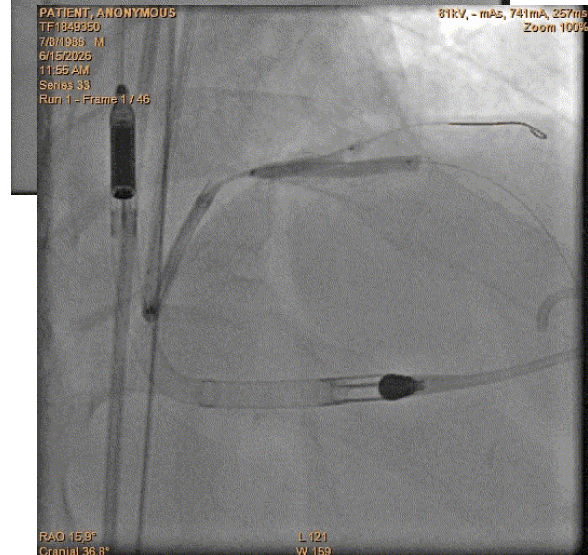
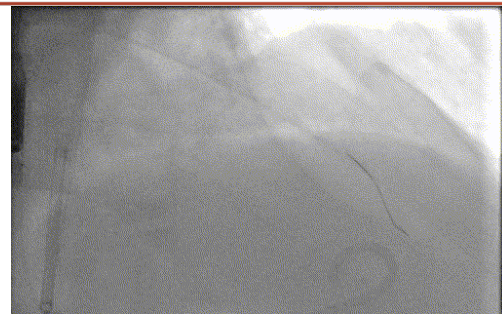
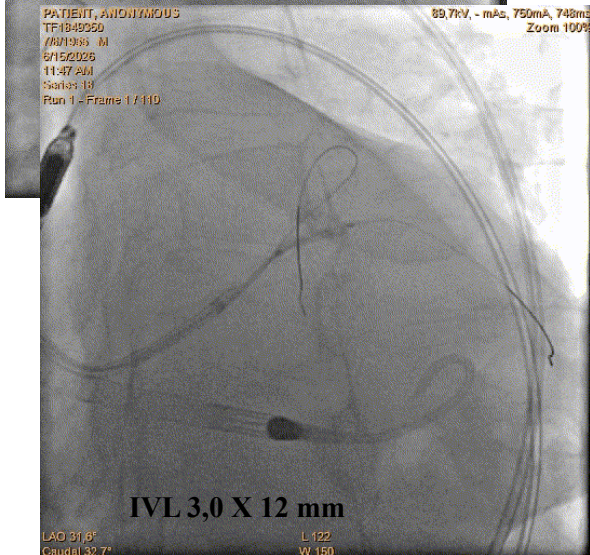
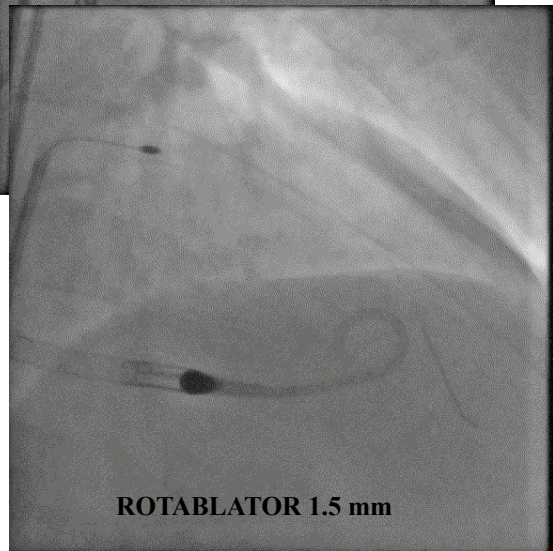
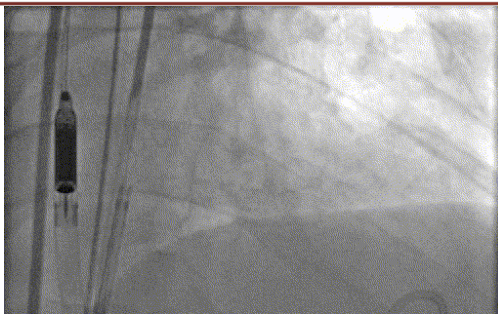


