

Dietary Intake and its Effect on the Iron Status of Pregnant Mothers in an Urban Slum Population of Colombo

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The effect of diet on the iron status of pregnant mothers in an urban slum population of Colombo was assessed. Sixty one pregnant mothers, aged 18 –35 years, in the second trimester of pregnancy, attending antenatal clinics, comprised the study sample while age-matched twenty nine, non-pregnant, non-lactating mothers attending other welfare clinics were included as the study controls. The nutrient intake was assessed from a 3 day x 24-hour dietary recall with weighing foods on one day. Iron deficiency anemia (IDA) was assessed by measuring haemoglobin, serum ferritin and serum transferrin receptor (sTfR) concentrations.

The mean (\pm SD) intake of energy (2245 ± 310 kcal, 2357 ± 480 kcal), protein (73 ± 17 g, 75 ± 19 g), and iron (21 ± 8 mg, 25 ± 11 mg) of both, control and sample groups, was adequate in terms of Recommended Daily Allowances. However, the mean intake of vitamin A (443 ± 260 μ g) and calcium (765 ± 265 mg) was inadequate among pregnant mothers. The iron status of the pregnant and non-pregnant mothers was Hb: 115 ± 11 g/l and 124 ± 7 g/l; serum ferritin: 22.9 ± 14 μ g/l and 30.2 ± 18 μ g/l; sTfR: 2.5 ± 2 mg/l and 2 ± 1 mg/l, respectively. The prevalence of IDA (by all three parameters) was 11% and 3% among pregnant and non-pregnant mothers, respectively. The mean nutrient intake by the diet of both the IDA and normal population of pregnant mothers was not significantly ($p=0.05$) different. The results support the view that easy accessibility and the availability of a variety of foods may have contributed to an improved nutritional intake and iron status among the urban slum population.

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