

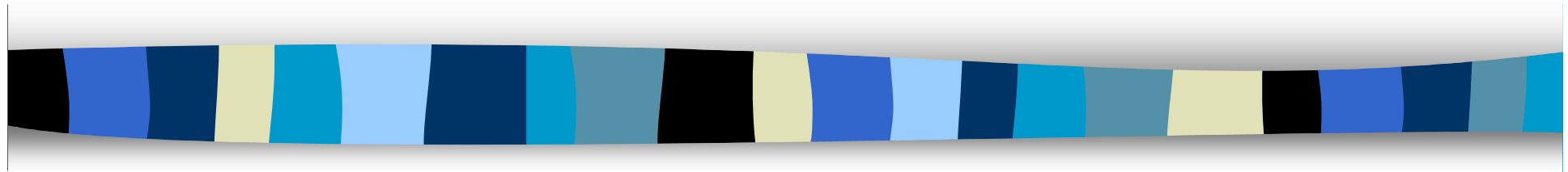


Disclosure of Interests

Jean-Jérôme (JJ) GUEX, MD, FACPh, is

- Investigator receiving honoraria from
 - Kreussler Pharma (Germany)
 - Pierre Fabre SA (France)
 - Sigvaris + cie (France)
- Member of the SAB, and shareholder
 - Vascular Insights

How to avoid bad results and complications of sclerotherapy of reticular veins and telangiectasias



