May-Thurner Syndrome

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A 40-year-old woman with history of hypothyroidism and tubal ligation presented with left lower-extremity pain and swelling. Duplex ultrasonography revealed extensive, occlusive deep vein thrombosis of the left iliac and femoral veins. Her risk factors for deep vein thrombosis included a 10 pack-year smoking history and extended hours of sitting at her desk at work over the preceding 2 weeks. She denied any history of previous thromboembolic disease, repeated miscarriages, or cancer. Her family history was noncontributory. She denied recent long-distance travel. Her only medication was Synthroid. She denied using oral contraceptives or herbal supplements. Thyroid function tests were normal, and her hypercoagulable workup, including serum protein C, protein S, anti-cardiolipin antibodies, lupus anticoagulant antibody, factor V Leiden, prothrombin gene mutation, heparin-induced platelet antibody, and β-human chorionic gonadotropin, was found to be negative. She was treated with therapeutic enoxaparin and discharged on warfarin (goal international normalized ratio, 2–3).

Two weeks later, she returned with worsening left leg pain and swelling despite a therapeutic international normalized ratio (Figure 1). On this occasion, she was treated with catheter-directed pharmacomechanical thrombolysis. A subsequent venogram was diagnostic of May-Thurner syndrome with severe left common iliac vein stenosis from a venous spur (Figure 2, arrow). The stenotic lesion was stented, with an excellent postprocedural angiographic result (Figure 3) and dramatic clinical improvement 3 days later (Figure 4).

May-Thurner syndrome is left common iliac vein thrombosis that results from compression by an overriding right common iliac artery. Although this anatomic variant is seen in 22% of the population, it is an underrecognized cause of left iliofemoral deep vein thrombosis. Without correction of this mechanical compression, patients are at continued risk for recurrent deep vein thrombosis and postthrombotic syndrome. Given the frequency of this anatomic variation, this condition should be sought for in all patients with idiopathic and unprovoked left iliofemoral deep vein thrombosis.

Disclosures

None.

References


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Figure 1. Left leg swelling and erythema visible on clinical examination.

Figure 2. Prone angiogram showing left common iliac vein stenosis from a venous spur.

Figure 3. Prone angiogram after stenting.

Figure 4. Dramatic clinical improvement noted 3 days after the procedure.
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