

## LEARNING OBJECTIVES

Understand the pathogenesis of acute abdominal aorta thrombosis  
Review risk factors potentially including intravenous ferric gluconate

## CASE PRESENTATION

**Chief Complaint:** A 74-year-old man presented to the ED after developing severe abdominal pain and a syncopal episode after receiving an infusion of ferric gluconate.

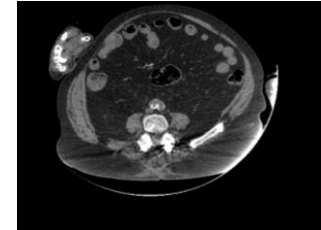
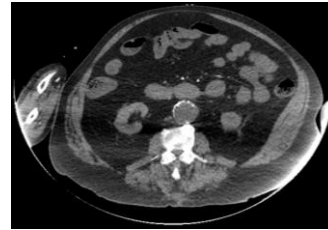
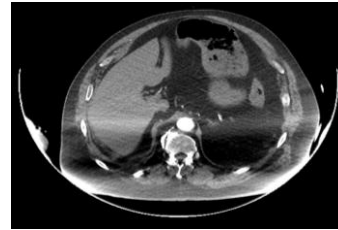
**HPI:** He was found on the floor of the bathroom in the outpatient infusion center after having received intravenous ferric gluconate. The patient was diaphoretic and initially was responsive. He remembered losing consciousness but no other details of the episode. He complained of sudden onset of severe (10/10), diffuse and sharp abdominal pain.

The patient was transported to the emergency department where he was found to be unresponsive, pale and hypoxic. Both lower extremities were cold and pulses were not palpable.

**PMH:** Hypertension, hyperlipidemia, non-insulin-dependent diabetes mellitus, chronic iron deficiency anemia, coronary artery disease, peripheral vascular disease, carotid artery stenosis and an abdominal aorta aneurysm.

**Physical Exam:** Temperature: 37.3°C, HR: 84, RR: 18, BP: 62/43, SPO<sub>2</sub> 100% on 15 L/min O<sub>2</sub>. Severe abdominal distention and tenderness were present.

**Laboratory Data:** WBC: 35.8, Hgb: 5.0, ABG: pH 7.20, pO<sub>2</sub> 58, HCO<sub>3</sub> 20, LA: 7.6, Troponin: 2.140



Figures A-E: Acute occlusion of the infrarenal abdominal aorta that shows an otherwise stable 4.3 cm aneurysm.

## IMAGING



## HOSPITAL COURSE

The patient was intubated, started on pressor support and underwent diagnostic laparoscopic and exploratory laparotomy, with findings consistent with infarction of the sigmoid colon.

This area was affected given the occlusion was above the inferior mesenteric artery. Femoral artery bypass grafting, bilateral lower extremity fasciotomy and sigmoid colectomy were performed.

## HOSPITAL COURSE (CONT'D)

The patient's course was further complicated by the development of multiple embolic strokes which were managed with heparin.

## DISCUSSION

- Acute aortic thrombosis is a rare disease described mainly in case reports.
- Predisposing factors include atherosclerosis, hypercoagulable states, malignancy, hyperviscosity, thrombocytosis and platinum-based chemotherapy and may occur either as a result of in situ thrombus formation or as the result of an embolic event.
- Our patient was receiving monthly ferric gluconate infusions for chronic iron deficiency anemia. Aside from the infusion there were no other obvious potential precipitating events and hence it was concluded that the event may have been precipitated by the ferric gluconate with his underlying abdominal aortic atherosclerosis being a predisposing factor.
- In support of this hypothesis there are some reports of thrombotic events occurring in patients receiving intravenous iron.

## CONCLUSION

We conclude that this patient's acute aortic occlusion may have been related to his receiving intravenous ferric gluconate in the setting of his having an atherosclerotic abdominal aorta with an aneurysm. Further study of a potential relationship between intravenous iron and thrombotic events seems warranted.