



CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE
CONTROVERSIES & UPDATES IN VASCULAR SURGERY

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MARRIOTT RIVE GAUCHE & CONFERENCE CENTER, PARIS, FRANCE

Contraindications, Limits of MOCA:
When Not To Do It

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Disclosures

- Medtronic Inc. – Scientific Advisory Board
- Vascular Insights – Scientific Advisory Board
- Le Maitre Inc. – Consultant
- Hancock-Jaffe Laboratories - Consultant

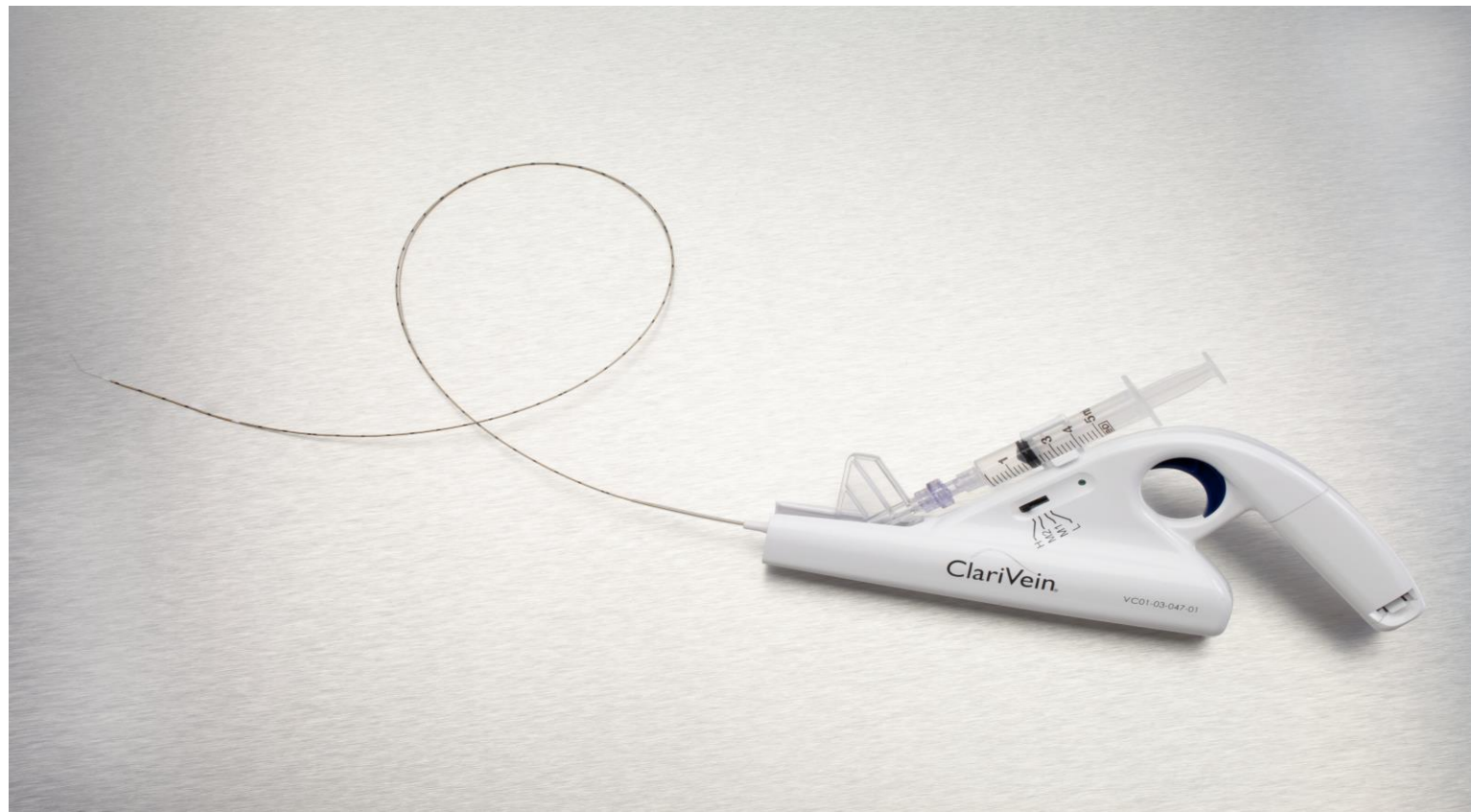


Questions To Be Answered

- What is it?
- How does it work?
- When not to do it
- Contraindications and limits



