Clinical Case: Post-procedure Thrombophlebitis
A 46 year old female presented with long-standing history of right lower limb fatigue and aching with prolonged standing.

**Symptoms**

- Aching, cramping, heavy, tired right lower limb
- Tenderness over bulging veins
- Symptoms get worse at end of the day
- She feels better with lower limb elevation and application of elastic compression stockings (ECS)
Medical and Surgical history:
Sjogren syndrome, mixed connective tissue disease, GERD, IBS
G2P2 with C-section x2, left breast biopsy
No history of venous thrombosis

Social history: non-smoker

Family history: HTN, CAD

Allergies: None

Current medications: Pantoprazole
Physical exam

Both lower limbs were warm and well perfused
Palpable distal pulses
Motor and sensory were intact
Prominent varicosities
  Right proximal posterior-lateral thigh and medial thigh
No ulcers
No edema
GSV diameter was 6.4mm and had reflux from the SFJ to the distal thigh

No deep venous reflux

No deep vein thrombosis
Duplex ultrasound right lower limb

GSV tributary diameter 4.6mm

Anterior thigh varicose veins diameter 1.5mm-2.6mm with reflux

No superficial vein thrombosis
What is the next step?

– Conservative treatment
– Phlebectomies
– Sclerotherapy
– Thermal ablation
– Thermal ablation, phlebectomies and sclerotherapy
Treatment

Right GSV radiofrequency ablation

Right leg ultrasound guided foam sclerotherapy with 0.5% sodium tetradecyl sulfate (STS)

Right leg ambulatory phlebectomies x19

A compression dressing and ECS were applied to the right lower limb after the procedure.
Follow-up

1 week post-procedure

- The right limb was warm and well perfused
- There was mild bruising, no infection and signs of mild thrombophlebitis
- Right limb venous duplex revealed no deep vein thrombosis and the GSV was occluded
2 weeks post-procedure

- Tender palpable cord was found in the right thigh extending into the calf with overlying hyperpigmentation.
- No edema
- No infection
- Right limb venous duplex revealed no deep vein thrombosis
- The GSV tributary was thrombosed
What is the next step?

– Local massage and compression
– Topical and/or non-steroidal anti-inflammatory drugs
– Micro-thrombectomy
– Phlebectomy
Micro-thrombectomy performed in 9 spots along the length of the palpable cord with a 16 gauge needle.

Approximately 1.5cc of thrombus was evacuated

A compression dressing was applied

2 weeks later
No relief in discomfort or skin appearance

No infection
Phlebectomies performed in 12 spots along the length of the palpable cord. It was difficult to remove the vein due to perivenous inflammation.

Approximately 3cc of thrombus was evacuated and very small segments of the vein were removed.

A compression dressing was applied.
At 2 month follow-up, the patient feels better but hyperpigmentation remained the same.
Thrombophlebitis and skin staining after treatment of varicose veins occurs in 5-18% of patients.

This may be treated with:

- Compression
- Local massage
- Topical and oral non-steroidal anti-inflammatory drugs
- Micro-thrombectomy
- Phlebectomy
- Laser therapy

The results are variable and no good clinical studies have been performed to evaluate the clinical outcome.


It is best to prevent hyperpigmentation and thrombophlebitis by performing phlebectomies.

If this occurs, early micro-thrombectomy and/or phlebectomy can decrease pain, shorten the inflammatory process and may improve the hyperpigmentation.