
ENGLEWOOD HEALTH

**MOSCA:
MECHANICAL OCCLUSION SEGMENTAL
CHEMICAL OCCLUSION**

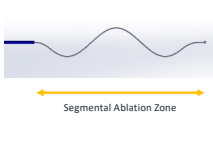
STEVE ELIAS

DISCLOSURES

BD	Consultant
Boston Scientific	Advisory Board
Cook	Advisory Board
Crossfire Medical	Consultant
Elastimed	Consultant
Enveno	Stock options
Medtronic Inc.	Advisory Board
Methapharm Inc	Consultant
Phillips	Advisory Board
Sun Scientific	Advisory Board
Tactile Medical	Advisory Board
Theraclon	Consultant
USA Therm	Advisory Board/Stock
VVT Medical	Advisory Board/Stock
WD Devices	Advisory Board/Stock

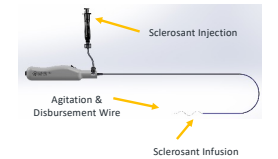
WAVELLA: WHAT IS IT?

Similar Treatment Length as Medtronic RF Catheter

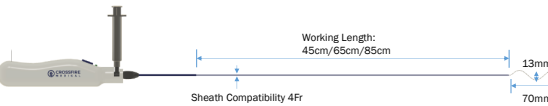


Segmental Ablation Zone

Straightforward Drug Infusion Over Mechanical Dispersion Wire



MOSCA: DEVICE CHARACTERISTICS




Feature	Specification	Rationale
Working Length	45cm / 65cm / 85cm	Same as ClarVein - 65cm anticipated to be the most popular SKU
Sheath Compatibility	4 French	Same as ClarVein
Rotation Speed	3500 RPM	Same as ClarVein
Vessel Diameter	Self Sizing: 4mm - 12mm	Same as ClarVein
Treatment Length	Segment Length: 70mm Unlimited total treatment length with overlapping treatments	Matches the treatment length of ClosureFast - Segmental treatment

MOCA: Clarivein

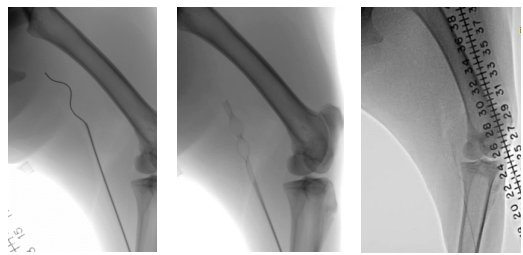
Predicate Device

- ClariVein Infusion Catheter
- Indications for Use (a general indication):
The ClariVein Infusion Catheter is intended for the infusion of physician-specified agents in the peripheral vasculature.



Feature	Specification
Working Length	45cm / 65cm / 85cm
Sheath Compatibility	4 French
Rotation Speed	3500 RPM
Vessel Diameter	Self Sizing: 4mm - 12mm
Treatment Length	Continuous

MOSCA: ANIMAL GSV



MOCA/MOSCA: MECHANISM OF ACTION

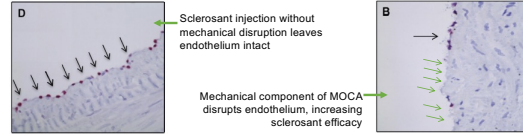
- endothelial damage - YES
- blood/vein surface tension – YES
- intimal damage – YES
- vein occlusion – YES
- not a thrombotic event – YES
- lag time - YES



MOA: HISTOLOGY

1. Gentle disruption of the endothelium enhances sclerosant diffusion & thrombosis – direct damage/surface tension

- The mechanical wire gently disrupts the thin layer of endothelial proteoglycans, thus immediately enhancing sclerosant diffusion into the media while at the same time enhancing physiologic thrombosis and coagulation of the vessel.



1. Mechanical stretch activates smooth muscles creating intense vasoconstriction

- Vasoconstriction achieves hemostasis, while also reducing total blood volume in treatment area (increasing sclerosant concentration).



Wavella GLP Animal Study: Procedure (Porcine Epigastric Model)

Animal Model Subjects

Devices	Subjects
ClariVein	2
.014 Wavella	5
.022 Wavella	7



Method

- ClariVein: continuous pull back per IFU 0.2mL STS/cm
- Wavella: segmental ablation as follows:
 1. Activate device motor (spin)
 2. Wait 5 seconds
 3. Inject sclerosant over approx. 10 sec
 4. Wait 5 seconds, then deactivate device motor
 5. Reposition device to next segment
 6. Repeat until all segments treated (approx. 2-3 per subject)



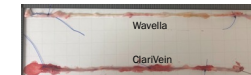
Wavella GLP Animal Study: Procedure (Porcine Epigastric Model)

Treatment	Device	Vein Closure	
Mechanical Chemical (MOCA)	ClariVein	100% Patent	
	.014 Wavella	Full Closure	
		Full Closure	
	.018 Wavella	Full Closure	
		Full Closure	
	.022 Wavella	Full Closure	
		Full Closure	
	Mechanical Only (MOA) (General control - no sclerosant used)	.014 Wavella	Fully Patent
		.018 Wavella	Partial Closure
		.022 Wavella	Partial Closure

100% Success with Wavella at 60 day follow up

- Full Closure = Clinical success, desired outcome
- Partial Closure = Partial success, may require reintervention
- Fully Patent = Clinical failure, will require reintervention

Gross Necropsy showed profound hypovascularity, atrophy and resorption entire treated vein segment.



CPT CODE

Procedure is fully reimbursed by National CMS Coverage decision:

Code	Description
36473	ENDOVENOUS ABLATION THERAPY OF INCOMPETENT VEIN, EXTREMITY, INCLUSIVE OF ALL IMAGING GUIDANCE AND MONITORING, PERCUTANEOUS, MECHANOCHEMICAL; FIRST VEIN TREATED
36474	ENDOVENOUS ABLATION THERAPY OF INCOMPETENT VEIN, EXTREMITY, INCLUSIVE OF ALL IMAGING GUIDANCE AND MONITORING, PERCUTANEOUS, MECHANOCHEMICAL; SUBSEQUENT (VENIS) TREATED IN A SINGLE EXTREMITY, EACH THROUGH SEPARATE ACCESS SITES (LIST SEPARATELY IN ADDITION TO CODE FOR PRIMARY PROCEDURE)



MOSCA: TECHNIQUE

- 4fr. sheath – 1 needle, no other wires/sheaths
- 2cm from SFJ or fascial curve SPJ
- rotate 5 secs. – spasm, vortex
- Inject 1.5 ml. 1.5% STD liquid per segment
- rotate 10 secs. then move caudal 7 cm.
- repeat as above



MOSCA: FINAL THOUGHTS

- eliminates pullback rate
- eliminates infusion rate
- less steps = less deviation from technique
- more predictable results (RF/glue segmental)
- faster – 15 secs/7cm segment
- 35cm segment = 75 secs, 50cm = 105 secs



WORDS TO LIVE BY: IN VEINS AND IN LIFE

- ***RESPECT THE ELDERS,***
- ***EMBRACE THE NEW,***
- ***ENCOURAGE THE IMPROBABLE AND IMPRACTICAL,***
- ***WITHOUT BIAS***

