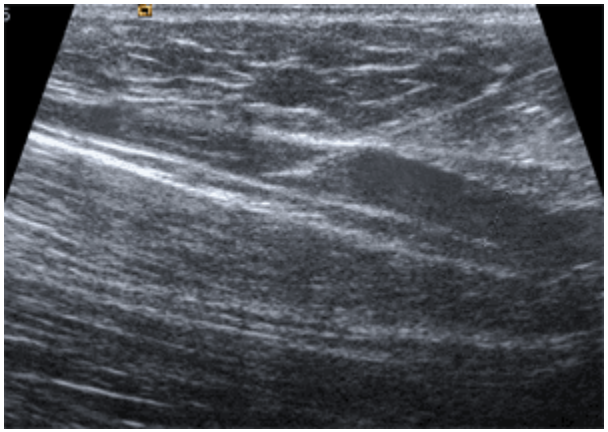
If the terminal and/or the pre terminal valve is competent or incompetent,



Does it change your mode of treatment by foam?

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Faculty Disclosure

Claudine Hamel-Desnos

OR I have **no financial relationships** to disclose.

Gloviczki P. et al. The care of patients with varicose veins and associated chronic venous diseases: Clinical practice guidelines of the **Society for Vascular Surgery and the American Venous Forum**. J Vasc Surg 2011;53:2S-48S

"Because of reduced convalescence and less pain and morbidity, **we recommend endovenous thermal ablation** of the incompetent saphenous vein **over open surgery**. GRADE 1 B »

The SFJ is no longer a concern and should be preserved in most of cases

Pre terminal and terminal valves patterns (AND OSTIAL valve)

« Terminal valve » and « ostial valve » are not similar

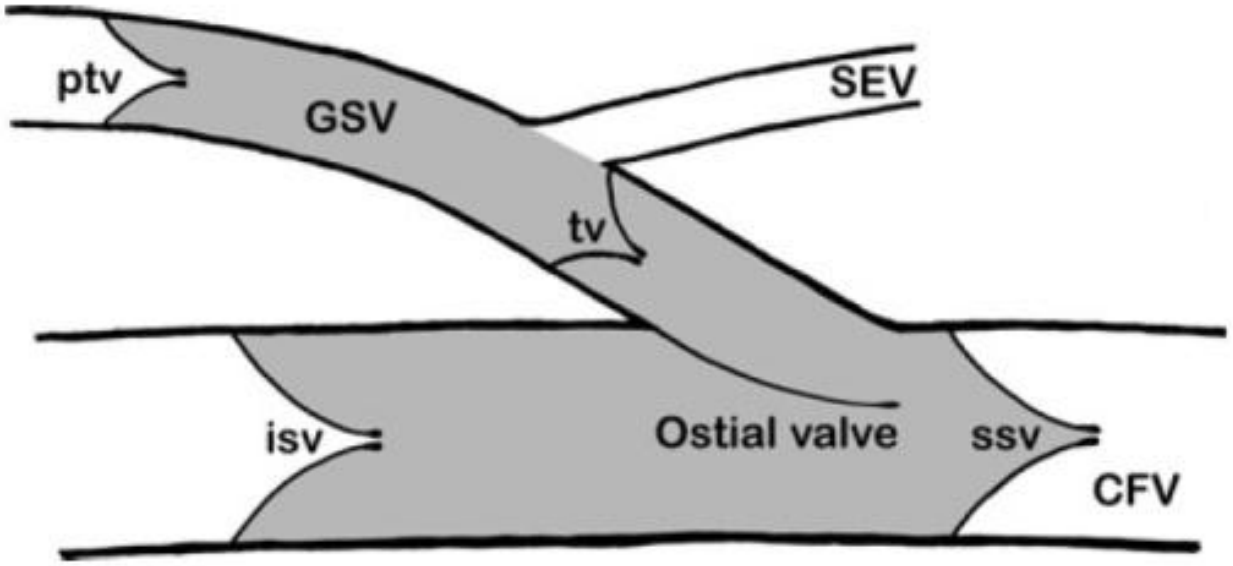


Figure 2 Scheme of the saphenofemoral junction with a single-cusped ostial valve (sagittal plane). CFV, common femoral vein; GSV, great saphenous vein; SEV, superficial epigastric vein; tv, terminal valve; ptv, preterminal valve; ssv, suprasaphenic valve; isv, infrasaphenic valve

