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# How to ensure the success of sclerotherapy? 10 rules to respect

Claudine Hamel-Desnos MD  
Hôpital Privé Saint Martin  
Caen-France

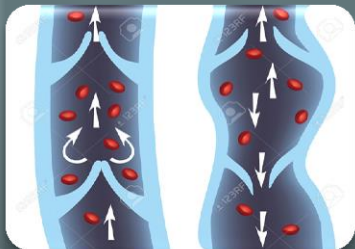
**Disclosure for this presentation**

**Claudine Hamel-Desnos:**

I do not have any potential conflict of interest

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# *Prerequisites and training*



## Prerequisites

- good knowledge of venous diseases
- good practice of venous DUS



## Training specific to

- Practice of visual sclerotherapy
- US guided sclerotherapy



## Regular activity in this practice

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# *Good Quality Foam*

## AIR



- 1 + 4
- 2 way-connector (specific)

## Compact Foam



- No visible bubbles

Short time between preparation of foam / injection

- (< 60 sec but < 30 sec is better)

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# *Good Tactic*

Good clinical and DUS evaluation

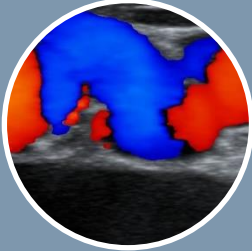
Elaboration of a logical tactic for a given area

Relevant choice of the first site of injection

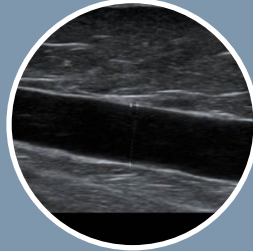


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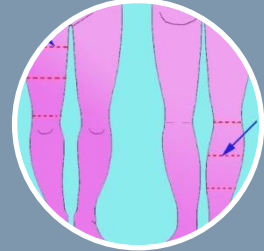
# *Planning of the injections*



**Proximal to  
distal  
leakage  
points**



**Largest to  
smallest  
varicose  
veins**



**Staged  
injections**

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# Adequate Concentrations

Concentrations are chosen in relation to the **diameter** of the venous segment to be treated (patient standing)

**Table 4.** Suggested POL and STS concentrations in foam sclerotherapy<sup>4,7,10,12,14,16-22,24-26,30-37,39,47,51,129,130</sup>

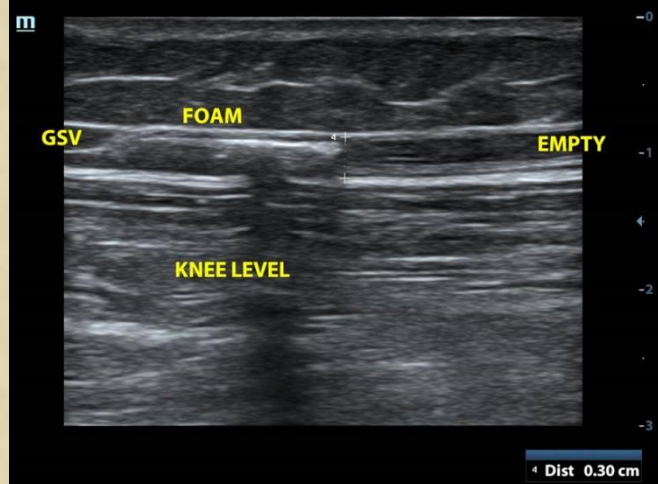
Indications	Concentration percentage of POL	Concentration percentage of STS
Telangiectasias	Up to 0.5 (GRADE 1B)	Up to 0.25 (GRADE 2C)
Reticular varicose veins	Up to 0.5 (GRADE 2C)	Up to 0.5 (GRADE 2C)
Tributary varicose veins	Up to 2 (GRADE 1B)	Up to 1 (GRADE 1C)
Saphenous veins (mm)		
<4	Up to 1 (GRADE 1B)	Up to 1 (GRADE 1C)
≥4 and ≤8	1-3 (GRADE 1A)	1-3 (GRADE 1B)
>8	3 (GRADE 1A)	3 (GRADE 1B)
Incompetent perforating veins	1-3 (GRADE 2B)	1-3 (GRADE 2B)
Recurrent varicose veins	1-3 (GRADE 2B)	1-3 (GRADE 2B)
Venous malformation	1-3 (GRADE 2B)	1-3 (GRADE 2B)

POL, polidocanol; STS, sodium tetradecyl sulphate.

