

## Comparison between the Radiosensitizing effect of Cisplatin & Gemcitabine in locally advanced non metastatic transitional cell carcinoma of the bladder

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### Abstract

**Introduction:** Bladder cancer is one of the most common malignancies in Egypt. No curative treatment for locally advanced inoperable TCC of the bladder, with radiotherapy alone offering palliation. Cisplatin and gemcitabine are known by having a radiosensitizing effect.

**Materials:** Fifty patients with locally advanced TCC of the bladder were randomized into two groups, 25 patients each.

**Methods:** Group 1 received pelvic irradiation 60 GY concomitant with weekly gemcitabine 100 mg/m<sup>2</sup>, while group 2 received the same radiotherapy course concomitant with weekly cisplatin 30 mg/m<sup>2</sup>. Patients were followed up at least for 2 years.

**Results:** all patients completed phase I, three patients in each group did not complete phase II. 68% of the patients in group 1 achieved CR in comparison to 64% in group 2, while 20% in group 1 achieved a PR in comparison to 28% in group 2. The most common grade 3 toxicities were diarrhea (24% vs. 12% for group 1 and 2 respectively), nausea (24% vs. 20%) and dysuria (24% vs. 28%). The mean time to disease progression for group 1 was 11.69 m compared to 12.67 m for group 2. At 2 years the overall survival was 68% for group 1 in comparison to 72% for group 2.

**Conclusion:** Cisplatin and gemcitabine can be used safely and effectively as radiosensitizers in patients with locally