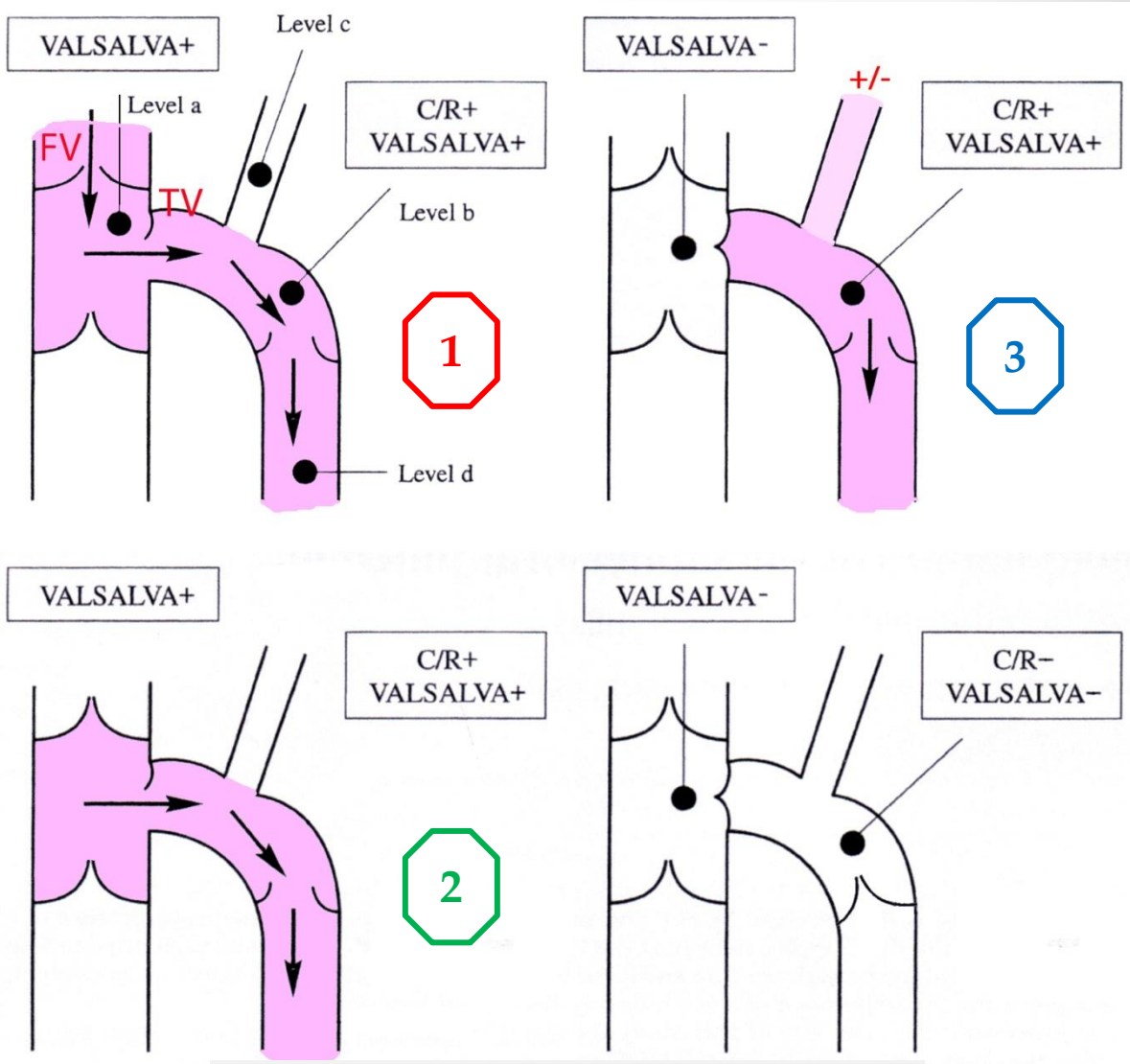
Tasch C., et al. Phlebology 2012

Pre terminal and terminal valves patterns (AND FEMORAL valve)

- **Femoral valve (FV)**

(missing in 20-24% of cases)

- Terminal valve (TV)
- Pre terminal valve



Cappelli M. et al. Int Angiol 2004

C/R = compression/release

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Correlation between hemodynamic patterns of SFJ and trunk diameters of the GSVs (Capelli)