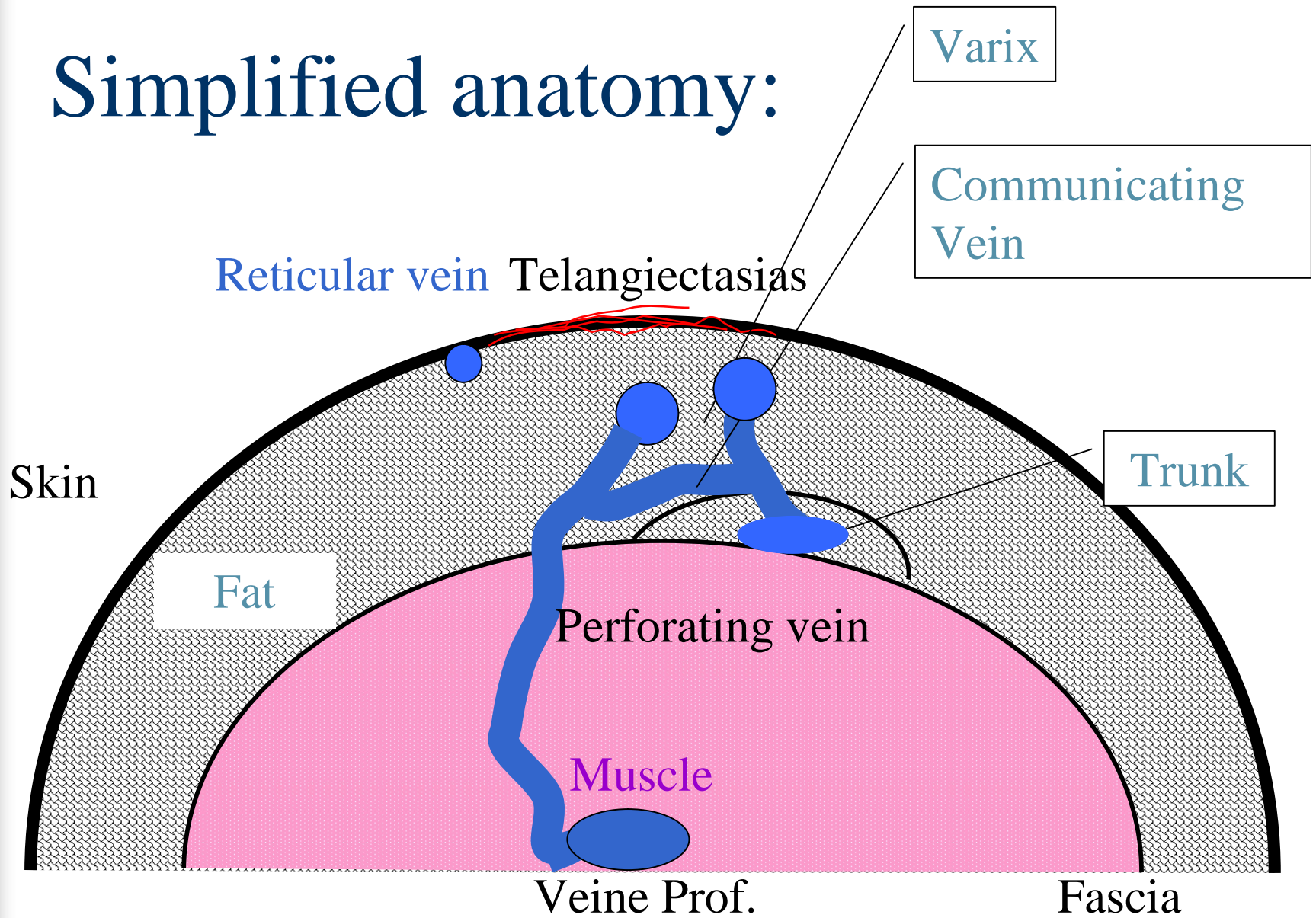
ACP Auckland

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Simplified anatomy:





Objective bad result: 2 types.

On the initial lesion

- Insufficient ?
- Inefficient?
- Worsening ?

Appearance of a new lesion

- Matting ?
- résidual Pigmentation? (hémossiderin, mélanin)
- Nécrosis ? (extraV, intraA injections)
- Scar ? (of necrosis)



Subjective bad result.

- Patient not satisfied despite an undisputable improvement.
- It is a communication problem.
- Most slightly affected patients are often the most difficult to treat and the less satisfied

Avoid them, or if you're confident: explain in depth, and take pictures



Bad results are avoidable:

- 4/5 times there is a neglected varicose network (strategy).
- 1/5 times a bad technique (tactics).
- It can also be an association of both !
- Untreatable veins are exceptional !



Strategy (1):

- **First: decrease the superficial venous hyper pressure by :**
 - Suppression of leaking points (incompetent junctions, pathogenic perforators)
 - Suppression of long trunkular refluxes (intra-fascial).
 - Suppression of varicose reservoirs.
 - Suppression of reticular veins before treatment of telangiectasias



A complete venous check-up is necessary before any treatment:

- Patient's complaint and expectations.
- Results of previous treatments if any.
- Clinical exam:
 - Visual and palpation
- Full Duplex exam (bilat., deep, superf.)
- Marking, Mapping

Strategy (2):

