

Controversies & updates in Vascular Surgery

Paris - february 09 2019

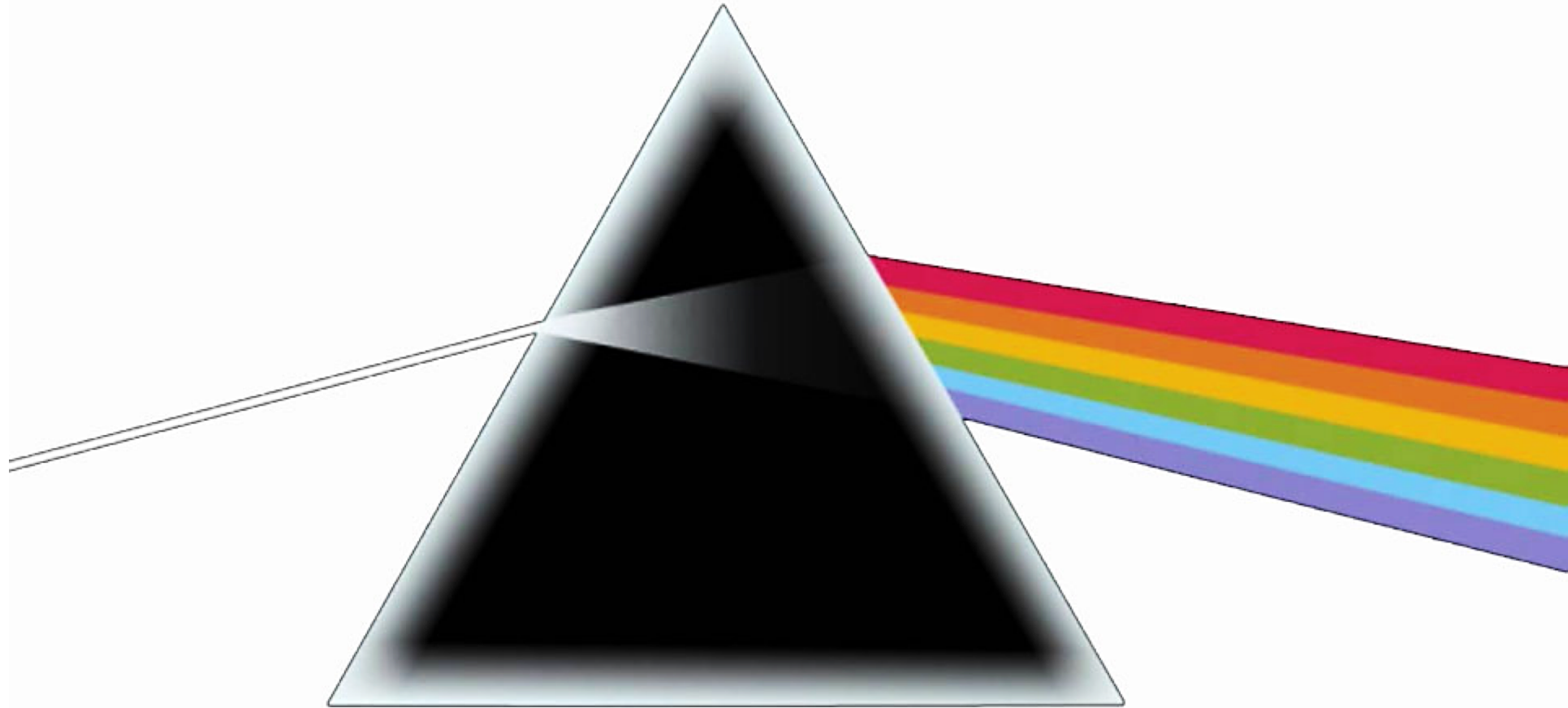
Venous session

Recurrence at the popliteal fossa

Pathogenesis and duplex investigation

Philippe LEMASLE

Le Chesnay - France



I have no financial relationship to disclose

Time of the surgery

- recurrence at the popliteal fossa ≈
 - refluxing stump
 - residual junction

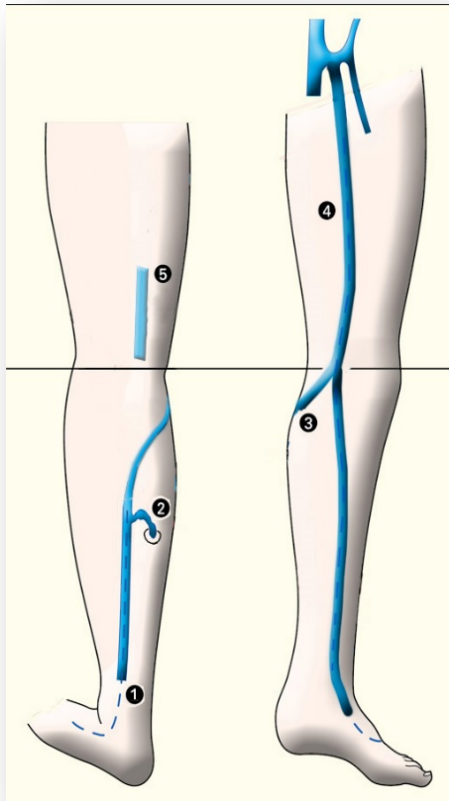
but now ... choosing wisely

- the first-line treatment for saphenous veins is thermal ablation
- with very few exceptions, conventional surgery should not be proposed for the treatment of saphenous veins

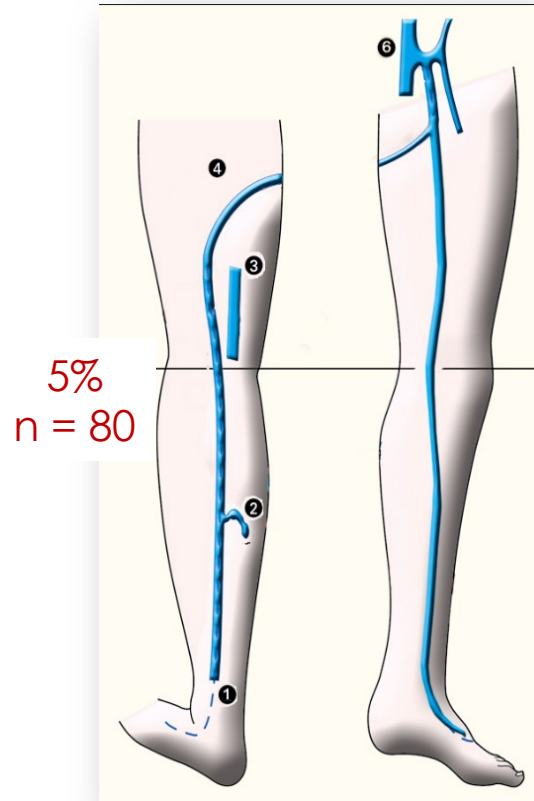
Saphenopopliteal junction : anatomical reminder

