ABSTRACT 2011

The objective of the study was to assess the prevalence of anaemia among employees at Sathosa, and to detect some contributory factors for anaemia. Hundred and Ninety Three subjects in the age group between 20 - 59 were selected randomly from employees working at Sathosa, within Colombo Municipal limits. Their iron and nutritional status was assessed using a questionnaire on socio - economic data, clinical symptoms, anthropometric measures, food frequency patterns, and the haemoglobin concentration was estimated by using cyanmeth haemoglobin method. In addition to this an educational and therapeutic intervention was conducted for a period of eight weeks.

Anaemia appeared to be a problem in female employees more than males. It seems surprising that the income level had a negative corelation to anemia. This may probably be because the subjects having an income over 7501 rupees or more had other expenses such as transport, clothing and entertainment while the lower income groups had lesser needs and would have spent their money on food consumption. Generalised body weakness was a significant clinical feature in our study subjects being commoner in females. When analysing the food pattern it was typical of a South Asian diet which was rich in cereals and pulses but deficient in animal proteins such as meat, fish and dry fish.

The body mass index was within normal range for both male and female workers. They did not have a protein energy deficiency.

The educational and therapeutic intervention had been beneficial to the total study population reducing the prevalence of anaemia in male workers from 39.1% to 25.7%, and in female workers from 80.8% to 43.6% respectively. The

effect of ferrous sulphate supplementation was greater in the female workers while it was not significant in the male workers. This may probably be due to the body iron content of individuals. Sineethe male workers had a mean haemoglobin concentration more than 130 g/l they were already in iron balance and the absorption of iron from the duodenum would have been lower than for females.

Educational intervention had been most beneficial to the younger age group females, and older age group males. This indicates that educational intervention starting in adolescent females may be beneficial in preventing anaemia among non-pregnant women. It appears that the duration of iron supplementation has to be longer than eight weeks to obtain a significant reduction in the prevalence of anaemia in this employed group. To change practices on food habits hygiene habits that promotes the nutritional status, educational messages should be repeated periodically to reinforce the importance of certain food habits and personal habits to prevent anaemia.

Reducing the prevalence of anaemia in employees will result in increased efficiency, work productivity, which is beneficial to a developing country like Sri Lanka.