Cased Based Hot Topics

Sistemi di debulking

Tocci Marco
AOU Policlinico Umberto I
Roma

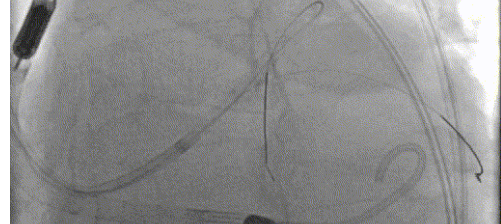
Rotational Atherectomy



Rotational Atherectomy

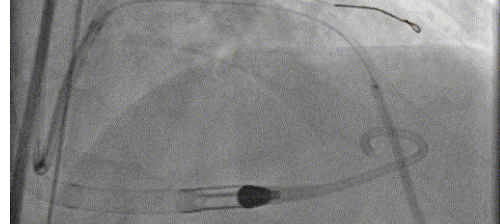
DLACE 20

PATIENT: ANONYMOUS
TF1848250
7/8/1985 - M
8/15/2025
11:47:44
90kV 71
Run 1 - Frame 1/71
92.8kV, - mA, 747mA, 482mm
Zoom 100%

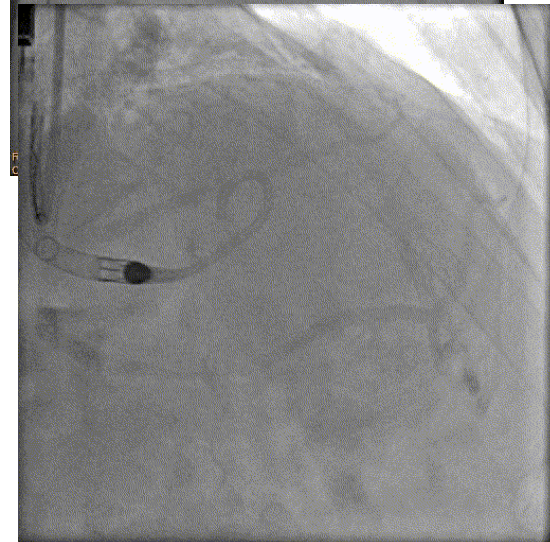
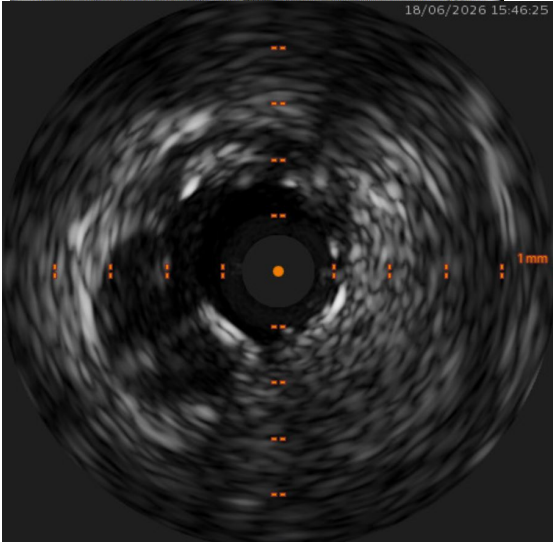
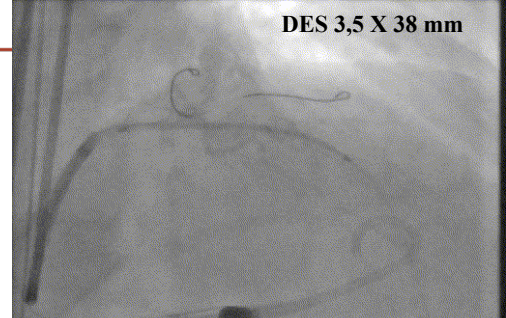


PATIENT: ANONYMOUS
TF1848250
7/8/1985 - M
8/15/2025
11:50:34
90kV 40
Run 1 - Frame 1/24
81kV, - mA, 739mA, 144mm
Zoom 100%

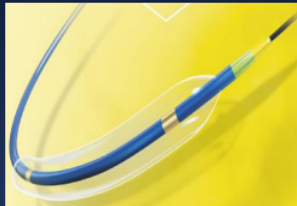
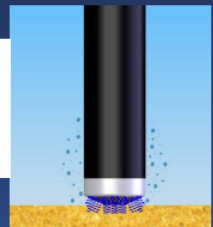
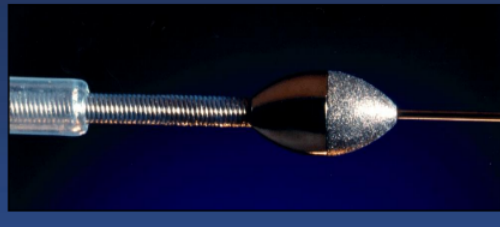
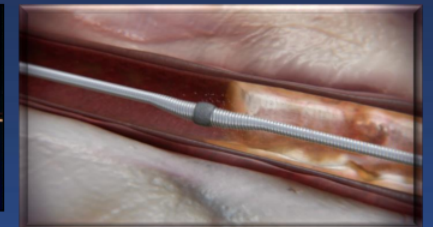
DEB 2,5 X 30 mm



