Abstract

Introduction: Obesity has been considered a chronic subclinical inflammation. High sensitivity C-reactive protein (hs-CRP) and fibrinogen are increasingly associated with cardiovascular risk. Objectives: To evaluate the ability of anthropometric and body composition indicators in discriminating higher levels of hs-CRP and fibrinogen. Methods: 130 men (20-59 years) were assessed, having measurement of weight, height, waist circumference (WC), hip and thigh circumferences, sagittal abdominal diameter (SAD), coronal diameter (CD) and body composition. Conicity index, waist/height ratio, body mass index, waist/hip ratio, waist/thigh ratio and sagittal index were calculated. It was considered as the cutoff point for hs-CRP values 0.12 mg/dL and for fibrinogen the 50th percentile of the evaluated sample. Results: Sagittal index (r = 0.280), waist/thigh ratio (r = 0.233) and waist/height ratio (r = 0.233) showed the best correlation with hs-CRP (p < 0.01). Conicity index (r = 0.305) and waist/height ratio (r = 0.233) showed the best correlation with fibrinogen (p < 0.01). In ROC analysis, the SAD (0.698 ± 0.049) and the conicity index (0.658 ± 0.048) had greater ability to discriminate cardiovascular risk through higher levels of hs-CRP and fibrinogen, respectively (p < 0.01). The cutoff points of 30 cm, 89.9 cm and 20.5 cm were the ones that reached largest sum between sensitivity and specificity values for the CD, WC and SAD, respectively. Conclusions: The SAD and the conicity index demonstrated a greater ability to detect higher levels of hs-CRP and fibrinogen, respectively, in apparently healthy adult men.

Keywords

Key words, Anthropometry, Body composition, Fibrinogen, C-reactive protein, Inflammation.