

Purpose

Discuss management of rapid, symptomatic expansion of a known abdominal aortic aneurysm with negative work-up representing primary aortoenteric fistula in an incarcerated patient.

Presentation

62-year-old incarcerated male with past medical history of tobacco use, hypertension with known asymptomatic 5.5cm infrarenal abdominal aortic aneurysm. Patient experienced multiple delays in follow-up due to incarcerated status.

While undergoing work-up for elective repair, patient presented with acute onset back pain and anemia with Hb 3.4. CTA now demonstrating 7.2 cm infrarenal AAA, concerning for rapid expansion.

Given symptomatic AAA with concern for impending rupture, patient underwent an emergent EVAR (Fig 1).

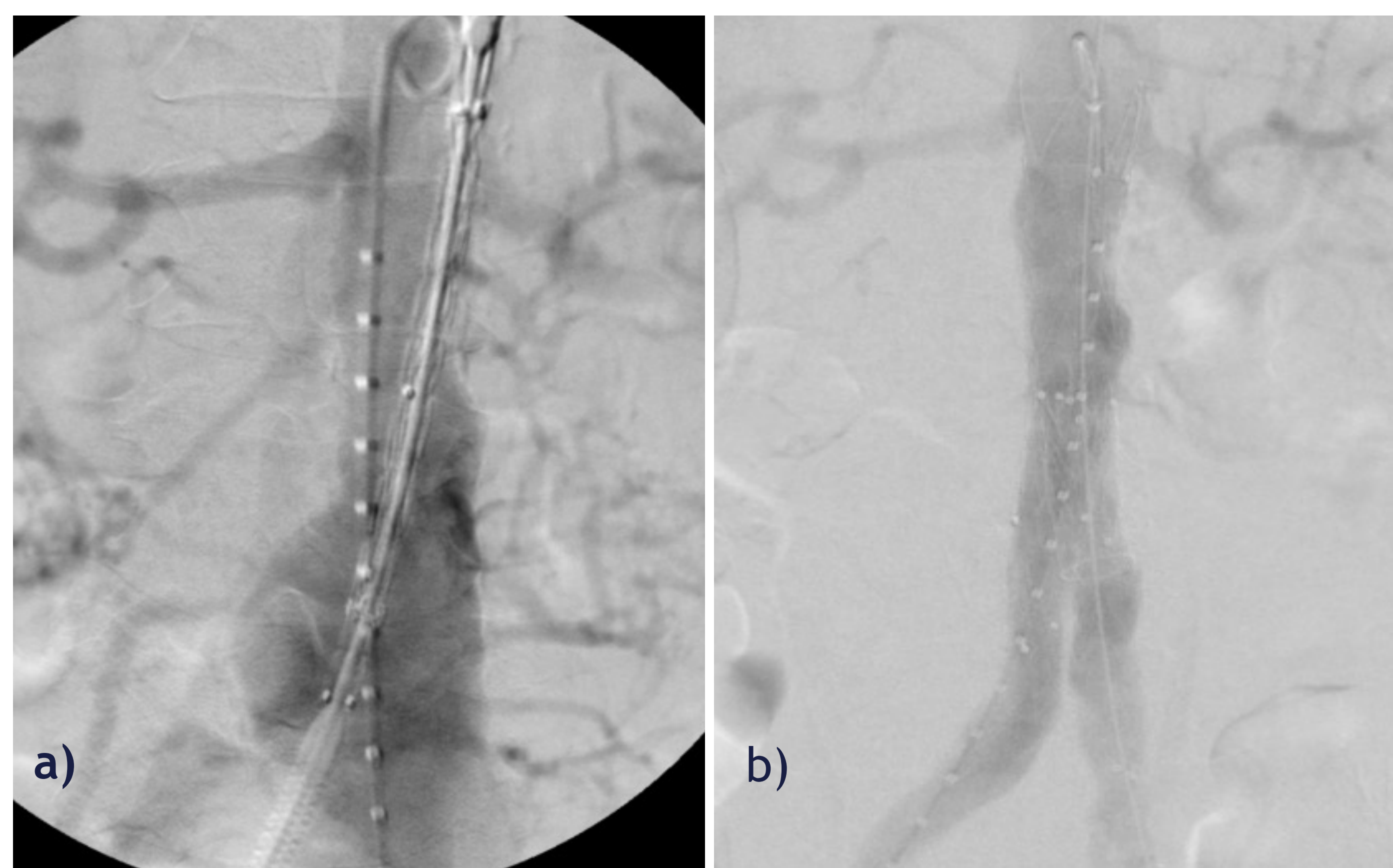


Figure 1. 7.2cm x 6.8cm AAA before (a) and after (b) emergent endovascular repair

With rapid expansion, work-up to rule out infectious etiology, including blood cultures, was negative. Anemia work-up including stool sample was also negative.

