

Introduction

- Roux-en-Y gastric bypass (RYGB) is a commonly performed procedure for morbid obesity.
- Patients with RYGB are at risk of developing remnant gastric cancer.
- Typically, double-balloon endoscopy (DBE) is used to obtain biopsy for diagnosis.
- We present two cases of remnant gastric cancer diagnosed using endoscopic ultrasound (EUS).

Case Summary 1

- 76-year-old female status post RYGB
- PC: 40-pound unintentional weight loss, anorexia, melena and constipation
- Labs: Hb 6.1 g/dL, CA 19-9 200,000 U/ml and CEA 683 ng/dL
- Imaging: CT CAP revealed hepatic masses and gastric remnant pouch thickening.
- Endoscopy: EGD revealed Roux-en-Y gastrojejunostomy with gastrojejunal anastomosis characterized by healthy appearing mucosa and normal jejunum. Colonoscopy revealed a moderately redundant colon and small internal hemorrhoids.
- Procedure: A liver biopsy was done which was inconclusive.

There was concern for remnant gastric cancer in light of the lack of another obvious primary so she underwent a transgastric EUS guided fine needle biopsy (FNB) of the remnant pouch which confirmed gastric adenocarcinoma.

Case Summary 2

- 49-year-old female status post RYGB
- PC: left sided flank pain, vomiting, 12-pound weight loss and subjective fevers
- Labs: Hb 9 g/dL, CEA 96.6 ng/dL and CA-125 348.7 U/ml
- Imaging: CT AP showed wall thickening involving the gastric pouch and gastric remnant
- Endoscopy: EGD revealed evidence of gastric bypass, a small gastric pouch, gastrojejunal anastomosis characterized by polypoid appearing lesions which were biopsied, normal jejunum. Colonoscopy revealed inflammation in the cecum, transverse colon and sigmoid colon. Biopsies of cecum and transverse colon showed adenocarcinoma consistent with metastatic signet ring cell carcinoma.

There was concern for remnant gastric cancer in light of the lack of another obvious primary so she underwent transjejunal EUS guided FNB of the gastric remnant which confirmed signet ring cell adenocarcinoma.

Technique

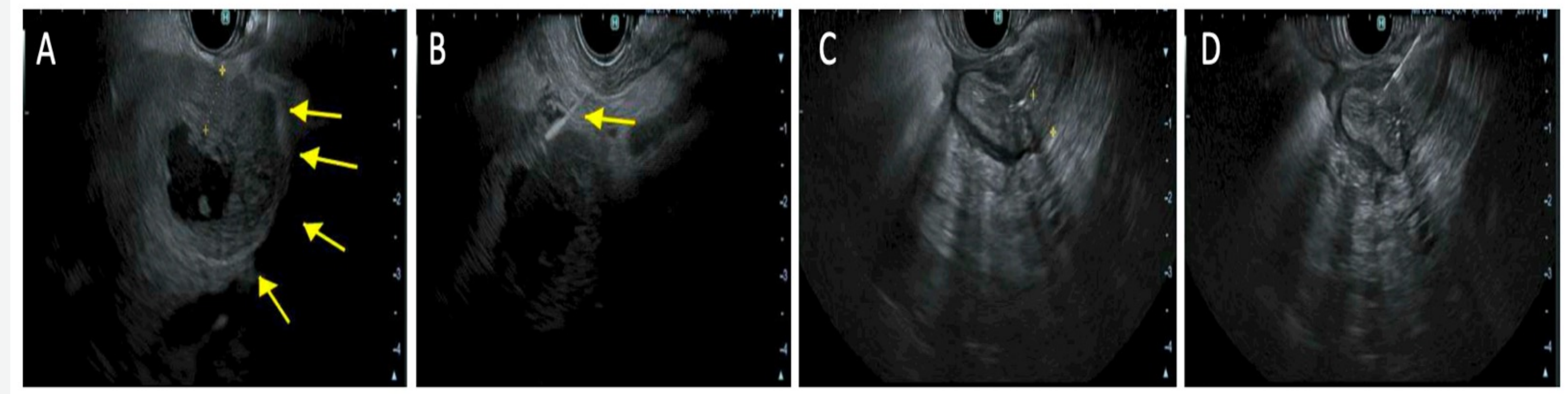


Image 1. EUS images. A, Case 1: Transgastric view of thickened gastric remnant . B, Case 1: Fine needle biopsy of gastric remnant wall. C, Case 2: Transjejunal view of thickened gastric remnant. D, Fine needle biopsy of gastric remnant wall.

Discussion

- EUS has become a valuable tool for tissue acquisition especially because DBE has challenges as it relates to high operator dependence and long procedure times.
- Recent case reports have described using EUS guided placement of lumen-apposing metal stents (LAMS) to create a direct conduit into the gastric remnant to obtain biopsies^{1,2}. However these stents are highly operator dependent and carry complications like stent migration, bleeding, infection and perforation.
- The technique of using EUS to guide FNB is depicted in image 1 above.
- There were no complications intra or post operatively.
- Our cases highlight that EUS with a trans-gastric or trans-jejunal approach provides a safe and less invasive approach that is more operator-friendly, time saving and leads to great success rates as it relates to adequate tissue acquisition.

References

1. Joliat GR, Dayer A, Garin N, Galasso D. EUS-guided gastrogastrostomy and gastroduodenal stenting for gastric cancer after Roux-en-Y gastric bypass (with video). *Endosc Ultrasound*. 2020;9(5):345-346. doi:10.4103/eus.eus_53_20
2. Schneider, Luca MD1; Kröger, Arne MD2; Gubler, Christoph MD1; The, Frans O. MD, PhD1 Diagnosis of Gastric Cancer in the Excluded Stomach After RYGB by Jejunogastrostomy Using a LAMS, *ACG Case Reports Journal*: January 2022 - Volume 9 - Issue 1 - p e00720 doi: 10.14309/crj.0000000000000720