Unusual complication of a Plastic Double Pigtail Cystogastrostomy Stent causing Muscular Injury

Paul Hong MD[1], Ingrid Schwartz MD[2], Nikhil Shastri MD[2], Abdul Haseeb MD[2]
[1]Department of Internal Medicine, Loyola University Medical Center, [2]Division of Gastroenterology and Nutrition, Loyola University Medical Center

Introduction

- Complications of plastic stents placed across the cystogastrostomy (CG) tract include occlusion, retroperitoneal and tract site bleeding, migration, pressure erosion, and rarely, visceral perforations.
- Compared to metal lumen apposing stents, complications related to plastic stents are usually low.
- We present a case of a plastic CG stent eroding into the adjacent flank musculature.

Case Presentation

- A previously healthy 33-year-old man was admitted and treated for hypertriglyceridemia-induced necrotizing pancreatitis.
- One month later, walled-off necrosis (WON) has formed and patient underwent an EUS-guided CG tract creation using a lumen-apposing metal stent (LAMS) (**Fig 1**).
- Through the CG tract, direct endoscopic necrosectomy (DEN) and debridement was performed.
- During the procedure, 5 double pigtail (DP) plastic stents were placed to keep the CG tract patent **(Fig 2)**. After one week, LAMS was removed **(Fig 3).**

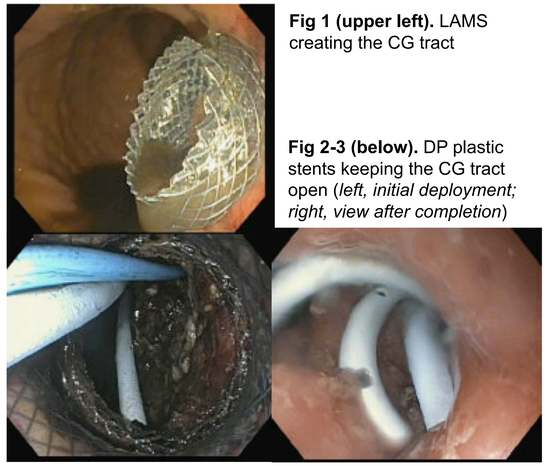

Fig 1 (upper left). LAMS creating the CG tract

Fig 2-3 (below). DP plastic stents keeping the CG tract open (*left, initial deployment; right, view after completion*)

Case Presentation, *cont*

- One year later, patient presented to the ER with a left sided flank and abdominal pain.
- CT A/P w/ cont showed a minimal residual CG tract extending inferiorly along the left paracolic gutter. However, adjacent to the CG stent, punctate air foci with fat stranding along the flank musculature were noted **(Figure 4-5)**.
- These findings indicated stent-associated injury to the left iliopsoas muscle.
- Patient was admitted and underwent an endoscopic removal of all five DP plastic stents without complications.
- One month after the CG stent removal, patient had a complete improvement in symptoms.

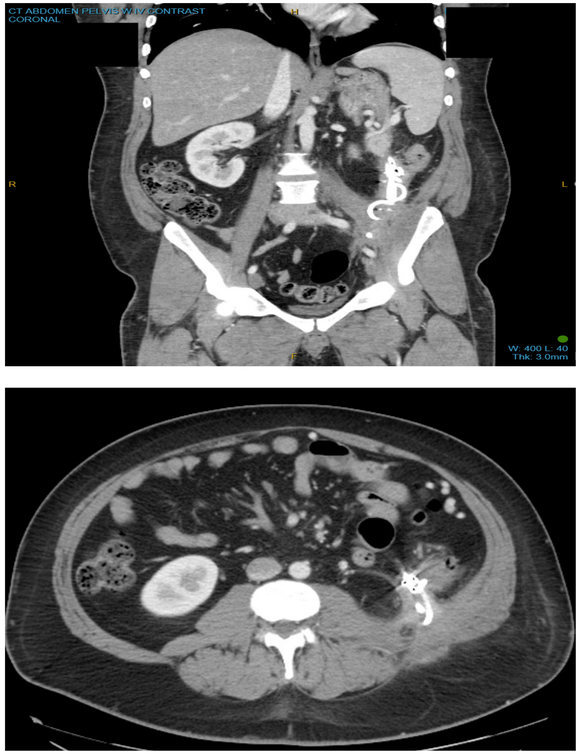

Figure 4-5 Coronal (top) and Axial (bottom) view of the CT A/P showing a CG DP plastic stent adjacent to the L flank musculature.

Discussion

- After initial LAMS placement to create the CG tract, it is now standard of care to maintain patency of the tract with multiple plastic stents. DP stents are used in such settings to avoid vascular injury in the necrotic tract.
- The double-end pigtails are designed specifically to prevent migration. The risk of migration is very low according to multiple studies' analyses of adverse events.
- Nonetheless, stent migration is an important differential diagnosis in patients with a history of stents presenting with abdominal pain and/or sepsis.
- There is no consistency in the retrieval methods of dislocated stents in the literature; in moderate cases, many experts opted for an endoscopic route and were successful.
- Although rare, gastroenterologists should be cognizant about such complications associated with plastic stents placed across CG tract.

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