

TCTAP 2024

A Resolution to the next Frontier

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Disclosure

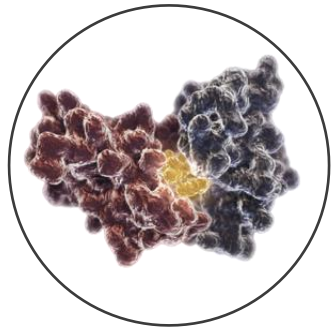
- No potential conflicts of interest.

Medtronic DES family goes further

Onyx Frontier™ DES

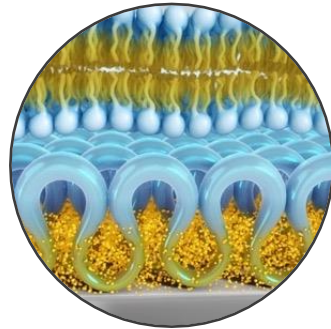
Resolute Onyx™ DES

Resolute Integrity™ DES



Zotarolimus drug

Potent anti-proliferative drug that effectively inhibits neointimal growth



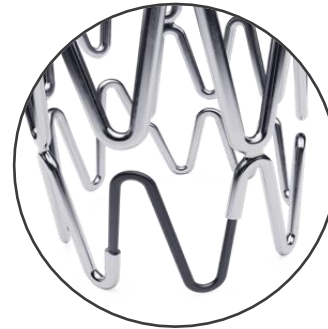
BioLinx™ polymer

Highly biocompatible polymer results in minimal inflammation, low thrombotic risk, and rapid, complete, and functional endothelial healing[†]



Single-wire design

A single strand of cobalt alloy is formed into a continuous sinusoidal wave and laser-fused for greater deliverability and conformability¹



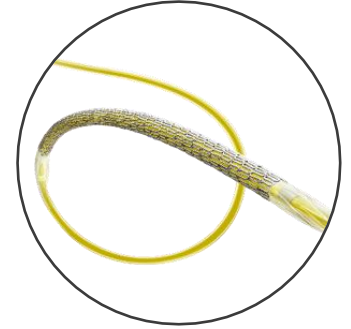
Platinum-iridium core

A cobalt alloy wire featuring platinum-iridium core material enables increased radiopacity and thinner stent struts²



Broad diameter range

Medtronic DES offer 2.0 mm to 5.0 mm sizes — including a dedicated extra-large vessel platform able to expand to 6.0 mm — to treat the broadest range of coronary vessel diameters



Enhanced delivery system[‡]

An innovative delivery system designed to take the acute performance of Resolute Onyx DES even further, while offering best-in-class deliverability³ and a lower crossing profile⁴

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[†] In porcine models. Based on test data on file at Medtronic. May not be indicative of clinical performance.

[‡] Stent delivery system updates were implemented on the 2.0–4.0 mm Onyx Frontier DES diameters.

[§] Clinical data evaluating Resolute Onyx DES apply to Onyx Frontier DES.

¹ Third-party modeling and analysis. Data may not be indicative of clinical performance. Evaluated the following stent platforms: Resolute Onyx DES, Multi-Link 8™™™ BMS, SYNERGY™™™ DES, XIENCE Alpine™™™ DES, and Multi-Link 8 platform.

² Based on bench test data on file at Medtronic. May not be indicative of clinical performance.

³ Based on bench test data on file at Medtronic. May not be indicative of clinical performance. N = 7 DES of each tested: Onyx Frontier DES, Resolute Onyx DES, Orsiro®™™ Mission DES, XIENCE Sierra™™™ DES, XIENCE Skypoint™™™ DES, SYNERGY™™™ DES, SYNERGY™™™ XD DES, Ultimaster™™™ Tansei™™™ DES.

⁴ Based on bench test data on file at Medtronic. May not be indicative of clinical performance. N = 5 DES of each tested: Onyx Frontier DES, Orsiro Mission DES, Resolute Onyx DES, XIENCE Skypoint DES, SYNERGY DES, Ultimaster Tansei DES.

⁵ Kandzari DE, et al. Circ Cardiovasc Interv. 2020;13: e009565.

Resolute Onyx DES and Onyx Frontier DES are backed by robust 1-month DAPT evidence in complex, high bleeding risk (HBR) patients^{§5}

Dual-flex balloon provides increased flexibility⁺¹ and lower crossing profile

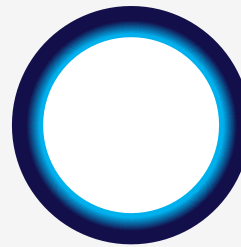
Dual-flex balloon is comprised of a unique blend of two layers:

- Inner layer enhances flexibility¹
- Outer layer maintains strength¹

● Outer layer ● Inner layer



Resolute Onyx™ DES
single-layer balloon

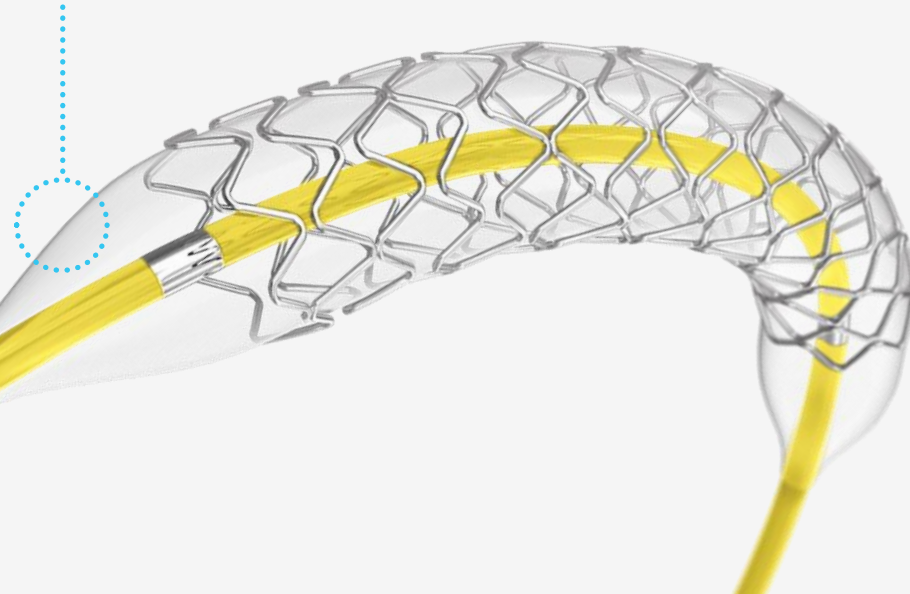


Onyx Frontier™ DES
dual-flex balloon

Results in a thinner balloon with the **same** rated burst pressure (RBP) as Resolute Onyx DES⁺¹

7.5%
lower

- Resolute Onyx DES
- Onyx Frontier DES



¹Stent delivery system updates were implemented on the 2.0–4.0 mm Onyx Frontier DES diameters.

⁺Based on bench test data on file at Medtronic. Compared to Resolute Onyx DES. May not be indicative of clinical performance.

Increased catheter flexibility



Engineered
to deliver

Navigate distal and challenging anatomies with a robust, flexible catheter.

Onyx Frontier™ DES features **increased catheter flexibility,¹** achieved through an updated manufacturing process applied to the outer catheter shaft, resulting in improved deliverability.⁺¹



The distal catheter shaft of Onyx Frontier DES is **29%** more flexible than Resolute Onyx™ DES⁺¹

⁺Stent delivery system updates were implemented on the 2.0–4.0 mm Onyx Frontier DES diameters.

¹Based on bench test data on file at Medtronic. Compared to Resolute Onyx DES. May not be indicative of clinical performance.

Odd Familiarity From Young



My First Onxy Frontier Case

- Health Science Authority – Approval 1st March 2024
- Mount Elizabeth Hospital – Stocked on 14th March 2024
- Resolution to next Frontier – Happened on 18th March 2024

→ 53y Indian Male. Unstable angina. Trop negative.

→ EF 40%. LAD RMWA.

→ LDL 3.3 mmol/l. No Diabetes.

Lipoprotein (a)

