Clinical case

Symptomatic anterior accessory great saphenous vein (AAGSV) reflux
A 70 year-old female presents with symptomatic varicose veins on left leg for more than 10 years. She complains of heaviness, achiness and pain around the veins.
 Symptoms worsen at the end of the day, and while standing or sitting for long periods. Leg elevation and the use of compression stockings help to alleviate them.

 She had “sclerotherapy injections” about 5 years ago with some relief. Denies pelvic pain, urinary symptoms or dyspareunia.

Clinical Class/Severity

C2S Ep As Pr

VCSS: 4
History

Medical history: Graves’s disease, Thyroid orbitopathy, Hyperlipidemia, Psoriasis

Surgical history: C-section x2, Hysterectomy

Social history: Non-smoker

Family history: Non-contributory

Allergies: None

Medications: Atorvastatin, Levothyroxine
Physical examination

Both lower limbs were warm and well perfused
Distal palpable pulses

Prominent varicosities on left anteromedial and anterolateral thigh, and medial calf. No gluteal, perineal or vulvar varicosities
Post-inflammatory hypopigmented skin patches on anterior calf and ankle regions.
No cellulitis or ulcers
Motor and sensory were intact
AASV diameter was 27.0mm and showed reflux >2.0s duration
AASV becomes very tortuous and superficial at <3 cm from the SFJ. AASV refluxing varicose tributaries in the mid-distal and medial-lateral thigh.
GSV thigh hypoplasia with reflux in the calf segment

A. GSV is hypoplastic in the thigh. B. GSV below-the-knee has reflux >4.0s.
SSV appears normal. No superficial or deep venous thrombosis. No deep venous reflux was seen.
Which of the following statements is incorrect?

a) AASV reflux is present in approximately 10% of all patients with varicose veins and competent GSV and SSV.

b) AASV reflux is associated with recurrent varicose veins after endothermal intervention.

c) Patterns of reflux from the SFJ to either the AASV or GSV possess similar disease severity and commonly suffer complications of venous stasis.

d) Lower vein closure rates are seen in the treatment of AASV compared with GSV and SSV reflux.
a) AAGSV reflux is present in approximately 10% of all patients with varicose veins and competent GSV and SSV.


b) AAGSV reflux is frequently associated with recurrent varicose veins after endothermal intervention.


c) Patterns of reflux from the SFJ to either the AAGSV or GSV possess similar disease severity and commonly suffer complications of venous stasis.

Schul MW, Schloerke B, Gomes GM. The refluxing anterior accessory saphenous vein demonstrates similar clinical severity when compared to the refluxing great saphenous vein. Phlebology. 2016 Oct;31(9):654-9.

d) Lower vein closure rates are seen in the treatment of AAGSV compared with GSV and SSV reflux.

Based on clinical and duplex ultrasound findings what do you consider would be the best treatment option?

a) Continue conservative measures only, since her symptoms do not correlate with the DUS findings
b) Treatment of the GSV below-the-knee reflux to decrease the risk of leg venous ulcer in the future
c) Order pelvic venous duplex to rule out pelvic congestion syndrome
d) Ligation of the AASV, stab phlebectomies and ultrasound guided sclerotherapy
e) Endovenous ablation of the AAGSV using a 3cm RFA catheter, stab phlebectomies and ultrasound guided sclerotherapy
Based on clinical and duplex ultrasound findings what do you consider would be the best treatment option?

a) Continue conservatives measures only, since her symptoms do not correlate with the DUS findings

b) Treatment of the GSV below-the-knee reflux to decrease the risk of leg venous ulcer in the future

c) Order pelvic venous duplex to rule out pelvic congestion syndrome

d) **Ligation of the AASV, stab phlebectomies and ultrasound guided sclerotherapy**

e) Endovenous ablation of the AASV using a 3cm RFA catheter, stab phlebectomies and ultrasound guided sclerotherapy
Discussion

- Axial reflux from the AASV possess similar disease severity as patients with GSV reflux

- Limitations of endothermal ablation due to anatomy include:
  - Torturous and/or short vein length from the junction (<3-5cm)
  - Superficial veins (<2mm from the dermis) due to concerns of skin burn or skin pigmentation/puckering

- Complications of endothermal ablation due to anatomy
  - A higher recanalization and EHIT rates are seen in veins with a large diameter (>10mm)