DES 3,5 X 38 mm

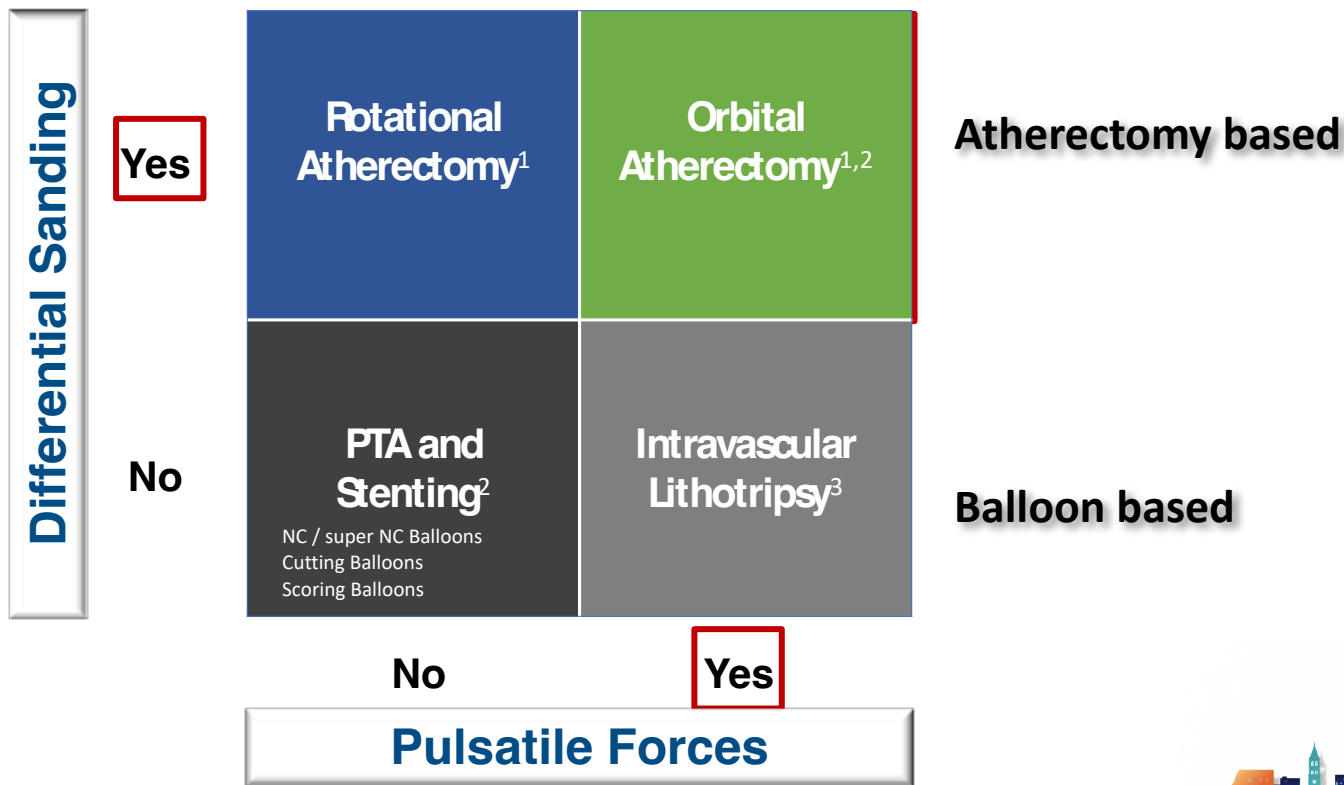


Treatment of Calcified Lesions: Options

NC Balloons 	Cutting Balloon 	Angiosculpt 	OPN NC Balloon 	
Scoring Balloon 	Laser 	Rotational Atherectomy 	Orbital Atherectomy 	
				Intravascular Lithotripsy