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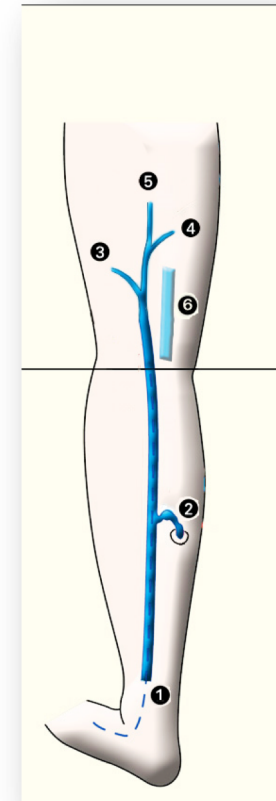
- small saphenous veins WITHOUT saphenous-popliteal junction



short type



long type

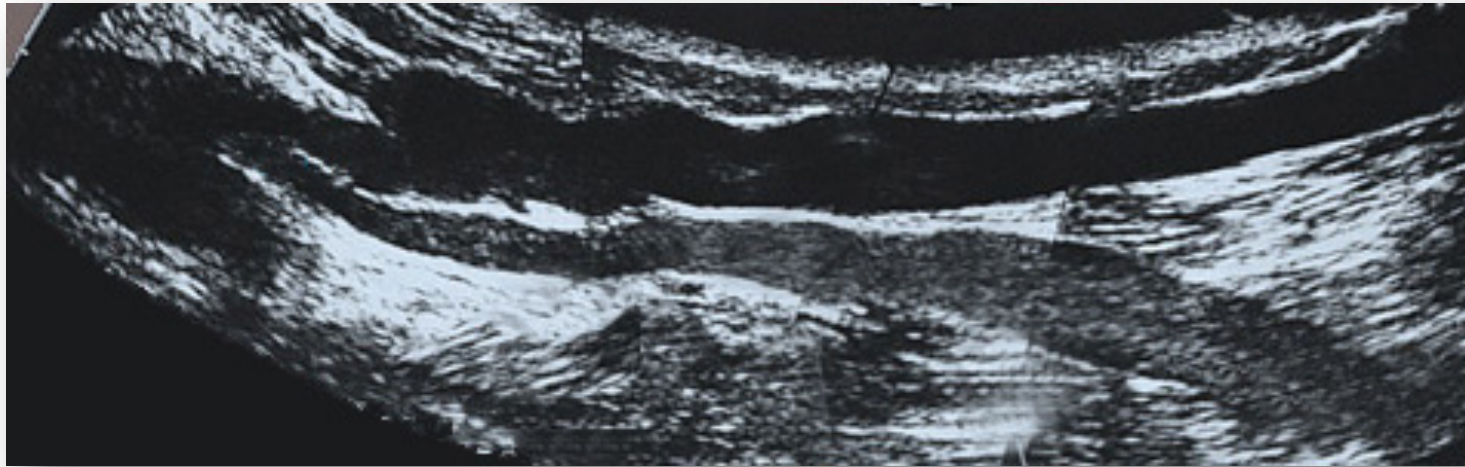


plexiform ending

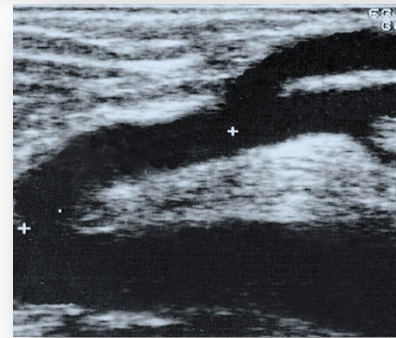
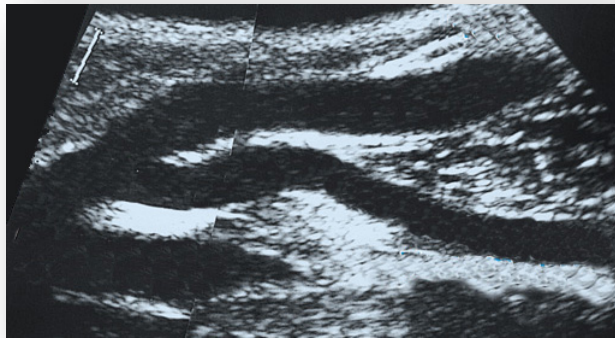


