



CONTROVERSES ET ACTUALITES EN CHIRURGIE VASCULAIRE

CONTROVERSIES & UPDATES IN VASCULAR SURGERY

**JANUARY 23-25 2020**



MARRIOTT RIVE GAUCHE & CONFERENCE CENTER | PARIS | FRANCE

**State of the art in 2020 on the  
technique of stripping and  
phlebectomy**

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## Disclosure

Speaker name:

[Marianne De Maeseneer](#)

I have the following potential conflicts of interest to report:

Consulting

Employment in industry

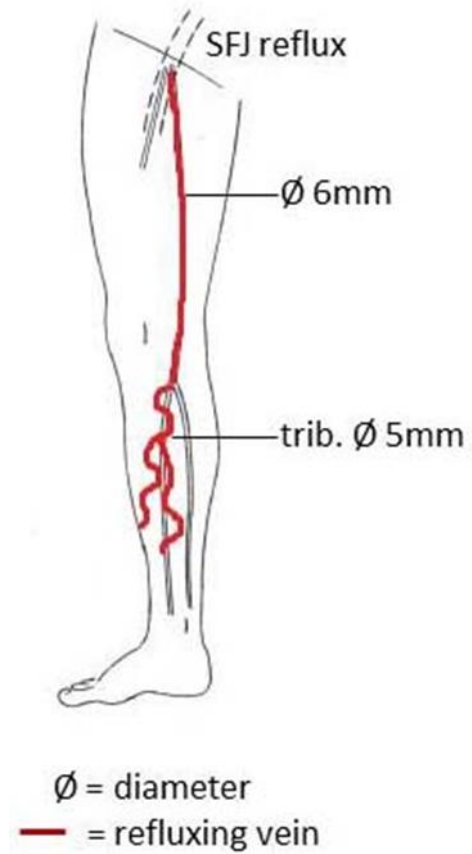
Shareholder in a healthcare company

Owner of a healthcare company

Other(s)

x [I do not have any potential conflict of interest](#)

# Preoperative duplex mapping





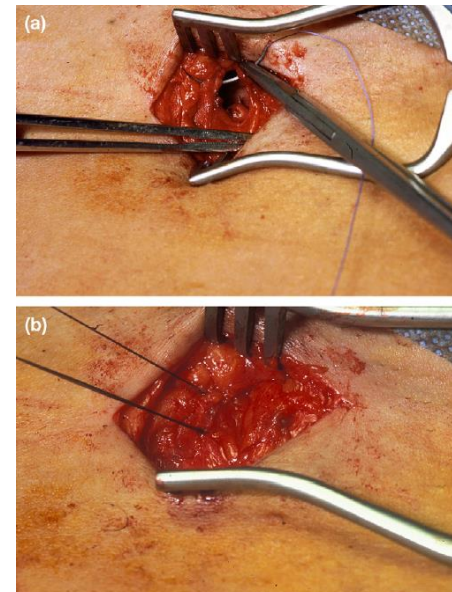
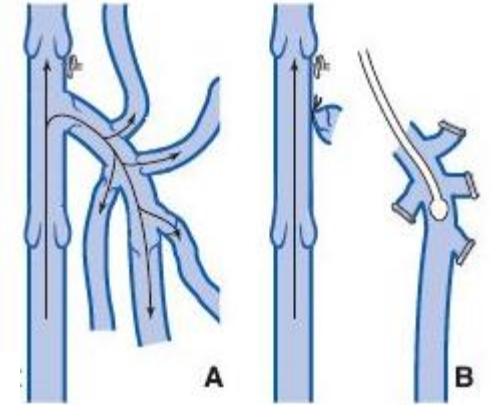
# Local tumescent anesthesia



- ‘Klein’ solution or variations of buffered saline solution<sup>1,2</sup>
- isotonic NaHCO<sub>3</sub>
- used in several RCTs – ‘modern’ surgery
  - 4-arm trial (Rasmussen)
  - RCT EVLA vs surgery (Rass)
  - RCT high vs low ligation (Casoni)

# High ligation

- ligation of tributaries (resorbable)
- flush ligation at the saphenofemoral junction (non-resorbable)
- measures to contain neovascularisation:
  - closure of the cribriform fascia<sup>1</sup>
  - invaginating suture of GSV stump<sup>2,3</sup>
  - (complete stump resection<sup>4</sup> )
  - PTFE patch saphenoplasty<sup>5</sup>