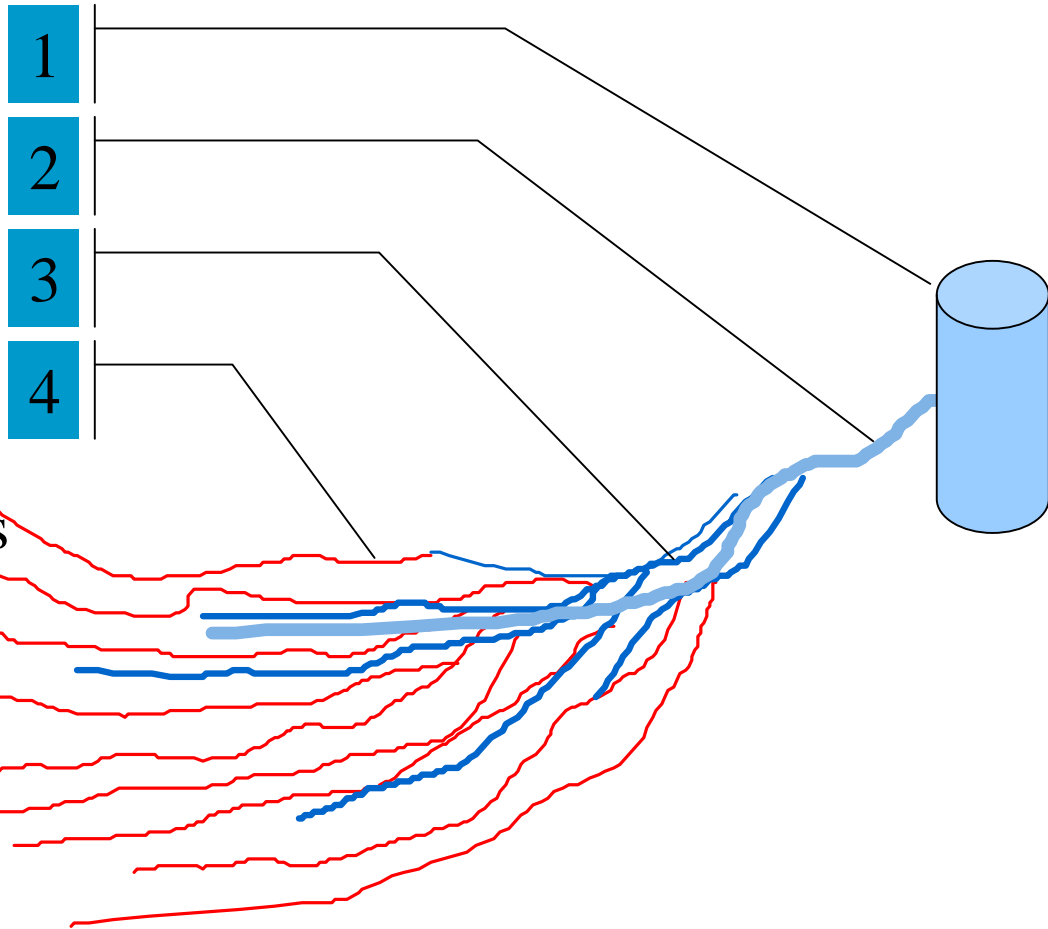
Varices

Then reticular veins

Then blue telangiectasias

At last red telangiectasias

In successive sessions or during the same session.





How many sessions Doctor ??

Example of planning

- 2 sessions echo-guided foam sclero of varices
- 2 sessions (foam) sclero of small residual varices
- 1 session sclero reticular veins
- 2 sessions (micro) sclero télangiectasias

Sometimes the treatment is longer than 10 sessions, it is necessary to anticipate and to advise the patient.



Do spider veins go away at each session ?

- Not necessarily !

“Like paint, several thin layers are better than a thick one”



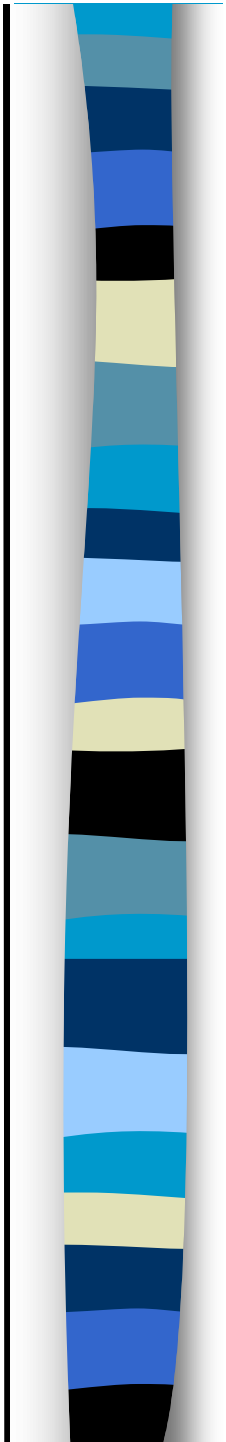
Find reticular veins:

- They are always present, **it is necessary to actively look for them and to find them**, especially Albanese's lateral network

