

Multimodal Treatment of Small Saphenous Vein Incompetence

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

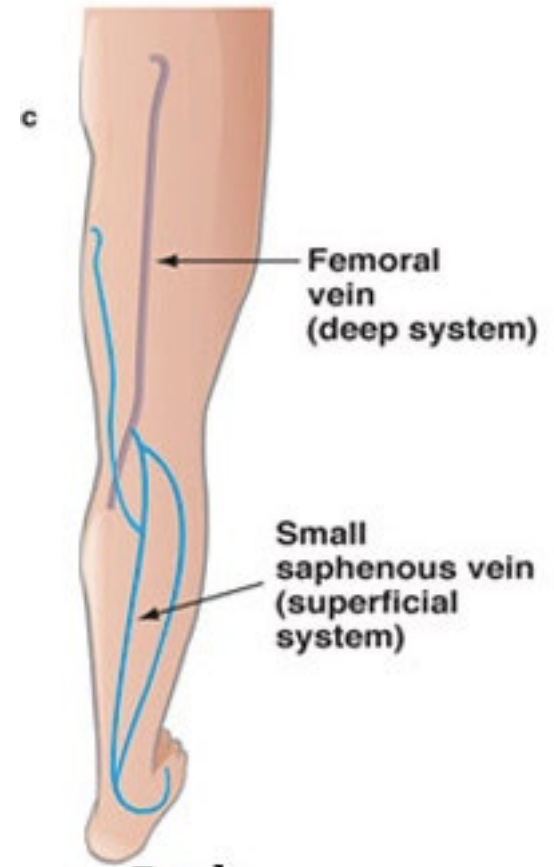
Consulting

- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest

Superficial Venous Incompetence (SVI)

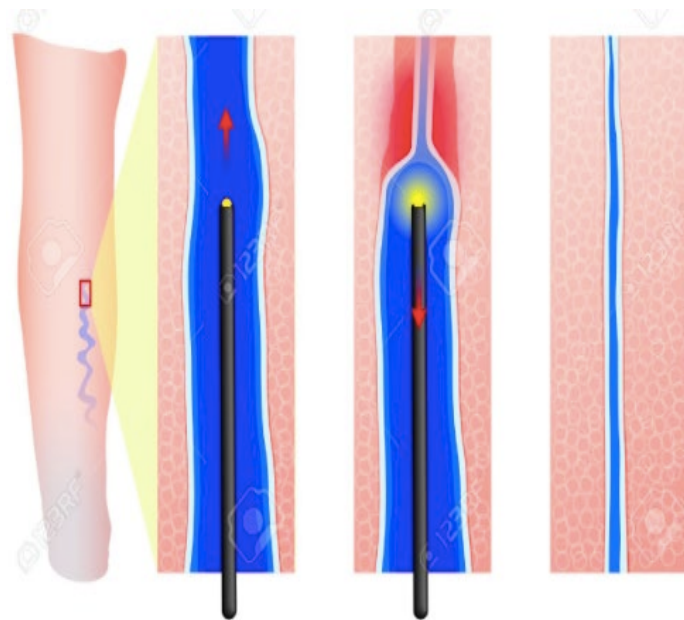
- Major vascular service workload
- 1/3 have SSV incompetence
- Sural nerve damage with surgery
- Less aggressive approach adopted
- Multimodal treatment options attractive