In case of incompetence of GSV trunk + incompetence of SFJ

1. FV incompetent/absent

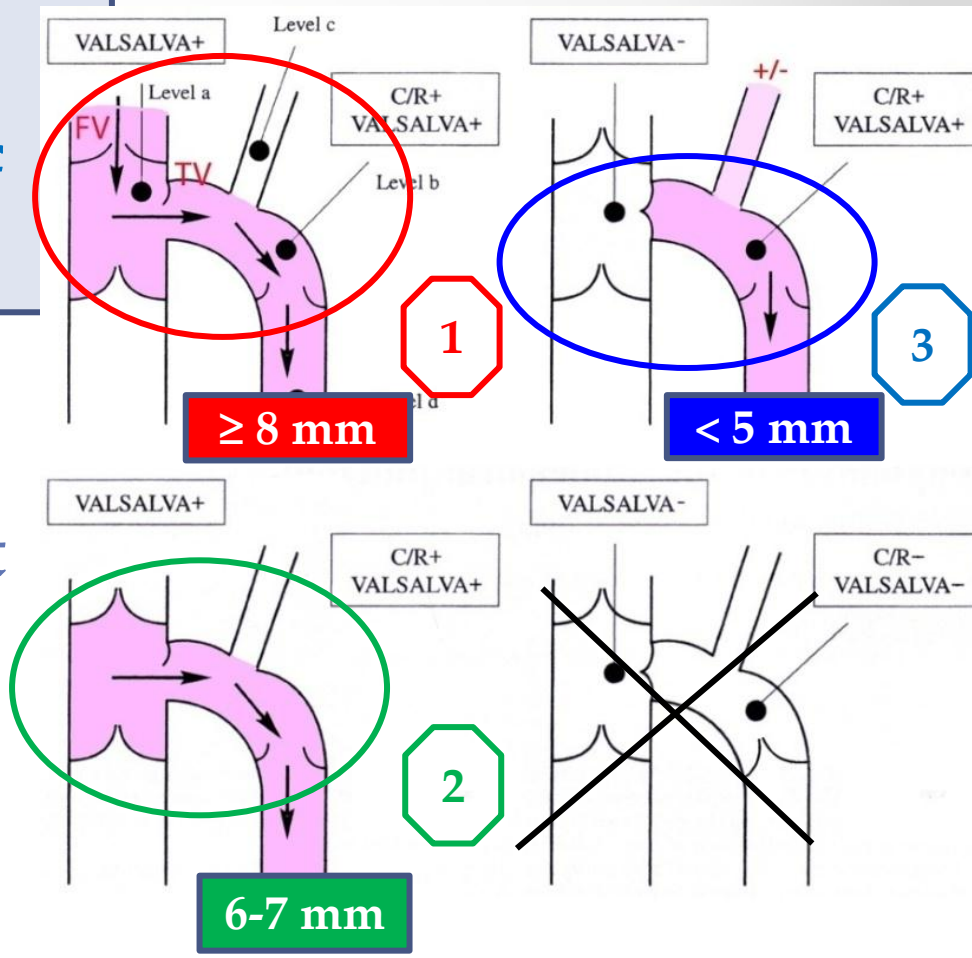
1 →GSV ≥ 8 mm

2. FV competent

2 →GSV ≤ 6-7 mm

3. TV(and FV)competent

3 →GSV<5-6 mm



Level of Ø = 15 cm below the groin

Sclerotherapy clinical trials. Literature data

- Some data about FS results and **vein diameters** are available;

- Few sclerotherapy studies are available distinguishing results between isolated GSV trunk incompetence and GSV trunk incompetence + SFJ incompetence;

- No sclerotherapy studies approach FV topic

Literature data

FS for large GSV?

FS can be used for large GSV

- Cabrera J. *Phlebology 2000 :* ***9-32 mm***
- Barrett JM. *Dermatol Surg 2004* : **> 10 mm**
- Sica M. *Phlébologie 2003* : **> 8 mm**

- O'Hare JL. *Eur J Vasc Endovasc Surg 2008 :*

No significant difference in occlusion rate between veins <7 mm diameter and those **>7 mm** diameter

FS outcomes and GSV diameters?

- Coleridge Smith P. *Eur J Vasc Endovasc Surg 2006*
- Myers K. *Eur J Vasc Endovasc Surg 2007*
- Gonzalez-Zeh R. *J Vasc Surg 2008*

results appear to be better when saphenous trunk is less than **5-6.5 mm** in diameter.

GSV < 5-6 mm
FV and TV competent

FS and SFJ Reflux

Hamel-Desnos C. et al. *Eur J Vasc Endovasc Surg 2007*
(multicentre study, 5 centres, SFP study)

