Changes in nutritional status and its reflection in body composition in Chilean women with metabolic syndrome


Abstract

Introduction: The categorization of nutritional status by the body mass index (BMI) is one of the most used clinical assessment method in patients with metabolic syndrome (MS). The utility to identify differences in body composition to determine changes in nutritional status that are reflected in the variables of body composition in women with MS is unknown.

Objective: To determine whether variations on nutritional status are associated with body composition parameters in women with metabolic syndrome, and to identify the level of agreement between nutritional status and health anthropometric indices in cardiometabolic risk classification.

Material and methods: Nutritional status, muscle mass, fat mass, waist circumference (PC), waist-hip ratio (WHR) and waist-height index (ICE) were assessed in 136 women with SM (age 42 +/- 3.5 years). Body composition and anthropometric indices were compared. In addition, the agreement between the risk of metabolic syndrome and BMI was determined.

Results: There were no significant differences between groups in age (p = 0.358), height (p = 0.209) and percentage of adiposity (p = 0.234). The best agreement of cardiometabolic risk was observed between PC > 88 cm (94.9%) and ICE >= 0.5 (94.9%) when BMI is dichotomized as normal weight and overweight.

Keywords Nutritional status, Body mass index, Body composition, Metabolic, Syndrome X, To-height ratio, Cardiometabolic risk, Waist circumference, Abdominal, Obesity, Screening tool, Mass, BMI, Association, Parameters, Statement, Nutrition & Dietetics