Saphenopopliteal junction : anatomical reminder

- common junction with the common trunk of the gastrocnemius veins



21 - 26 %
in a varicose vein population



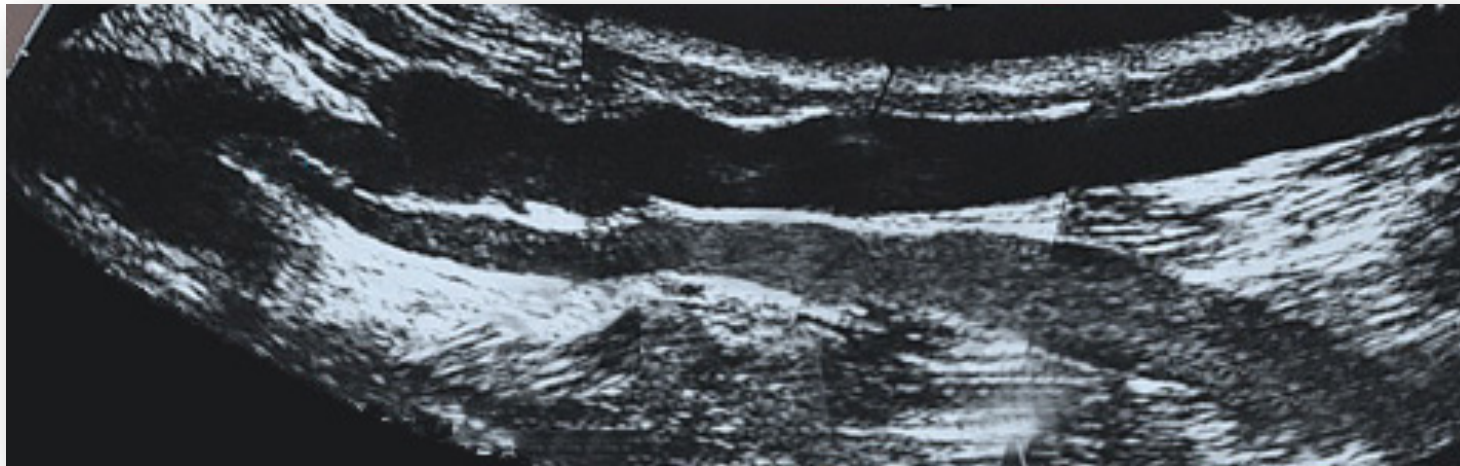
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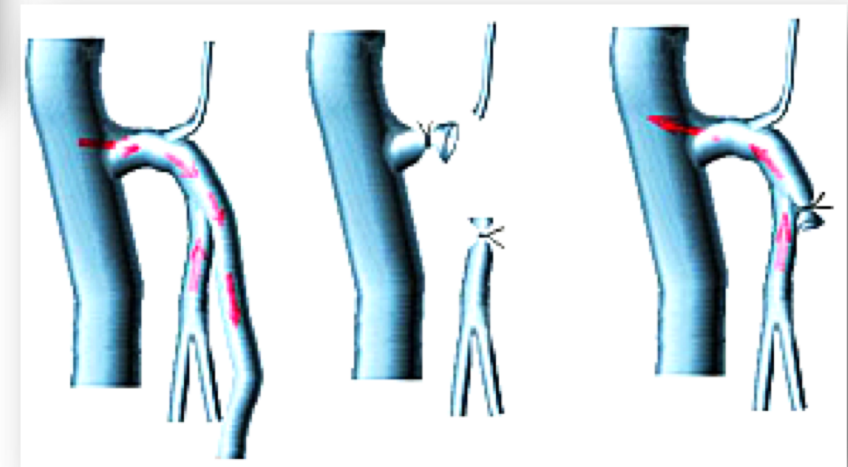
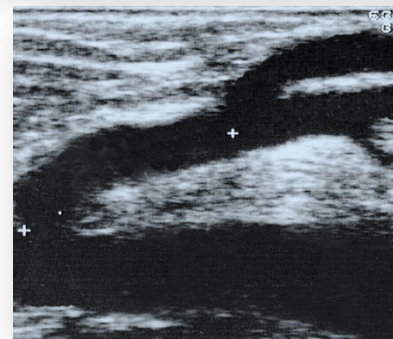
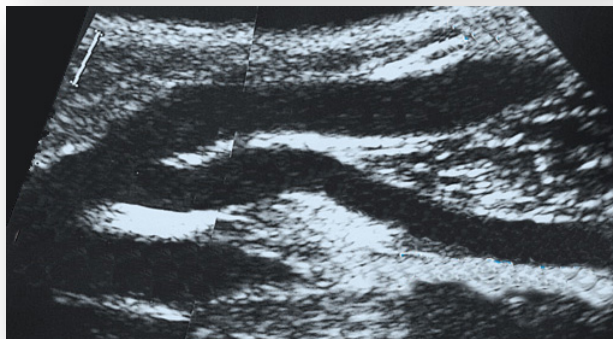
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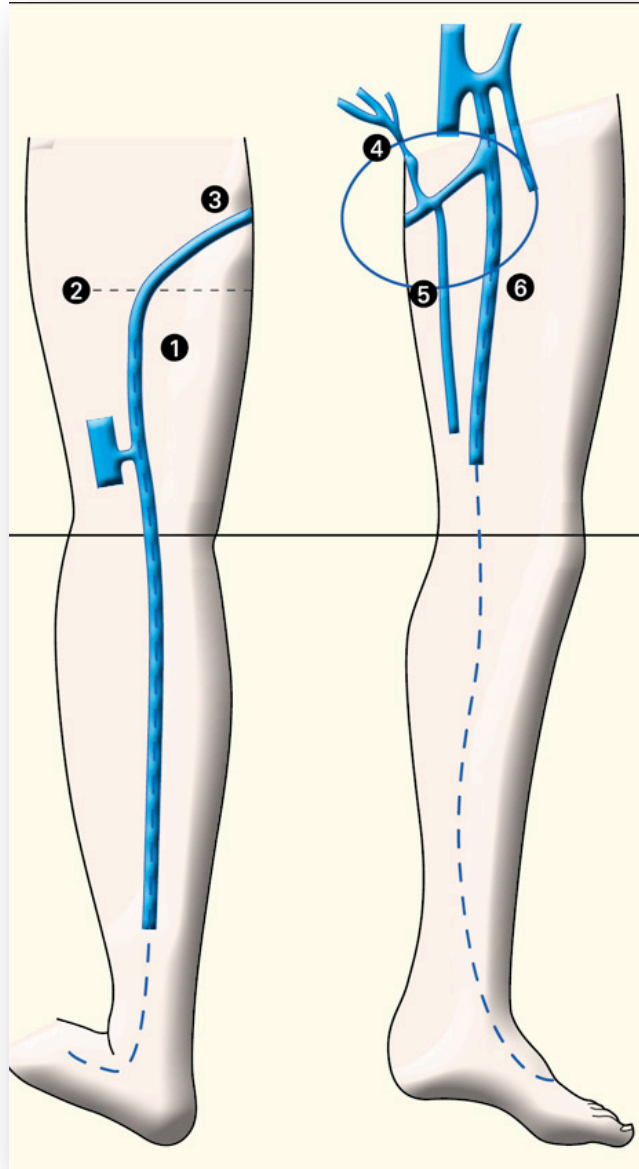


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Saphenopopliteal junction : anatomical reminder



anastomose of Giacomini (1) (3)

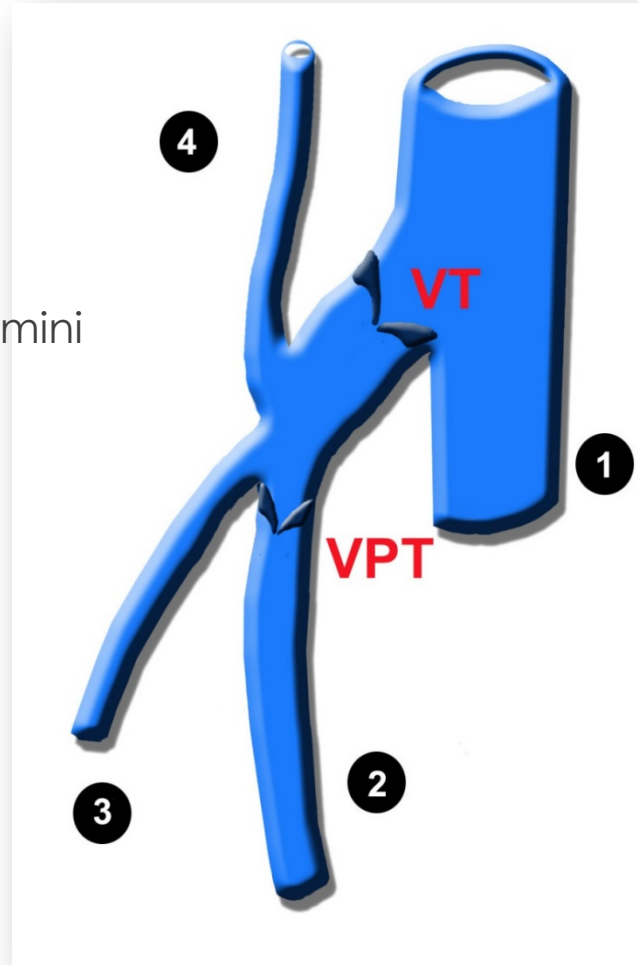
= anatomico-hemodynamic crossroads between

