

Unusual vein reflux at a young age

Superficial and deep vein disease

Dr. Nicos Labropoulos
Professor of Surgery and Radiology
Director, Vascular Laboratory
Stony Brook Medicine
Stony Brook, New York USA
[**nlabrop@yahoo.com**](mailto:nlabrop@yahoo.com)

Dr. Adriano Souza
Director, Ecocenter for Diagnostic Medicine
Belo Horizonte
Brasil
[**adrianosouza.vasc@gmail.com**](mailto:adrianosouza.vasc@gmail.com)

A 20-year-old male presented with **edema, heaviness and burning sensation**. He observed the appearance of varicose veins and **limb asymmetry when he was 13 years old**. He does not use any medication and has never had surgery. No comorbidities. No family history of varicose veins.

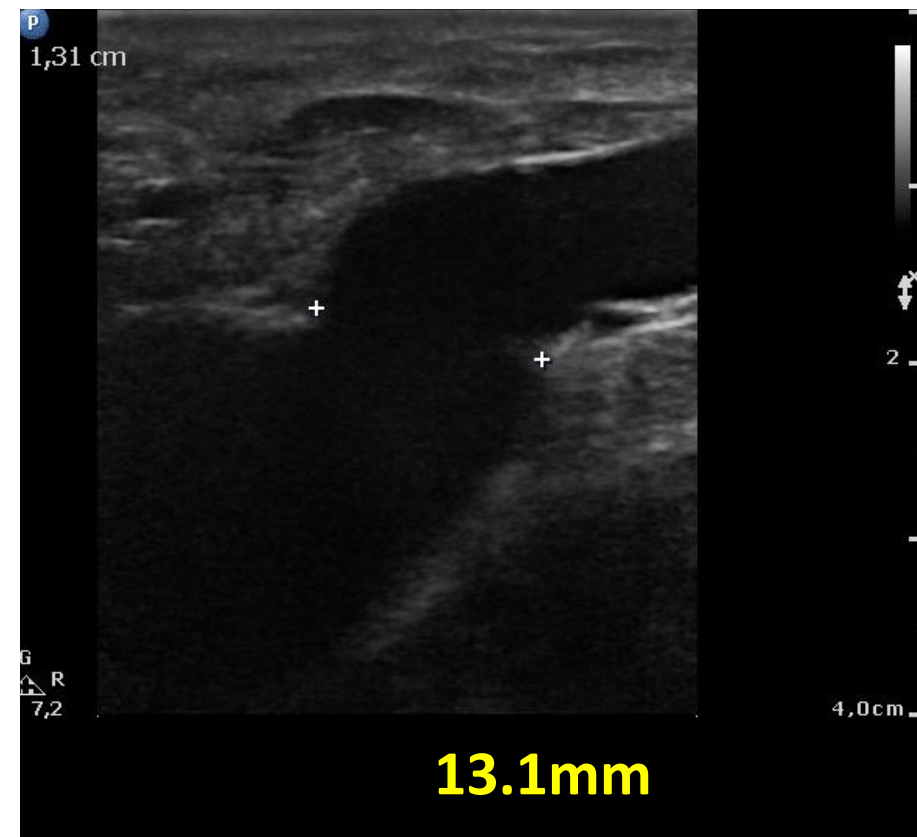
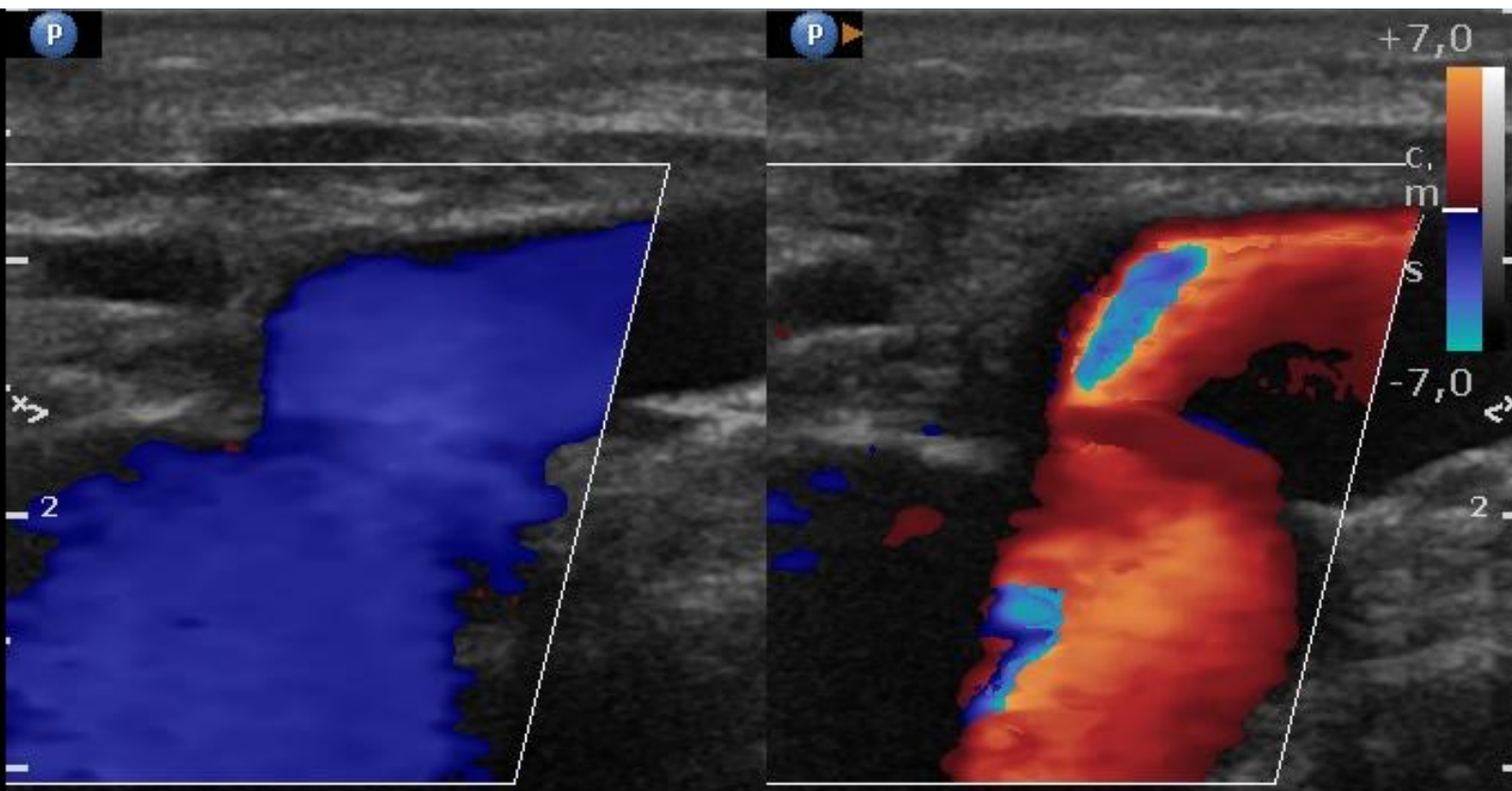
- No previous venous interventions
- No comorbidities
- No family history of varicose veins
- No allergies
- No medications
- Normal arterial exam



