Effect Of Weekly Iron Effect Of Weekly Iron Supplementation In Pregnant Women

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ABSTRACT
Although iron supplementation exists for pregnant women, the prevalence of anemia during pregnancy remains high. The lack of compliance of the target group is one of the reasons which may reduce the efficacy of the supplementation program.

Recent studies in preschool children and non pregnant women has been reported that the administration of intermittent iron supplement was equally effective in improving the iron status as daily supplement.

This research was to investigate whether a weekly dose of 120 mg iron supplementation would improve the iron status in the same way as a daily dose of 60 mg iron supplementation in pregnant women.

The effect of daily vs weekly iron supplementation was studied in pregnant women in non randomized experimental community trial. The subjects were pregnant women who attended the selected Health Centers for the first time in their current pregnancy. Of the 176 pregnant women enrolled, a complete data set were available for 139 (79 %). Duration of supplementation was 8 - 20 weeks.

Three health centers each, matched with socioeconomic condition were allocated for control group and treatment group. Daily group served as control received 60 mg Fe + 0.25 mg folic acid daily (68 pregnant women), while weekly group received 120 mg Fe + 0.50 mg folic acid weekly (71 pregnant women).

Hemoglobin concentration in both group increased significantly after supplementation ($p < 0.001$). Improvement of hemoglobin was influenced by initial hemoglobin level ($p < 0.001$), and hookworm infestation ($p < 0.05$).

Serum ferritin level decreased in daily and weekly group ($p > 0.05$). Serum ferritin change was not influenced by initial hemoglobin level (p] 0.05), however was influenced by hookworm infestation ($p < 0.001$).

The duration of supplementation had no effect on hemoglobin changes ($p > 0.05$), but it influenced serum ferritin changes ($p < 0.05$).

It was concluded that supplementation with 120 mg elemental iron on weekly basis had similar effects as daily dose of 60 mg on hematological status, but was not enough to improve iron stores in pregnant women.