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466 - PREDICTIVE FACTORS OF PATHOLOGIC COMPLETE RESPONSE AFTER NEOADJUVANT CHEMOTHERAPY IN BREAST CANCER

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Introduction: Breast cancer is a cancer that most affects women around the world. The neoadjuvant chemotherapy, nowadays, has been extended to the initial cases in order to de-escalate treatments, reducing the surgical aggressiveness of the breast and axilla. Pathologic complete response (pCR) is the major desired outcome, aiming to improve the overall and disease-free survival in a subgroup. Which factors would be correlated with pCR in our population and could help reduce the surgical extension in a SUS service in northeastern Brazil? ***Objective:*** The aim of this study is to find predictive factors of pCR after neoadjuvant chemotherapy, a subject that is still very controversial in the literature. ***Methods:*** This is an observational, analytical, longitudinal study carried out at the Brazilian Public Health System oncology service in the state of Sergipe with the participation of patients diagnosed with breast cancer who would undergo neoadjuvant chemotherapy between June 2019 and June 2020. Patients with a histological diagnosis of breast cancer who were admitted to the service with indication for neoadjuvant therapy were included. Patients with a histological diagnosis of carcinoma-type breast cancer, of any age group, from stages I to III were included. Molecular subtypes were determined by immunohistochemical evaluation of core-needle biopsy material. After the treatment, the patients underwent mastectomy or breast-conserving surgery, depending on the indication of the attending physician at the service, without intervention by the researcher. For the treatment of the axilla, sentinel lymph node dissection or axillary dissection was performed. RECIST (response evaluation criteria for solid tumors) criteria were used to categorize the response. The hypothesis of independence between categorical variables was tested using Pearson's χ^2 or Fisher's exact test. The hypothesis of the adherence of continuous variables to the normal distribution was tested using the Shapiro-Wilks test. Once this hypothesis was rejected, the hypothesis of equality of medians was tested using the Mann-Whitney U test. The significance level adopted was 5% and the software used was the R Core Team 2021 (version 4.1.0). ***Results:*** Data from 69 patients were collected during the study period. Of the patients analyzed prospectively, 17 achieved a pathological complete response (25.37%). The median age of these patients was 49 years. Despite a complete pathological response, 64.7% of these patients underwent mastectomy and 58.8% underwent axillary dissection. The median number of lymph nodes dissected in patients with rPC was 5 and in patients without rPC, it was 14.5. The median number of lymph nodes involved was 0.5 in patients who did not achieve rPC (p=0.006). Stages I and II were present in 76.5% of cases who achieved a complete pathological response. Among patients with a complete pathological response, 52.9% of cases were triple-negative tumors, 29.4% overexpressed HER2, and 17.6% Luminal (p=0.033). There were 11.8% of patients with metastases and complete pathological responses. Of the patients with rPC, 76.5% had a clinically negative axilla before chemotherapy and only 28.6% of the patients who did not achieve rPC (p=0.001) had a clinically negative axilla. Tumor staging before chemotherapy was initial (I and II) in patients with RPC in 76.5% and in those without rPC in 46% (p=0.04). In all, 76.5% of patients with rPC were from the capital and patients without rPC 60% were from the interior of the state (p=0.01). The median Ki67 of 50 was compared to the median Ki67 of 30 in patients without rPC (p=0.05). In a multivariate analysis, we observed the origin of the state capital and the initial clinically uncompromised axilla as independent predictors for pCR. ***Conclusion:*** The absence of prechemotherapy lymph node involvement and the origin of the capital proved to be independent predictors of complete pathological response to neoadjuvant chemotherapy in our study.