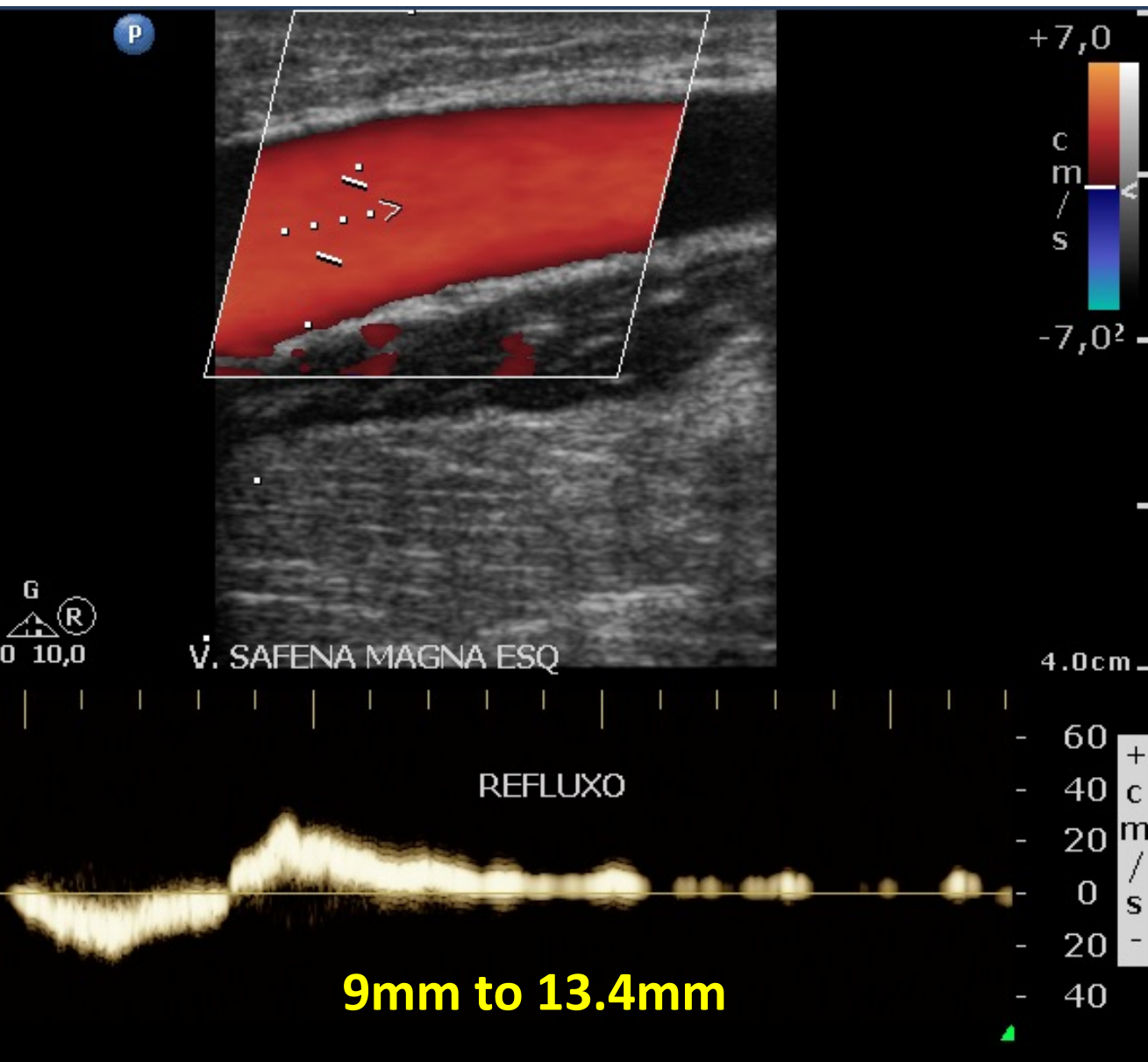
Limb asymmetry Left > Right



SFJ dilated with reflux