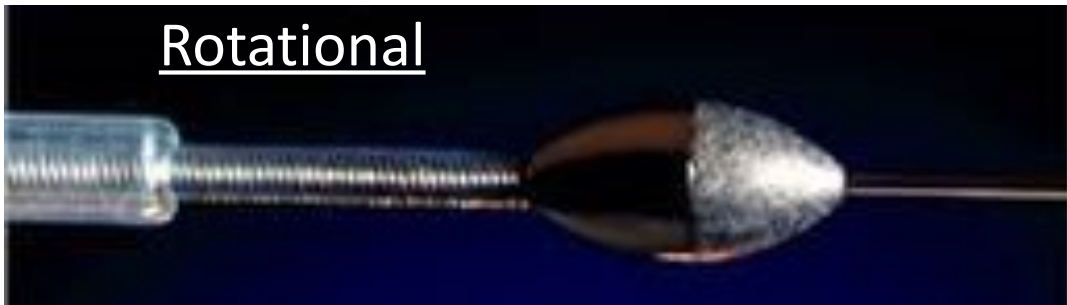


Available devices

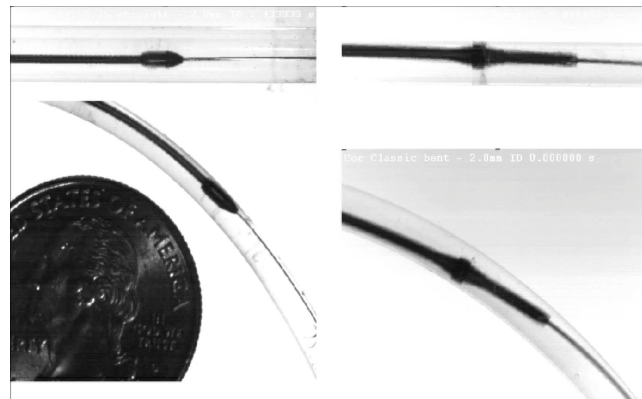


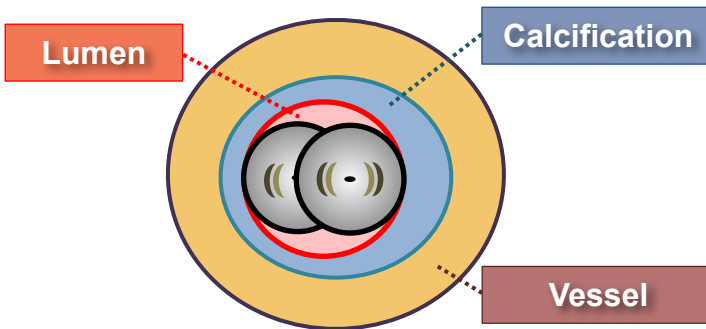
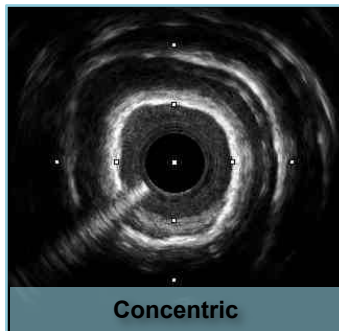
Atherectomy: Available devices

Rotational

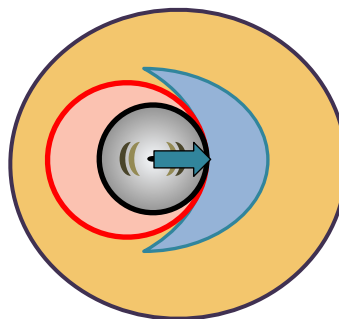
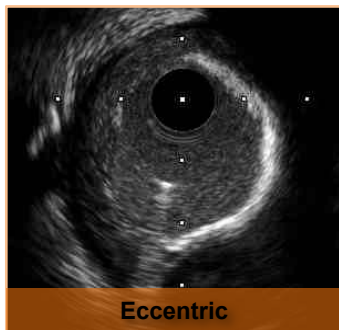


Orbital

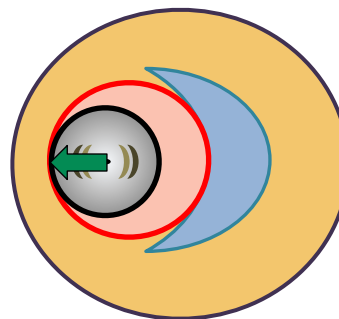




Ablatable
regardless of wire bias
(burr position)