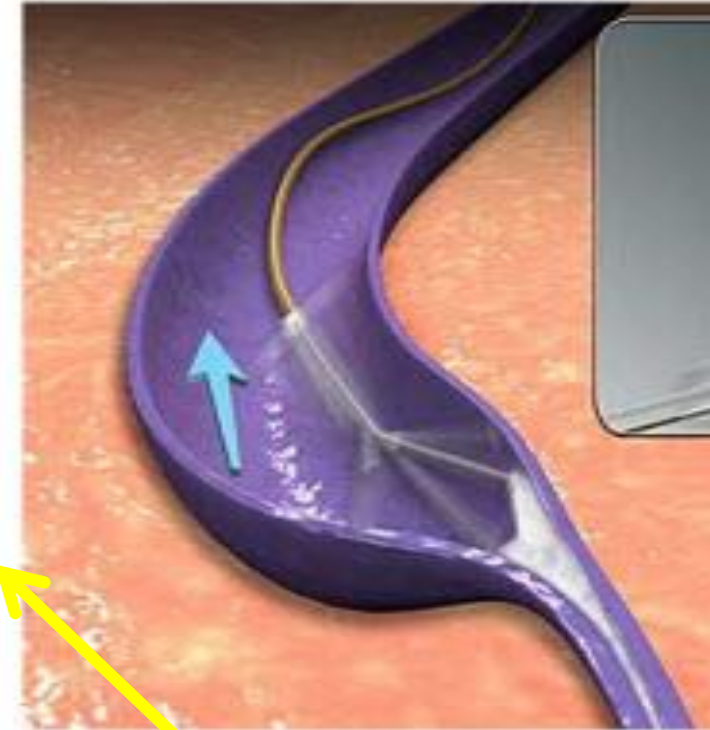
Mechanical Occlusion Chemically Assisted (MOCA): ClariVein™ (NTNT)



MOCA: Clarivein® (NTNT)

