A Case of Gastro-Colonic-Cutaneous Fistula in Patient with Crohn's Disease

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Introduction

- Crohn's disease is the most common cause of spontaneous gastrointestinal fistula formation in developed nations
- Risk of fistula formation following initial Crohn's diagnosis is 30% at ten years and 50% at twenty years[1,2]
- 54% of Crohn's fistulas are perianal, 24% enteroenteric, 9% rectovaginal, 13% involve other anatomic locations[2,3]
- More than half of Crohn's patients will develop fistula related complications requiring surgery[4]

Presentation

- A 54-year-old female with Crohn's disease presented to the emergency department with three months of an enlarging right upper abdominal mass and worsening pain
- Patient had biopsy proven Crohn's disease for greater than twenty years, not on consistent maintenance therapy, and had acute flares treated with prednisone
- Imaging showed inflammation and an abscess in the right upper anterior abdominal wall with focal inflammatory changes and colitis involving the hepatic flexure of the colon, consistent with colo-enteric fistula (figure 1)
- Patient underwent operative drainage of acute abdominal wall abscess with a large cavity found extending down to muscle
- Discharged post operative day three and continued to have feculent drainage from her abdominal wound
- Seen by outpatient gastroenterology, given one dose of adalimumab and started on prednisone
- Also seen in colorectal surgery clinic and scheduled for a delayed robotic assisted laparoscopic right colectomy five months after initial presentation

Operative Description

- Standard docking of da Vinci Xi robot, lysis of adhesions, and takedown of colo-cutaneous fistula completed to restore normal anatomy
- Ascending and transverse colon were mobilized via a medial to lateral dissection
- Ileocolic vessels were taken with 60mm robotic stapler and the distal ileum was divided proximal to the fold of Treves with a robotic stapler
- Decision to convert to open procedure was made due to the difficulty and time spent trying to free the extremely inflamed and bulky transverse colon from the duodenum
- The terminal ileum, ascending and transverse colon were extra-corporealized



Figure 1

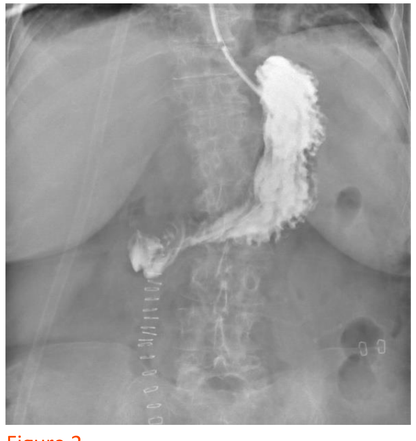


Figure 2

- A colo-gastric fistula was visualized and a portion of the greater curvature of the stomach was mobilized via an Enseal Tissue Sealer device
- 75mm green load linear GIA stapler was used to resect a portion of the greater curvature of the stomach
- A distal transection point on the mid transverse colon was identified, the colon was divided with 75mm stapler, and mesentery was then taken with Enseal device
- An isoperistaltic ileocolic anastomosis was created with 75mm green load stapler and the common enterotomy was closed with 2-0 Stratafix suture in two layers without obvious leak

Post Operative Course

- On post operative day (POD) 1 patient received two units of blood for hemoglobin 6.7 g/dL with appropriate response
- Patient also underwent upper gastrointestinal series which showed partial gastrectomy with no extravasation (figure 2)
- Patient required significant pain control and her post operative course was complicated by ileus, stool incontinence, and reactive leukocytosis
- Diet was slowly advanced, and patient was stable for discharge on POD10
- Patient followed up as an outpatient on POD17 and was doing well at that time with improved pain and bowel control
- Final pathology showed chronic active enteritis and colitis with transmural lymphoid aggregates, fibrosis, ulceration, serositis and colo-gastric fistula consistent with Crohn's Disease

Conclusions

- There are less than 100 documented cases of colo-gastric fistulas in Crohn's patients since the first case was described in 1948[5]
- This case is an unusual presentation of a colo-gastric fistula due to an involved cutaneous portion as well
- Our approach to this complex fistula involved a two-staged procedure to address the acute cutaneous abscess and then delayed resection of the colon, greater curvature of the stomach, and cutaneous portions involved in the fistula

Reference

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