ACUTE ABDOMEN CHALLENGE: PERFORATED SIGMOID DIVERTICULITIS WITHIN A STRANGULATED INGUINAL HERNIA

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Background

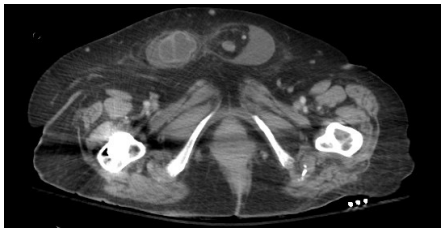
- Perforated diverticulitis and strangulated inguinal hernias are two common pathologies within the broad differential of acute abdomen presentations. The general surgery resident should be well versed in the overall assessment, diagnostic investigations, and clinical and operative decision-making regarding management of these disease processes. A layer of complexity is added in the situation when patients truly have multiple pathologies leading to their acute clinical state. Very few cases have been reported of perforated diverticulitis contained within an inguinal hernia sac [1]. Here we present a rare case of perforated diverticulitis within a strangulated inguinal hernia and add to the literature regarding these difficult clinical scenarios for which multiple treatment options exist. This case was made even more complicated with its location adjacent to a ventral hernia that was previously repaired with mesh.

Case History

- An 80-year-old female presented to the ED with abdominal pain, nausea and vomiting. CT imaging was significant for a large right inguinal hernia containing a loop of bowel, adjacent to a recurrent ventral hernia previously repaired with synthetic mesh, and evidence of an early small bowel obstruction without a transition point. On physical exam, the patient had palpable bilateral inguinal hernias that were reducible on admission, however 48 hours of non-operative management she failed to progress. Repeat CT imaging was concerning for high grade SBO with a transition point in the RLQ, within the hernia sac, as well as development of new free fluid. She was taken to the operating room for exploratory laparotomy, extensive adhesiolysis, the right inguinal hernia sac contained sigmoid colon with diverticular perforation. A small bowel resection, right hemicolectomy and Hartmann's procedure were performed. The right inguinal hernia and ventral hernias were repaired primarily, and the fascia was closed with absorbable suture in addition to retention sutures. The previously placed synthetic mesh was not grossly contaminated during this operation and therefore was not removed prior to closure. Her hospital course was otherwise unremarkable however prolonged by patient's deconditioned state. She was discharged to a long-term assisted care facility on hospital day 42.

Figures

- Figure 1: Computer tomography demonstrating right inguinal hernia with associated small and large bowel.



- Figure 2: Portion of hernia sac contents, including perforated diverticulum.

Discussion

- Perforated diverticulitis within a strangulated hernia is a rare entity for which only a few cases have been reported in the literature [2]. In addition to careful assessment of the patient, optimization of attempts at nonoperative management should be employed. These include appropriate fluid resuscitation, correction of electrolytes and other laboratory derangements, bowel decompression and rest, and "gastrograffin challenge" when possible [3]. In the event that the patient fails nonoperative management, several strategies should be utilized in the operating room. Careful assessment of the patient's anatomy, meticulous and thorough adhesiolysis, and consideration of the various options regarding bowel resection, reconstruction, and diversion are all ultimately driven by the surgeon's judgment and decision making [4]. In our case, two different regions of the gastrointestinal tract contributed to the patient's overall physiology: the perforated sigmoid diverticulum and the adhered and ischemic small bowel all leading to bowel obstruction. Our patient's good outcome is multifactorial: she had an early and appropriate attempt at nonoperative management, a timely transition to operative management when her condition changed, and thoughtful consideration of various approaches to her intraabdominal pathology. This case further highlights the importance of multidisciplinary decision making when rare and complex operative situations arise. These discussions provide additional opportunities for thoughtful discussion and education aimed at providing the best possible outcomes for challenging cases.

References

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