

Treatment of varices and telangiectasias by sclerotherapy can provoke necrosis

Le traitement des varices et des télangiectasies par sclérothérapie peut provoquer une nécrose

Vascularisation sous cutanée en écho-doppler haute fréquence

Dr Jean-Luc GERARD
Paris France

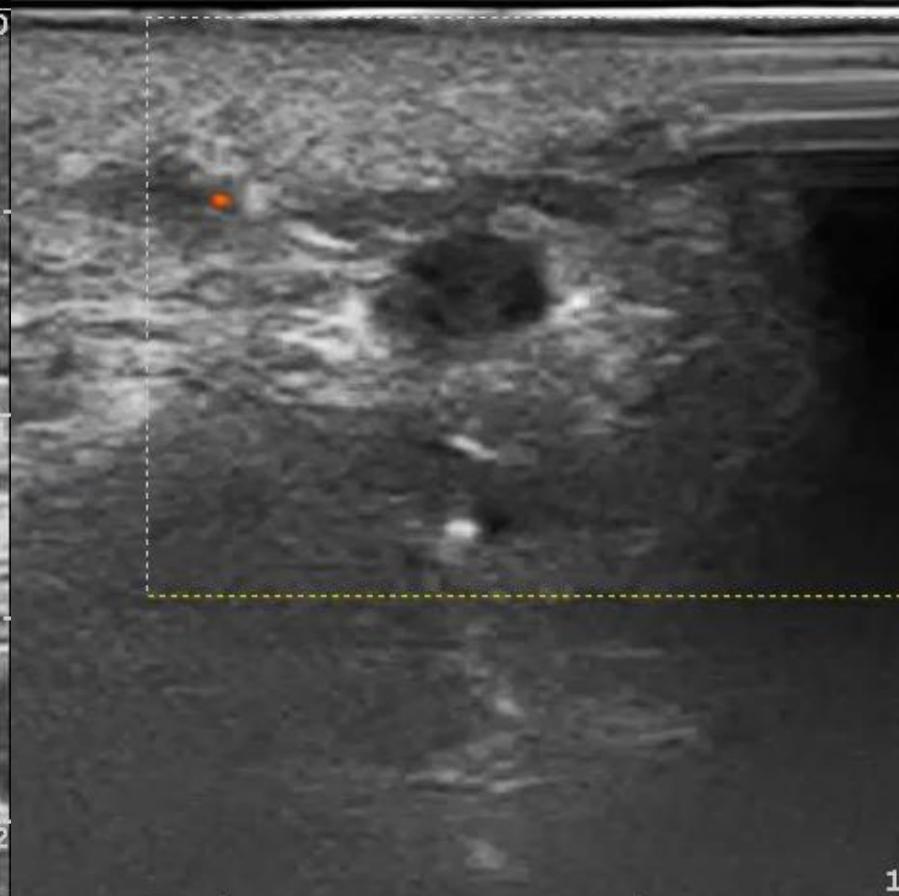
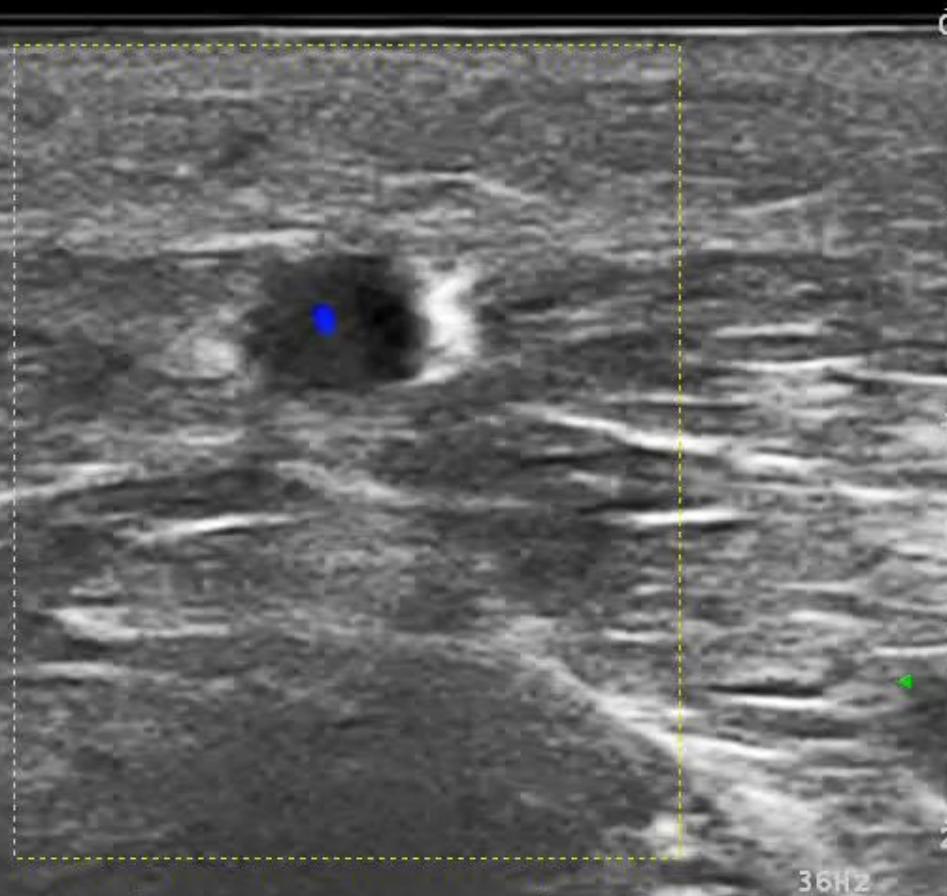
CACVS
January 2020

