

# Complete Aortic Occlusion

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## Introduction

- ❖ Complete occlusion of the infra-renal abdominal aorta is a rare condition that can occur due to:
- ❖ new thrombus formation on an atherosclerotic plaque in the aorta or
- ❖ due to a thromboembolic event or dissection

## Case Presentation

- ❖ A 79-year-old male presents to the ER with acute onset of bilateral lower extremity weakness, cyanotic feet, as well as urinary and bowel incontinence
- ❖ The patient reports that he had stopped taking his clopidogrel yesterday for an excisional lip biopsy but had no concerns post-procedure; the procedure went well
- ❖ He went to bed as he normally does around 2100 hrs, and his wife found him sitting upright in bed around 0130 hrs unable to move his bilateral lower extremities as well as an episode of urinary and bowel incontinence
- ❖ He denied chest pain, shortness of breath, back pain, recent travel or any other symptoms
- ❖ Physical exam was remarkable for:
  - ❖ Unable to palpate bilateral femoral, dorsalis pedis, and posterior tibialis pulses
  - ❖ No rectal tone on exam
  - ❖ Decreased perineal sensation
  - ❖ Decreased sensation from knees distal bilaterally
- ❖ CTA abdomen pelvis was obtained, which revealed complete occlusion of the infrarenal abdominal aorta and common iliac artery stents felt to most likely be acute

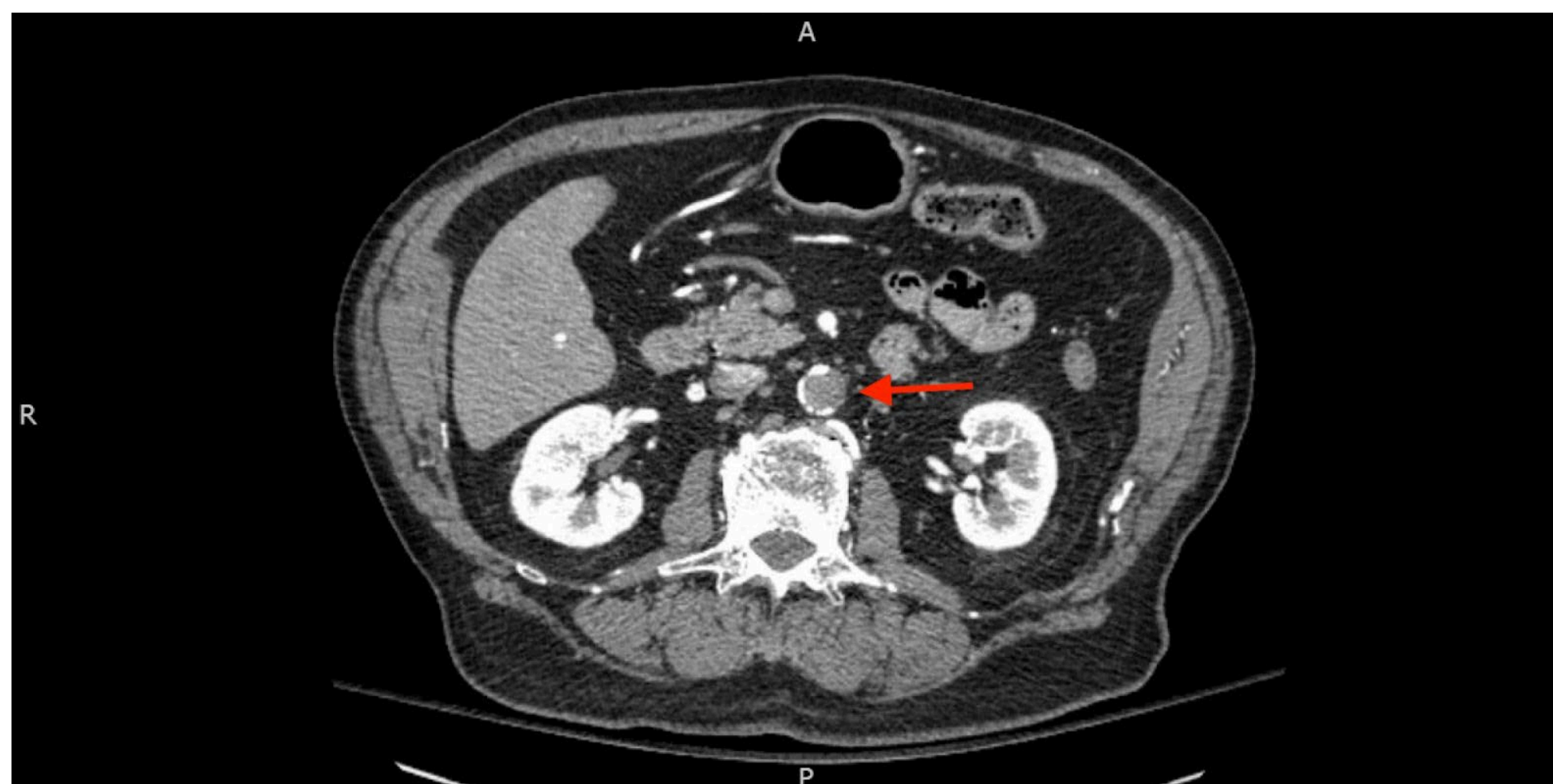


Fig. 1: CTA abdomen pelvis transverse plane



Fig. 2: CTA abdomen pelvis coronal plane

## Hospital Course

- ❖ The patient was started on a continuous heparin infusion and taken to the cath lab for emergent thrombectomy and percutaneous transluminal angioplasty of the aorta, bilateral iliac, right common femoral and stenting of the aorta and admitted to CCU post-operatively
- ❖ Hospital course was unremarkable, and he was discharged on apixaban and clopidogrel

## Discussion

- ❖ Complete occlusion of the infra-renal abdominal aorta is a rare condition and this diagnosis requires emergent consultation to a cardiac/vascular service for embolectomy, percutaneous transluminal angioplasty, or surgical bypass
- ❖ Risk factors include history of atrial fibrillation, dyslipidemia, prior cardiac surgery, myocardial infarction, cardiomyopathy, heavy tobacco use, and history of thrombosis / thromboembolic events
- ❖ Patients with an acute abdominal aortic occlusion can present with pain, pallor in lower extremities, loss of peripheral pulses, or lower extremity coolness
- ❖ They can also present with sensory or motor deficits
- ❖ The presence of neurologic symptoms significantly increases mortality
- ❖ In this case, the patient had lower extremity motor and sensory deficits as well as incontinence and decreased perineal sensation
- ❖ These symptoms are also consistent with cauda equina syndrome, therefore it is important to take a thorough history and keep a high index of suspicion for vascular conditions in patients with known risk factors.

## References

- Farber, M. A., & Parodi, F. E. (2022, June 14). *Abdominal Aortic Branch Occlusion*. Merck Manuals Professional Edition; Merck Manuals. <https://www.merckmanuals.com/professional/cardiovascular-disorders/diseases-of-the-aorta-and-its-branches/abdominal-aortic-branch-occlusion>
- He, X., & Hu, Y. (2013). Acute Total Occlusion of the Abdominal Aorta in an Elderly Patient with Atrial Fibrillation. *Aorta (Stamford, Conn.)*, 1(5), 255–256. <https://doi.org/10.12945/j.aorta.2013.13-039>
- Shaw, A., Anwar, H., Targett, J., & Lafferty, K. (2008). Cauda equina syndrome versus saddle embolism. *Annals of the Royal College of Surgeons of England*, 90(6), W6–W8. <https://doi.org/10.1308/147870808X303083>