- SFJ
- SSV
- GSV (6) & SSV trunks
- posterior accessory saphenous vein (5)
- veins of perineal origin (4)

Saphenopopliteal junction : hemodynamic reminder

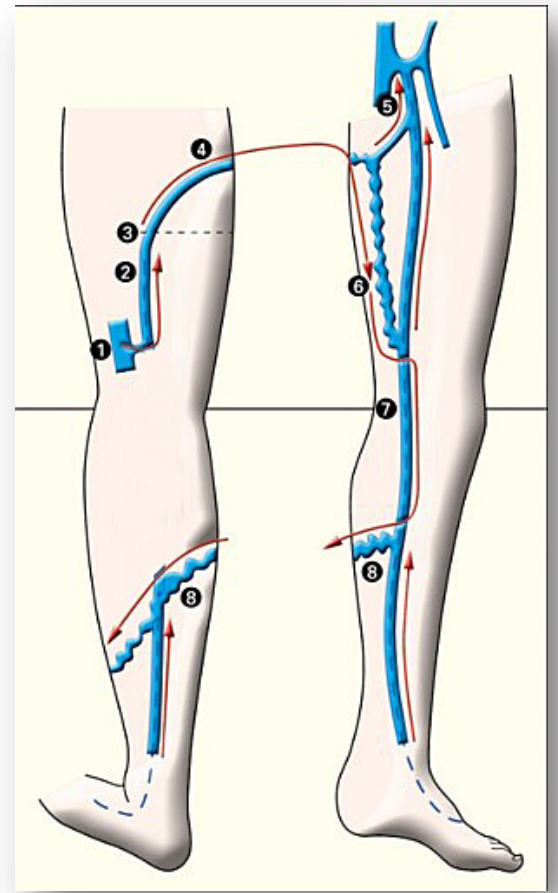
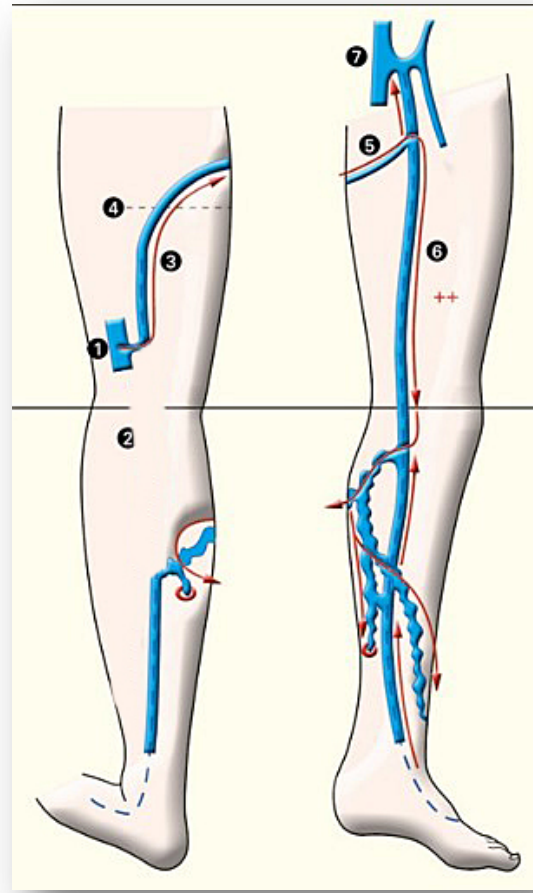
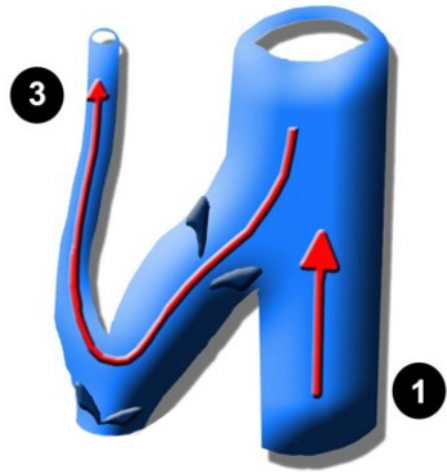
Saphenopopliteal junction : hemodynamic reminder

- (1) popliteal vein
- (2) SSV
- (3) tributary
- (4) anastomose of Giacomini



varicose vein topography =

expression of the hemodynamic status
of these 2 valves



= transmission of reflux from bottom to top

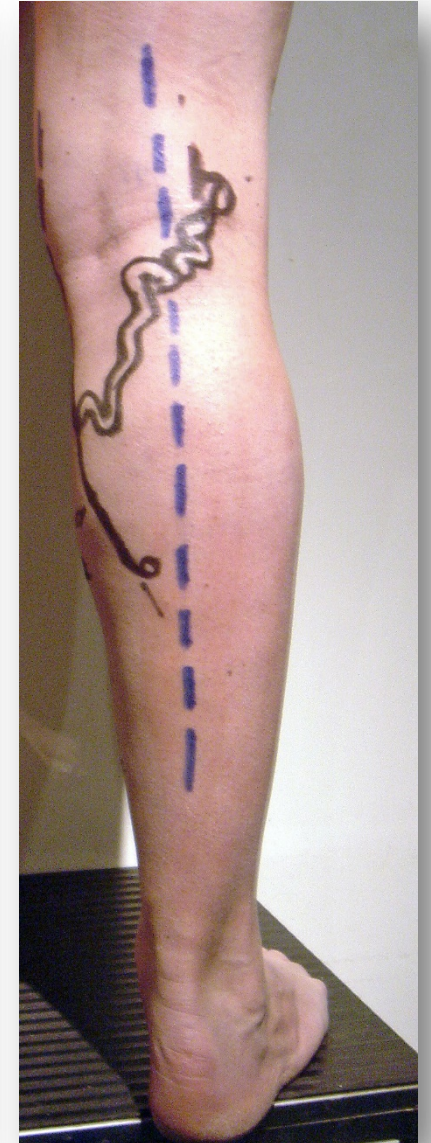
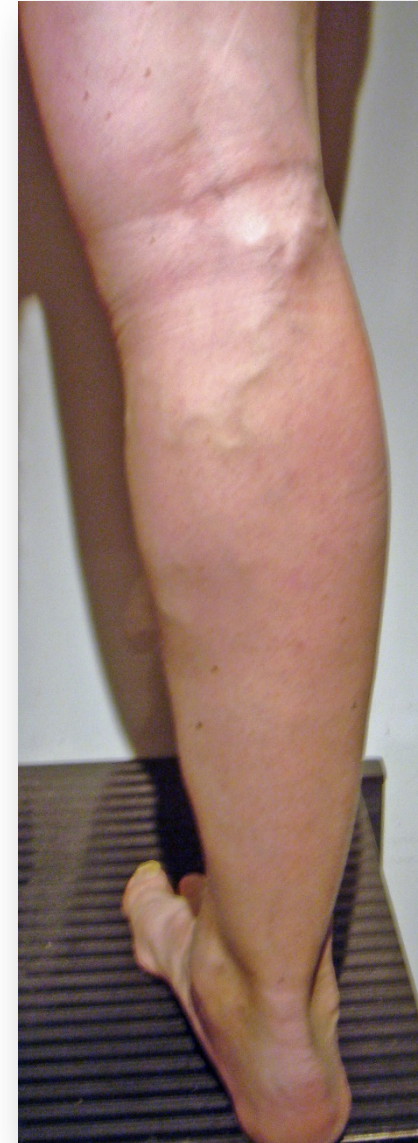
"Falses" popliteal recurrences

