

## **Paclitaxel and carboplatin as neoadjuvant chemotherapy in patients with locally advanced breast cancer: A phase II Trial of the Hellenic Cooperative Oncology Group.**

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### **Source**

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### **Abstract**

#### **PURPOSE:**

This phase II study sought to evaluate the efficacy of the paclitaxel-carboplatin combination as neoadjuvant chemotherapy in patients with locally advanced breast cancer (LABC).

#### **PATIENTS AND METHODS:**

A total of 46 patients with LABC and inflammatory breast cancer (IBC) received 6 cycles of paclitaxel 175 mg/m<sup>2</sup>, followed by carboplatin, at an area under the curve of 6, before mastectomy. The primary endpoint constituted response to chemotherapy. We studied ERCC1 protein, microtubule-associated protein-tau, estrogen receptor, progesterone receptor, epidermal growth factor receptor (EGFR), HER2, and Ki-67 immunohistochemically in tissue microarray and whole-tissue sections. In addition, EGFR and HER2 gene status was assessed by fluorescence in situ hybridization. Predictive and prognostic molecular markers were retrospectively investigated.

#### **RESULTS:**

A total of 42 female patients were considered eligible. Forty percent had IBC. Twenty-five patients (60%) experienced a clinical response, and 4 patients (9.5%) experienced a pathologic complete response. Chemotherapy was well tolerated. After a median follow-up of 45 months (range, 8.8-64.8 months), the estimated 3-year progression-free survival (PFS) was 54%, and the 3-year overall survival (OS) was 66%. The overexpression of EGFR protein was associated with a lower response rate (0 vs. 67%;  $P = .023$ ), whereas high Ki-67 expression, high-grade tumors, tumor stage T4, and triple-negative tumors were associated with poorer PFS. Only high-grade tumors were associated with a significantly shorter OS ( $P = .004$ ).

#### **CONCLUSION:**

The combination of paclitaxel and carboplatin is an effective and well-tolerated regimen in female patients with LABC.