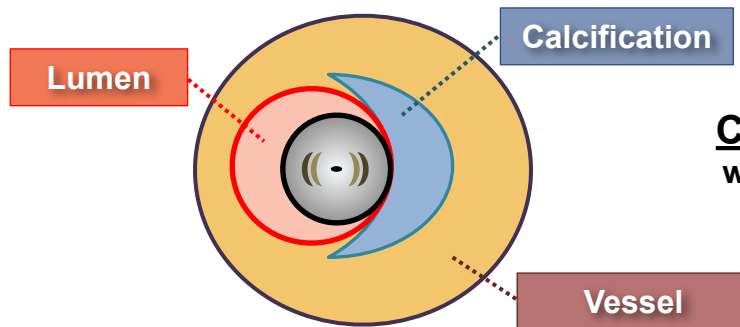
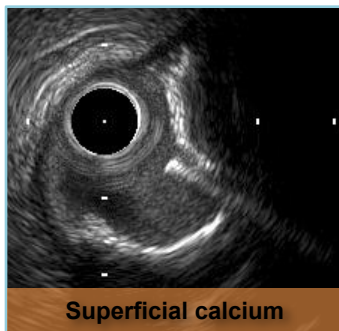
Favorable bias



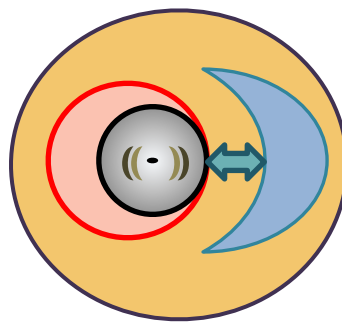
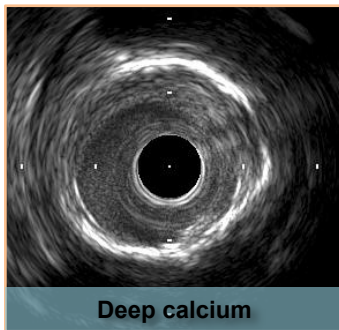
Unfavorable bias

Possibly ablatable
just in case with
favorable wire bias
(burr position)



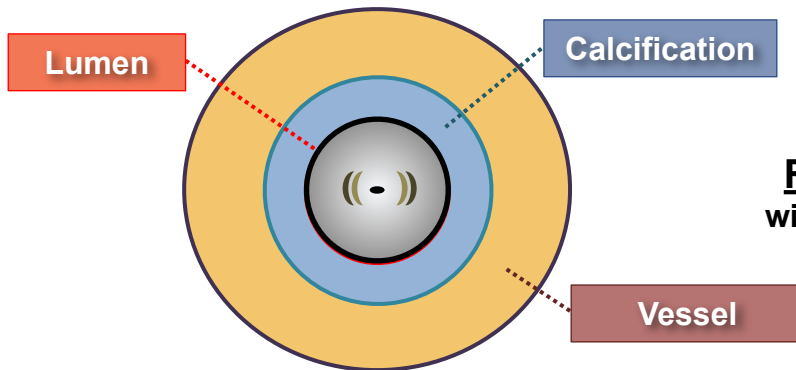
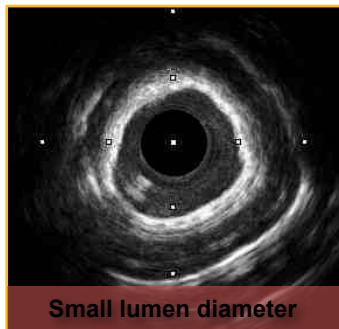


Close enough to ablate
with favorable wire bias and
appropriately sized burr

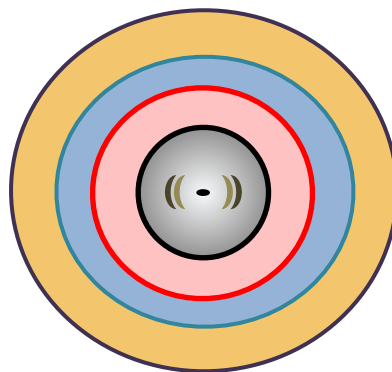
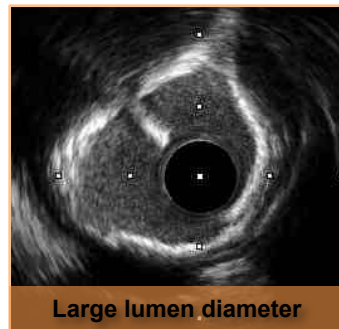