Conflict of Interest

NONE

SMALL SAPHENOUS VEIN

14MHz Probe

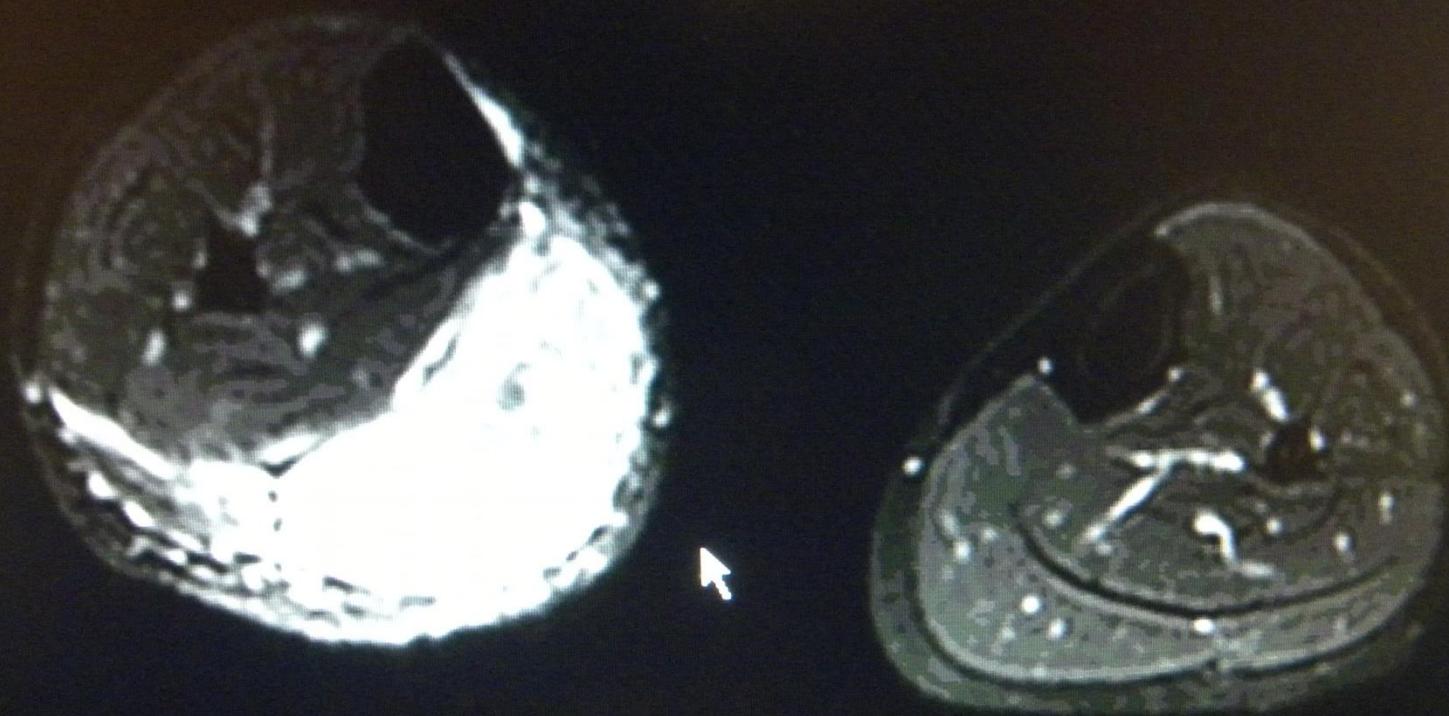


Mistakenly injecting the artery
companion to the SSV

Necrosis after sclerotherapy by liquid on DUS



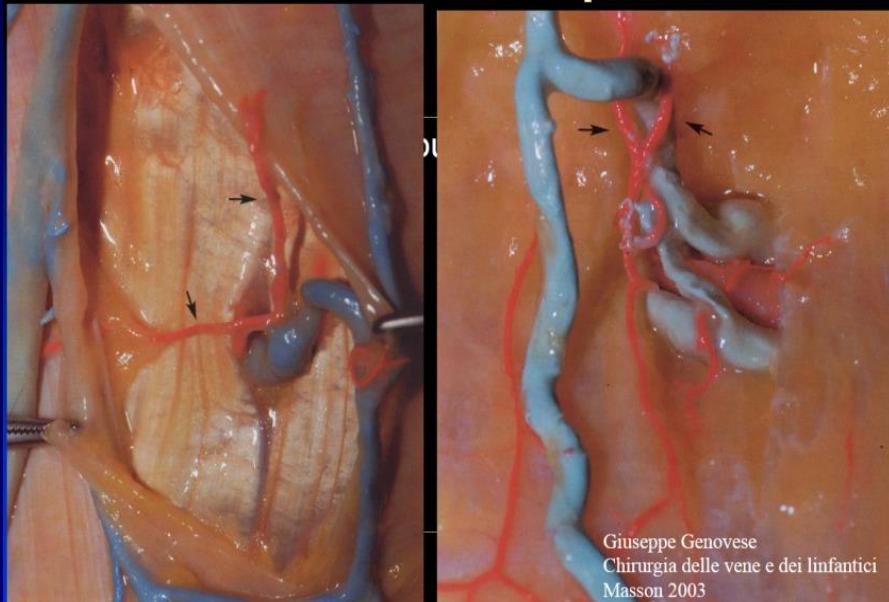
Injection of foam into the SSV's artery



PERFORATING VEIN

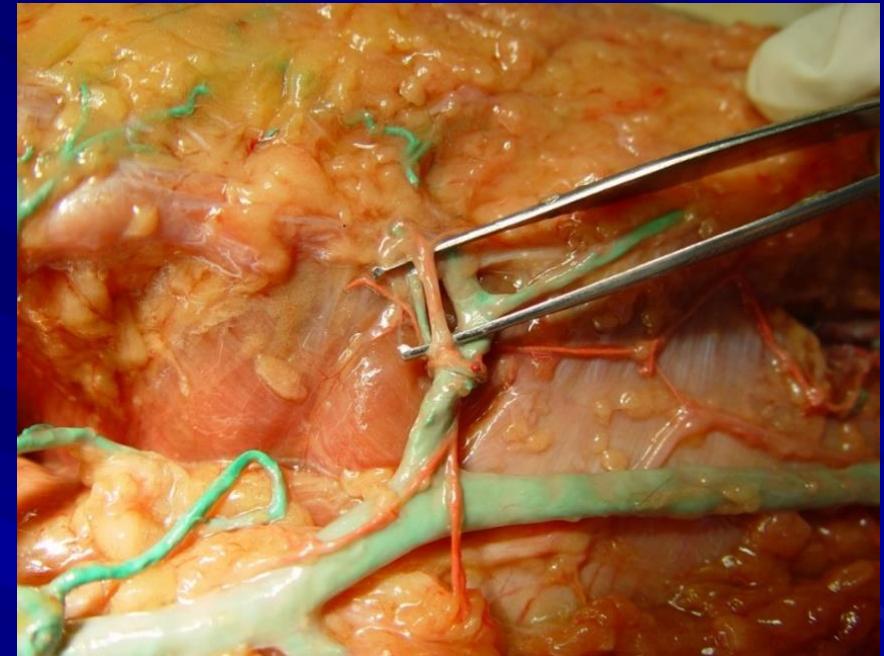


Artères satellites des perforantes



Giusseppe Genovese

Chirurgia delle vene e dei linfatici
Masson 2003



Claude Gillot

Reccurrent varicose veins by perforators

Post-Sclerotherapy of telangiectasia



NICOLAU SYNDROME OR EMBOLIA CUTIS MEDICAMENTOSA

Frudenthal in 1924 and Nicolau in 1925 reported after the muscular injection of bismuth for the syphilis in the gluteal area, necrosis including the skin and deeper tissue

Intense pain in the immediate postinjection period

Purplish discoloration, hemorrhagic patch, and finally necrosis of skin, subcutaneous fat, and muscle

Caused by :

intramuscular, subcutaneous, intravenous, intraarticular injection

Occurred with all classes of medications,:

non steroidal anti- inflammatory drugs, antipsychotics, local anaesthetics, corticosteroids, antibiotics, vitamin, antihistamines and vaccinations, polidocanol ...

