

Introduction

Ventral hernia repairs are one of the most performed surgical interventions, with low overall complication rate of 15 percent of cases. Complications with wound healing account for over half of all complications associated with ventral hernia repairs. There is a risk, albeit low, of other such complications including enterectomy, intra-abdominal infections, and mesh erosion into surrounding structures. We present a case of a 73-year-old male who presented to the hospital with a history of abdominal pain of one week duration. The patient was originally diagnosed with an abdominal wall abscess and recurrent hernia. Upon exploration of the abdominal cavity, it was noted that the mesh from previous ventral hernia repair had eroded into the lumen of the small bowel, requiring small bowel resection for removal of mesh and repair of hernia. Ventral hernia repairs are relatively safe, and complications of mesh erosion into the lumen of the small bowel are extremely rare, with minimal cases reported. This case highlights a rare complication associated with ventral hernia repairs, and importance of early recognition and appropriate repair when complications are found.

Brief History

- 63-year-old male
- Past Medical History
 - Umbilical hernia repair with mesh >10 years prior
- Presented with right abdominal pain for 2 weeks
- Hypotensive, WBC 17, LA 2.6
- CT showing right sided abdominal wall abscess with intraperitoneal extension
 - Concern for fistulous connection to ileum
- Underwent IR drain placement and IV antibiotic management
- Scheduled for outpatient laparotomy, hernia repair and probable small bowel resection

Imaging

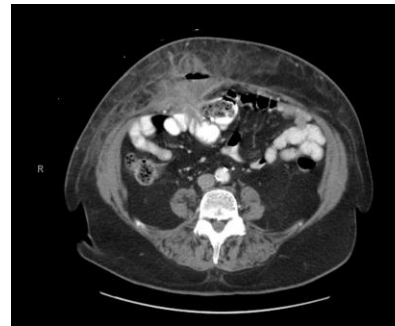


Figure 1. CT showing large abdominal wall abscess with intra-abdominal extension



Figure 2. CT post IR drain placement demonstrating possible fistulous small bowel connection to abscess cavity

Operation

The patient was brought to the operating room and general anesthesia was induced. After induction, the pigtail drain was removed. A midline incision was made over the hernia defect and intraperitoneal access was gained. Extensive adhesions were noted upon entry and carefully lysed to allow further inspection. On exploration of the abdominal cavity, it was noted that a loop of small bowel was densely adherent to the abdominal wall where the prior mesh was placed. An attempt was made to free this loop of bowel from the abdominal wall but during dissection it was noted that the mesh had eroded into the lumen of the small bowel.

Operation

Mesh explantation and partial resection of peritoneum was required to dissect small bowel from the abdominal wall. Once the small bowel was dissected entirely away from the abdominal wall, the involved portion of the small bowel was resected, and hand-sewn anastomosis was completed. The hernia sac was resected until fascia alone was at the edges of the incision. The midline abdominal incision was closed using a figure eight interrupted sutures. The skin was closed with staples.

Clinical Course

- Early return of bowel function and advancement to regular diet
- Pain adequately controlled on PO medications
- No postoperative wound healing complications
- No signs of hernia recurrence
- Path reported as small bowel with adherent mesh

Discussion

- Cases of mesh growing into visceral organs are extremely rare, and only a handful of cases have been reported.
- The mechanism of how mesh erodes into visceral organs, such as the small bowel, in this specific case, is unknown.
- The largest difficulty of diagnosing a mesh erosion into visceral organs is that imaging typically does not bring mesh integration into visceral organs into the differential.
- Bladder and bowels being the most affected visceral organs in the limited number of cases published.
- Operative exploration was the method of definitive diagnosis in all the above cases, including our own.
- It is essential to recognize mesh erosion as a part of the differential diagnosis when patients present with intraabdominal abscesses and mesh infections of previously repaired hernia sites