Continuity of Care: A Case of Duodenocolonic Anastomosis in the Setting of Emergent Enterectomy

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INTRODUCTION

- Near total and total enterectomies are rare operations typically associated with prohibitively high morbidity and mortality, often resulting in “no gut” syndrome
  - Acute mesenteric ischemia
  - Trauma
  - Crohns
- Advances in perioperative care including refinements in surgical technique and parenteral nutrition protocols have significantly improved survival in select patients
- Long-term complications of parenteral nutrition and the consequences of colonic disuse have driven the exploration of novel reconstructive approaches to the re-establishment in bowel continuity

BACKGROUND

- In near total enterectomies, post operative surgical reconstruction and surgical management are rarely discussed
  - An effort to reduce the effects of long-term malabsorption and further intestinal failure from extended total parenteral nutrition usage should be made
- We herein present a case of an emergent near total enterectomy in the setting of extensive small bowel volvulus followed by
successful duodenocolic anastomosis

CASE REPORT

- A 69-year-old female with a past medical history of hypertension and a past surgical history of cholecystectomy and exploratory laparotomy with lysis of adhesions presented with severe abdominal pain, nausea, and vomiting
  - Laboratory studies revealed leukocytosis and lactic acidosis
  - Vital signs concerning for tachycardia and labile blood pressure
  - Given progressive hemodynamic instability, the patient was taken emergently to the operating room for an exploratory laparotomy
- Index Operation
  - Immediately noted that small bowel, from the ligament of Treitz to the terminal ileum, was necrotic and malodorous due to complete volvulus around stalk of mesentery
  - Small bowel resection from between the fourth portion of the duodenum and the terminal ileum.
  - The patient was left in discontinuity, closed temporarily, and was transported to the intensive care unit.
- Take Back Operation
  - Brought back to the operating room 2 weeks after index surgery
  - Extensive adhesions to the retroperitoneum were carefully lysed to proceed with a Kocher maneuver
  - Hepatic flexure and right colon were then fully mobilized
    - Hepatic flexure was noted to fall adjacent to the second and third part of the duodenum without tension
  - Approximately 2 cm duodenotomy and 2 cm colotomy were fashioned, and a handsewn side-to-side anastomosis was fashioned with interrupted 3-0 Vicryl sutures

IMAGING

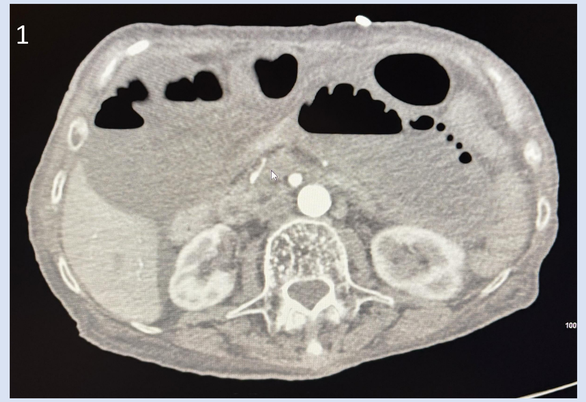

Figure 1. CT of the abdomen and pelvis showing high grade small bowel obstruction with occlusion of the superior mesenteric artery

CONCLUSION

- By re-establishing bowel continuity, this patient was discharged from the hospital requiring only minimal supplemental nutrition, thus illustrating how modern surgical advances and novel techniques can expand the limitations of what is possible in intestinal reconstruction

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