Too far to ablate
even with favorable wire bias
and appropriately sized burr





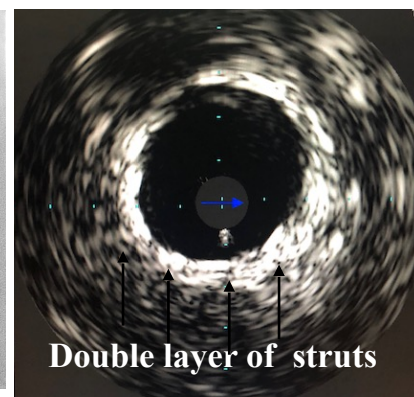
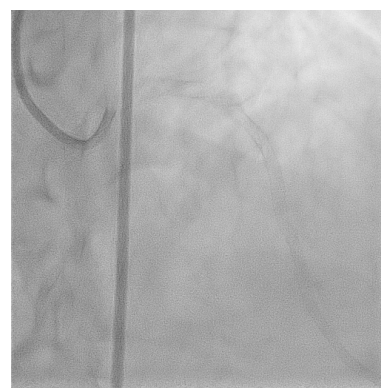
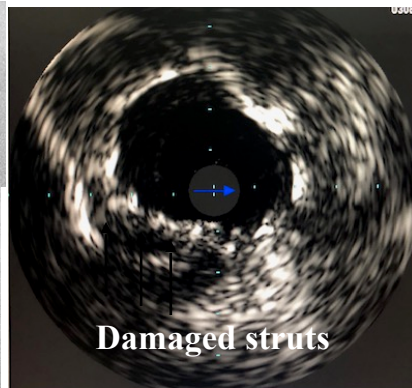
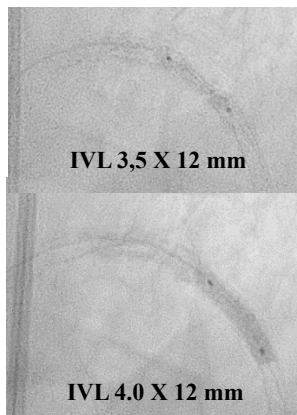
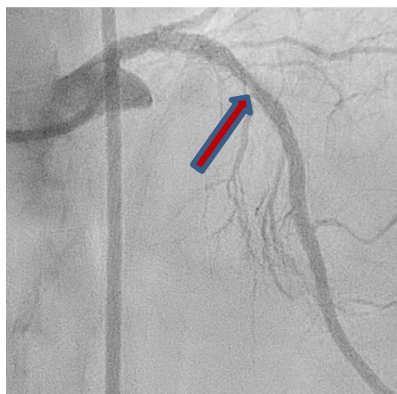
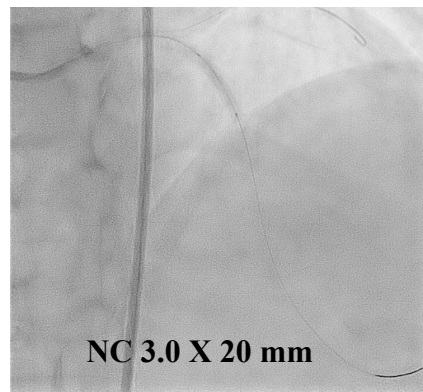
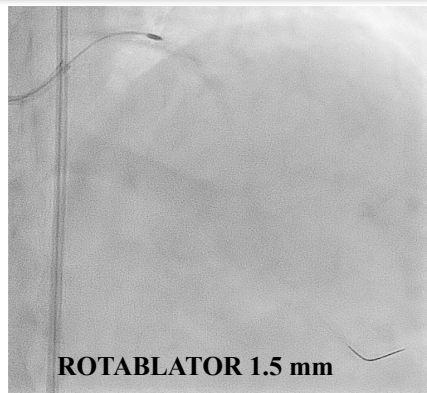
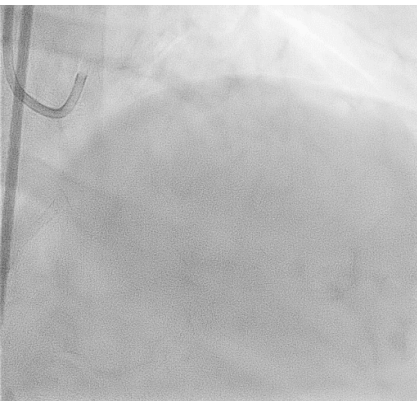
Reasonable to ablate
with appropriately sized burr



