



EUS-guided Braun-type enteroenterostomy for management of an afferent limb–type obstruction in a patient with prior surgical gastrojejunostomy

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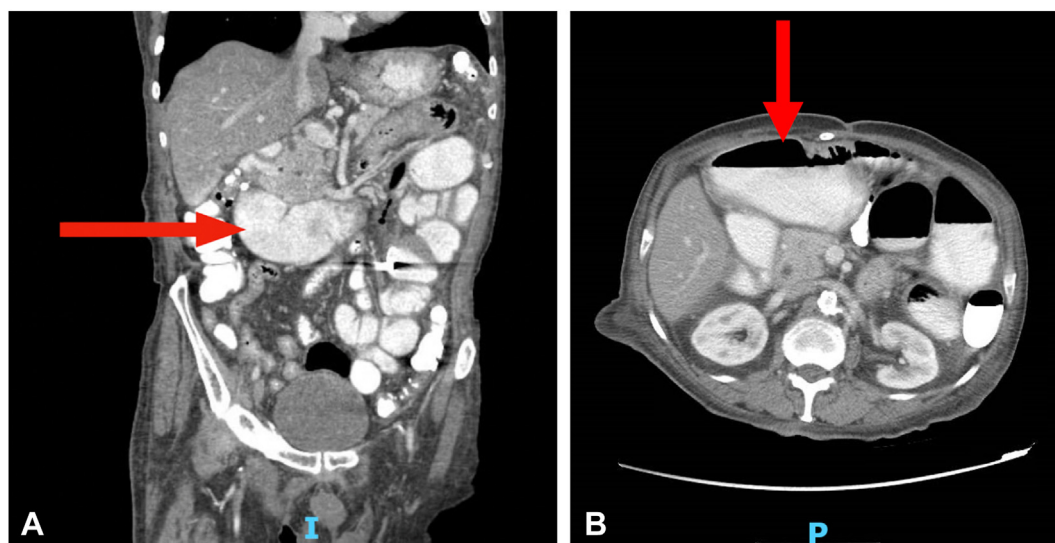


Figure 1. A and B, Abdominal CT scan showing a surgical gastrojejunostomy pull-up with a severely dilated afferent limb (*red arrow*).

Afferent loop syndrome is a rare condition that can develop after gastric anatomy-altering surgeries. This condition arises when the afferent preanastomotic loop of the jejunum becomes twisted or kinked, leading to obstruction preventing bile flow and other digestive secretions in the afferent limb. In patients with intact native upper GI tract (ie, the afferent limb is not blind), symptoms can include nausea, vomiting, bile reflux, abdominal pain, and jaundice. The goal of treatment is to relieve afferent limb obstruction. We present a case of a suboptimal surgical patient with afferent limb obstruction managed via EUS-

guided creation of a Braun-type anastomosis between the afferent and efferent limbs.

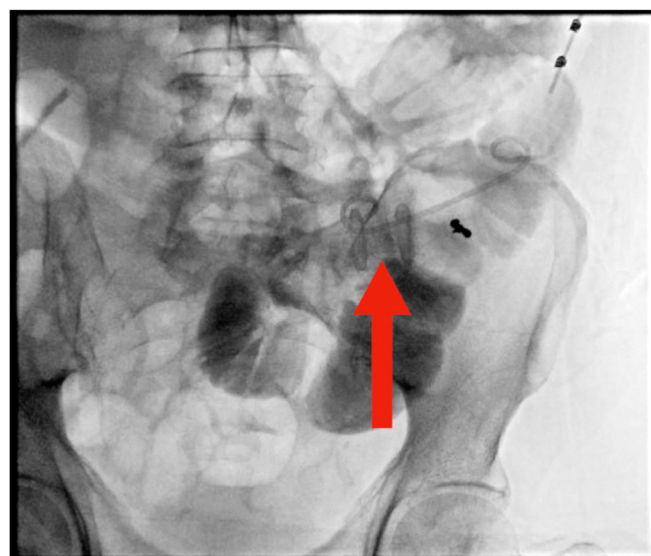


Figure 2. An anchoring plastic double-pigtail stent within the lumen-apposing metal stent (*red arrow*).

Abbreviations: GJ, gastrojejunostomy; LAMS, lumen-apposing metal stent.