Albanese's lateral network

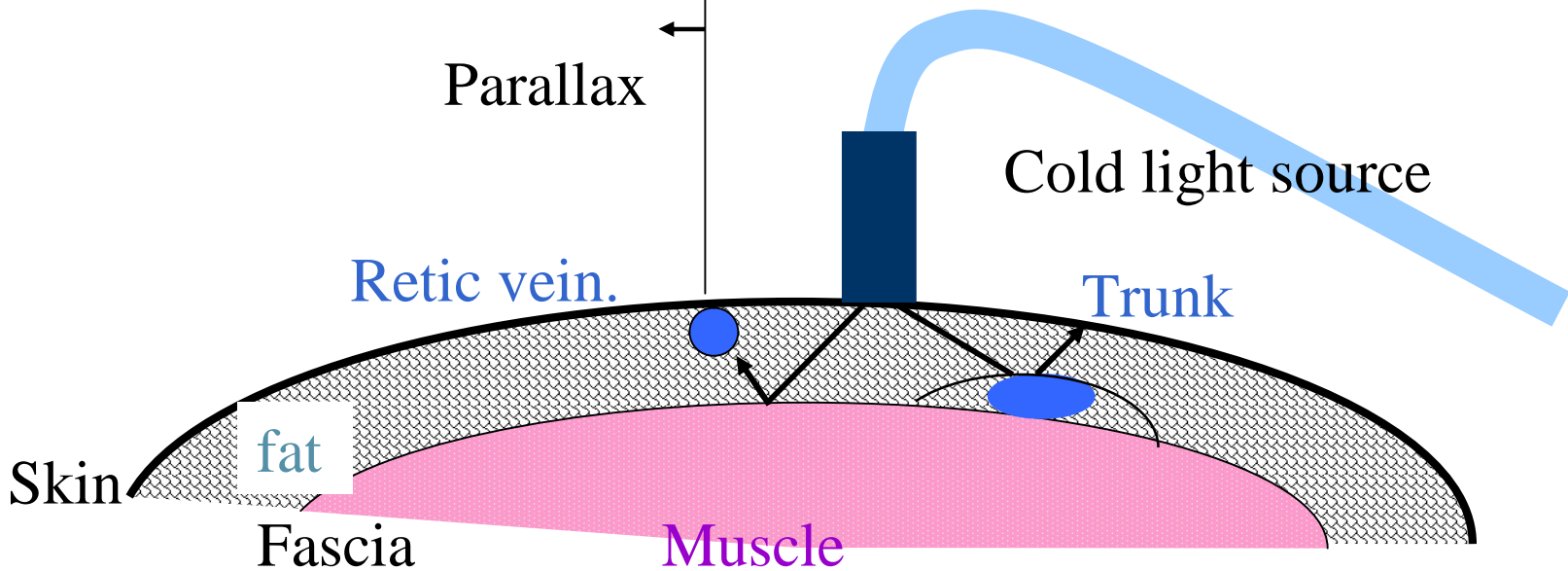
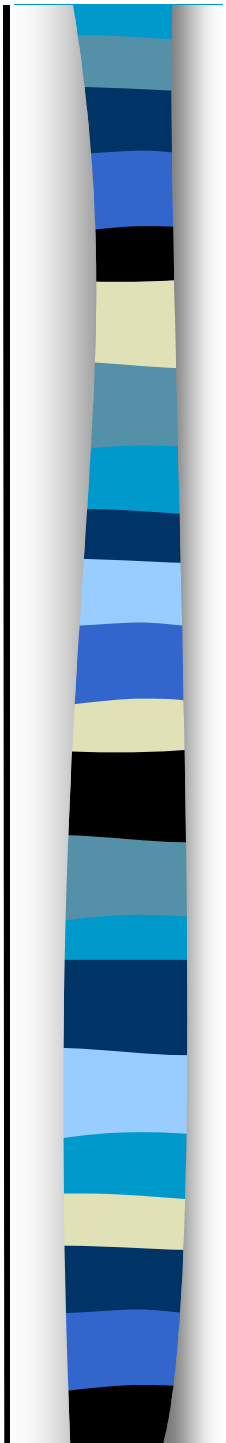


