

PRESENTATION: ORAL PRESENTATION (GENERAL SESSION) – BEST CONGRESS STUDY; BEST SYSTEMIC TREATMENT STUDY

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941 – Prognostic impact of residual ductal carcinoma in situ following neoadjuvant chemotherapy for invasive breast cancer: a systematic review and meta-analysis

Augusto Ostermann Magalhães¹, Maria Beatriz de Paula Leite Kraft¹, Renato Torresan¹, Monique Possari Minari¹, Cassio Cardoso Filho¹, Luís Otávio Zanatta Sarian¹, Giuliano Mendes Duarte¹

¹Universidade Estadual de Campinas – Campinas (SP), Brazil.

Introduction: Despite the definition of pathologic complete response (pCR) in the 8th edition of the AJCC Cancer Staging Manual as the absence of residual invasive disease after neoadjuvant chemotherapy (NAC), the prognostic significance of residual ductal carcinoma in situ (DCIS) remains uncertain.

Objective: To assess the prognostic impact of residual DCIS following NAC.

Methods: A systematic review and meta-analysis was conducted comparing patients with residual DCIS (ypTis/ypN0) *versus* true pCR (ypT0/ypN0) after NAC for invasive breast cancer according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The main scientific databases were searched (PubMed/MEDLINE, Embase, Scopus, LILACS, and SciELO) from inception to February 2026 and included randomized clinical trials and cohort studies. Disease-free survival (DFS) and overall survival (OS) were evaluated.

Results: After screening 452 abstracts, ten studies were included, comprising 3,360 patients. All studies reported DFS, while seven also reported OS. The residual DCIS group included 1,011 patients, compared with 2,349 in the true pCR group. Residual DCIS was associated with significantly worse DFS compared to true pCR (hazard ratio [HR] 1.50; 95% confidence interval [CI] 1.18–1.92; $p=0.001$), with minimal heterogeneity ($I^2=3.1\%$; p -heterogeneity=0.41). For OS, a similar trend was observed but did not reach statistical significance (HR 1.45; 95%CI 0.99–2.12; $p=0.054$), with $I^2=25.3\%$ (p -heterogeneity=0.23).

Conclusion: Residual DCIS after NAC is associated with significantly worse DFS compared to true pCR, with a trend toward worse OS. These findings, previously unreported in the literature, suggest that the current pCR definition (ypT0/is) may underestimate the full prognostic value of the complete absence of residual disease. The distinction between ypT0 and ypT0/is should be considered in future clinical trial design and in the individualized management of breast cancer patients undergoing NAC.

Ethics: Public data – Literature review.

Registry: The study protocol was registered in the International Prospective Register of Systematic Reviews (PROSPERO) CRD420261300828.

Keywords: breast cancer; chemotherapy; neoadjuvant therapy.