ORAL FLORA AS A CAUSE OF PROSTHESIS INFECTION DURING HERNIA SURGERY

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INTRODUCTION

- Mesh reduces hernia recurrence, but carries a 1%–8% infection risk influenced by comorbidities, mesh type, and surgical technique.

METHODS

- 67-year-old female with prior appendectomy, hernia repair, and colon resection, but no history of diabetes, smoking, or active infection, underwent elective incisional hernia repair with a 36cm × 12cm macroporous polypropylene mesh in the retrorectus plane.
- On POD 20, she presented with nausea, weakness, and 5 days of abdominal pain. Exam showed healed incisions without cellulitis.
- CT revealed a 25cm abdominal wall collection with no intraperitoneal or subcutaneous involvement. BP 150/80 mmHg, HR 104 bpm, Temp 97.6ºF, WBC 12K/uL, normal electrolytes and renal function.
- Urgent OR washout removed 1.2L of purulent fluid; mesh was found floating with biofilm formation and was excised.

RESULTS

- Microbiology Findings: Cultures grew Prevotella and Actinomyces.
- Secondary Source of Infection: A week later, the patient recalled a mild chronic tooth infection, though a dental exam showed no active infection. Given the orogenital flora involvement, it was hypothesized that bacteremia from the tooth infection seeded the seroma.
- Treatment & Outcome: Multiple washouts with negative pressure wound therapy were performed. The patient was treated empirically with Cefpodoxime and Metronidazole, then transitioned to a 1-month course of Doxycycline.

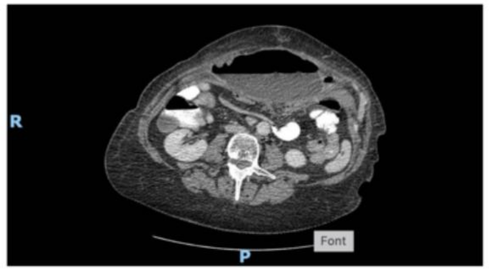


Figure 1: Axial view depicting abscess with air collection

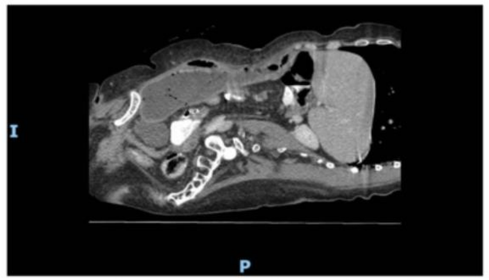


Figure 2: Sagittal view depicting abscess with air collection

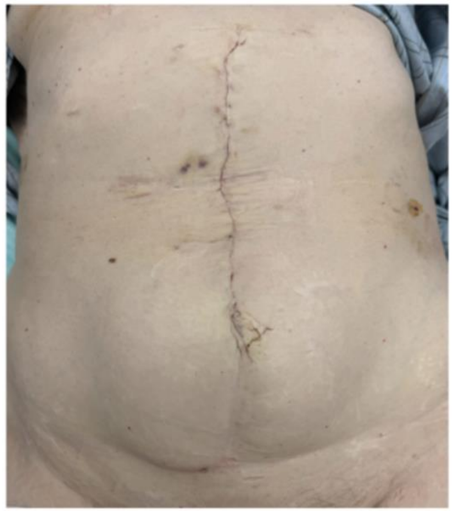


Figure 3: Coronal view depicting gross image of abscess

CONCLUSION

- Mesh Infection as a Major Complication: Infection remains a serious concern after hernioplasty, often requiring mesh removal and prolonged treatment.
- Current Infection Control Measures: Efforts focus on reducing infections from the skin and GI tract, but oro-genital flora is rarely considered.
- Underrecognized Risk: This case highlights a rare mesh infection from an asymptomatic tooth infection, likely due to bacteremia.
- Future Implications: Further studies and potential preoperative dental screenings may help prevent similar infections and improve surgical outcomes.