Evidence suggests

- Intervention for SSV incompetence offers

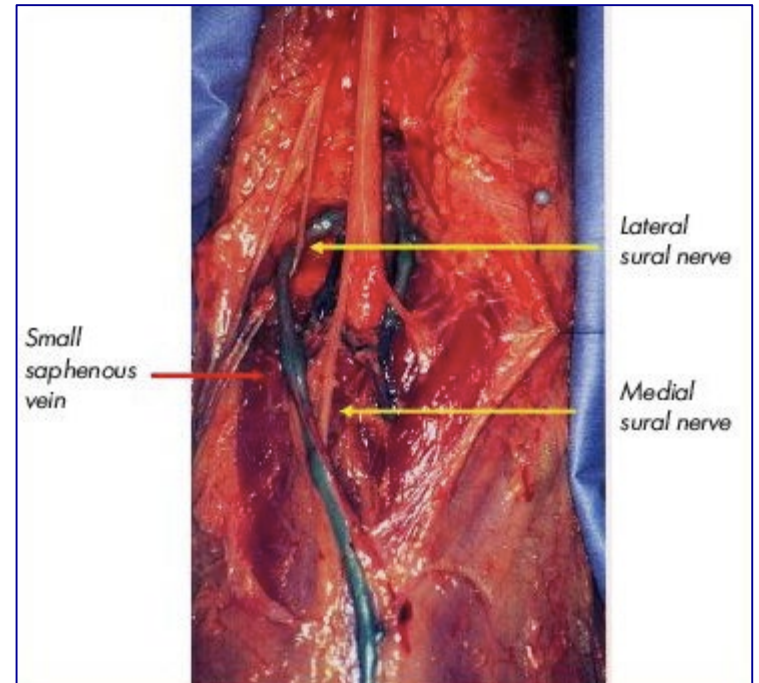
- Increased performance in terms of PROMS
- Reduced recurrence
- No significantly worse neurological outcomes (especially EVTA)



- What are the options?

Surgery

- Sapheno-popliteal ligation and stripping superior outcome to ligation alone
- Offers effective & durable improvements in PROMS
- Systematic review 2016
 - Anatomical success – 58%
 - Neurological complications – 19.8%
 - Better results with EVLA/RFA & FS

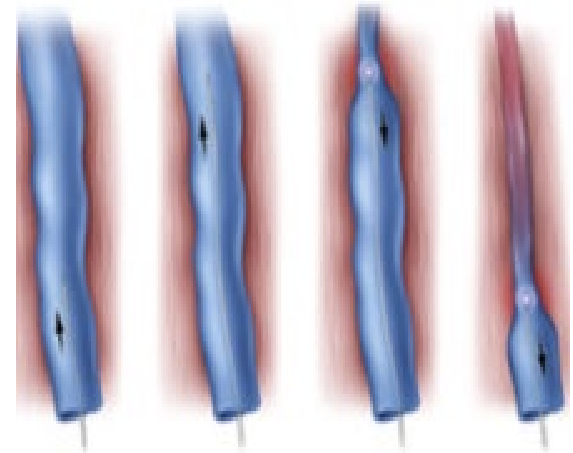


Boersam et al. J Endovasc Ther 2016; 23(1): 199-211

- Surgery superseded by newer modalities

Endovenous Thermal Ablation

- Studies suggest
 - Lower neurological complications (EVTA 7.5% v Surgery 26.4%)
 - Reduced recovery time
 - *Samuel et. Al, Ann Surg 2013; 257(3): 419-426*



J Endovasc Ther. 2016 Feb;23(1):199-211. doi: 10.1177/1526602815616375. Epub 2015 Nov 12.

Treatment Modalities for Small Saphenous Vein Insufficiency: Systematic Review and Meta-analysis.

Boersma D¹, Kormann VN², van Eekeren RR³, Tromp E⁴, Ünlü Ç², Reijnen MM³, de Vries JP².

Cochrane Review – 2016

Moderate to low quality evidence that persistent reflux at 6w and recurrence at 1y is reduced with EVTA



Trusted evidence.
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Endovenous ablation therapy (laser or radiofrequency) or foam sclerotherapy versus open surgery for the treatment of short saphenous varicose veins



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Better health.

Single RCT – 2 year results

J Vasc Surg. 2015 Mar;61(3):741-6. doi: 10.1016/j.jvs.2014.09.037.

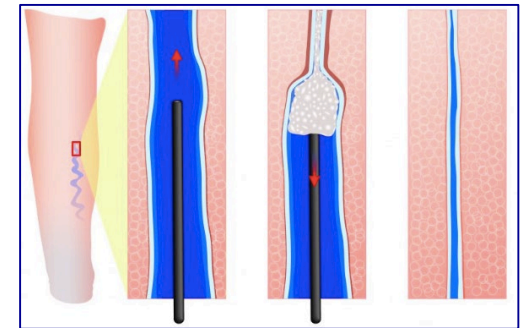
A randomized clinical trial of endovenous laser ablation versus conventional surgery for small saphenous varicose veins.