Poplitea fossa perforator (PFP)

Poplitea fossa perforator (PFP)

- characteristic clinical aspect
 - 2cm above knee fold, posterolateral side
 - dilated, tortuous, subcutaneous vein, which cross the PVS (interfascial) for feeding a posteromedial varicose calf
- often associated with a form of recurrent PVS
- However
 - different embryological origin
 - never connection between SPF et PFP

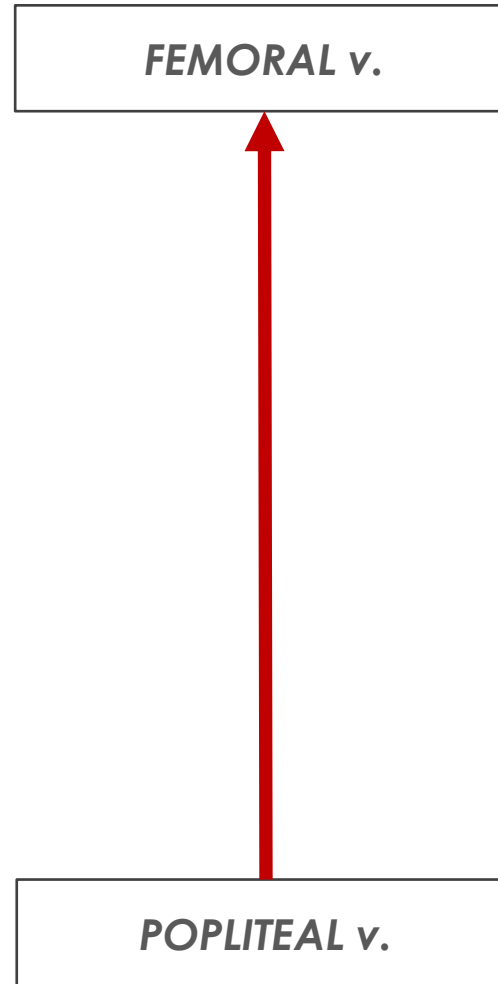
>> SO WHY ... ?



Poplitea fossa perforator (PFP)

- frequent venous functional compression in Hunter's canal

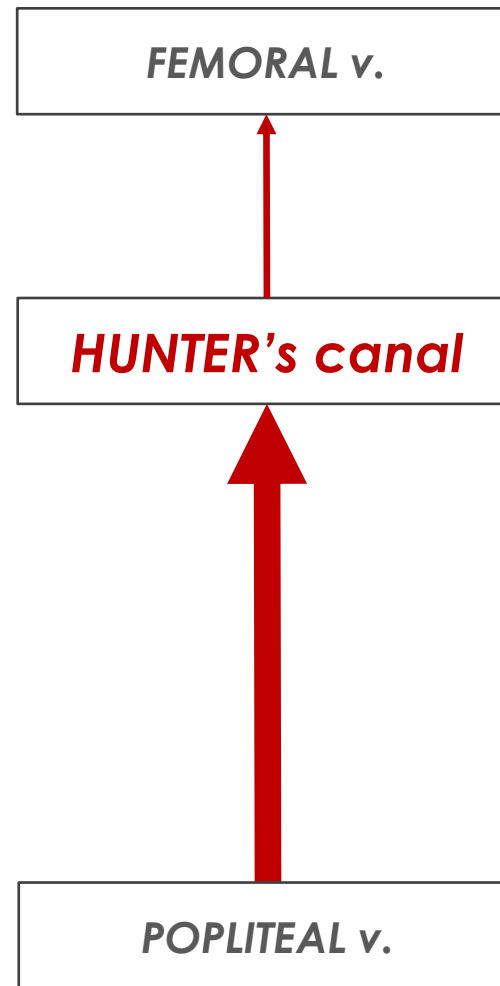
>> development of collateral pathway ...
saphenopopliteal junction is in one