European guidelines (Rabe E. et al. Phlebology 2013)

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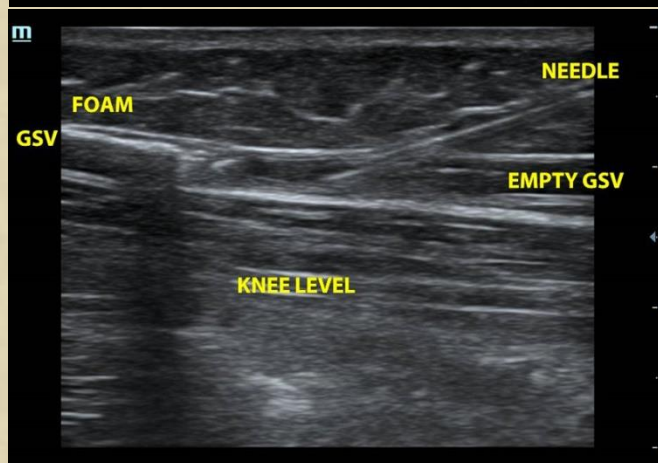
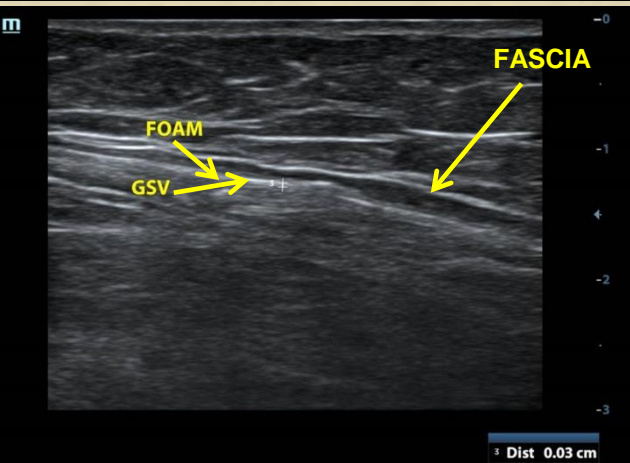
# Adequate volumes



SPASM



FILLING



TAILORED VOLUMES

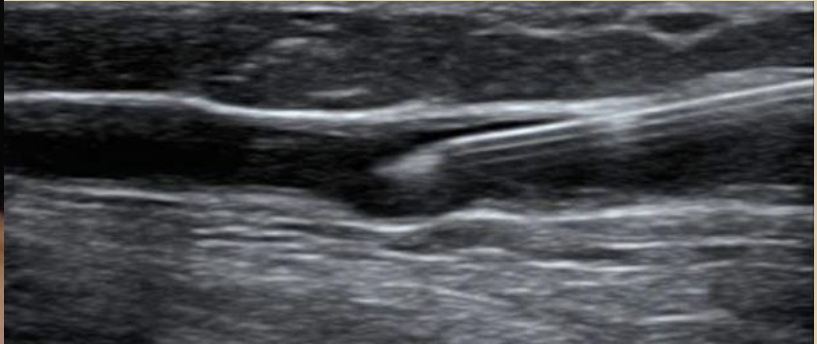
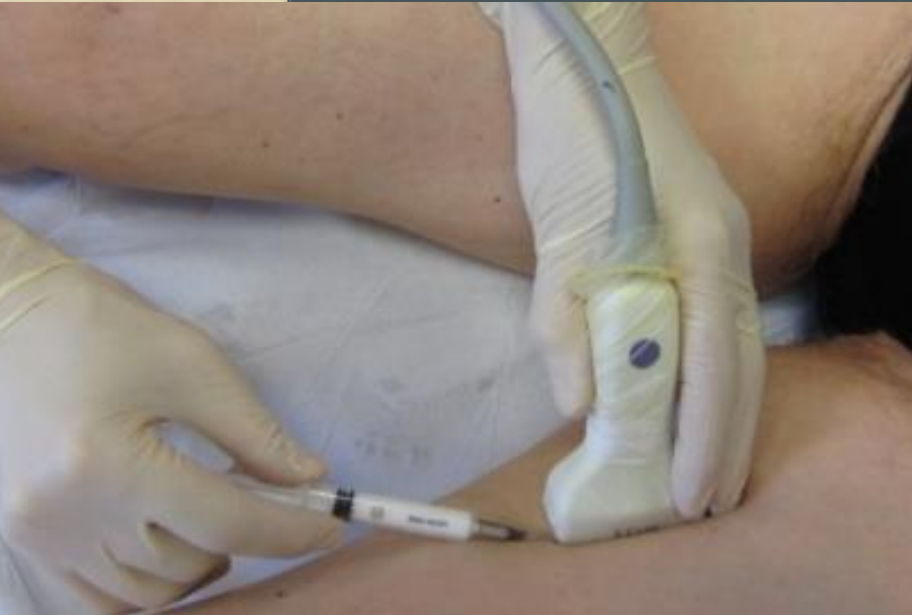


