ASER 2022 Case of the Day: Non-Trauma

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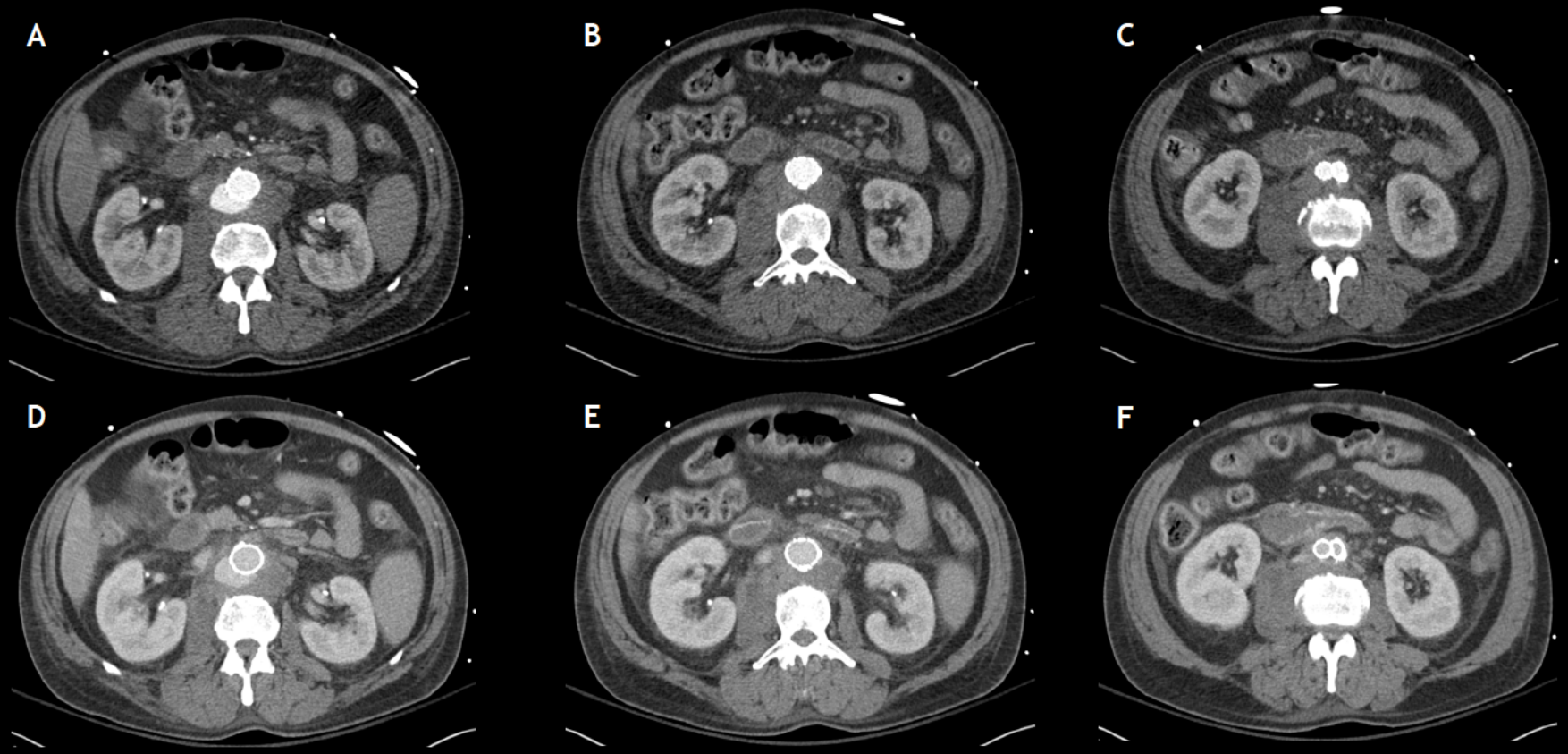
History:

