

A stylized, semi-transparent image of the Eiffel Tower is positioned on the left side of the slide, extending from the top to the bottom. The tower is rendered in a light blue/white color against the purple gradient background.

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE
CONTROVERSIES & UPDATES
IN VASCULAR SURGERY

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PARIS, FRANCE

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Glue ablation for Varicose Veins : how to avoid bad results? How to manage complications?

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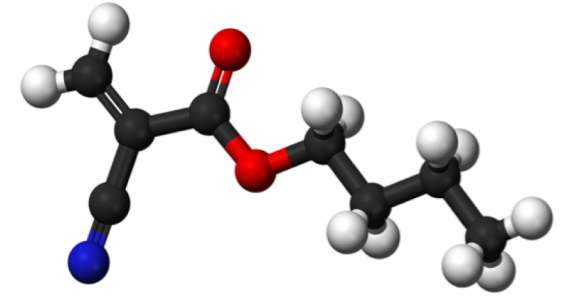
Disclosure

Thomas Proebstle:

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- I have the following potential conflicts of interest to report:
- Consulting / Speakers Bureau
- Employment in industry
- Shareholder in a healthcare company
- Owner of a healthcare company
- Other(s)
- I do not have any potential conflict of interest

Background - Cyanoacrylate Glue



Randomized trials demonstrate non-inferiority
for Abolition of GSV-Reflux:

- VenaSeal™ compared to ClosureFast- RF-segmental-ablation (VeClose Trial)
- For VariClose™ compared to 1470nm –Radial-Fiber-EVLA (Turkish Trial)

How to Avoid Bad Results with CA Glue

- How to avoid anatomic failure ?
- How to avoid generalized side effects and complications ?
- How to avoid localized side effects and complications ?

How to Avoid Anatomic Failure with Glue

1. Choose Right Indications
2. Adequate Administration of Glue

How to Avoid Anatomic Failure

1. Right Indications:
Incompetent Saphenous or
Perforating Veins with

- No Prior Treatment
- No Prior phlebitis
- No multiluminal
anatomic variation



How to Avoid Anatomic Failure

2. Adequate administration of Glue:

- Remove blood from Vein by leg elevation and external compression by ultrasound probe

-> to inject a thread of glue into blood without vein wall contact is useless

How to avoid generalized side effects and complications ?

Respect Absolute Contraindications:

No Preexisting Allergy or Intolerance to Cyanoacrylate !

**Be alert treating patients who use CA glue occupationally
like dentists or dental technicians**

How to avoid localized side effects and complications ?

1. Glue propagation to deep veins

place catheter tip in safe distance: 3-5 cm

ultrasound monitoring of glue propagation is possible

2. Granuloma at puncture site

leave last 5cm from puncture site untreated.

Don't be too ambitious.

Adverse Events after Glue Ablation personal experience

Localized

Periphlebitic reaction	(estim. 1 – 5%)
Granuloma at puncture site	(<< 1%)
Glue propagation to deep veins	(<< 1%)

Generalized

Itching	(< 1%)
Urticaria	(< 1%)

Adverse Events with Glue up to 6 months (VeClose Trial)

	VSCS (N=108)	RFA (N=114)	P-Value
# Subjects with events (%)	34 (31%)	29 (25%)	NS
Reported AEs			
Phlebitis, any zone	22 (20.4%)	16 (14.0%)	0.3571
Phlebitis in treatment zone	11 (10.2%)	10 (8.8%)	0.8199
Phlebitis not in treatment zone	8 (7.4%)	4 (3.5%)	0.2430
Phlebitis in both treatment zone and non-treatment zone	1 (0.9%)	1 (0.9%)	1.0
Paresthesia in treatment zone	3 (2.8%)	3 (2.6%)	1.0
Stocking irritation	2 (1.9%)	3 (2.6%)	1.0
Access site infection	1 (0.9%)	1 (0.9%)	1.0
Superficial thrombophlebitis	4 (3.7%)	3 (2.6%)	0.7157
Access site burn	0 (0%)	1 (0.9%)	1.0
Paresthesia not in treatment zone	0 (0%)	1 (0.9%)	1.0
Paresthesia in treatment zone	3 (2.8%)	3 (2.6%)	1.0

Adverse Events with VariClose (1 week)

Parameter	Variclose	1470 nm radial	p-value
Pigmentation	3.5%	5.5%	0.55
Ecchymosis	12%	26%	<0.001
Paresthesia	3%	11%	<0.001
Phlebitis	3.5%	7%	0.33

Granuloma Reaction at Puncture Site 6 weeks after Cyanoacrylate

<< 1% of cases,
non-healing puncture site
usually cured by
small excision.



