

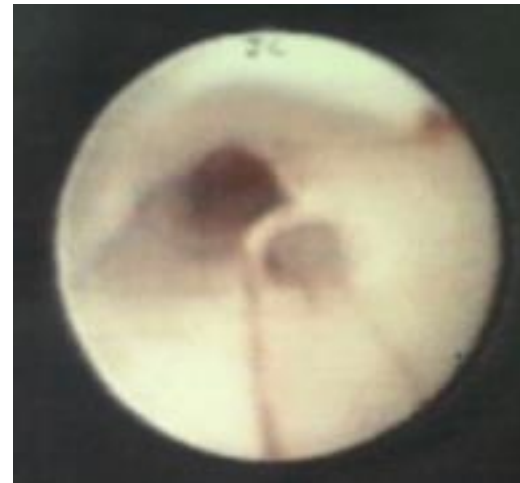
Saphenous endoscopy 30 years after



JF Van Cleef

Paris

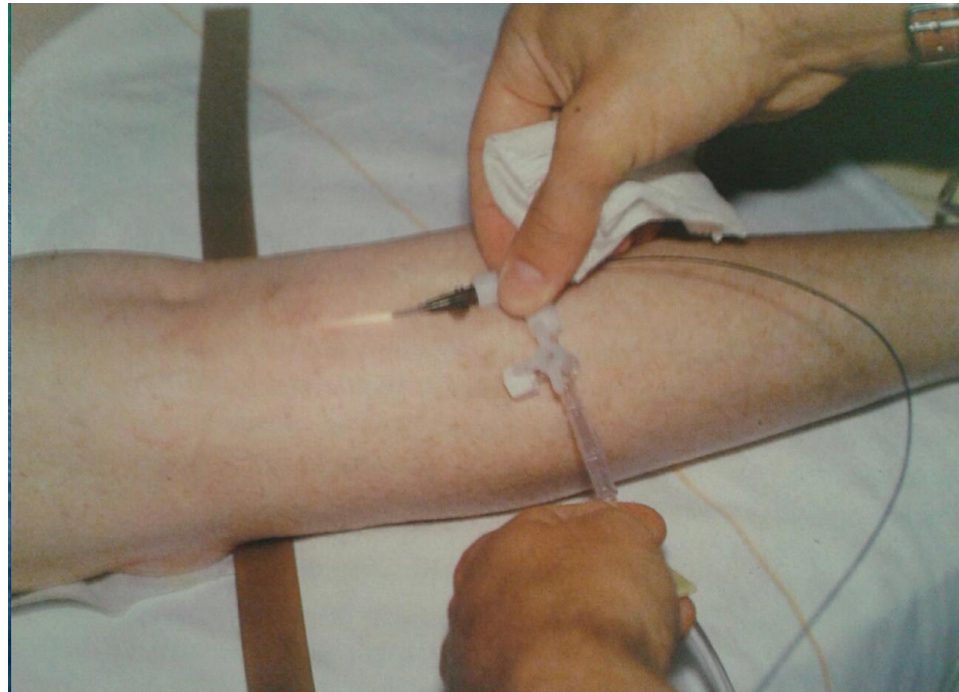
No conflict of interest



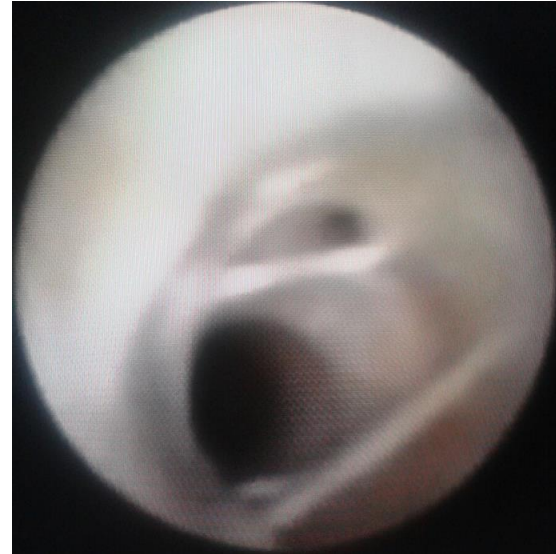
JF Van Cleef 46 rue La Fayette **Paris**

