

Prokinetic Agent- Metoclopramide Increases the Yield of Upper Endoscopy and Decreases the Need for Second Look Endoscopy in Patients with Upper Gastrointestinal Bleed a Randomized Prospective Study

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To prove that intravenous Metoclopramide before endoscopy in patients with recent hematemesis improves the efficacy of the endoscopic procedure, resulting in reduction of the need for second look endoscopy. The efficacy of prokinetic drug- erythromycin for cleaning the upper GI has been analyzed, but the study failed to demonstrate a clinical benefit. 100 patients admitted for Upper Gastrointestinal bleed were randomized in 2 groups- Group A and Group B. Group A receiving IV Metoclopramide in addition to standard protocol i.e. IV protonix, IV sandostatin, nasogastric tube if needed, whereas Group B did not receive IV Metoclopramide. The endoscopists were blinded in regards to the use of IV Metoclopramide. On admission 10 mg of IV Metoclopramide was given every 4 hrs to a total of 1-2 doses, as endoscopy was done within 6-8 hrs of admission. The primary outcome was a higher yield in diagnosing the source of upper gastrointestinal bleed on first endoscopy. Active bleeding was found in 18 patients in Group A versus 9 patients in Group B. The difference in means was statistically significant with $p < 0.05$ and 95% confidence interval 0.06-0.28.

Adherent clots were present in 11 patients in Group A versus 5 patients in Group B, $p < 0.05$ and 95% confidence interval 0.03-0.23. Clean base ulcer in 21 patients in Group A versus 15 patients in Group B, $p < 0.05$ and 95% confidence interval 0.07-0.31. Visible vessels were seen in 12 patients in Group A versus 5 patients in Group B, $p < 0.05$ and 95% confidence interval 0.06-0.28. Successful treatment (epinephrine, banding, heat probe) in 16 patients in Group A versus 13 patients in Group-B, $p < 0.05$, 95% confidence interval 0.01-0.20. Decrease need to perform second look endoscopy within the next 48-72 hrs in 2 patients in Group A versus 9 patients in the Group B, $p < 0.05$, 95% confidence interval -0.28 to -0.06. The secondary outcomes were presence of residual blood in the stomach in 3 patients in Group A versus 14 patients in Group B, $p < 0.05$, 95% confidence interval -0.41 to -0.14. ICU admissions in 10 patients in Group A versus 16 patients in Group B, $p < 0.05$, 95% confidence interval -0.28 to -0.06. Further, PRBC transfusions in 8 patients in Group A versus 16 patients in Group B, $p < 0.05$, 95% confidence interval -0.34 to -0.09. Decrease length of hospital stay- 5-6 days in Group A versus 1-2 weeks in Group B. This is the first randomized controlled trial to demonstrate that Metoclopramide administered IV before endoscopy in patients with Upper Gastrointestinal bleed results in a higher yield and tends to reduce the need for second look endoscopy. This is an ongoing study and is currently being extended to other institutions.