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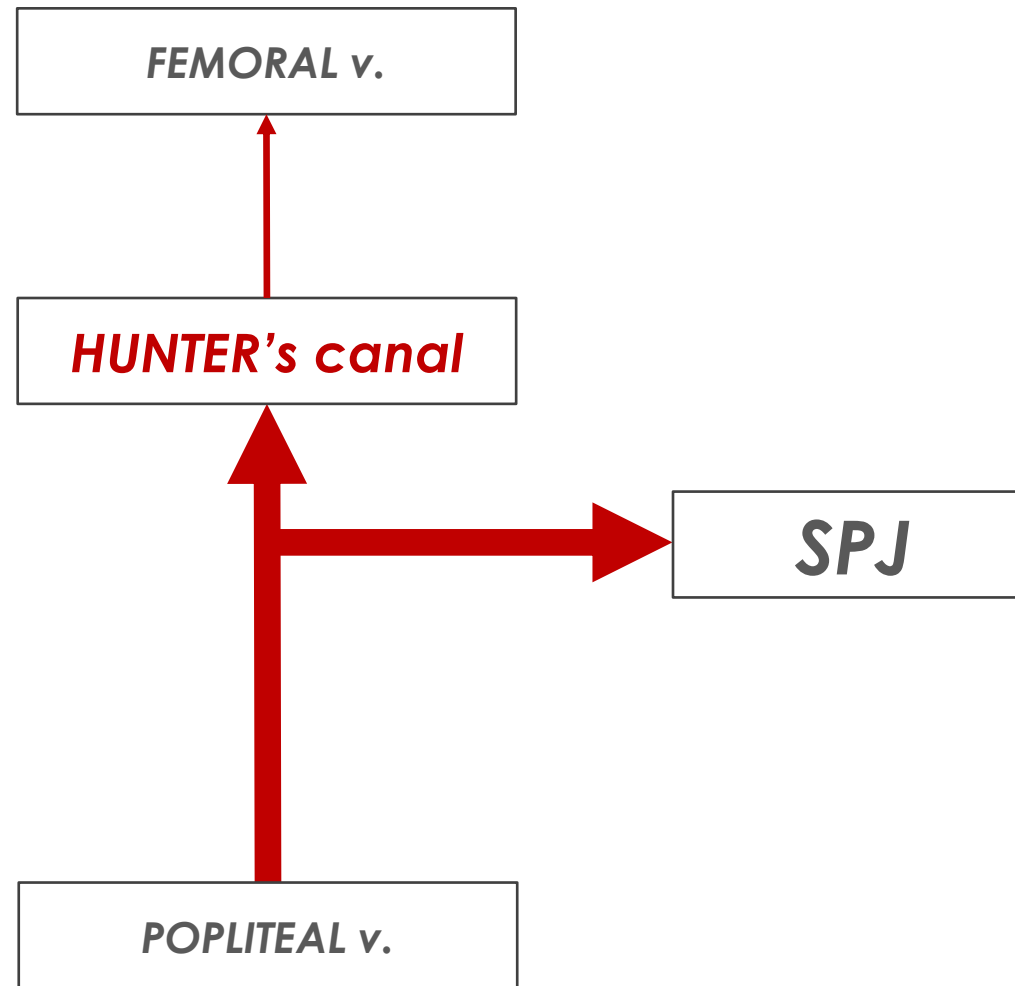
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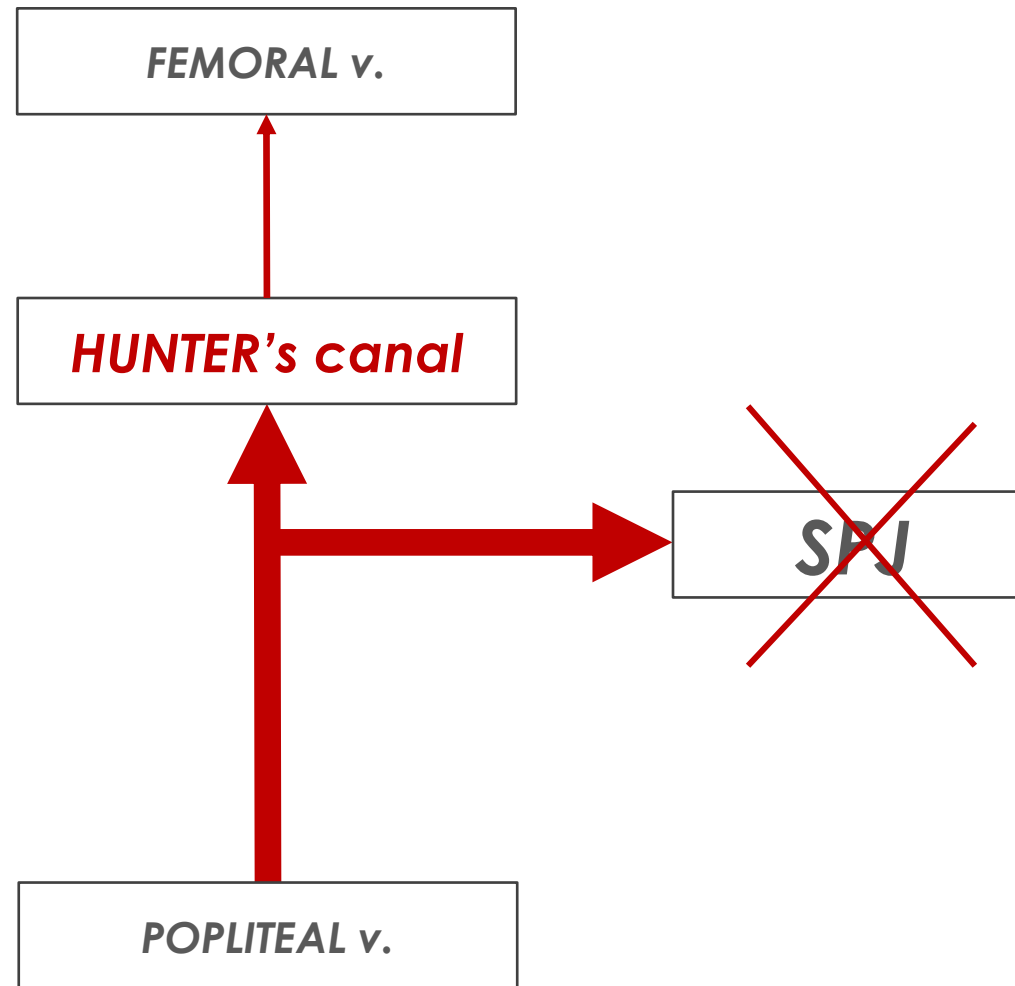
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