Perforator

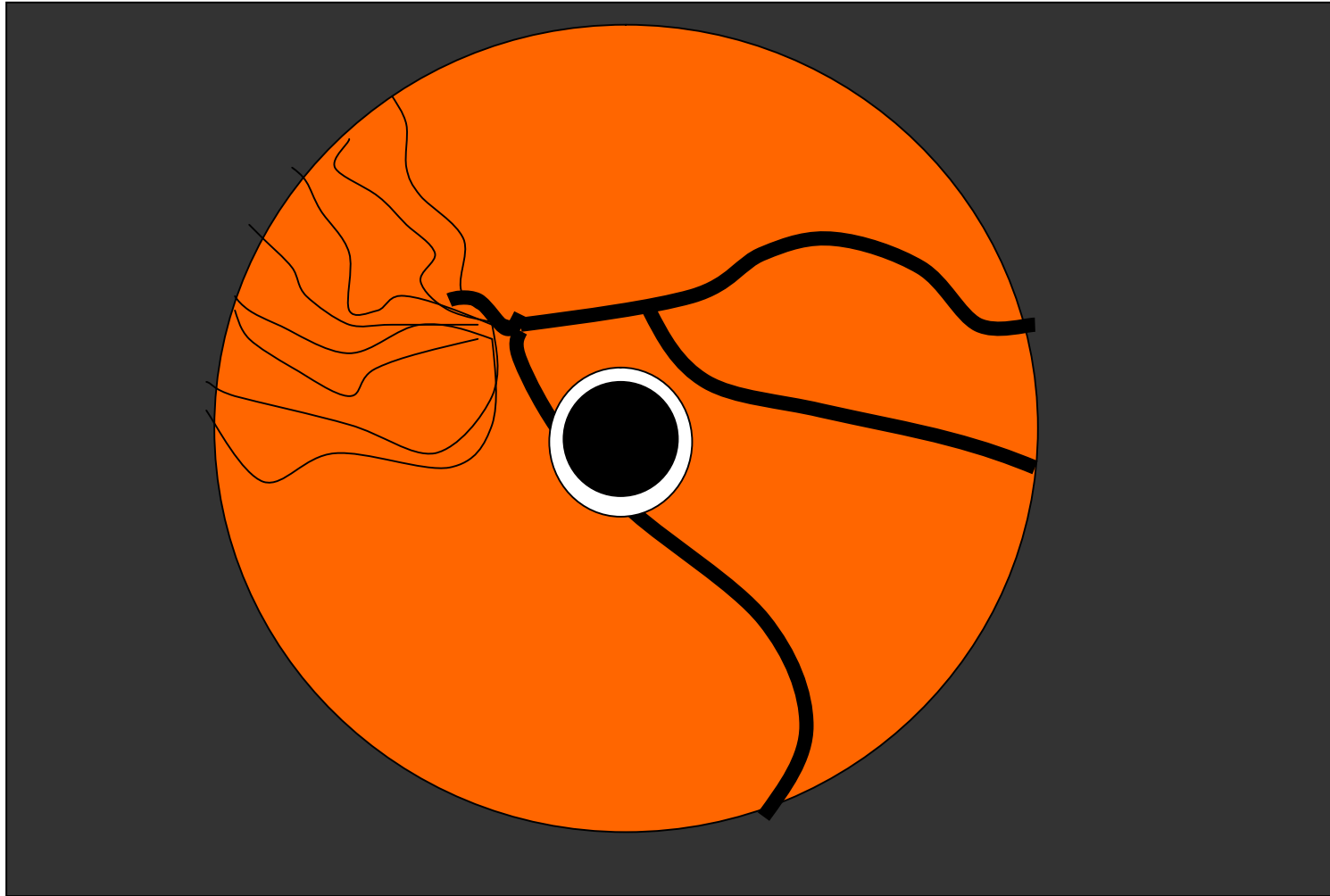


To find reticular veins:

- **Transillumination** can help because it projects the shadow of reticular veins on the skin after reflection of light on the fascia.



Connections between RV&T





Deep Venous incompetence

- Microsclerotherapy of reticular veins and telangiectasias is not recommended in case of deep venous incompetence with chronic venous insufficiency $C \geq 3$.

