Abstract

Introduction: The prevalence of malnutrition upon diagnosis, together with reduced food intake secondary to disease and treatment, make the periodic assessment of nutritional status (including the intake of antioxidant nutrients) of considerable importance to the follow up of patients with cancer. Objectives: Assess the nutritional status and frequency of inadequate vitamin C levels among children and adolescents with cancer at the beginning of treatment and determine associated factors. Methods: A cross-sectional study was carried out with 30 patients under 18 years. Nutritional status was assessed using laboratory methods and anthropometric measurements. Vitamin C adequacy was assessed through its serum concentration and dietary intake. Results: In the sample, 10% were short for their age and 13.3% were underweight. The triceps skinfold measurement revealed fat depletion in 68% and the arm muscle circumference measurement revealed muscle depletion in 32.0%. Seventy percent of the patients had vitamin C deficiency and had greater weight loss, lower Z scores for all anthropometric indicators analyzed, lower serum albumin and higher C-reactive protein than those without vitamin C deficiency, but these differences were not statistically significant. Conclusions: Children with cancer may have nutritional deficits upon diagnosis. Further studies are needed on the association between serum levels of antioxidant and nutritional status in order to offer safe, effective nutritional support.

Keywords

Childhood cancer, Nutritional status, Vitamin C.