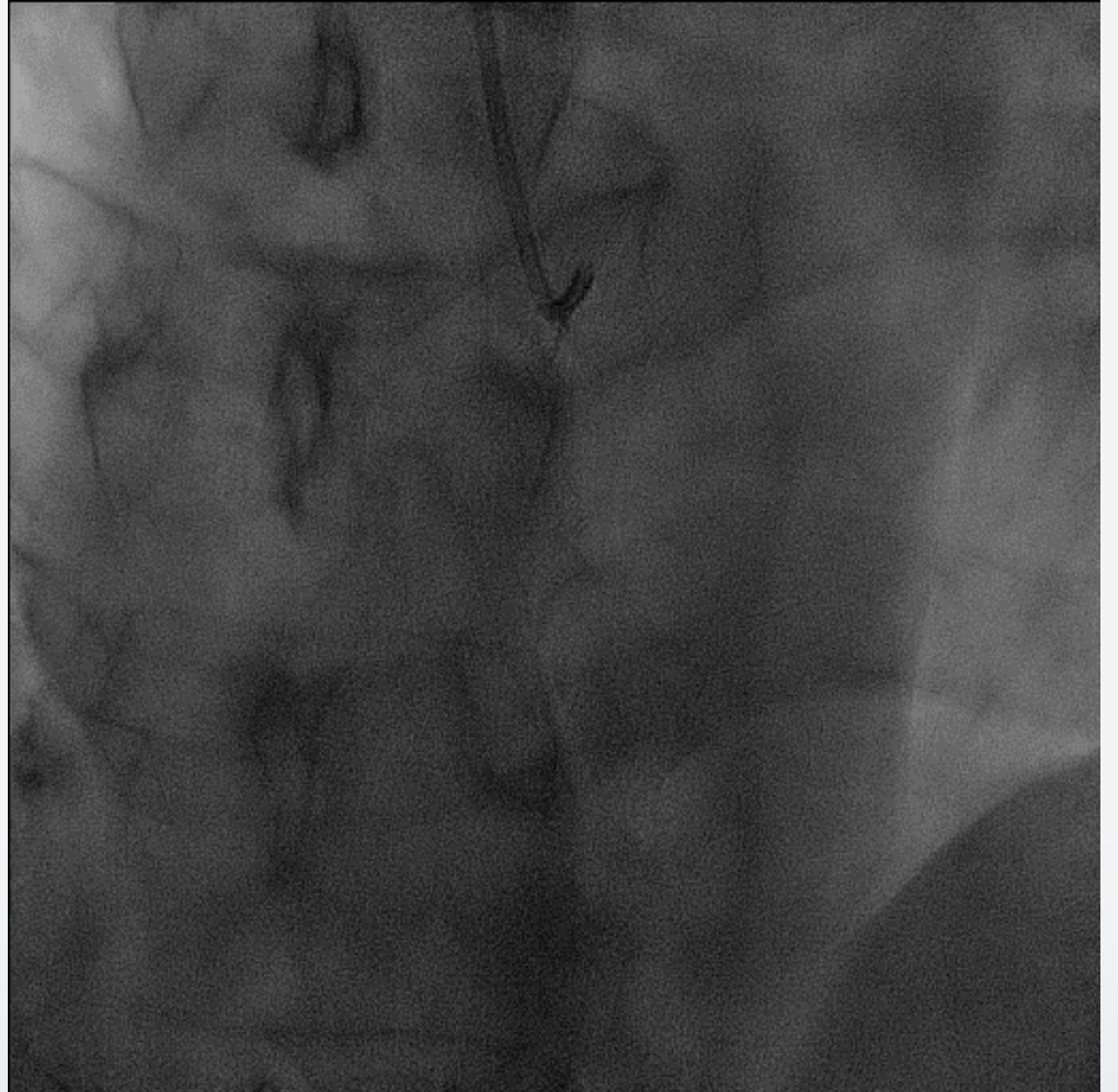
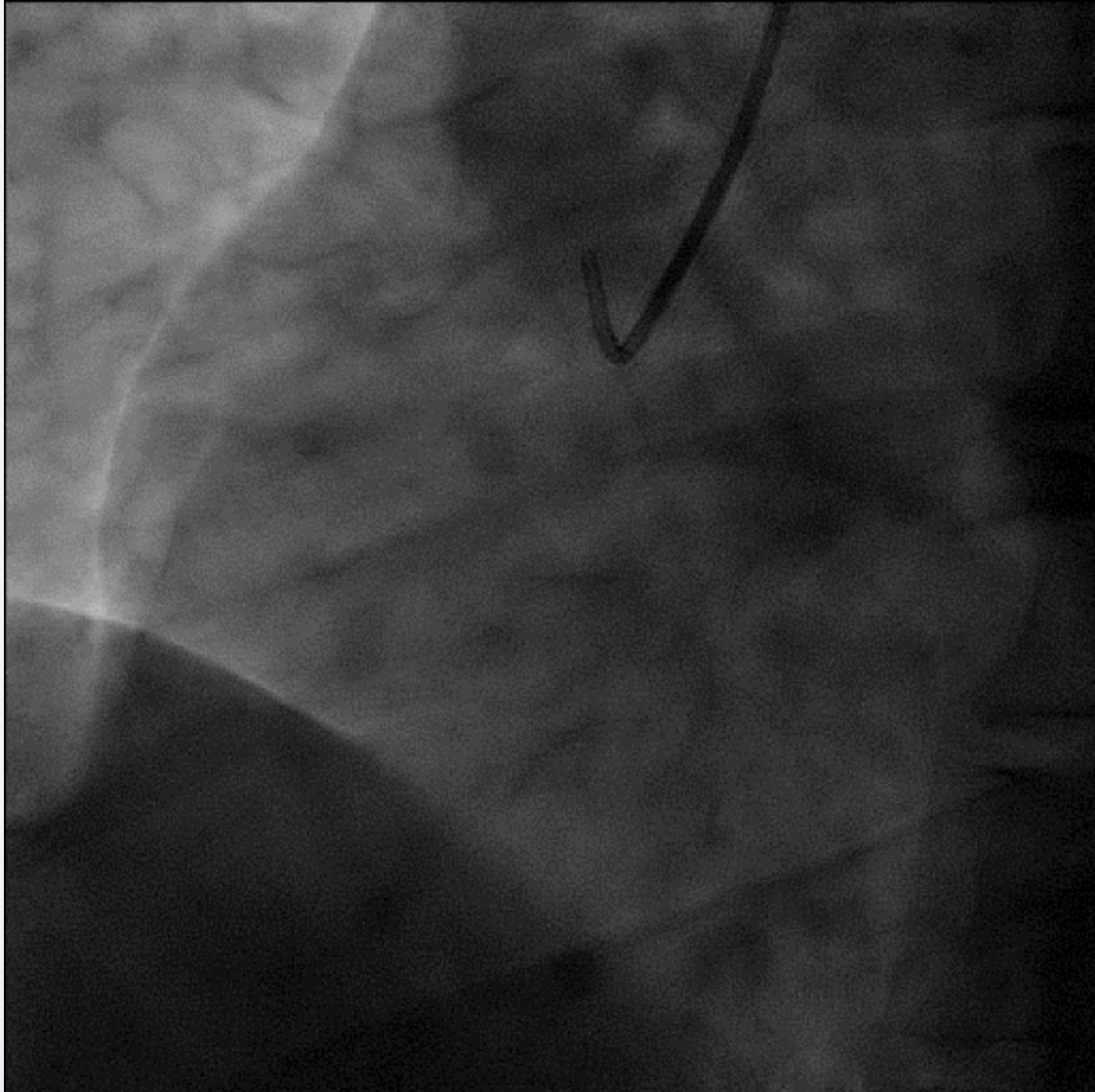
脂蛋白 a

>0.850 ^H (

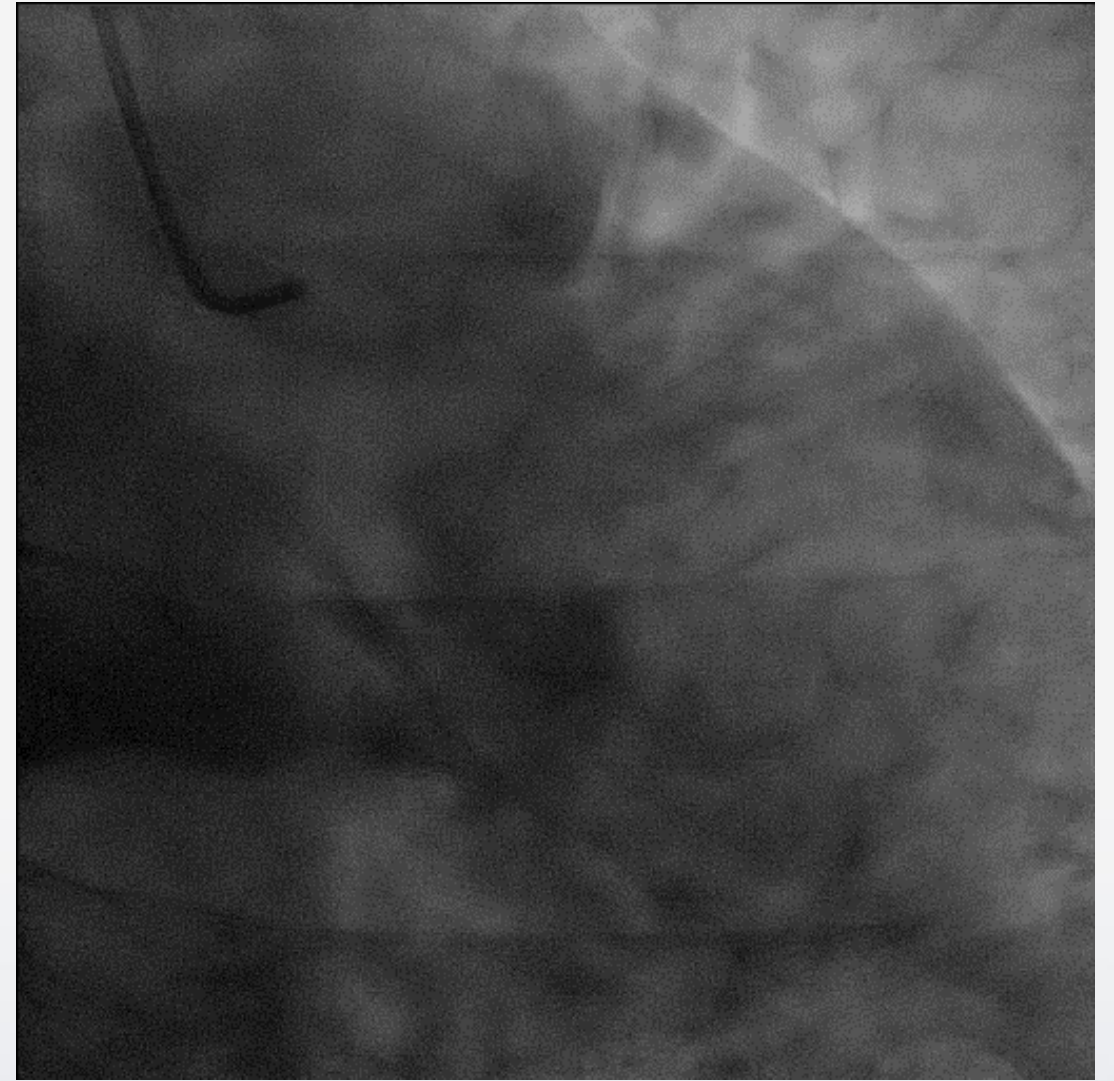
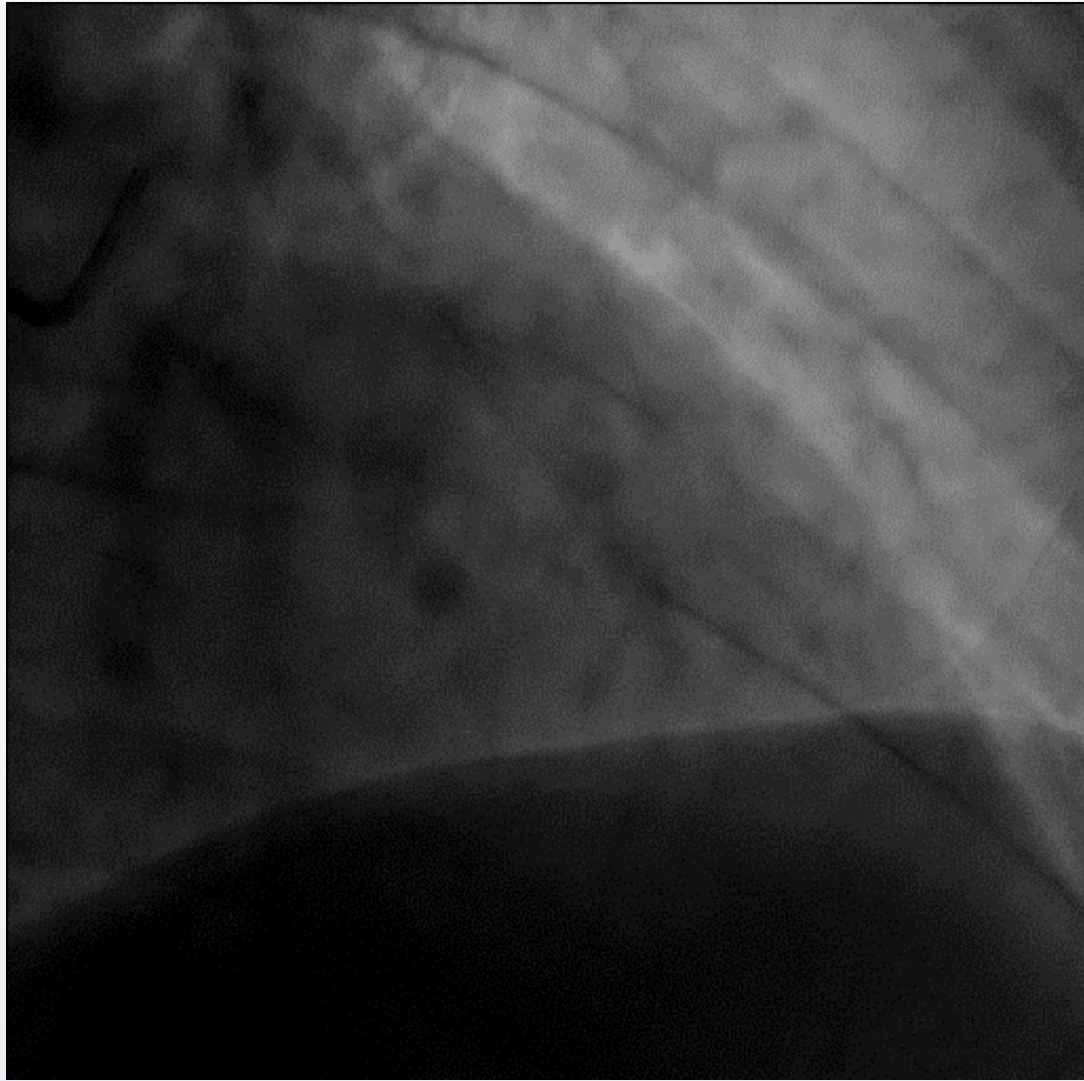
<=0.299

g/L)

