

Clinical case

SSV reflux with skin damage and healed ulcer in the medial malleolus

Dr. Adriano Souza

Director Ecocenter Medicina Diagnóstica

Vascular Ultrasound

Belo Horizonte, Brazil

Dr. Nicos Labropoulos

Professor of Surgery and Radiology

Director, Vascular Laboratory

Stony Brook Medicine

Stony Brook, New York USA

nlabrop@yahoo.com



Female 77 years old presented with pain, heaviness and edema of the left lower limb.

Symptoms have been present for years and she feels worse at the end of the day.

Medical History: Hypertension controlled with medication. No other relevant history or comorbidities.

Surgical history: She underwent ligation and stripping of GSV 10 years ago.

Physical Examination

Normal arterial exam in all extremities.

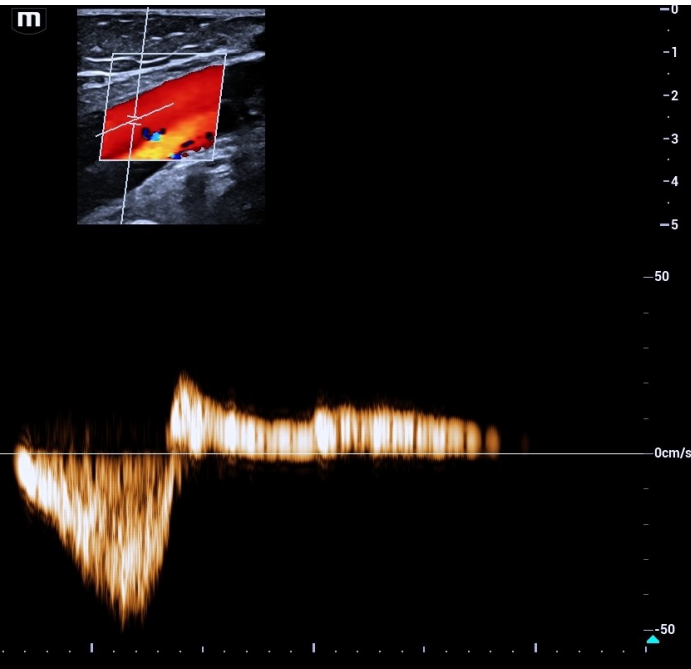
Edema of the left lower limb, with varicose veins and skin damage at the medial malleolus.

She developed an ulcer 1 year ago that was healed 2 months ago with local care and compression.

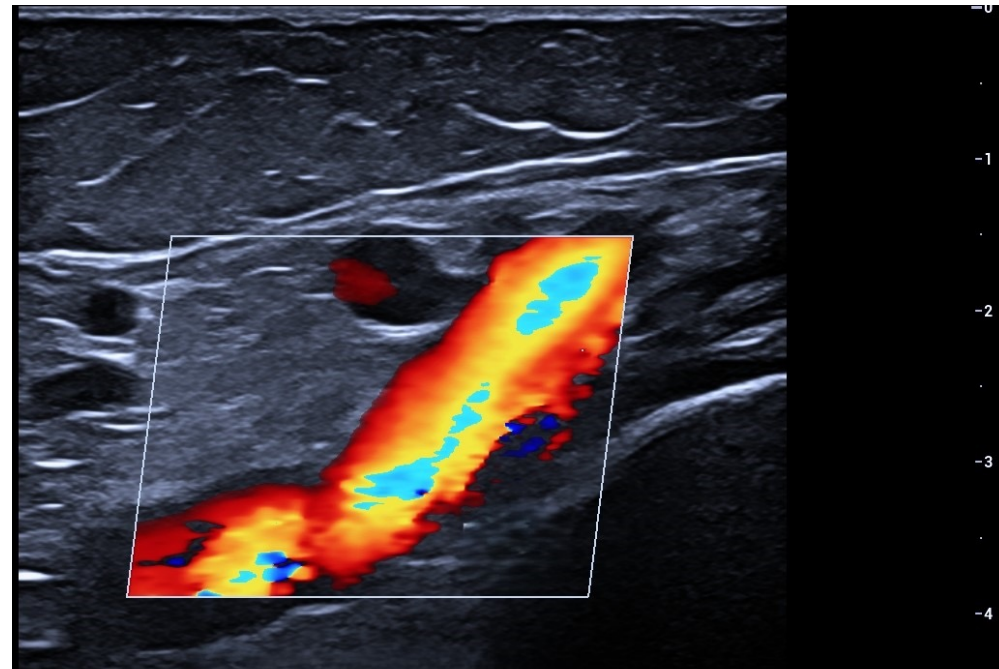


Varicose vein in the area of skin damage.