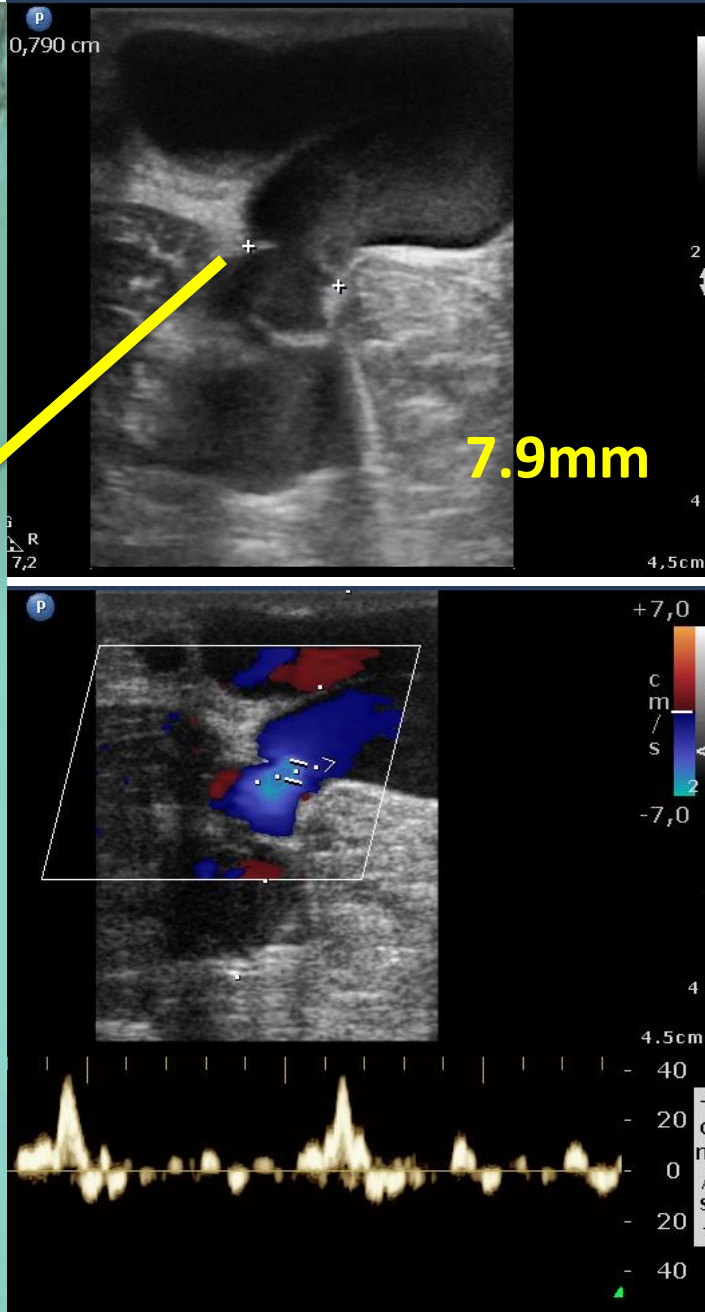


GSV dilated with reflux in the proximal thigh



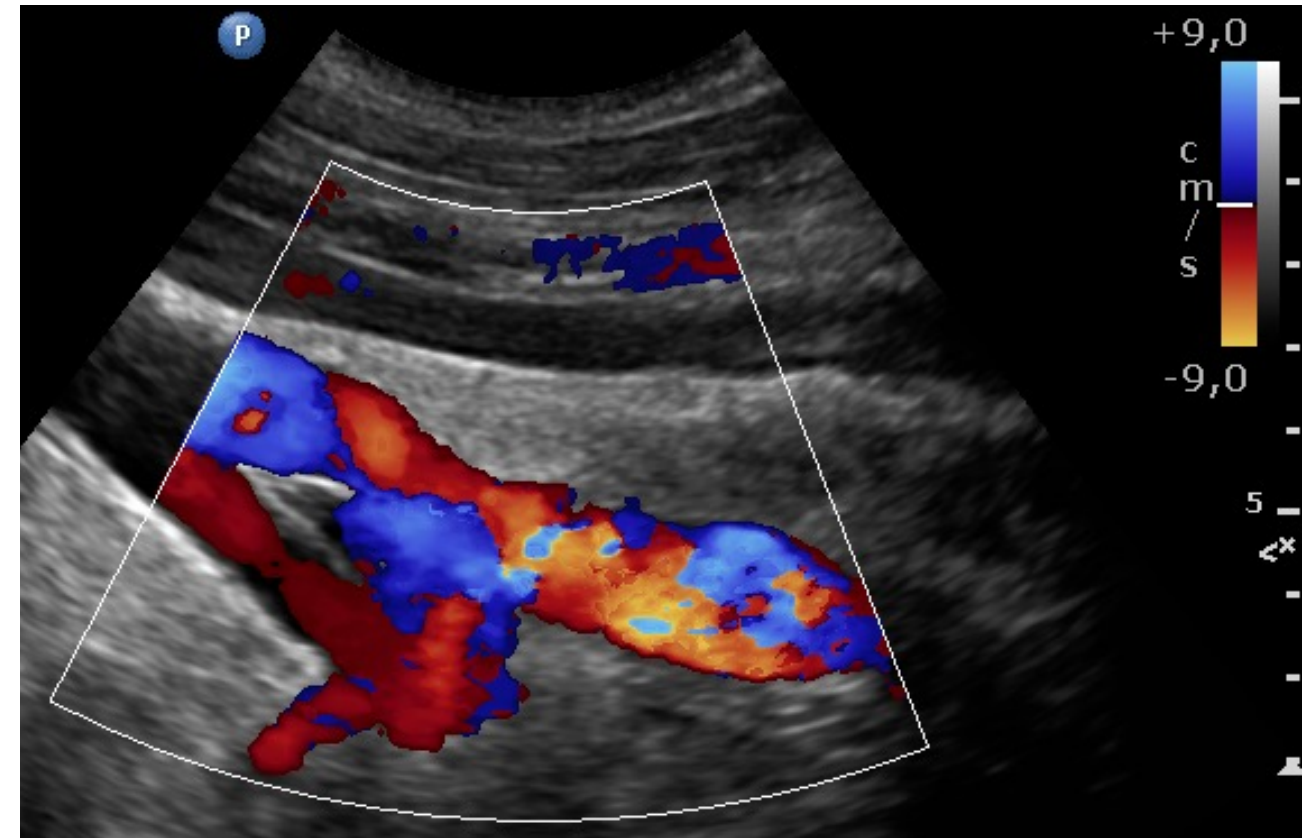
