60 year old male presents with acute on chronic renal failure.

Elena G Violari, MD
Charan K Singh, MD

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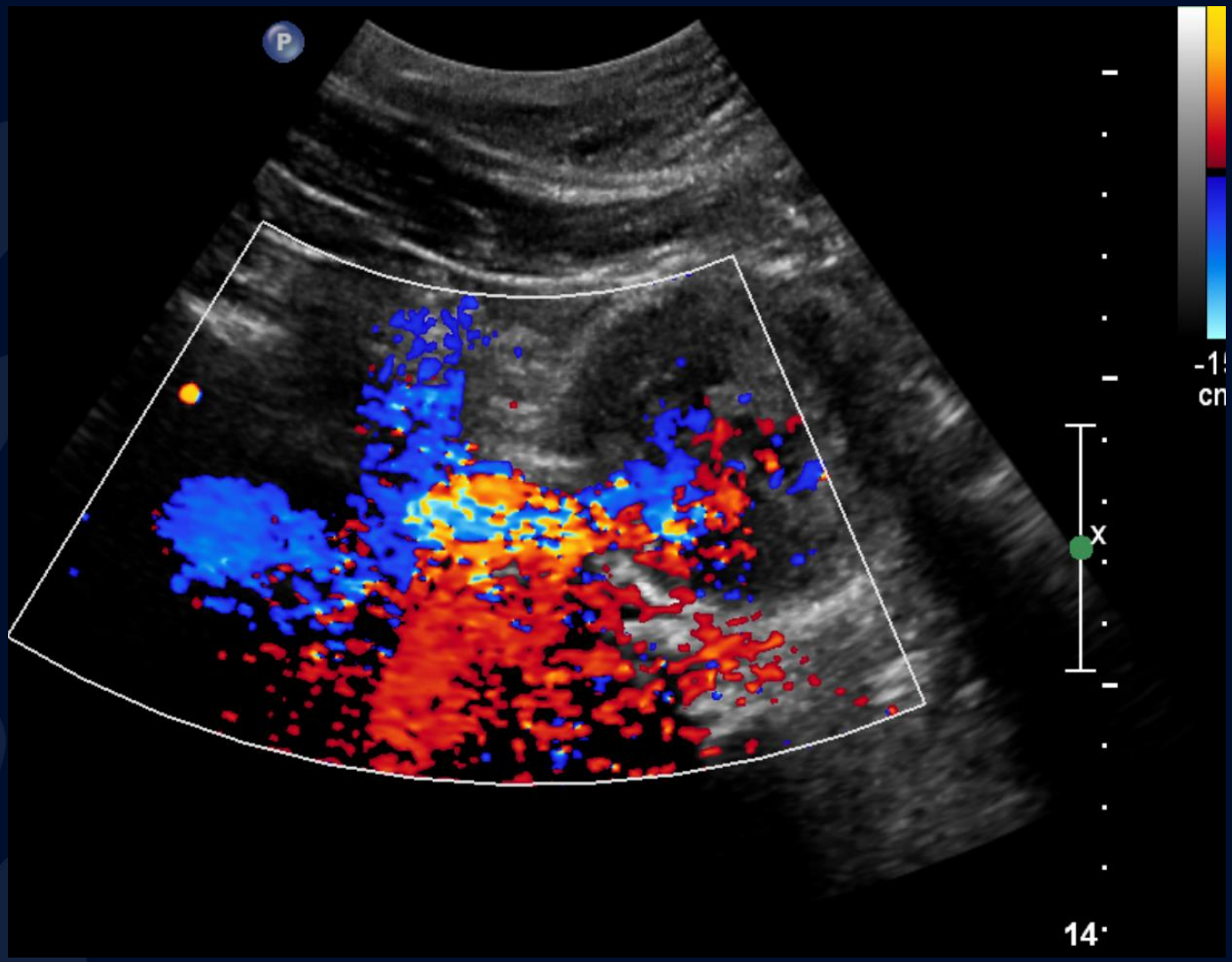

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Isolated common Iliac Aneurysm

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US transverse gray scale images showing a 7 cm irregularly shaped heterogeneous mass with a trace amount of surrounding fluid. This mass was in continuity with the distal aorta involving the common iliac artery.

