OUTCOME AND PROGNOSTIC FACTORS IN NODE-NEGATIVE, EARLY BREAST CANCER PATIENTS RECEIVING ADJUVANT FEC REGIMEN: WHO MIGHT BE CANDIDATE FOR TAXANES?

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Aim: Anthracycline-based adjuvant chemotherapy (CT) improves overall survival (OS) in operable breast cancer (BC) patients (pts). Additional benefits are provided by taxanes (TX) in node-positive pts, but no advantage in term of OS has been demonstrated in node-negative (NN) pts. We analyzed a large institutional population of NNBC pts receiving adjuvant FEC regimen with the following objectives: 1) to describe disease-free survival (DFS) and OS; 2) to identify poor-prognostic factors that may help to select high-risk pts who might be candidate to TX.

Methods: Between 1998 and 2008, 757 NNBC pts receiving adjuvant FEC (5FU 500 mg/m², Epirubicin 75 or 100 mg/m², cyclophosphamide 500 mg/m²) were identified from our institutional database. Features indicating adjuvant CT were pathological tumor size >15 mm, grade 3, peritumoral vascular invasion (PVI), no hormonal receptivity (ER and PR-, HR-), age <40. Since 2005, HER2+ EBC were given adjuvant trastuzumab (n = 38). Molecular subtypes were derived from ER, PR, HER2 IHC status and grade. Survival curves were generated using Kaplan-Meier method and compared using Log-rank test. Multivariate analysis was performed using Cox regression model.

Results: After a median follow-up of 70 months, 69 DFS events and 39 deaths were observed, for 5-year DFS and OS of 90.6% (CI95%, 88.2-93.1) and 95.1% (CI95%, 93.3-96.9), respectively. Univariate analysis identified PVI (p = 0.0007), grade 3 (p = 0.0138), PR-negative (p = 0.0293) and molecular subtypes (p = 0.0063) as prognostic factors for DFS. No significant prognostic impact was observed for HER2+ BC. By multivariate analysis, PVI and grade 3 maintained a significant and independent prognostic impact. In an alternative multivariate model where ER, PR and grade were replaced by molecular subtypes, luminal B-like (HR = 4.21, CI95%, 1.955-9.055, p = 0.0002) and basal-like (HR = 2.54, CI95%, 1.173-5.497, p = 0.018) subtypes were significantly associated with reduced DFS.

Conclusions: Overall, NNBC pts receiving adjuvant FEC have excellent 5-year DFS and OS. PVI, luminal B-like and basal-like subtypes identify pts with a higher risk of treatment failure, who might be candidate to TX.

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