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Obesity and overweight levels in Brazilian women with early-stage estrogen receptor-positive (ER+) breast cancer in adjuvant endocrine therapy

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Introduction: There is a correlation between breast cancer mortality and recurrence and being overweight or obese.

Objective: This study aimed to evaluate obesity and overweight levels in Brazilian women with early-stage estrogen receptor-positive (ER+) breast cancer in adjuvant endocrine therapy. **Methods:** Women with early-stage ER+ breast cancer on adjuvant endocrine therapy for at least six months were included. Patients were stratified according to body mass index (eutrophy: 18.5 to 24.9 kg/m²; overweight: 25.0 to 29.9 kg/m²; and obesity: ≥30 kg/m²). **Results:** From June 2021 to March 2024, 557 women from 11 Brazilian institutions were recruited. The mean age was 62 years, mean tumor size was 2.14 cm, and mean duration of endocrine therapy was 3.1 years. Of the total, 27% of patients were obese, 42% were overweight, and 30.8% had eutrophy. Women with higher education had a lower prevalence of obesity (26% vs. 31%; p=0.030). The presence of comorbidities had a higher prevalence among obese women (33% vs. 24; p<0.001). Patients treated in public hospitals had a higher prevalence of obesity (35%) than in private hospitals (20%) (p<0.001). Patients in stage III were often obese (odds ratio [OR] 2.88, 95% confidence interval [CI] 1.55–5.33; p<0.001). Better physical functioning was associated with a lower chance of obesity (OR 0.95, 95%CI 0.93–0.97; p<0.001) and overweight (OR 0.96; 95%CI 0.94–0.98; p<0.001). In multivariate analysis, stage III disease (OR 1.72), prior lumpectomy (OR 7.2), and axillary lymphadenectomy (OR 2.8) were related to obesity. **Conclusion:** Only a third of the women evaluated in the study had an adequate body mass index, which leads to a worrying risk of morbidity. Some characteristics related to obese patients, such as more patients treated in the public service and with a lower level of education, suggest the hypothesis that economic factors may be related to the disease.

Keywords: breast cancer; obesity; treatment.