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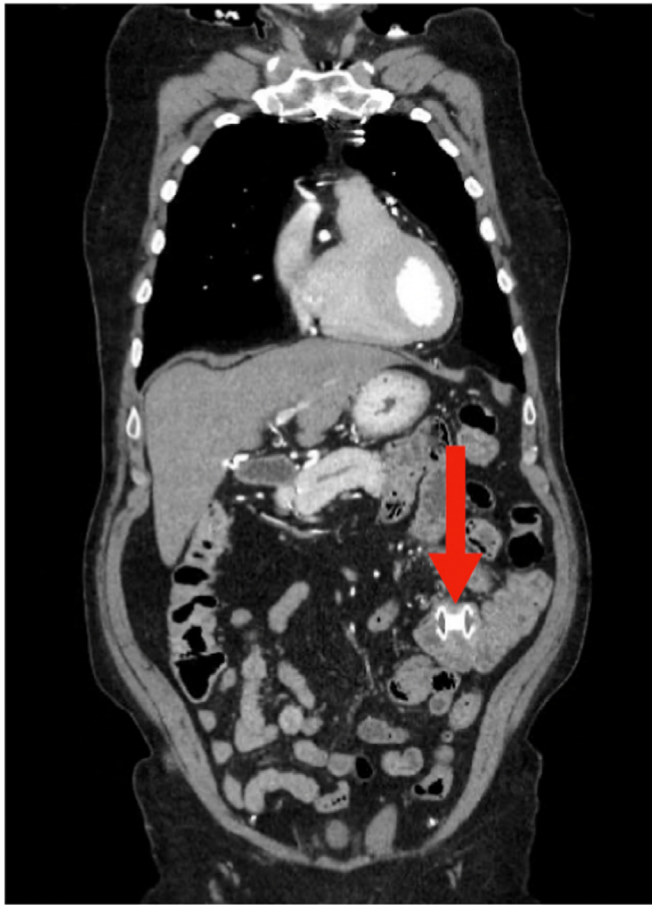


Figure 3. A CT scan confirming proper positioning of the stent.

A 78-year-old man with history of multiple abdominal surgeries complicated by adhesions with small-bowel obstruction requiring a surgical gastrojejunostomy (GJ) presented with bilious emesis, abdominal pain, and 50-pound weight loss. The patient had experienced a remote small-bowel perforation that was complicated by intra-abdominal abscesses and subsequent small-bowel obstructions caused by adhesions. He had undergone multiple surgical procedures, including cholecystectomy and surgical GJ to manage an adhesion-related small-bowel obstruction.

An abdominal CT scan noted a surgical GJ pull-up with a severely dilated afferent limb (Fig. 1). Surgeons were consulted, and given the extensive surgical history with adhesion disease, a consensus was made to attempt endoscopic bypass of the obstructed afferent limb.

An EGD was performed on the patient and revealed severe gastritis with a bile-filled stomach. A surgical GJ was identified, and the efferent limb was easily accessible.

However, the afferent limb, accessed via the native pylorus, was dilated with retained enteric contents. The afferent limb was inaccessible via the GJ because of angulation. An enteral stent across the afferent GJ was not performed because of concerns regarding obstructing the efferent limb and the angulation at the level of the GJ. Instead, preparations were made for EUS-guided jejunojunos-tomy to decompress the afferent limb into the efferent limb. A wire was placed via the pylorus into the afferent limb. A nasojejunal catheter was then advanced over the wire into the limb. Methylene blue, contrast, and saline were injected through the catheter to distend the afferent limb. A linear echoendoscope was advanced into the efferent limb as distally as feasible. Via fluoroscopic and endosonographic visualization, a dilated loop of the afferent limb was identified. Next, a lumen-apposing metal stent (LAMS) catheter with electrocautery traversed the jejunal wall, with the distal end deployed into the afferent limb and the proximal end within the efferent limb. Methylene blue was seen flowing from the afferent limb into the efferent limb. The stent was then dilated with a 15-mm balloon obliterating the waist. Endoscopic and fluoroscopic visualization confirmed appropriate stent location, bridging the afferent and efferent limbs. An anchoring plastic double-pigtail stent was then placed within the LAMS (Fig. 2). The patient was admitted for observation, and a CT scan confirmed proper positioning of the stent (Fig. 3). Upon discharge, the patient reported resolution of abdominal symptoms and a 15-pound weight increase with good tolerance for oral intake. A follow-up upper endoscopy performed 11 months later noted a good stent position, and the stent was easily exchanged with a similar AXIOS 15-mm stent (AXIOS, Arlington, Va, USA).

Surgically related adhesive disease can lead to severe patient-related morbidity. Adhesions can further complicate revision surgeries, rendering a patient a suboptimal surgical candidate. As depicted here, despite surgical GJ for adhesion-related small-bowel obstruction, an acquired afferent limb obstruction can occur. This case demonstrates the effective use of EUS-guided Braun-type enteroenterostomy via LAMS to relieve an obstructed afferent enteral limb. EUS-guided bypass can be considered in suboptimal surgical candidates with focal small-bowel obstruction secondary to adhesions (Video 1, available online at www.videogie.org).

DISCLOSURE

Dr Sharaiha is a consultant for Cook, Boston Scientific, and Olympus. The other authors did not disclose any financial relationships.