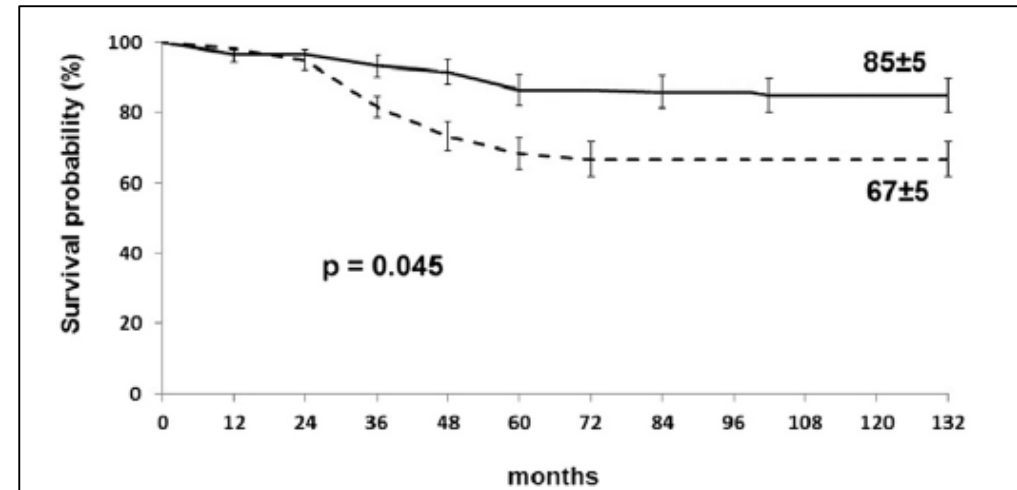
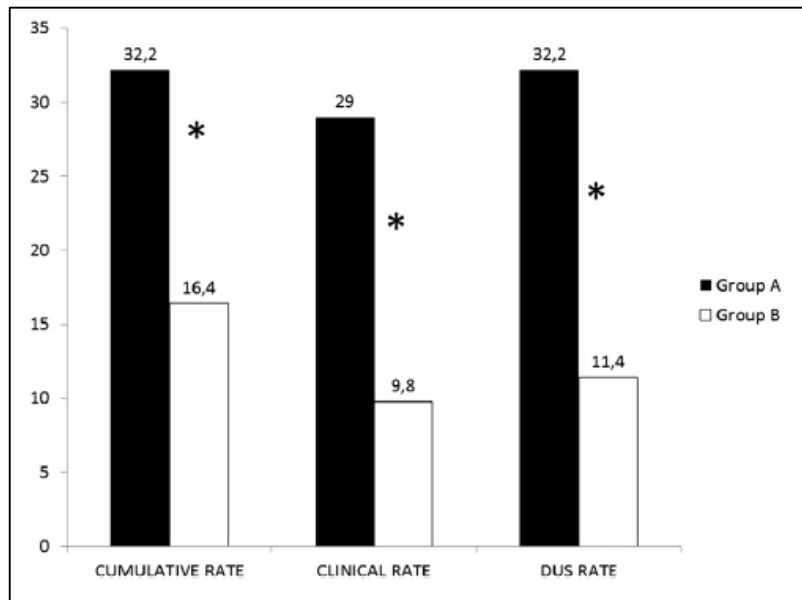
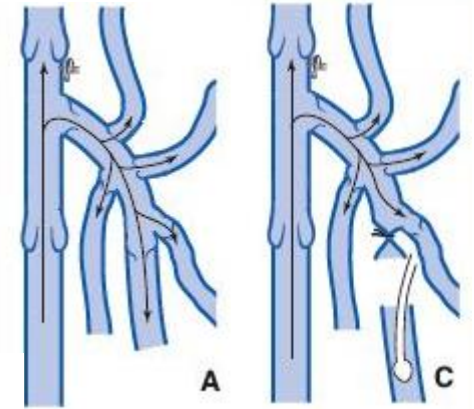