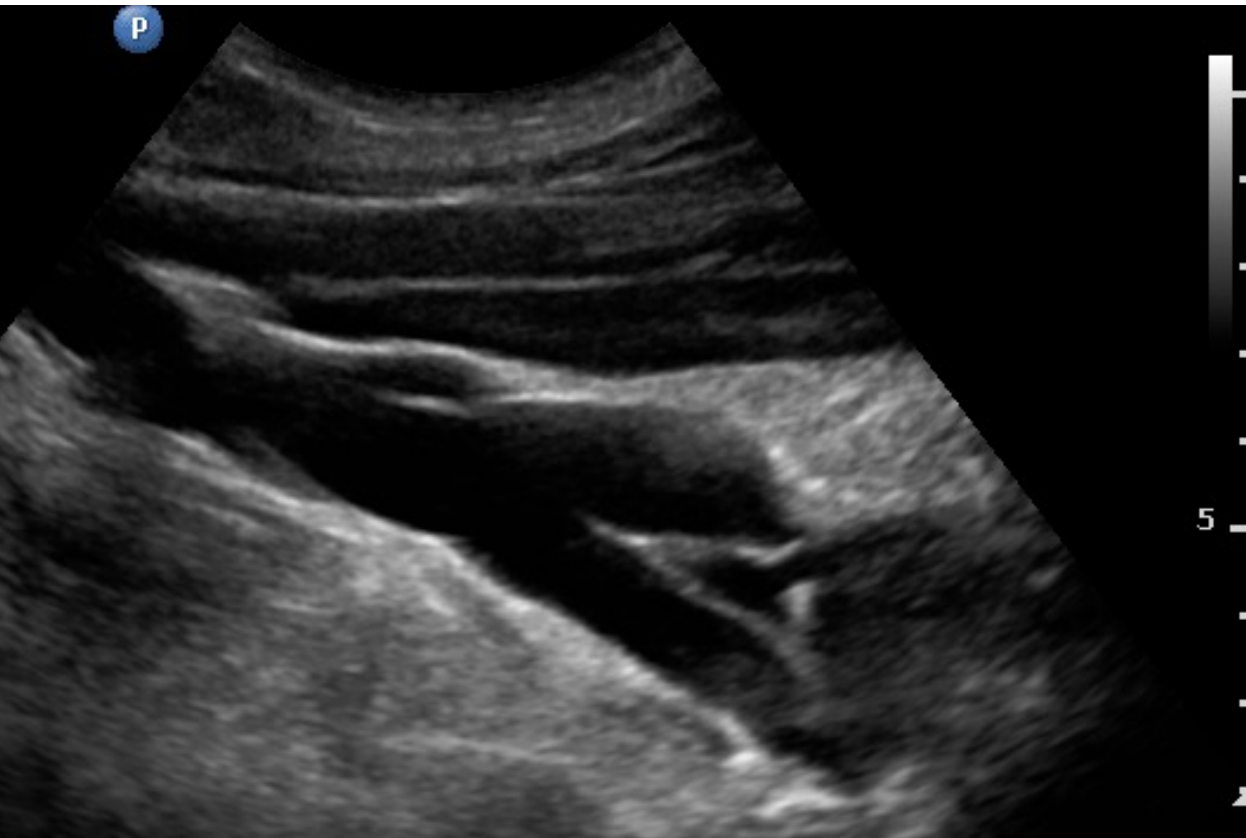
GSV had reflux from SFJ to mid thigh draining into a large tributary.

