When treatment doesn't go to plan: A rare case of May-Thurner Syndrome

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BACKGROUND

- **May-Thurner syndrome** (iliac vein compression syndrome) is a rarely diagnosed condition in which patients develop **iliofemoral deep venous thrombosis** due to an anatomical variant in which the right common iliac artery overlies and compresses the left common iliac vein against the lumbar spine. **Incidence:** 20% but only causes 2-3% of lower extremity DVTs[1,] F:M (2:1)[2]

AIMS & METHODS

- The primary objective is to present a case of May-Thurner Syndrome including the presentation, diagnosis, complications and management.
- This patient was clerked in ED and history, examination and further investigations were ordered.

CASE

- **HOPC**: A 41 year old man presented after experiencing left knee pain which later progressed to left thigh pain and noticeable swelling. He also noticed intermitted tingling in his left calf.
- He had initially presented to ED 10 days ago with a three day history of left testicular pain and was prescribed a 10 day course of ciprofloxacin.
- He then re presented due to left leg swelling. He did not experience any dyspnoea, haemoptysis or chest pain.
- **PMH**: cerebral venous thrombosis
- Drug history NKDA , Nil
- Social history: 12 pints of beer a week (has cut down significantly), non smoker, restaurant owner
- **O/E**: entire left lower limb markedly more swollen than right lower limb, sensation and pulses in tact, no focal neurological deficit

DIAGNOSIS

CT angiogram lower limbs: There is compression of the left common iliac vein as it courses behind the right common iliac artery in keeping with a May Thurner's lesion. The left common iliac, external iliac and common femoral/superficial femoral vein appear swollen in keeping with deep venous thrombosis..

The appearances are highly suggestive of extensive deep venous thrombosis. There is asymmetric enlargement of the left thigh with subcutaneous oedema and prominent superficial venous collaterals. Normal appearances on the right.

Conclusion: Likely deep venous occlusion to at least the level of the popliteal fossa, if not the mid lower leg secondary to May Thurner's.

IMAGING

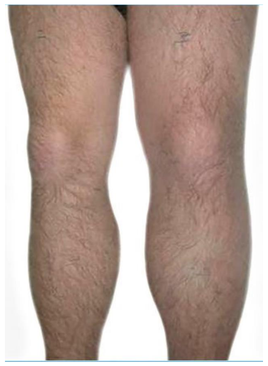


Figure 1: Left leg proximal DVT: May Thurner Syndrome

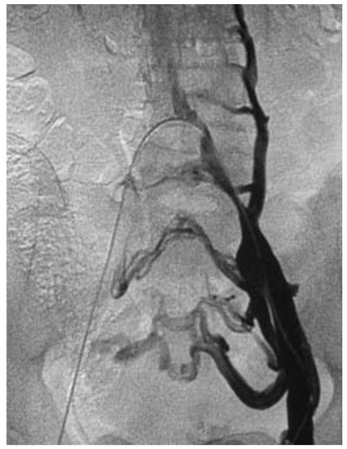


Figure 2: Pelvic venogram: Near complete obstruction of left common iliac vein with venous drainage of the left leg occurring through pelvic and paraspinal collaterals

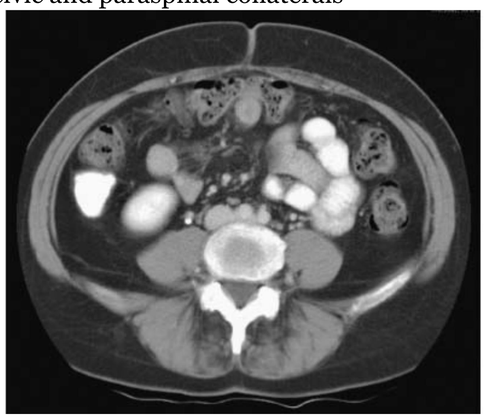
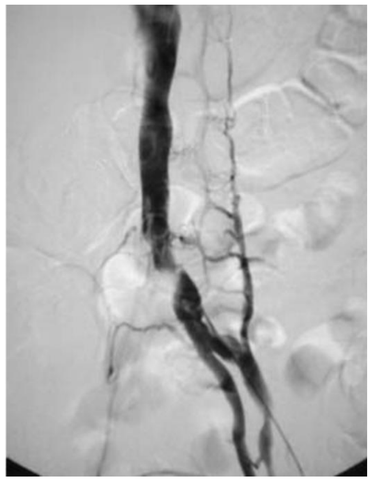


Figure 3: CT scan: Compression of left common iliac vein by right common iliac artery

RESULTS



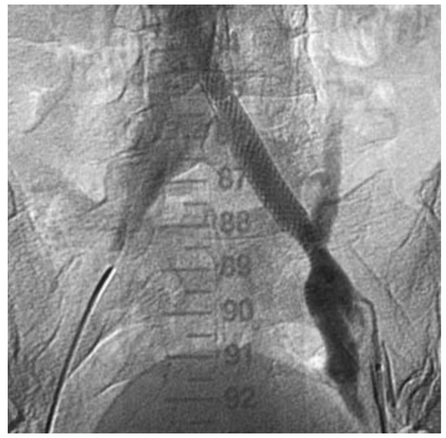


Figure 4:Post Angioplasty: Stenting of left common iliac vein with free flow across left common iliac vein with resolution of collateral flow

TREATMENT & RE ADMISSION

- The patient underwent **thrombolysis** for the extensive left leg DVT over the course of 3 days and **stents** were inserted in the left common iliac vein, external iliac vein and common femoral vein.
- He was discharged on low molecular weight heparin.
- However,12 days later he noticed discoloration and paraesthesia in his left leg, with worsening discomfort and swelling.
- He re presented to the emergency department where he was seen in Emergency Vascular clinic. A duplex scan demonstrated **occlusion of his common femoral vein stent**.
- He consequently underwent thrombolysis again for 3 more days, with his post-lysis duplex being satisfactory.
- He was discharged on **clopidogrel, treatment dose LMWH** and a statin.
- Follow up: Duplex in 2 weeks with a follow up telephone clinic

CONCLUSION

- May-Thurner syndrome is a rare condition which leads to iliofemoral deep vein thrombosis.
- Good thromboprophylaxis is essential to avoid occlusion of the femoral vein stent.

REFERENCES

- 1. Matthew Peters, MD,corresponding author Rashad Khazi Syed, MD, Morgan Katz, MD, John Moscona, MD, Christopher Press, MD, Vikram Nijjar, MD, Mohannad Bisharat, MD, and Drew Baldwin, MD (2012) 'May-Thurner syndrome: a not so uncommon cause of a common condition', *Proc (Bayl Univ Med Cent).* , 25(3), pp. 231-233.
- 2. Christof T Kaltenmeier, Young Erben, Jeffrey Indes , Alfred Lee , Alan Dardik , Timur Sarac , Cassius Iyad Ochoa Chaar (2018) 'Systematic review of May-Thurner syndrome with emphasis on gender differences', *J Vasc Surg Venous Lymphat Disord,* 6(3), pp. 399-407.