Nandhra S¹, El-sheikha J², Carradice D², Wallace T², Souroullas P², Samuel N², Smith G², Chetter IC².

- EVTA offers comparable outcomes to surgery without the short-term neurological complications
- EVTA current fore-runner for robust, medium/long-term data
- Mainstay modality for SSV intervention
- Little data on steam vein sclerosis
 - small numbers and mainly GSV

Foam Sclerotherapy

- Cochrane 2016 – unable to comment due to paucity of data
- Systematic review 2016
 - Safe but less effective treatment than EVTA
 - Success rates 63% for foam versus 98.5% for EVTA
Boersam et al. J Endovasc Ther 2016; 23(1): 199-211
- CLASS Study – inferior results for
 - Disease specific QoL health gains
 - Cost-effectiveness
 - Truncal ablation rates
 - But, more rapid return to normal activity (15% has SSV SVI)
- DVT concerns not supported by the evidence
 - No DVT in 331 patients from 22 centres
Gillet et al. Phlebology 2014; 29(9): 600-7



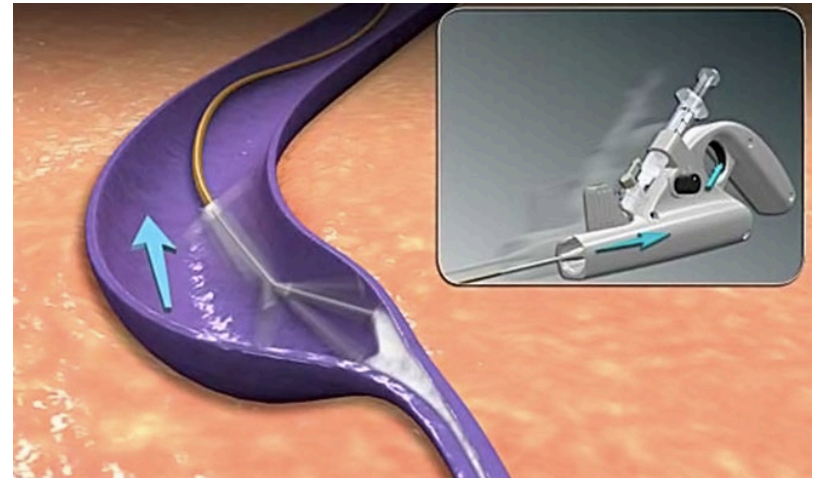
Mechanico-chemical Ablation (MOCA)



- Non thermal non-tumescent (NTNT) modality
- Endothelial abrasion (agitator) and liquid chemical sclerosant

Office Delivered Treatment

- Local anaesthetic
- Limit of 12cc of sclerosant
- Systematic review – 2017
 - 254 SSV : 1267 GSV
 - 1 year occlusion rate - 92%
 - 5 year - 87% (single study)
 - 4.8% - sural nerve/paraesthesia
 - Efficacy and QoL compare well with EVTA
Witte et al. Phlebology 2017;32(10):649-657
- LAMA study – results awaited, but focused on GSV



Cyanoacrylate Adhesive (CA)



- Non thermal non-tumescent (NTNT) modality
- Similar applications in AVFs and varices
- Catheter delivered US guided adhesive with segmental US pressure to 'seal' the refluxing vein

