



# Unusual May-Thurner Syndrome Presenting with Persistent Leg Swelling Despite Treatment for Multiple Venous Thrombosis Embolisms



PRESENTER: THUY HAO NGUYEN

Khoa Ngoc Dang Tran, Ngoc Thai Kieu, Thinh Nguyen, Quoc Bui, Huu Than Huynh, Nguyen Hai Nam Pham, Vu Khanh Hoang Dinh, Martin Lam, Neha Prakash, Michael Brockman, Nguyen Hai Nam Pham, Phillip Tran

## Case report

- A 70-year-old female with a history of acute pulmonary embolism and deep vein thrombosis (DVT) that has been receiving anticoagulation therapy with Apixaban. She presented with persistent leg swelling (fig) for 12 years.
- Physical examination revealed edematous lower legs with pigmented skin, spider veins, and telangiectasias over bilateral thighs, below the knee.
- Intravascular ultrasound confirmed left common iliac vein stenosis, consistent with May-Thurner syndrome.
- Following the placement of a stent, a completion venogram demonstrated improvement in the cross-sectional area of the proximal left common iliac vein.
- The patient continued her Apixaban treatment, and subsequent to the intervention, there has been a significant reduction in swelling in her left leg.

## Literature review

- May-Thurner Syndrome (MTS) is characterized by the compression of the left iliac vein by the right iliac artery, leading to a predisposition for thromboembolic events. This condition increases the likelihood of blood clots formation.<sup>1</sup>
- Patients typically present with symptoms of left lower extremity deep vein thrombosis
- The Gold standard for diagnosing MTS is venography with intravascular ultrasound. <sup>2</sup>
- In cases of acute thrombosis, catheter-directed thrombolysis followed by endovascular stent placement is the recommended treatment approach. Anticoagulation therapy is crucial for managing MTS patients with DVT.<sup>3</sup>

# Unique aspects

In most cases of deep vein thrombosis, patients typically respond to anticoagulation treatment within 6 months. However, despite receiving anticoagulation therapy for a duration of 2 years, the patient in this particular case has continued to experience persistent bilateral lower extremities swelling. It raises the question of whether the patient has May-Thurner syndrome.



#### Conclusions

May-thurner can occur on the setting of DVT. It should be considered as a possible diagnosis in cases of prolonged leg edema, particularly on the left side, when it cannot be explained by deep vein thrombosis (DVT) or when DVT fails to respond to prolonged anticoagulation.

### References

- 1. Kibbe MR, Ujiki M, Goodwin AL, Eskandari M, Yao J, Matsumura J. Iliac vein compression in an asymptomatic patient population. *J Vasc Surg*. 2004;39(5):937–943. doi: 10.1016/j.jvs.2003.12.032
- 2. Forauer AR, Gemmete JJ, Dasika NL, Cho KJ, Williams DM. Intravascular ultrasound in the diagnosis and treatment of iliac vein compression (May-Thurner) syndrome. J Vasc Interv Radiol. 2002 May;13(5):523-7.
- Berger A, Jaffe JW, York TN. Iliac compression syndrome treated with stent placement. J Vasc Surg. 1995 Mar;21(3):510-4.