

ABSTRACT	TITLE	AUTHOR(S)	INSTITUTION	
#3	Refinement of Post-Operative Antiemetic Protocol for Bile-Duct-Cannulated Macaques	Stephanie Vaughan (1) Jemma Willis (2)	Labcorp	Abstract

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Refinement of Post-Operative Antiemetic Protocol for Bile-Duct-Cannulated Macaques

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Introduction

Retrospective analysis of post-operative inappetence and veterinary intervention due to weight loss or abdominal discomfort in bile-duct-cannulated non-human primates at our institution was 69% and 84%, respectively. Additionally, incidence of post-operative vomiting after a single post-operative dose of maropitant citrate was 19%. Based on these additional risk factors for post-operative complications, we aimed to eliminate or decrease post operative nausea and ileus by adding antiemetics: maropitant citrate, famotidine, ondansetron, and metoclopramide to the post-operative medication protocol SID for 3-5 days after surgery.

Additional Topic Lecture as part of introduction:

Literature overview of antiemetic perioperative use reveals potential benefits related to analgesic and gas-anesthesia-sparing properties. A brief overview of studies on this topic and updates to available drug formulations will be shared to educate participants on the state of research on this topic.

Methods

Over a 5-year period (Oct 2021 – May 2026) 70 Cynomolgus macaques underwent bile duct cannulation surgery. The surgical procedure includes a laparotomy where the cystic duct is ligated and the gall bladder emptied by needle aspiration. The common bile duct is cannulated with a T-tube catheter between the last hepatic duct junction and the common bile duct entrance into the duodenum, with the open-ended arm towards the liver. The duodenum is cannulated shortly after the pyloric sphincter. The omentum is secured over the catheter entrance locations and a gastropexy is performed. Both catheters are tunneled to exit midline scapular region, and following surgery animals are jacketed and tethered for bile collection and duodenal bile salts infusion.

The historical anti-emetic regimen consisted of maropitant citrate (1mg/kg SC) and Ondansetron (0.15 mg/kg IV). The revised anti-emetic regimen is maropitant citrate (1 mg/kg – SQ), Ondansetron (0.2 mg/kg – IV), Metoclopramide (0.2 mg/kg – IM) prior to surgery in addition to maropitant citrate (1 mg/kg – SQ)

for an additional 5 days post-surgery, Ondansetron (0.2 mg/kg – SQ) for an additional 3 days post-surgery, Metoclopramide (0.2 mg/kg – SQ) for an additional 3 days post-surgery, and Famotidine (1mg/kg- SQ) for an additional 3days post-surgery.

Retrospective data was collected for each animal in the 7-day postoperative period following bile duct cannulation procedures. Incidence of vomiting, low food consumption, and veterinary intervention was compared from before and after addition of post-operative antiemetics to drug regimen.

Results

Findings indicated post-bile duct cannulation surgery inappetence decreased from 69% to 41%, and veterinary intervention decreased from 84% to 59% after addition of antiemetic post-operative medications. Additionally, post-operative emesis was eliminated with no observed incidences of vomiting.

Conclusions

Using a multimodal approach to antiemetic administration to NHP undergoing bile duct cannulation surgery can decrease post operative complications and veterinary interventions due to nausea and emesis.