ENDOVASCULAR MANAGEMENT OF CONCURRENT ILIO-ILIAC ARTERIOVENOUS FISTULA AND IPSILATERAL CIV OCCLUSION

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DISCLOSURES

• We have the following potential conflicts of interest to report:
  ✓ Consulting:
    ▪ BD BARD
    ▪ MEDTRONIC
  ❑ Employment in industry
  ❑ Stockholder of a healthcare company
  ❑ Owner of a healthcare company
  ❑ Other(s)
  ❑ I do not have any potential conflict of interest
HISTORY:

- 71 years old man.
- DM and HTN
- Surgical history of total left hip replacement 6-years ago.
- One-year post operation patient developed unilateral left leg edema
HISTORY:

- Doppler U/S and lymphoscintigraphy studies showed acute infra-inguinal DVT and normal lymphatics.

- Anti-coagulation and elastic compression stockings with no improvement.
HISTORY:

Severe intractable left leg pain and swelling associated with heaviness worsening over the past 2 years.
CLINICAL EXAMINATION:

- Not walking
- Swelling extended from the groin/scrotum to the toes with skin discoloration and thickening.
- Distal pulses were intact.
- No sensory loss
- No ulceration, bleeding or discharge.
PRE PROCEDURE INVESTIGATIONS

- CT SCAN
  - Occluded left common iliac vein with May-Thurner morphology.
  - Complex iliac AVF and early filling of the entire left lower limb venous system.
PELVIC ANGIOGRAM:

- Network of communications between the left internal iliac artery (IIA) and iliac veins.
- Occluded (CIV) and (EIV).
- Large collaterals draining the left lower limb venous system
PROCEDURE:

- Lt CFV access.
- CIV occlusion was crossed.
- No balloon angioplasty or stenting done at this level.
PROCEDURE:

- Lt brachial artery access.
- Embolization of the left internal iliac artery with detachable coils and Onyx filling the main channels of the AV fistula.
**PROCEDURE:**

- Balloon angioplasty for left CIV occlusion.
- Two overlapping 14 mm Venous stents were deployed.
- Post stenting venogram: Widely patent iliac veins with excellent antegrade flow and no collaterals seen.
PROCEDURE:

Angiogram: Total resolution of the AVF and patent EIA.
We discharged the patient on the same day on:
1. Grade II Stockings.
2. Strict walking regimen.
3. Enoxaparin 80 mg BID for one month.
4. Plavix 75 mg once daily for 3 months.
FOLLOW UP:

• 2 weeks later, significant improvement in the limb swelling and pain.
• He started to walk.
FOLLOW UP:

- CT scan 3 months later:
  - Patent iliac venous stent.
  - Minimal amount of residual shunting likely from the hypertrophied median sacral artery.
- Further improvement in the selling and walking normally.
CONCLUSION:

- Treating AVF and Iliac occlusion simultaneously gave the best symptomatic relief.
- It was unusual case of simultaneous iliac arteriovenous fistula and May-Thurner syndrome successfully managed endovascularly.
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