NICOLAU SYNDROME



Nicolau Syndrome: An Iatrogenic Cutaneous Necrosis

KC Nischal, HB Basavaraj, MR Swaroop, DP Agrawal, BD Sathyanarayana, and NP Umashankar
J Cutan Aesthet Surg. 2009 Jul-Dec; 2(2): 92–95

NICOLAU SYNDROME

Etiopathogenie:

- **Sympathetic nerve stimulation** : The sympathetic nerve stimulation by pain (from the periarterial or intra-arterial injection) causes vasospasm and ischemia
- **Prostaglandin synthesis block**: Pharmacologic characteristics of NSAIDs which block prostaglandin synthesis cause vasospasm and ischemia
- **Emolic occlusion** : Accidental intra-artery injection causes embolic occlusion of the arteries
- **Direct trauma by the needle**,
- **Peri-vascular compression by the injected volume**
- **Inflammation** : Perivascular inflammation caused by cytotoxic reaction to the injected medication
- **Mechanical injury**: Physical obstruction of the blood vessels caused by the lipophilic drugs which penetrated the vessels.





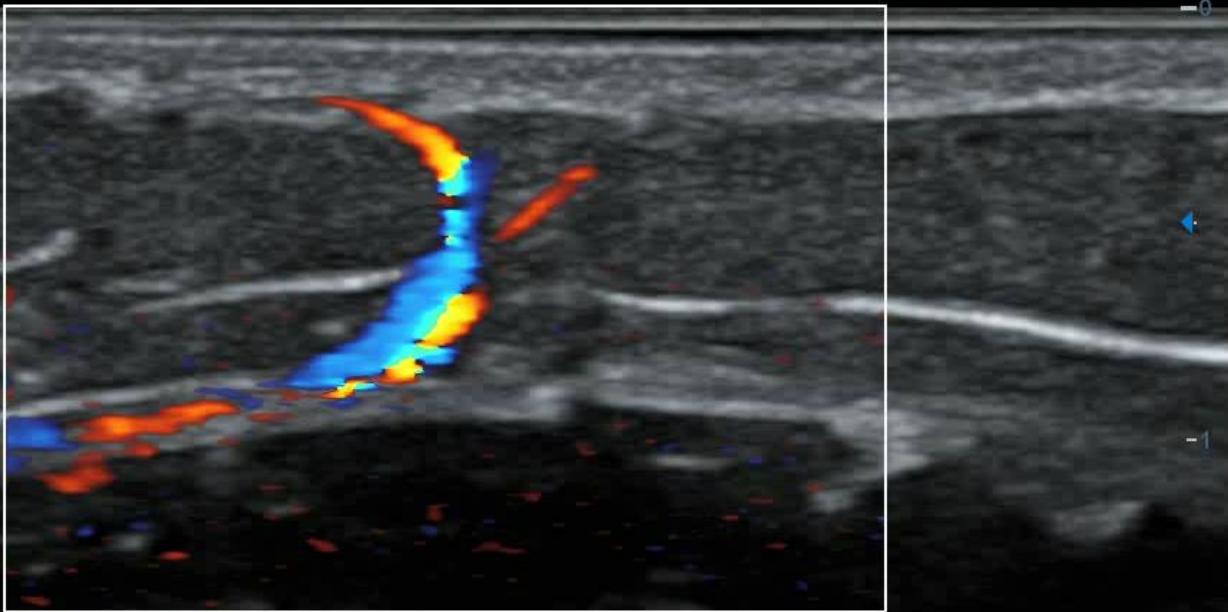


AF 50.0% MIV 0.9 TTS 0.2

4.4

M

-4.4



mindray
DC-70 Exp

B

F 6.6~16.0

D 2.0

G 52

FR 19

DR 115

iClear 4

iBeam 1

C

F 7.2

G 58

WF 68 Hz

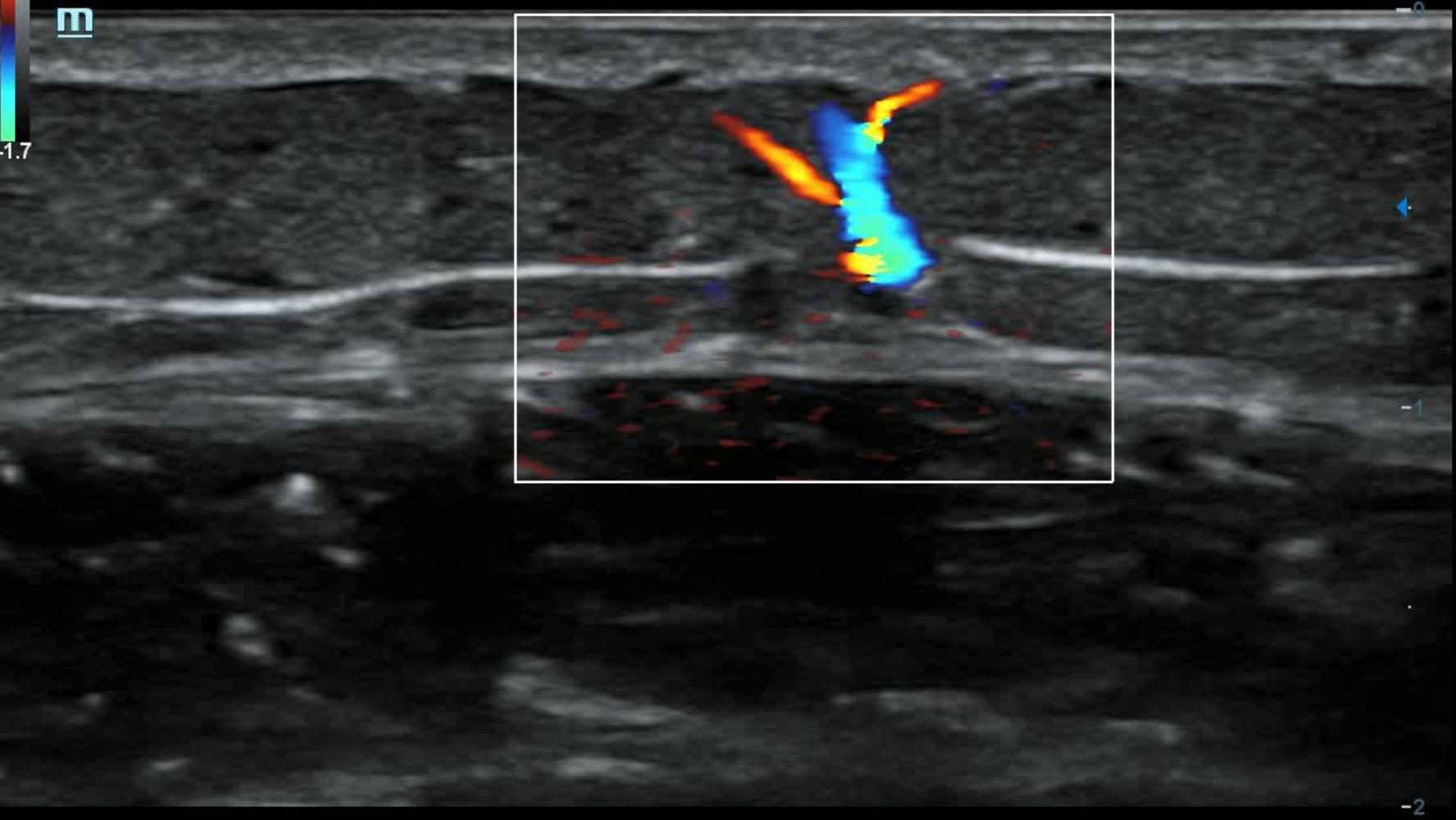
PRF 0.8k

-2

20-09-2018 15:56:35

20180920-172257-DD75

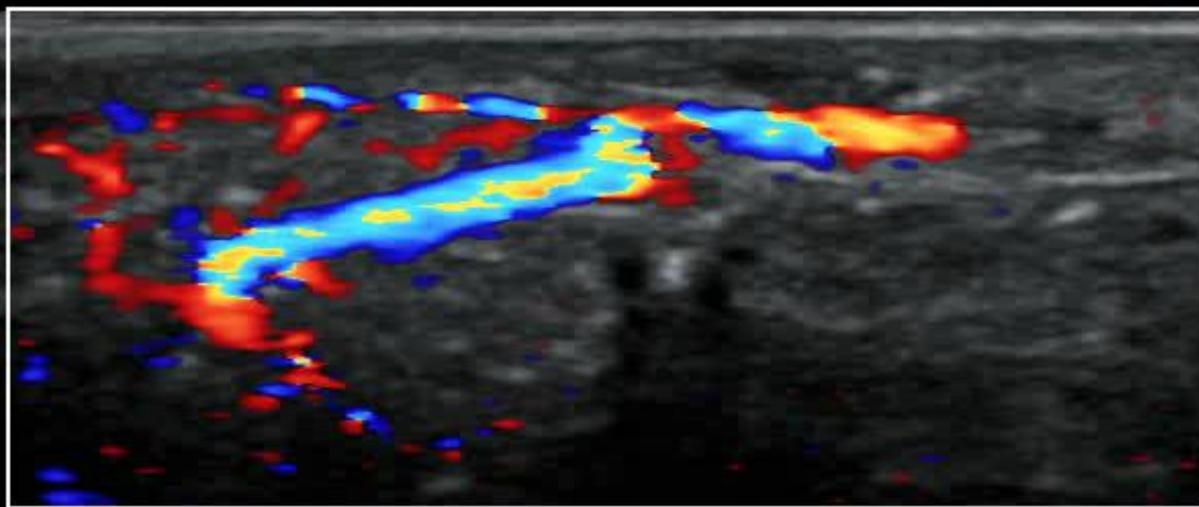
AP 96.6% MI 0.9 TIS 0.1



mind
DC-70
B
F 6.6~1
D 2.0
G 50
FR 17
DR 115
iClear 4
iBeam 1
C
F 7.2
G 56
WF 26 I
PRF 0.3



m



20-09-2018 15:56:57

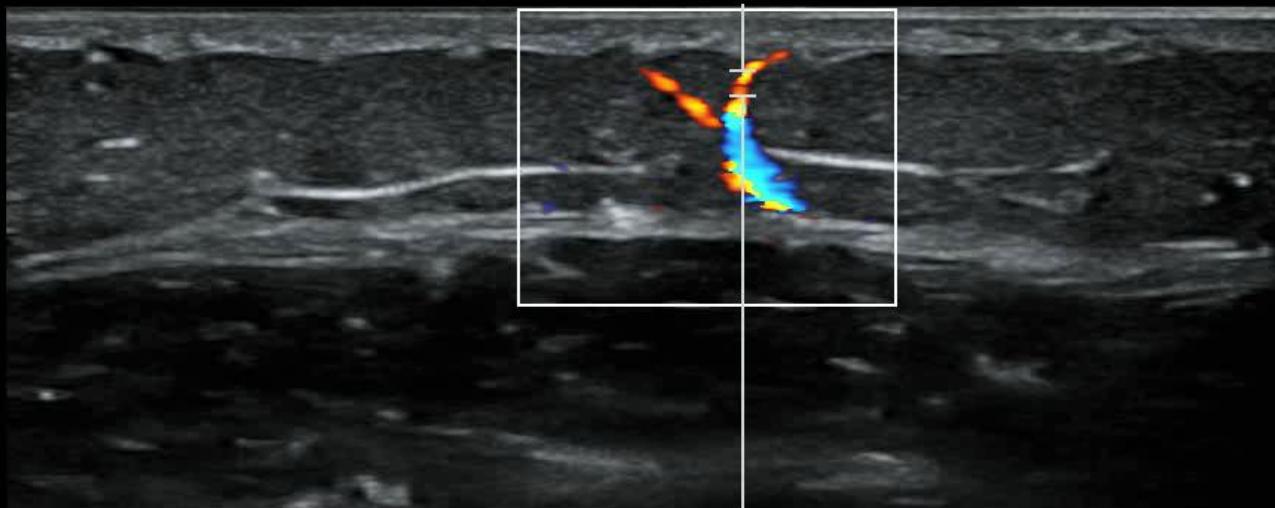
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DIGITALE