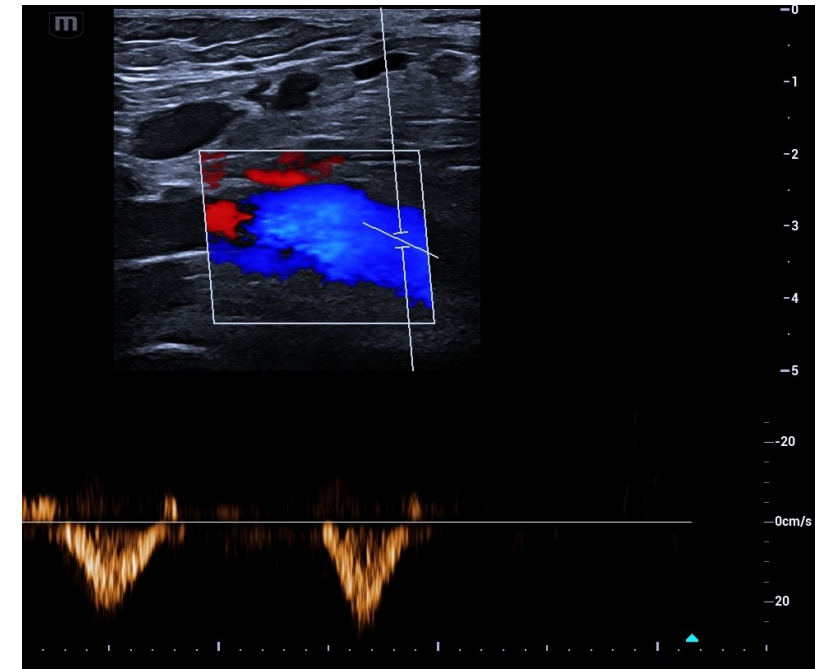
SPJ reflux extending into popliteal and distal femoral vein