sclerosant
(STS, PLD)
Chemical

**“Developed to
minimize negative
aspects of ETA and
Sclerotherapy while
incorporating the
benefits of each”**

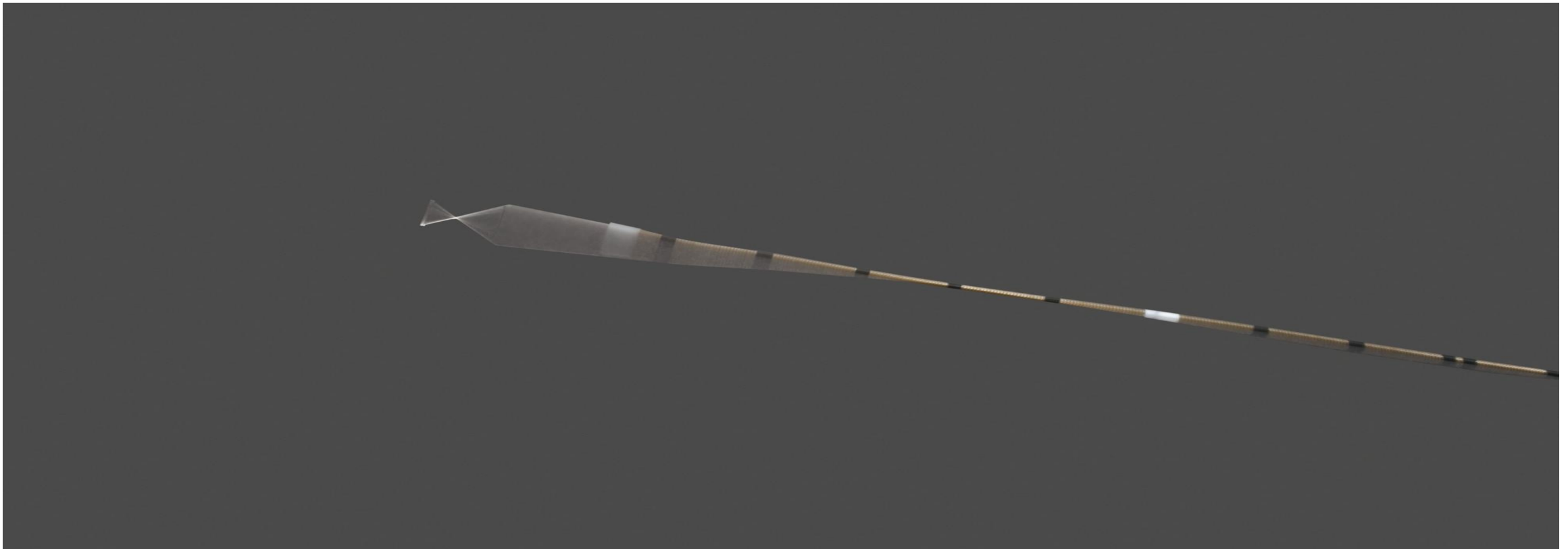


**Rotating wire: 3,500
rpm**
Mechanical

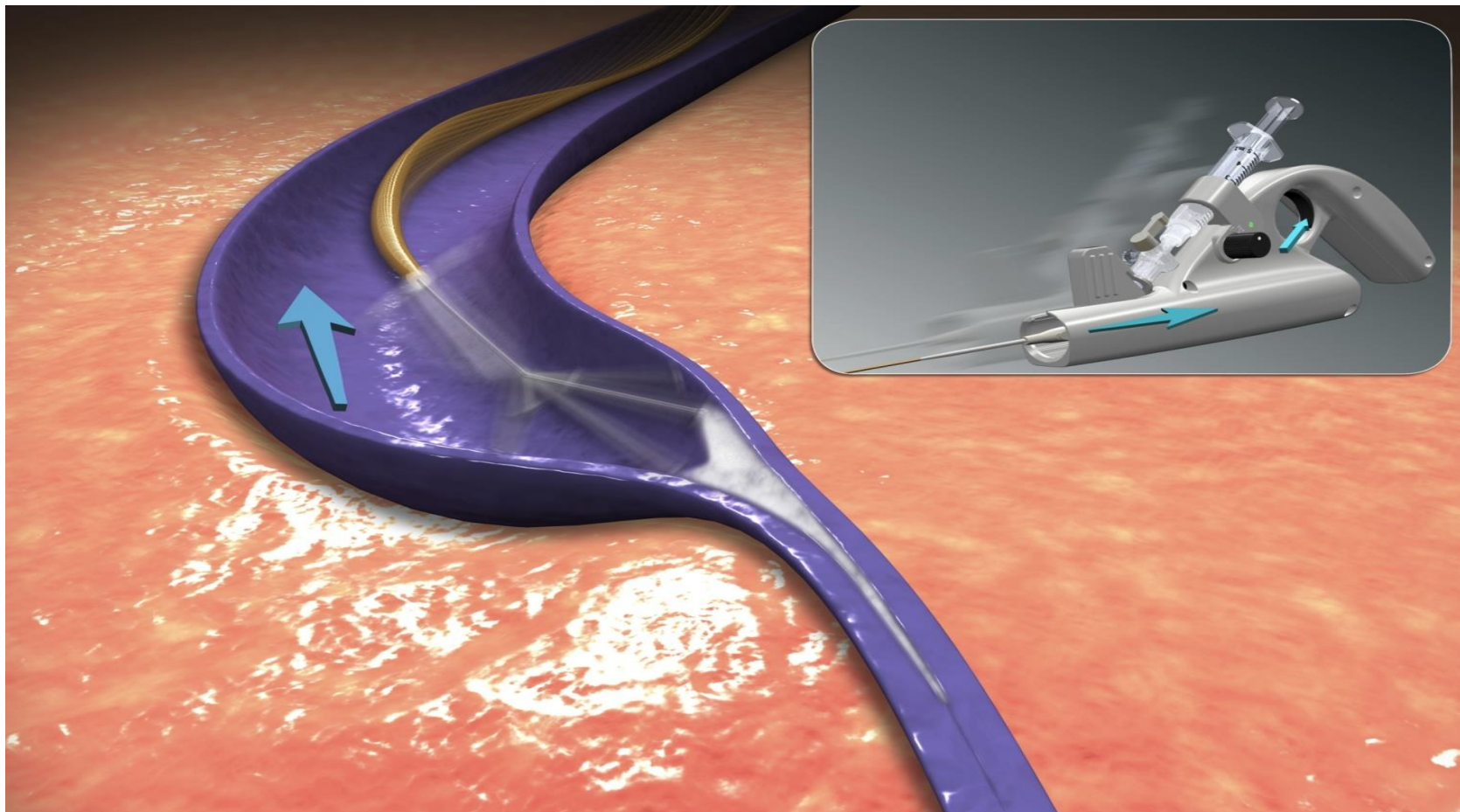
MOCA: Wire Unsheathed



Wire Rotating



MOCA: Mechanism of action





When Not To Do It

- Really small axial veins <3.5 – 4 mm
- Normal superficial axial veins
- You don't know how to do it, but think you do
- Allergy to STD, Fibrovenin, PLD, Asclera etc.

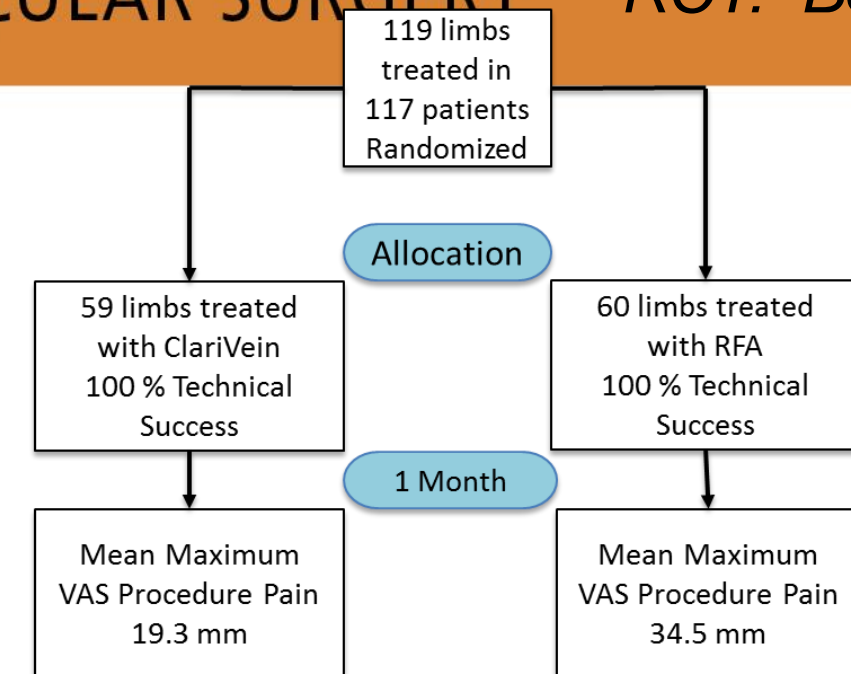


When Not To Do It (continued)

- You enjoy infusing tumescence
- You enjoy inflicting pain
- You don't like your patients



Key Results



	Score	
	ClariVein	RFA
100 mm VAS	19.3 mm	34.5 mm *
Corresponding Pain Score	2.6	4.4 **

* $p < 0.001$

** $p = 0.001$

Both groups showed improvement at one month in all clinical and QOL measures with no significant differences.

Adverse Events	
ClariVein	RFA
None	Thrombophlebitis- 3.4% Deep Vein Thrombosis- 1.7%

- Procedure blinding was not possible due to the difference in techniques.
- Investigator follow-up was blinded.