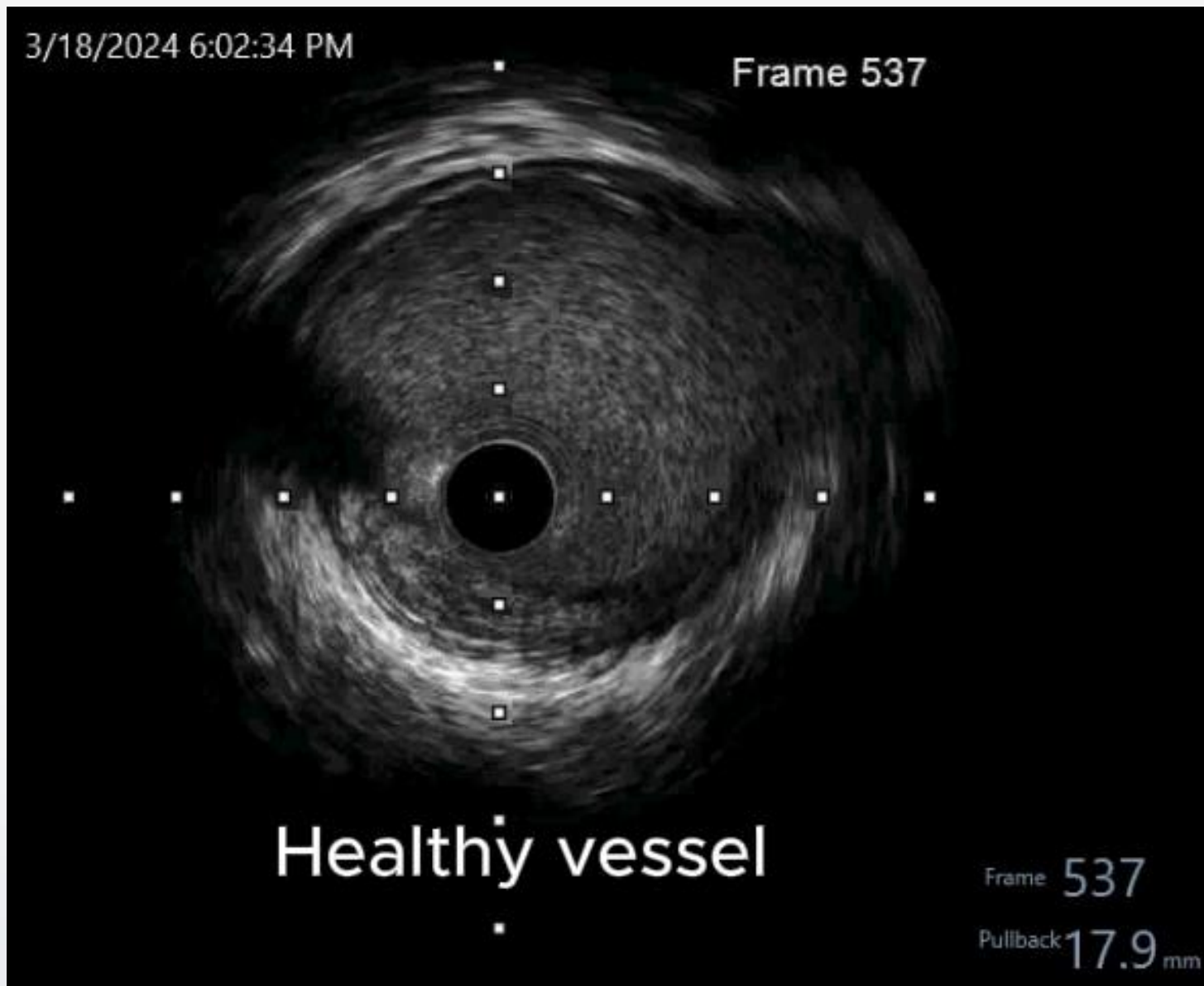
RCA

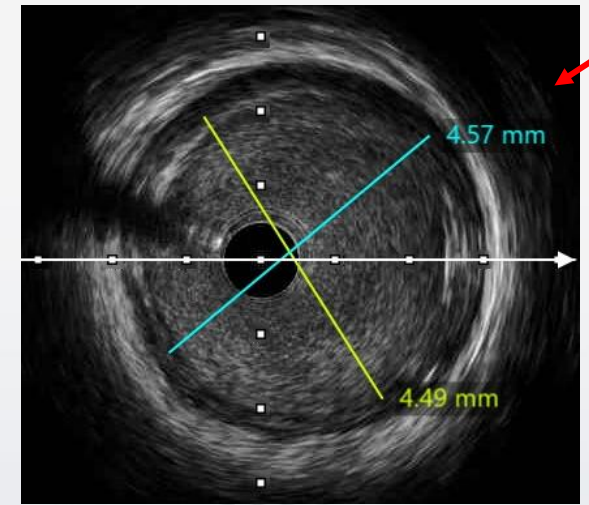
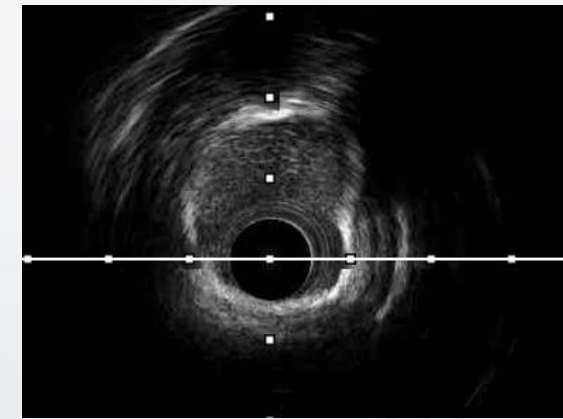
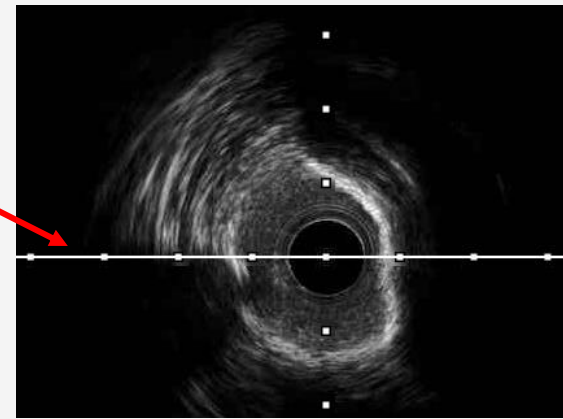
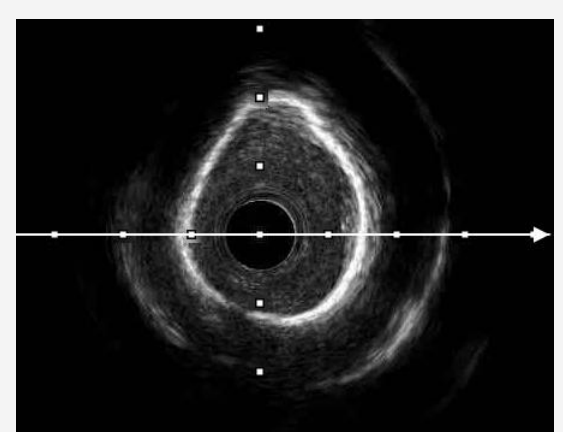
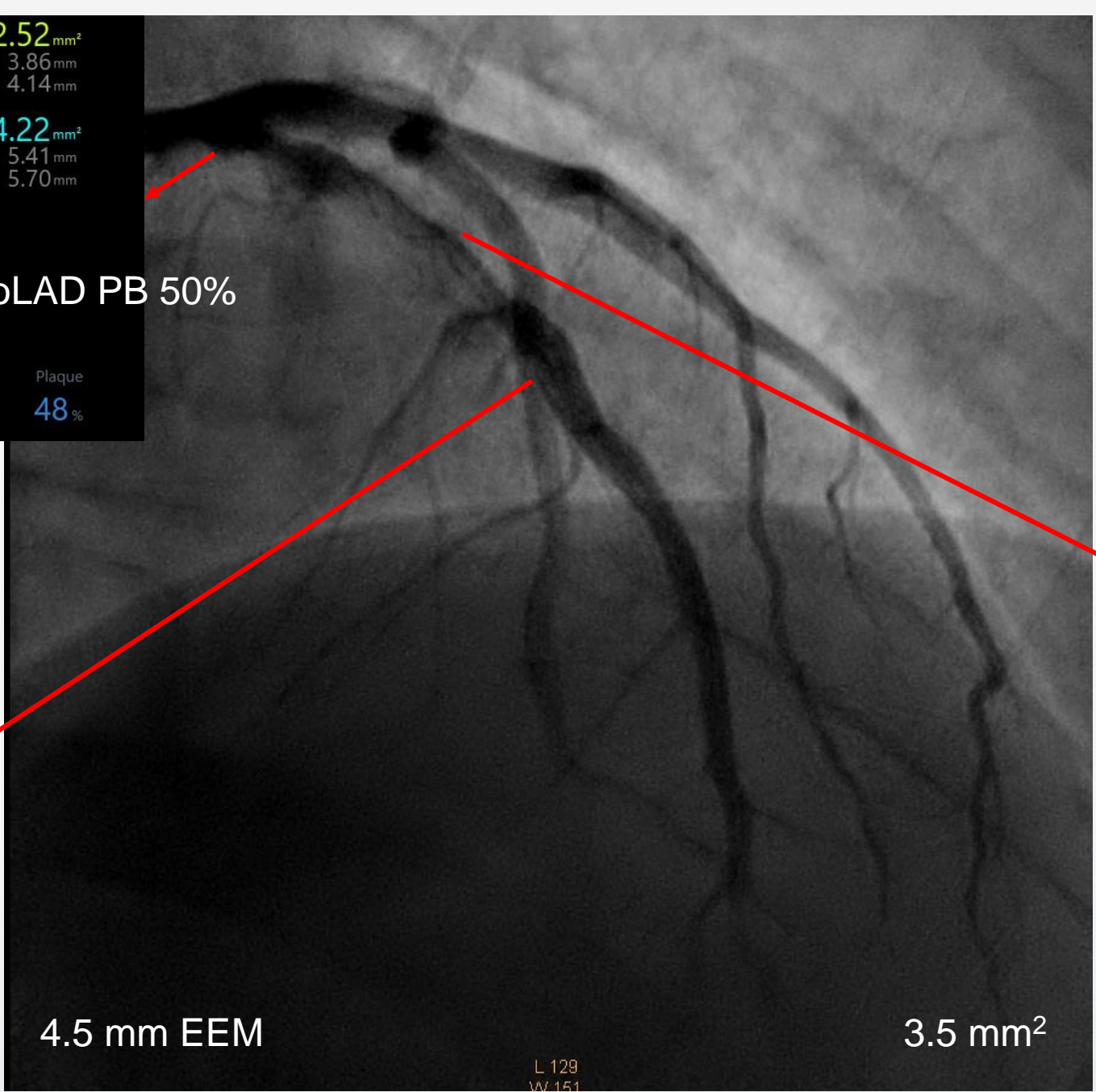
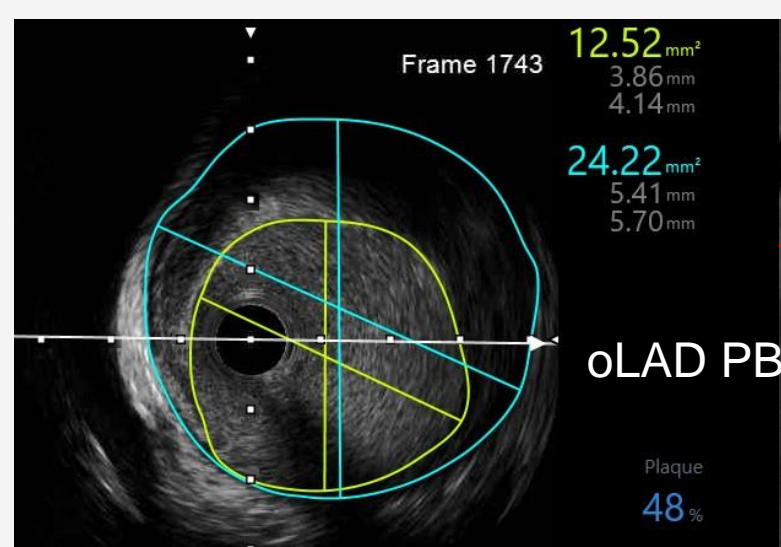


