PERFORATED SIGMOID DIVERTICULITIS WITHIN A STRANGULATED INGUINAL HERNIA

Christen E. Chaconas, MD; Patrick D. Melmer, MD; Aaron D. Pinnola, DO; Isabella C. Moncada, DO, MS



Background

- Perforated diverticulitis and strangulated hernias are two common pathologies for acute abdomen
- Very few cases of perforated diverticulitis contained within strangulated inguinal hernia

Patient Presentation & Clinical Course

History of Present Illness:

- 80 yo F presented to ED with complaints of acute abdominal pain, nausea and vomiting
- CT imaging significant for large right inguinal hernia containing loop of bowel, adjacent to both sigmoid colon and a recurrent ventral hernia previously repaired with synthetic mesh. Evidence of early small bowel obstruction without transition point

Pertinent Physical Exam:

- Stable vital signs, no peritoneal signs
- Bilateral, reducible inguinal hernias

Clinical Course:

- Patient admitted to surgical floor with plans for nonoperative management with bowel rest, serial abdominal exams and nasogastric tube decompression
- Failed to progress after 48 hours of nonoperative management
- Repeat CT imaging concerning for high grade obstruction with transition point in right lower quadrant within hernia sac (Fig 1.)
- Patient taken to operating room for exploratory laparotomy
- Entry into abdomen required dividing previously placed mesh
- Extensive adhesiolysis performed, sigmoid colon adhered to right inguinal region
- Hernia sac explored and found to have a large perforated diverticulum
- Loop of distal ileum near ileocecal valve also adhered with evidence of ischemia

Images



• Figure 1: CT image demonstrating right inguinal hernia with associated small and large bowel



• Figure 2: Perforated sigmoid diverticulum within hernia sac

Clinical Course Continued

- Ileocolonic resection and sigmoidectomy performed, patient left in discontinuity with temporary dressing in place due to hemodynamic lability requiring resuscitation in ICU
- On takeback to OR, ileocolonic anastomosis and descending end colostomy were performed as well as primary repair of hernia
- Previously placed mesh left in place due to no contamination
- Abdomen closed in normal fashion and retention sutures placed
- Postoperative course uncomplicated but prolonged due to deconditioning and overall state of health
- Patient discharged to long-term assisted care facility on hospital day

Discussion

- Careful assessment of patient's anatomy, meticulous adhesiolysis and consideration of options regarding bowel resection, reconstruction and diversion are surgeon's judgement
- In this case, right inguinal hernia was repaired primarily with tissue-based repair as temporizing measure due to gross contamination
- Mesh repair can be performed in the future for definitive repair
- Left inguinal hernia repair was deferred as it was uninvolved and could be addressed with mesh in the future as well
- Patient's good outcome is multifactorial: had early and appropriate attempt at nonoperative management, timely transition to operative management once condition changed, and thoughtful consideration of various approaches
- This case further highlights the importance of multidisciplinary decision making when rare and complex operative situations arise

References

- •Kouraklis G, Glinavou A, Andromanakos N, Karatzas G. Perforation of a solitary diverticulum of sigmoid colon in an incarcerated scrotal hernia. Dig Dis Sci. 2004 May;49(5):883-4.
- Piszker AJ, Lee YF, Roberts JE, Cleary RK. Perforated diverticulitis of the sigmoid colon contained within an inguinal hernia sac. BMJ Case Rep. 2019 May 6;12(5):e227990.
- •D'Agostino R, Ali NS, Leshchinskiy S et al. Small bowel obstruction and the gastrografin challenge. Abdom Radiol. 2018 Nov;43(11):2945-2954.
- Feingold D, Steele SR, Lee S et al. Practice parameters for the treatment of sigmoid diverticulitis. Dis Colon Rectum. 2014 Mar;57(3):284-94.