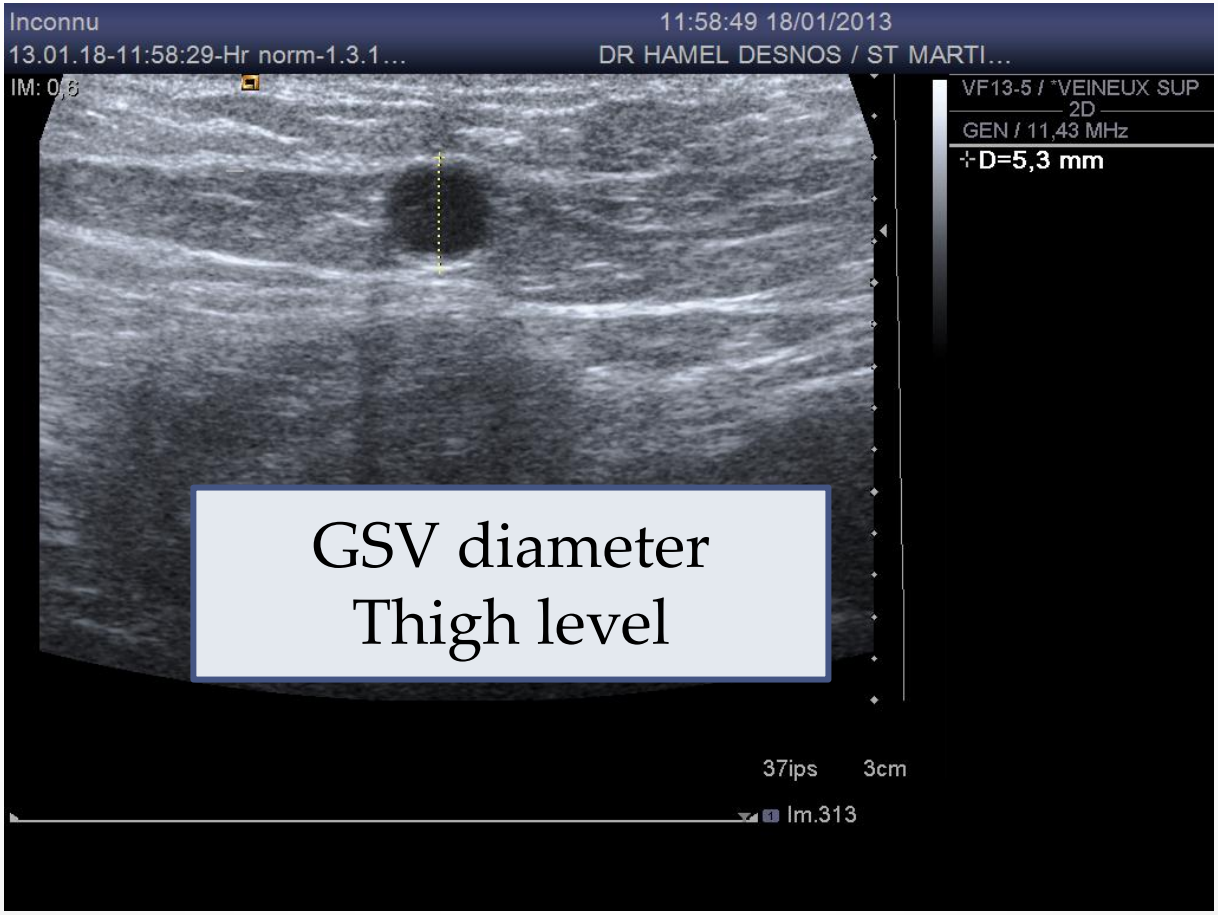
- Recruitment : 148 patients
- Incompetent GSV 4 to 8 mm inclusive
- GSV incompetence with SFJ incompetence = 62%
- GSV incompetence without SFJ incompetence = 38%

success rates* (2Y; only 1 session, no reinjection): respectively 64% and 78% (**NS** Chi-square 0.22)