Presentation (cont)

Surveillance (2 months post-op)

- CTA found air around endograft, small bowel wall thickening anteriorly, periaortic lymph nodes (Fig 2)
- Patient admitted to hospital for further work-up
- Asymptomatic, no leukocytosis or anemia
- White blood cell scan correlated with CTA

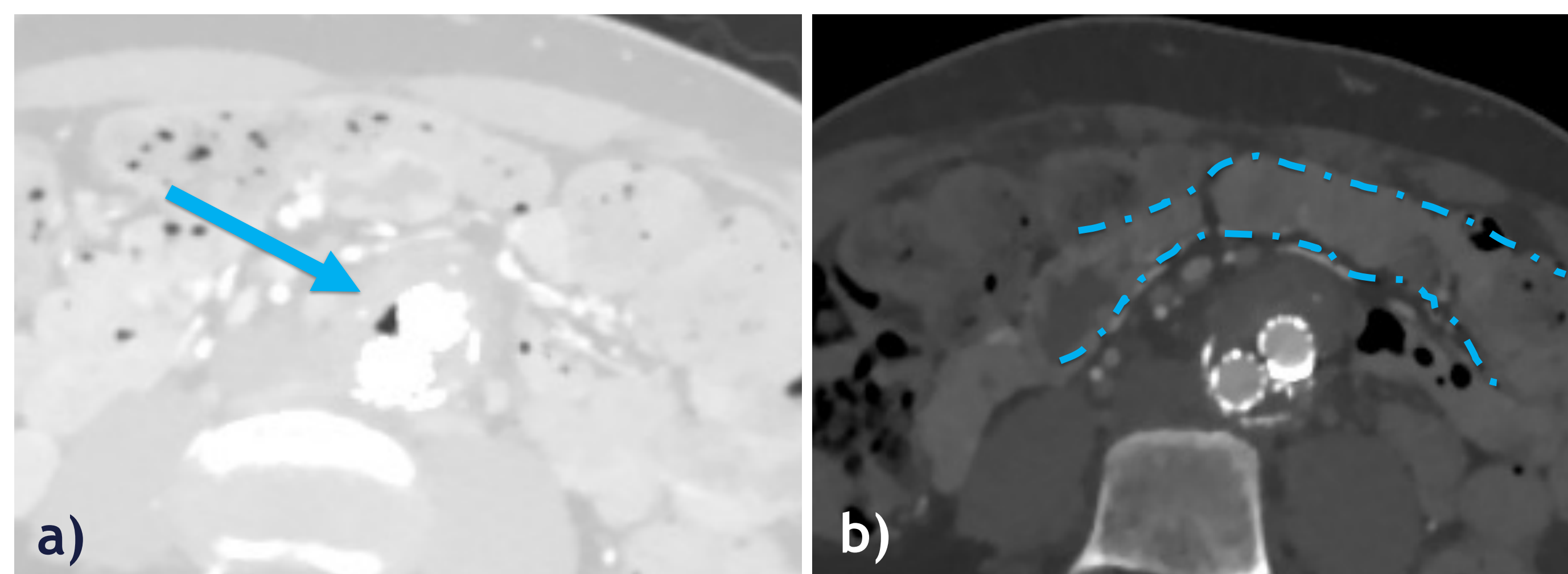


Figure 2. Surveillance CTA demonstrating air around endograft (a) and thickened bowel loops (b)

Given concern for graft infection with possible aortoenteric fistula, the patient was initiated on IV antibiotics and open surgical intervention was pursued.

