Sclerosing Encapsulating Peritonitis: A Rare Cause of Bowel Obstruction

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Abstract

Sclerosing encapsulating peritonitis (SEP), also referred to as abdominal cocoon syndrome is a rare cause of bowel obstruction characterized by a thickened fibrous peritoneum that encapsulates the intestines. The exact etiology is idiopathic but may be associated with long term peritoneal dialysis (PD). In the absence of risks factors for adhesive disease, pre-operative diagnosis can be difficult and may require operative intervention or advanced imaging to diagnose. Thus, inclusion of SEP in the differential diagnosis for bowel obstruction is essential for early detection. Existing literature is focused on renal disease as an origin, but it can be multifactorial. Here, we discuss a case of sclerosing encapsulating peritonitis in a patient without known risk factors.

Image Findings

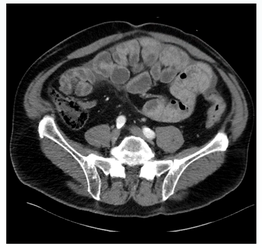

Figure 1. CT abdomen pelvis with IV contrast

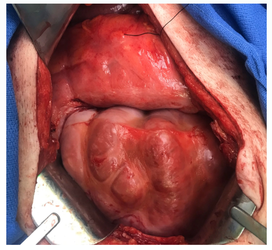

Figure 2. Fibrous coating of the small bowel

Case

- 67-year-old male with a history of COPD, hypertension, CAD, previous stroke, and T2DM presented with severe, diffuse abdominal pain, nausea and vomiting
- Abdomen was distended and tympanic with no peritoneal signs
- Imaging was consistent with small bowel obstruction
- A NG tube was placed with 1600 cc of bilious output over the first 24 hours.
- After copious flatulence, a normal small bowel follow through with contrast in the colon, and multiple bowel movements, the patient was discharged home.
- 2 months later the patient presented with similar symptoms.
- CT abdomen pelvis with IV contrast noted “several small bowel loops in the mid to lower abdomen appearing to be grouped together around central mesenteric vessels.” (Figure 1)
- The patient was taken to the operating room for exploration. Upon gaining laparoscopic access, a large mass of small bowel was noted, and vision of the remaining abdominal structures was impaired.
- Peritoneal lining was noted to have a smooth white coating and several nodules were found on the liver. At that time, we converted to an open procedure.
- Small bowel from the ligament of Treitz to the terminal ileum was found to be adherent to itself with a fibrous coating resembling peritoneal lining (Figure 2).
- The decision was made to place a decompressive gastrostomy tube and the operation was completed.
- On post operative day 1, a repeat small bowel follow through showed normal transit of contrast to the colon.
- The gastrostomy tube was clamped on post operative day 3 and the patient’s diet was advanced as tolerated.
- Per oncology recommendations, the patient was then discharged home on hospital day four on tamoxifen 20mg twice daily and an extended prednisone taper beginning at 100mg every day for one month followed by a yearlong taper.
- A referral was made to a tertiary care center for further management where exploratory laparotomy for lysis of adhesions was recommended.
- Unfortunately, the patient's comorbid conditions were determined to be prohibitive, and no further intervention has been performed to date.

Discussion

This case highlights an incidence of a rare disease in the absence of known risk factors. It remains critical to the General Surgeon that a high index of suspicion be exhibited when managing recurrent small bowel obstructions without surgical history or evidence of hernias. Conservative management can be attempted in a rural setting while reserving operative intervention for facilities with extensive experience managing the patient’s disease and postoperative care. Lastly, placement of a decompressive gastrostomy tube has not been described, but it has allowed our patient to manage symptoms of distention and emesis without requiring hospitalization admission. It should therefore be considered whenever SEP is encountered, particularly when co-morbid conditions may be prohibitive of more invasive intervention.

References

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