- 57-year-old male with back pain, nausea, fever
- Active intravenous drug user
- Endovascular abdominal aortic repair performed 3 months prior

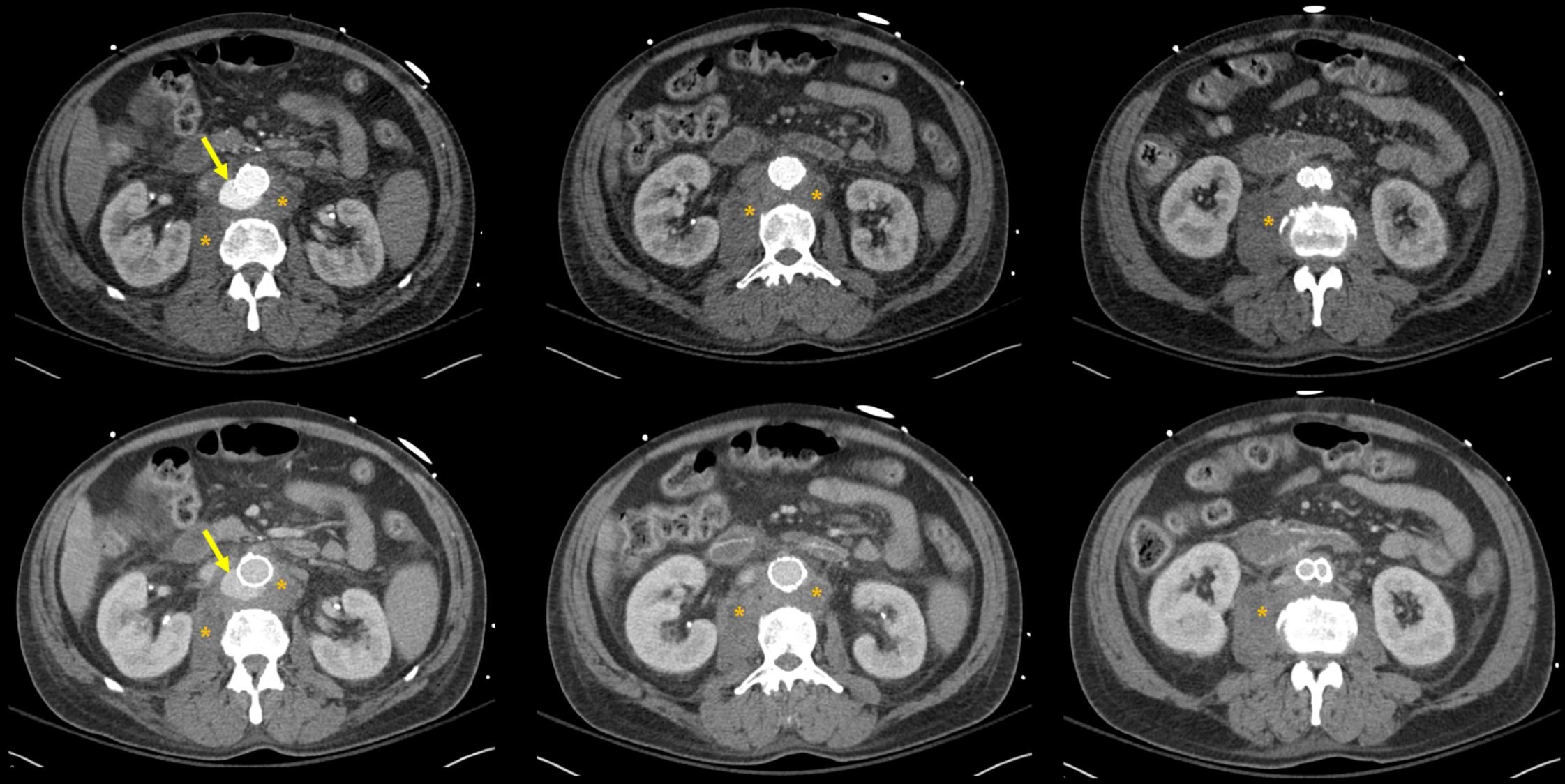


Arterial (A-C) and portal venous (D-F) phase CT images of the abdomen and pelvis with intravenous contrast

