

PRESENTATION: E-POSTER

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946 – Predictors of four versus six cycles of adjuvant docetaxel–cyclophosphamide in hormone receptor-positive early breast cancer

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Introduction: Docetaxel and cyclophosphamide (TC) are a commonly used anthracycline-free regimen for hormone receptor-positive (HR+) early-stage breast cancer. Although typically administered for four to six cycles, the optimal number remains uncertain.

Objective: To identify clinical and pathological factors associated with the number of TC cycles prescribed in real-world practice.

Methods: A retrospective multicenter analysis was conducted in Brazil, including patients with HR+ early-stage breast cancer treated between 2018 and 2025 who underwent surgery followed by adjuvant TC. Variables analyzed included age, menopausal status, tumor size, nodal status, histologic grade, and Ki-67 expression. The primary comparison was between patients receiving four *versus* six cycles. For those receiving four cycles, it was assessed whether this was preplanned or shortened due to toxicity. Logistic regression was used to evaluate factors associated with receiving six cycles.

Results: A total of 372 patients were included: 206 (55.4%) received four cycles and 166 (44.6%) received six cycles. Among patients receiving four cycles, 87.9% had this planned initially, while only 1.9% discontinued early due to toxicity. The reasons were undocumented in 10.2% of cases. Patients receiving six cycles were slightly younger (median 50 *vs.* 52 years; $p=0.025$), had more lymph node involvement (pN1: 42.2% *vs.* 19.9%; pN2: 3.6% *vs.* 0.9%; $p<0.001$), and more grade 3 tumors (34.3% *vs.* 28.6%; $p=0.048$). No significant differences were observed in tumor size, menopausal status, or Ki-67 expression. In multivariable analysis, younger age, higher tumor grade, and positive nodal status were associated with receiving six cycles.

Conclusion: TC treatment duration appears to be influenced by both disease characteristics and clinical judgment. Higher-risk features favor the use of six cycles, while older patients are less likely to receive extended treatment. Further studies are necessary to determine whether six cycles provide superior outcomes compared to four when adjusted for baseline risk factors.

Ethics: Research Ethics Committee Approval (CAAE 73097723.1.0000.0087).

Keywords: early breast cancer; hormone receptor-positive; adjuvant chemotherapy.