A CLINICAL STUDY ON THE EFFECT AND EFFICACY OF TRADITIONAL FORMULATION DERIVED BY OLA LEAVES MANUSCRIPT IN THE MANAGEMENT OF IRON DEFICIENCY ANEMIA

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Abstract

Anemia is a condition, characterized by reduction in the red blood cell volume or decrease in the concentration of hemoglobin in the blood. Iron deficiency anemia is a global public health problem among school age children, which retards psychomotor development and impairs cognitive performance. Prevalence of anemia among children in Sri Lanka was 25.60% as of 2016. Its highest value over the past 26 years. The treatment modalities for IDA have been unsuccessful even in this modern technologically-advanced era due to the adverse effects. Herbal drugs have been used in the treatment of IDA since ancient times. In this research, it was intended to investigate the effect of *Virechana* formulae in *ola* leave manuscript for Iron deficiency anemia control in Sri Lankan context. For this purpose 90 patients were selected and randomly divided into 3 groups as A, B and C. Group A was given FeSO4, Group B given decoction and Group C was given decoction with *Virechana*. BMI, Hb count, MCV and MCH were measured. According to overall assessment the patients who treated with herbal formula with *Virechana* treatment (Group C) show best results and patients who treated with herbal formula in ola leave manuscript (Group B) show better results than the Group A who treated with FeSO4 in the levels of Hb count, MCV and MCH. But difference of BMI of all three groups were not statistically significant. The present study evidence that the short term administration of new herbal formulation has shown significant effect in decreasing the IDA. So the new herbal formulation is an effective remedy for the management of Iron deficiency anemia among school children.

Key Words: Iron deficiency anemia, *Virechana*

Introduction

Anemia is a condition, characterized by reduction in the red blood cell volume or decrease in the concentration of hemoglobin (Hb) in the blood.[i] The World Health Organization defines anemia as a level of Hb below 13.0 g/dL in male adults, below 12.0 g/dL in female adults who are not pregnant, and below 11.0 g/dL in pregnant women. Hb levels may vary across age and race.[ii] Commonly, serum ferritin levels below 15-100 mg/mL (depending on the presence of concomitant inflammation) and transferrin saturation (TSAT) below 16%-20% are considered indicative of iron deficiency.[iii] Iron deficiency anemia is the most severe stage of iron deficiency in which Hb concentration falls below a statistically defined threshold.[iv]

Iron deficiency is one of the most prevalent nutrient deficiencies in the world, affecting an estimated two billion people, and causing almost a million deaths a year. Young children and their mothers are the most commonly and severely affected because of the high iron demands of infant growth and pregnancy.[v] Anemia is a serious condition that impacts cognitive development and effects of IDA