Large Bowel Obstruction Secondary to Cecal Volvulus With an Incidental Finding of Small Bowel Intussusception: Are two anastomoses safe?

INSIGHT HOSPITAL & MEDICAL CENTER TRUMBULL

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Introduction

Patients with multiple small and large bowel pathologies requiring a dual resection with two anastomoses are an increased risk of morbidity and mortality rates. Determining whether to perform a diverting colostomy, diverting loop, or primary anastomosis can be difficult and making the wrong intraoperative decision can result in disastrous consequences.

Background

Possible complications include anastomotic leaks, fistulas, and infections due to a failed bowel anastomosis. Patient comorbidities and clinical status are out of a surgeon's control, but the operative technique and decision making is within the surgeon's control. There are various options to create an anastomosis but no one technique has prevailed.

Aims

To highlight the safest approach in an acute abdomen requiring two separate bowel resections with two separate primary anastomoses.



Figure 1. Cecum measuring 8.1cm.

Patient Presentation

56-year-old female with unremarkable PMHx presented to the ED with abdominal pain associated with nausea, vomiting, and bloating with distention and an inability to tolerate her diet for four days. She denied medication changes, laxative, anticholinergics, antipsychotic, and pain medication use. Labs on presentation were unremarkable outside of a mild leukocytosis of 11.8. Vitals were all within normal limits. CT findings were consistent with a large bowel obstruction secondary to cecal volvulus requiring ileocecectomy with primary anastomosis. An unexpected challenge arose when a small bowel intussusception was found intraoperatively that ultimately required a small bowel resection with primary anastomosis in the index case.

Clinical Course

The patient underwent an exploratory laparotomy where intra-operative findings of an axial cecal volvulus was evident. Upon running the small bowel, a jejunal intussusception was identified with roughly 10cm of proximal bowel telescoping distally. Large adenopathy was palpated but there was no obvious lead point. The patient was vitally stable and no compromised ischemic, necrotic or threatened cecum, small bowel or mesentery was appreciated. An intra-operative decision was made to proceed with an ileocecectomy and small bowel resection with a stapled ascending colon-ileal side-to-side functional end-to-end primary anastomoses followed by a stapled jejunal-jejunal side-to-side functional end-to-end anastomoses.

Conclusion

Performing synchronized bowel anastomosis without establishing a diverting ileostomy or colostomy can be deemed a complicated procedure. In many intraoperative cases, the longevity of multiple anastomoses is dependent upon certain variables that are present at the time of the operation. Incorporating certain sterile conditions such as clean versus contaminated operating fields, and laparoscopic versus open surgical approach can alter the practicality of a successful synchronized anastomosis. In clean or clean-contaminated field with viable and non-compromised tissue, it is deemed acceptable to perform two separate primary anastomoses when required.

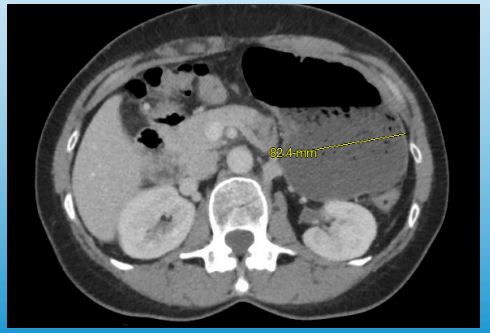


Figure 2. Dilated cecum with suspected closed-loop obstruction and moderate amount of free fluid within the lower pelvis.