Paclitaxel and bevacizumab as first line combined treatment in patients with metastatic breast cancer: the Hellenic Cooperative Oncology Group experience with biological marker evaluation.

Fountzilas G, Kourea HP, Bobos M, Televantou D, Kotoula V, Papadimitriou C, Papazisis KT, Timotheadou E, Efstratiou I, Koutras A, Pentheroudakis G, Christodoulou C, Aravantinos G, Miliaras D, Petraki K, Papandreou CN, Papakostas P, Bafaloukos D, Repana D, Razis E, Pectasides D, Dimopoulos AM.

Source

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Erratum in

- Anticancer Res. 2011 Oct;31(10):3637. Dosage error in article text.

Abstract

BACKGROUND:

Randomized studies have shown that bevacizumab combined with taxane-based regimens increases response rates and prolongs progression-free survival (PFS) of patients with metastatic breast cancer (MBC). However predictive or prognostic biological markers that identify the appropriate target population, thus improving the cost-effectiveness ratio of this treatment, are still needed.

PATIENTS AND METHODS:

Retrospectively, 124 patients with MBC treated either with paclitaxel 90 mg/m² weekly x12 plus bevacizumab 10 μg/kg every 2 weeks or 15 μg/kg every 3 weeks (85 patients) or paclitaxel 175 mg/m² plus bevacizumab 15 μg/kg every 3 weeks for 6 cycles (36 patients) were identified. Additionally, the prognostic significance of a panel of key biological markers was evaluated centrally by immunohistochemistry (IHC) in 88 evaluable patients.

RESULTS:

More than two thirds of the patients completed chemotherapy, as planned. The response rate was almost identical (55.3% vs. 55.6%) in the patients treated with weekly or 3-weekly paclitaxel, respectively. After a median follow-up time of 23 months, the median PFS of the study population was 13 months, while median survival had not yet been reached. Common severe adverse events were neutropenia (33%), neuropathy (18.6%) and metabolic disturbances (17.6%). The incidence of hypertension of all grades was 28.1%. High expression of vascular endothelial growth factor (VEGF) receptor 3 (VEGFR3) was associated with clinical response, while high expression of VEGFR1 was associated with poor survival.

CONCLUSION:

The safety and activity of the combination of bevacizumab with paclitaxel given either weekly or 3-weekly in patients with MBC is confirmed.