

# A Case of Endoscopic Ultrasound-Guided Gastrojejunostomy for Gastric Outlet Obstruction in a Patient with a Migrated FCSEMS

Natalia Salinas Parra, BS<sup>1</sup>, Kevan Josloff, BS, MPH<sup>1</sup>, Heather M. Ross, BS<sup>1</sup>, Sarah L. Chen, BA<sup>1</sup>, Alexis Gerber, MD<sup>2</sup>, Adnan Khan, DO<sup>2</sup>

<sup>1</sup>Sidney Kimmel Medical College, <sup>2</sup>Department of Internal Medicine, Thomas Jefferson University Hospital

## Introduction

- Fully covered self-expandable metal stents (FCSEMS) are often used to resolve benign strictures causing gastric outlet obstruction (GOO), with migration rates of 15-20%<sup>1</sup>.
- With a short length and anti-migration waist, the TaeWoong Medical FCSEMS is designed to produce radial force against the stricture and greatly reduce stent migration<sup>2</sup>.
- We report the case of a patient with a retroperitoneal hematoma causing GOO secondary to a duodenal stricture. The FCSEMS placed across the stricture was complicated by stent migration to the stomach, and a gastrojejunostomy (GJ) was performed using a lumen-apposing metal stent (LAMS) and LAMS dilation.

## Case Report

- A 47-year-old man with no significant history was admitted for GOO secondary to spontaneous non-traumatic hemorrhagic retroperitoneal bleeding.
- He presented with recurrent episodes of acute epigastric pain radiating to his back, nausea, and vomiting and was found to have pancreatitis with an elevated lipase of 661.
- Computed tomography (CT) showed a retroperitoneal hematoma surrounding a severely thickened descending and proximal duodenum and the head of the pancreas. Marked distention of the stomach was consistent with GOO.

- An esophagogastroduodenoscopy (EGD) revealed a stricture involving the distal D2 and proximal D3 that could not be traversed with the endoscope. An 18 mm x 140mm FCSEMS was placed across the stricture and secured to the antral wall.
- Three days after discharge, he developed a recurrence of symptoms after advancing his diet to solids. Repeat x-ray and an endoscopic ultrasound (EUS) guided EGD showed the complete migration of the duodenal FCSEMS into the stomach (Figures A and B).
- The FCSEMS was removed using rat-toothed forceps and an EUS GJ was performed using a 20 mm x 10 mm cautery enhanced LAMS (Figure C). The patient was able to tolerate both solids and liquids before discharge.

## Imaging

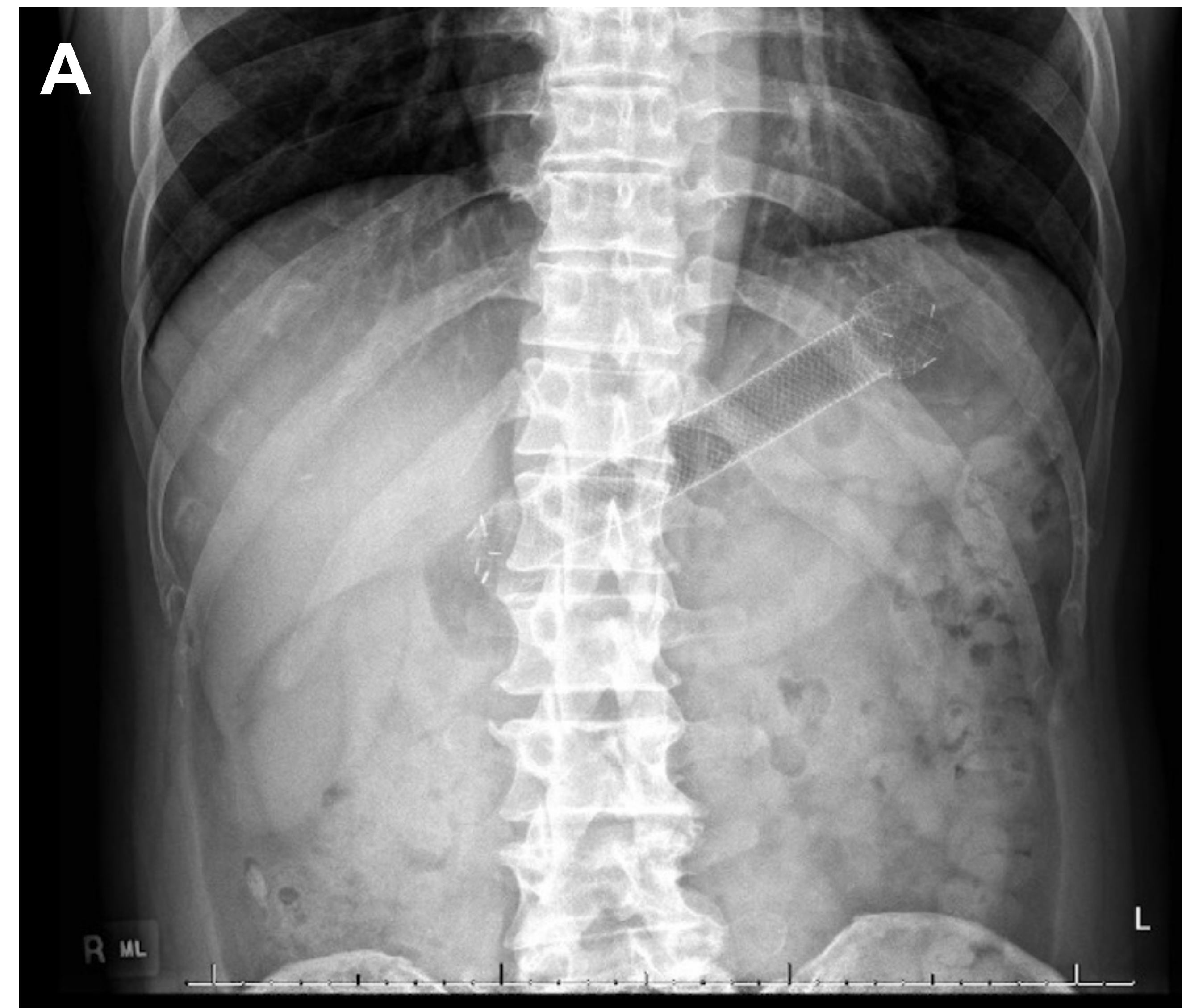


Figure A: X-ray abdomen and pelvis showing the migrated duodenal stent. Figure B: Endoscopic view of the migrated FCSEMS in the stomach. Figure C: Endoscopic view of the fully deployed LAMS showing the anastomotic connection between the stomach and jejunum, bypassing the duodenal stricture.

## Discussion

- Despite previously reported benefits of stent anchoring and favorable outcomes of the TaeWoong FCSEMS design, migration occurred.
- GJ to relieve GOO has emerged as an alternative to refractory cases of endoscopic stenting or surgical GJ, with lower reintervention rates. The use of LAMS to create a GJ successfully mitigated the obstruction in this patient with a complicated hospital course.
- EUS GJ to relieve obstruction has shown to be promising, and continued research on its safety and efficacy compared to standard therapies (namely FCSEMS) is merited.

## References

- Kaffes, Arthur et al. "A randomized trial of a fully covered self-expandable metallic stent versus plastic stents in anastomotic biliary strictures after liver transplantation." *Therapeutic advances in gastroenterology* vol. 7,2 (2014): 64-71.
- Warner, Ben et al. "A unique type of fully covered metal stent for the management of post liver transplant biliary anastomotic strictures." *BMC gastroenterology* vol. 20,1 329. 7 Oct. 2020.