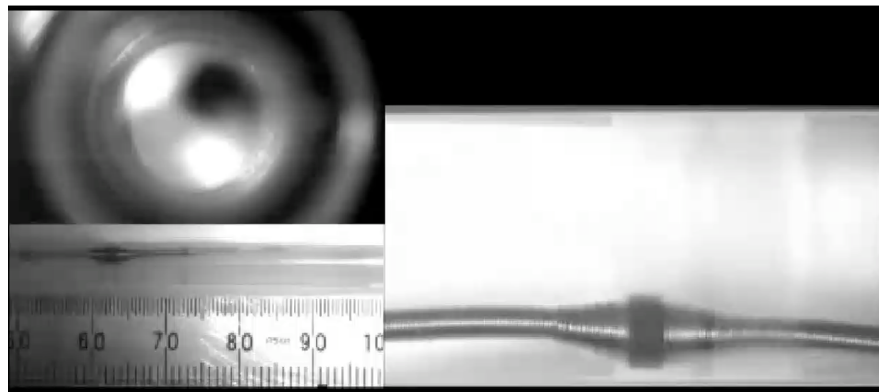
Too large to ablate
even with maximum burr size (2.5mm)



Summary: Severe calcified Prox, Mid and Distal LAD lesion; 1,5 ROTA predilatation; DES underexpanded on Prox LAD ; 3,5 x12mm IVL treatment performed 4-6-8-atm in three cycles and 4x12 mm 4-6 atm balloon waist resolved after 30 pulses



Orbital Atherectomy

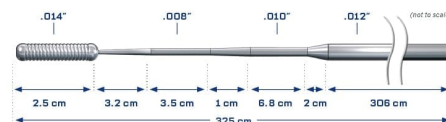


VIPERWIRE ADVANCE



Tip: Platinum/Tungsten Core: 304V Stainless Steel Tip Load: 1.4 g

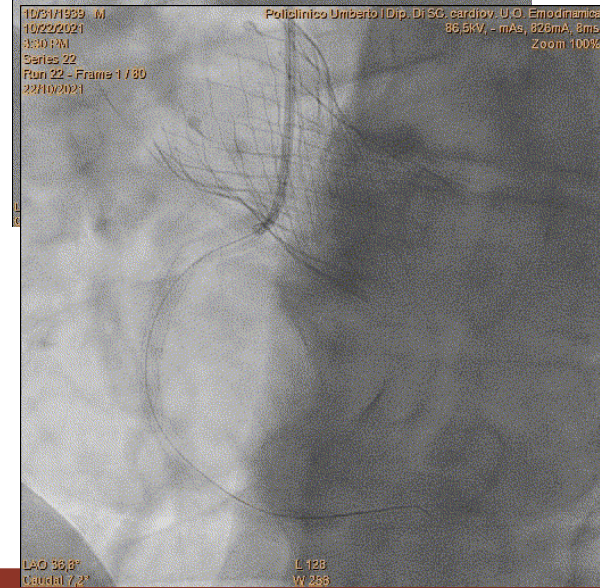
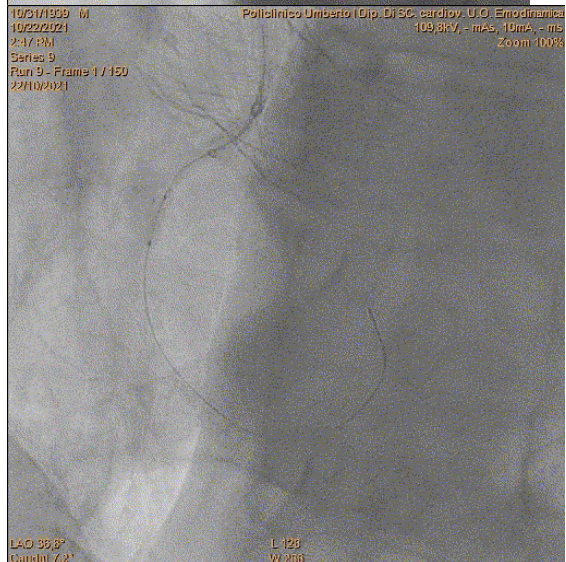
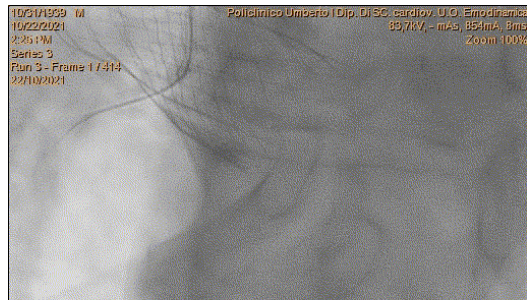
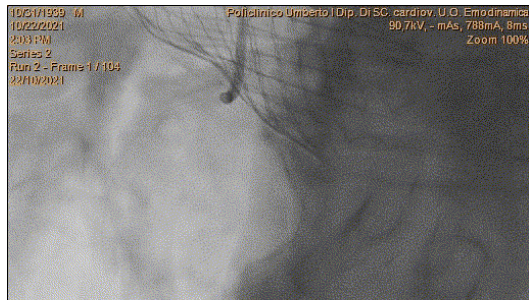
VIPERWIRE ADVANCE WITH FLEX TIP