Proximal popliteal
to femoral vein



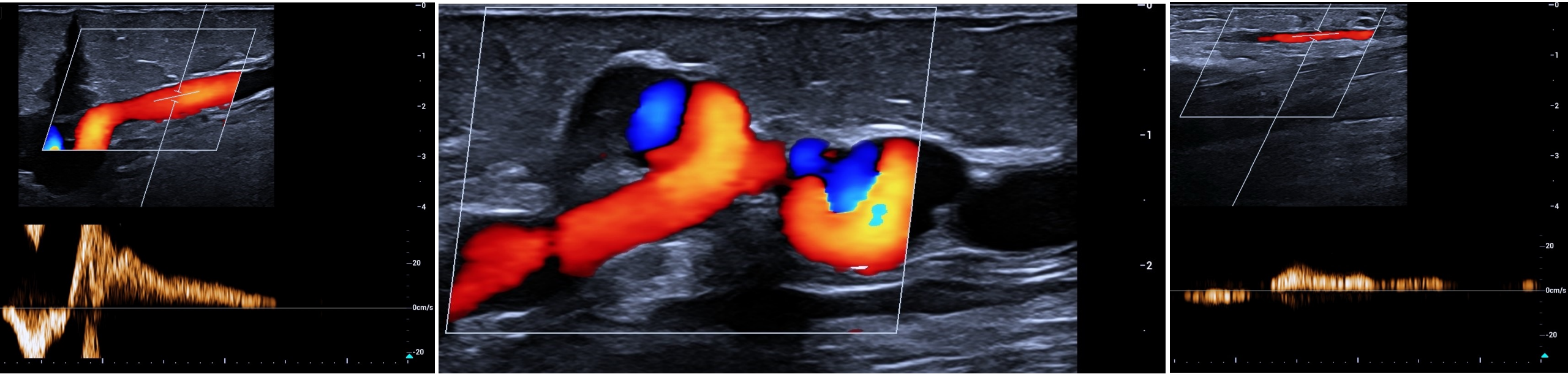
Saphenopopliteal
junction



Popliteal vein
distal to SPJ

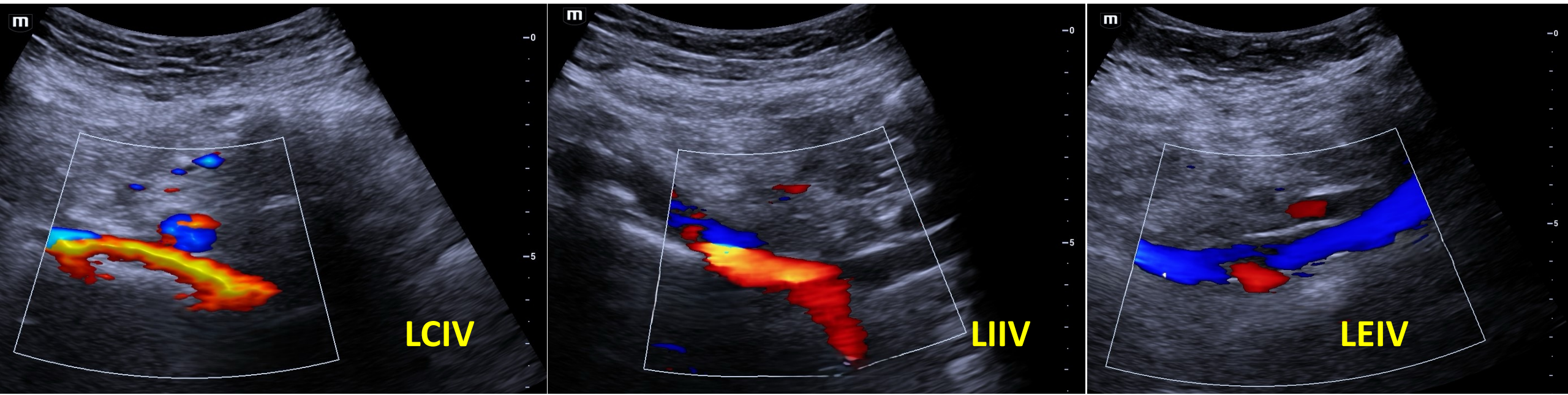
Segmental reflux in the distal femoral and proximal popliteal veins. The popliteal vein below the SPJ is normal. Such segmental deep vein reflux in the absence or previous thrombosis **is induced by the longstanding reflux in the superficial veins**. It is commonly seen at the SFJ and SPJ and it is **eliminated** after treating the superficial vein reflux.

