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CORRELATION BETWEEN THE PRESENCE OF ANDROGENIC RECEPTORS AND MOLECULAR AND HISTOPATHOLOGICAL VARIABLES IN BREAST CANCER

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Introduction: The expression of androgenic receptors (AR) is a new predictive marker of response and prognosis in invasive breast carcinoma (BC). It emerges as a potential therapeutic target. **Objective:** To evaluate the frequency of AR positivity and its correlation with molecular and histopathological parameters in infiltrative BC. **Method:** Retrospective cohort study, analyzing 119 cases of invasive non-metastatic BC, seen at a private clinic. Hormonal receptors were screened by immunohistochemical reaction, and AR were considered positive when present in at least 10% of cells, ER and PR from 1%. This finding was correlated with pathological staging, histological grade (HG), vascular-lymphatic invasion (VLI), estrogen (ER) and progesterone receptors (RP), HER2 and Ki 67. **Results:** Androgen receptors were positive in 80.6% of cases. In the assessment of pathological staging, of the 63 patients with stage I, 81% showed positive androgen receptors, while among the 28 patients with stage II, 75% had positive androgen receptors, and 88% of the 17 patients with stage III presented the positivity of the recipient. Regarding the histological parameters of the tumor, 16 patients had grade 1 tumors, 93.7% of them with positive androgen receptors, while among the 63 with grade 2 tumors 90.4% had androgen receptor positivity, and only 59, 3% of the 27 tumors evaluated as grade 3 had a positive androgen receptor. The vascular-lymphatic invasion was negative in 57 patients, 78.9% of the tumors with positive androgen receptor. Among the 56 tumors with positive vascular-lymphatic invasion, 85.7% had an androgen receptor positivity. In the immunohistochemical evaluation of tumors, among the 95 patients with positive estrogen receptors, 91.5% also had positive androgen receptor, which was positive in only 37.5% of the 24 patients with negative estrogen receptors. Of the 21 patients who had tumors with overexpressed HER, 85.7% also had positive androgen receptors, which were also positive in 86.4% of 96 without overexpression of HER2. In the evaluation of cell proliferation by the Ki67 antigen, among the 50 tumors with Ki67 <20%, 94% had positive androgen receptors, while 83.7% were positive among the 49 tumors with Ki67 between 20 and 50% and only 35% positivity of androgen receptors in 17 tumors with Ki67 > 50%. **Conclusions:** AR positivity is associated with more differentiated hormone-dependent tumors with a lower proliferation rate.