LAD

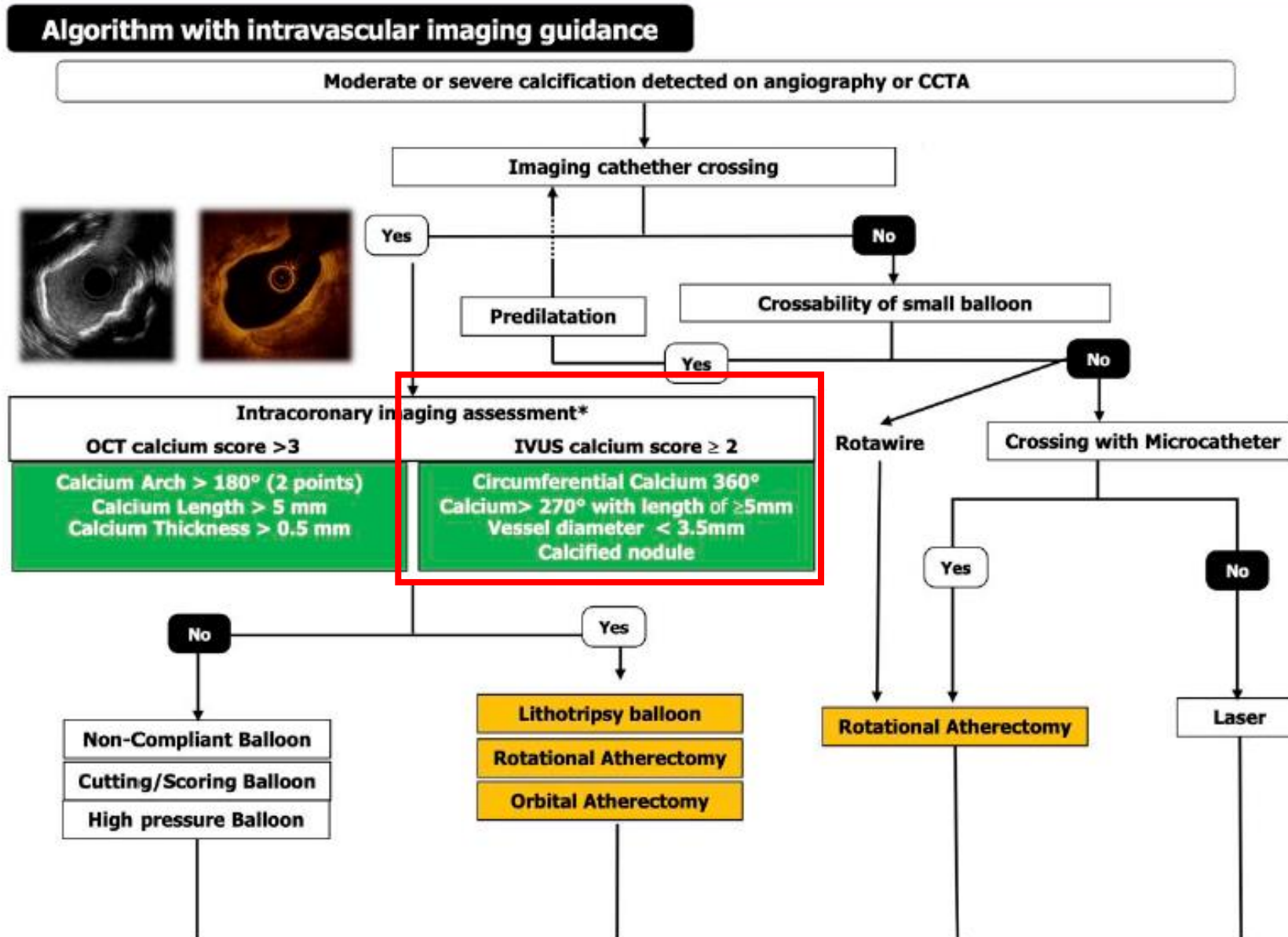


IVUS

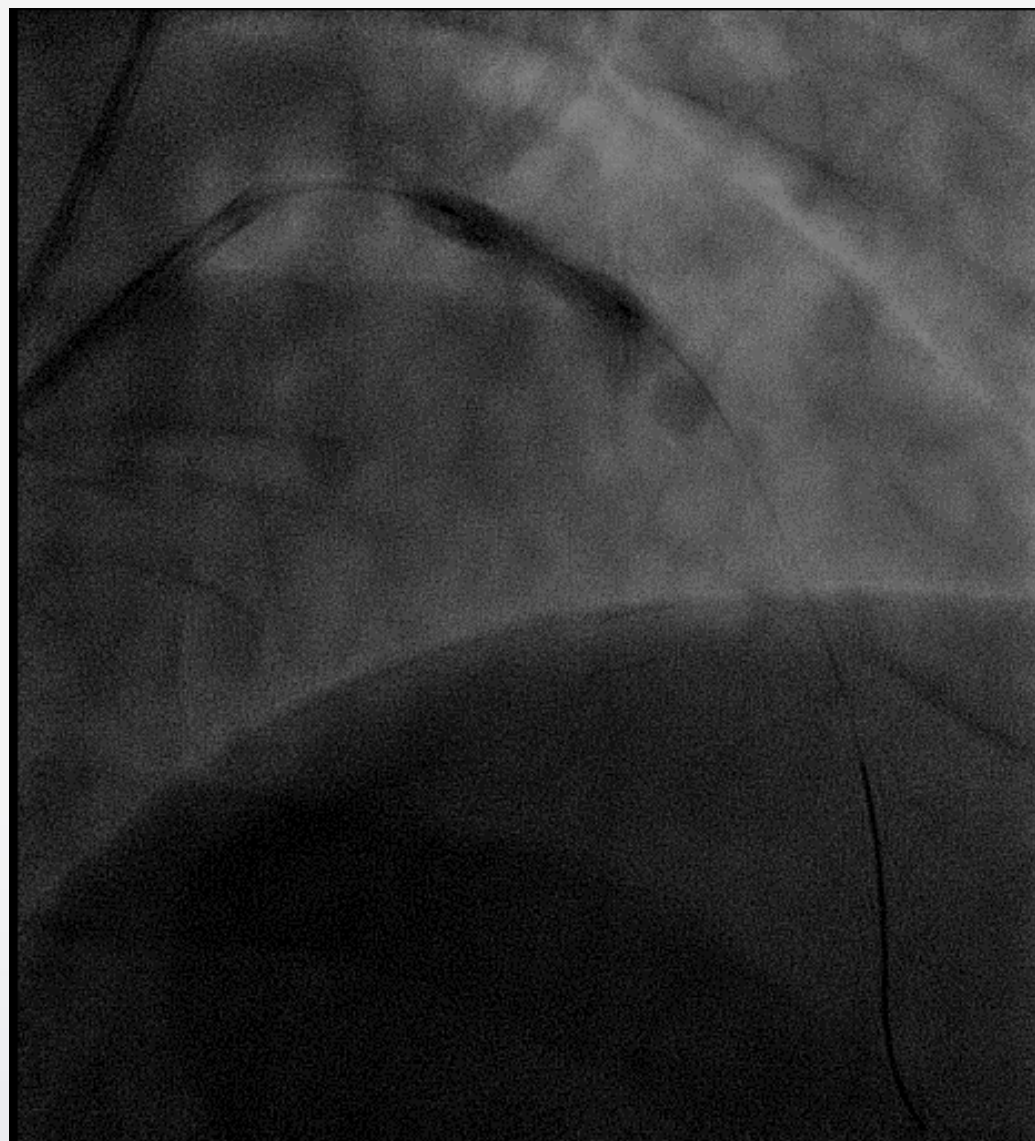




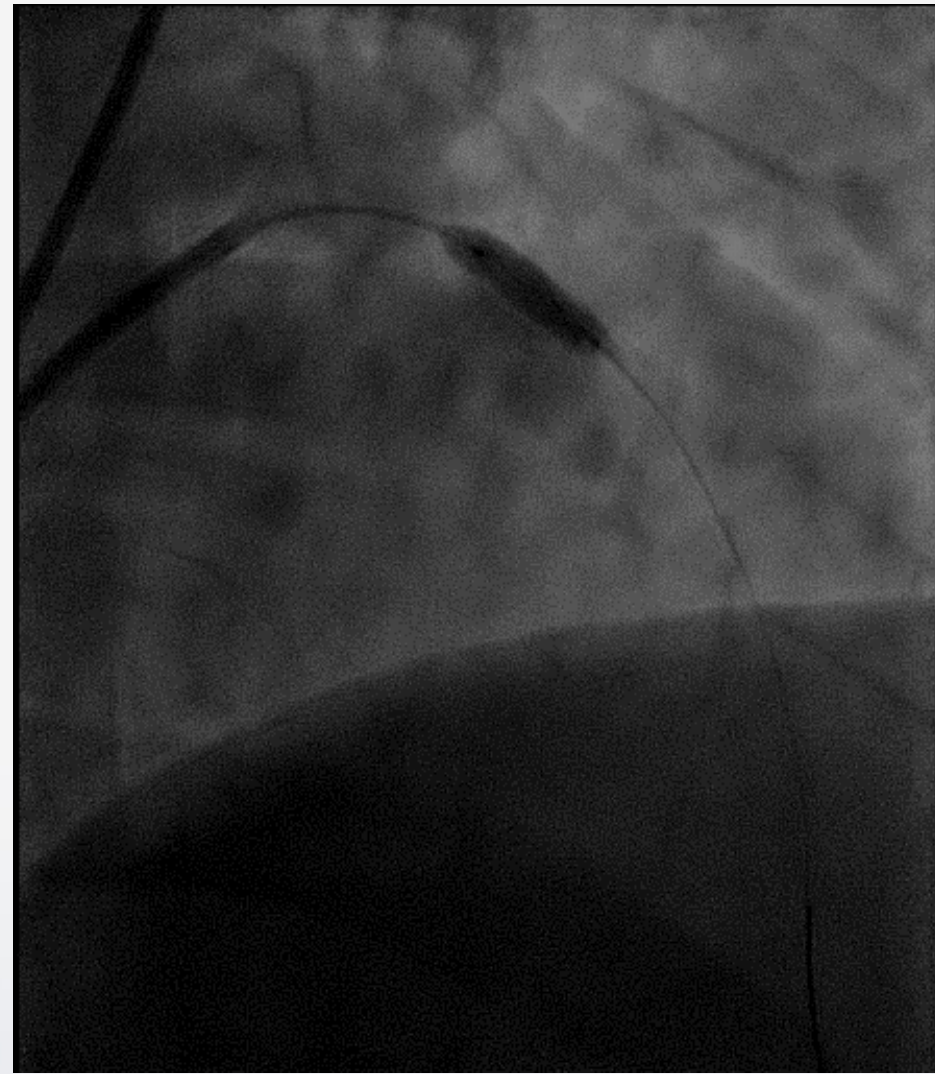
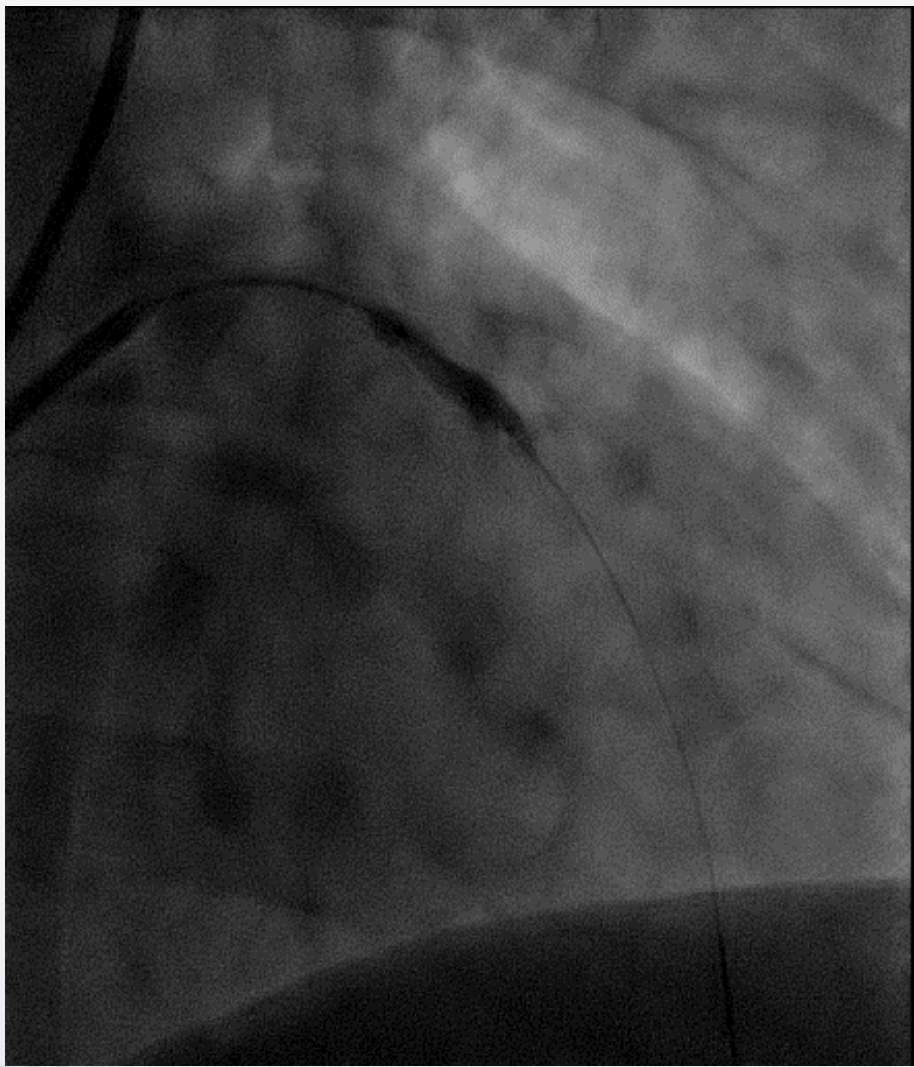
Calcium modification strategy?