Endoscopic sclerosis

World premiere 1989

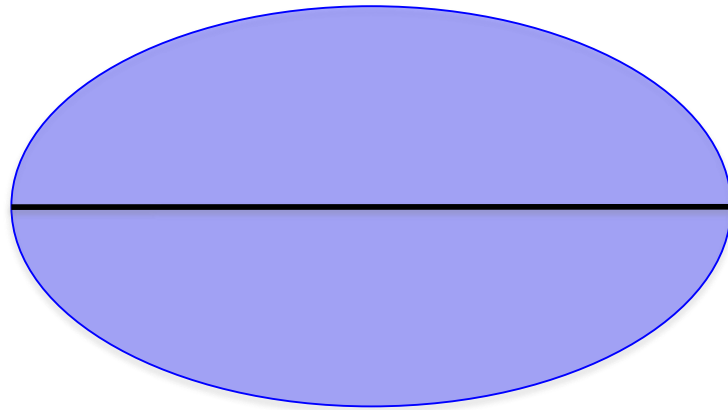


Round image within a round vessel



Orientation problem

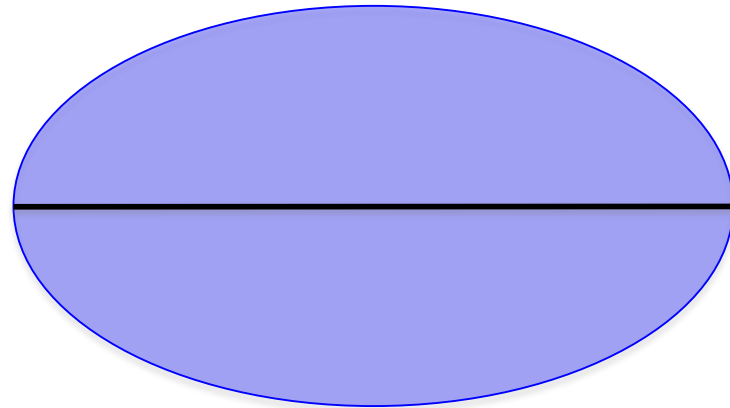
Preferential axis of flattening



Edwards
1940

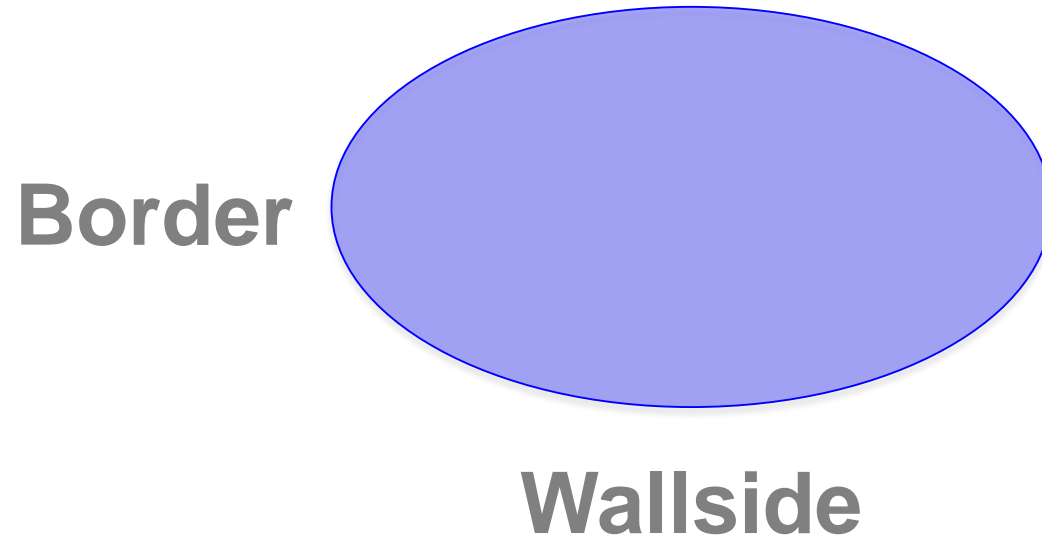
Valve

Commissure

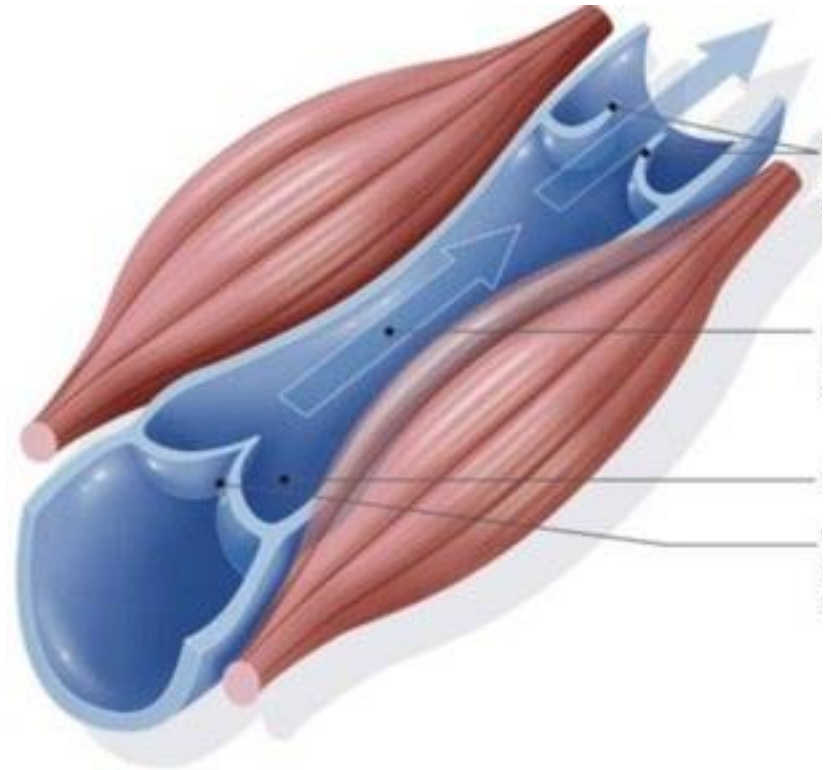


Cusp

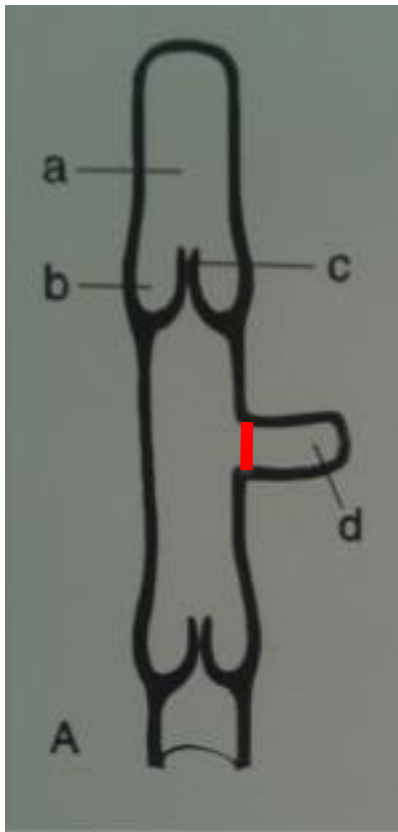
A vein has
2 wallsides 2 borders



Dynamic model of the calf muscle pump

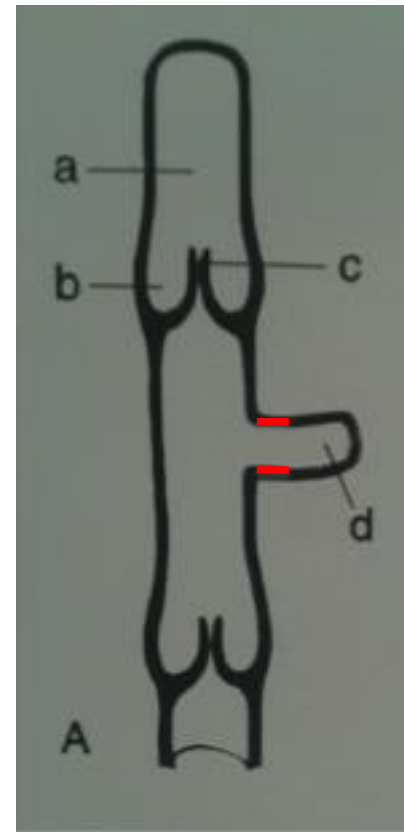


During muscle contraction



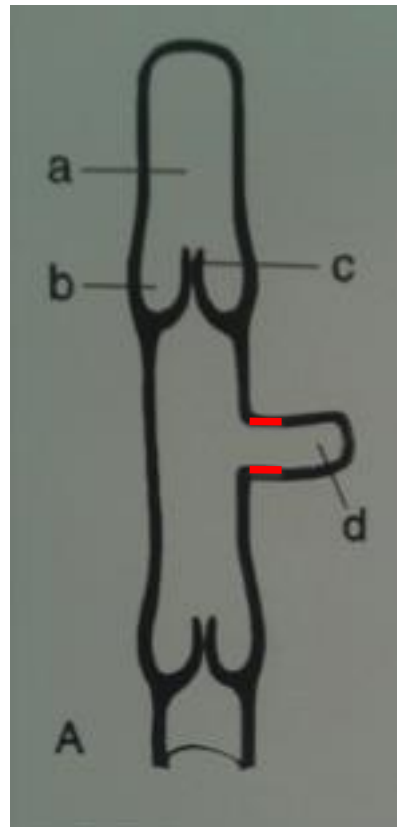
Perforator

valve
closed
or
Open
?



1989

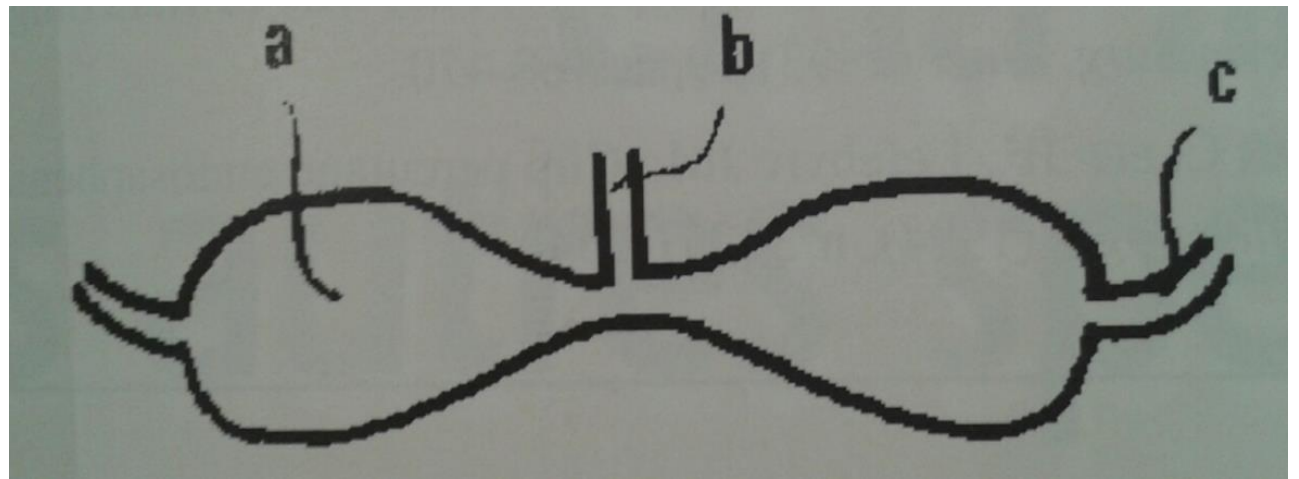
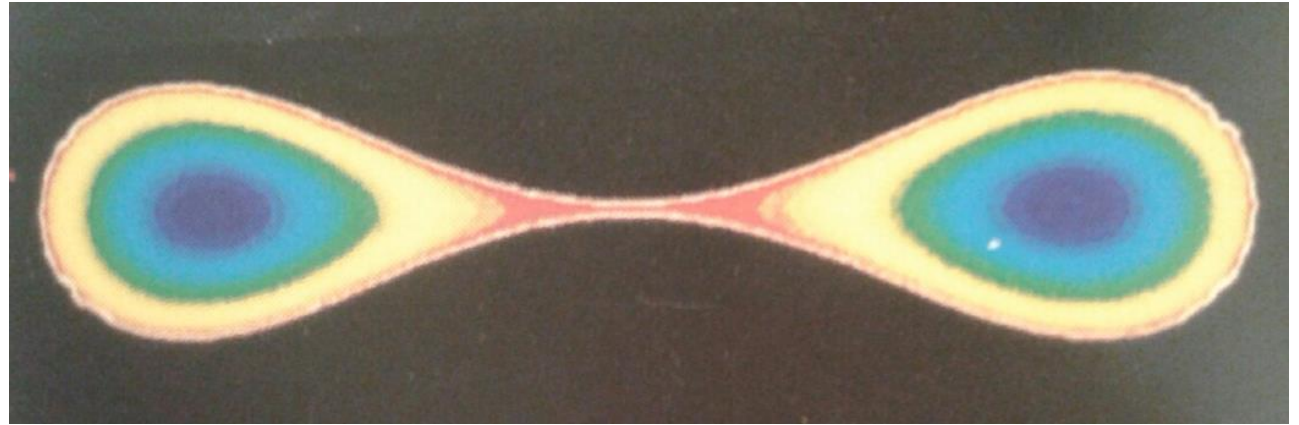
Dynamic model of the calf muscle pump



