

Comparison of Efficacy of additional Olanzapine to Ondansetron and Dexamethasone (Intervention group) versus Ondansetron and Dexamethasone alone (Standard group) for the prophylaxis of Chemotherapy induced nausea and vomiting

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Abstract:

Background: Chemotherapy induced nausea and vomiting (CINV) is a major problem that badly affects quality of life of cancer patients being treated with various chemotherapy regimens. Introduction of new anti-emetic agents like Olanzapine, has markedly improved control over frequency of emetic episodes.

Methodology: In this randomized controlled study, we compared the efficacy of additional Olanzapine to ondansetron and dexamethasone with ondansetron and dexamethasone only in newly diagnosed histologically confirmed breast cancer patients for prophylaxis of CINV.

Data was entered and analyzed in SPSS (Statistical Package for Social Sciences) version 23. initial means and frequencies of data were obtained. Independent sample t test with confidence interval of 95% was used for comparison between two groups with p value less than 0.05 considered significant

Results: A total 200 Patients (100 in each group) were enrolled. In Olanzapine group, 4% patients experienced grade 3 nausea compared with 11% in standard anti-emetic group. While, 5% patients in group A and 6% in group B had grade 3 or more vomiting. Patient reported efficacy of control of nausea and vomiting was 77% and 59% in group A and B respectively. On normality testing, data was found to be normally distributed so, independent sample t-test with confidence interval of 95% was applied which showed statistically significant difference in grade of nausea ($p=0.028$), grade of vomiting ($p=0.05$) and patient reported control of nausea and vomiting ($p=0.000$).

Conclusion: Addition of olanzapine to standard anti-emetic agents has improved control over CINV in patients being treated with highly emetogenic chemotherapy agents.