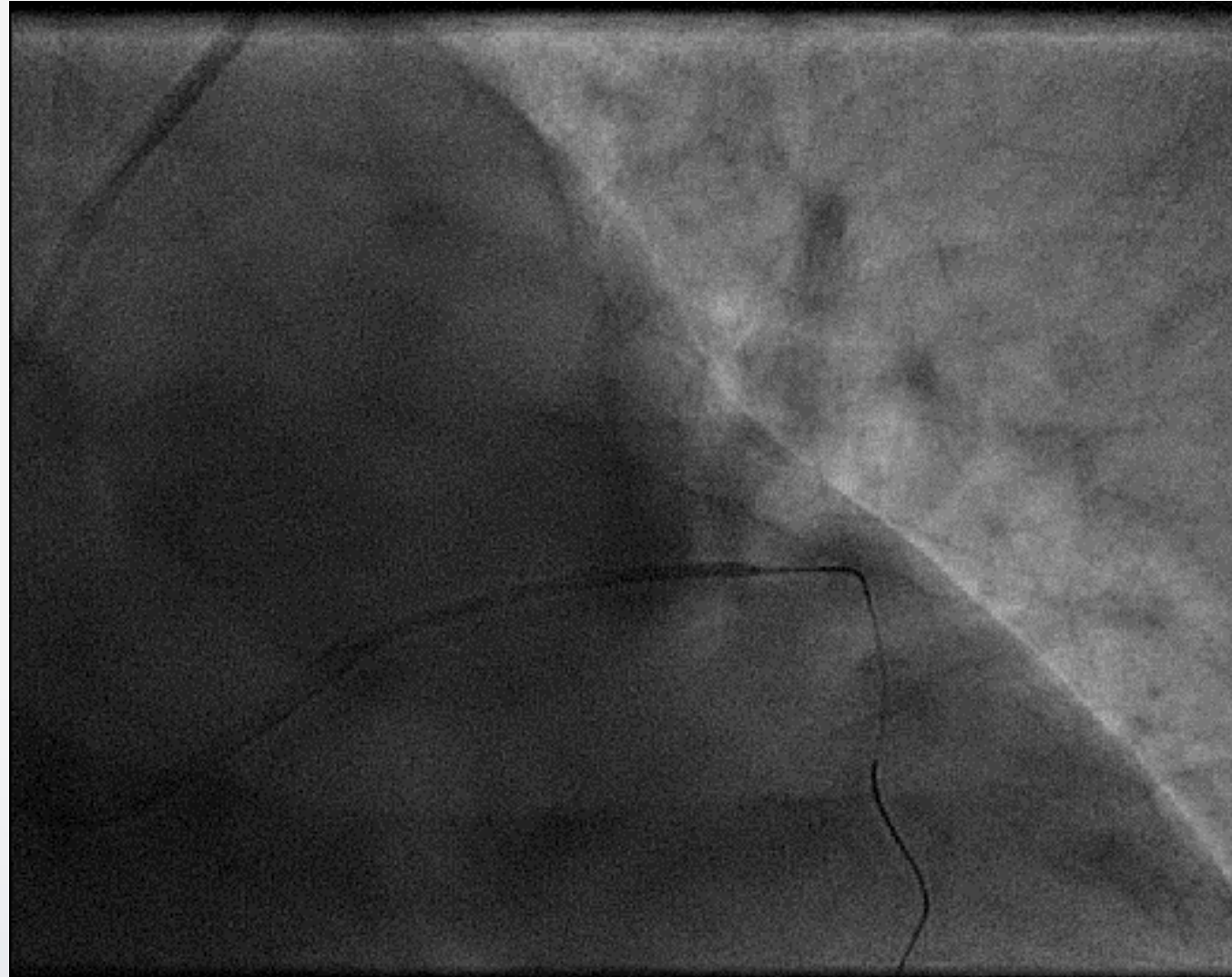
Cutting 4.0 mm



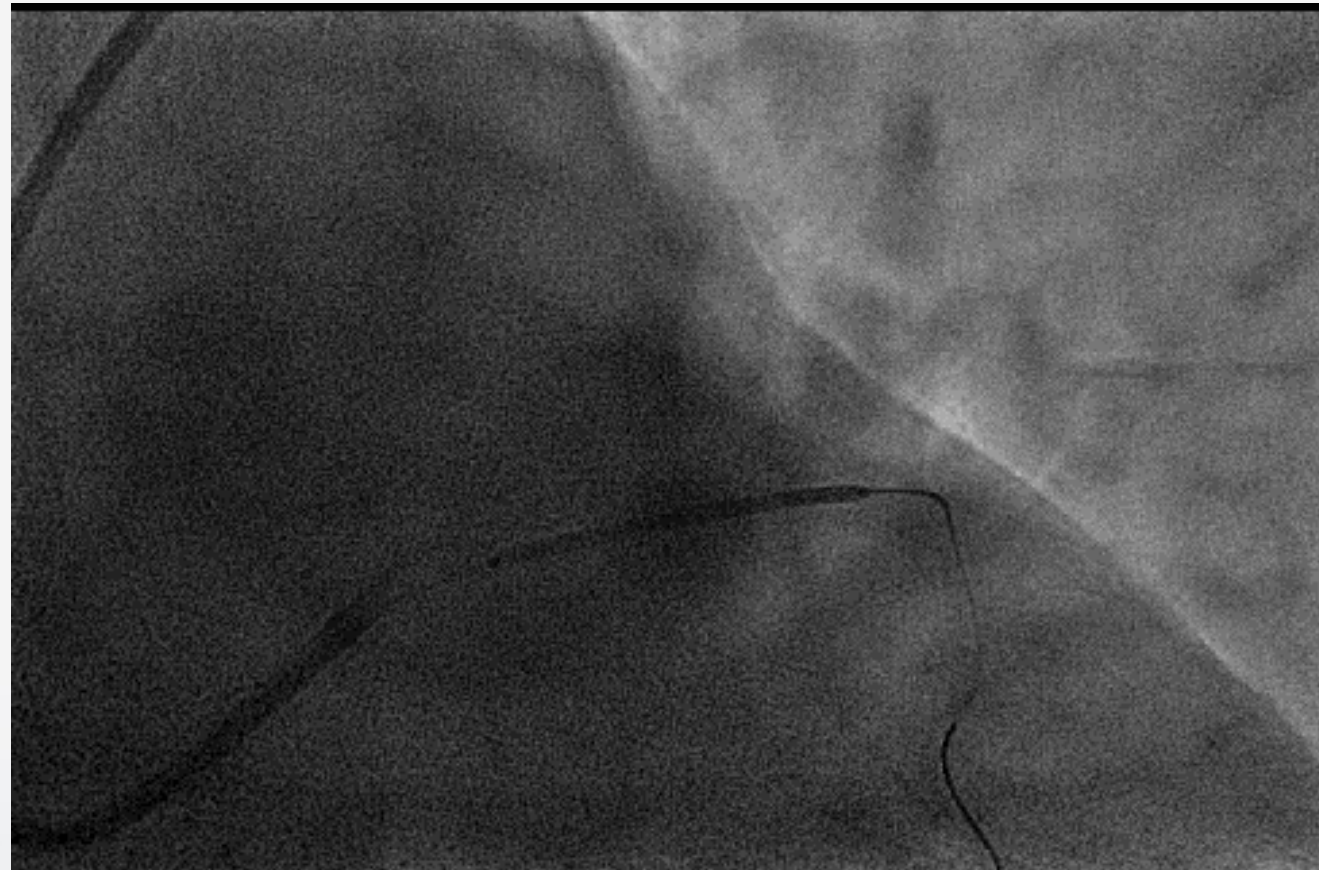
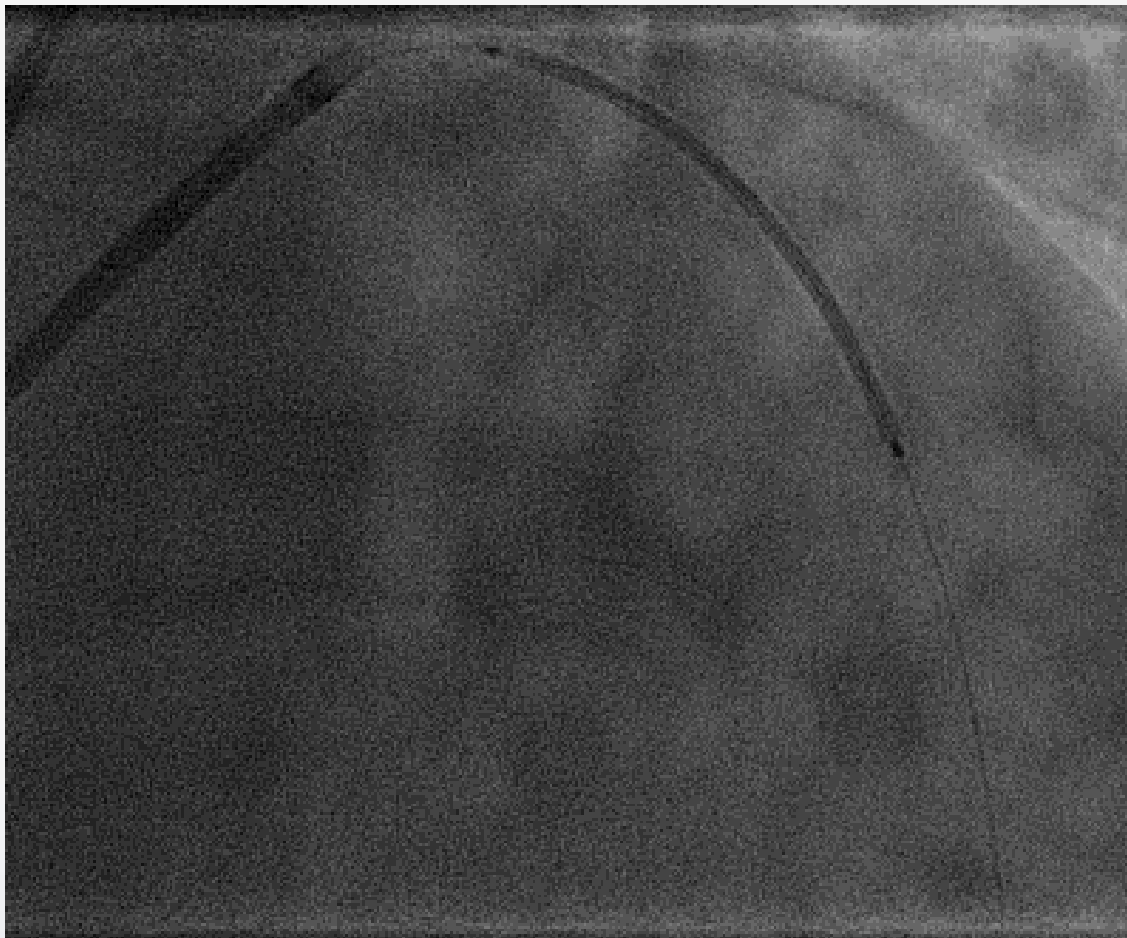