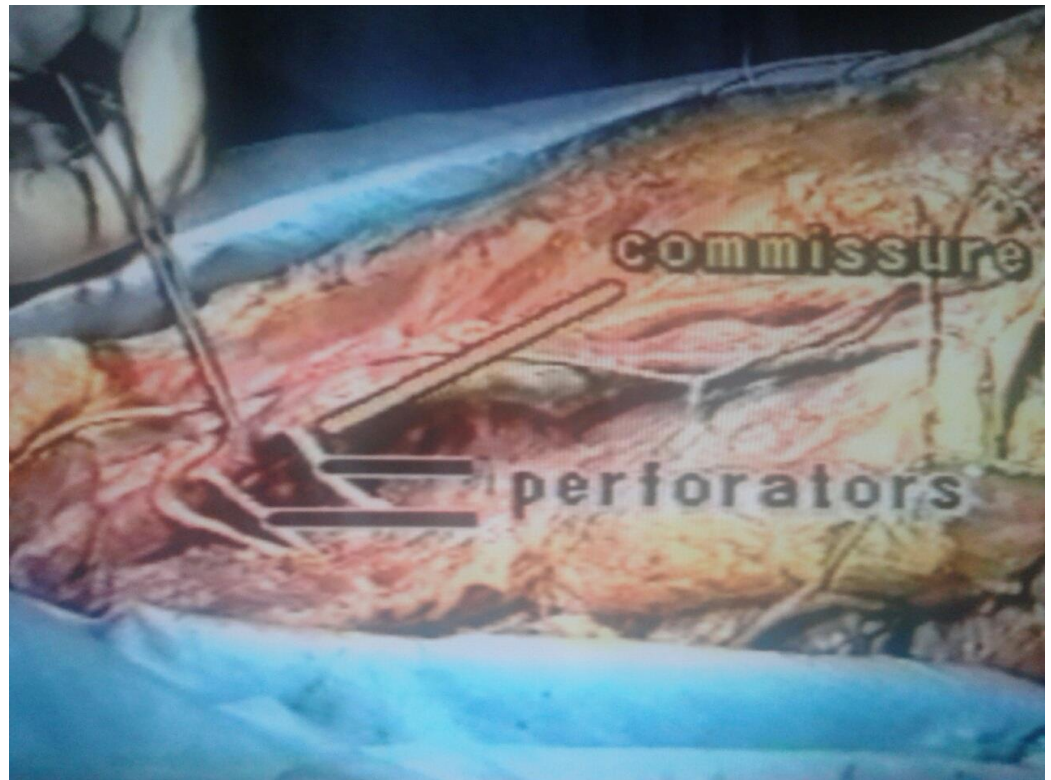
Opened valve

1989

Bilobed form

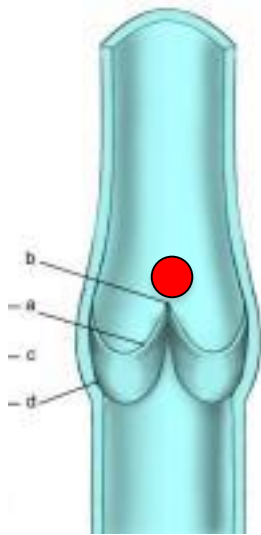


Commissures and perforator orifices aligned



with Claude Gillot

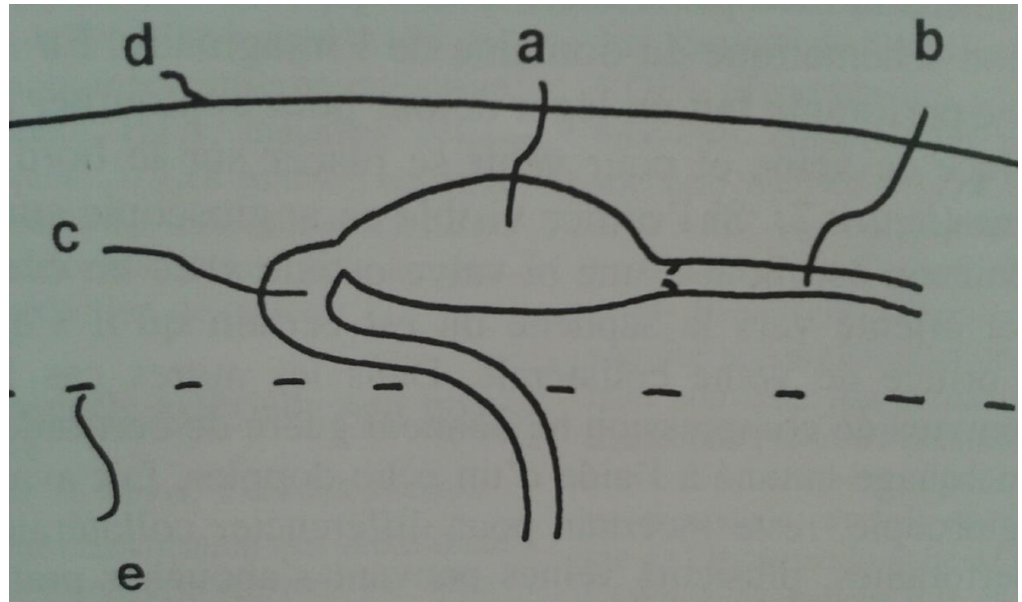
Commissural orifice



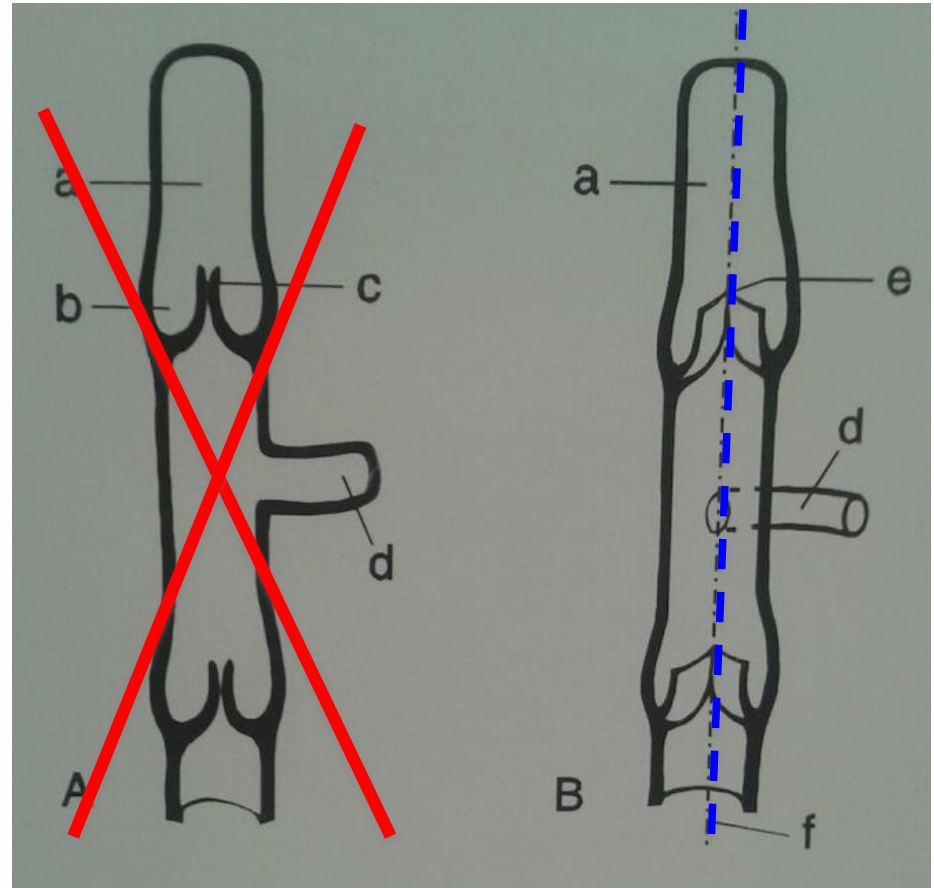
Tributary Perforator

Skin

Fascia



Perforator



Commissures
and perforator orifices **aligned**