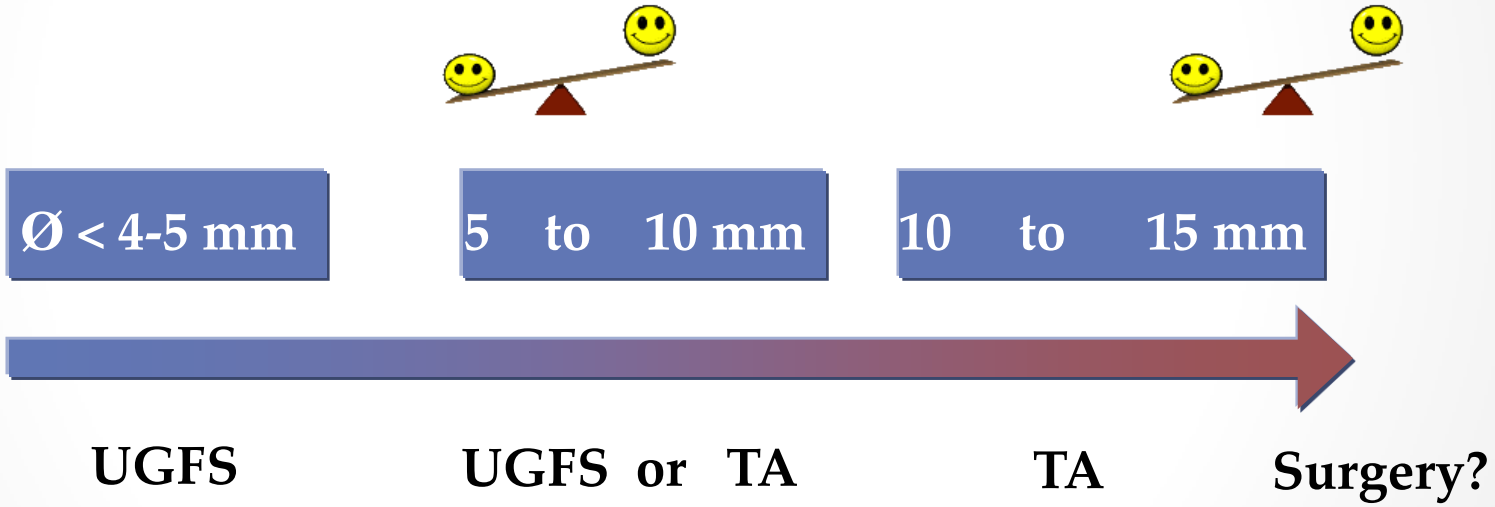
*occlusion

GSV ≤ 8 mm
FV competent

FS
Indications for the GSVs



Indications / trunk diameter of the saphenous vein



UGFS : US-Guided Foam Sclerotherapy
TA : Thermal Ablation (RF or EVL ablations)

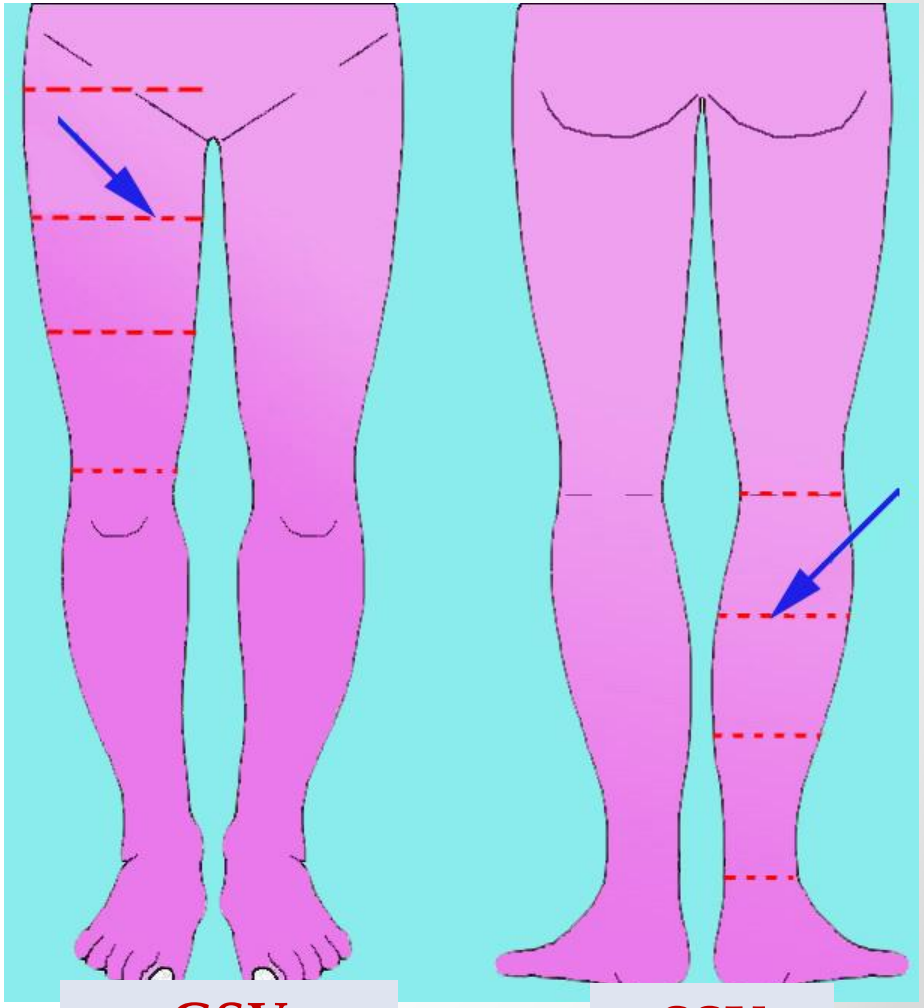
FS (UGFS) Technique

Direct puncture with needle

Always the same technique regardless of the SFJ (or SPJ)

Staged injections (French technique)

For the GSV, the first injection is performed at the third median-upper third junction of the thigh



GSV
1st inject.

SSV
1st inject.