Medial calf perforator vein – No reflux, re-entry PV



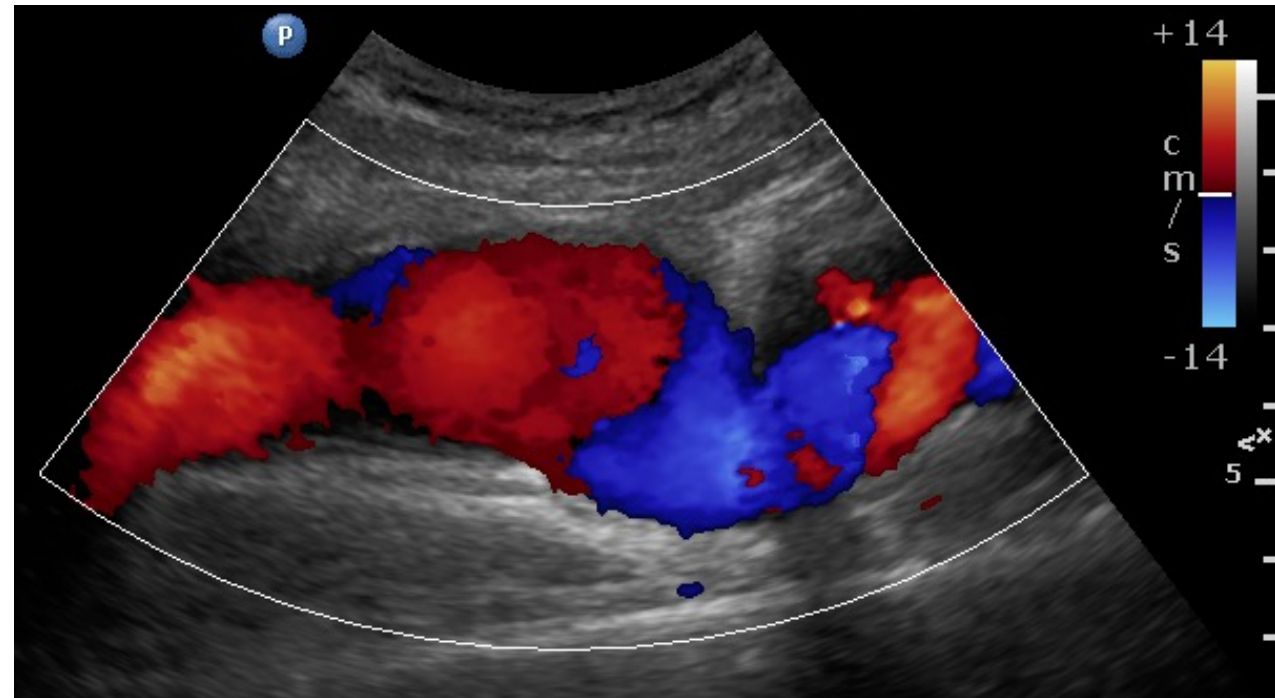
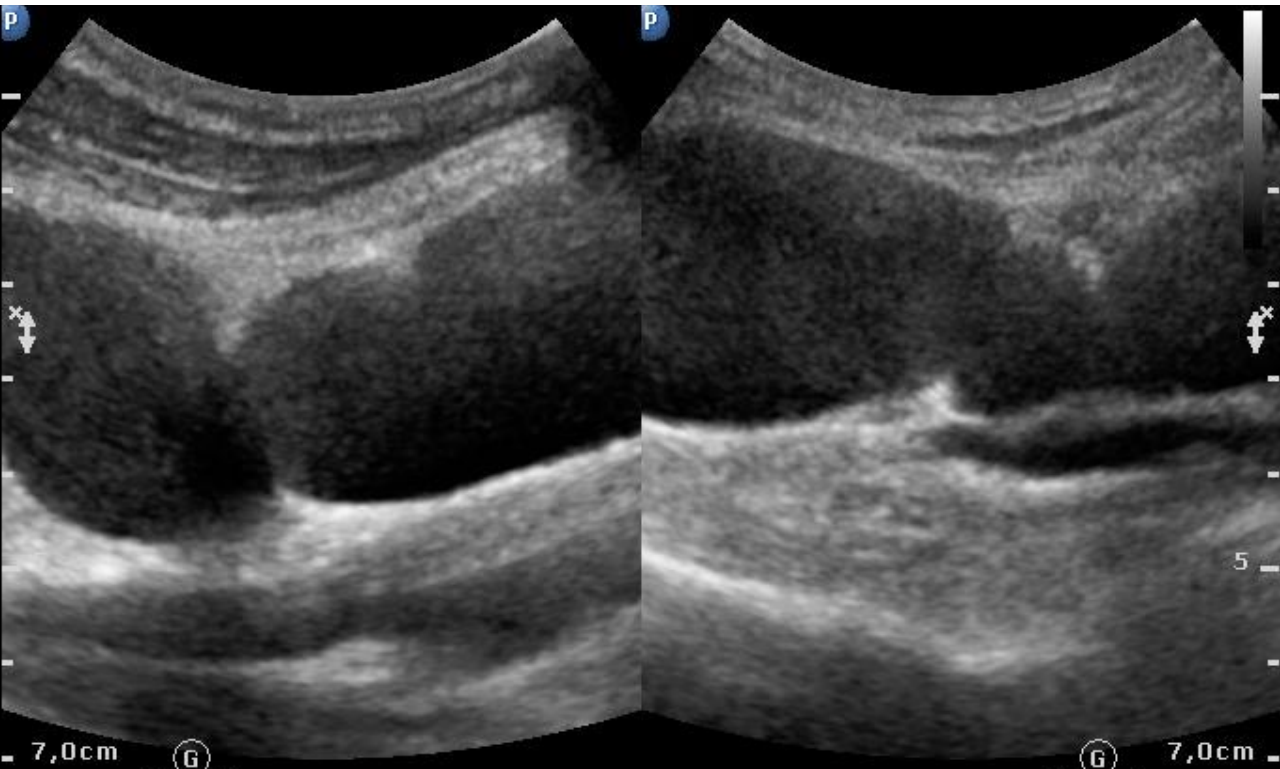
GSV tributaries with reflux.
Large perforator vein **7.9mm**
without reflux.
Deep veins at this level were
normal.