The giraffe drinks



Jugular : 9 bivalves

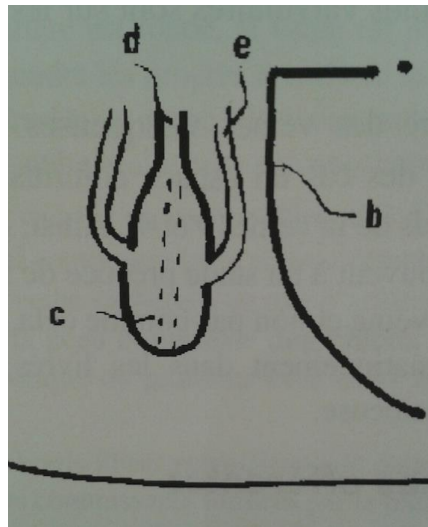
A model



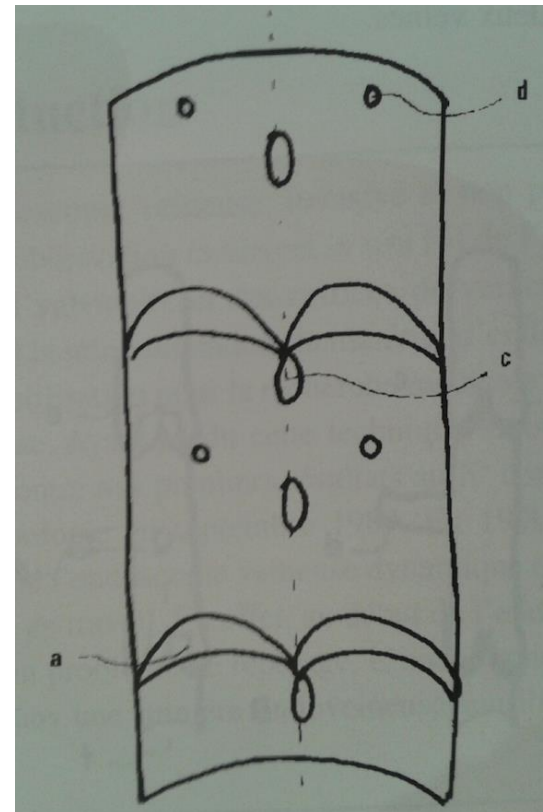
The giraffe
Vincennes Zoo 1993

2 types of tributaries

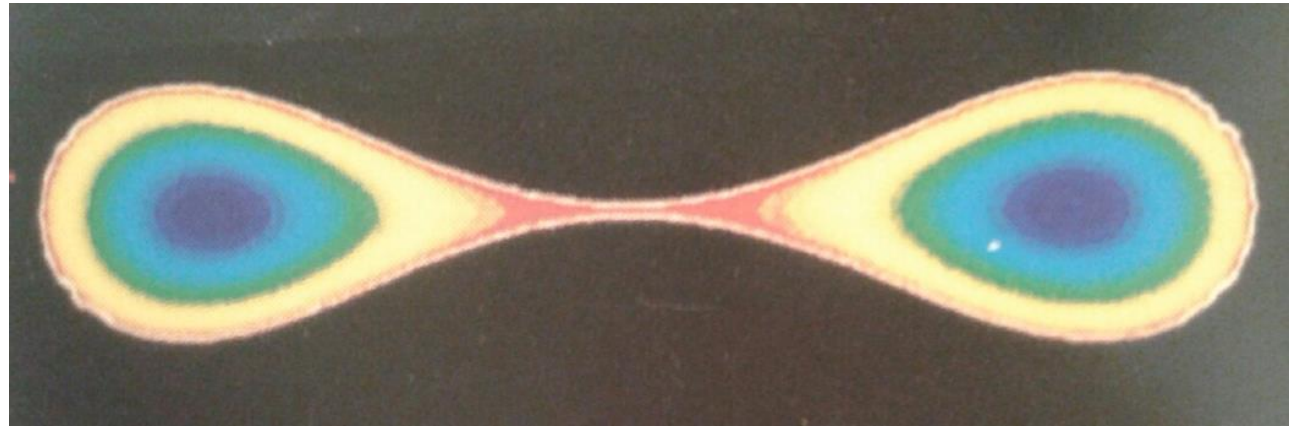
Border and middle of wallside



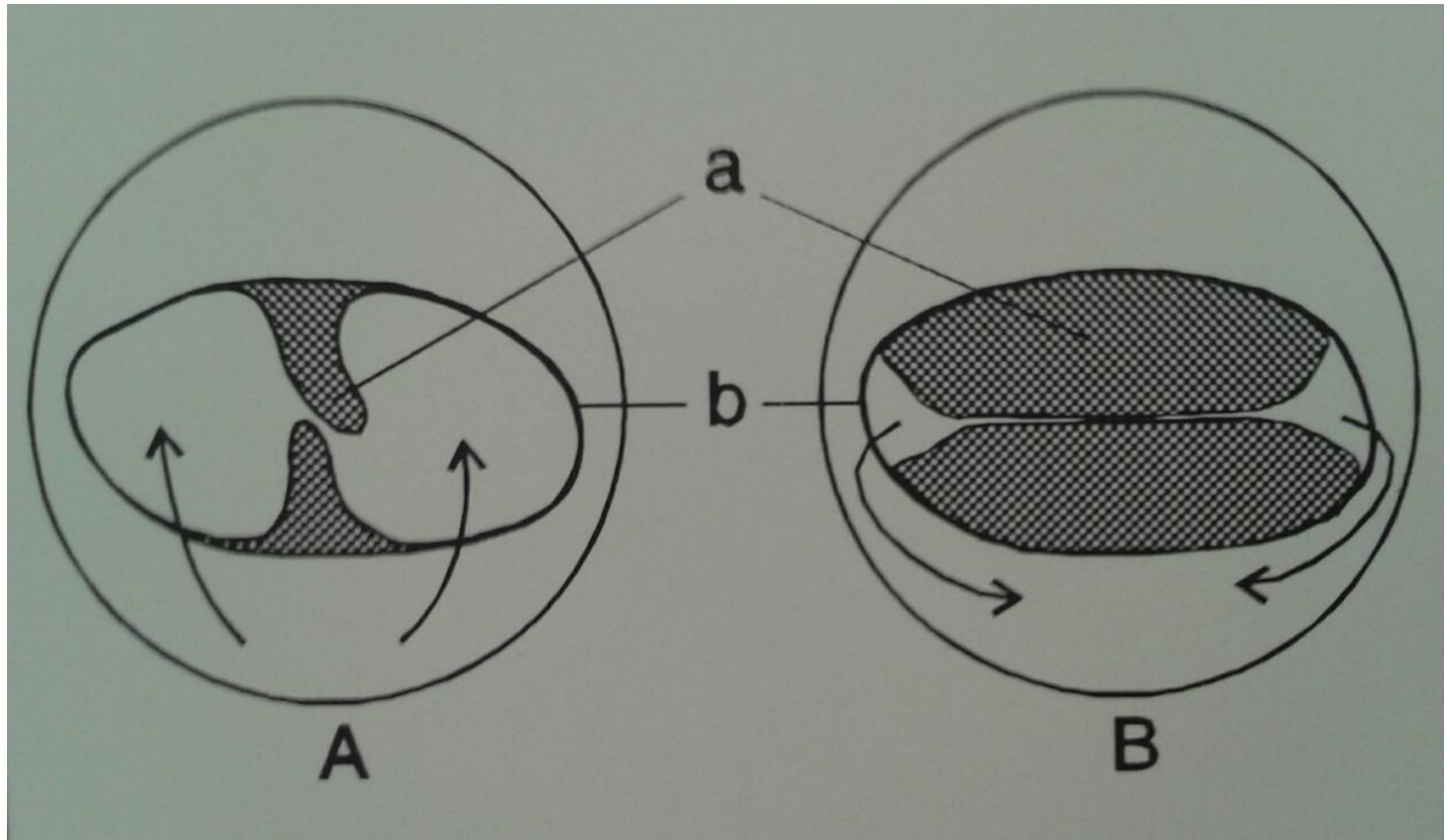
Jugular



Bilobed form Valvular Reflux



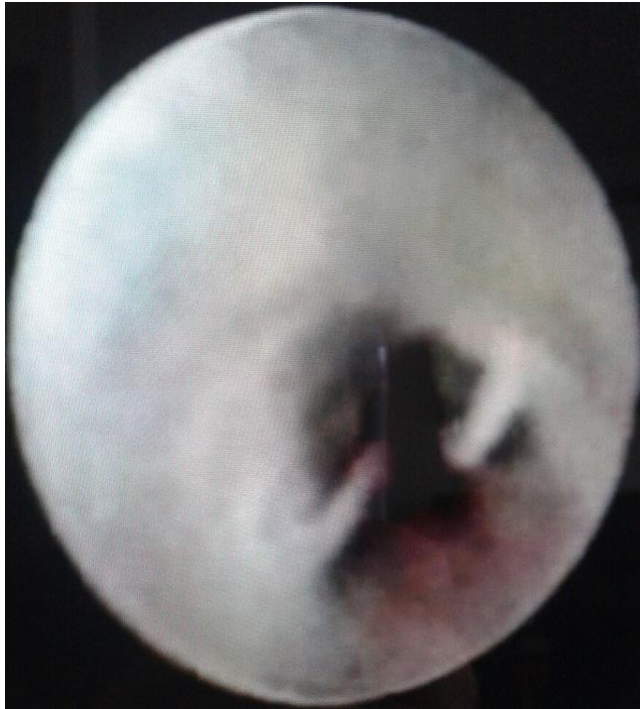
Saphenous varicose vein