L14-6WE

AP 96.6% MI 0.4 TIS 0.0

1.7
m
-1.7



-0
m
-1
-2

mindray
DC-70 Exp
B
F 6.6~16.0
D 2.0
G 50
FR 17
DR 115
iClear 4
iBeam 1

C
F 7.2
G 56
WF 26 Hz
PRF 0.3k

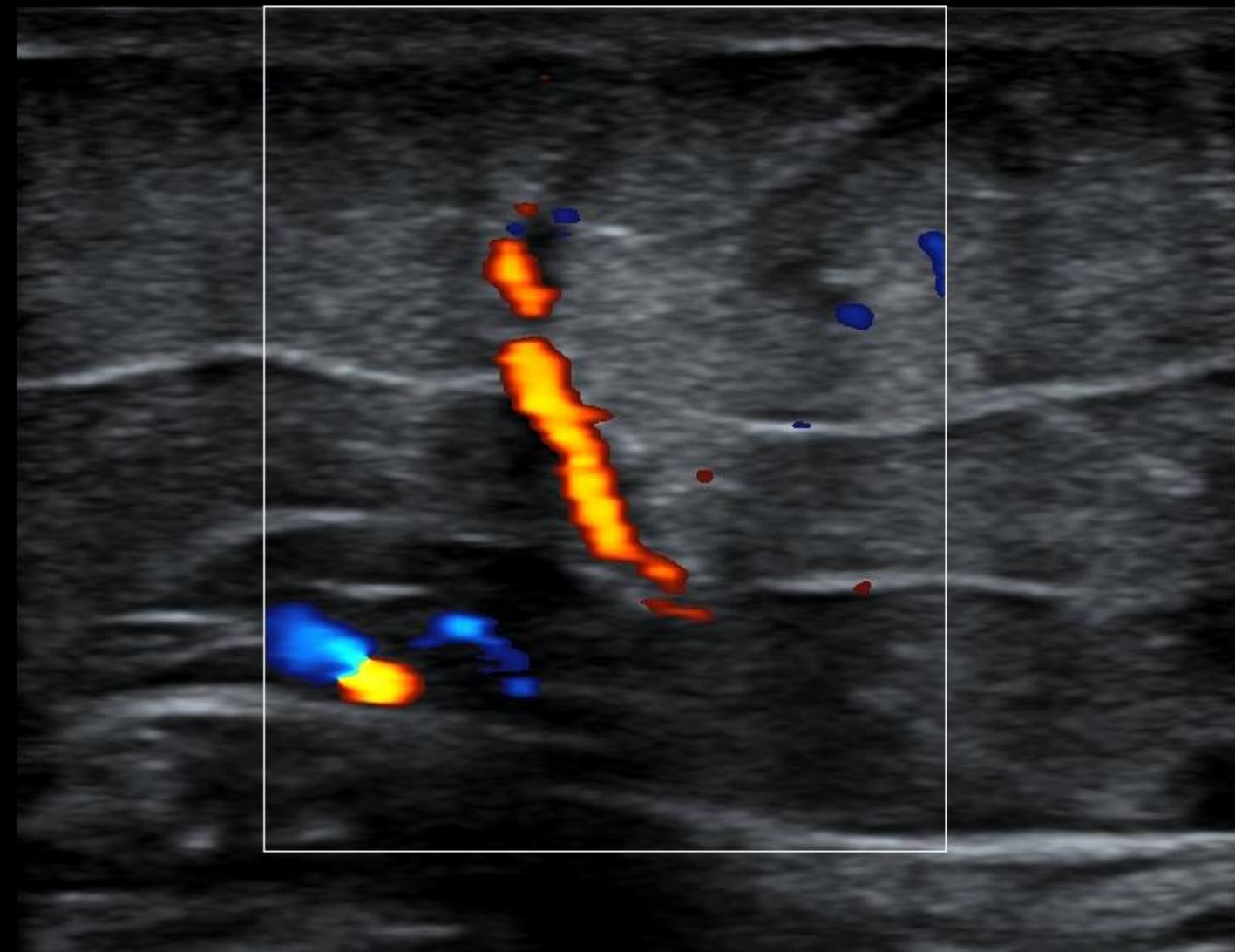
PW
F 5.7
WF 100 Hz
G 80
SVD 3.1
SV 1.0
PRF 1.2k
Angle 0°

