Abstract

Aim: To correlate the sagittal abdominal diameter (SAD) and waist circumference (WC) with metabolic syndrome-associated abnormalities in adults. Methods: This cross-sectional study included one hundred twelve adults (M = 27, F = 85) aging 54.0 ± 11.2 yrs and average body mass index (BMI) of 30.5 ± 9.0 kg/m². The assessment included blood pressure, plasma and anthropometric measurements. Results: In both men and female, SAD and WC were associated positively with body fat% (r = 0.53 vs r = 0.55), uric acid (r = 0.45 vs r = 0.45), us-PCR (r = 0.50 vs r = 0.44), insulin (r = 0.89 vs r = 0.75), insulin resistance HOMA-IR (r = 0.86 vs r = 0.65), LDL-ox (r = 0.51 vs r = 0.28), GGT (r = 0.70 vs r = 0.61), and diastolic blood pressure (r = 0.35 vs r = 0.33), and negatively with insulin sensibility QUICKI (r = -0.89 vs r = -0.82) and total cholesterol/TG ratio (r = -0.40 vs r = -0.22). Glycemia, TG, and HDL-c were associated significantly only with SAD (r = 0.31; r = 0.39, r = -0.43, respectively). Conclusion: Though the SAD and WC were associated with numerous metabolic abnormalities, only SAD correlated with dyslipidemia (TG and HDL-c) and hyperglycemia (glycemia).

Keywords

Sagittal abdominal diameter, Waist circumference, Hyperglycemia, Dyslipidemia, Inflammation, Anthropometric measurements.