IVL (Shockwave) 4.0 mm



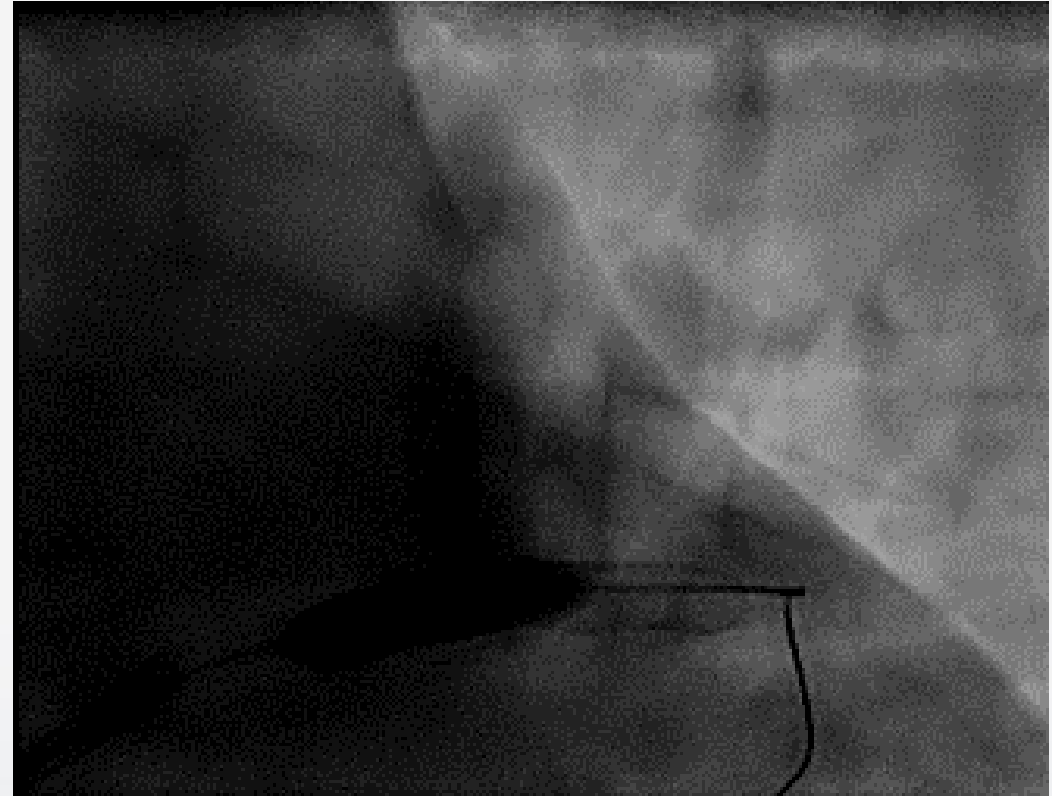
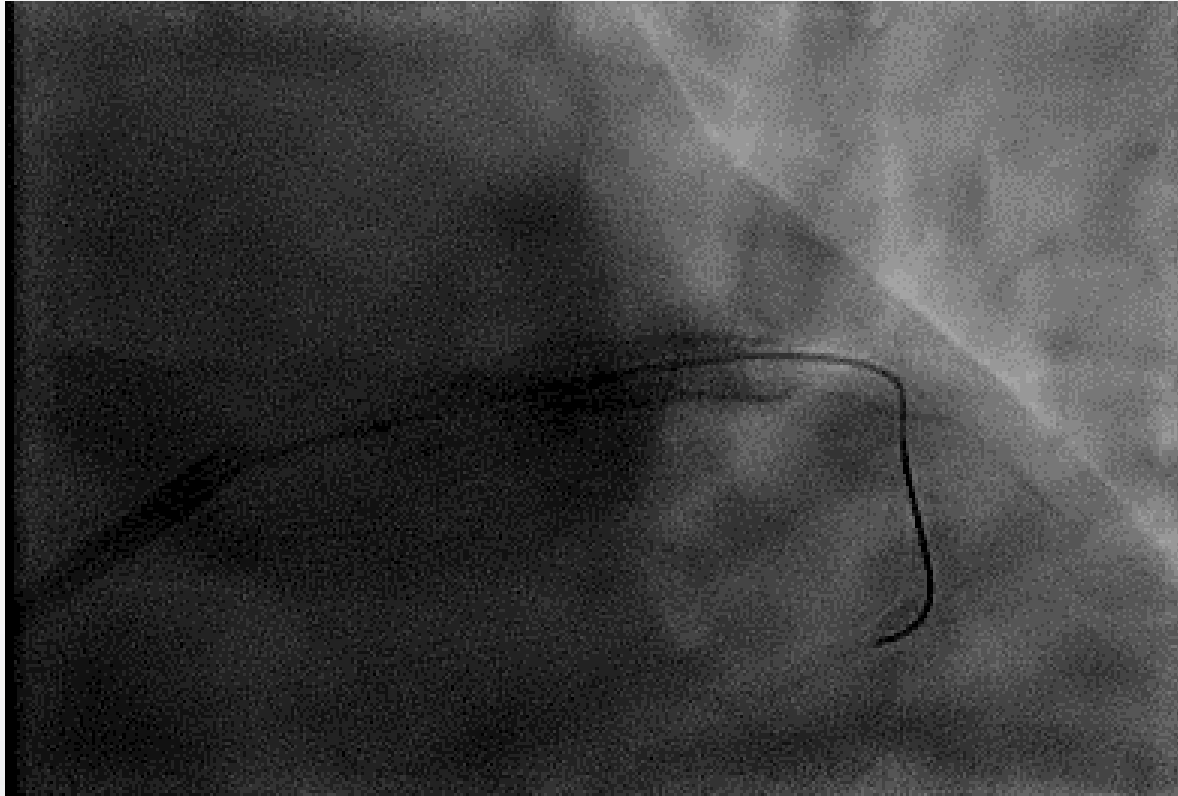
Deliverable stent