-10
-5
0cm/s



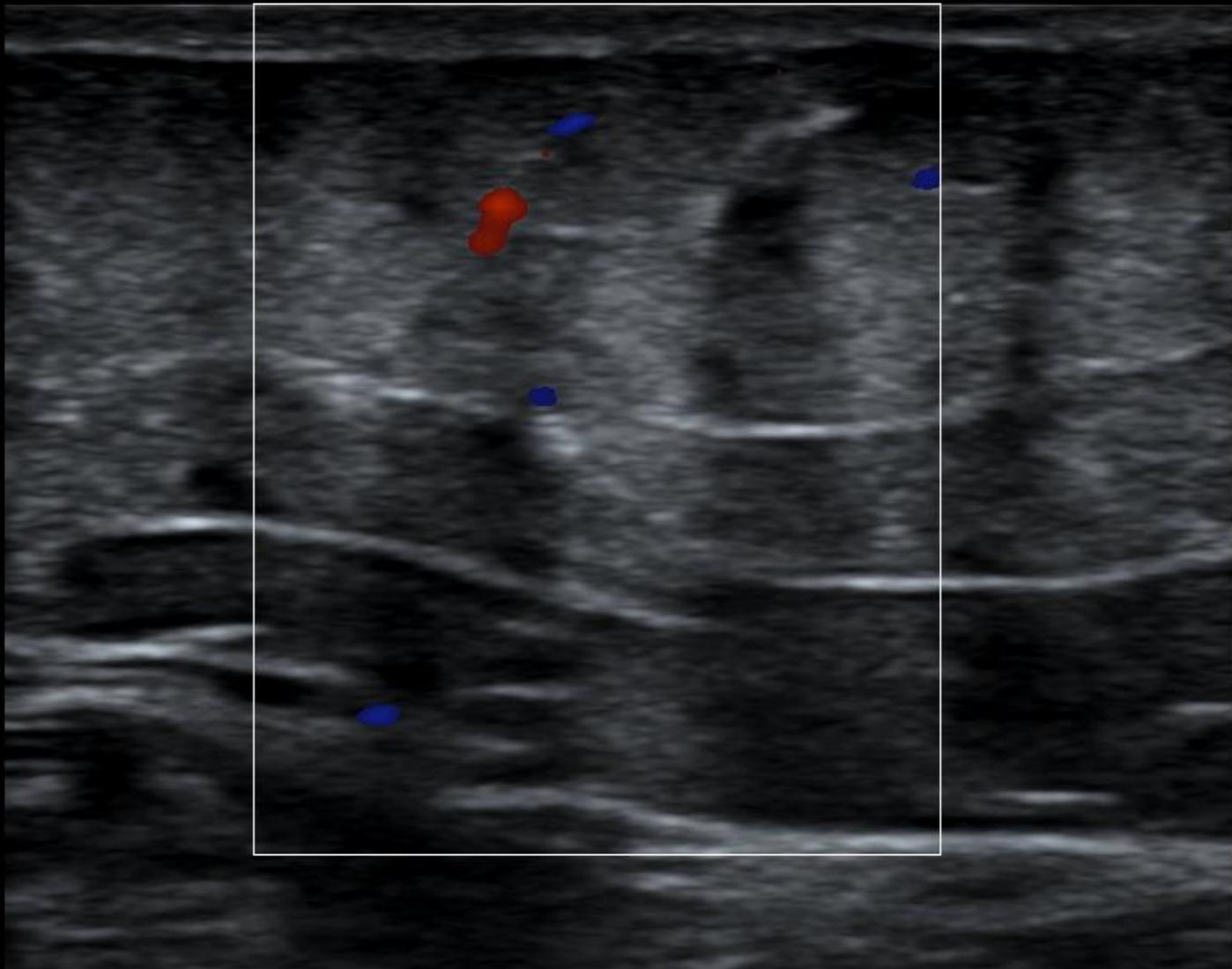


14Mhz probe



14Mhz probe

m



The image consists of two side-by-side photographs of a person's leg. Both photos show a dark, irregular skin lesion on the upper thigh. In the left photo, the skin around the lesion is yellowish-tan, and there is a small amount of clear liquid or exudate at the bottom right of the lesion. In the right photo, the skin is more red and inflamed, and the same clear liquid is visible at the bottom right. The background is white, likely a bedsheet.

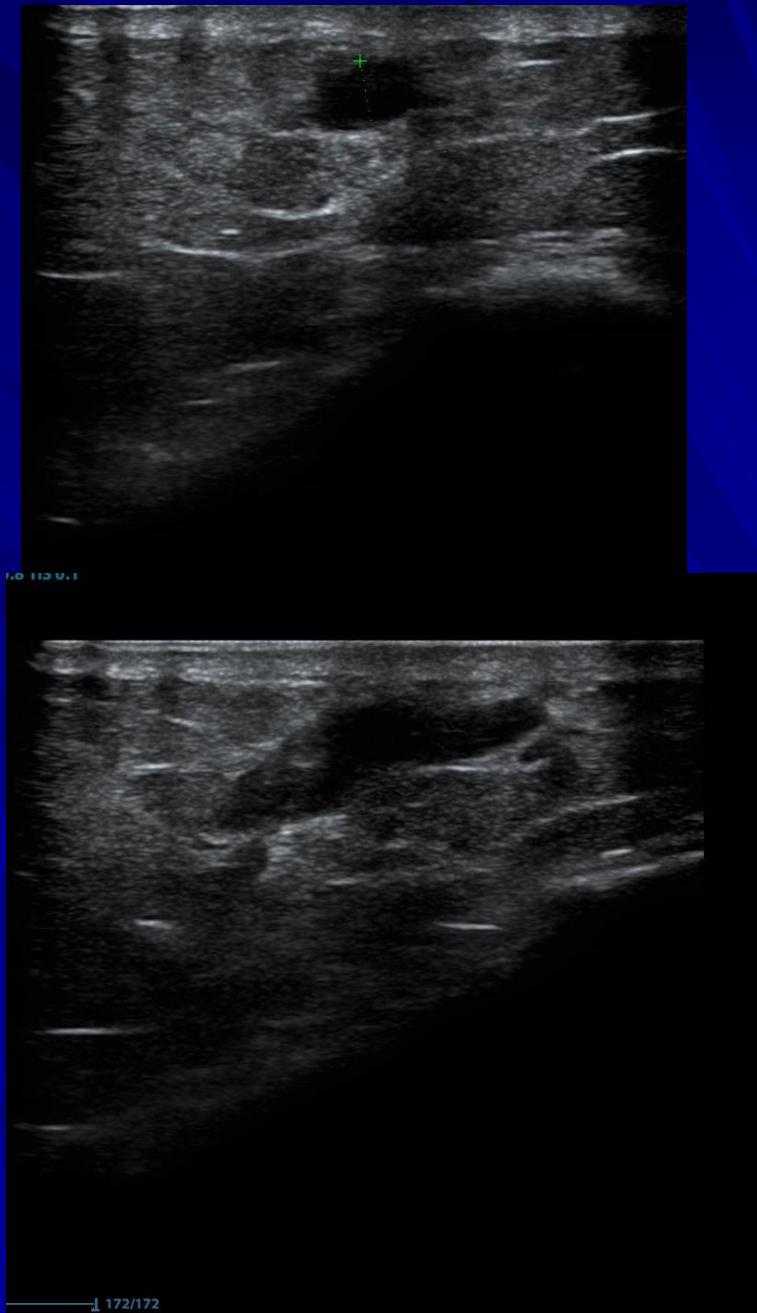
25 Avril 2017



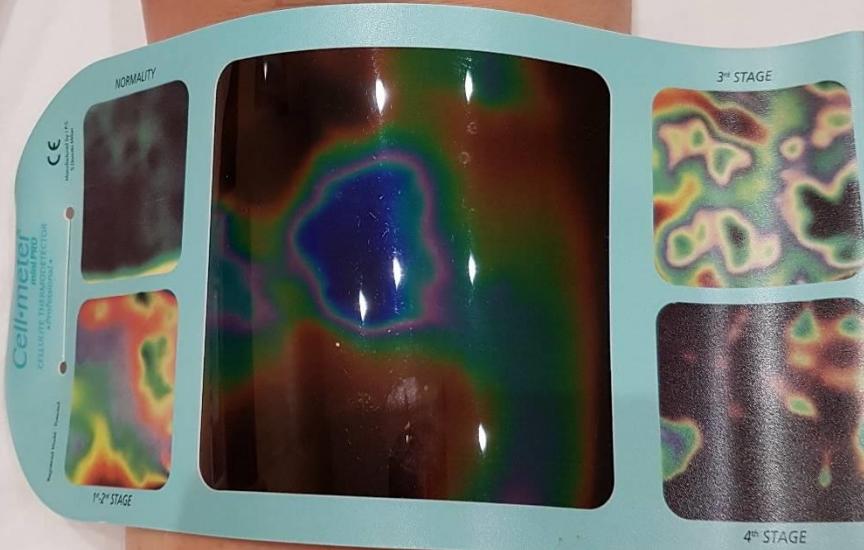
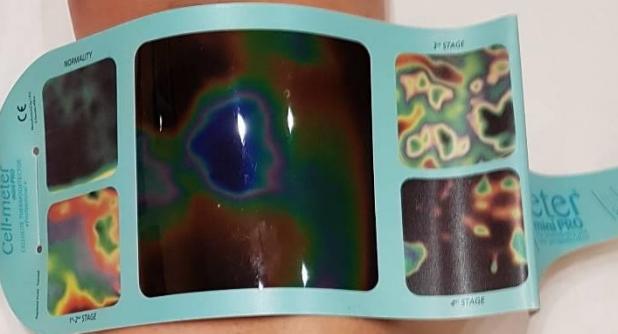
Mai 2017