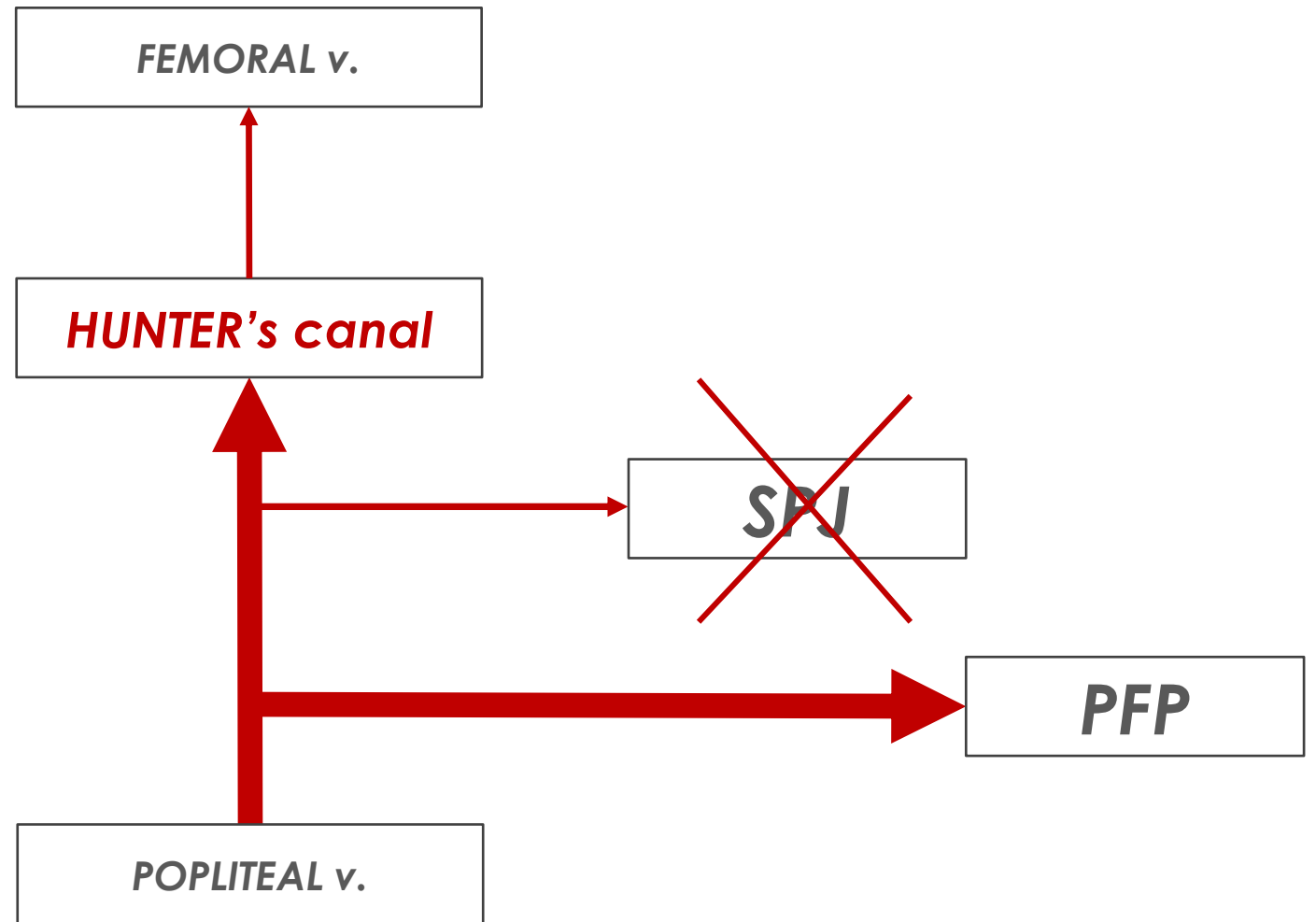
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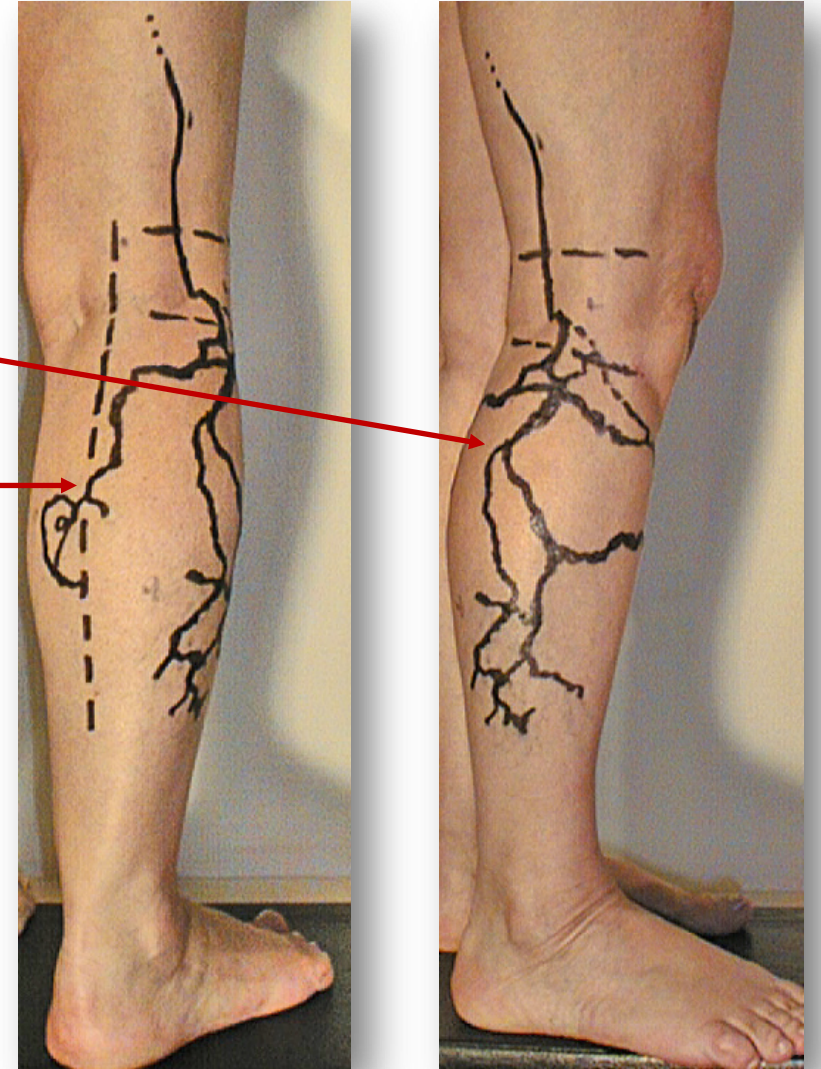
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Superficial fibular nerve varicosity

