Evaluation of HER2-low incidence in the clinical oncology service of Hospital das Clínicas da Universidade Federal de Goiás

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Objective: The objective of this study was to determine the incidence and epidemiology of patients with Human Epidermal Growth Factor Receptor-type 2 (HER2-low) breast cancer in the oncology service of the HC-UFG from March 2022 to February 2023. **Methodology:** This is an observational and cross-sectional study, which included patients diagnosed with invasive breast cancer and excluded those with immunohistochemistry HER2 3+, HER2 0, or HER2 2+ with positive fluorescent *in situ* hybridization (FISH) by immunohistochemistry and those under 18 years old. **Results:** HER2-low tumors at HC-UFG are predominantly luminal (82%). Sixteen patients (11.2%) from the HER2-low group were eligible for analysis and epidemiological characterization, concluding that the average age was 60.2 years, the majority were female (93.7%), had a performance status of 0 at diagnosis (75%), and had a ductal histological subtype (93.7%). Regarding risk factors, 75% had a positive family history of cancer, 37.5% were smokers, and 43.7% were obese, with none being alcohol consumers. Some expression of HER2 was identified in a total of 17 immunohistochemistry tests, thereby classified as HER2-low (14.08%). This proportion of patients, previously classified as triple-negative or luminal, received a new classification, making them also eligible for new drugs available for this specific group. **Conclusion:** From February 2022 to March 2023, HER2-low incidence in breast cancer patients at HC-UFG corresponded to 14.08%. A higher frequency was observed in patients with a positive family history of cancer.

Keywords: breast cancer; HER2-low.