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PRE- AND POSTMENOPAUSAL BREAST CANCER IN COMPARISON OF CLINICAL AND PATHOLOGICAL FEATURES, HISTOLOGY, BIOMARKERS, AND MOLECULAR CLASSIFICATION

José Euderaldo Costa Gomes Filho[1], Ariane Silva da Rocha[1], Gisele Aparecida Fernandes[1], Rossana Verónica Mendoza López[1], Maria Paula Curado[1]

[1]AC Camargo Cancer Center – São Paulo (SP), Brazil.

The aim of this study was to analyze the clinical and pathological evolution, morphology, hormonal biomarkers (estrogen, progesterone, HER2, and Ki-67), and molecular classification in pre- and postmenopausal patients (age ≤50 years and >50 years). This is a cross-sectional study of 705 female patients with breast cancer. A total of 55.9% (n=394) of patients were above 50 years, whereas 44.1% (n=311) were aged 50 years or below. The laterality of the tumor was similar in both age groups on the right side, 50.2% (n=156) for premenopausal and 53.3 (n=210) for postmenopausal (p=0.226), as was the anatomical sublocation in the external upper quadrant, 44.9% (n=140) for premenopausal and 48.7% (n=192) for postmenopausal (p=0.063). As for T clinical staging, 37% (n=115) were classified as T2 in premenopausal while 47% (n=185) as T1 in postmenopausal (p<0.001); N0, 46.3% (n=144) and 57.6% (n=227) (p=0.043); M0, 92.3% (n=287) and 95.7% (n=377) (p=0.072); and pathological grade T1, 41.8 (n=130) and 48.2% (n=190) (p=0.056); N0, 52.4% (n=163) and 60.4% (n=238) (p=0.121); M0 94.9% (n=374) and 93.9% (n=292) (p=0.332); invasive ductal carcinoma, 86.5% (n=269) and 81% (n=319) (p=0.134); histological grade 2, 42.1% (n=131) and 44.9 (n=177) (p<0.001); nuclear grade 3, 67.2% (n=209) and 54.1% (n=213) (p=0.002); HER2 negative, 75.7% (n=234) and 77.2% (n=295) (p=0.062); estrogen positive, 78.4% (n=243) and 78.4% (n=309) (p=0.731); progesterone positive, 70.6% (n=219) and 68.8% (n=271) (p=0.503); Ki-67 positive, 99.7% (n=303) and 100% (n=368) (p=0.005); and molecular classification defined as luminal B, 57.8% (n=178) and 49% (n=187) (p=0.009), respectively. We observed that in pre- and postmenopausal women with breast cancer, there was no difference in characteristics, anatomical location, and T staging. However, there was a significant difference in histological grade, nuclear grade, and the molecular subtype and staging.

Keywords: Breast Cancer; Tumor Biomarkers; Molecular Biology.