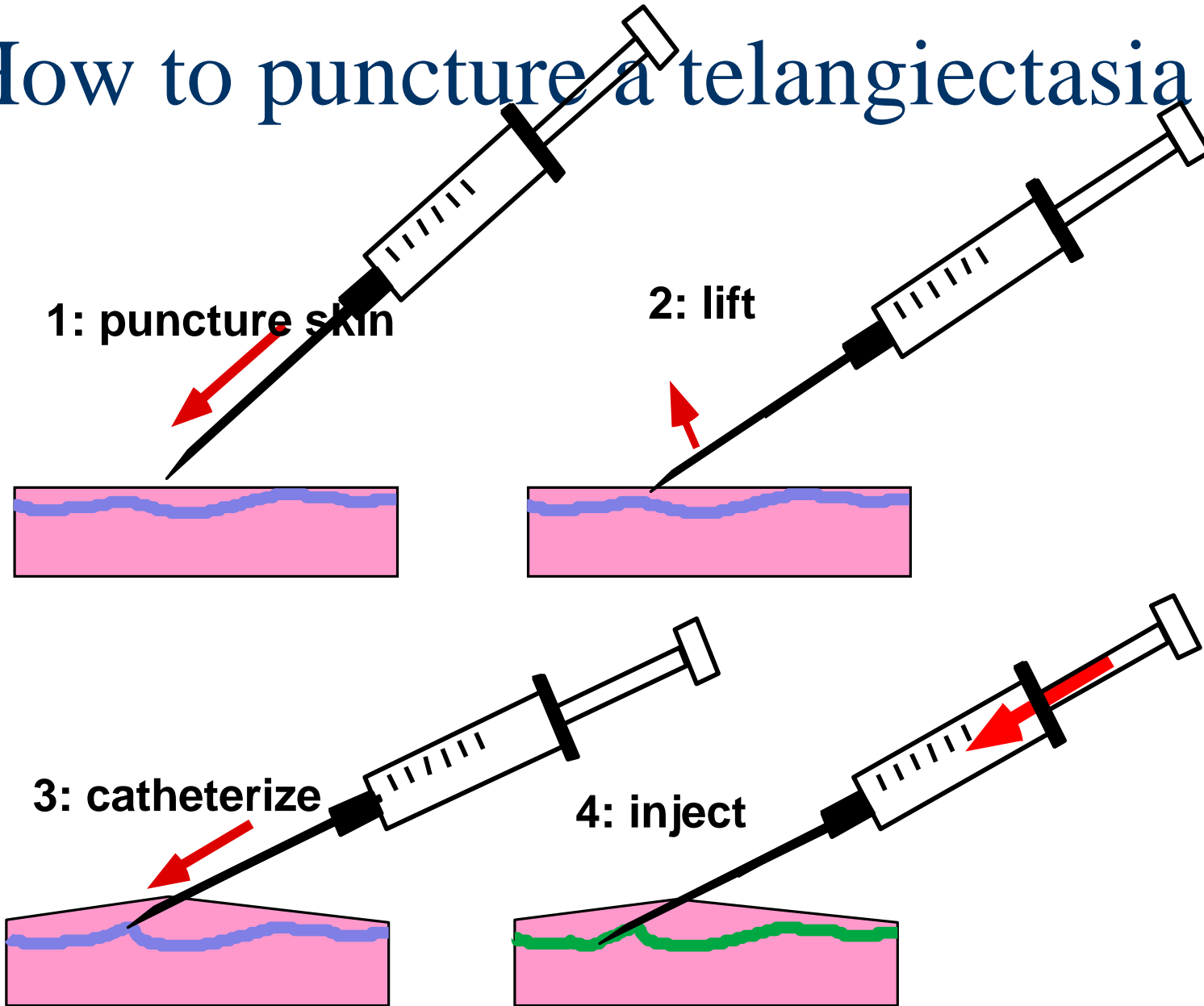


Bad Technique:

Clumsiness, bad catheterism:

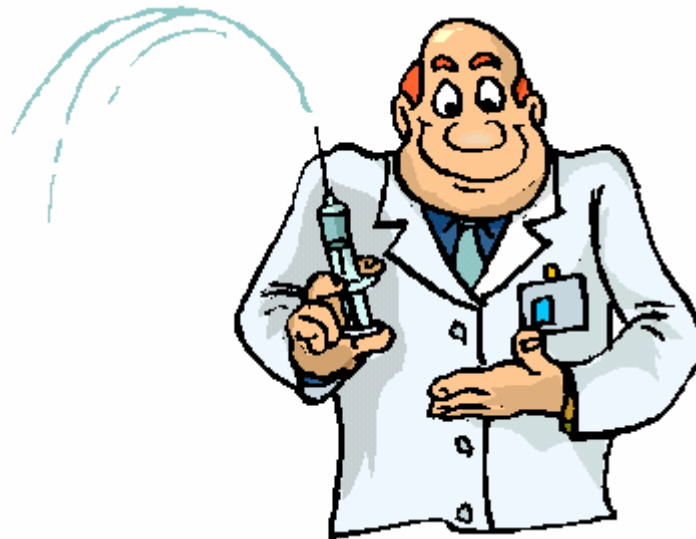
- consequences:
 - inefficacy
 - necrosis, scars
- Need for adequate training and advice from a skilled colleague

How to puncture a telangiectasia



Equipment:

- Best needles:
 - Telangiectasias: 30G 1/2
 - Reticular Veins: 26G 5/8





Technical Faults

■ Concentration

- Too weak: inefficacy,
- Trop strong: thrombus, pigmentations, necrosis, matting.