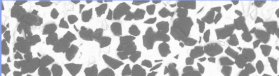
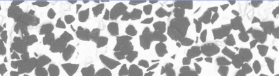


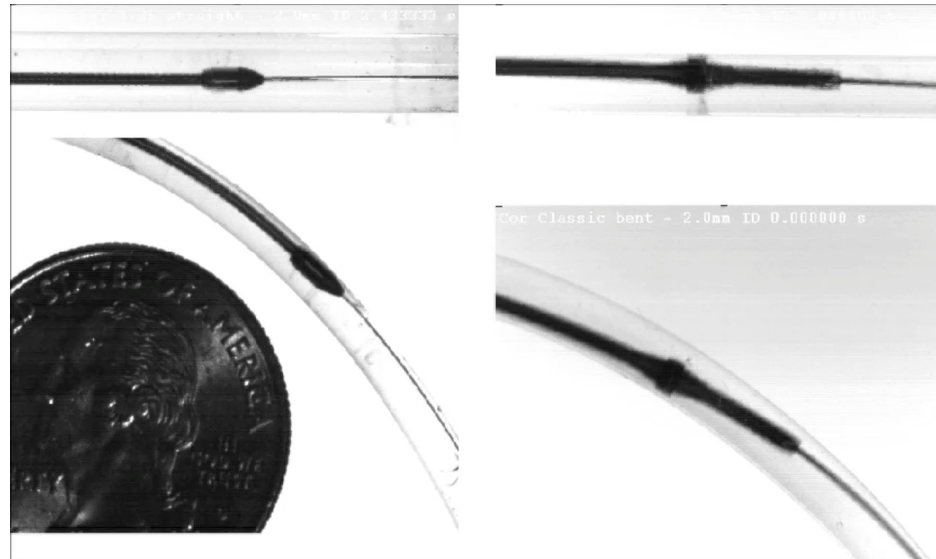
Tip: Platinum/Tungsten with Stainless Steel Support Coil Core: Nitinol Tip Load: 1.0 g



Orbital atherectomy in TAVI pts



	Rotablator™	Diamondback 360™
Profile	Distal Cutting Profile 0.3 mm (.012") 	Nose Cone 5 mm (.20")  Crossing Profile ~0.66 mm (.026") 1.25 mm Distal Cutting Profile*
Cutting Mechanism	Front cutting	Circumferential cutting
Lumen Gain	1.25 mm – 2.50 mm	1.25 mm – 1.84* mm
Particle Size	5-10 μ particles 	2 μ particles 



- Burr is concentric and treats in one direction.
- Affects plaque at tip.
- Constrained to wire location along outer edge (wire bias)

- Crown is eccentric and treats bi-directionally.
Designed to treat calcium circumferentially
- Device affected by wire bias, but crown reaches or treats more than outside curve.



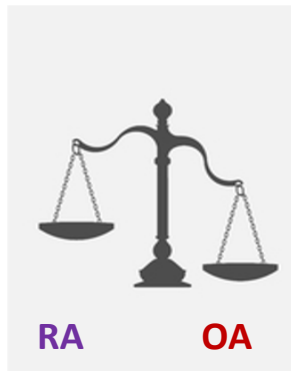
Set-up



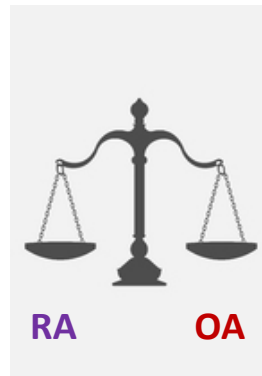
Safety



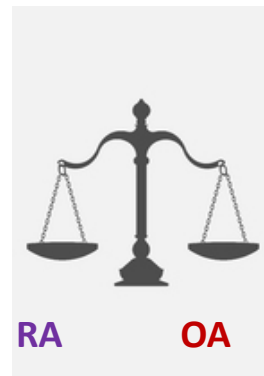
Deep Calcium



Superficial Calcium



Tortuous Vessels



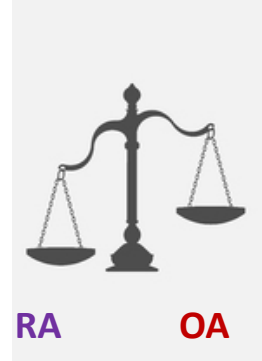
uncrossable lesions



Direct wiring



Ostial lesions



Strategy in calcified lesions

