DUODENOJEJUNAL PERFORATION COMPLICATING AORTO-BIFEMORAL BYPASS GRAFT: A CASE REPORT

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Learning Objectives

- Recognizing bowel perforation caused by aorto-bifemoral bypass (ABFB) is possible in any hollow visceral organ
- Identifying symptoms, conducting proper workup, and performing timely repair are essential to providing optimal care

Case Study

- 62 year old Male with a history of claudication of the bilateral lower extremities presented to the ED with a complaint of excruciating claudication of both lower extremities that occurred at rest
- Angiography revealed a right sided Transatlantic Inter-Society Consensus (TASC) II Type D Aortoiliac lesion and a left sided TASC II Type B Aortoiliac lesion
- A bilateral, uncomplicated, open ABFB procedure was performed with lysis of significant pelvic and abdominal adhesions
- On postoperative day 5, a CT imaging was obtained for abdominal pain and hemodynamic instability, which suggested bowel perforation
- He was taken back to OR - a 3 cm longitudinal laceration of the D4 duodenum was discovered and primarily repaired. The ABFB grafts were explanted and vessels primarily repaired
- A drain was placed and the patient was transferred to the ICU in stable condition

Figures



Image 1. CT imaging showing air and fluid in retroperitoneum along vascular graft tracking to left lower extremity (yellow arrows)

Discussion

- The most common complications of ABFB are associated with laparotomy or pelvic wounds [1]
- Bowel perforation is a complication of ABFB that requires urgent assessment and intervention. The mortality rate for such an event remains high, ranging from 13% to 16.9%, and can reach 40% in elderly patients [2, 3]
- Post-ABFB sigmoid and ileal perforations are rare, but have been reported [1]
- Management depends on the nature of the perforation, and whether visceral leakage has spread throughout the abdominal cavity
- Conservative management includes NPO, IV fluids, PPIs, and serial abdominal exams
- In an unstable patient with gross contamination, surgical management with primary repair or resection with anastomosis is recommended

Conclusion

- Bowel perforation following ABFB procedure is an unreported but significant complication
- Effective prompt workup is crucial for ensuring optimal care
- Emergent return to the operating room, repair of perforation and explantation of grafts is the priority in the unstable patient

References

- [1] PMID: 32284209
- [2] PMID: 15085996
- [3] PMID: 28119865