Complications of Infected Ventral Hernia Mesh

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Background

Hernia repair using mesh is commonly associated with lower recurrence rates of hernias, but significant complications, such as infection, can occur. This case involves a 51-year-old female who developed an infected mesh afterr ventral hernia repair. The infection subsequently led to a small bowel fistula, necessitation surgical intervention and bowel resection.

Procedure

During diagnostic laparoscopy, dense adhesions between the small and large bowel and the umbilicsl area were observed. Extensive lysis of adhesions freed the colon and loops of small bowel. Continued dissection exposed a large pus pocket and a portion of the polypropylene mesh. Further lysis revealed mucosa of the small bowel, indicating a fistula between the bowel and mesh. The bowel was resected in three locations, followed by primary side-to-side anastomosis. The anterior abdominal wall was debrided, the fistula tract removed, and a wound vacuum device placed. Two days later, the patient was taken back for diagnostic laparoscopy for fever and tachycardia. It confirmed no leaks at the anastomosis site and a JP drain was placed as there was over 500 mL of purulent peritoneal fluid. The patient was discharged on postoperative day fourth with complete return of bowel function and with oral antibiotics.

Methodology

The patient presented for elective removal of infected ventral mesh 6 years after original hernia repair. Her extensive surgical history included cesarean section, laparoscopic appendectomy, umbilical hernia repair with mesh, hysterectomy complicated by periumbilical trocar site hernia with repair, and extracorporeal shockwave lithotripsy for ureteral and renal calculi. The patient reported chronic drainage from a wound below the umbilicus, which developed shortly after her lithotripsy.

CT imaging revealed a heterogenous phlegmonous collection containing air along the prior ventral hernia repair site, extending to the skin surface. The collection measured approximately 5.3 x 3 cm, while mild surrounding inflammation.

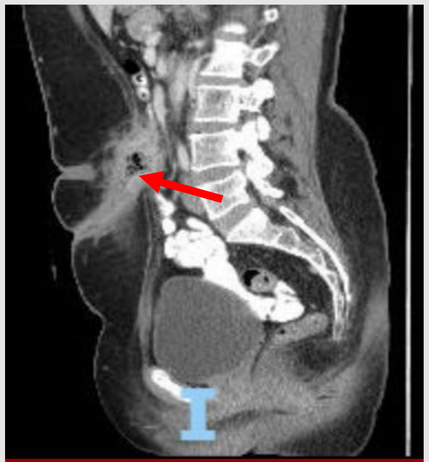


Figure 1A



Figure 1B

Figure 1A: Arrow to heterogeneous phlegmonous air containing collection along the site of prior ventral hernia repair extending to the skin surface with mild surrounding inflammation roughly measuring 5.3 x 3 cm in the axial plane and extends along the tract to the skin surface spanning about 9 cm **Figure 1B:** Arrow to interval development of abdominal wall 2.5 x 1.7 x 3 cm rim-enhancing fluid collection compatible with abscess s/p explantation of infected mesh.

Results/Conclusion

Ten days later, the patient returned with left sided abdominal pain. She was discharged on day two with oral antibiotics. At follow-up, the patient was doing well and symptom-free.

This case highlights the severe complications that can arise from mesh-related hernia repairs, such as infections and fistula formation. Despite the complexity of the case, timely surgical intervention and diligent follow-up care led to the patient's successful recovery. The case underscores the need for vigilant postoperative monitoring and patient compliance to mitigate the risk of further complications associated with mesh use.

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