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# *Right technique of injection*



The direct puncture and injection with needle allows an accurate tactic, with easier staged injections

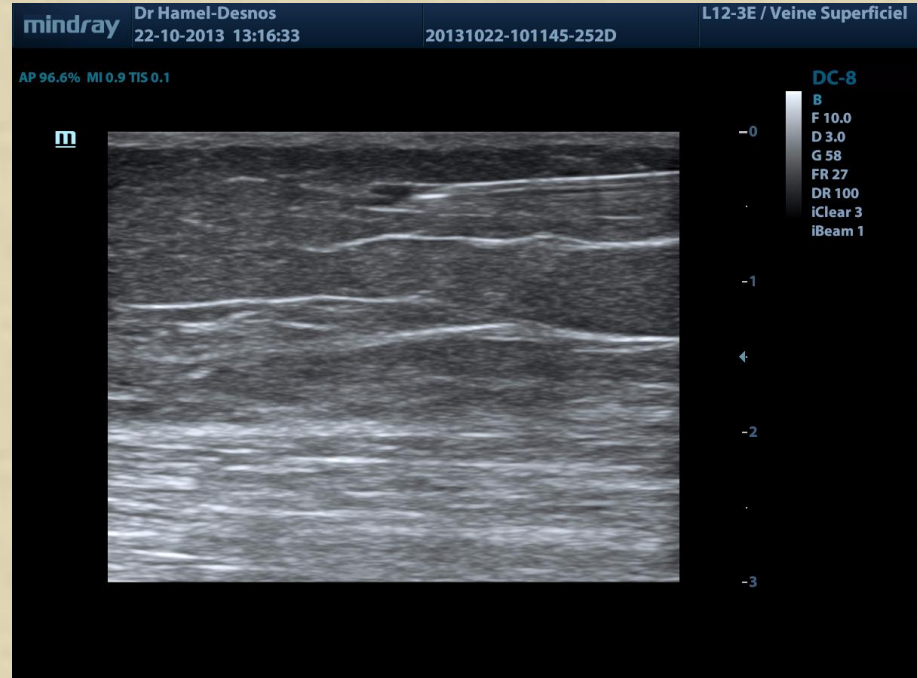


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# Use of the US guidance as soon as possible