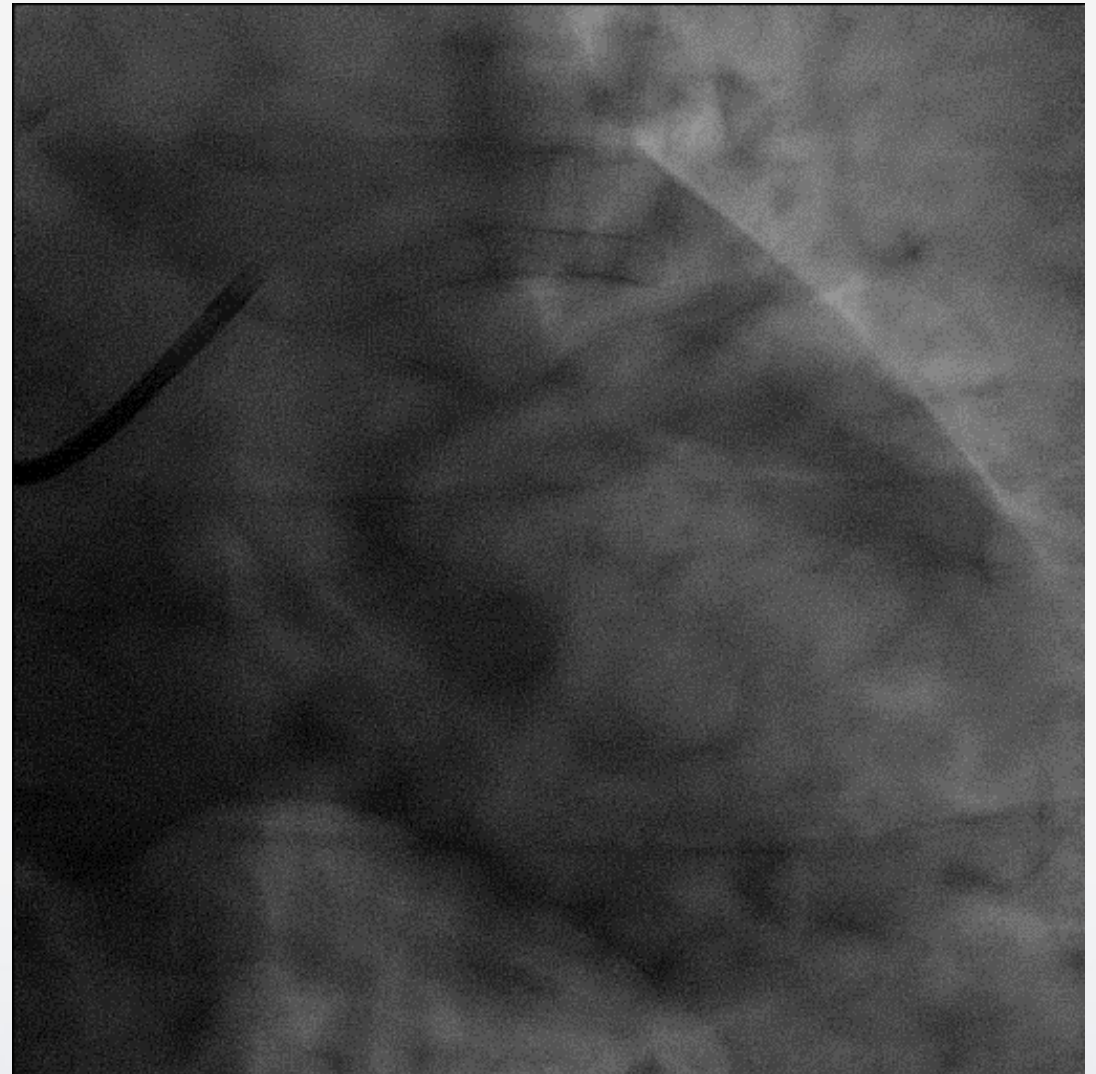
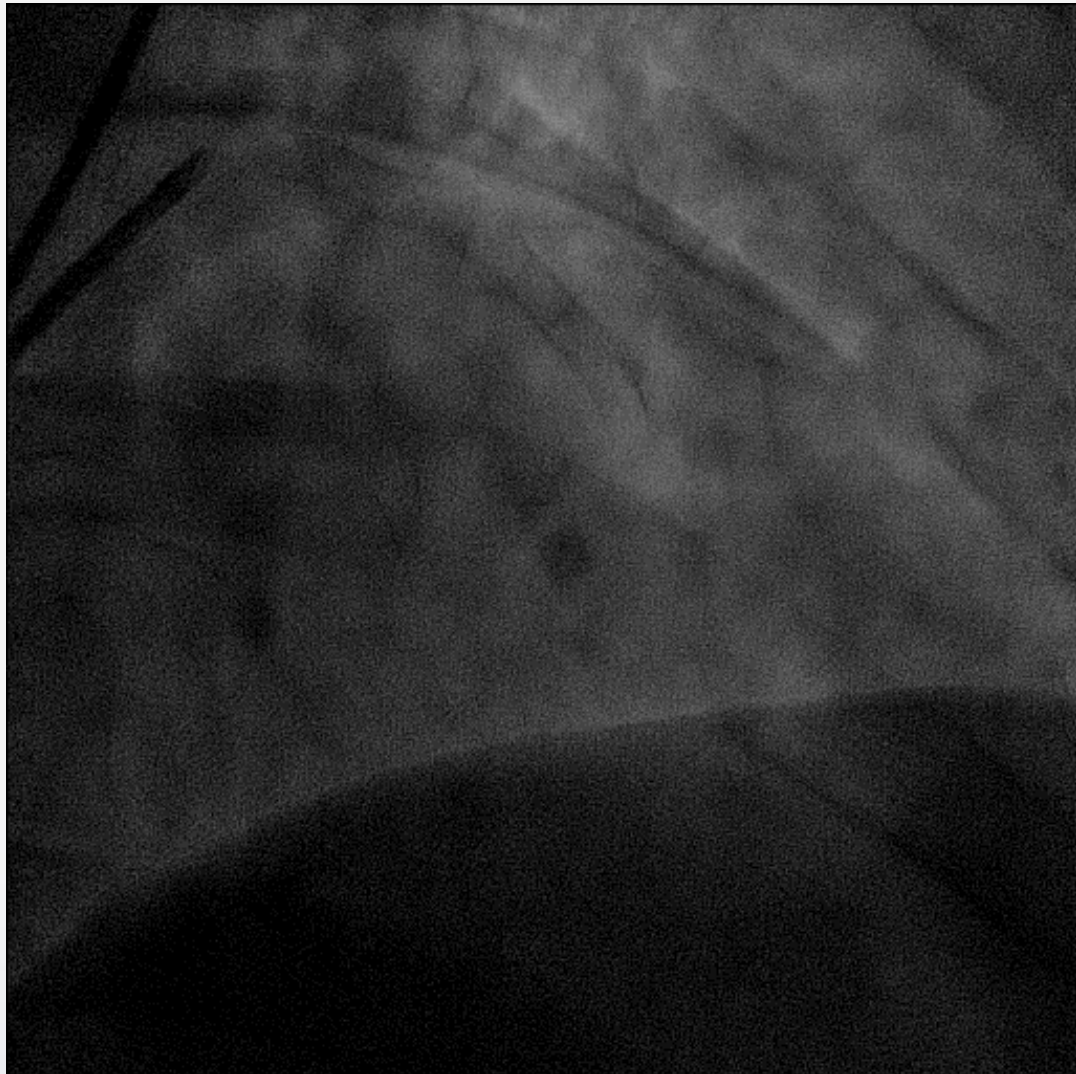
Onyx Frontier 4.0 x 38mm