Reflux on the borders

1990

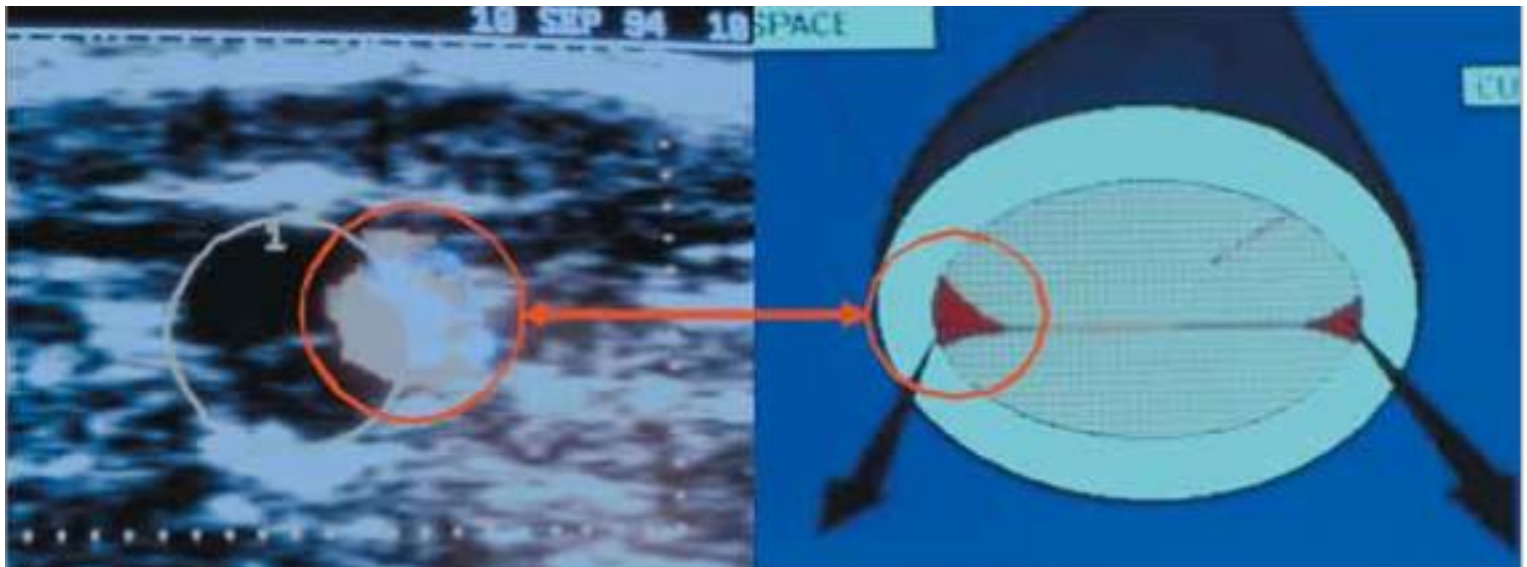
Saphenous varicose vein



Reflux on the borders

1990

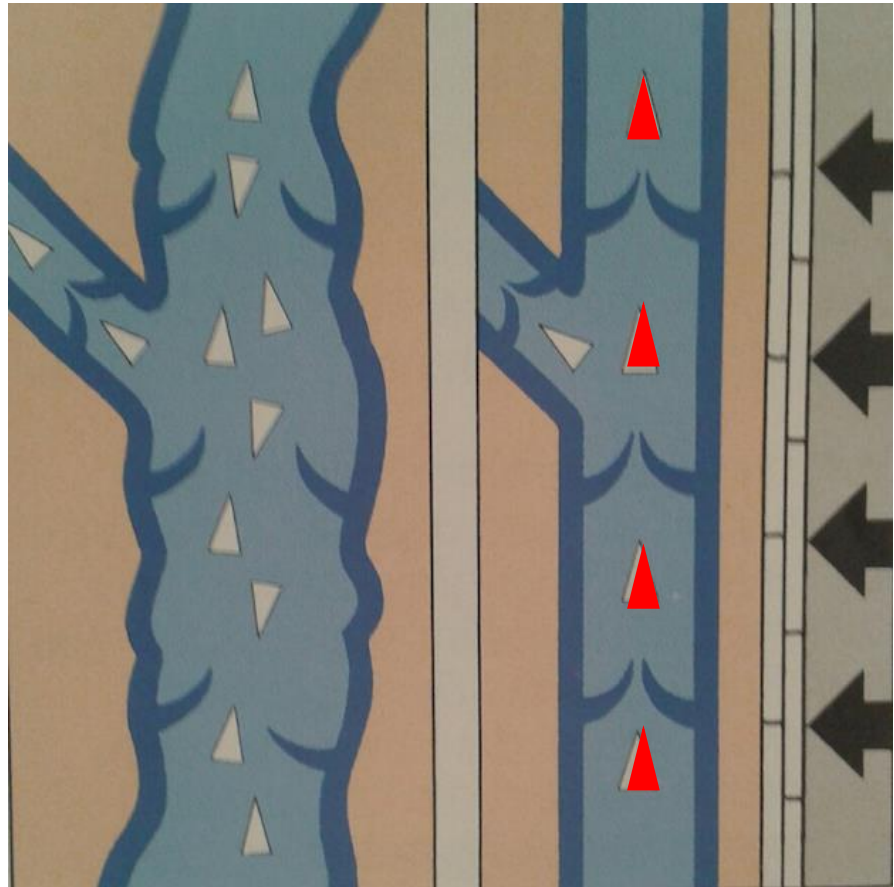
Commissural reflux Color doppler imaging



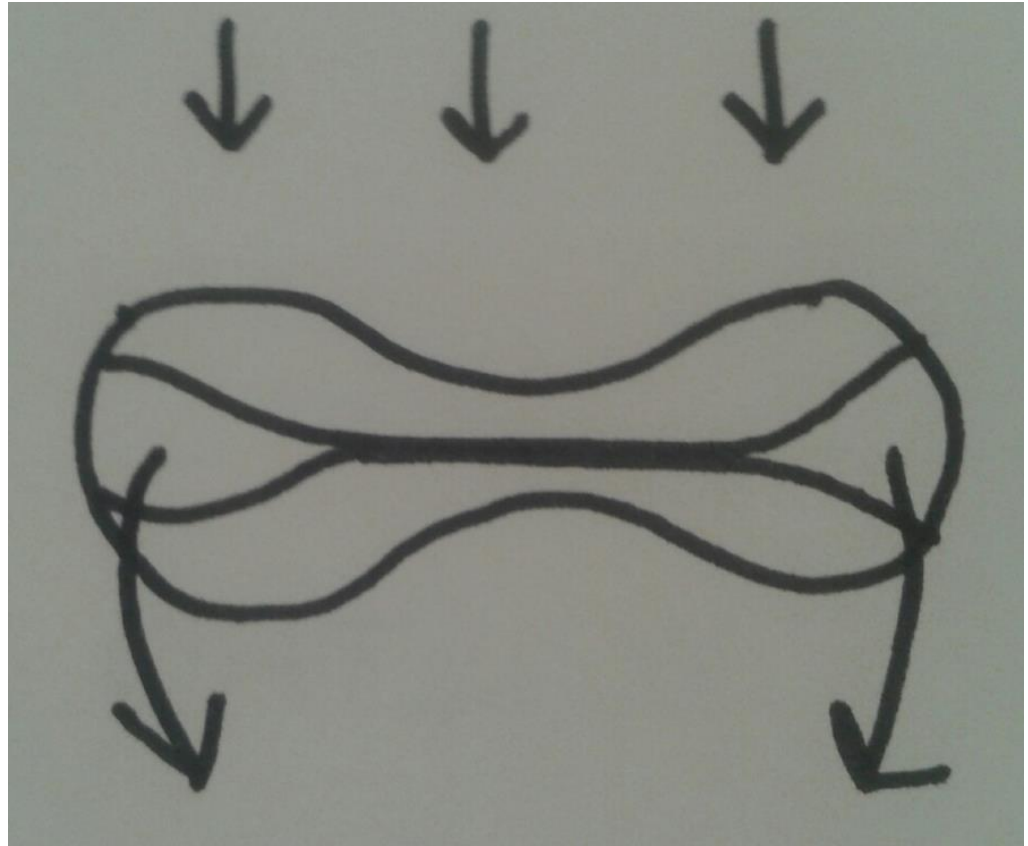
Michel SCHADECK
1994

Compression

Middle coaptation

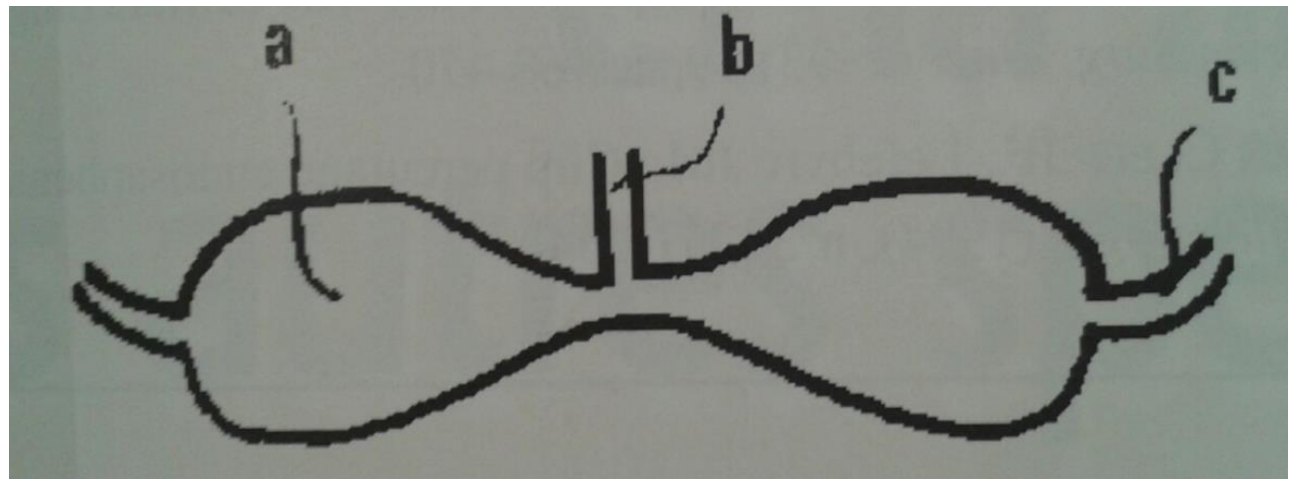
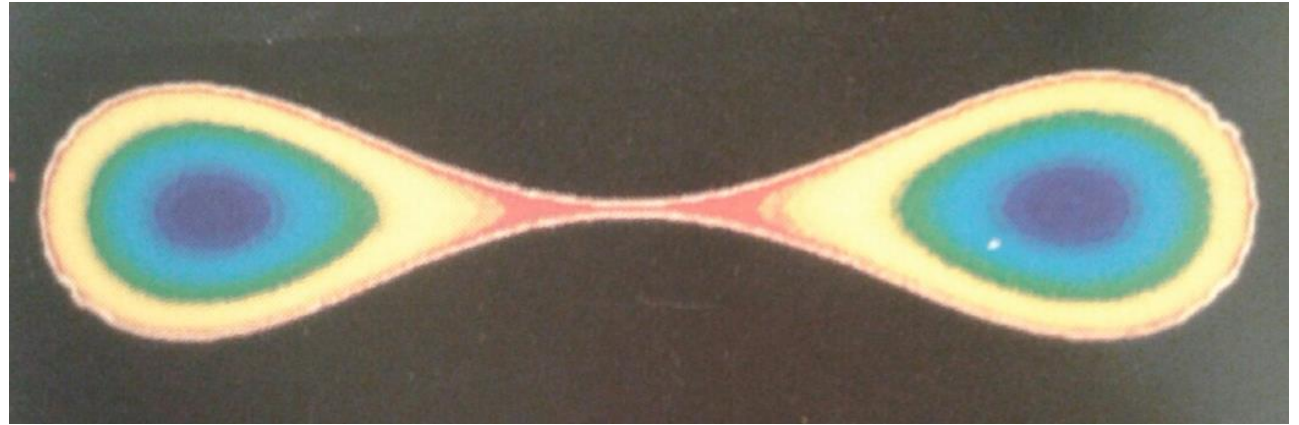


