Glue Ablation For Recurrent Truncal Reflux After Thermal Ablation

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No Disclosures


- 3 series of radiofrequency ablation, 5 endovenous laser ablation.
- Overall recurrent varicose veins developed in 125 limbs after EVA (22%), with no difference in the incidence vs the L&S group (22%).
- Neovascularization occurred in only two limbs (2%) after EVA vs 18 (18%) in the L&S group.
- Recanalization was the most common cause of REVAS for EVA (32%; 40 of 125 limbs), followed by the development of anterior accessory saphenous vein incompetence (19%; 23 of 125 limbs).
- In contrast to other reports, incompetent calf perforating veins were an infrequent cause of REVAS (7%; eight of 125).

Alternative treatments for recurrence

- Surgery
- RF
- Laser
- Foam

EVTA, Personal experience: >5500 cases

- 2005-2008: 980 Laser
- 2008-2018: RF
- 2015-2018: Cyanoacrylate glue ablation

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- 2016-2018: 26 recanalisation of truncal veins
  - 20 - Great saphenous vein
  - 6 - Short saphenous vein
- (14 ♂, 12 ♀, mean age 50.4 years range 30–82)
- All symptomatic
Cyanoacrylate Injection technique

• A conventional IV cannula (16 G – grey, or 18G - green) was placed using an ultrasound guided technique
• All patients under local anesthesia
• Back-bleeding through the sheath was the confirmation of intraluminal positioning
• The metallic part of the catheter is perfectly visible

Injection technique

• The tip of the catheter was localized 2.5-3 cm below the SFJ or SPJ
• Flushing the IV catheter with 5 cc 5% dextrose (This nonionic solution is used in place of a saline flush to prevent polymerization of the mixture on contact with residual blood in the catheter tip)

Injection technique

• The first 0.5 cc of glue was advanced and allowed to polymerize for an initial period of 20-30 seconds without withdrawing the catheter tip
• Afterwards with the slightest possible withdrawal of the catheter tip, another 0.3-0.5 may be introduced to make sure complete occlusion
• Remember! Turkish glue polymerized very quickly!!!

If the catheter become occluded, should be taken out. Attempts to clear the lumen could result in uncontrolled expulsion of polymerized glue fragment. Catheter entrapment within polymerized glue has newer been happened.

Following confirmation of saphenofemoral or saphenopopliteal occlusion, foam sclerotherapy was carried out for the rest of the truncal vein
As we have to compress the junction with USG probe, there is no possibility to see the glue during injection.
• Patients were ambulatory after normal wound dressing
• Postoperative compression therapy was applied for 2 weeks (Foam!)
Results

• A mean of 0.8 ml of cyanoacrylate adhesive was used
• 1 phlebitis
• No deep venous thrombosis
• No neurological damage

6 months data

Closure
• July 2016 - January 2017 → 8/10 (80%)
• January 2017 - January 2018 → 15/16 (94%)
• Total experience → 23/26 (88.5%)

AVVQ
• 13.3 ± 4.9 to 5.5 ± 3.2 (P < .0001)

12 months data

Closure
• 18 patients
• 14/18 closure
• 78%

AVVQ
• 12.7 ± 5.5 to 4.5 ± 7.8 (P < .0001)

Are Turkish glue and USA glue equal?

Turkish Glue
• Like water
• Quick polimerisation
• Continuous application
• Distance to SFJ: 3 cm
• Less phlebitis?

USA Glue
• Like honey
• Longer polimerisation
• Segmental application
• Distance to SFJ: 5 cm
• More phlebitis?

• Proximal chemical ablation of the SFJ or SPJ followed by foam sclerotherapy might be a new choice of endovenous closure technique for recurrence after EVTA

• This approach may be used as the primary treatment modality of endovenous ablation in the near future as well.

UIP 2021 WORLD MEETING!

Thanks