Avril 2018



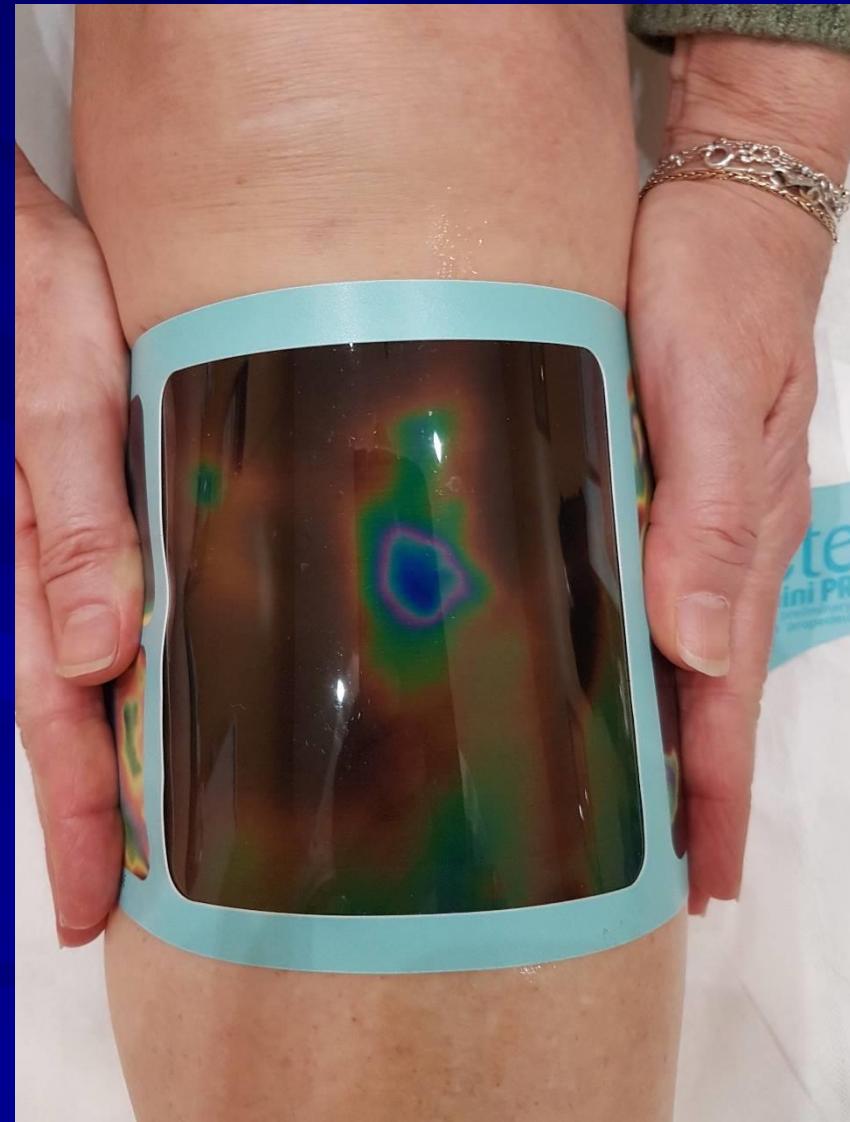




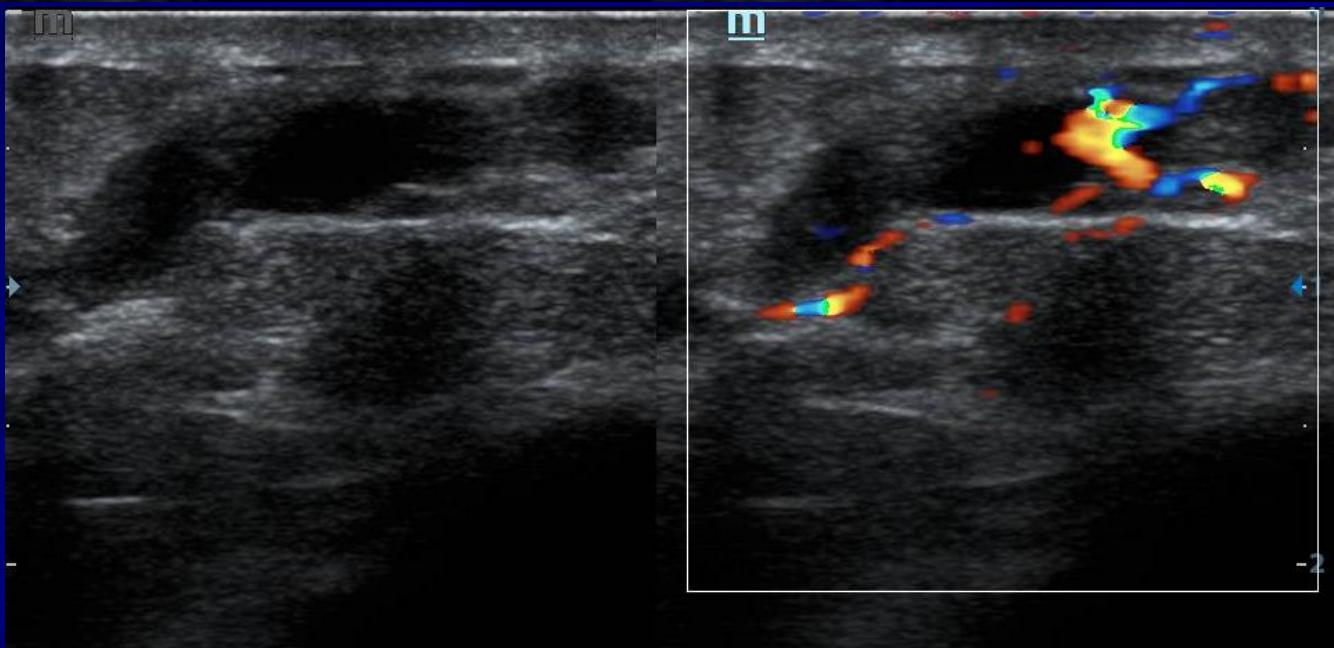
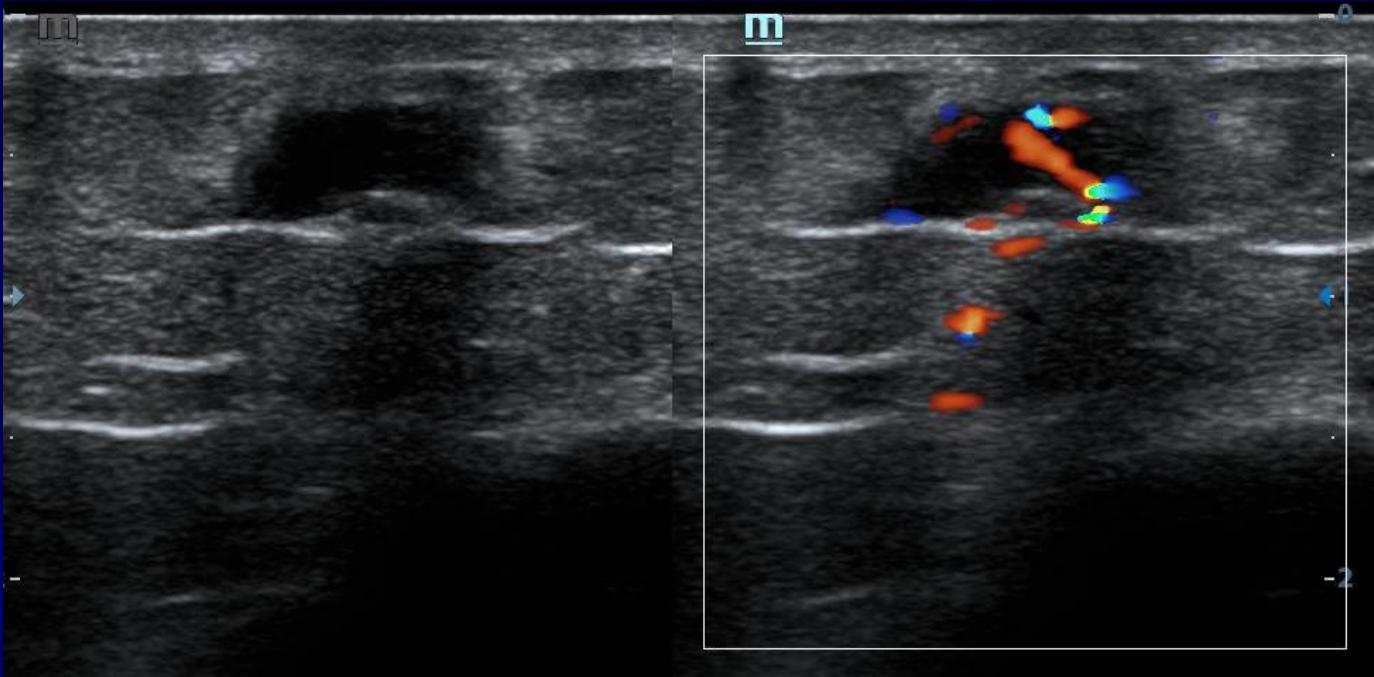
RIGHT