	ClariVein	RFA
Normal Activities	3.5 days	4.8 days
Work	5.3 days	4.9 days

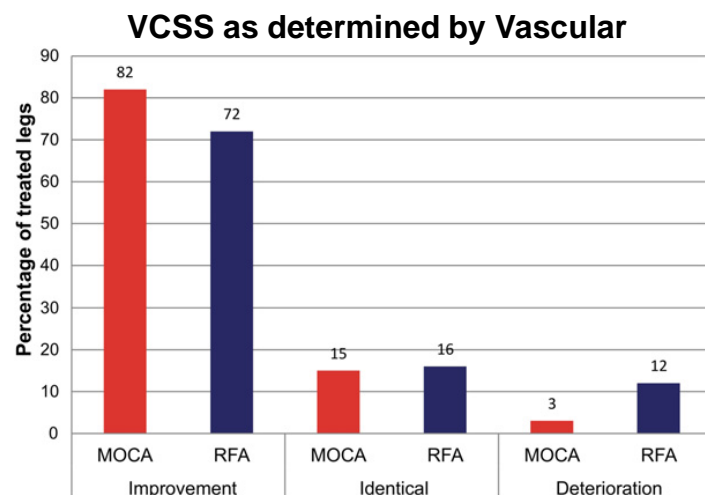
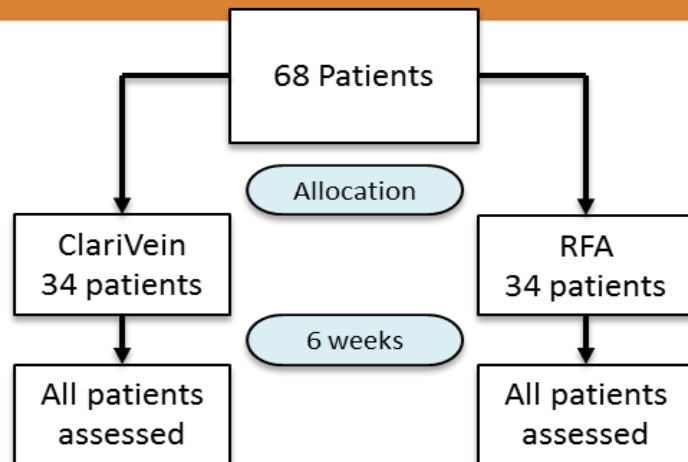
$p = 0.235$

**UK Study- return to normal activities and work may vary based on geographic environment. However, clinical significant differences in this study are consistent with other studies.

A multi-centre randomised controlled trial comparing radiofrequency and mechanical occlusion chemically assisted ablation of varicose veins – Final results of the Venefit versus Clarivein for varicose veins trial

Tristan Lane^{1,2,3}, Roshan Bootun^{1,2}, Brahman Dharmarajah^{1,2,3},
Chung S Lim^{1,2,3}, Mojahid Najem³, Sophie Renton³,
Kaji Sritharan^{1,2} and Alun H Davies^{1,2}

- **MOCA**
 - One month: 93% complete or proximal occlusion
 - Six months: 87% complete or proximal occlusion
- **RFA**
 - One month: 92% complete or proximal occlusion
 - Six months: 93% complete or proximal occlusion



Quality of Life and Clinical Outcomes		
	ClariVein	RFA
Venous Clinical Severity Score (VCSS)	Improved from 3.0 to 1.0	Improved from 6.2 to 4.8*
Aberdeen Varicose Vein Questionnaire (AVVQ)	Improved from 4.0 to 3.0	Improved from 9.5 to 4.5*