# Alternative: low ligation

## Great saphenous vein surgery without high ligation of the saphenofemoral junction

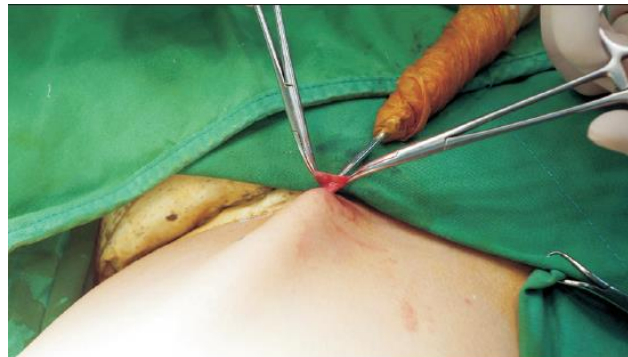
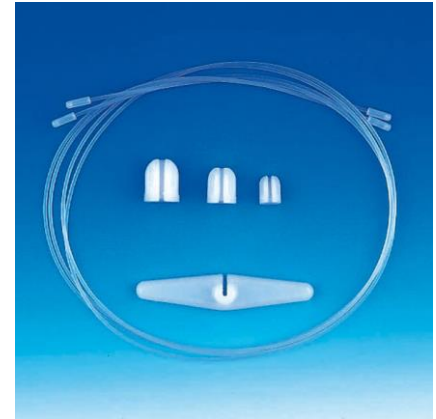
Paolo Casoni, MD,<sup>a,b</sup> Marc Lefebvre-Vilardebo, MD,<sup>c</sup> Fabio Villa, MD,<sup>a</sup> and Piero Corona, MD,<sup>a,c</sup>  
*Parma, Italy; Marbella, Spain; and Paris, France*

(J Vasc Surg 2013;58:173-8.)



# Stripping

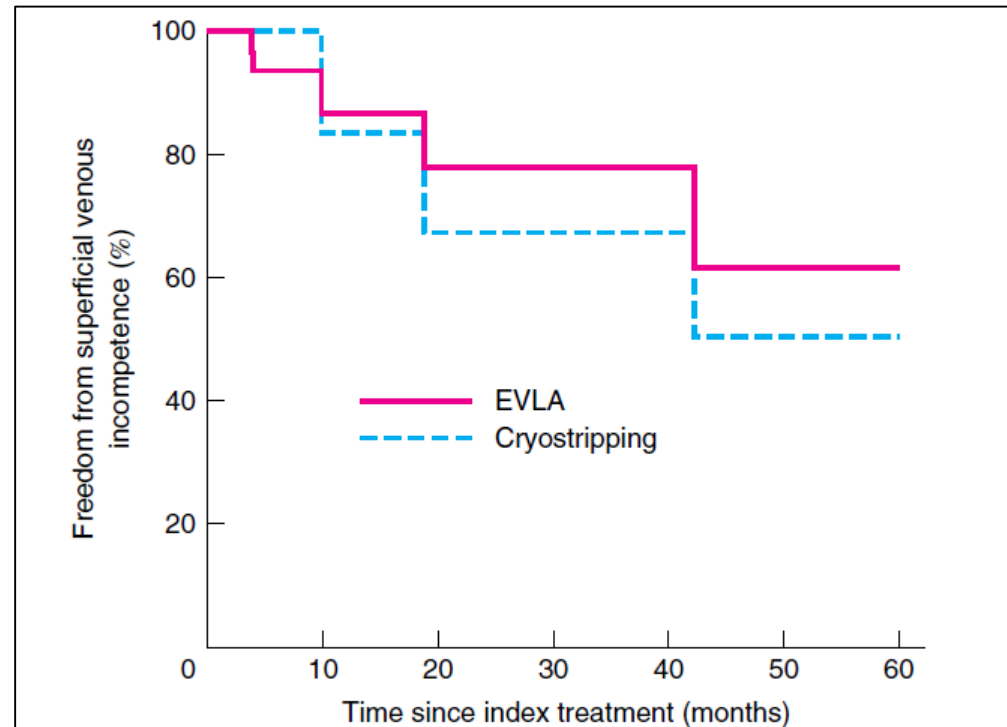
- usually above knee part of GSV to just below the knee
- invaginating
- ligate important tributaries in the thigh  $\leftrightarrow$  haematoma
- retrograde / antegrade
- cryostripping



# Five-year results of a randomized clinical trial comparing endovenous laser ablation with cryostripping for great saphenous varicose veins

B. C. V. M. Disselhoff<sup>1</sup>, D. J. der Kinderen<sup>2</sup>, J. C. Kelder<sup>3</sup> and F. L. Moll<sup>4</sup>

*British Journal of Surgery* 2011; 98: 1107–1111





# Phlebectomies

- preoperative marking
- duplex mapping:
  - to detect important connections with main saphenous trunk or perforating vein
  - to mark veins 'ultrasound-guided'



# Phlebectomies

- local tumescent anesthesia
- mini-incisions: surgical blade (n° 11) or needle (18 g)
- phlebectomy hooks:



# Phlebectomy hooks:

Muller



Varady



Oesch



Ramelet

# Phlebectomies – an art

- be 'gentle' and patient
- use a 'non touch' technique for the skin
- ligate important connections
- most important: ENJOY!





