

Can granisetron injection used as primary prophylaxis improve the control of nausea and vomiting with low-emetogenic chemotherapy?

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Source

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Abstract

Background: The purpose of this study is to examine the risk of uncontrolled chemotherapy-induced nausea and vomiting (CINV) among patients receiving low emetogenic chemotherapy (LEC) with and without granisetron injection as the primary prophylaxis in addition to dexamethasone and metochlopramide. **Materials and Methods:** This was a single-centre, prospective cohort study. A total of 96 patients receiving LEC (52 with and 42 without granisetron) were randomly selected from the full patient list generated using the e-Hospital Information System (e-His). The rates of complete control (no CINV from days 1 to 5) and complete response (no nausea or vomiting in both acute and delayed phases) were identified through patient diaries which were adapted from the MASCC Antiemesis Tool (MAT). Selected covariates including gender, age, active alcohol consumption, morning sickness and previous chemotherapy history were controlled using the multiple logistic regression analyses. **Results:** Both groups showed significant difference with LEC regimens ($p < 0.001$). No differences were found in age, gender, ethnic group and other baseline characteristics. The granisetron group indicated a higher complete response rate in acute emesis (adjusted OR: 0.1; 95% CI 0.02-0.85; $p = 0.034$) than did the non-granisetron group. Both groups showed similar complete control and complete response rates for acute nausea, delayed nausea and delayed emesis. **Conclusions:** Granisetron injection used as the primary prophylaxis in LEC demonstrated limited roles in CINV control. Optimization of the guideline-recommended antiemetic regimens may serve as a less costly alternative to protect patients from uncontrolled acute emesis.