Intervention

Midline laparotomy

- Segment of small bowel adherent to aneurysm wall, communicating with aneurysm sac (Fig 3)

Small bowel resection

- Resection, primary anastomosis by general surgery

Explantation of infected endograft

- Infrarenal clamp placement
- Aneurysm sac resected, purulent drainage near aortic wall defect
- Endograft explanted
- Infected native aorta, bilateral common iliac arteries resected

Intervention (cont)

Aortobiiliac bypass

- 18 x 9mm rifampin-soaked bifurcated Dacron graft
- Vancomycin beads in retroperitoneum
- Abdominal wall closure

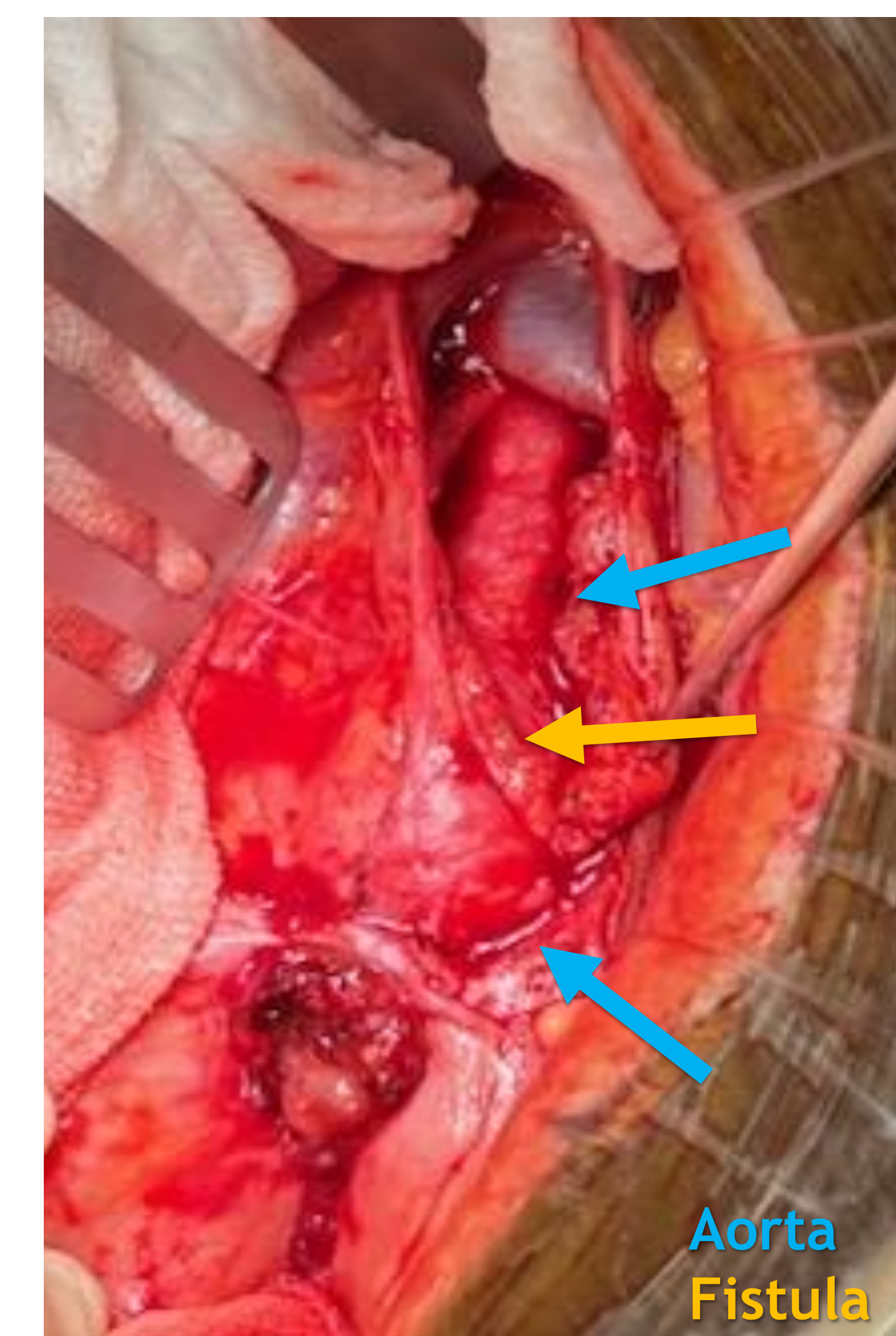


Figure 3. Small bowel (orange) adherent to aneurysm sac (blue) representing aortoenteric fistula prior to repair.

Intraoperative cultures positive for E. Coli. He recovered well and was discharged on Augmentin indefinitely.

Conclusion

This case represents a delayed diagnosis of a primary aortoenteric fistula due to negative work up on prior admission and inconsistent follow-up due to incarcerated status. The initial presentation, thought to be an impending rupture, likely represented progression of fistulization, with the endograft serving a temporizing measure. The explantation of the endograft and placement of antibiotic-soaked graft with long term antibiotic coverage will serve as definitive treatment.