Cyanoacrylate And The Small Saphenous Vein: How To Treat The Various Anatomies

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Disclosure.

Dr. Janna Bentley, Faculty/Presenting Author for this educational event, has no relevant financial relationships with ineligible companies to disclose.

Dr. Pauline Raymond-Martimbeau

Rest in Peace.

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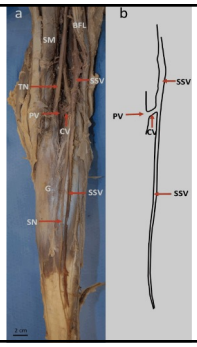
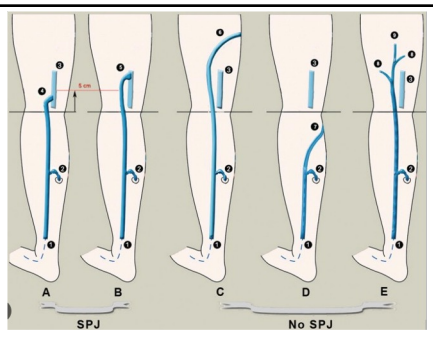


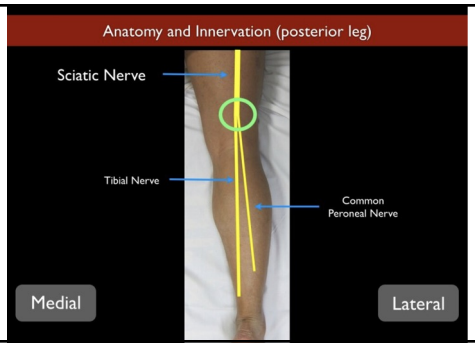
Cyanoacrylate: ideal for the SSV

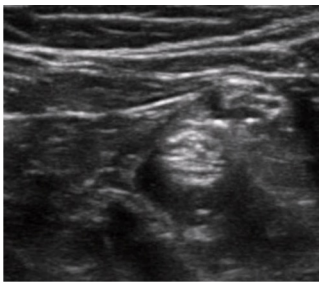
- 60% adult population have SVI; 20% of those have SSV insufficiency
- Treat of SSV is challenging: anatomy!!! Variability…
  - Thermal techniques associated with sural n damage 26% (Park et al)
- Nerves: sciatic, tibial, fibular, lateral & medial sural cutaneous, and sural nerves
- Arteries: popliteal, perforator association
- Deep veins: popliteal
- Cyanoacrylate: polymerization and high viscosity; complexity of SPJ→ safe
  - Pitfalls: stump remnant (too small or long) → extension or recurrence
  - Almost no risk of nerve damage

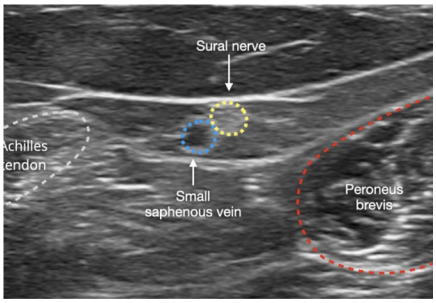
Variation: SSV

- Uhl & Gillot
- Considerations
  - Anatomical complexity
  - Nerves
  - Deep veins
  - Arteries
- No studies found with identification of variable anatomy of the SSV + Tx









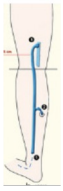
Risks of Cyanoacrylate-Use in the SSV

- Inadequate control at the SPJ with glue extension into deep system
  - Instructions for use (IFU): 50 mm from SPJ for glue placement (ultrasound compression, glue extension)
  - Biggest predictor: junctional proximal vein sizes
- DVT→ PE
- Ultrasound compression will vary with each of the anatomical patterns of SSV termination, with some angles more acute than others
- Diameter of SSV inversely related to glue extension at SPJ (Lee et al Phlebology 2020)

1. Regular termination SSV at SPJ with a low arch

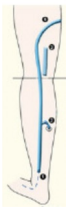
- 50 mm IFU too far or too close?
- Variables: proximal vein diameter; taper?; SPJ size

2. High termination SSV into SPJ (high arch)



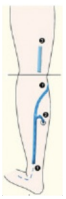
- Thermal techniques: more risk of nerve damage
  - Common peroneal nerve

3. Intersaphenous Vein (Giacomini), no arch



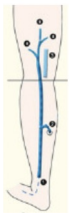
- Less risky for DVT and glue extension

4. Short type of SSV with low communication with GSV



- Again, less risky

5. SSV termination into thigh perforators or dorsal extension



- Perforators and risk of thrombus or glue extension
- Size matters
- Nerves→ know what they look like

Successful Treatment of the SSV with Glue and Risk Mitigation

- Control the junction
- Control the perforators
- Awareness of relationship between vein diameter and stump length
- Experience: jxn angles, glue spread

- Cyanoacrylate is an excellent option for SSV treatment and ablation: low risk, high efficacy (long-term and short-term)

Thank-you.

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