



Diagnosis And Correction Of Afferent Limb Reflux After Single Anastomosis Duodenoileostomy: A Novel Endoscopic Approach



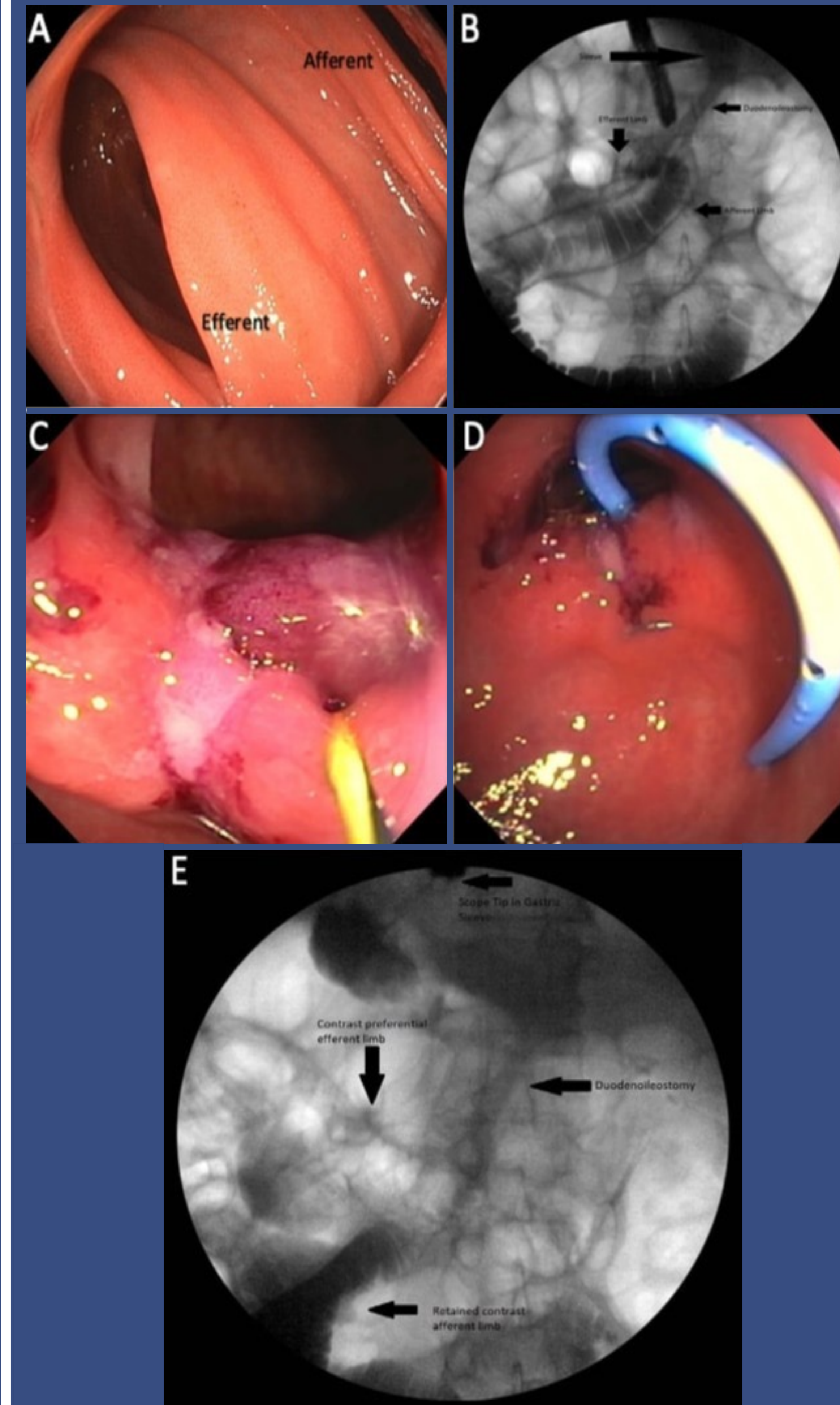
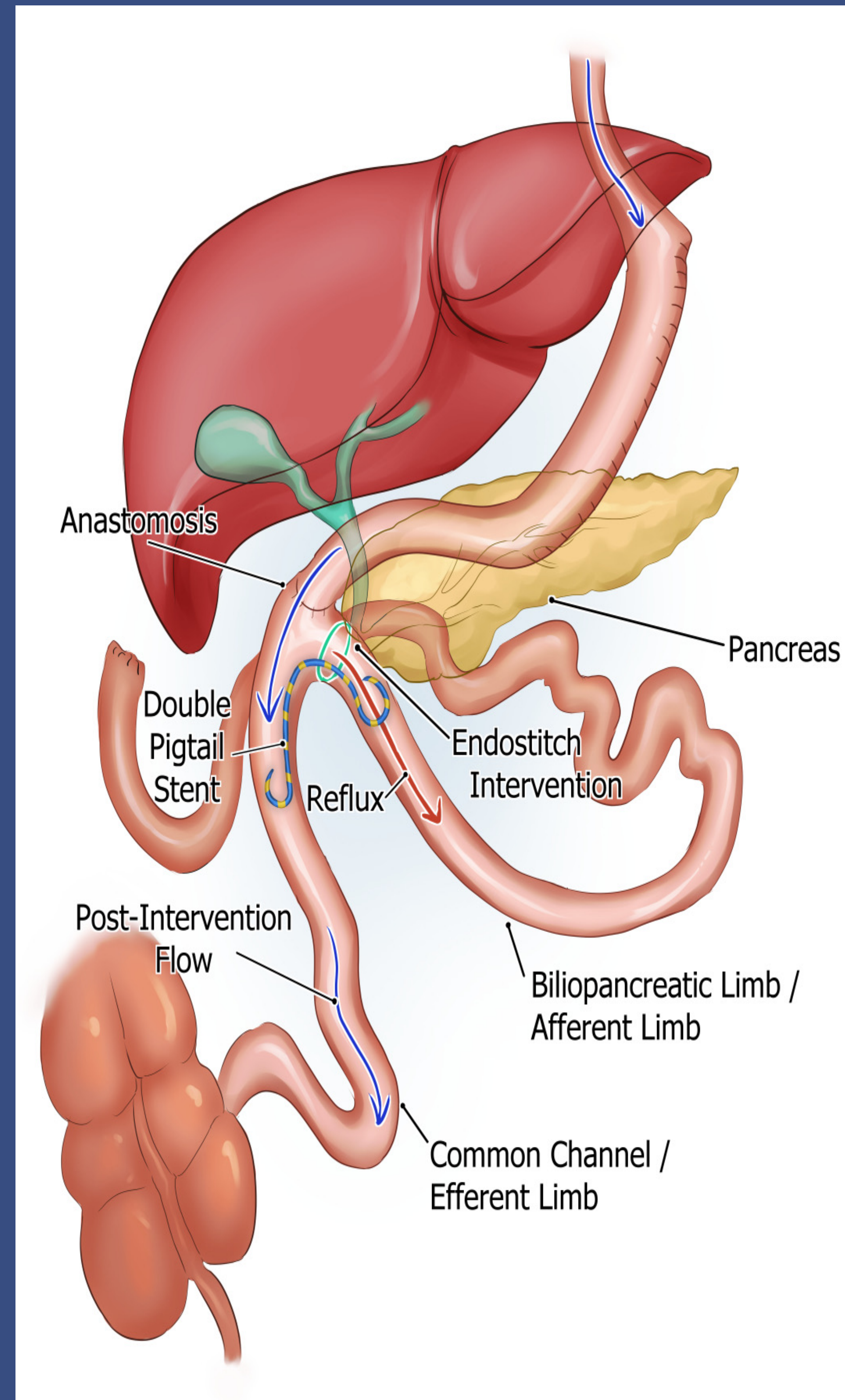
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Introduction

