

Gemcitabine and Docetaxel Chemotherapy is a Favorable Treatment as a Second-Line Chemotherapy for Metastatic Urothelial Carcinoma After Failure of a Platinum-Based Regimen

Introduction and Objective: There is no standard second-line treatment in patients with metastatic urothelial carcinoma (UC) after failure of platinum-based first-line chemotherapy. The objective was to evaluate the efficacy of the combination chemotherapy of gemcitabine and docetaxel (GD) as a second-line treatment for patients with metastatic UC who have been previously treated with platinum-based chemotherapy.

Materials and Methods: From June 2006 to June 2011, 25 patients with metastatic UC previously treated with platinum-based chemotherapy received GD therapy consisting of gemcitabine 800mg/m² on day 1 and 8, docetaxel 40mg/m² on day 1 and 8 as a second-line therapy in each 21-day cycle. All the patients were evaluated the toxicity, and were assessed every cycle by imaging study.

Results: In total, 107 treatment cycles (range 2-9) were given. The median progression-free survival and the median overall survival were 5.3 months (range 1.5-38.3) and 11.6 months (range 4.6-40.3), respectively. Overall response rate was 48.0%. Four patients (16.0%) achieved complete response, and 8 (32.0%) obtained partial response. Grade 3 treatment-related toxicity included neutropenia (24.0%), thrombocytopenia (16.0%). There was no Grade 4 toxicity, and no therapy related deaths. Focusing on the metastatic sites, lung metastasis had favorable response rates compared to other visceral metastasis.

Conclusions: GD regimen as a second-line chemotherapy was effective and favorable in patients with first-line chemotherapy failed metastatic UC. Given the safety and benefit profile seen in this study, a large prospective researching study is warranted to consider the potential role of GD chemotherapy as a second-line for UC.