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Body composition, metabolic status, and level of physical activity in women with breast cancer under adjuvant hormonal therapy

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Objective: This study aimed to evaluate body composition, level of physical activity, and the presence of metabolic syndrome in women with breast cancer undergoing adjuvant hormone therapy. **Methodology:** Recruitment was carried out in two tertiary hospitals: one public and one private, with women under adjuvant hormone therapy for at least 6 months or more. Analyses included sociodemographics, body composition by bioelectrical impedance analysis, and biochemical and physical activity level questionnaires. Selected data were used to determine the presence of metabolic syndrome according to the classification of the National Cholesterol Education Program Adult Treatment Panel III (NCEP-ATP III). **Results:** A total of 107 women were included, with a mean age of 56.9 years, a mean hormone therapy use of 3.4 years, and 81.3% postmenopausal. A total of 71.9% were overweight and 87.8% had high body fat percentage (mean 37.2%) and a mean skeletal muscle index of 6.7 kg/m^2. Metabolic syndrome was identified in 41.1% of the sample, and 50% of the patients were sedentary or with a low level of physical activity. Patients who have undergone prior chemotherapy had, on average, a 3.7% higher fat percentage (p=0.0107). For each increase of one unit in BMI, the chance of developing metabolic syndrome increases by 30% (p=0.0003). Patients with aromatase inhibitors had a 4.52 times greater chance of developing metabolic syndrome when compared with tamoxifen (p=0.0074). Patients in stages II and III had a 2.58 times greater chance of being in a lower category of physical activity instead of being in a higher category of physical activity than those with grade I (p=0.0178). Sedentary patients were more associated with a treatment interval of 2–5 years and patients with high physical activity were more associated with a treatment interval ≤2 years of hormonal treatment. **Conclusion:** Patients on adjuvant hormone therapy often had metabolic syndrome and high levels of body fat, even though they were physically active.

Keywords: body composition; breast cancer; metabolic syndrome.