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

Elena G Violari, MD
Charan K Singh, MD
Isolated common Iliac Aneurysm
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.
Transverse color Doppler sonogram showing central flow.
CT abdomen and pelvis sagittal and coronal showing a large common iliac artery fusiform aneurysm measuring 7 cm.
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.
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.
Common iliac artery aneurysm

Causes:

- atherosclerosis
- infection
- trauma
- dissection
- connective tissue disorders
- fibromuscular dysplasia
- cystic medial necrosis
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
Common iliac artery aneurysm

Treatment and prognosis

• Follow-up of asymptomatic incidentally-detected iliac artery aneurysms:
  • <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
References:

