Relief of Malignant Gastric Outlet Obstruction with Lumen Apposing Metallic Stent assisted Percutaneous Endoscopic Gastrostomy Tube after Roux-en-Y Gastric Bypass

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Introduction

- Roux-en-Y gastric bypass (RYGB) anatomy poses a unique challenge for accessing the bypassed portion of the stomach for endoscopic interventions.
- When obstruction occurs distal to the Roux limb, decompression of the gastric pouch and bypassed stomach can be achieved with percutaneous enterostomy or gastrostomy tube placement by radiology or surgery.
- For an endoscopic approach, an EUS guided Lumen Apposing Metallic Stent (LAMS) can create a gastro-gastric fistula to allow percutaneous endoscopic gastrostomy (PEG) placement in the bypassed stomach.

Case

- 63-year-old woman with history of a RYGB and metastatic small bowel adenocarcinoma presented with recurrent small bowel obstruction.
- Due to extensive peritoneal carcinomatosis and malignant ascites, the patient was a poor candidate for surgical or radiological venting enterostomy tube placement.
- A decision was made to proceed with placement of a palliative venting PEG tube, assisted by EUS guided gastric remnant access.

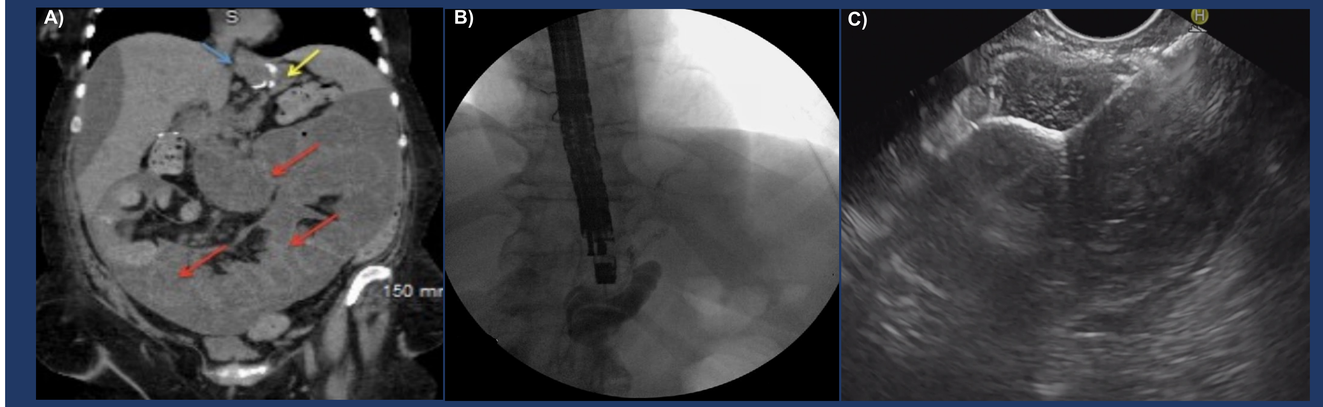
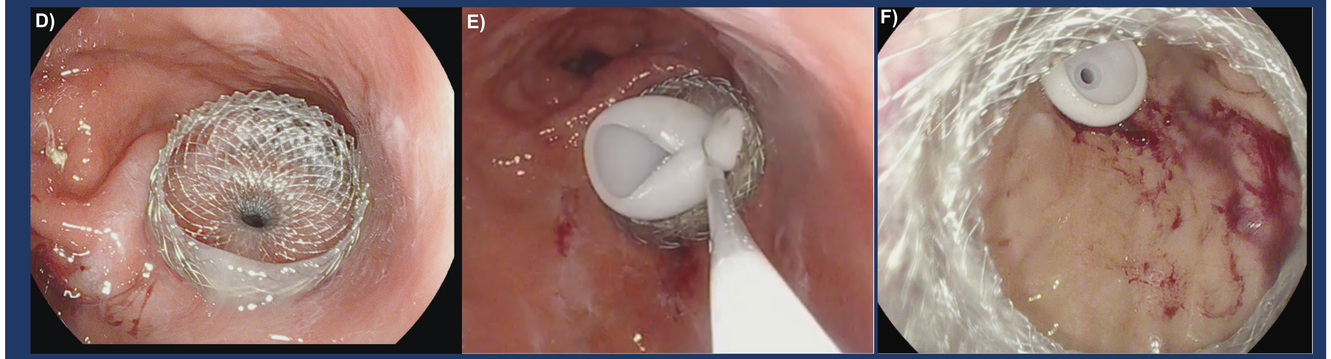


FIGURE 1: A) Computed tomography scan demonstrating dilated gastric pouch (Blue arrow), dilated bypassed stomach (Yellow arrow) and multiple dilated distal loops of small bowel (Red arrows) B) Expansion of bypassed stomach with a mixture of saline and ionic contrast in preparation for LAMS placement under fluoroscopic and endosonographic guidance. C) Echoendoscopic view of deployment of an electrocautery-enhanced 20x10mm LAMS into the bypassed stomach.



D) Endoscopic view of gastric pouch following placement of LAMS into the bypassed stomach prior to dilation with 18mm balloon dilator. E) A 20 Fr gastrostomy tube was placed by “pull guidewire” technique. Bumper was folded with 25 mm snare to ease passage through the dilated LAMS. F) Successful PEG tube placement in the bypassed stomach through LAMS.

Hospital Course

- Venting PEG was successfully placed within the bypassed stomach (Figure 1).
- Patient was discharged one day post-procedure after having clinical resolution of her obstructive symptoms.
- Patient was able to maintain comfort at home with family and passed away 3 weeks following discharge.

Discussion

- Decompression of the excluded stomach after RYGB can be a challenge.
- EUS and LAMS assisted PEG tube placement is a feasible approach for palliative decompression in patients with RYGB who are poor candidates for surgical or radiological venting tube placement.
- This method is superior to gastrostomy alone in allowing decompression of both the remnant stomach and Roux limb.
- The surface size of the internal bumper should be minimized using a snare to prevent LAMS dislodgement and ease of passage during same-session PEG tube placement.