Abstract
Introduction: Computerized tomography (CT) is the gold standard for the evaluation of intra-abdominal (IAF) and total (TAF) abdominal fat; however, the high cost of the procedure and exposure to radiation limit its routine use. Objective: To develop equations that utilize anthropometric measures for the estimate of IAF and TAF in obese women with polycystic ovary syndrome (PCOS). Methods: The weight, height, BMI, and abdominal (AC), waist (WC), chest (CC), and neck (NC) circumferences of thirty obese women with PCOS were measured, and their IAF and TAF were analyzed by CT. Results: The anthropometric variables AC, CC, and NC were chosen for the TAF linear regression model because they were better correlated with the fat deposited in this region. The model proposed for TAF (predicted) was: 4.63725 + 0.01483 x AC – 0.00117 x NC – 0.00177 x CC (R² = 0.78); and the model proposed for IAF was: IAF (predicted) = 1.88541 + 0.01878 x WC + 0.05687 x NC – 0.01529 x CC (R² = 0.51). AC was the only independent predictor of TAF (p < 0.01). Conclusion: The equations proposed showed good correlation with the real value measured by CT, and can be used in clinical practice.

Keywords
Obesity, Polycystic ovary syndrome, Abdominal fat, Anthropometry.