscular volume) less than 76. One hundred seventy-eight patients were given 200mg to 1000 mg of intravenous iron in divided doses according to patient's body weight and current haemoglobin levels. Data was collected after four to eight weeks of intravenous iron infusion for haemoglobin and serum ferritin estimation.

Results: An improvement of haemoglobin was observed with intravenous iron sucrose. The mean haemoglobin was increased from 10.27 ± 1.37 gm/dL to 11.97 ± 1.33 gm/dL after four weeks. Similarly, a significant improvement in serum ferritin was also observed where the mean was increased from 7.55 ± 4.58 mcg/L to 97.73 ± 68.76 mcg/L after intravenous iron therapy

Conclusion: Intravenous iron therapy can replace oral therapy in patients whose blood parameters must be raised rapidly and in situations where oral iron administration would not be appropriate for any reason.

Keywords: Intravenous Iron, Haemoglobin, Ferritin, Anaemia