Compression

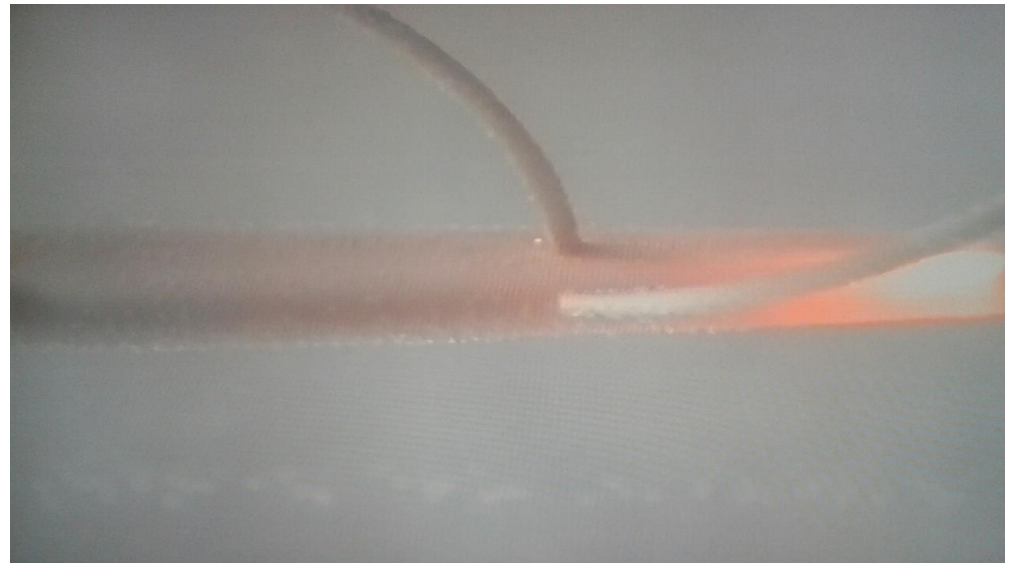


Reflux still on the borders

Modelization Physics laboratory

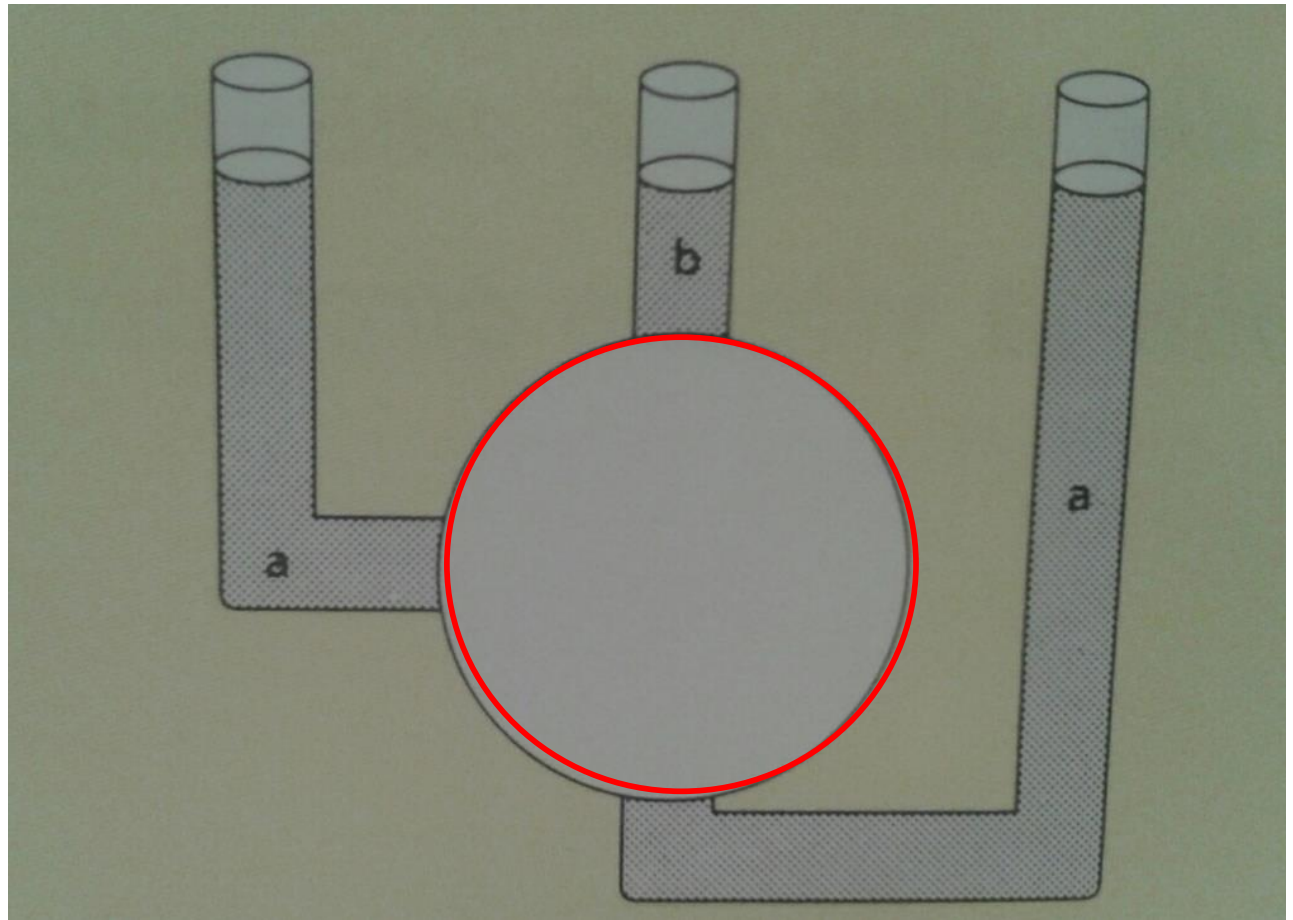


Modelization Physics laboratory

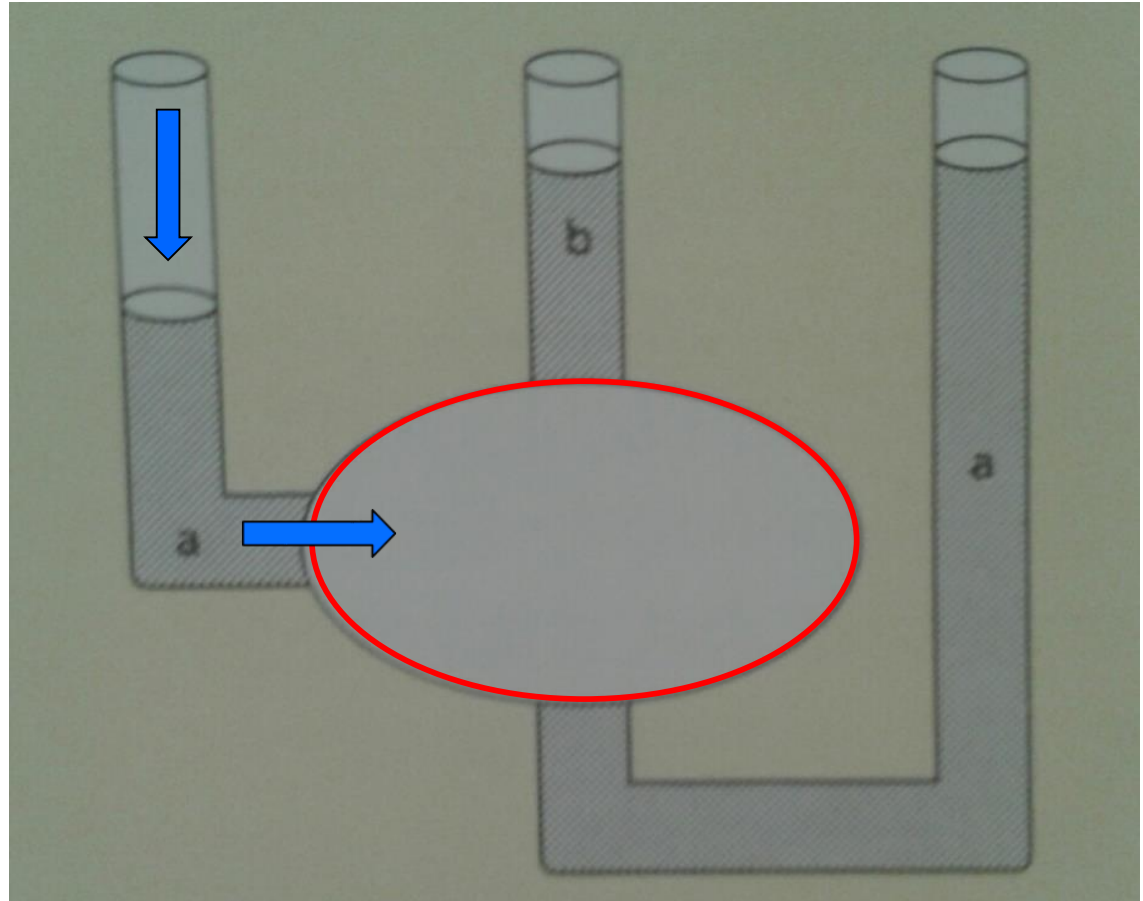


**Benmbarek M, Van Cleef JF, Naili S, Ribreau C.
Ecoulements affluents et effluents en conduite collabable.
Société de Biomécanique, Actes du XIX^e Congrès, 1994, C71.**

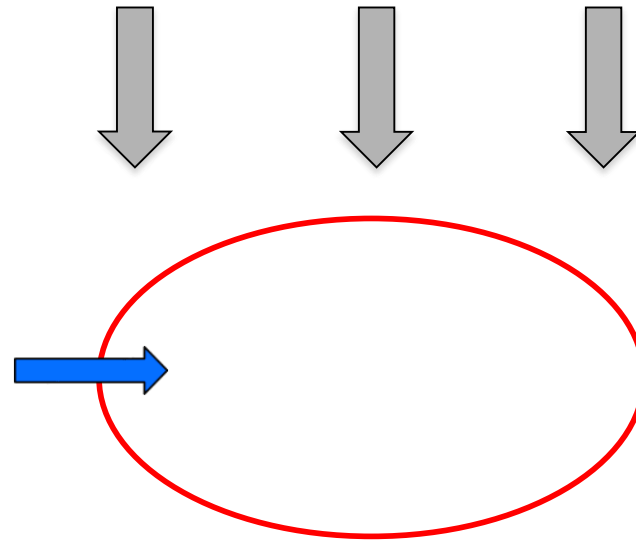
Round vein Identical pressures and flows