Femoro-popliteal vein – Connection to DFV



A large tortuous vein was found connecting the popliteal and deep femoral vein. This vein is most often seen in patients with femoral vein obstruction. However, this is a young patient that never had a previous DVT. His femoral vein was also normal.

Femoro-popliteal vein – Popliteal to DFV



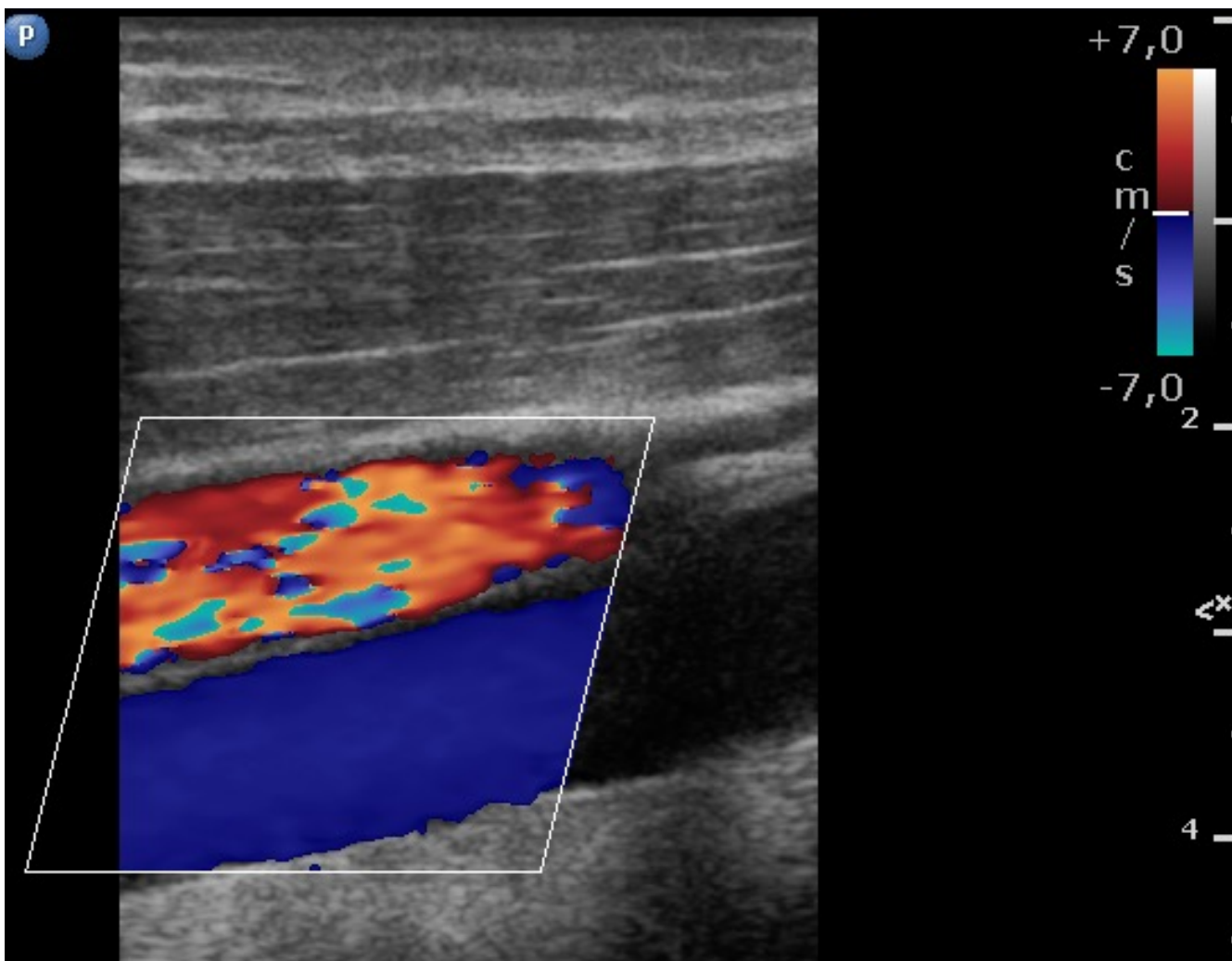
The femoro-popliteal vein was tortuous and dilated and had reflux throughout its course.

