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Effect of supplementation on iron status of geriatric subjects. JArticle; Ceylon Medical Journal Vol: 31; 1986_.15-20pp

Abstract :Iron deficiency (either clinical or subclinical) may occur in geriatric subjects as a result of decreased dietary intake, malabsorption or other factors such as chronic blood loss from the gastro intestinal tract. A study of the effects of iron supplementation in an institutionalized geriatric population was carried out. Forty nine inmates (28 males, 21 females) of a home for the aged were selected at random (mean age 74.59 ± 7.56 years). Biochemical, haematological and clinical assessment of iron status was carried out prior to supplementation. All subjects were given Nutroferol Plus (containing 250 mg ferrous gluconate, twice daily) and the iron status was reassessed one week, six weeks and twelve weeks after commencement of supplemental therapy. Twenty seven subjects had initial haemoglobin concentrations below 12 g% (group I), while twenty two subjects had haemoglobin concentrations greater than or equal to 12 g% (group II). A highly significant increase in transferrin saturation ($p < 0.001$) occurred in subjects belonging to group I by the end of six weeks. Continuation of therapy for a further period of six weeks (i.e. twelve weeks) did not cause a significant increase in transferrin saturation as compared to the value at the end of six weeks. The rise in transferrin saturation was smaller, but significant ($p < 0.01$) in subjects belonging to group II. Haemoglobin concentration showed a significant increase ($p < 0.05$) only in subjects belonging to group I. This study shows that iron supplementation was beneficial in improving the iron status, specially in subjects with a haemoglobin concentration of less than 12g %. Supplementation for a period of six weeks was sufficient to improve the iron status.