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

José Euderaldo Costa Gomes Filho1, Ariane Silva da Rocha1, Gisele Aparecida Fernandes1, Rossana Verónica Mendoza López1, Maria Paula Curado1

1AC 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, 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.