

**SCA 134****NASOGASTRIC TUBES DO NOT REDUCE POSTOPERATIVE NAUSEA AND VOMITING IN CARDIAC SURGERY PATIENTS**

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**Introduction:** Incidence of postoperative nausea and vomiting (PONV) after cardiac surgery is up to 50%. (1,2) Although gastric emptying is delayed after cardiac surgery (3), the effectiveness of nasogastric (NG) tubes in preventing gastric distention and reducing PONV is unclear. Routine use of NG tubes is associated with potential complications including pharyngeal or esophageal trauma and bleeding, which is particularly relevant to cardiac patients receiving full heparinization prior to cardiopulmonary bypass. Furthermore, NG tubes may increase a risk of gastroesophageal reflux(4), and consequently nosocomial pneumonia (5). The purpose of our study was to assess the efficacy of NG tube placement in reducing PONV after cardiac surgery.

**Method:** With institutional ethics committee approval and informed consent, a subset analysis of a prospective randomized controlled trial was performed to determine the impact of NG placement on PONV after cardiac surgery. All patients underwent fast track cardiac anesthesia. (6) Patients were divided into two groups, with or without NG tubes. The NG tube was placed after induction of anesthesia and left on continuous drainage. Nausea, retching or vomiting, need for anti-emetic medication, visual analogue pain scores, and total NG drainage was recorded by nursing staff on the cardiovascular intensive care unit (ICU) post-operatively. Data collection was performed for 24 hours after surgery or until discharge from ICU. Patients with a history of hiatus hernia/acid reflux, previous gastric surgery or recent anti-emetic use, and patients requiring prolonged mechanical ventilation were excluded from the study.

**Results:** Both groups were similar with respect to demographic data, surgical characteristics, pain scores, and analgesic requirements. Mean gastric volume drained in the NG group was 55 (111)mL. NG tube was removed on average 2 hours after extubation. Extubation time did not exceed 6 hours after admission to intensive care unit. There was no difference in the prevalence of nausea, vomiting or antiemetic requirements between the two groups (Table). Numerical and categorical data were analyzed with T-test and Fisher's exact test as appropriate. Data is recorded as mean (SD) and number of patients, n (%). A p value of less than 0.05 considered statistically significant.

	NG Group (n = 116)	Control Group (n = 36)	P value
Nausea n (%)	40 (35%)	12 (33%)	0.89
Retching and Vomiting n (%)	23 (20%)	6 (17%)	0.67
Antiemetics n (%)	40 (35%)	12 (33%)	0.89

**Discussion:** The incidence of PONV after cardiac surgery is high. The mean volume of gastric drainage was lower than anticipated. NG tube did not reduce PONV after cardiac surgery. Therefore, PONV in cardiac surgical patients does not seem to be related to gastric distention. NG insertion cannot be recommended routinely to decrease PONV after cardiac surgery.

**References:**

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- (6) Cheng DCH, et al. *J Thorac Cardiovasc Surg.* 1996; 112: 755-64.