

May–Thurner syndrome: The unexplored

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Abstract:

May–Thurner syndrome (MTS) is the pathologic compression of the left common iliac vein by the right common iliac artery, resulting in left lower extremity pain, swelling, and deep venous thrombosis. MTS is missed by many interventionists as there is no standard criteria to establish the diagnosis. Imaging plays an integral part in screening patients for MTS. Here, we present a series of cases of MTS, which may help clinicians to diagnose and treat MTS.

Keywords:

Deep venous thrombosis, May–Thurner syndrome, pulmonary embolism, venous occlusions

Introduction

Iliac vein compression syndrome, also known as May–Thurner syndrome (MTS), is caused by both mechanical and physiologic factors; the chronic pulsatile compression of the left common iliac vein (LCIV) by the right common iliac artery (RCIA) stimulates the formation of fibrotic adhesions that can cause partial or complete iliac vein obstruction over time^{1,2} [Figure 1]. This syndrome was first described in 1851. The true incidence of MTS is not known. However, iliofemoral thrombosis is responsible for approximately 2%–3% of lower limb deep venous thrombosis (DVT) cases, and approximately 50%–60% of left-sided iliofemoral DVT cases exhibit iliac vein spurs resulting from extrinsic compression.^{3–6}

Thus, MTS is a reasonably common occurrence and a great level of clinical suspicion is necessary.

MTS patients generally do not respond well to conservative treatments, due to the presence of chronic compression. This leads

to vascular interventions by use of venous stents as a treatment modality for MTS.

Case Reports

Case 1

A 42-year-old female with no comorbid conditions presented to the hospital with complaints of left leg pain and swelling for the past 10 days. The patient underwent various investigations including computed tomography (CT) venogram and was diagnosed as DVT of the left lower limb involving LCIV extending up to popliteal vein and extension into inferior vena cava (IVC) [Figure 2]. The CT also diagnosed the compression of the LCIV by the RCIA (MTS).

The patient was posted for catheter-directed thrombolysis (CDT) followed by iliac vein stenting to prevent compression of the LCIV by the RCIA.

An ultrasound-guided left popliteal vein vascular access was taken with a 6 F sheath. A Terumo wire was crossed from the femoral vein into the IVC. A venogram shoot taken through a Judkins right catheter revealed a large thrombotic burden. A 0.035 magic torque wire was crossed into the IVC on the catheter over which the clot was

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