SSV reflux from popliteal fossa to lower calf



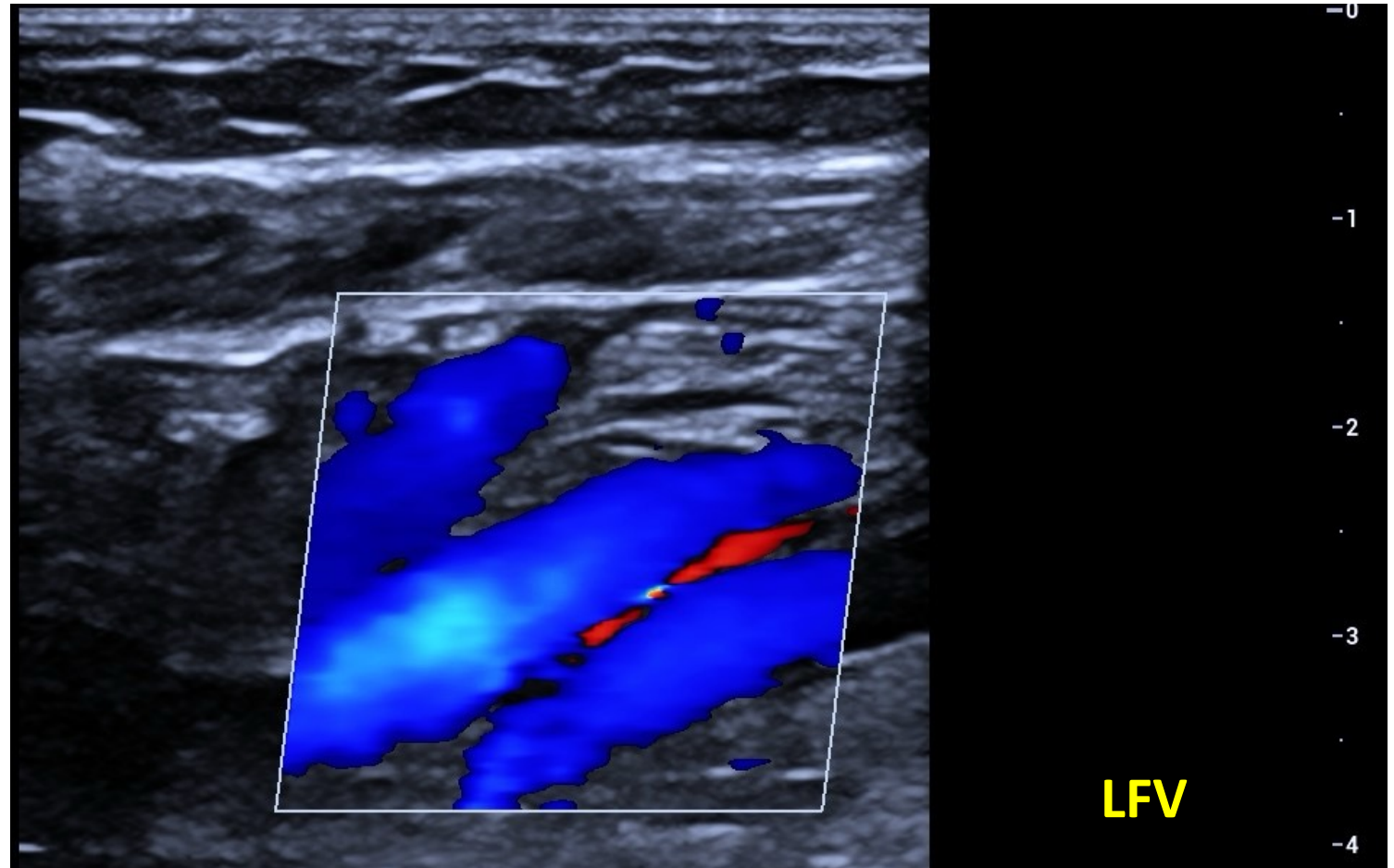
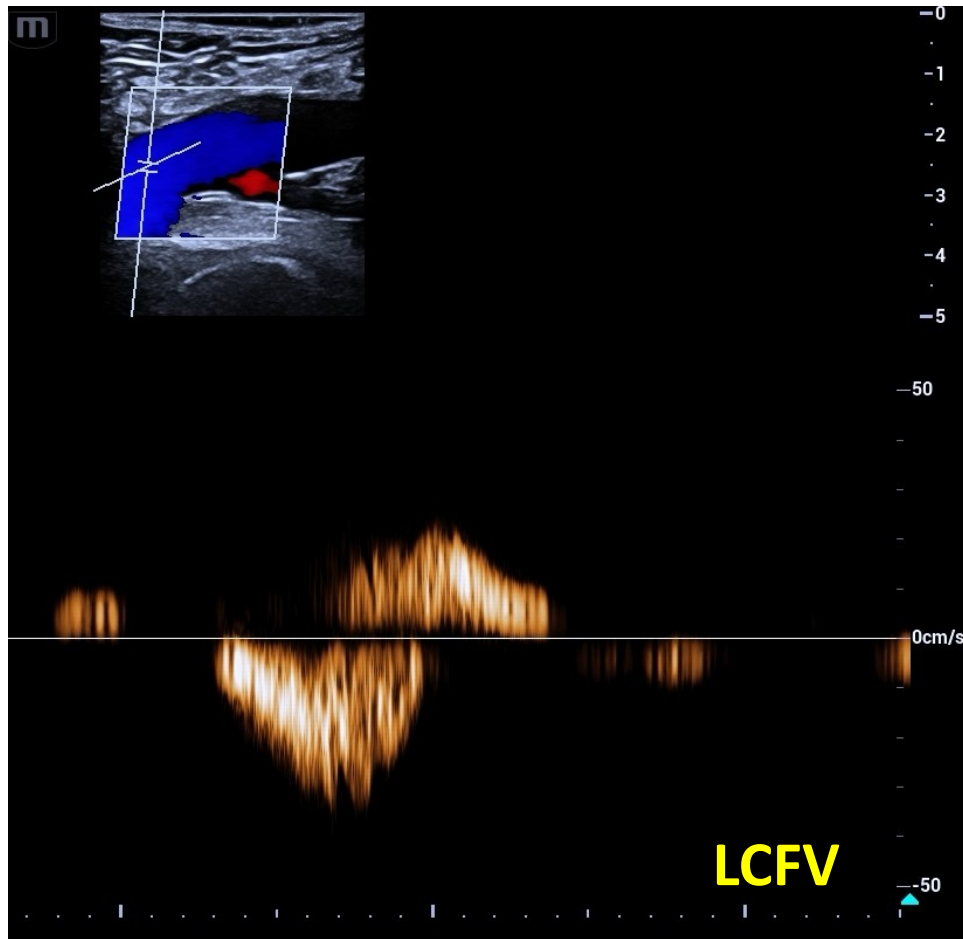
Extensive SSV reflux. SSV is dilated and a bit tortuous in the proximal calf.

