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## Neo-Adjuvant B-CAT Chemotherapy in Triple Negative Breast Cancer

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**Abstract :** Introduction: Neo-adjuvant chemotherapy is a potent option for triple negative breast cancer (TNBC) as these tumours lack a clearly defined therapeutic target. Several recent studies lend support that pathological complete remission (pCR) is associated with improved disease free survival (DFS) and overall survival (OS) and could be used as surrogate marker for DFS and OS in breast cancer patients. Methods: We have used a four-drug protocol in T3 and T4 TNBC patients either N+ or N- in the neo-adjuvant setting. The 15 patients enrolled in this study had a median age of 45 years. 12 patients went on to complete four planned cycles of B-CAT protocol. The chemotherapy regimen included inj. Bevacizumab 5mg/kg D1, inj. Adriamycin 50mg/m2 D1 and Docetaxel 65mg/m2 on D1. Inj. Cisplatin 60mg/m2 on D2. All patients received GCF support from D4 to D9 of each cycle. Results: Radiological assessment using ultrasound and PET-CT revealed a high percentage of responses. Radiological CR was documented in half of the patients (6/12) after four cycles. Remaining patients went on to receive 2 more cycles before undergoing radical surgery. pCR was documented in 7/12 patients and 3 more had a good partial response. The regimen was toxic and grade ¾ neutropenia was seen in 58% of patients. Four episodes of febrile neutropenia were reported and managed. Non-hematatological toxicities were common with mucositis, diarrhea, asthenia and neuropathy topping the list. Conclusion: B-CAT is a very active combination with very high pCR rates in TNBC. Toxicities though frequent, were manageable on outpatient basis. This protocol warrants further investigation.

**Keywords:** B-CAT:bevacizumab, cisplatin, adriamycin, taxotere, CR: complete response, pCR: pathological complete response,

TNBC: triple negative breast cancer

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