

Letter to the Editor

Neoadjuvant chemotherapy in locally advanced invasive lobular carcinoma: A limited institutional experience

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Dear Editor,

Neoadjuvant chemotherapy (NACT) is now the standard of care for locally advanced breast cancer, although no difference in relapse-free survival (RFS) and overall survival relative to the use of adjuvant treatment was observed. NACT induces tumor downstaging, increases rates of breast-conserving surgery (BCS), and also provides an opportunity to monitor the tumor's chemosensitivity *in vivo*.^[1] The invasive lobular carcinoma (ILC) is rare at our institute and constitutes 2.5% of total breast cancers.^[2] We conducted a retrospective study of patients with locally advanced ILC, who have received uniform NACT protocol at our institution to assess response, toxicity, and outcome. The study population consisted of 20 patients with locally advanced ILC registered over a period of 8 years (January 2009 to December 2016) in the Breast Cancer Clinic. Staging was carried out according to the American Joint Committee on Cancer, 7th edition. Histopathological confirmation of malignancy along with receptor status was required for inclusion into this study. Those patients who had received prior chemotherapy/radiotherapy were excluded. Data for clinical response rates, number of preoperative chemotherapy cycles, type of chemotherapy, and pathological response rates were collected. Clinical complete response was defined as no evidence of a palpable breast mass and nodal disease. Partial response was defined as a reduction of at least 50% in the product of the bi-perpendicular diameters of the breast mass. A reduction of <50% or an increase of <25% would be classified as stable disease. Progressive

Table 1: Clinicopathological and treatment characteristics of locally advanced invasive lobular carcinoma patients

Base line characteristics	<i>n</i>
T stage	
T2	2
T3	6
T4	12
Nodal stage	
N0	1
N1	10
N2	7
N3	2
Hormone profile	
Hormone positive	18
HER2/neu positive	2
TNBC	1
Response to chemotherapy	
Clinical response rate	16
Stable disease	2
Progressive disease	2
Pathological complete response	1

HER2: Human epidermal growth factor receptor 2, TNBC: Triple-negative breast cancer, ILC: Invasive lobular carcinoma

disease is an increase of this parameter by >25% or clinical or radiological evidence of new disease elsewhere. Pathological complete response (pCR) is classified as the absence of malignant cells in the resected breast and lymph nodes on histopathological assessment. Surgery was done approximately 4–6 weeks after the last cycle of chemotherapy. Event (relapse, clinical progression, or death from any cause) free survival was calculated from the date of registration. SPSS Version 14 software (SPSS Inc., Chicago, IL, USA) was used for statistical analysis. The median age of the whole cohort was 55 years (range 35–65 years). Median duration of symptoms

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was 8 months (range 4–24 months). Clinical and tumor histological characteristics are summarized in Table 1. Skin involvement was present in 12 cases. Chemotherapy regimens were used in sequentially (four cycles of FEC, 5-fluorouracil 600 mg/m², epirubicin 75 mg/m², and cyclophosphamide 600 mg/m² followed by four cycles of docetaxel 85 mg/m², 3 weekly). Clinical complete or partial response was seen in 80% of the patients. Stable disease was present in 10% and progression was seen in 10%. One patient (5%) achieved pCR. Ten relapses were documented (1 regional and 9 systemic). The median time to relapse was 18 months, and 3-year RFS was 50%.

ILC accounts for 10%–15% of all breast cancer and less likely to respond with NACT than invasive ductal carcinoma (IDC). Pathological response rate was observed 6%–17% in different published literature.^[3-5] In our analysis, one patient achieve pCR. Low pCR may be due to late presentation or large tumor burden at presentation. Compared to IDC, ILC is associated with higher incidence of multicentricity and bilaterality; as a result, it is associated with higher positive surgical margin patients undergone BCS. In our study, four patients underwent BCS with good surgical outcome. Two patients developed Grade 3 diarrhea and four patients developed Grade 2/3 cutaneous toxicity with docetaxel.

This study demonstrates that the pCR is less in locally advanced ILC and BCS is feasible in chemoresponsive tumor. Because the majority of patients with ILC have low-grade ER-positive tumors, they are unlikely to derive significant benefit from NACT, thus efforts to develop reliable biomarkers that can identify the fraction of patients that truly derive benefit from cytotoxic agents.

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Conflicts of interest

There are no conflicts of interest.

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References

1. Barroso-Sousa R, Metzger-Filho O. Differences between invasive lobular and invasive ductal carcinoma of the breast: Results and therapeutic implications. *Ther Adv Med Oncol* 2016;8:261-6.
2. Gogia A, Raina V, Deo SV, Shukla NK, Mohanti BK, Sharma DN, *et al*. Taxane and anthracycline based neoadjuvant chemotherapy for locally advanced breast cancer: Institutional experience. *Asian Pac J Cancer Prev* 2014;15:1989-92.
3. Tsung K, Grobmyer SR, Tu C, Abraham J, Budd GT, Valente SA, *et al*. Neoadjuvant systemic therapy in invasive lobular breast cancer: Is it indicated? *Am J Surg* 2017. pii: S0002-9610 (17) 30998-4.
4. Karen Tsung B, Stephen R, Grobmyer A, Chao Tu A, Jame Abraham C, Thomas G, *et al*. Stephanie pathologic predictors of treatment response to neo-adjuvant chemotherapy for invasive lobular breast carcinoma. *Breast J* 2017;23:607-9.
5. Truin W, Vugts G, Roumen RM, Maaskant-Braat AJ, Nieuwenhuijzen GA, van der Heiden-van der Loo M, *et al*. Differences in response and surgical management with neoadjuvant chemotherapy in invasive lobular versus ductal breast cancer. *Ann Surg Oncol* 2016;23:51-7.

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