Iliac veins were normal



The iliac veins were patent without any obstruction or postthrombotic changes.

Common femoral and femoral veins were normal

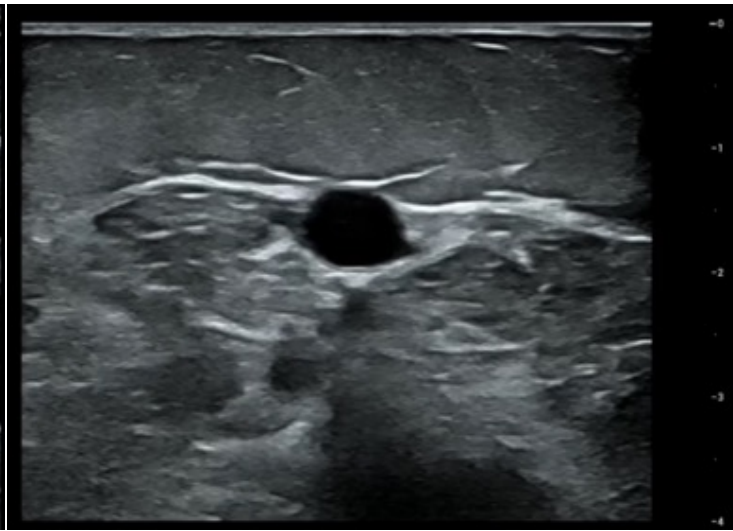


The common femoral and femoral veins were normal. The distal femoral vein had segmental reflux due to the SSV reflux.

