“Acquired” May-Thurner Syndrome

Sohail Khan MD, FACC, FSCAI

ST Tammany Parish Hospital, Covington LA
• No financial disclosures.
Conventional recommended treatment with parenteral anticoagulation and vitamin K antagonists (VKA) carries a 25% to 50% risk of PTS at 2 years even if the International Normalized Ratio (INR) is “therapeutic.” If the same approach is implemented for symptomatic patients with occlusive DVT of the iliac veins, then the PTS rate rises to 80% at 5 years.


Post Thrombotic Syndrome
May-Thurner Syndrome

Congenital or Acquired?
• Some degree of iliac vein compression is present as a normal anatomic variant in otherwise healthy patients (>50% compression in up to 25% of patients).

• Those who experience DVT frequently have anatomically abnormal veins with spur formation, and are at high risk of developing recurrent DVT and post-thrombotic syndrome (PTS).
42 years old with acute Left DVT
42 years old with acute Left DVT
42 years old with acute Left DVT
Variants of May Thurner Syndrome

1. Compression of left common iliac vein by left common iliac artery.
2. Compression of left common iliac vein by left internal iliac artery or a tortuous left common iliac artery.
3. Compression of right common iliac vein by right internal iliac artery and right CIA.
4. Right common iliac vein (RCIV) compression by the left common iliac artery in a patient with a left-sided inferior vena cava (IVC).
47 years old with venous ulcers recurrent DVTs
“Acquired” May Thurner Syndrome

• An 81-year-old female presenting frank hematuria and right renal hydronephrosis.

• The patient was found to have an adnexal mass. She underwent TAH/BSO. Intraoperative ileocecal mass was also discovered, leading to ileocecal resection.

• The patient was diagnosed with metastatic urothelial carcinoma and underwent right ureteral stenting for possible compression by the right pelvic mass.
DVT 3 weeks after the Surgery

• Acute right proximal DVT after 3 weeks of major abdominal surgery.

• US positive for proximal DVT with normal arterial exam.

• CT Abdomen/Pelvis: Post op changes, No mass.
• Anticoagulation.

• IVC Filter placement through Right IJ access.

• Venogram.
Figure 1. Right venogram showing occlusion of the right proximal femoral vein.
PMT with 10 mg tPA
Post PEVI Venogram

Figure 3. Post pharmacomechanical thrombectomy with Trellis device; no improvement in flow in right femoral vein.
Figure 4. Balloon angioplasty of right common iliac vein.
Figure 5. Possible extrinsic compression of the right common iliac vein post balloon angioplasty.
Figure 6. Wallstent deployment in right common iliac vein, external iliac vein.

Figure 7. Balloon angioplasty post stent deployment.
Final Venogram
CT Abdomen/Pelvis without contrast
Conclusion

• DVT should not be treated as an isolated event

• Tip of an Iceberg

• Ask for help
Thank You