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Real Time

1 % POL Foam; vol 2.5 ml; needle :22 Gauge, diameter 0.7 mm, length 40mm

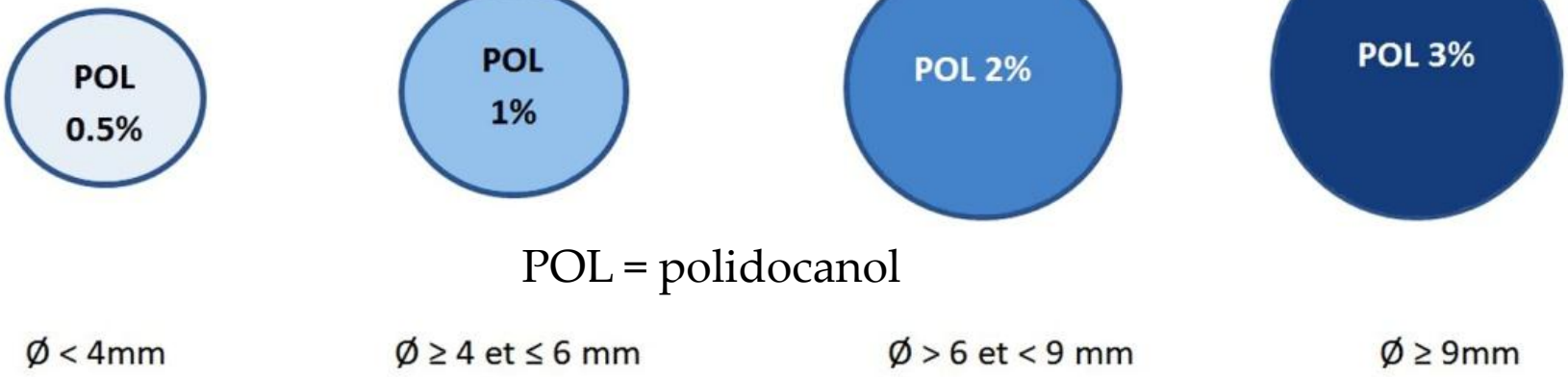
DOSES: Always the same principle, regardless the vein to be injected or the SFJ (or SPJ)

Tailored injections

- Concentrations depend on the vein diameter
- Volumes depend on the filling of the vein by foam and on the venous spasm