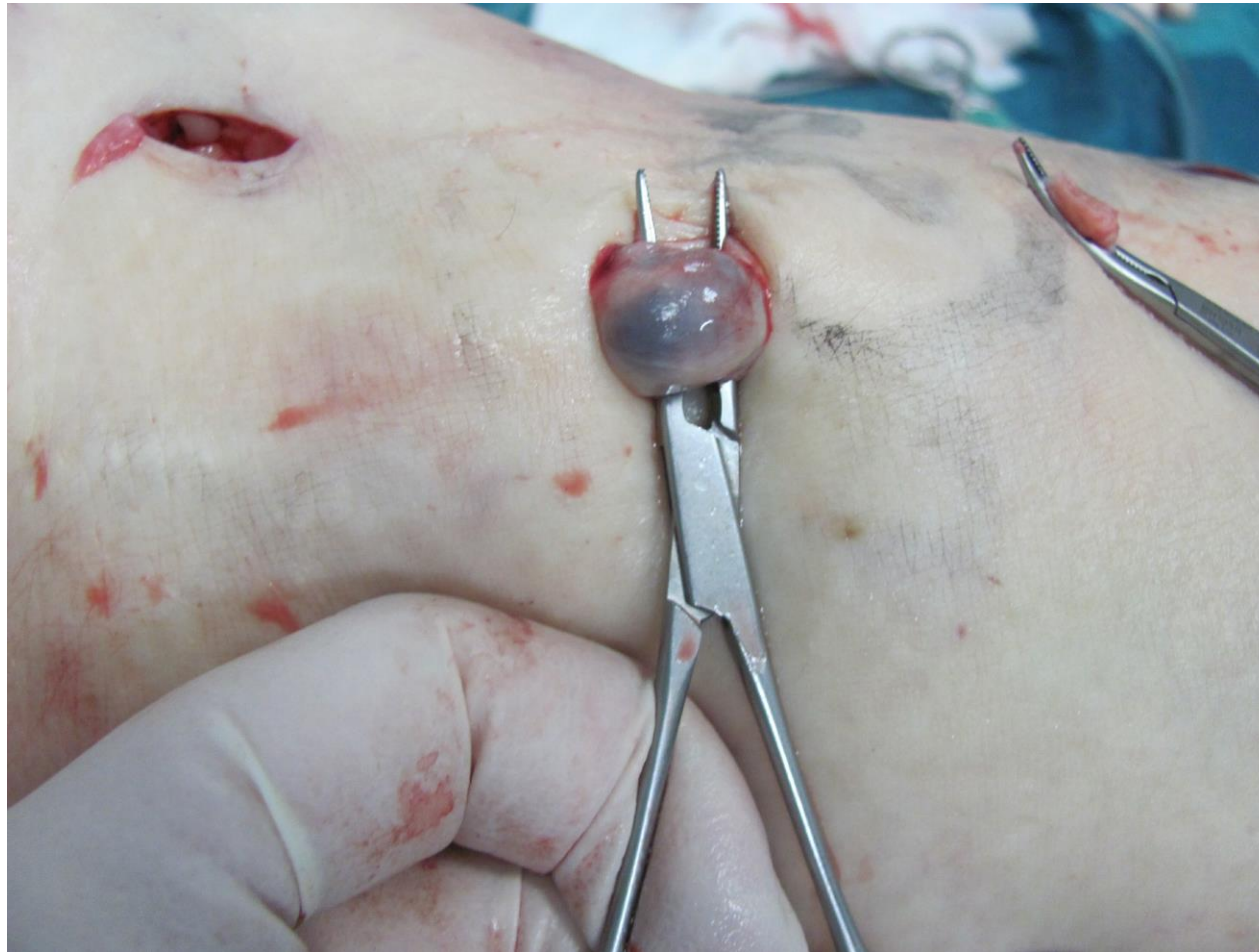
# End of the procedure



# Ultrasound-guided phlebectomy

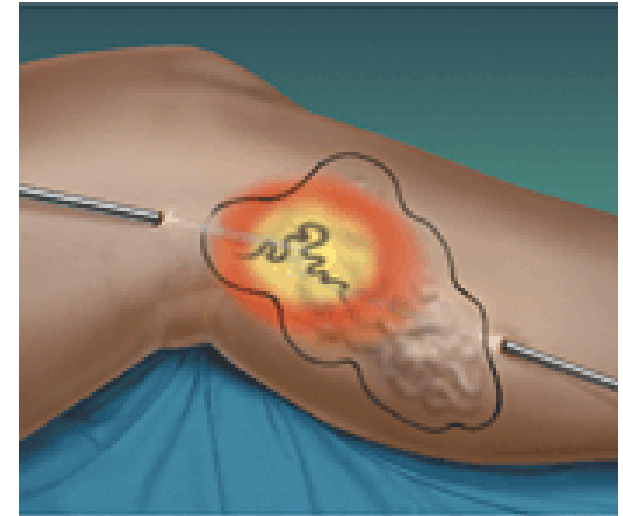
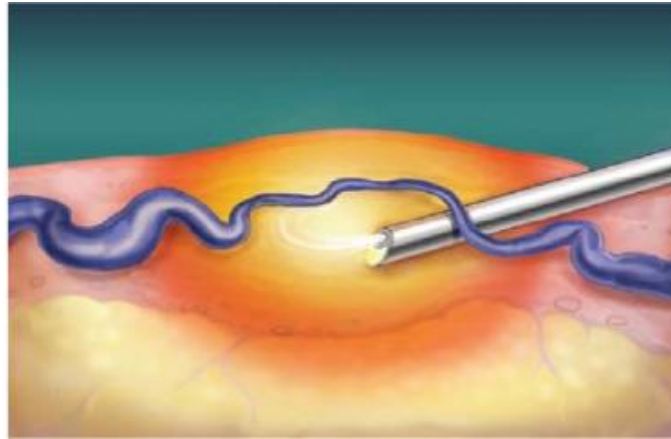
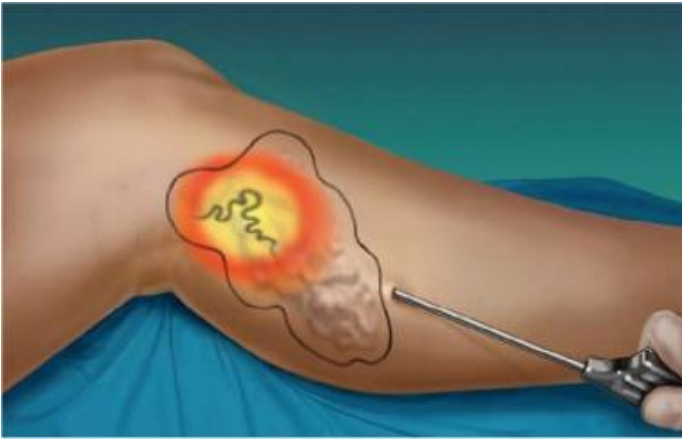


# Phlebectomy of thrombosed varix





# Transilluminated powered phlebectomy?



1. irrigation – illuminator device
2. powered resector – rotation in oscillating fashion - suction



# **Treatment Outcomes and Lessons Learned From Transilluminated Powered Phlebectomy for Varicose Veins in 1034 Patients**

**Peter H. Lin, MD<sup>1,2</sup>, Jesus M. Matos, MD<sup>1</sup>, Aaron Chen, BS<sup>1</sup>,  
Walter Kim, BS<sup>2</sup>, Mun J. Poi, MD<sup>1</sup>, Jenny S. Jiang, PA<sup>1</sup>,  
and Carlos F. Bechara, MD<sup>3</sup>**

Vascular and Endovascular Surgery  
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- minimal number of incisions
- highly effective
- high patient satisfaction
- learning curve
- complications:

# Treatment Outcomes and Lessons Learned From Transilluminated Powered Phlebectomy for Varicose Veins in 1034 Patients

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Peter H. Lin, MD<sup>1,2</sup>, Jesus M. Matos, MD<sup>1</sup>, Aaron Chen, BS<sup>1</sup>,  
Walter Kim, BS<sup>2</sup>, Mun J. Poi, MD<sup>1</sup>, Jenny S. Jiang, PA<sup>1</sup>,  
and Carlos F. Bechara, MD<sup>3</sup>

## Complications

Hematoma at 2 weeks	68 (5.8%)
Ecchymosis at 2 weeks	384 (32.9%)
Saphenous neuropathy at 6 weeks	4 (0.3%)
Residual veins	65 (5.6%)
Cellulitis	12 (1.0%)
Skin pigmentation	22 (1.9%)
Skin perforation	13 (1.1%)
Deep vein thrombosis	0
Postoperative mortality	0



11<sup>th</sup>  2020

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