Superficial fibular nerve varicosis

- characteristic clinical aspect
 - posterolateral **subcutaneous** tributary
= path of the superficial fibular nerve
 - posterior **subcutaneous** tributary, which joins PVS
= path of fibular communicating branch

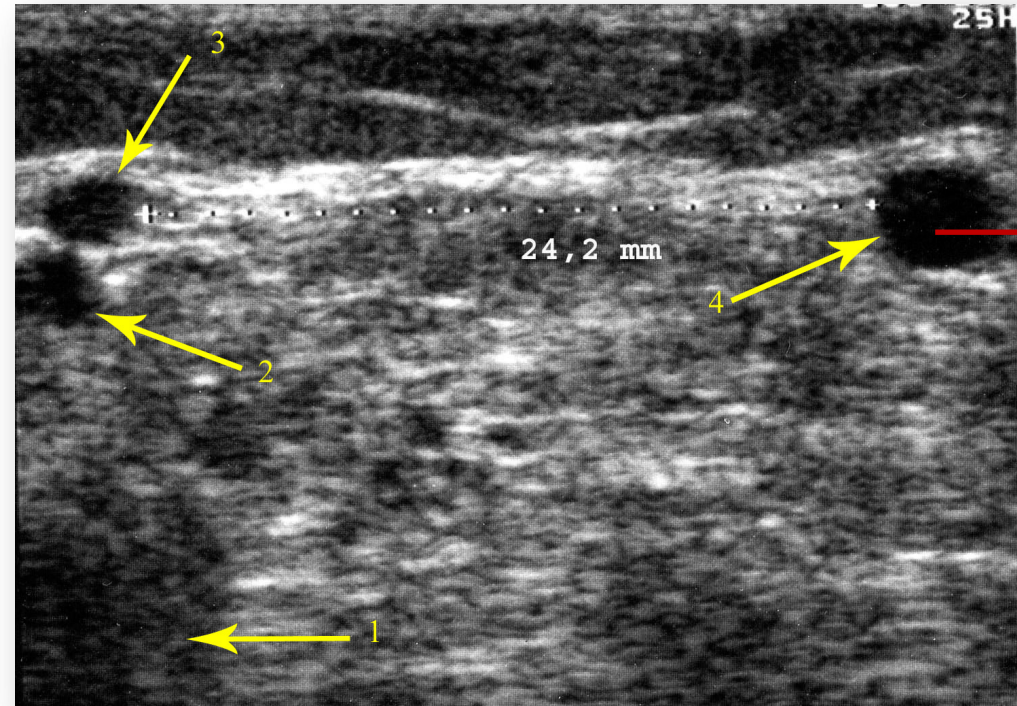


Superficial fibular nerve varicosis

- **ultrasound criteria**

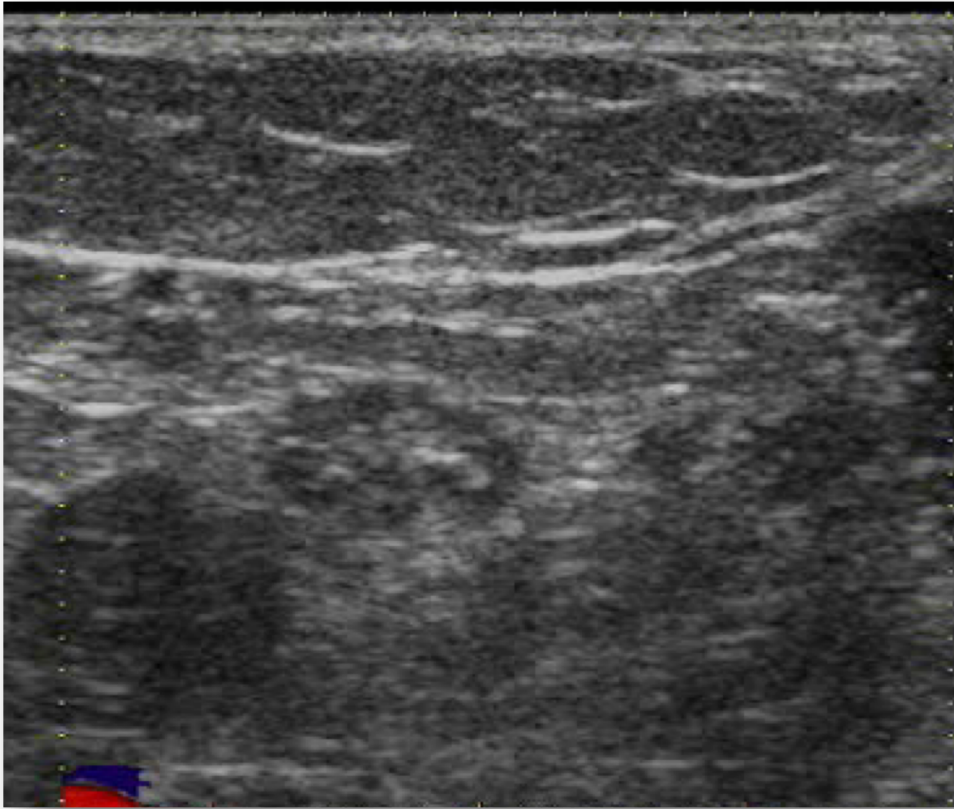
- a tubular refluxing venous trunk
- parallel but situated outside SSV
- interfascial

indicates a varicose vein developed in the territory of the superficial fibular nerve and its fibular communicating branch

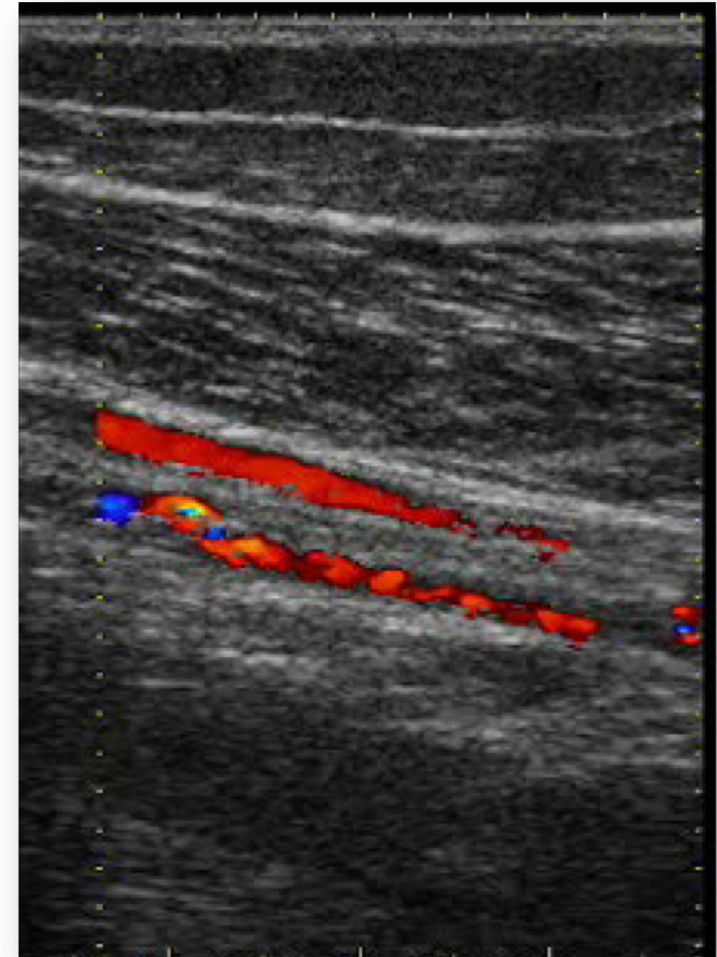


= pathognomonic of varicosis of the sciatic nerve

Superficial fibular nerve varicosity



small caliber refluxing plexiform network
located within the tibial & common fibular'
sheath



small, tubular, refluxing veins
located within the sciatic' sheath

Conclusion

Duplex-scan is the necessary and sufficient check-up
to assess popliteal fossa recurrence

