Gemcitabine and Cisplatin versus Methotrexate, Vinblastine, Doxorubicin, and Cisplatin in Advanced or Metastatic Bladder Cancer: Results of a Large, Randomized, Multinational, Multicenter, Phase III Study

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Source: Journal of Clinical Oncology, Volume 18:3068-3077, (September) 2000

Précis: Gemcitabine plus cisplatin should become the standard for some bladder cancer patients

Introduction
The standard therapy for many patients with advanced bladder cancer has been the combination of methotrexate, vinblastine, doxorubicin, and cisplatin (MVAC). However, this regimen is associated with serious toxicity and patients with poor performance status have minimal benefit from intensive MVAC therapy. In this study, the researchers compared a new regimen using gemcitabine and cisplatin (GC) with the MVAC regimen to evaluate the clinical outcome in patients with bladder cancer.

Method
In this study, 405 bladder cancer patients were randomized to either the GC or MVAC treatment groups.

Results
- Both treatment groups achieved similar clinical benefits in terms of response rate and survival.
- GC patients were less likely to develop grade 3/4 neutropenia, neutropenic fever, neutropenic sepsis and grade 3/4 mucositis and alopecia.
- GC patients were more likely than MVAC patients to have grade 3/4 anemia and thrombocytopenia.
- GC patients fared better than MVAC patients with respect to weight, performance status and fatigue.

Discussion
In this study, patients with locally advanced or metastatic bladder cancer, switching from the standard MVAC chemotherapy to gemcitabine plus cisplatin achieved the same clinical benefits while significantly improving safety and tolerability. More studies are needed to further improve the response rate and survival in patients with advanced bladder cancer.