■ Pressure

- Trop strong: matting, necrosis.

■ Volume

- Too important: matting, pigmentations.



Explanations:

- **Transparietal burn**
 - Too strong concentration
 - Thin venous wall: extravasation, interstitial lesion
 - Dystrophic wall
- **Extravasation**
 - pretibial
 - malleolar.
- **Inflammatory reaction**
 - neovasculogenesis,
 - pigmentation



« Pigmentations & Stains »:

- Hematomas, ecchymosis
- Intra-venous **Micro-thrombi** ⇒
 - **Hémosiderin deposits**, thanks to macrophages they disappear spontaneously if stasis is corrected
 - Stimulation of **melanogenesis** by inflammatory reaction (less frequent, more durable)



Early « microthrombectomy »

- Telangiectasies $\varnothing > 0.6$ mm almost always make a thrombus.
- To evacuate ASAP by needle **micro-puncture**.



Concentrations to begin with:

- Polidocanol:
 - 0.25 or 0.5 % for T&VR
- Chromated Glycerin
 - 3/4 diluted with normal saline or Lidocaine
- Na Tetradecyl sulfate
 - 0.1 or 0.2 %

Problems of pressure.

Pressure

Diameter

Applied force

> 300 mmHg

5 mm

250 gF



Insulin (1cm³)

180 mmHg

8 mm

250 gF



2,5 cm³ syringe

Little syringes increase the risk of extravasation and necrosis (micro A-V fistulas, counter-current injections)

Proportional representation of a $0,5 \text{ cm}^3$ cylinder

Diam	cm	Length
1,4		0,32
0,8		1,00
0,5		2,55
0,2		15,92
0,1		63,69





Volumes.

- For telangiectasias: do not inject more than what is necessary to cover a 3 cm diameter disk.
- Do not « take advantage » of a « too nice » diffusion
- Multiply as much as possible small volume injections



In case of inefficacy:

- **Too weak** concentration : polidocanol 0.25% \Rightarrow skip to 0.5%
- Concentration OK \Rightarrow hold the pressure on the syringe for some seconds
- Try foam same concentration
- Change the sclerosing agent (sclerodex®)



Foam and T&VR:

■ Pros

- Foamed Ae 0.25% stronger than liquid 0.25% (too much ?)
- Better diffusion
- Less bleeding
- Foam is necessary for treatment of varices

■ Cons

- Not better than liquid 0.5%
- Micro-thrombosis
- Not stable (in the syringe)
- General complications (visual)



Compression:

- Mild local compression on injection points with a small cotton ball + adhesive tape is enough for VR&T.
- It is different for varices.
- If compression is necessary for other reasons, it must be kept.
- No conclusive study published (*Weiss Vs Guex*).



Other advice:

- Avoid heat excess
- and sunbathing during treatment and 2-3 weeks after.



Microsclero Vs Lasers: pros & cons

■ Sclero

- More efficient
- Less bad results
- Faster sessions
- Less painful
- Cheaper
- Requires more skill
- Uses a needle

■ Lasers

- Less efficient
- More skin lesions
- Longer sessions
- More painful
- More expensive
- Requires less skill
- “High tech” fame

LASER is the acronym for:

Latest Attempt to Secure Extra Revenue



Good conditions:

- Good lighting, rather indirect.
- Patient comfortable, relaxed.
- Doctor sitting down.
- Magnifying goggles, transillumination, polarized light.
- Video projection (\$\$\$).



Conclusions:

- Normally it DOES work !
- If it does not : look for the error !



It doesn't work !

Diagnosis of an **error**:

- I left varices, perforators or reticular veins.
- I didn't detect the deep incompetence
- The sclerosing agent was too weak
- I'm bad at injections
- Or it is not finished, I must continue.

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