Abstract

Introduction: Systemic inflammatory response in individuals with cancer is related to a progressive reduction in total body mass, especially lean mass. Objective: The aim of the present study was to determine the association between nutritional status and systemic inflammatory response in patients with gastrointestinal cancer. Methodology: A case series study was carried out involving 30 male and female adults and elderly patients with no prior treatment sent consecutively for surgery. Nutritional status was assessed using subjective and objective methods. Inflammatory response and prognosis were assessed through the determination of C-reactive protein (CRP), the Glasgow Prognostic Score and CRP/albumin ratio. Results: High prevalence values were found for systemic inflammation (73%), a greater risk of infectious and/or inflammatory complication (43%) and worse prognosis (50%). The percentage of weight loss was correlated with serum CRP ($r = 0.38; p < 0.05$) and the CRP/albumin ratio ($r = 0.44; p < 0.05$). Inflammation markers and prognosis were negatively correlated with serum albumin ($r = -0.50; p < 0.05$), body mass index ($r = -0.39; p < 0.05$) and total lymphocyte count ($r = -0.37; p < 0.05$). Patients with weight loss and malnourishment had significantly higher serum CRP and CRP/albumin ratio values as well as lower serum albumin levels in comparison to those without weight loss and in wellnourished. Conclusion: Nutritional status is related to inflammation markers and prognosis in patients with gastrointestinal cancer. The diagnosis and attenuation of systemic inflammation should be part of the nutritional care of these patients.

Keywords