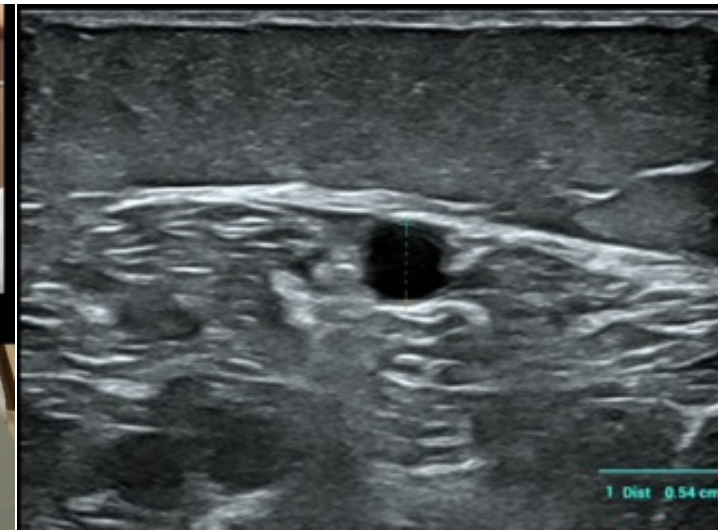
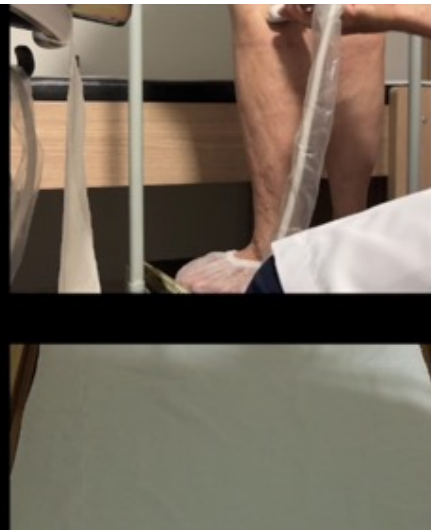
SSV was dilated



