

## Introduction

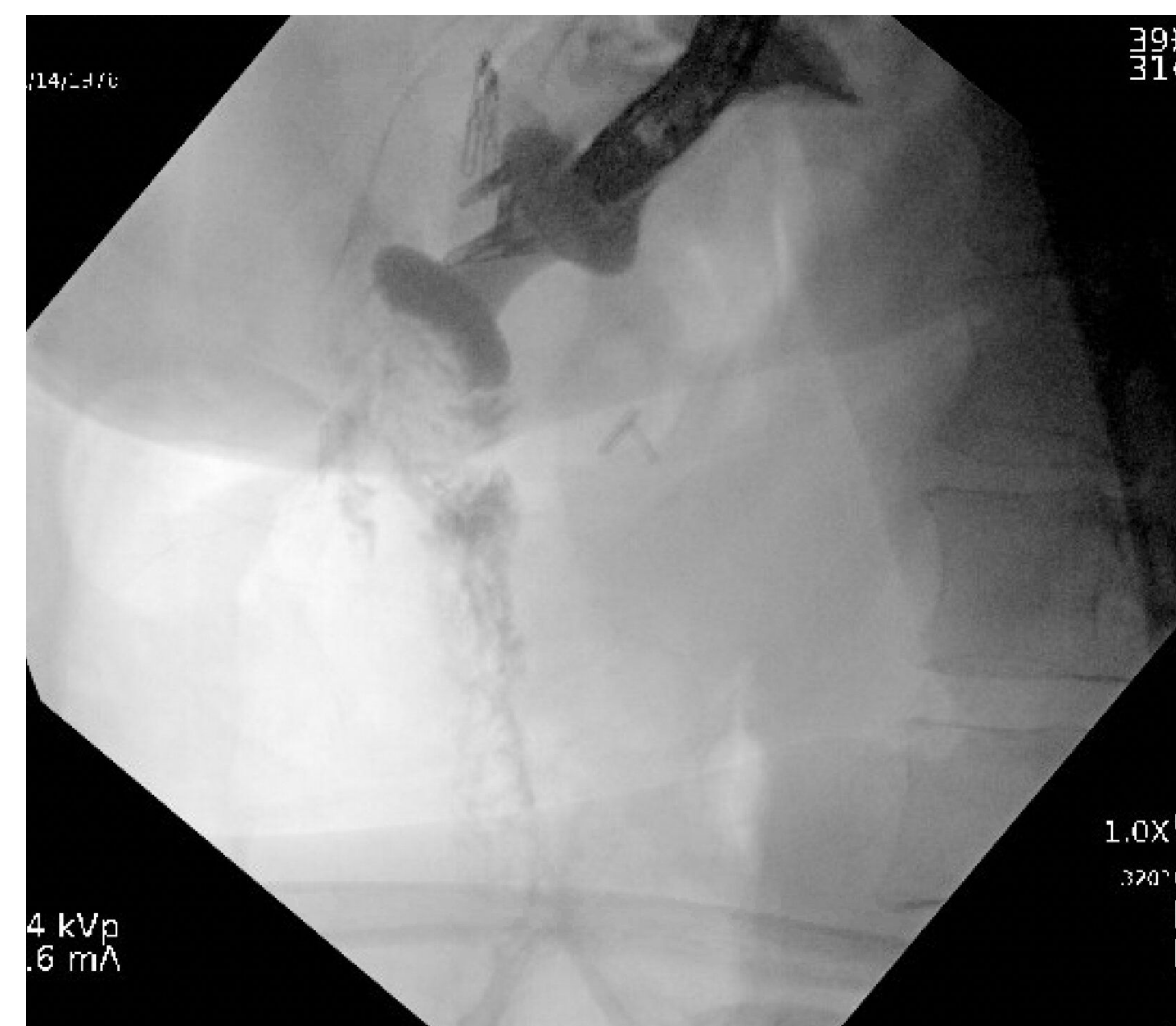
- Gastrointestinal perforations located in the stomach or duodenum are most commonly managed by surgical repair
- Recently fully covered stents have been utilized for repair in these perforations.
- We present two cases in which perforations which were successfully managed using lumen-apposing self-expandable metal stents (LAMS) which are primarily indicated for managing pancreatic fluid collections.

## CASE 1

- 66-year-old female was admitted with duodenal perforation who underwent repair with modified Graham patch.
- 4 days later, Gastrografin upper GI series revealed a leak at the junction of first/second part of duodenum.
- Patient was referred to an advanced endoscopist who performed egd with endoscopic over the scope clip closure and Axios placement .
- This was performed by using ERCP wire to identify the true lumen under fluoroscopic guidance all the way to ligament of treitz.
- This was followed by advancement of Axios 20 x 10 mm stent across the leak area.
- Contrast was injected without evidence of leak.
- The LAMS was removed 6 weeks later without complication.

## Case 2

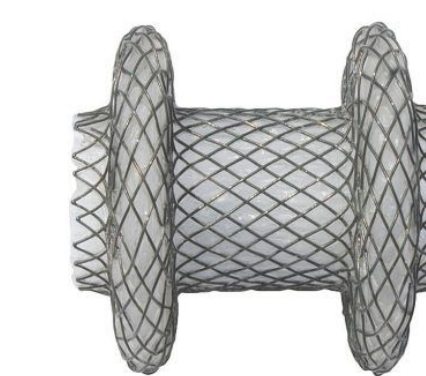
- 45 year old female w/pmh of gastric bypass presented with gastrojejunostomy anastomotic stricture.
- She underwent balloon dilation of the stricture which was complicated by a perforation (closed via clip) and was transferred to the hospital for emergent EGD.
- Due to edema and clip closure performed during the initial procedure, the true anastomotic lumen was difficult to visualize, therefore wire guided ERCP balloon under fluoro was utilized to identify true jejunal lumen.
- 20 x 10mm Axios stent (type of LAMS) was deployed to completely seal off the transmural defect.
- Contrast was injected through the LAMS with no extravasation noted
- The LAMS was removed 2 months later at which time significant improvement was noted in the stricture without any evidence of mural defect.



**Figure:** 20 mm x 10 mm LAMS deployed across the gastrojejunal anastomosis

## Discussion

- Use of covered metal stents is an emerging technique in management of GI perforations, however they do have an increased risk of migration.
- The large inner lumen diameter as well as “dumbbell” design of LAMS allows for dual anchoring capabilities and leads to a lower risk of migration.



- As demonstrated by our cases, LAMS could be considered for use during endoscopic management of GI perforations in the appropriate setting.
- With further studies, LAMS could become the standard of care for endoscopic management of GI perforations.

## References

- Endoscopic Management of Infected Necrotizing Pancreatitis: an Evidence-Based Approach - Scientific Figure on ResearchGate. Available from: [https://www.researchgate.net/figure/Overview-of-the-available-lumen-apposing-metal-stents\\_fig1\\_326517972](https://www.researchgate.net/figure/Overview-of-the-available-lumen-apposing-metal-stents_fig1_326517972) [accessed 7 Oct, 2022]
- Bank JS, Adler DG. Lumen apposing metal stents: A review of current uses and outcomes. *Int J Gastrointest Interv* 2017;6:9-14.
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