Abstract

Background: The measurement of waist circumference (WC) is the most prevalent cause of the metabolic syndrome (MS). Objective: The aim of this study was to correlate WC and BMI with high-density lipoprotein (HDL-c) levels in patients with MS being consulted by the Family Health Program (PSF), Brazil. Methods: This cross-sectional study was conducted from September to November 2008 with 42 patients (29 women and 13 men) from 35 to 77 years. Dietary intake was reported, and biochemical and body composition measures were taken. Results: The HDL-c levels were higher in women when compared to men (48.4 ± 8.1 mg/dL vs. 36.4 ± 7.8 mg/dL). However, the triglycerides (TG)/HDL-c ratio and TG concentrations were lower in women (3.8 ± 1.5 and 178.0 ± 57.8 mg/dL, respectively) than in men (9.4 ± 8.5 and 471.5 ± 501.5 mg/dL, respectively). Regarding skinfold profile, the triceps was greater in females (37.0 ± 8.4 cm vs. 20.7 ± 10.5 cm). The dietetic profile showed that women had a lower intake of energy, fiber, phosphorus and sodium. The fruits and vegetables intake was diminished in the participants of this study, as less than 60% of the women and 50% of men met the daily recommendations. Approximately 54% of men and 28% of women had a lower intake of dairy products daily. Moreover, the results shows that the WC was negatively correlated to HDL-c ($r = -0.41$, $p < 0.05$) whereas the BMI is not associated with HDL-c ($r = -0.34$, $p > 0.06$). Conclusion: Our findings showed that WC is a better predictor of changes in HDL-c than BMI.

Keywords

Waist circumference, Body mass index, Obesity, Metabolic syndrome, Food intake.