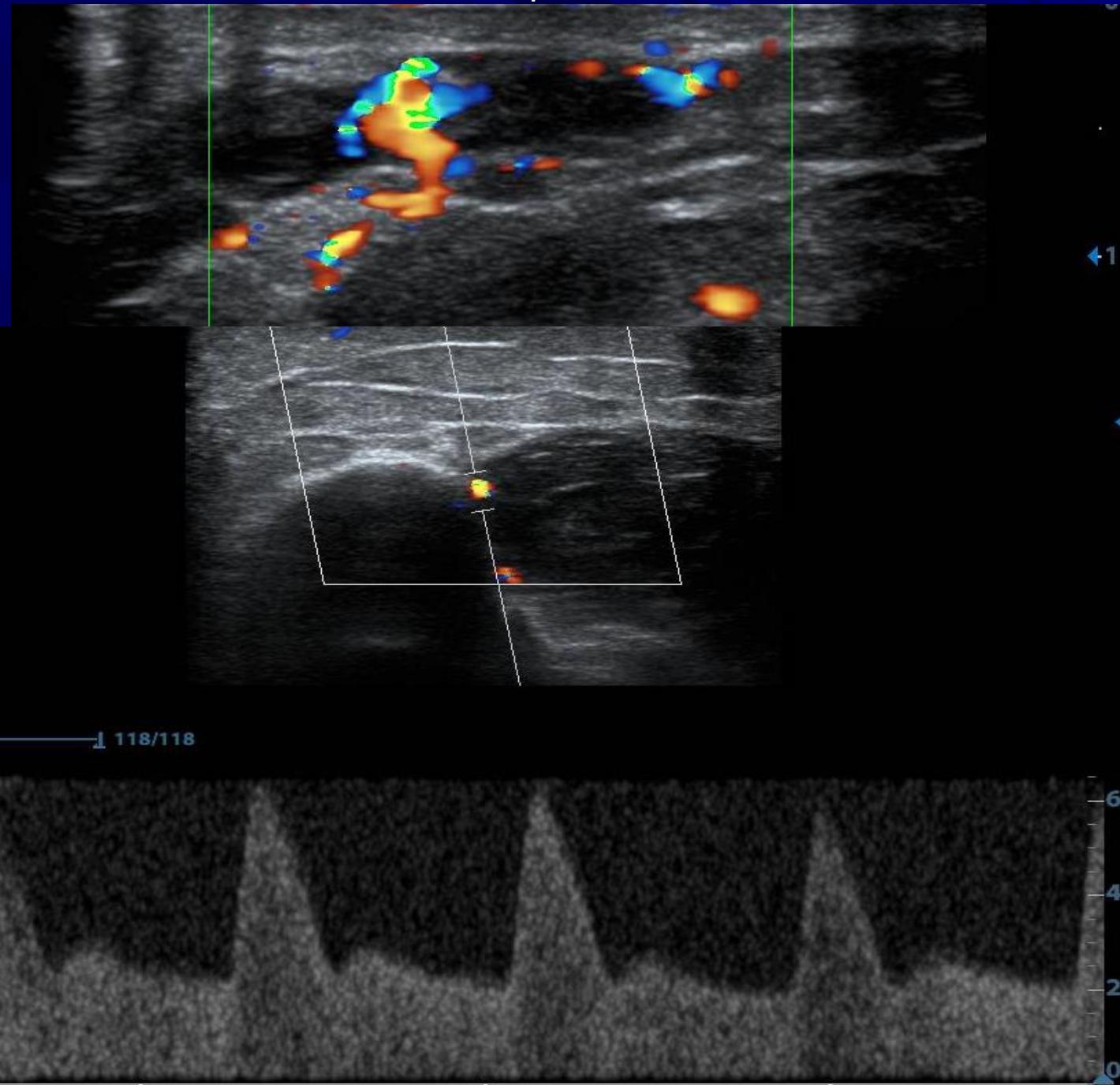
LEFT



14Mhz probe



14Mhz probe



TAKE HOME MESSAGE

Check by color duplex before injection:

Small saphenous vein

Perforator vein

Telangiectasia

TAKE HOME MESSAGE

Check by color duplex before injection:

Small saphenous vein

Perforator vein

Telangiectasia

Color duplex scan

Easy

Quick

Safe

Thank you for your attention