



The Length of Treated GSV as a Marker of Post Procedural Improvement

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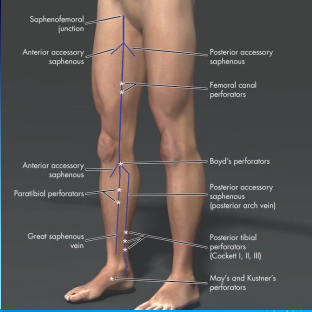
Disclosure

Boston Scientific, speaker & consultant



Background

- Varicosities vary in length from 1 cm to 60 cm with significant variation in size, length, and impact on quality of life.
- Recently, more shorter segment GSV & truncal tributaries.



Methods

- VQI Varicose Veins Registry, >80,000 patients
- Retrospective study, January 2015 to December 2020
- Compared short segment (<15 cm treatment length, N=11,329) versus long segment (>45 cm treatment length, N=13,320)

Methods

Two Parameters Used to Evaluate Outcomes

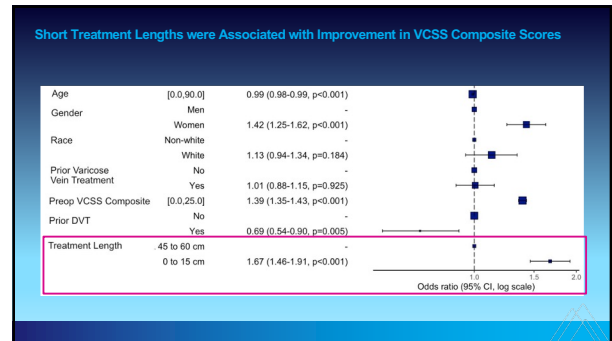
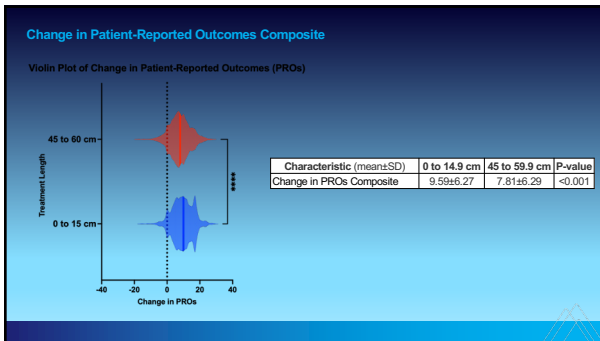
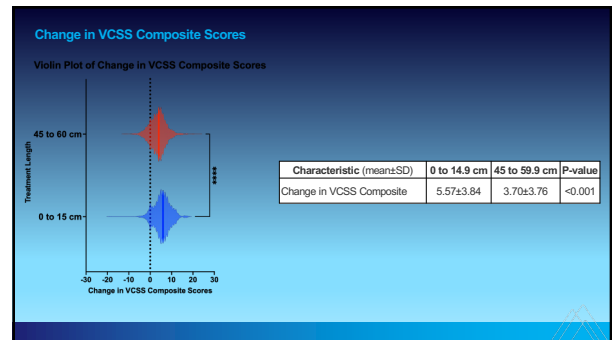
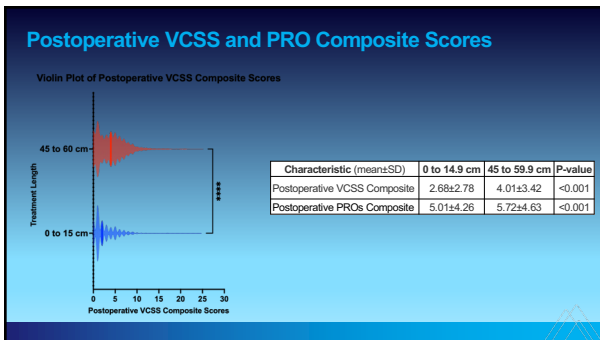
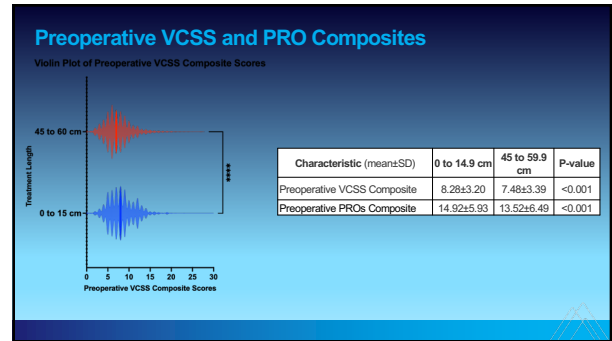
<p>Patient-Reported Outcomes (PRO)</p> <ul style="list-style-type: none"> ○ Heaviness ○ Achiness ○ Swelling ○ Throbbing ○ Itching 	<p>Venous Clinical Severity Score (VCSS)</p> <ul style="list-style-type: none"> ○ Pain ○ Induration ○ Varicose veins ○ No. of active ulcers ○ Venous edema ○ Active ulcer size ○ Skin pigmentation ○ Ulcer duration ○ Inflammation ○ Compression therapy
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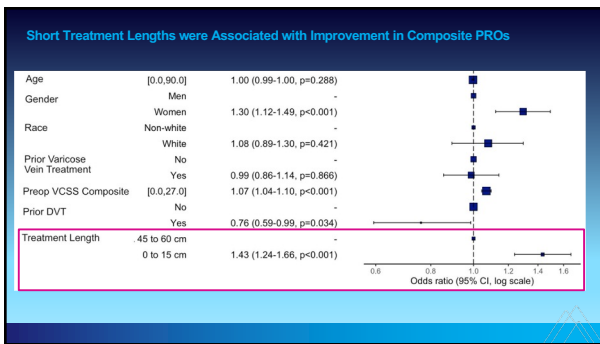
Demographics and Comorbidities

