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IMMUNOPHENOTYPING OF BREAST CANCER ASSOCIATED WITH SOCIODEMOGRAPHIC AND LIFESTYLE CHARACTERISTICS

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Objective: The immunohistochemical profile of breast cancer is based on the evaluation of estrogen and progesterone receptors, HER2 expression, and cell proliferation index. An investigation of the association of immunophenotyping of invasive breast cancer with sociodemographic characteristics and lifestyle becomes important in view of the scarcity of research in mixed populations such as the Brazilian. **Methods:** This cross-sectional study investigated the association of immunophenotyping of invasive breast cancer with sociodemographic characteristics and lifestyle in 583 patients seen in a cancer center in southeastern Brazil. The Pearson's chi-square test or Fisher's exact test was used for statistical analysis. **Results:** There was a higher frequency of women with the luminal B HER2-negative subtype (33.9%). The analysis of immunophenotyping with sociodemographic characteristics found a higher frequency of women aged 50 years or older in luminal A, 65.5% ($p \leq 0.040$) and medical suspicion of breast cancer at a clinical examination in HER2-positive subtype, 89.7% ($p = 0.015$). In this research, we found no association of immunophenotyping with marital cohabitation ($p = 0.856$), education ($p = 0.723$), ethnicity ($p = 0.129$), access to hospital ($p = 0.686$), tobacco ($p = 0.099$) and alcohol consumption ($p = 0.270$), body mass index ($p = 0.584$), performance of the first mammogram ($p = 0.477$), family cancer history ($p = 0.254$), and parity ($p = 0.676$). **Conclusion:** Younger women had tumors with a worse prognosis when compared to those aged 50 years or older. Ethnicity showed no association, contrary to the wide discussion in the literature about the high frequency of the triple-negative subtype. There was no association with alcohol consumption, a factor recognized in the literature as a risk factor for the development of breast cancer.

Keywords: Breast cancer. Lifestyle. Sociodemographic. Characteristics.