Clinical Image

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May–Thurner syndrome with left iliofemoral deep venous thrombosis

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An 81 year old woman presented to the emergency department after experiencing left lower extremity swelling for four days prior. She had no associated chest pain or shortness of breath. She had a negative venous doppler ultrasound of the extremity one day earlier, but returned due to worsening pain and swelling. Physical examination revealed cyanosis and swelling extending from the left foot to the groin. Computed tomography (CT) venography revealed compression of the left common iliac vein (Images A and B, black arrowhead) between the right common iliac artery (Images A and B, white arrowhead) and the L5 vertebral body (Images A and B, black asterisk) and extensive iliofemoral deep venous thrombosis (DVT). The patient underwent mechanical thrombectomy and stenting of left common iliac vein, and she was prescribed long-term anticoagulation with apixaban. She was seen by her primary care provider five months post-presentation for her annual wellness examination and there were no residual issues. Besides the anatomic variant, no other provoking factors for DVT were identified.

May–Thurner syndrome (MTS) is an anatomic variant estimated to occur in up to 22–32% of the population [1–3]. It most commonly results from compression of the left common iliac vein between the right common iliac artery and a vertebral body [2]. MTS is a risk factor for left iliofemoral DVT which is associated with significant morbidity and mortality [4–6]. Ultrasonography has a sensitivity of 95% for proximal DVT, but has limited utility in the assessment of the inferior vena cava (IVC) and iliac veins; therefore, if iliofemoral DVT is suspected, CT or magnetic resonance venography may be considered [5]. Treatment of DVT associated with MTS is usually staged thrombolysis with or without IVC filter placement, then angioplasty with or without stenting of the left common iliac vein [7–9]. Only 5–7% of MTS-associated DVT cases receive anticoagulation alone [1, 10].

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