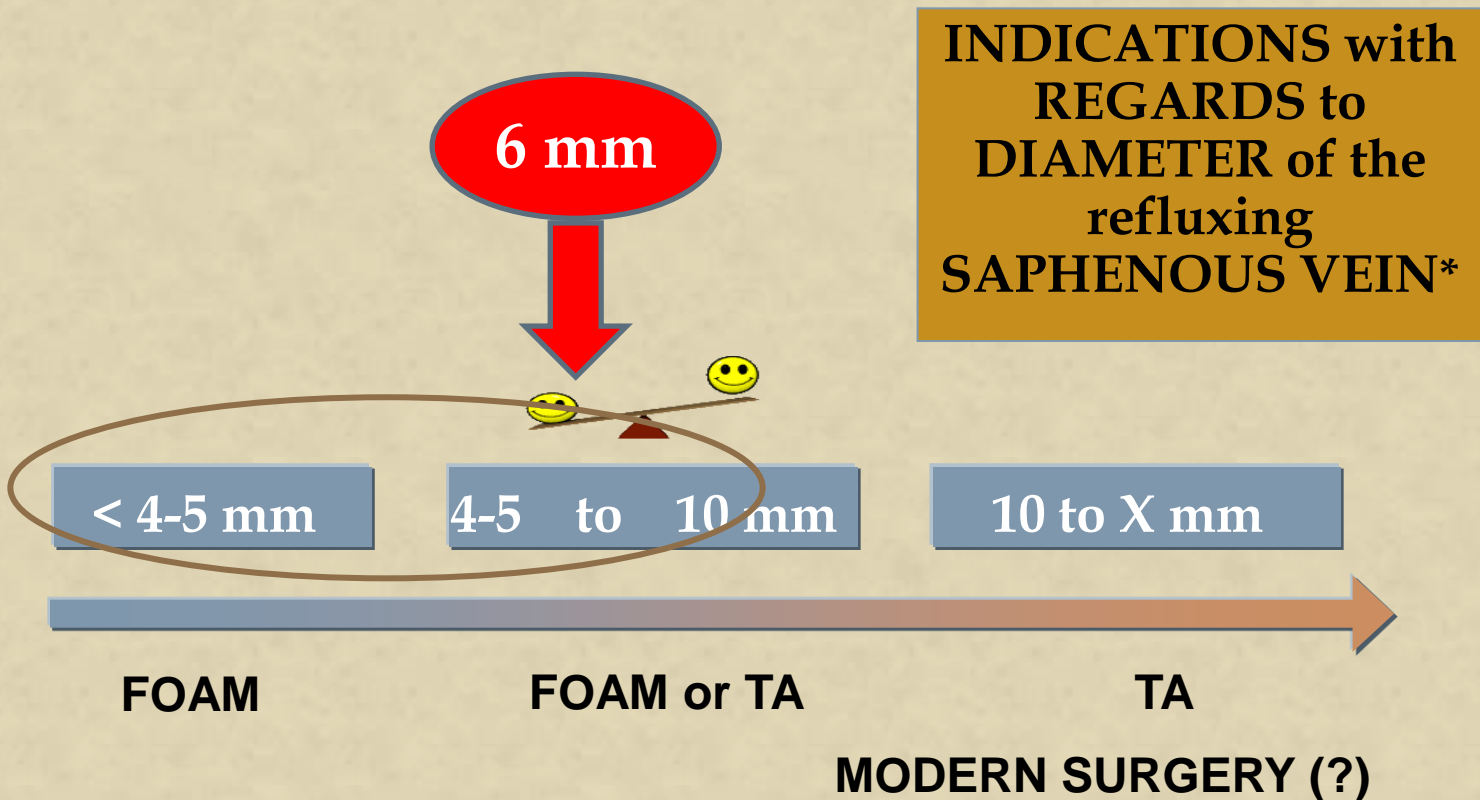
Even for very  
superficial and  
small calibre veins

USGFS means  
permanent US  
monitoring  
throughout the  
procedure (and  
before and after)





# Right indications



\*Measure done at 15 cm below the groin, patient standing. Mendoza E. et al, Eur J Vasc Endovasc Surg 2013

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***Good “timing” to make the assessment of efficiency***

**Not before 6 weeks post-injection.  
Do not re-inject too early**

# In summary

- *Skilled operator.*
- **Good quality foam,**
- **injected quickly after its manufacture,**
- **in the most pertinent area tactically,**
- **commencing from the top,**
- **performed by direct puncture with needle,**
- **under permanent US control,**
- **with doses adapted to each given case**

Thank you for your attention