

PREDICTIVE FACTORS FOR RELAPSE IN TRIPLE-NEGATIVE BREAST CANCER (TNBC) PATIENTS WITHOUT PATHOLOGIC COMPLETE RESPONSE (pCR)

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BACKGROUND

Triple-negative breast cancer (TNBC) patients who do not obtain pathologic complete response (pCR) after neoadjuvant chemotherapy (NACT) present higher rate of relapse and worse overall survival. Risk factors for relapse in this subset of patients are poorly characterized.

This study aimed to identify predictive factors for relapse in TNBC patients without pCR after NACT.

METHODS

TNBC patients treated with NACT from January 2008 to December 2018 at the Modena Cancer Center were included in the analysis.

Local or distant relapse was compared between patients with and without pCR using the Kaplan-Meier method. In patients without pCR, univariate and multivariable Cox analyses were used to determine factors predictive of relapse.

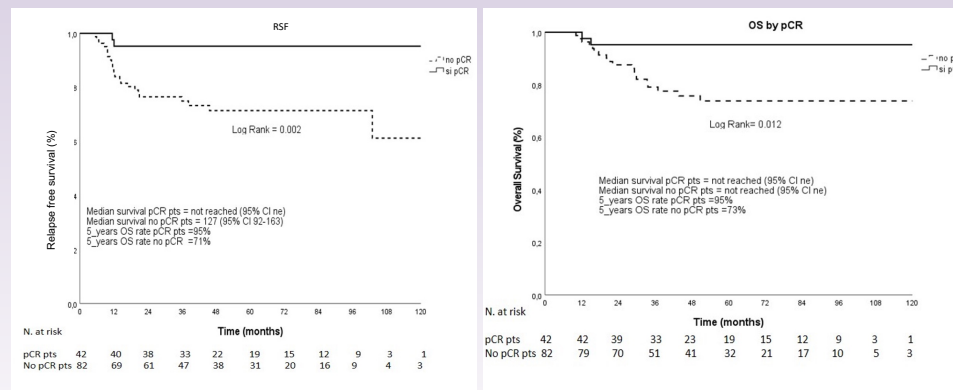
RESULTS

Overall, 124 patients with median follow-up of 57 months (range, 7.6-143.8 months) were identified. After NACT, 82 had residual disease (**pCR, 33.9%**).

Five-year **relapse free survival (RFS)** was 95% and 71% in patients with and without pCR, respectively (*Figure 1*).

Factors independently predicting RFS in patients without pCR were the presence of **bilateral disease, multifocal/multicentric disease, pathologic residual tumor, pathologic nodal positivity and lymphovascular space invasion** (*Table 1*).

Age at diagnosis, germline predisposing gene mutations, BMI, breast MRI, histologic subtype, grading, ki-67, clinical T or N stage, type of breast or axillary surgery, time from NACT end and surgery and time from surgery to radiation therapy were **not predictive of relapse**.



Characteristic	Multivariate Analysis	
	HR (95%CI)	P values
Bilateral disease		
No	Ref	
Yes	6.06 (1.6-22)	0.007
Multifocal disease		
No	Ref	
Yes	4.7 (1.8-12)	0.001
ypT		
No	Ref	
Yes	1 (1-1.005)	0.04
ypN		
No	Ref	
Yes	2.68 (1.36-5.3)	0.004
BLS		
No	Ref	
Yes	0.37 (0.18-0.73)	0.005

Table 1. Multivariate analysis.

CONCLUSIONS

Lack of pCR after NACT resulted in worse outcome. In patients with residual disease after NACT, presence of bilateral or multifocal/multicentric disease, pathologic residual tumor, pathologic nodal positivity and lymphovascular space invasion predicted worse RFS.

These data can be used to stratify patients and potentially guide treatment decision-making identifying appropriate candidates for treatment intensification.