Oval vein different pressures and flows

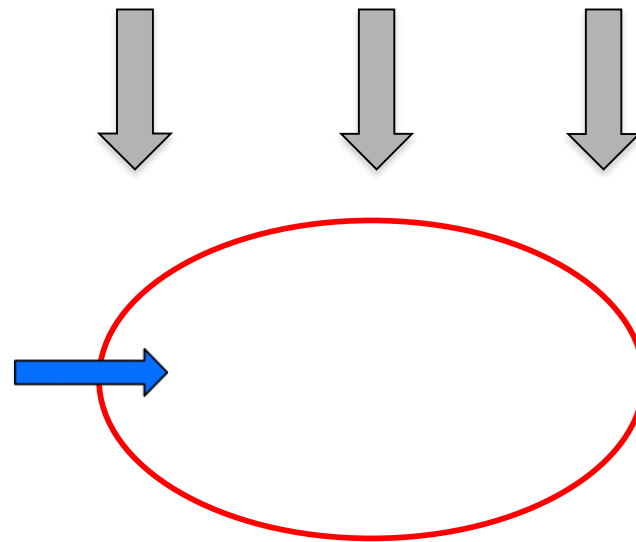


Compressotherapy



Veins ovalisation
Best drain of the tributaries

Compressotherapy



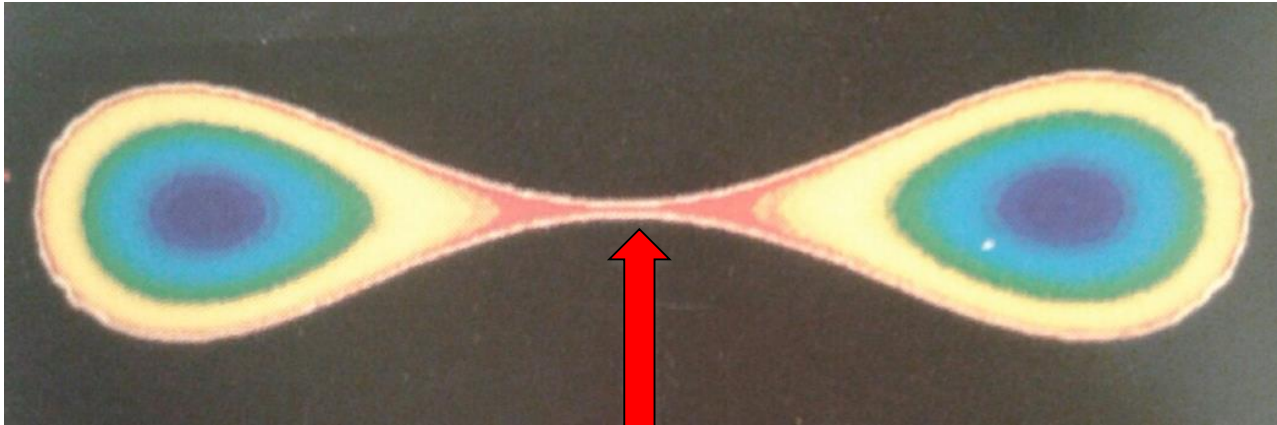
Veins ovalisation
Best drain of the tributaries

Endoscope within a collapsible tube

Blurry image

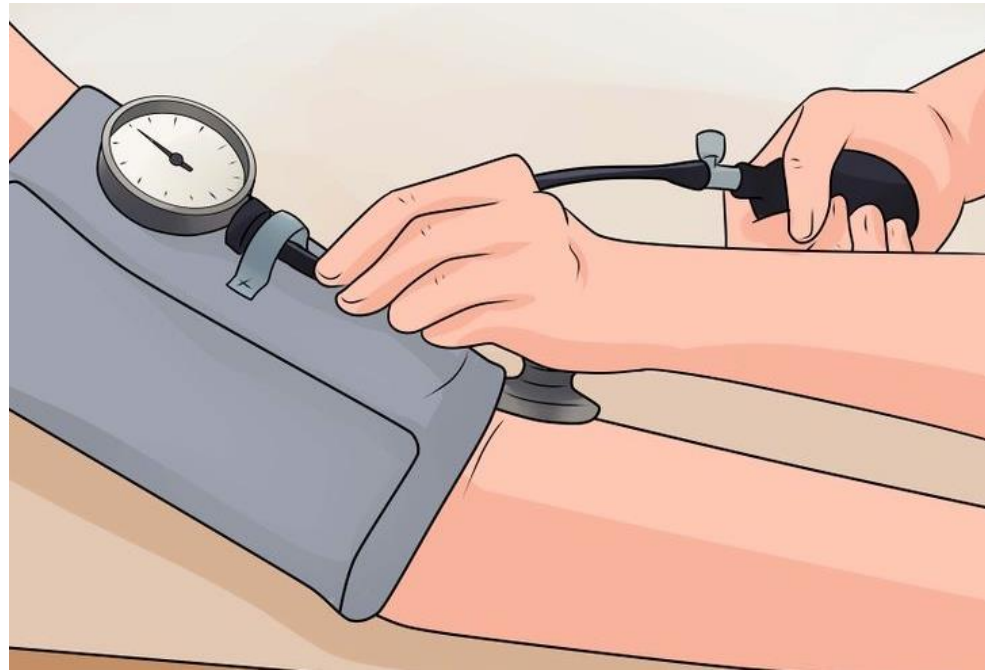


with Christian Ribreau



Wallsides vibrations

Sound heard While taking blood pressure



Korotkoff's sound

V clip

**A flat
Endovenous clip**



1991

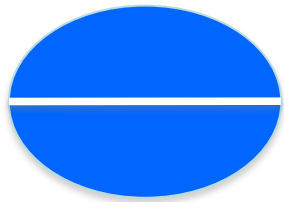
Filiform thrombus



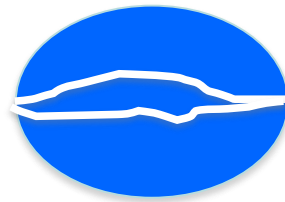
Pedicated polyp after thrombosis



VCT classification



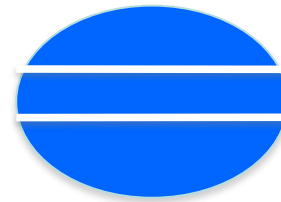
V0



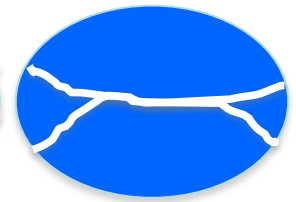
V1S



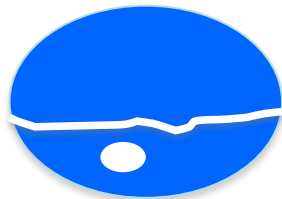
V1L



V2S



V2L



V3



V4

Classification VCT (Valve, Cusp, Tributary) et endoscopie veineuse.
J. Mal. Vasc. (Paris), Masson, 1997, 22, 2, 101-104.

CUSP

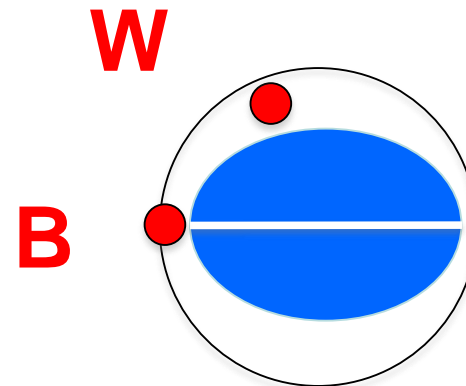
- C0** **Normal**
- C1** **Atrophic**
- C2** **Hypertrophic**
- C3** **Dystrophic**



C3

Classification VCT (Valve, Cusp, Tributary) et endoscopie veineuse.
J. Mal. Vasc. (Paris), Masson, 1997, 22, 2, 101-104.

Triburary



**Wallside
Border**

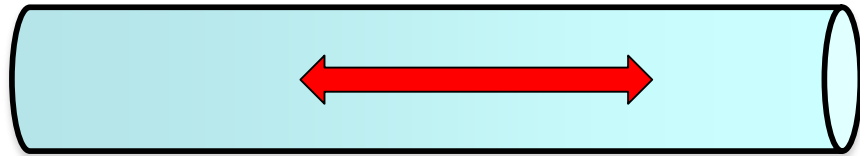
Classification VCT (Valve, Cusp, Tributary) et endoscopie veineuse.
J. Mal. Vasc. (Paris), Masson, 1997, 22, 2, 101-104.

