

Received : March, 2011; Accepted : April, 2011

Efficacy of iron rich *Mathri* on hematological parameter of hostel girls in Udaipur city

SHAZIA HUSAIN, SWATI VERMA AND VIBHA BHATNAGAR

ABSTRACT

Anemia is one of the glaring deficiencies in adolescent girls. A study was conducted to see the effect of developed iron rich *Mathri* on haemoglobin level of hostel girls in Udaipur. For the present study, sixty hostel girls were selected and estimated the haemoglobin level by Cyanmethaemoglobin method. The study revealed that, forty six per cent of girls were moderately anemic, thirty per cent were mildly anemic and ten per cent severely anemic. After nutritional analysis and *in vitro* availability of iron in developed *Mathri*, intervention study was conducted on selected subjects for one month by daily supplementation of *Mathri* (80g) providing 17.45mg of iron. Results of intervention (before and after) showed significant ($p < 0.05$) difference in haemoglobin level of the subjects.

Husain, Shazia, Verma, Swati and Bhatnagar, Vibha (2011). Efficacy of iron rich *Mathri* on hematological parameter of hostel girls in Udaipur city, *Food Sci. Res. J.*, 2 (1) : 69-72.

Key words : Anemia, Haemoglobin, *Mathri*, Intervention

INTRODUCTION

Nutritional adequacy is one of the key determinants of the quality of human resources everywhere. The problem of malnutrition in developing countries encompasses a spectrum of deficiencies of which the most devastating is a deficiency of one or more of the three micronutrients: iron, vitamin A and iodine (Seshadari, 1996). Anemia is one of the glaring deficiencies in adolescent girls, which they acquire from childhood and increases in extent and magnitude during the reproductive age. It is becoming increasingly evident that control of anemia in pregnant women may be more easily achieved if satisfactory iron status of the adolescent females can be ensured, prior to marriage.

Enrichment of diet with iron is promoted as a measure to combat anemia among adolescent girls because it is an efficient and cost effective means and can reach to a large population. There is a need to provide iron from food sources, which can be prepared at household level and positive steps towards prevention of major nutritional disorders in shorter duration. As with the advent of advertisement era a number of synthetic commercial preparation of iron have been introduced. This does not

seem to be very practical and the best solution and also due to the complication of synthetic iron therapy *i.e.* gastrointestinal distress which is most prominent as is seen in 15 to 20 per cent people.

Legumes in general and soybean in particular have a high iron and ferritin content (Beard *et al.*, 1996). Soybean occupies a premier position as a world crop because of its high virtually unrivalled protein content.

We need a radical departure in our strategy for combating anemia among population and the strategy should be beneficial among all sections, which should be less expensive, easily available, can be consumed with daily diets and easily acceptable so that the chances of mitigating the anemia problem would be far brighter.

Keeping above points in view, the present study was conducted to study the effect of developed iron rich *Mathri* intervention on biochemical status of anemic hostel girls.

MATERIALS AND METHODS

The present study was conducted in one of the girls hostel of Udaipur, Rajasthan. A group of 60 girls were selected purposively having age between 17 – 24 years.