Femoro-popliteal vein – Popliteal to DFV

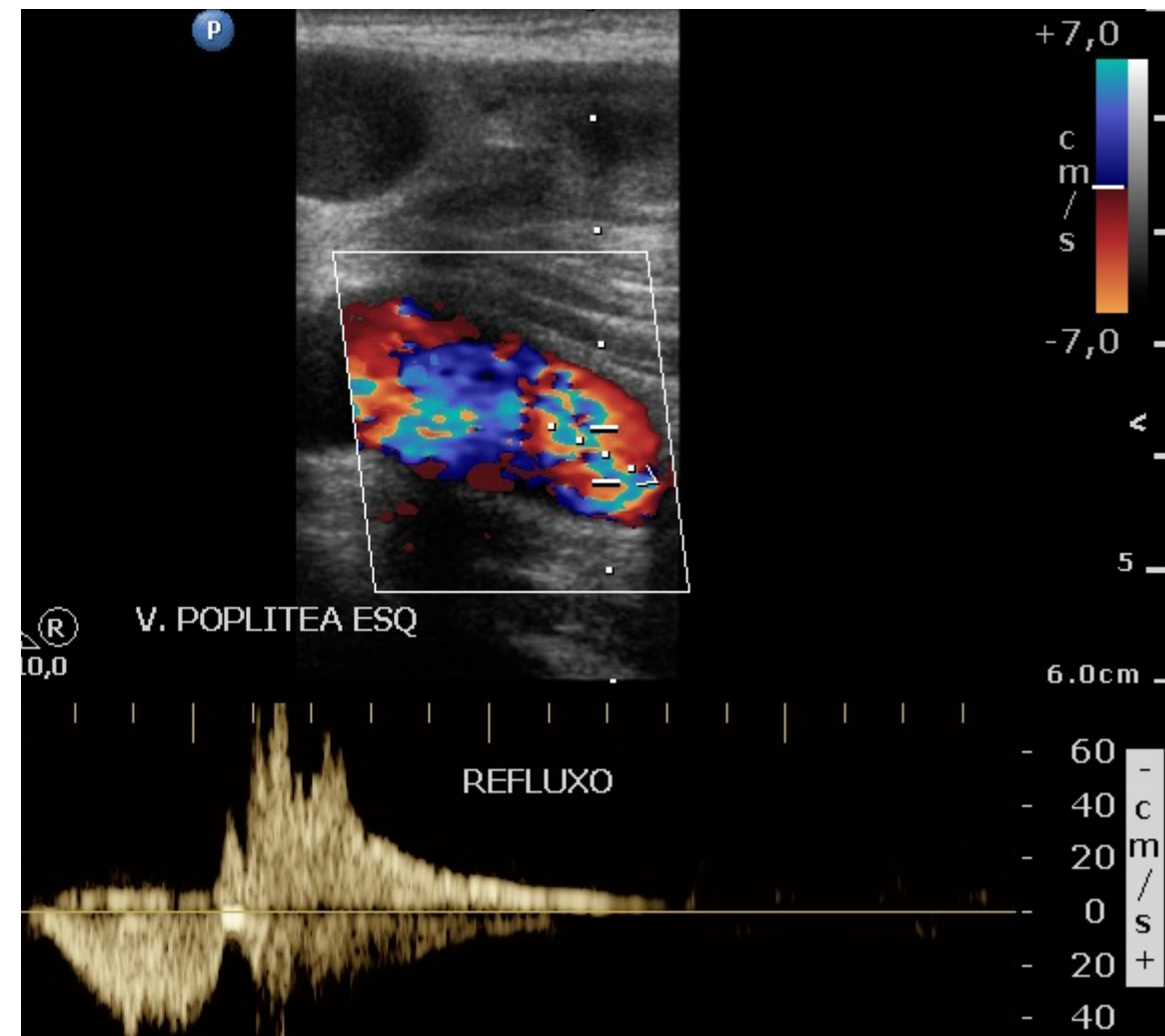


The large tortuous femoro-popliteal vein could explain the limb asymmetry.