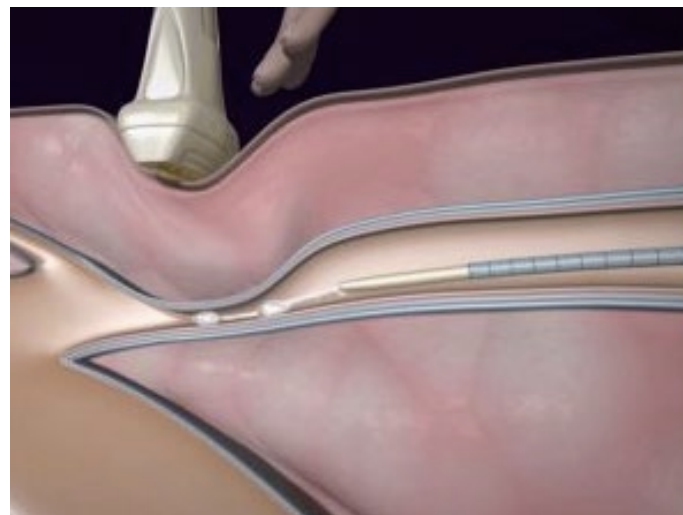
Evidence for Glue in SSV

Phlebology. 2018 Sep 18;268355518801641. doi: 10.1177/0268355518801641. [Epub ahead of print]

Need for adjunctive procedures following cyanoacrylate closure of incompetent great, small and accessory saphenous veins without the use of postprocedure compression: Three-month data from a postmarket evaluation of the VenaSeal System (the WAVES Study).

Gibson K¹, Minjarez R¹, Gunderson K¹, Ferris B¹.

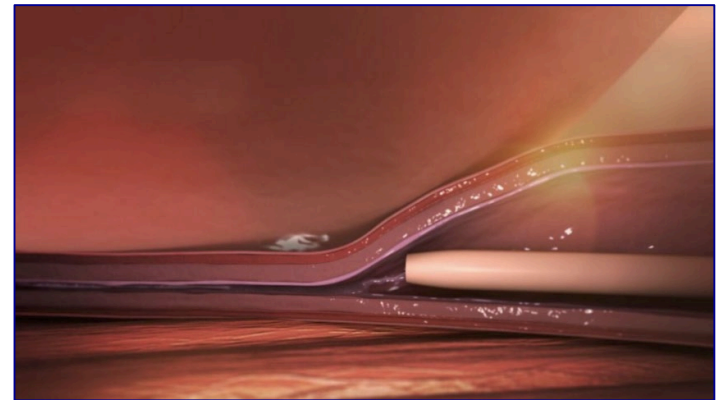
- 8 SSV patients (48 GSV)
- 100% success
- Improvements in QoL, patient satisfaction and lack of compression



Initial Outcomes of Cyanoacrylate Closure, VenaSeal System, for the Treatment of the Incompetent Great and Small Saphenous Veins.

Park I¹.

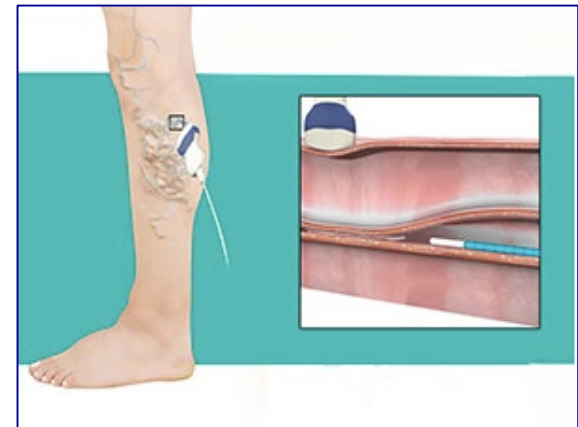
- Retrospective comparative study
 - - 16 SSV patients / 47 GSV
- 8 week data - 100% closure on duplex US
- Revised venous clinical severity scores improved
- 'Phlebitis' in 23.5%
- No neurological complications



Comparison of cyanoacrylate embolization and radiofrequency ablation for the treatment of varicose veins.

Yang GK¹, Parapini M¹, Gagnon J¹, Chen JC¹.

- Retrospective review of CA and RFA – Canada
- CA 148 (16% SSV) , RFA 328 (9% SSV)
- Success 100% CA and 99% RFA
- Phlebitis 5% CA and 16% RFA
- Numbness 0% CA and 1.5% RFA
- Conclusion: CA offers similar results to RFA with lower mid term complications



Conclusion

- SSV incompetence - greater detriment to QoL (than for GSV)
- Intervention – improves results
- EVTA – safe and effective with low sural nerve injury rate
- MOCA – early data suggests it may challenge EVTA
- CA – promising but little data on SSV
- Research is continuing