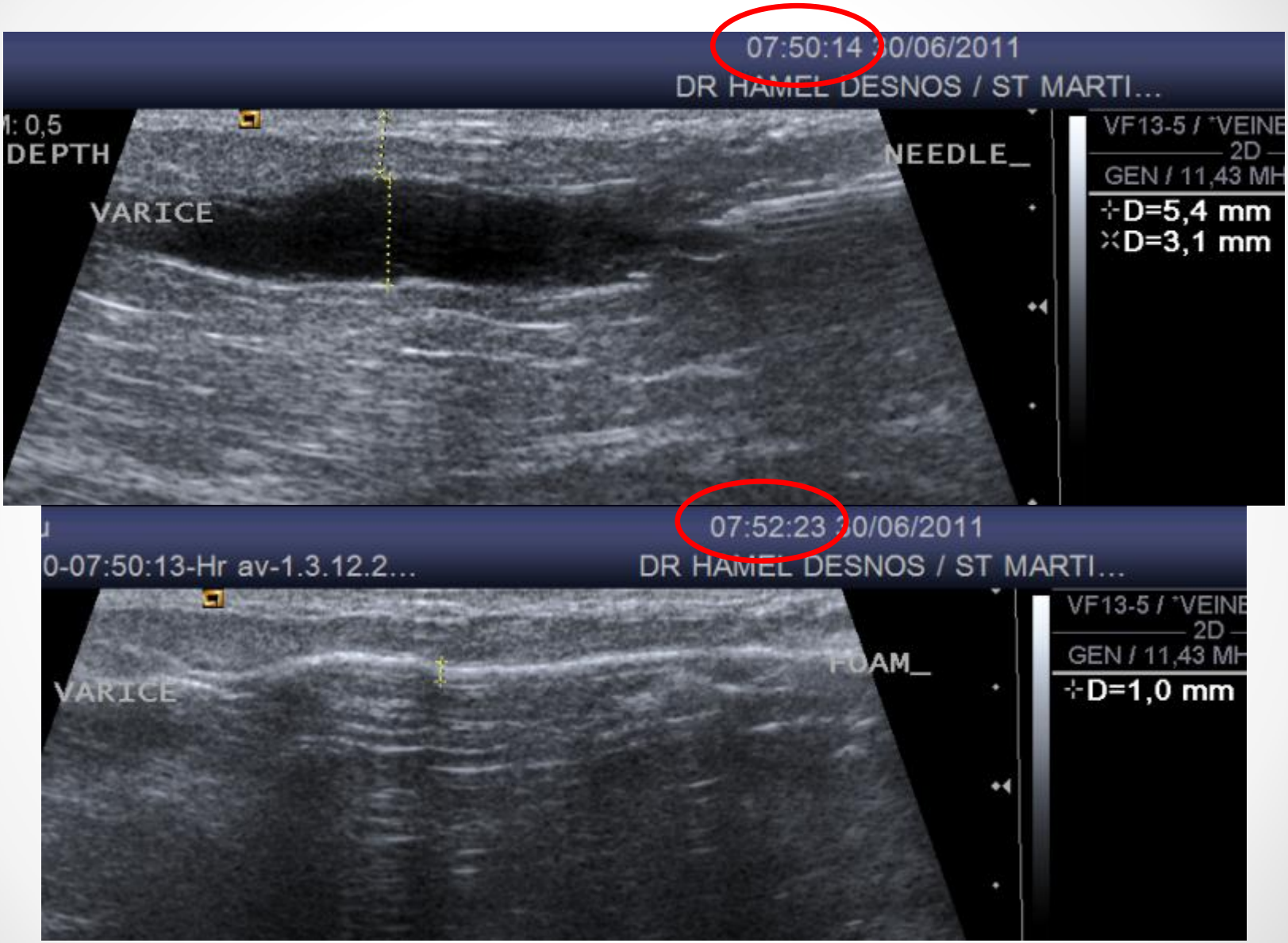
CONCENTRATIONS

Foam : POL+ AIR (1+ 4)

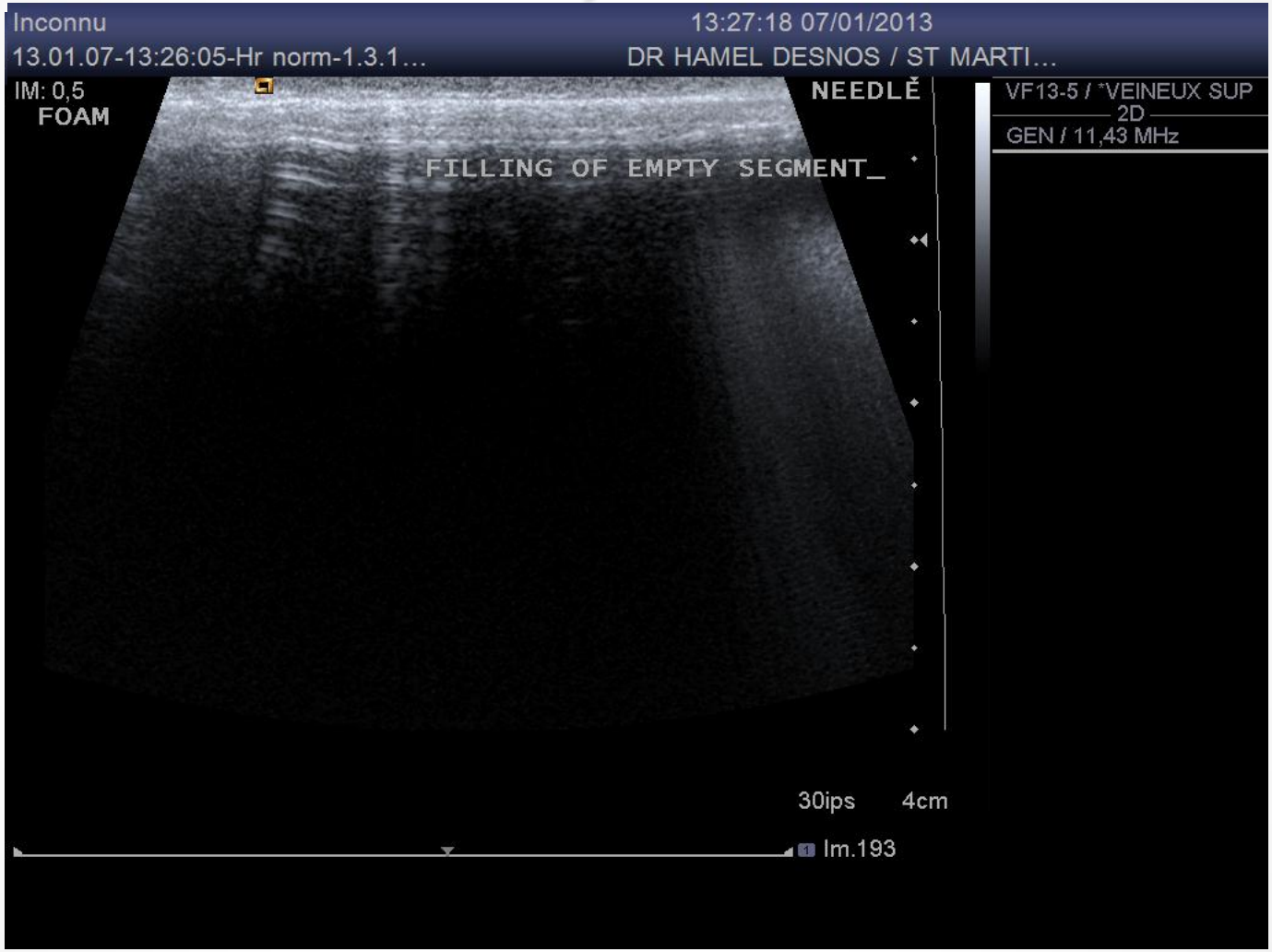


Hamel-Desnos C. et al. Dermatol. Surg. 2003
Hamel-Desnos C. et al. J Mal Vasc 2006
Hamel-Desnos C. et al. « The 3/1 Study ». Eur J Vasc Endovasc Surg 2007
Hamel-Desnos C. et al. in Traité de Médecine vasculaire Tome 2. Elsevier Masson SAS 2011

