33-year-old female triathlete who presented with bilateral lower extremity claudication

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Bilateral External Iliac Artery Endofibrosis
Sequential axial CTA runoff images show narrowing of the right external iliac artery and total occlusion of the left external iliac artery (bottom, left)
External Iliac Artery Endofibrosis

Epidemiology
- Rare disease seen primarily in young, otherwise healthy, endurance athletes
- Approx. 10-15% of patients have bilateral disease upon presentation
- Less than 5% have claudication due to a localized dissection or thrombosis

Etiology
- The disorder is characterized by fibrosis and hypertrophy of the intimal layer of the artery wall
- The etiology of EIAE has been postulated to be due to trauma from one or a combination of the following:
  - “kinking” during repetitive hip flexion
  - psoas muscle hypertrophy compressing the artery
  - excessive and tortuous vessel length
  - increased cardiac output with adaptive hypertension
External Iliac Artery Endofibrosis

Radiology Findings and Evaluation:
• CTA Aorta to evaluate vessel patency or evidence of thrombosis.
• The arterial stenosis usually occurs in the first 2-6cm of the external iliac artery.
• Common iliac artery or deep femoral artery can also be affected.

Treatment
• Surgical: Vein patch angioplasty, saphenous vein bypass, release from psoas muscle.
References


