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Docetaxel and gemcitabine in the treatment of metastatic breast carcinoma: a dose finding study

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ABSTRACT

Aims and background. Patients with metastatic breast cancer previously treated with anthracyclines for advanced disease are usually refractory to any further treatment with anthracyclines and have a poor prognosis. Therefore, new drugs or new combinations of drugs are needed. One approach has been to focus on the type of chemotherapy with low toxicity that preserves quality of life during treatment, such as weekly drug administration.

Study design. We designed a dose-finding study to determine the maximum tolerated dose of gemcitabine plus docetaxel, given on a weekly schedule in metastatic breast cancer previously treated with anthracyclines. Three escalating doses of gemcitabine (900, 1000 and 1100 mg/m^2) on days 1 and 8 in combination with a fixed dose of docetaxel, 35 mg/m^2 on days 1 and 8 were planned. Dose-limiting toxicity included grade >3 hematologic toxicity, grade >2 stomatitis, asthenia, diarrhea or organ-specific toxicity (except alopecia). Dose escalation was stopped if 1 out of 3 patients at any dose level experienced dose-limiting toxicity.

Results. Nine patients received a mean of 5.1 (range, 1-9) cycles. Gastrointestinal and leukopenia were the main dose-limiting toxicity. No patient experienced dose-limiting toxicity at dose level 1; at dose level 2, 2 out of 3 patients had dose-limiting toxicity and 3 additional patients treated at dose level 2 confirmed that the maximum tolerated dose had been reached.

Conclusions. The recommended gemcitabine dose in combination with docetaxel (35 mg/m^2 for a phase II study) was established at 900 mg/m^2.

Key words: docetaxel, dose-finding study, gemcitabine, metastatic breast cancer.

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