Original Research Paper

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COMPARING EFFICACY OF SODIUM FEREDETATE AND FERROUS ASCORBATE IN THE TREATMENT OF ANEMIA IN ANTENATAL WOMEN

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ABSTRACT **Aim:** To compare efficacy and side effects of Sodium Feredetate and Ferrous Ascorbate **Type of Study :** Prospective ,randomized, comparative clinical study **Materials and methods :** 50 antenatal women with haemoglobin between 8-10 gm % attending the out patient department divided into groups of 2 by randomization were treated with ferrous ascorbate (100mg elemental Iron) and Sodium feredetate (33 mg elemental Iron) for 30 days. Haemoglobin and ferritin estimation was done on day 0 and day 30 **Results :** There was significant and comparable rise in haemoglobin and serum Ferritin in both the groups on day 30 **Conclusion :** Lower doses of elemental iron – Sodium Feredetate (33 mg elemental Iron) per day produce similar rise in haemoglobin levels as compared to ferrous ascorbate (100 mg elemental Iron) per day

KEYWORDS : Sodium Feredetate , Ferrous Ascorbate, Haemoglobin

Introduction –
Anemia is the most common medical disorder occurring in pregnancy especially in developing countries Around 40% of materal deaths have anemia as the contributing factor Furthermore Iron deficiency and Iron deficiency anemia during pregnancy are risk factors for preterm delivery , prematurity , small for gestation age birth weight Also Iron deficiency has a negative effect on intelligence and behavioural development in the infant (1)

Severity of anemia –
Mild anemia : 9-10.9 gm/dl
Moderate anemia : 7-8.9 gm/dl
Severe anemia : less than 7 gm/dl
Very severe anemia : less than 4 gm/dl

Inclusion Criteria-
1) Antenatal women attending the out patient department between 18 weeks to 30 weeks of gestation
2) Haemoglobin beween 8 to 10 gm/dl

Exclusion Criteria –
1) Antenatal patients after 30 completed weeks of gestation
2) Patients with deranged liver and kidney function tests on the day of start of study
3) Patients with haematological disorders
4) Patients with any medical comorbidities
5) Women intolerant to iron derivatives
6) Women having bleeding piles , active peptic ulcer

Type of study –
Prospective ,randomized, comparative clinical study

Materials and methods –
After taking ethical clearance from the institutional committee 50 antenatal women fulfilling the inclusion and exclusion criteria were included in the present study

They were divided into groups of 2 by randomization

Group 1 was given a formulation containing ferrous ascorbate (100 mg elemental Iron) 1 tablet daily , Group 2 was given a formulation containing sodium feredetate (33mg elemental Iron) 1 tablet daily for 30 days

The first day on which iron formulation was given was noted as day 0 and days were counted therafter Haemoglobin and ferritin estimation was done on day 0 and day 30

Data was stastistically analysed by t test

RESULTS –
no antenatal woman opted out of the study due to side effects of iron formulations in both the groups

Table 1 – comparative rise of haemoglobin in both the groups from day 0 to day 30

Group (n-25 each)	Mean rise in Haemoglobin from day 0 to day 30	t-test
Group 1	0.60 +/- 0.27	P< 0.001
Group 2	0.63 +/- 0.23	P <0.001

Table 2 - comparative rise of serum ferritin in both the groups from day 0 to day 30

Group (n- 25 each)	Mean rise in ferritin from day 0 to day 30	t – test
Group 1	15 +/- 9	P<0.001
Group 2	16+/- 6	P<0.001

Conclusion –
Low doses of elemental iron in sodium feredetate preoduce comparable results to high doses of elemental iron in ferrous ascorbate

Limitations –
1)Small sample size
2)30 days is a short period to asses efficacy of a formulation and to study its long term benefits /side effects

Authors declaration –
There is no conflict of interest

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