Characteristic	0 to 14.9 cm	45 to 99.9 cm	P-value	
N	11329	13320		
Age (mean±SD)	56.0±13.3	54.9±13.7	<0.001	
Female (%)	8379 (74.0)	8541 (64.1)	<0.001	
White (%)	8832 (77.7)	11318 (85.9)	<0.001	
Prior DVT (%)	806 (7.1)	770 (5.8)	<0.001	
Prior Varicose Vein Treatment (%)	8118 (71.8)	4878 (36.8)	<0.001	
History of Superficial Phlebitis (%)	1328 (11.7)	1365 (10.3)	<0.001	
CEAP Category (%)	C0	39 (0.4)	41 (0.3)	<0.001
	C1	26 (0.2)	64 (0.5)	
	C2	3665 (33.0)	3411 (27.1)	
	C2+	27 (0.2)	2 (0.0)	
	C3	4192 (37.7)	5378 (42.7)	
	C4a	2331 (21.0)	2308 (18.4)	
	C4b	301 (2.7)	416 (3.3)	
	C5	222 (2.0)	325 (2.6)	
	C6	305 (2.7)	632 (5.0)	
	C6+	7 (0.1)	2 (0.0)	

Perioperative Characteristics

Characteristic	0 to 14.9 cm	45 to 59.9 cm	P-value
Number of Veins Treated (mean±SD)	3.45 (2.02)	1.79 (1.02)	<0.001
Treatment Type (%)	Thermal Laser	3492 (87.8)	<0.001
	Thermal RF	3650 (92.2)	
Truncal Anatomy (%)	AAGSV Calf	11 (0.1)	<0.001
	AAGSV Thigh	2632 (23.2)	
	GSV Calf	467 (4.1)	
	GSV Thigh	2316 (20.4)	
	GSV Thigh & Calf	529 (4.7)	
	Other Truncal	2596 (22.9)	
	SAGSV Thigh	245 (2.2)	
	SSV Calf	1699 (14.7)	
SSV Thigh Extension	49 (0.7)	2 (0.0)	
Preoperative Heaviness	2.37 (1.30)	2.03 (1.51)	<0.001
Preoperative Achesness	2.63 (1.14)	2.37 (1.40)	<0.001
Preoperative Swelling	2.18 (1.48)	2.14 (1.54)	0.063
Preoperative Tiredness	1.89 (1.27)	1.54 (1.46)	<0.001
Preoperative Itching	1.48 (1.46)	1.21 (1.39)	<0.001
Preoperative Appearance	2.45 (0.98)	2.46 (1.17)	0.991
Preoperative Work Impact	2.12 (1.11)	1.80 (1.27)	<0.001





Conclusion

- Following treatment of the varicosities, patients receiving treatment for **shorter segment varicosities (0 to 14.9 cm)** experienced **greater improvement** as measured by VCSS composite scores and PRO composites than did long-segment (45-60 cm) patients.

Limitations

- Retrospective review of the prospectively collected varicose vein registry of the VQI.
- Subject to errors in coding and collection of data by trained support staff at each center.
- Follow-up was 85.6%.

Thank You

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