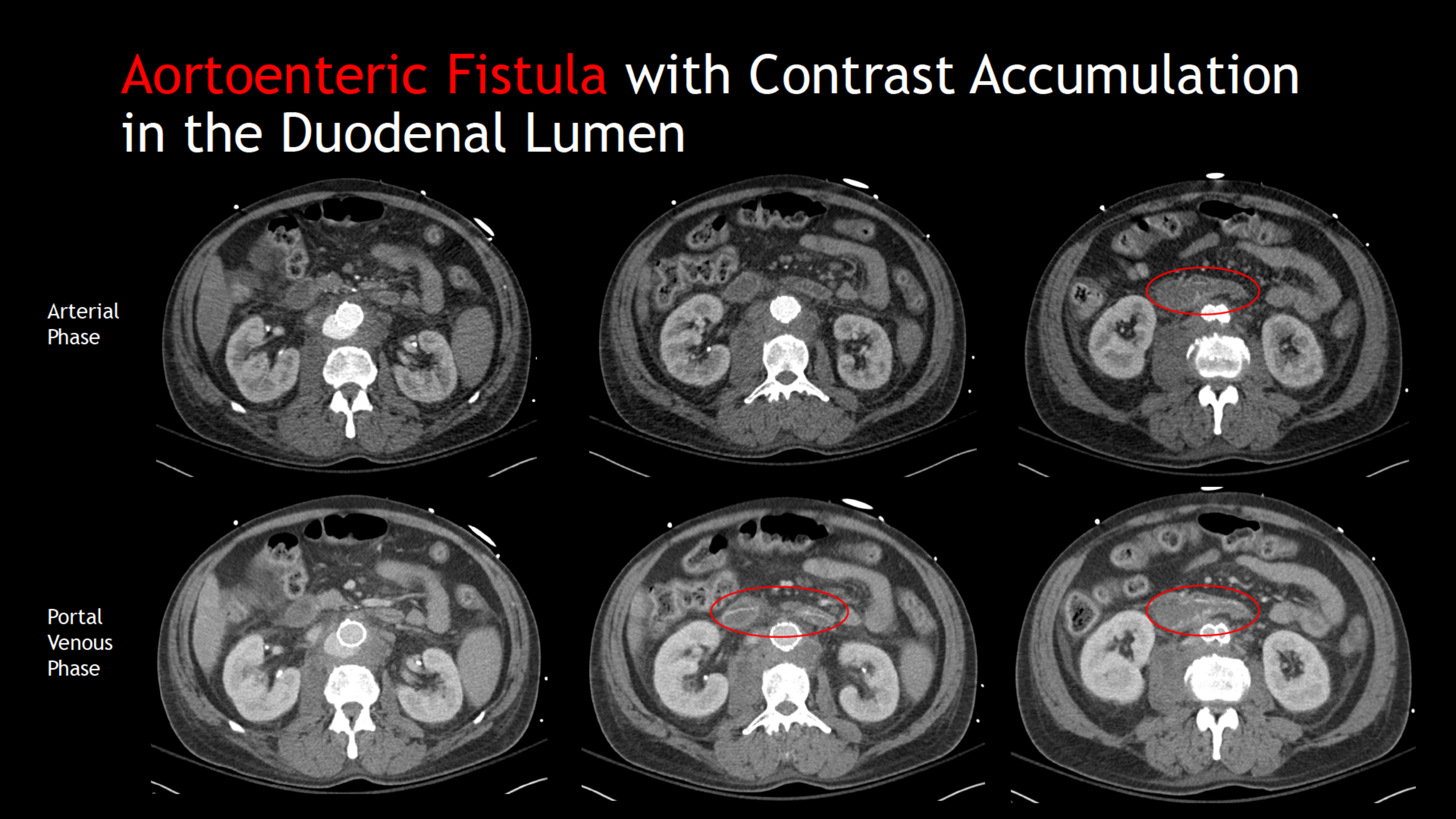
Diagnosis

- Infected Aortic Endograft with Aortic Pseudoaneurysm and Aortoenteric Fistula

Infected Endograft with Pseudoaneurysm and Retroperitoneal Phlegmon



Aortoenteric Fistula with Contrast Accumulation in the Duodenal Lumen

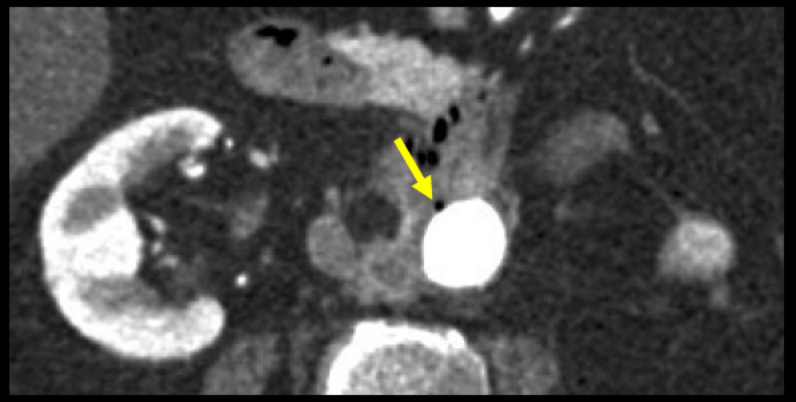


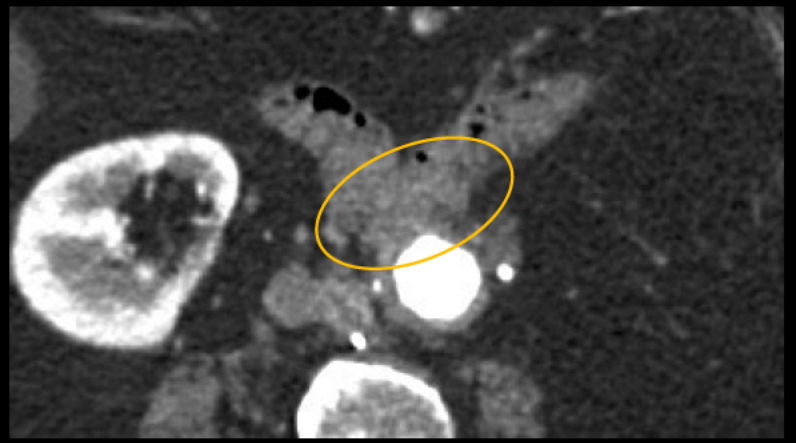
Clinical Course

- Patient became septic in the ICU, requiring intubation and dual vasopressor support
- Taken to OR for attempted explantation of the infected aortic stent graft and open aortic reconstruction using cryo aortic graft
- In the OR, a large abscess cavity associated with the graft and fistula to the third portion of the duodenum was confirmed
- Due to extensive blood loss and hemorrhagic shock during surgery, and after discussion with family, decision was made to transition patient to comfort care

Aortoenteric Fistula (AEF)

- Highly morbid condition
  - Radiology may be first to make diagnosis
- Categorized as ***primary*** or ***secondary*** AEF
  - *Primary*: rare, almost always associated with AAA
  - *Secondary*: more common, complication of aortic surgery, more often from open rather than endovascular repair
    - Most AEFs to the duodenum owing to its partial retroperitoneal location
- Imaging
  - Ectopic periaortic gas
  - Loss of fat plane between adjacent bowel and aorta
  - Tethering of duodenum to anterior aortic wall
  - Focal bowel wall thickening
  - Rarely: extravasated intraluminal contrast





Vu QDM, et al. Aortoenteric fistulas: CT features and potential mimics. *Radiographics*. 2009. 29(1):197-209

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