**SSV dilated tributary
measuring 7.4mm**

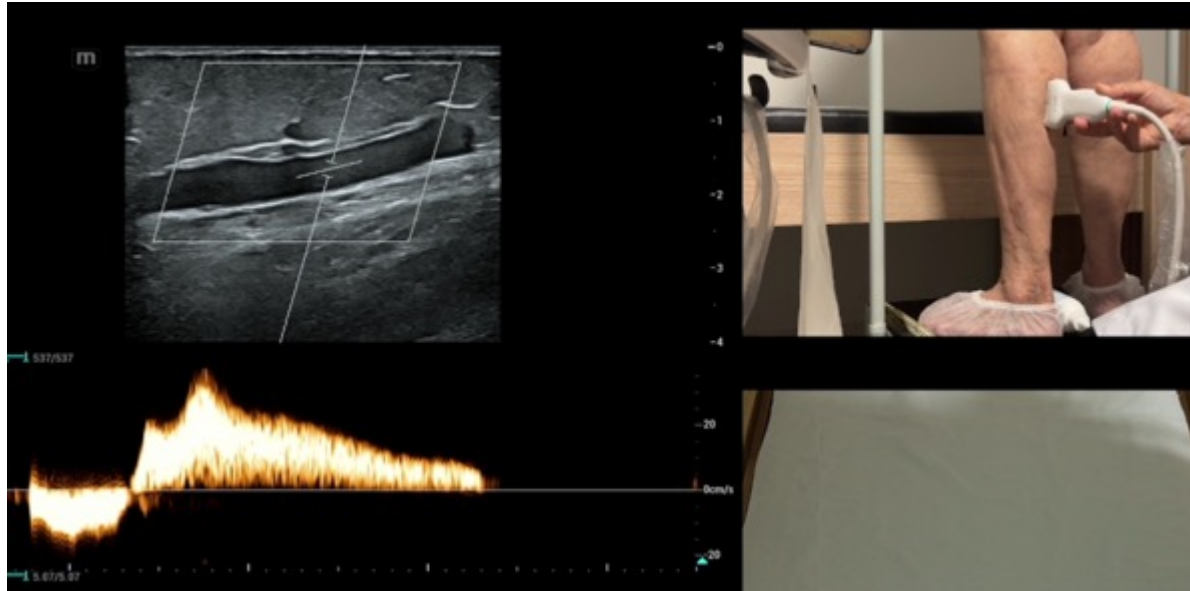


**SSV at the popliteal fossa
measuring 6.5mm**



**SSV at the proximal calf
measuring 5.4mm**

SSV at mid-calf

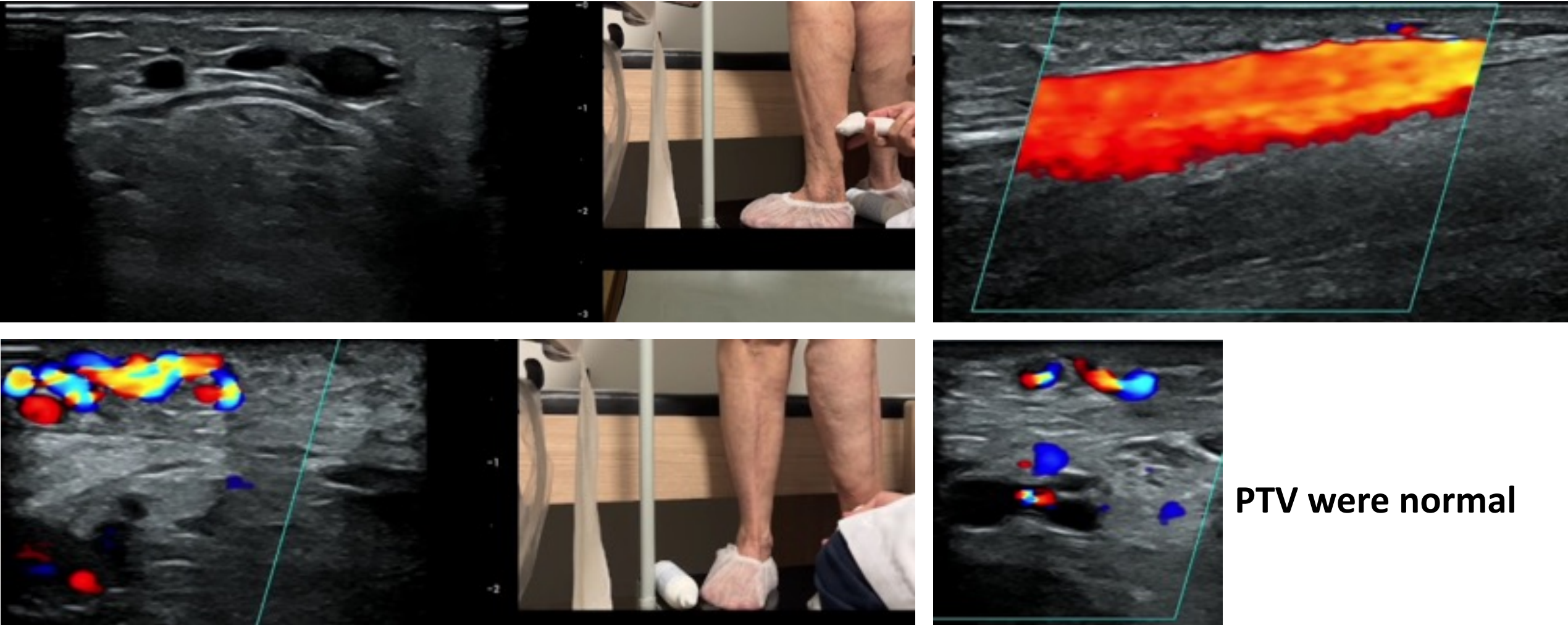


SSV at the mid calf measuring 6.1mm



SSV tributary

SSV tributary at lower calf coursing medially towards the medial malleolus



SSV reflux is directed at the medial malleolus through the lower calf tributary. This can explain of how **SSV reflux can cause skin damage and ulceration at the medial malleolus.**

Key points

Mapping the entire reflux course and identifying the patterns of reflux all the way to the area of skin damage and ulceration are very important. This will allow to **plan appropriate treatment and set the right expectations.**

This patient had GSV stripping 10 years ago and a healed ulcer due to longstanding SSV reflux. Typically, **SSV reflux is responsible for ulceration in the lateral malleolus.** However, in this case, it was the medial malleolus as the reflux was diverted from SSV through a lower calf tributary coursing medially.

The segmental deep reflux was due to the SSV incompetence and will be eliminated after treating the superficial vein reflux.

PASSION FOR CLINICAL EXCELLENCE, KNOWLEDGE AND PROGRESS

VS

2026

**VENOUS
SYMPOSIUM**

APRIL 30-MAY 2, 2026

**SHERATON NEW YORK TIMES SQUARE HOTEL
NEW YORK, NY**

venous-symposium.com