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978 – The impact of axillary lymph node dissection on the indication of adjuvant abemaciclib in high-risk hormone receptor-positive breast cancer: real-world analysis from a multicenter cohort in Brazil

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Introduction: Adjuvant abemaciclib combined with endocrine therapy improves outcomes in patients with high-risk, hormone receptor-positive (HR+)/human epidermal growth factor receptor 2 (HER2)-negative early breast cancer. Lymph node involvement is a key determinant of recurrence risk and treatment decisions. However, the role of axillary dissection remains uncertain, particularly when nodal burden may influence eligibility for systemic therapy.

Objective: To evaluate how often axillary dissection is essential to determine eligibility for adjuvant abemaciclib in real-world practice.

Methods: This multicenter retrospective study included patients with early-stage HR+/HER2– breast cancer treated between 2018 and 2025 in a Brazilian cancer network. Eligibility for adjuvant abemaciclib was assessed using the monarchE criteria, applied sequentially: (1) node-positive disease with a grade 3 or a tumor ≥ 5 cm; (2) node-positive disease with Ki-67 expression $\geq 20\%$; and (3) ≥ 4 positive axillary lymph nodes. Patients meeting only the third criterion were considered dependent on axillary dissection for treatment indication.

Results: Among 656 patients, 284 (43.3%) met the criteria for adjuvant abemaciclib. Median age was 49 years, and 52.8% were premenopausal. Most tumors were ductal (72.2%), grade 2–3, and had Ki-67 expression $\geq 20\%$ (80.6%). Clinical stages were predominantly T2–T3 and N1. Neoadjuvant chemotherapy was used in 46.8% of patients, and 51.1% received adjuvant chemotherapy. Axillary surgery included sentinel lymph node biopsy in 51.4% and axillary dissection in 44.0%. Most patients eligible for abemaciclib met criteria based on combinations of nodal involvement with tumor size, grade, or Ki-67 expression. Only a small proportion qualified exclusively due to having ≥ 4 positive lymph nodes, indicating reliance on axillary dissection for treatment eligibility.

Conclusion: In this real-world cohort, few patients required axillary dissection solely to establish eligibility for adjuvant abemaciclib. These findings suggest that axillary dissection should not be routinely performed for this purpose, supporting more conservative surgical approaches without compromising systemic treatment decisions.

Ethics: Research Ethics Committee Approval (CAAE 73097723.1.0000.0087).

Keywords: abemaciclib; early breast cancer; hormone receptor-positive.