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ANALYSIS OF TUMOR RESPONSE IN THE BREAST AND AXILLA ACCORDING TO MOLECULAR SUBTYPE IN BREAST CANCER PATIENTS SUBMITTED TO NEOADJUVANT CHEMOTHERAPY

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Objective: Pathological complete response rate (pCR), ypT0/is ypN0, after neoadjuvant chemotherapy (NAC) varies in each molecular subtype of breast cancer, being lower in hormone receptor-positive (HR+) tumors. The objective of this study is to analyze the pathological response rate (PR) only in the breast, only in the axilla or the pCR, correlating with the molecular subtypes. **Methods:** This is a retrospective observational study of stage II and III patients undergoing NAC between 2013 and 2020 at the Oncology and Mastology Service of Santa Casa de Misericórdia de Belo Horizonte – MG (SCMBH). This study was approved by the Research Ethics Committee of SCMBH with the number 3,787,212 complying with Resolution 196/96 of the National Council for Ethics in Research. **Results:** In all, 209 patients were selected with a mean age of 50.6 years; 22.0% were T2, 35.9% were T3, and 42.1% were T4; 17.2% were pre-NAC cN0 and 82.7% were cN+. Patients were divided into group A, RH+, with 147 patients (70.3%), and group B, HER2+ and TN, with 62 patients (29.7%). When comparing PR only in the breast, RH+ patients had a better result (4.8% versus 1.6%); as well as PR only in the axilla, 37.4% against 29.0%. When subdividing group A into RH+/HER2– and RH+/HER2+, the former presented better results in the breast (4.3% X 0%) and in the axilla (60.9% X 55.6%). **Conclusion:** Achieving pCR is not the only goal of NAC. Other benefits include the possibility of breast and axilla-conserving surgery. The study demonstrated good PR results in both the breast and the axilla in group A and in the RH+/HER2– subgroup. These responses allow for a less morbid surgical treatment, both aesthetically and because of the risk of lymphedema. The data presented provide a compelling rationale for the use of NAC in a molecular subtype considered to be relatively resistant to chemotherapy.

Keywords: Breast cancer. Neoadjuvant chemotherapy.