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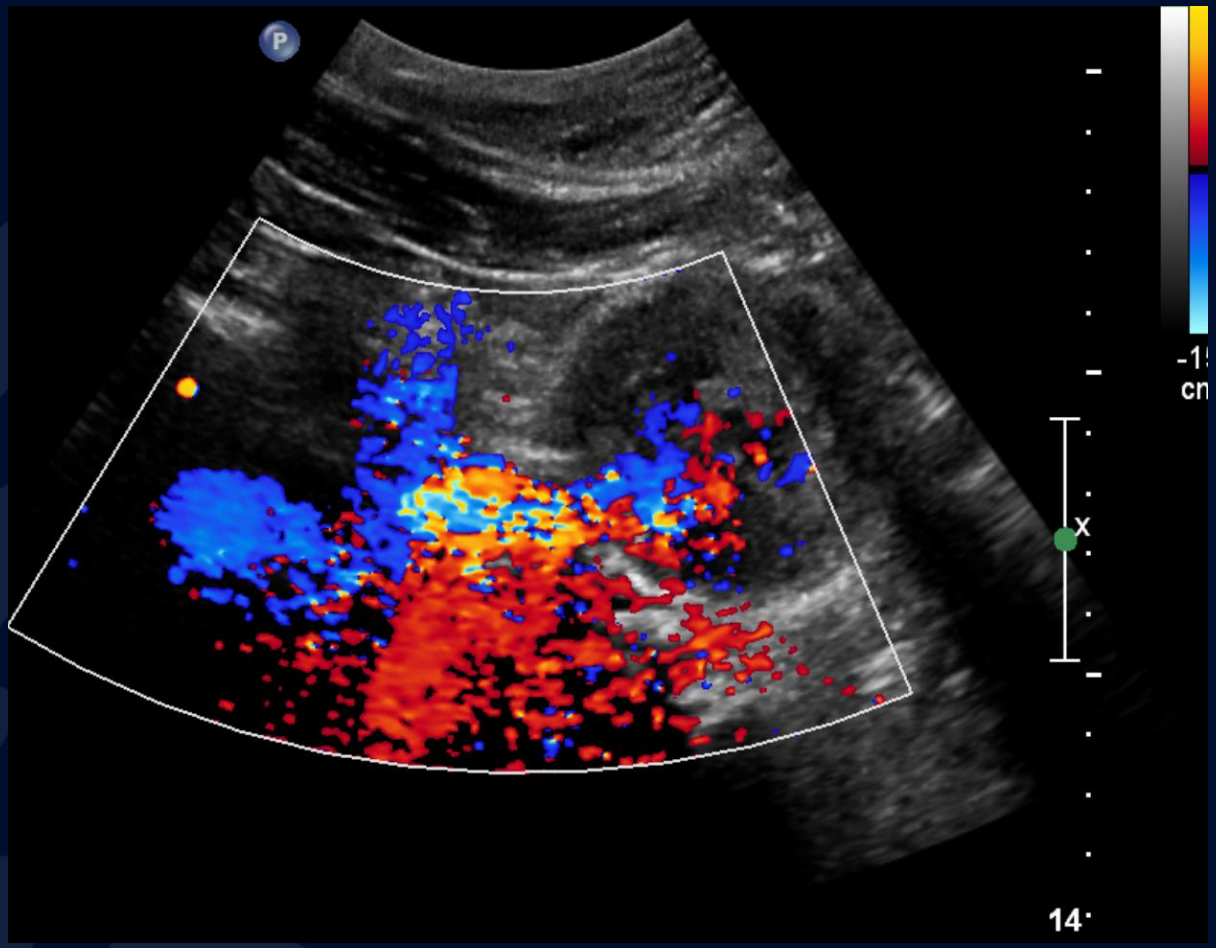

Transverse color Doppler sonogram showing central flow.

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CT abdomen and pelvis sagittal and coronal showing a large common iliac artery fusiform aneurysm measuring 7 cm

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Common iliac artery aneurysm

Definition:

- **Focal dilatation of the iliac artery.**
- **Diameter > 2.5 cm.**

Epidemiology:

- **10-20% Iliac artery aneurysms are associated with abdominal aortic aneurysms (AAA)**
- **Isolated iliac artery aneurysm are uncommon, accounting for <2% of abdominal aneurysms.**
- **Iliac artery aneurysms are bilateral in approximately 30% cases.**
- **They are more common in men.**
- **The incidence rises with age.**

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Common iliac artery aneurysm

Clinical Presentation:

- **<3.0 cm tend to be asymptomatic**
- **>3.0 cm present with mass effect and cause compression with gastrointestinal, genitourinary (hydronephrosis) and neurologic symptoms (sciatica).**
- **Ruptured aneurysms present with acute abdominal pain and shock.**

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Common iliac artery aneurysm

Causes:

- atherosclerosis
- infection
- trauma
- dissection
- connective tissue disorders
- fibromuscular dysplasia
- cystic medial necrosis

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Common iliac artery aneurysm

Classification of isolated iliac arterial aneurysms:

Isolated iliac artery aneurysms (IIAs) are classified according to their anatomy. This classification allows selection of appropriate candidates for endovascular or surgical therapy.

- **Type A**
  - **the CIA aneurysm proximally involves or extends within 1.5 cm of the aortic bifurcation.**
  - **distally, it extends to or beyond the internal iliac artery**
- **Type B**
  - **the CIA aneurysm has an adequate proximal neck (i.e. ≥1.5 cm of non-aneurysmal artery).**
  - **there is however, no distal landing zone.**
- **Type C: the CIA has an adequate proximal neck as well as a distal landing zone**
- **Type D: a solitary internal iliac artery aneurysm which spares the internal iliac artery origin**
- **Type E: the CIA aneurysm extends into the internal iliac artery**

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Common iliac artery aneurysm

Treatment and prognosis

- **Follow-up of asymptomatic incidentally-detected iliac artery aneurysms [3]:**
  - **<3.0 cm: rarely rupture, grow slowly, follow-up not generally needed**
  - **3.0-3.5 cm: followed up initially at 6 months**
    - **if stable, then annual imaging**
  - **>3.5 cm: greater likelihood of rupture**
    - **<6 month follow up**
    - **consider intervention**

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3. Khosa F, Krinsky G, Macari M et-al. Managing incidental findings on abdominal and pelvic CT and MRI, Part 2: white paper of the ACR Incidental Findings Committee II on vascular findings. J Am Coll Radiol. 2013

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