Venous spasm 2 mn after the injection

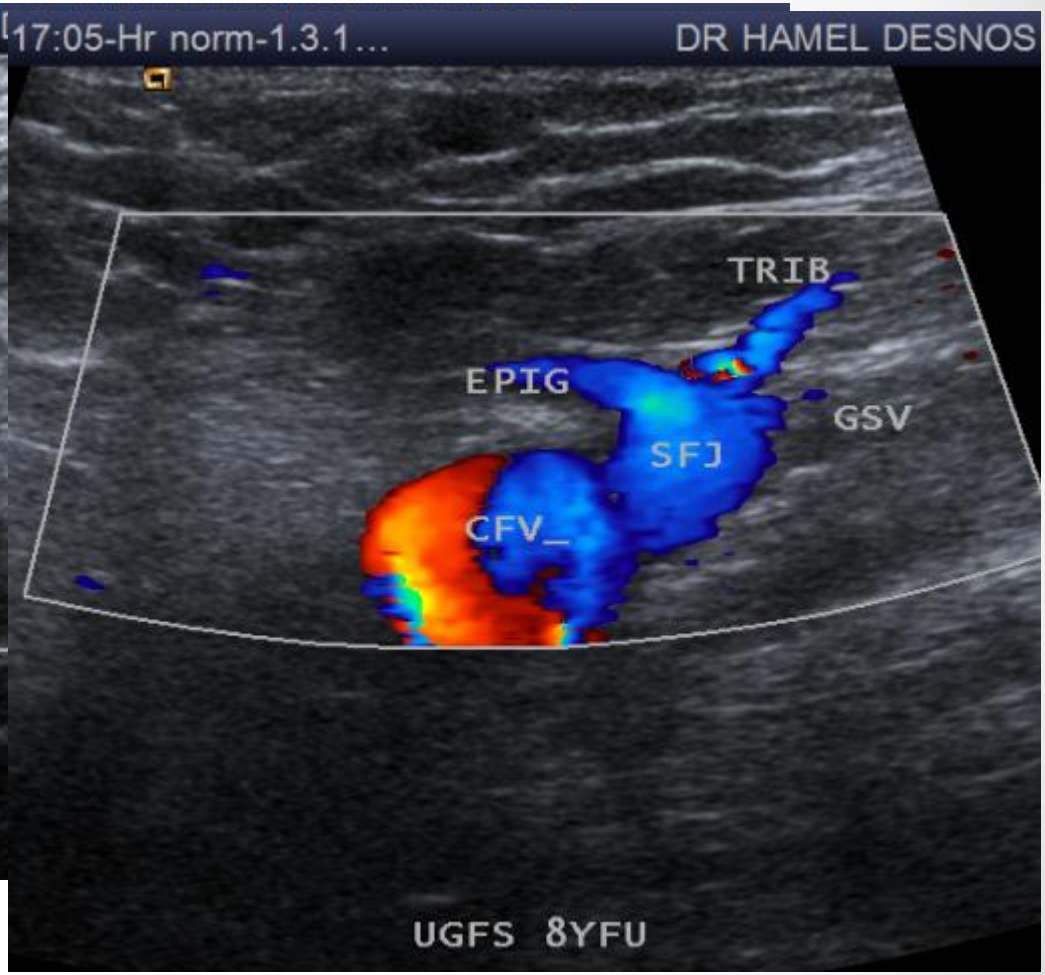


The filling of the vein by the foam 2nd injection



Sclerosis **NEVER** occludes SFJ, and tributaries of the SFJ can flow in a physiological way

1 Month-FU



8 Year-FU

Conclusion

Good correlation between hemodynamic patterns of SFJ and trunk diameters of the GSVs

If the terminal and/or the pre terminal valve is competent or incompetent,

Does it change your mode of treatment by foam?

NO, it doesn't.
In daily practice, SFJ is not a concern

Do you take into account the trunk diameter of the GSV?

YES I do.
In daily practice, diameter is a relevant criterion, easier to assess than hemodynamic data of the SFJ

Mendoza et al. Great saphenous vein diameter at the saphenofemoral junction and proximal thigh as parameters of venous disease class. *EJVES 2012*

« Measuring at proximal thigh has a higher accuracy in prediction of clinics, of presence or not of reflux »

• • •

Thank you for your attention
Merci de votre attention