Femoral vein normal

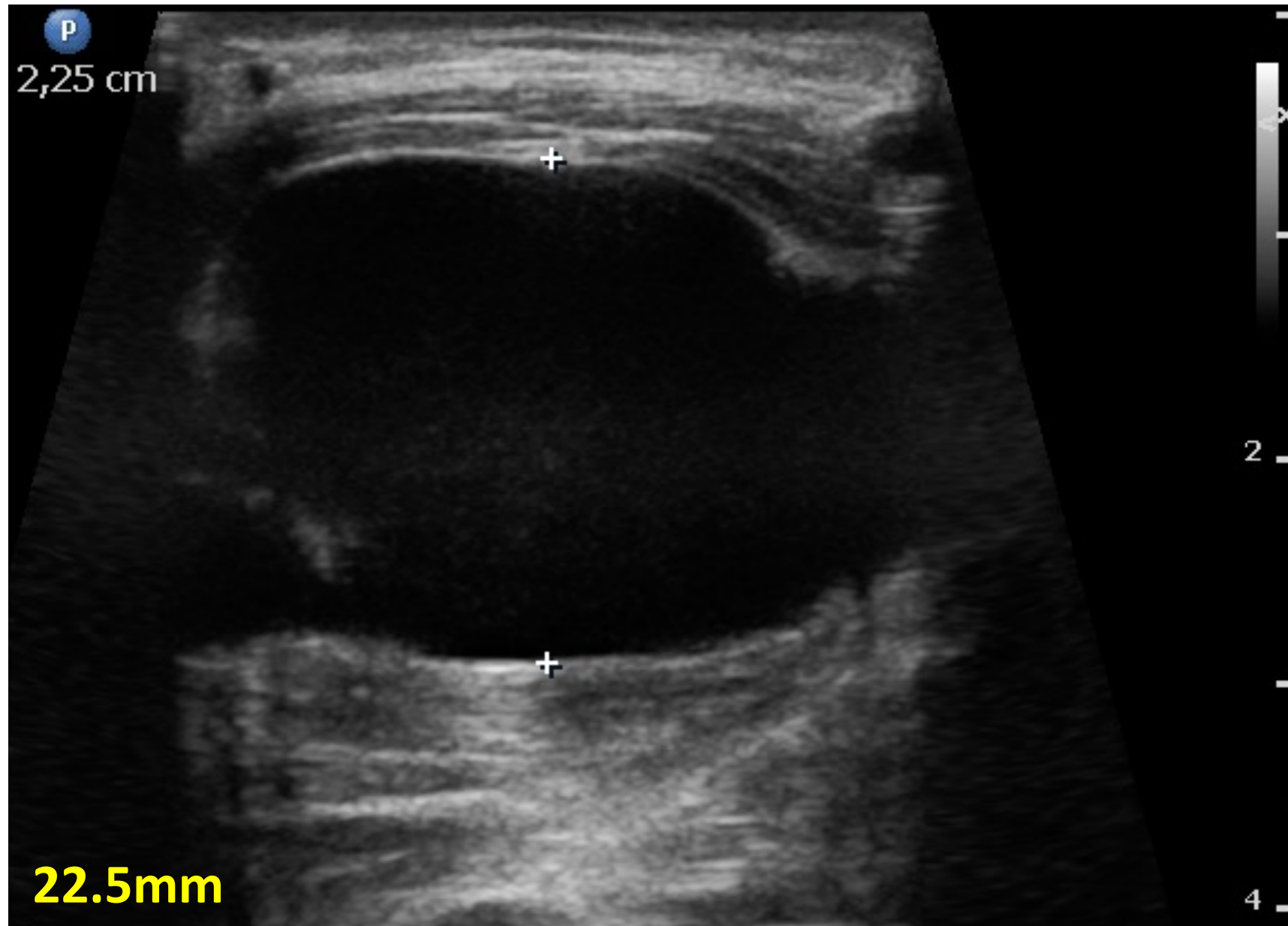


Popliteal vein reflux



The femoral vein was normal but the popliteal connecting to this large vein had reflux.

Medial gastrocnemius vein very dilated with reflux
There was no thrombus or luminal changes.



C2-3s Ep As,d Pr

GSV reflux from SFJ to mid thigh

SSV was normal

Large re-entry perforator vein
Medial lower calf **7.9mm**

CFV was normal

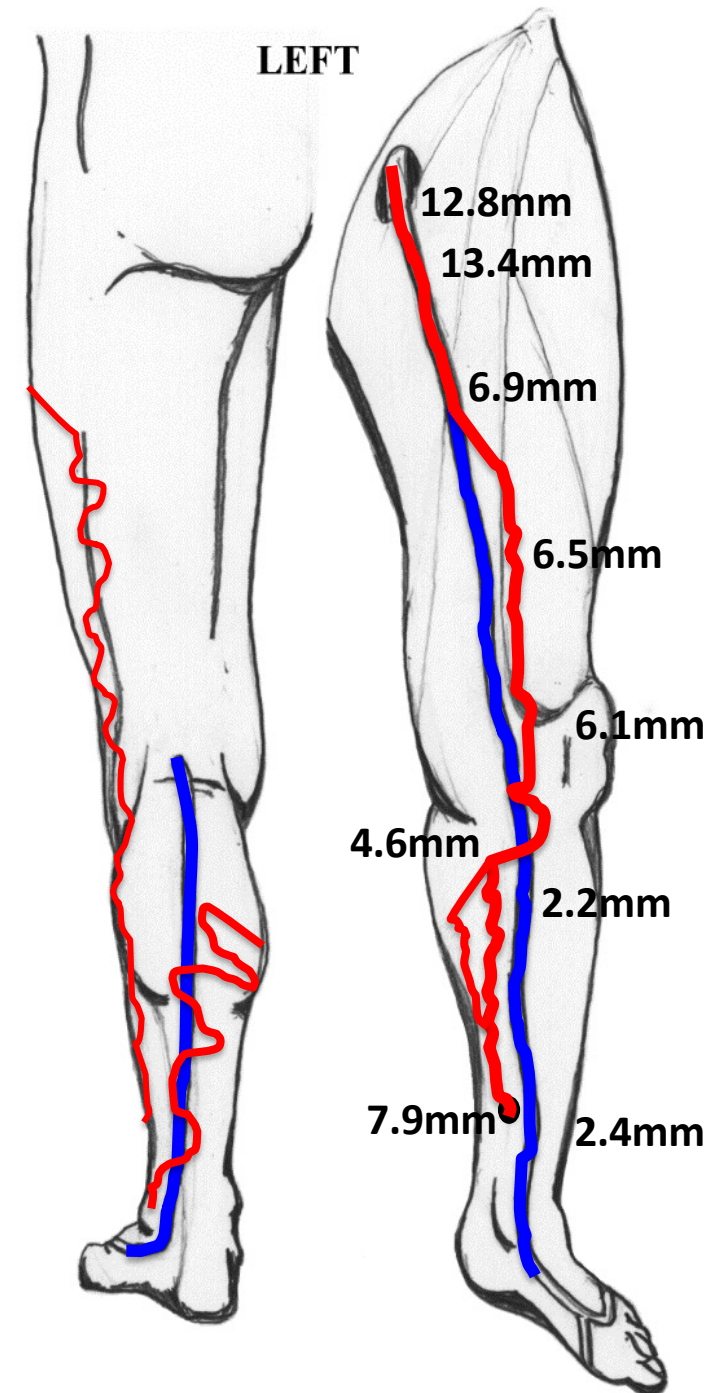
FV normal **14mm**

POPV reflux **17mm**

Femoro-popliteal vein **34.5mm** with reflux

Medial gastrocnemius vein **22.5mm** with reflux

Calf axial deep veins were normal



Questions on treatment

- ❖ Reflux in the superficial veins cannot explain the limb swelling that extends to the thigh.
- ❖ How this patient should be treated?
- ❖ Should any other testing be done?
- ❖ Anything to be done for the femoro-popliteal vein?
- ❖ Should the medial gastrocnemius vein be treated?
- ❖ The calf re-entry perforator measured 7.9mm. Anything to be done?