Periphebitic Reaction after Cyanoacrylate embolization of the GSV

1 – 5% of cases, typically 1–2 wks after Tx

NSAIDs and antihistamins – straight forward handling



Challenging Case Inhouse

Generalized Urticaria after Cyanoacrylate embolization of the GSV

male dentist, 55y

occupational use of cyanoacrylate, no allergy known

Day 7: periphlebitic reaction

Day 14: phone consultation:
 generalized itching and
 erythematous flares

Day 16: clinical and duplex exam

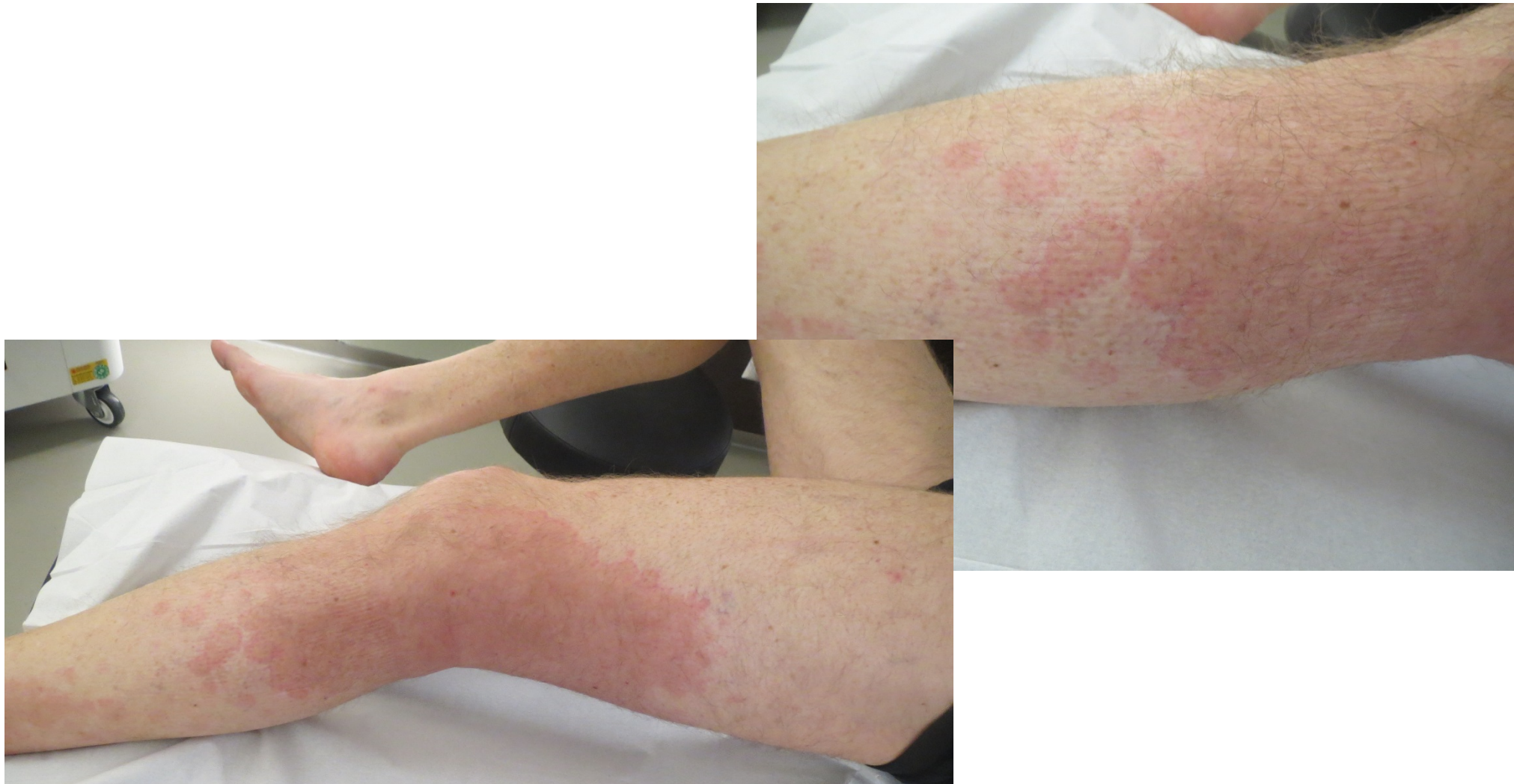
Challenging Case Inhouse

Generalized Urticaria after Cyanoacrylate embolization of the GSV



Challenging Case Inhouse

Generalized Urticaria after Cyanoacrylate embolization of the GSV



Challenging Case Inhouse

Generalized Urticaria after Cyanoacrylate embolization of the GSV

