Cohort study on patients with breast cancer treated by neoadjuvant endocrine therapy at hospital nossa Senhora da Conceição, Porto Alegre, RS

José Luiz Pedrini[1], Caio Caloca Severo[1], Marco Aurélio Veiga[1], Gustavo Alberto Ozol de Ávila[1], Martina Lichtenfels[1], Mário Casales Schorr[1]

[1]Serviço de Mastologia do Grupo Hospitalar Conceição – Porto Alegre (RS), Brazil.

Objective: Our study aimed to analyze the outcomes of a cohort study on patients in Hospital Nossa Senhora da Conceição, Porto Alegre, RS, undergoing neoadjuvant endocrine therapy (NET) for breast cancer. **Methodology:** A retrospective cohort study was conducted on 28 patients diagnosed with luminal tumors (ER+/HER2–) in a tertiary care center. The patients were treated with NET based on tamoxifen, anastrozole, or letrozole and subsequently operated on or not at clinical discretion. The data on histological classification, treatment time and response, and tumor progression rate were evaluated by the medical chart. **Results:** The mean patient age was 78 (45–91) years. The most common histological type was ductal (85.7%), followed by lobular (7.1%) and mucinous (7.1%). Low tumor grade (G1) was observed in 14.2% of cases, grade 2 in 71.4%, and grade 3 in 7.1%. Regarding lymph node involvement, 64.2% were N0, 32.1% N1, and 3.6% N2. The mean duration of NET was 22 months, and most patients presented tumor downstaging, with an initial mean tumor size of 3.2 cm and a final mean of 1.8 cm. At the end of the treatment, 60.7% of the patients showed a decrease in tumor size, 28.5% disease stability, and 10.7% disease progression. Of the patients with tumor regression, 21.4% had a complete pathological response to NET. These data are in line with previous literature reporting response rates between 20% and 70% after 3–4 months of NET, which can increase to up to 88% in 12 months. **Conclusion:** Our cohort corroborates previous literature and supports the effectiveness of NET for the downstaging of luminal breast cancer.

Keywords: breast neoplasms; neoadjuvant therapy; tumor burden; estrogen receptors.