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?
Dynamic model of the calf muscle pump

Opened valve
Bilobed form
Commissures and perforator orifices aligned with Claude Gillot
Commissural orifice
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
Reflux still on the borders
Modelization
Physics laboratory
Benmbarek M, Van Cleef JF, Naili S, Ribreau C. 
Ecoulements affluents et effluents en conduite collabable. 
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
Pediculated polyp after thrombosis
VCT classification

V0  V1S  V1L  V2S  V2L

V3  V4

Classification VCT (Valve, Cusp, Tributary) et endoscopie veineuse.
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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
Commissural orifice
Orifice commissural
Conclusion

A vein has

2 wallsides 2 borders