male dentist, 55y

occupational use of cyanoacrylate, no allergy

Day 16: start of prednisolon 80 mg/d once daily

Day 18: ongoing itching over night -> cetirizine

Day 23-30: prednisolon tapered, cetirizine cont'ued

Challenging Case Inhouse

Generalized Urticaria after Cyanoacrylate embolization of the GSV

male dentist, 55y

occupational use of cyanoacrylate, no allergy

23 months after Tx (today):

- urticaria only occasionally, less intense
- relapses in stress situations
- always responds on cetirizine

Challenging Case – Tx alio loco

Cyanoacrylate protrusion into CFV after embolization of the GSV

female 25y, C2 disease

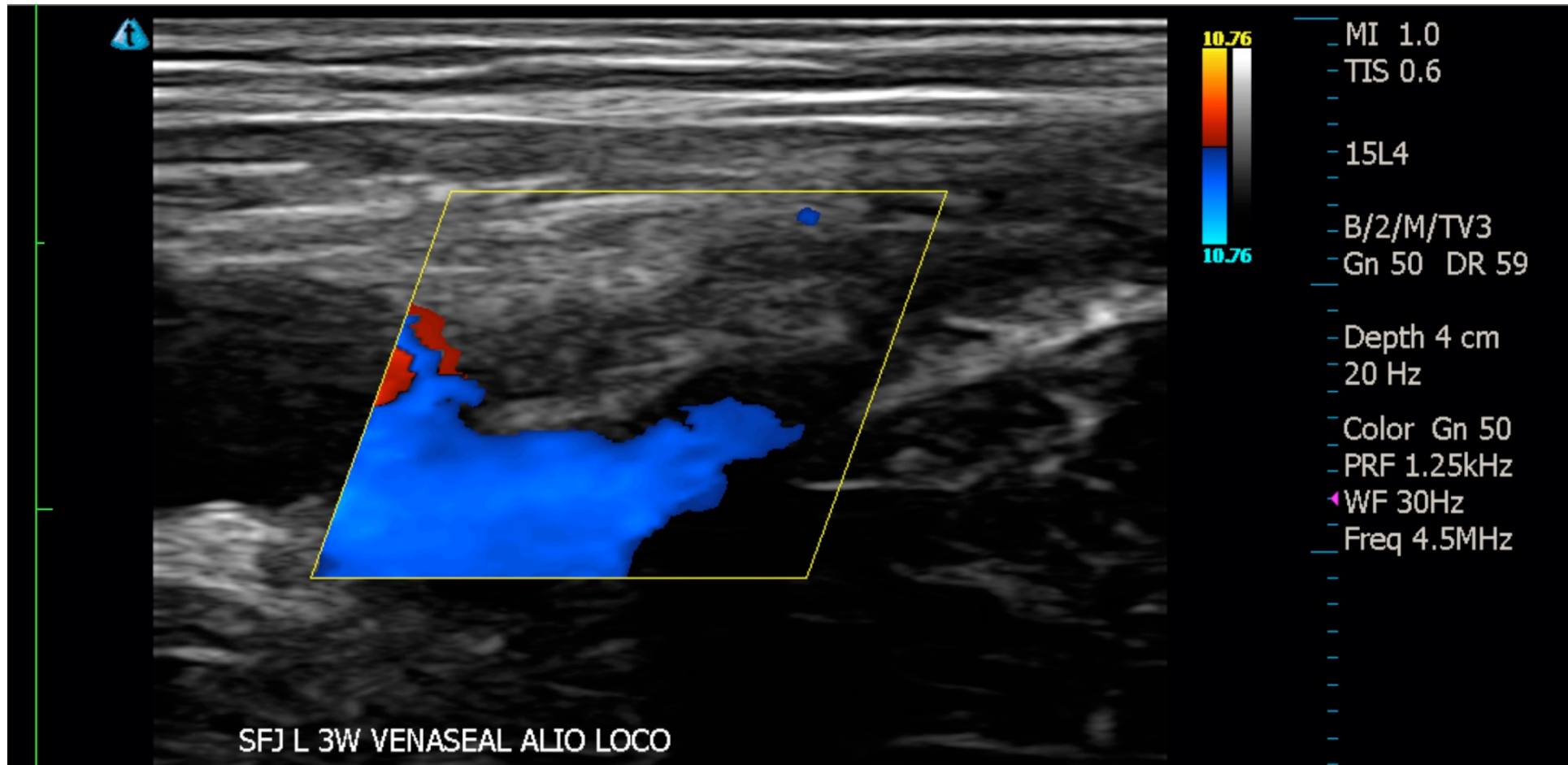
Referral 2 weeks after procedure alio loco.
Partial obliteration of CFV proximal to SFJ