- Symptomatic afferent hepatobiliary limb reflux is a rare complication after single-anastomosis duodenoileostomy with sleeve gastrectomy (SADI-S).
- This condition is clinically distinct from afferent loop syndrome (ALS), and is characterized by retrograde filling of the afferent limb without features of mechanical obstruction.
- It previously necessitated surgical revision to include creation of a Braun entero-enterostomy (BEE).
- During surgery, preventative tacks can be placed to minimize afferent limb reflux.
- Endoscopic diagnosis and treatment are not well described.
- Here, we report a case of symptomatic afferent limb reflux causing dehydration treated with full thickness endoscopic plication.

Case

- A 62-year-old male underwent SADI-S with afferent limb tacking proximal to the pylorus.
- Two months later, he presented with RUQ pain, nausea, constipation, and poor oral liquid intake necessitating IV fluid hydration.
- Heavier liquids and solids were tolerated well.
- Due to concern for anastomotic complication, imaging was obtained with UGI series and CT with contrast which were normal.
- Given high clinical suspicion for limb reflux the patient was referred for upper endoscopy.



Outcomes

- Endoscopy demonstrated a normal esophagus and gastric sleeve anatomy.
- The biliopancreatic (BP) limb was noted to have acute angulation and contained bile [A].
- The scope was then advanced and fluoroscopy confirmed the correct limb.
- The patient was then placed in Trendelenburg position and contrast was injected into the stomach, demonstrating preferential flow in the BP limb, which confirming afferent limb reflux [B].
- Using an endoscopic suturing device, the septum of the anastomosis was sutured to the pylorus, reducing the limb diameter and changing the angle of the anastomosis [C].
- To avoid ALS, a double pigtail plastic stent was placed in the BP limb [D].
- Final fluoroscopic image demonstrated preferential flow of contrast into the efferent limb [E].
- The procedure was tolerated well at follow-up, his oral tolerance had returned to normal with resolution of all symptoms.

Conclusions

- We present the case of a patient who underwent SADI-S and developed symptomatic afferent hepatobiliary limb reflux despite prophylactic tacking.
- This was successfully managed with endoscopic suturing, avoiding further surgical intervention. Our case demonstrates a novel use of endoscopic suturing devices and future research is needed to better understand and develop uses of these devices in treating bariatric surgery complications.

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Key Abbreviations

SADI-S- single anastomosis duodenoileostomy with sleeve gastrectomy
ALS- afferent loop syndrome
BEE- Braun entero-enterostomy
BP- biliopancreatic

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