38 year-old male referred for further evaluation of indeterminate right flank mass.

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Right renal vein aneurysm
Right renal vein aneurysm
Inferior vena cava
Left renal vein
Incidental Lymphangioma
Base of right renal vein aneurysm entering right renal hilum
Large saccular aneurysm arising from right renal vein, 10.2 cm in max dimension.
“Swirling” flow-related signal on MRI suggests vascular lesion, not a solid mass
Flow-related signal on MRI suggests vascular lesion, not a solid mass.
T1 C+ image demonstrating right renal vein aneurysm seen arising from right renal hilum with venous phase-enhancement.
Venous Aneurysms

- Venous aneurysms are rare and are typically asymptomatic found incidentally on imaging studies
  - Most commonly CT, but can also be seen on ultrasound or MRI
- Can occur at any age and occur equally in both genders
- No clear etiology for venous aneurysms at this time but literature suggests both congenital and acquired sources
- The most common location for venous aneurysms are the popliteal vein
  - Others have been reported in the superior and inferior vena cava, jugular, saphenous, and intracranial veins.
  - Very few visceral venous aneurysms including portal vein and renal vein aneurysms are reported in the primary literature
Venous Aneurysms

Management:

- Dependent on location of venous aneurysm

- Aneurysms located in the lower extremity venous system have been associated with increased risk of DVT and PE
  - May necessitate surgical or anticoagulation treatment

- Observation with annual measurement on imaging has been reported for asymptomatic venous aneurysms, especially those of the internal jugular vein
Venous Aneurysms

Management (cont):

- Management of visceral venous aneurysms including those of renal vein origin is dependent on pain at presentation and compression of surrounding structures

- The majority of reported cases of visceral vein aneurysm followed by observation showed little to no change in aneurysm size on follow up imaging studies
Venous Aneurysms

Complications:
- Rupture
- Thrombosis
- Compression of surrounding structures
References


4. Clinical presentation, diagnosis, and treatment of venous aneurysms