Patient reports: surgeon stated during intervention he had not enough ultrasound visibility of the saphenofemoral junction while positioning catheter and deploying the glue

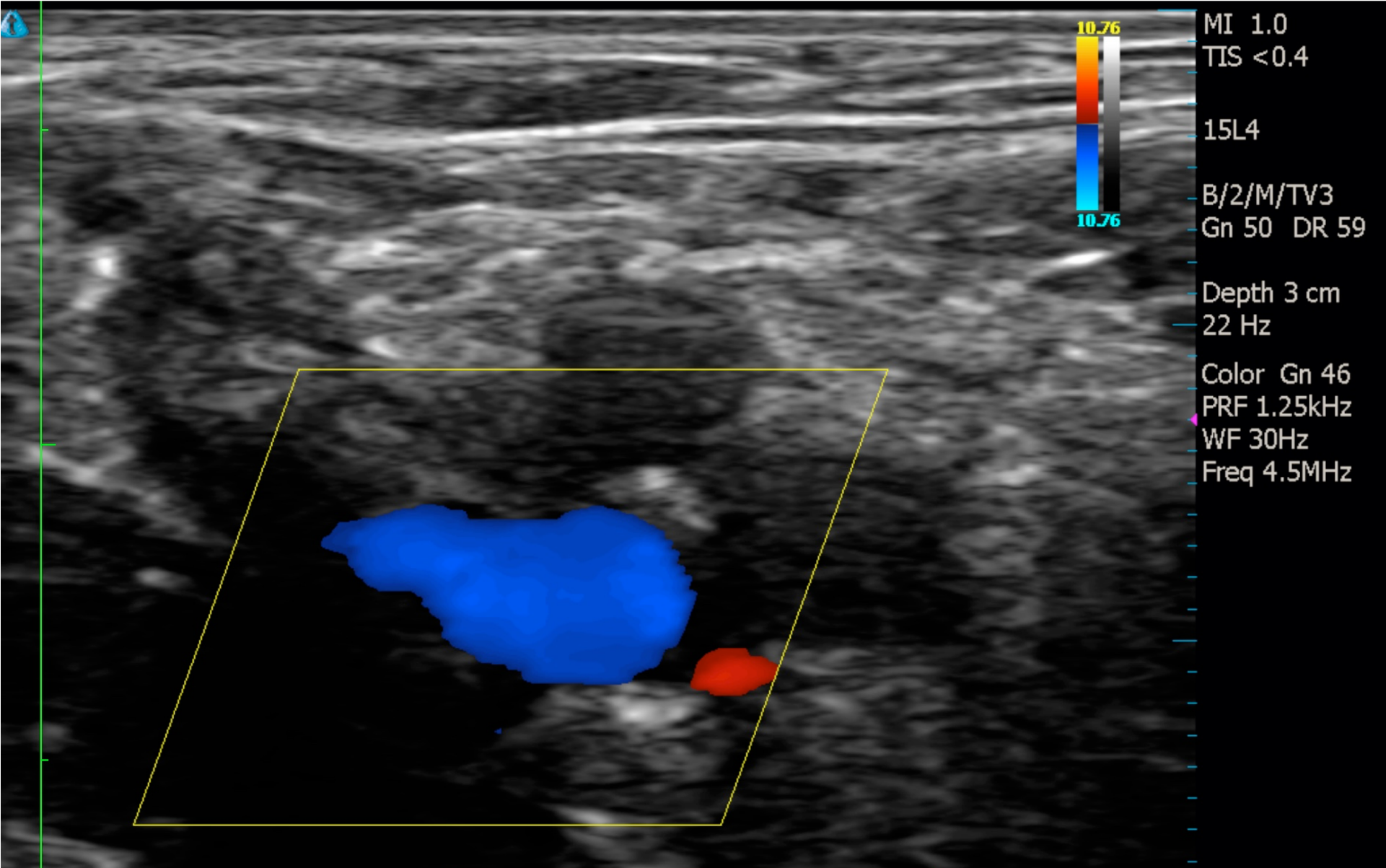
Surgeon had only little glue-experience

Challenging Case – Tx alio loco

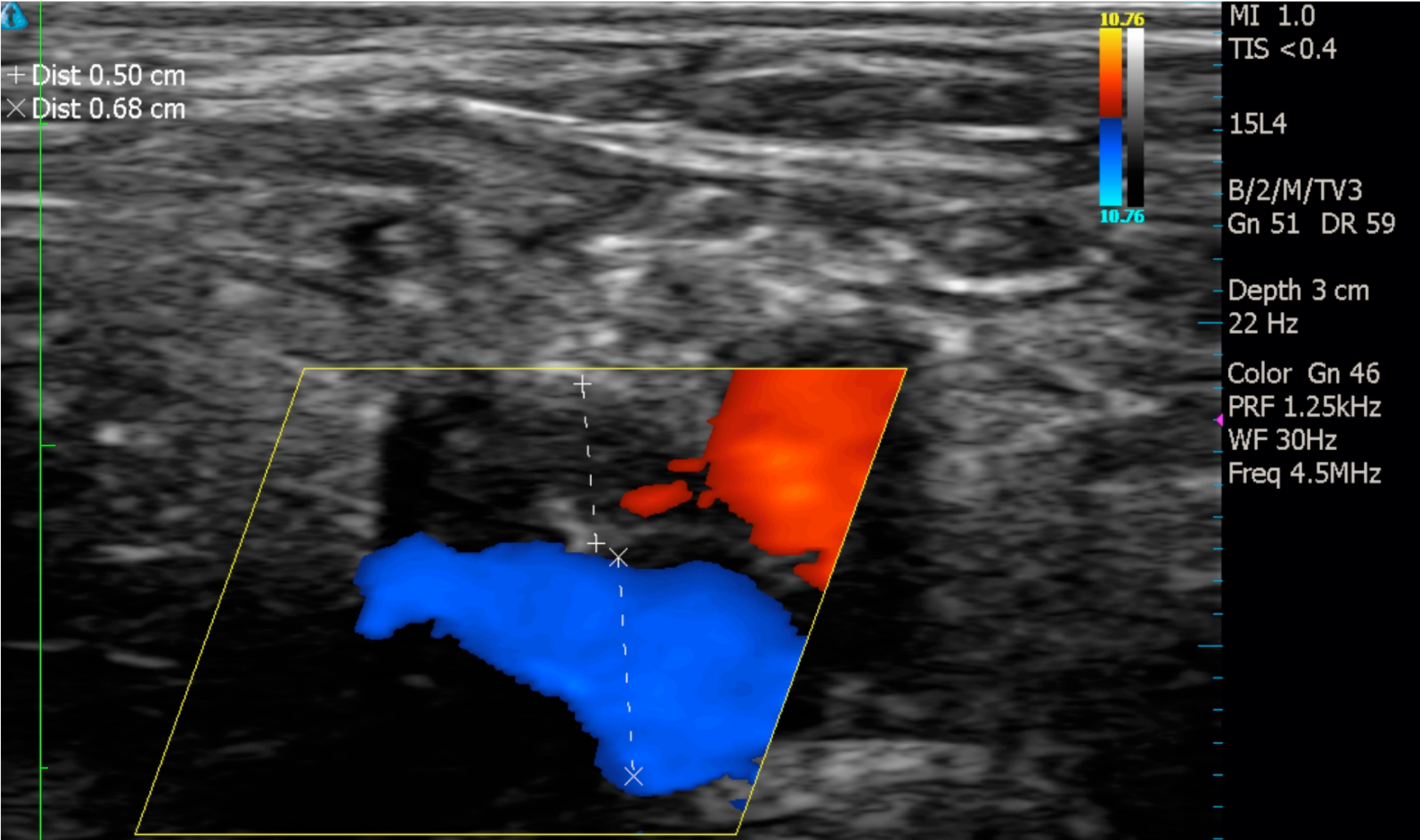
Cyanoacrylate protrusion into CFV after embolization of the GSV



Challenging Case – Tx alio loco



Challenging Case – Tx alio loco



Conclusion

Bad results using cyanoacrylate glue for ablation of refluxing veins can be minimized by

- properly choosing indications
- respecting contraindications
- performing adequate technical skills