Valve's Function



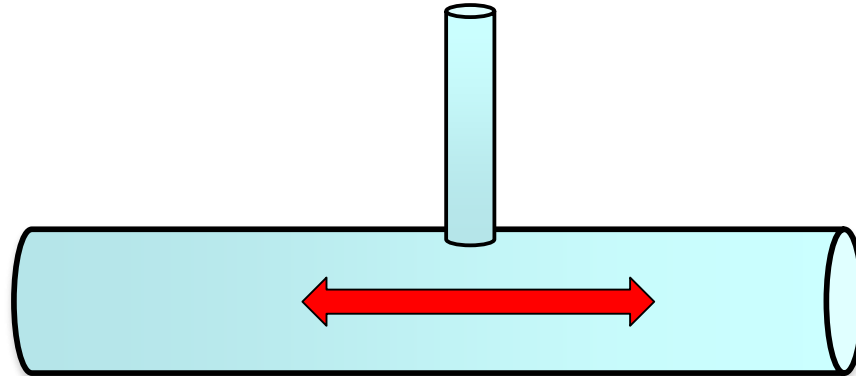
Collapsible tube

Oscillating flow



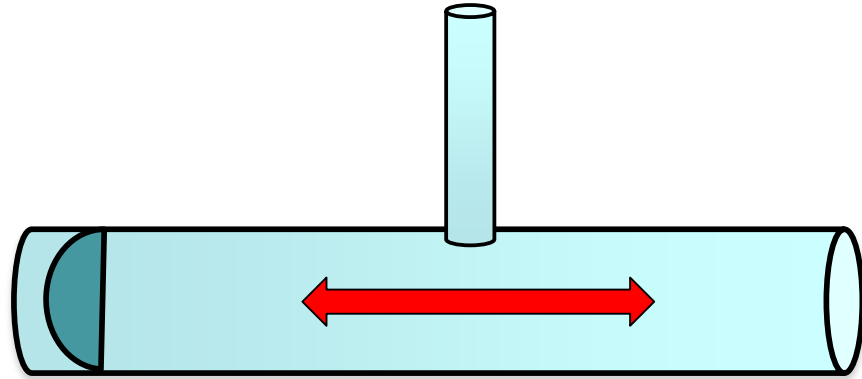
Collapsible tube

Oscillating flow



Collapsible tube

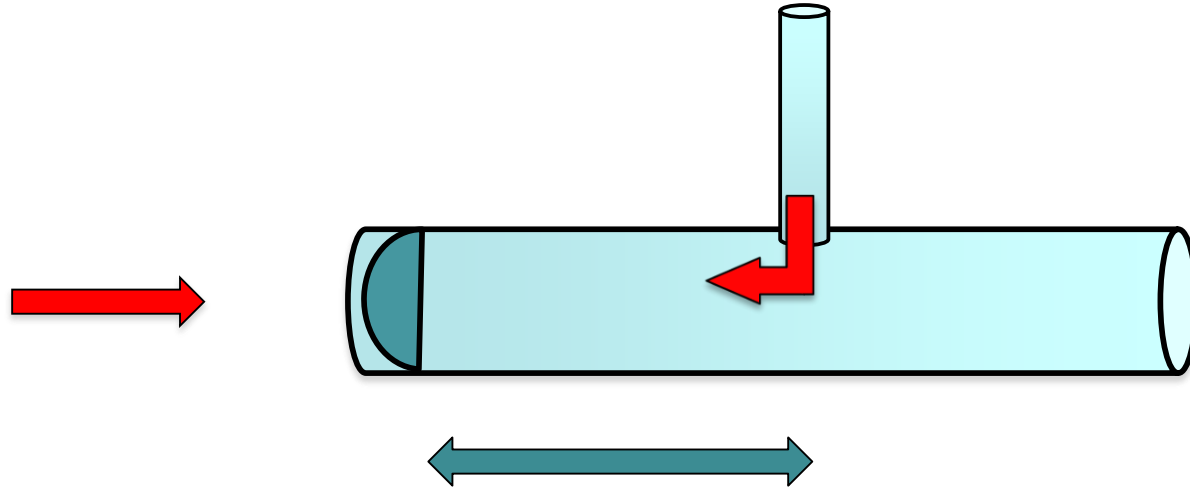
Oscillating flow



Valve

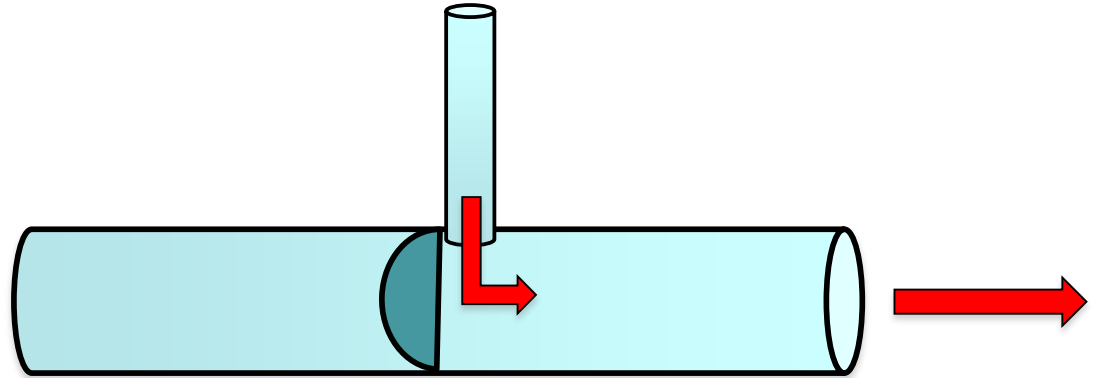
Collapsible tube

Oscillating flow



Energy loss

Valve Energy saver



Venous valve

R. Gottlob, R. May

Drawing

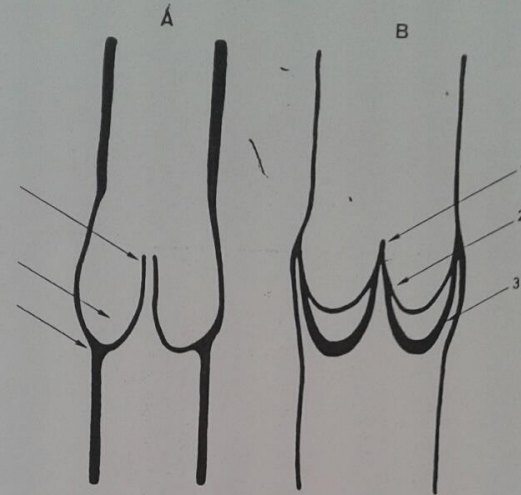


Fig. 10

Picture



Fig. 11

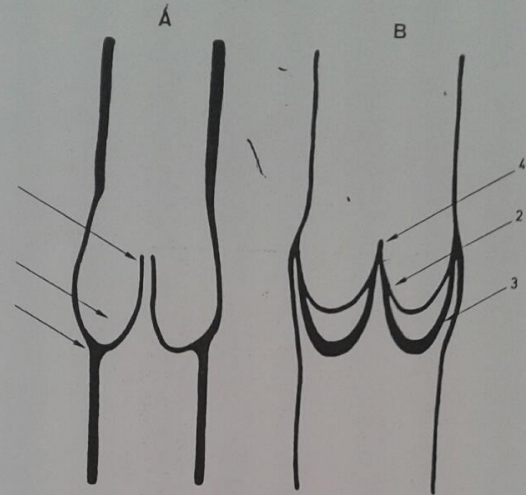


Fig. 10

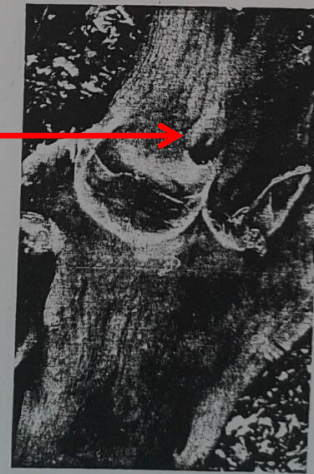


Fig. 11

Commissural orifice

Orifice commissural

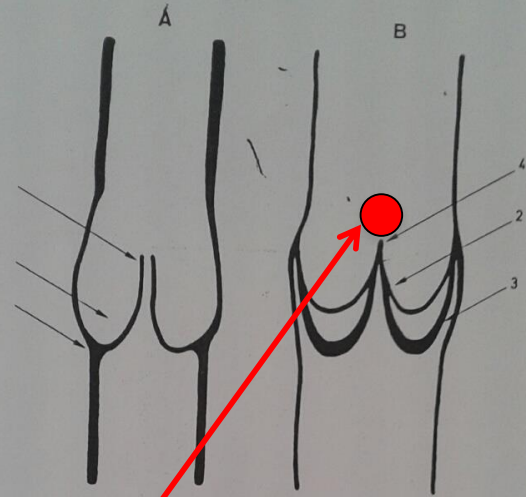


Fig. 10

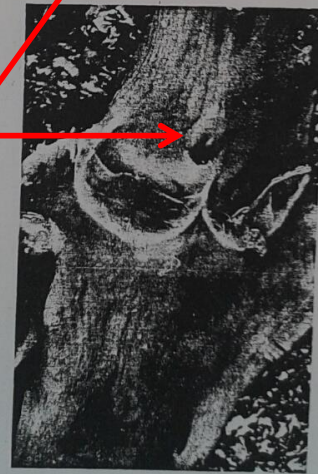
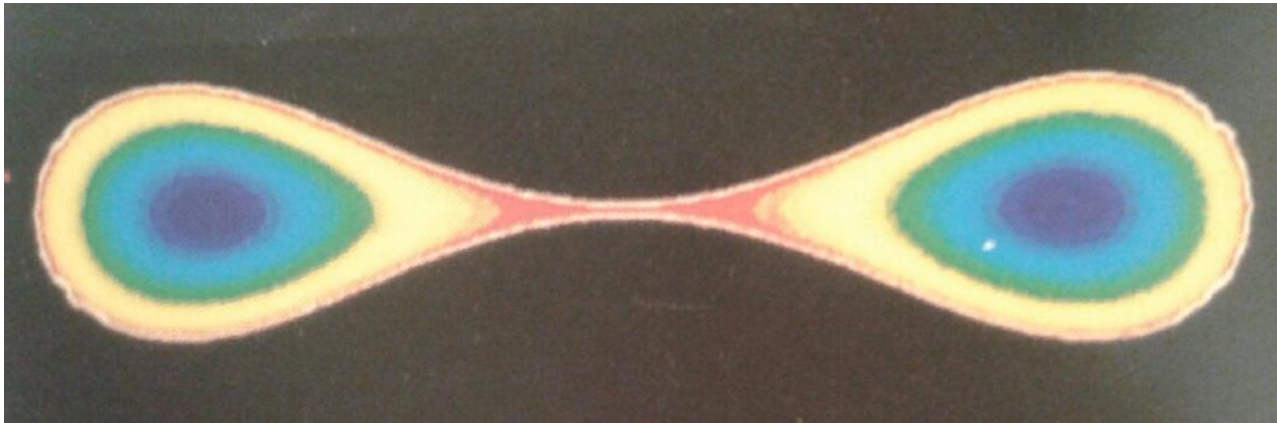


Fig. 11

Conclusion



**A vein has
2 wallsides 2 borders**