* No statistical difference

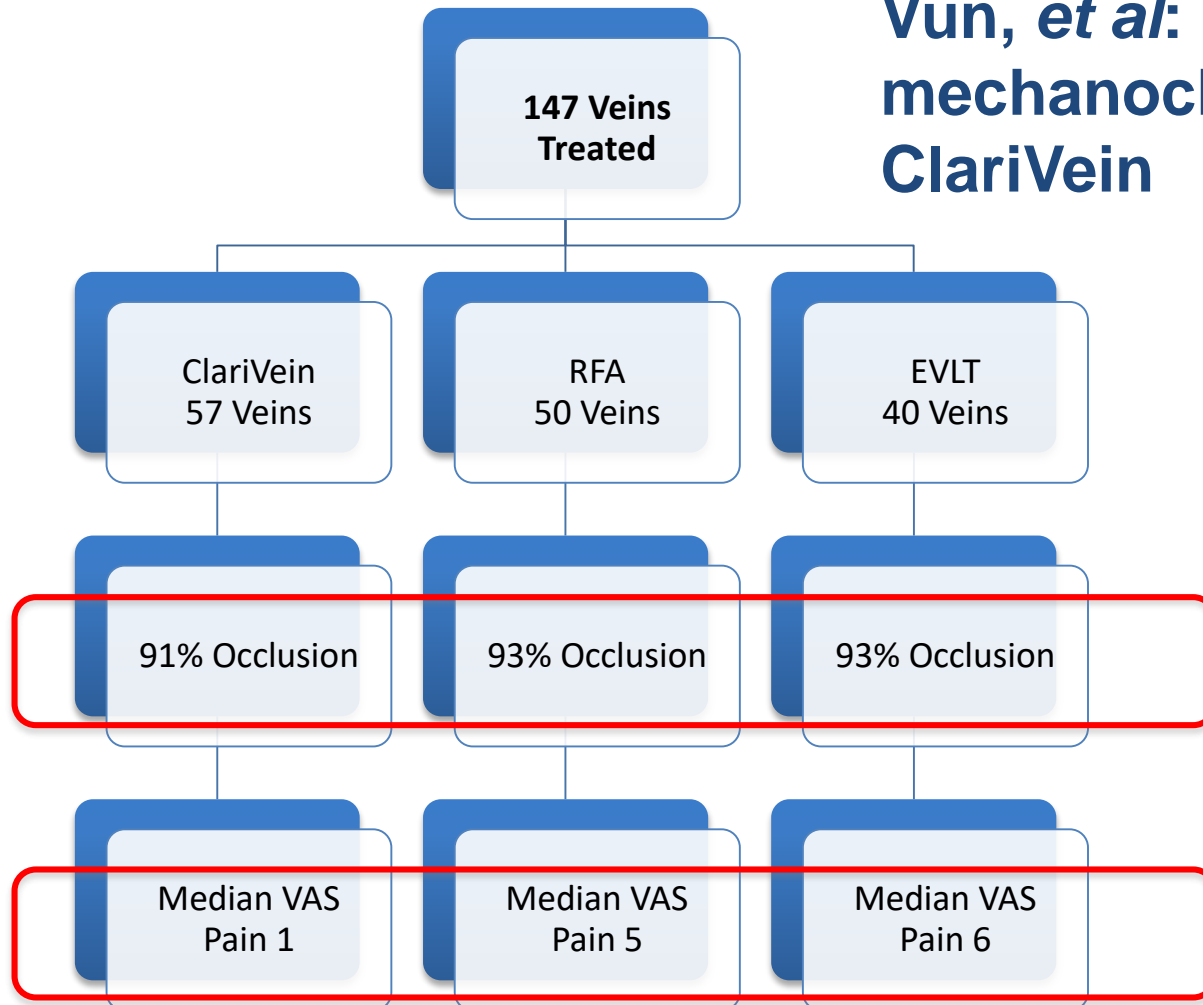
Pain and Analgesic Use			
	ClariVein	RFA	p value
Procedural VAS	22	27	0.16
Mean VAS 3 Days Post-op	6.2	20.5	0.004
Mean VAS 14 Days Post-op	4.8	18.6	< 0.001
Post-Op Analgesic Use	0.5 days	2.8 days	0.008

Recovery Time			
	ClariVein	RFA	p value
Return to Normal Activities	1.2 days	3.3 days	0.02
Return to Work	2.4 days	5.6 days	0.02



*No attempt at randomization was made

Vun, *et al*: Lower pain and faster treatment with mechanochemical endovenous ablation using ClariVein



No major adverse events

Comparable closure rates

Significantly lower pain scores
in ClariVein group
($p < 0.01$)



When Not To Do It (continued more)

- You like flirting with disaster
- You like nerve damage or skin damage
- You like lawyers – 15% malpractice is nerve issues
- NO nerve injury reported with MOCA



The Real Contraindications and Limits of MOCA: When Not To Do It?

- Size - >10 -12 mm (19mm)
- Previous SVT with synechiae/scar
- Tortuosity – severe
- 5% of veins we treat (95% we can do it)



Summary

- Big veins – NO
- Post-thrombotic veins – NO
- Tortuous veins – YES
- Extrafascial veins – YES
- YES – 95% NO – 5%