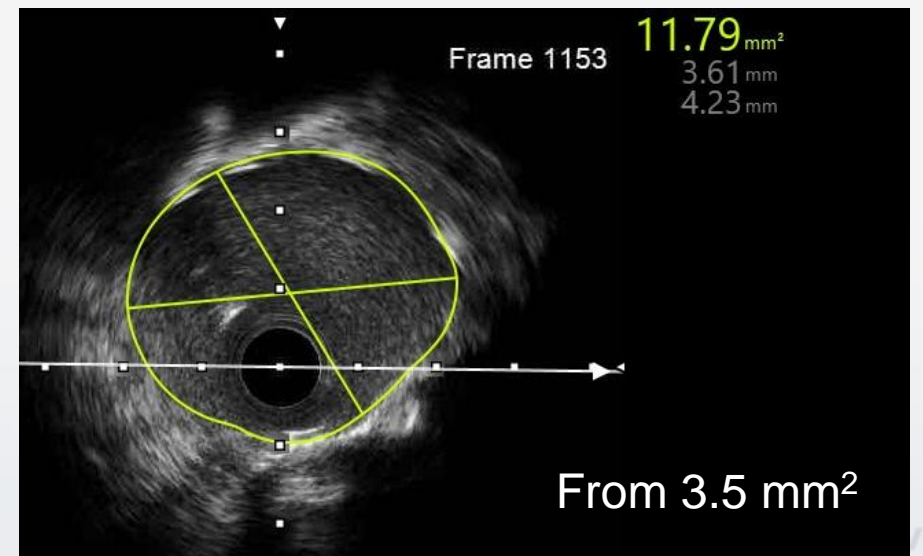
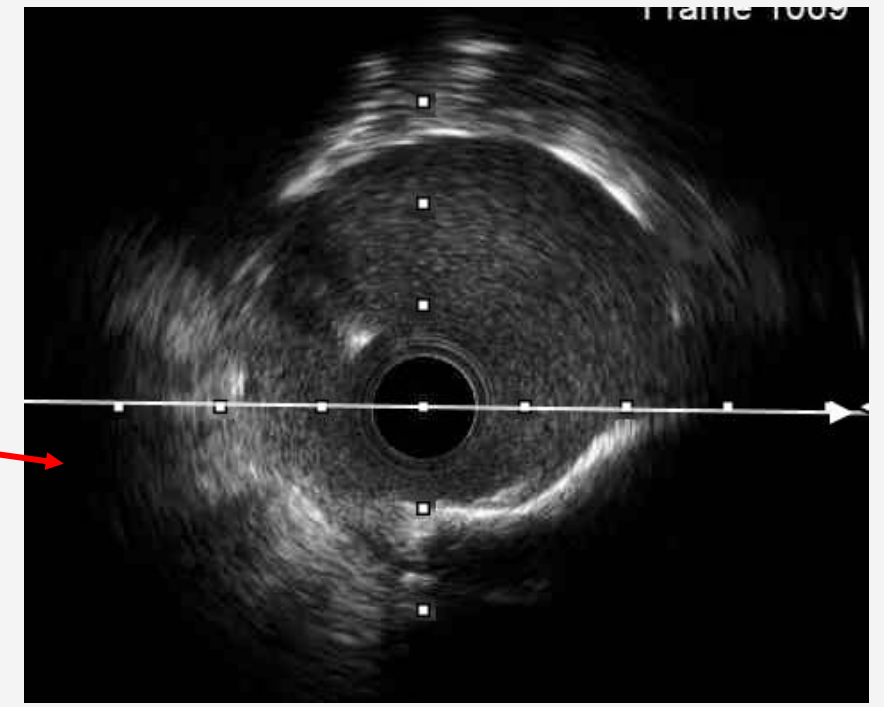
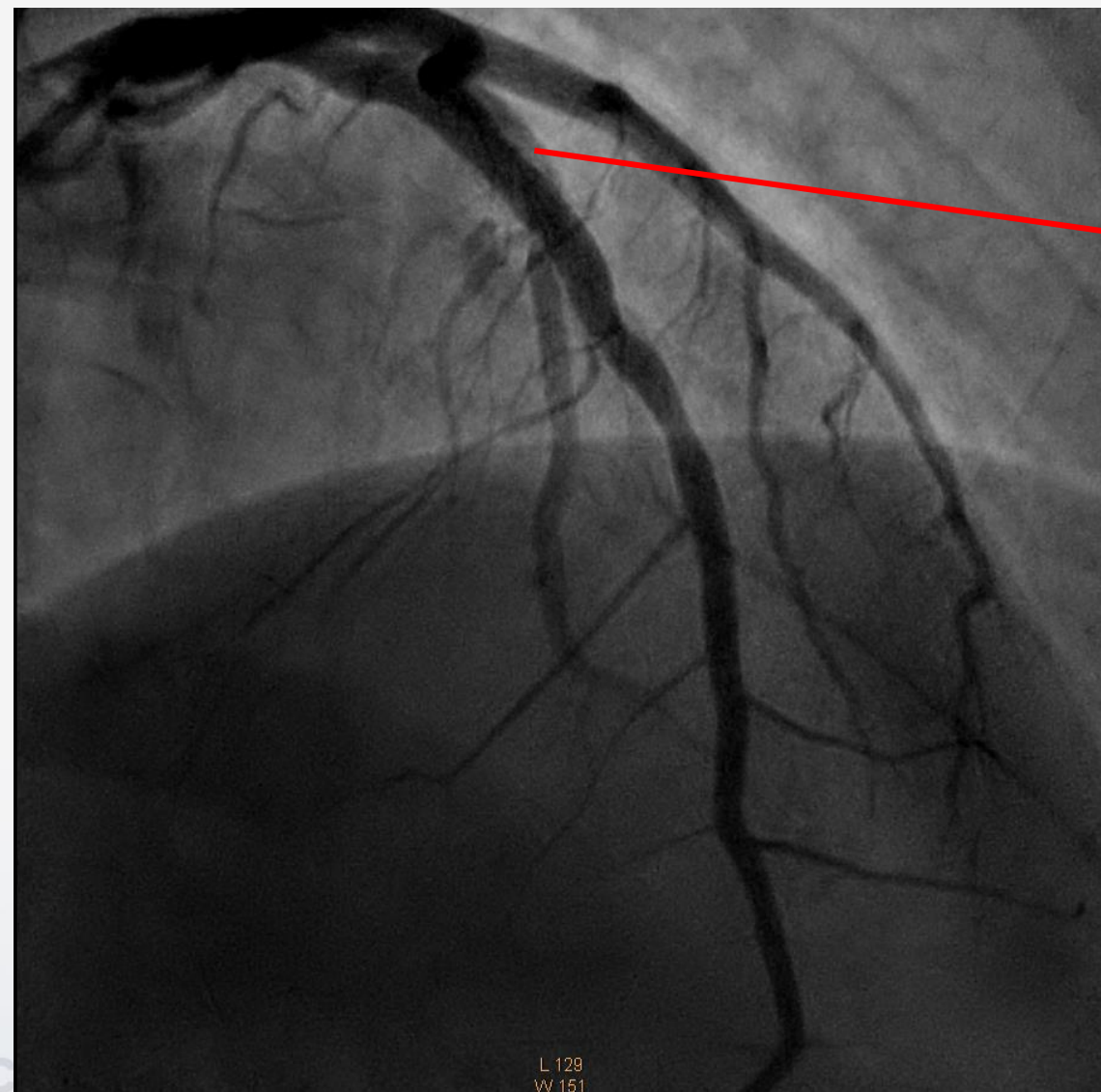
Visible stent (4.5 & 5.0 mm NC)



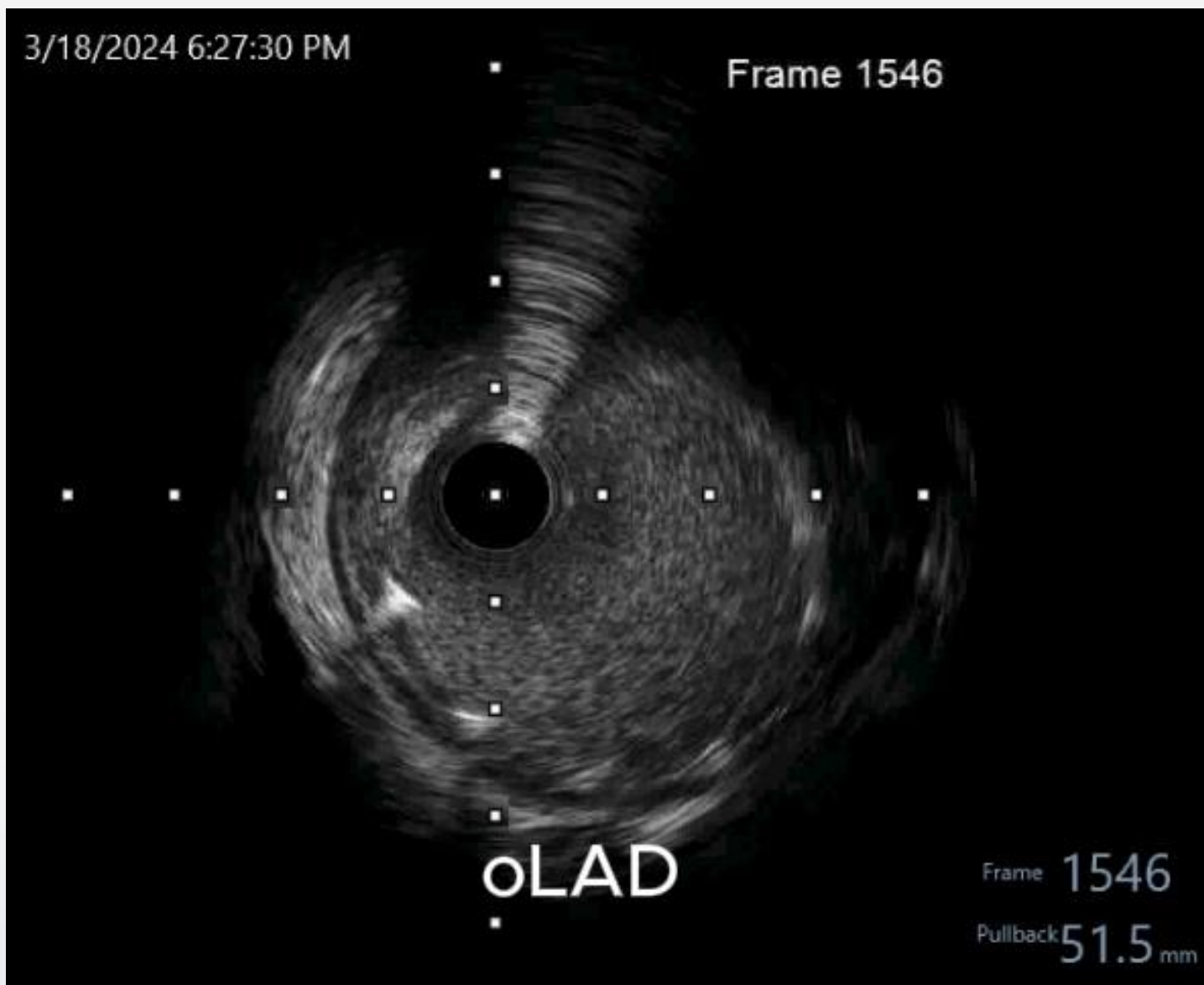
Final results



Final IVUS



'Nailing the ostium?'




What I wish I had done – sleeker way

DOI: 10.1002/ccd.29830

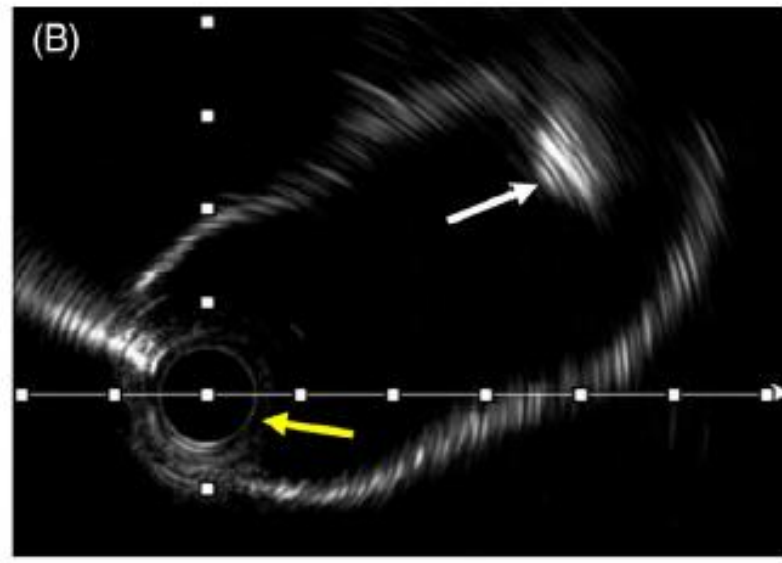
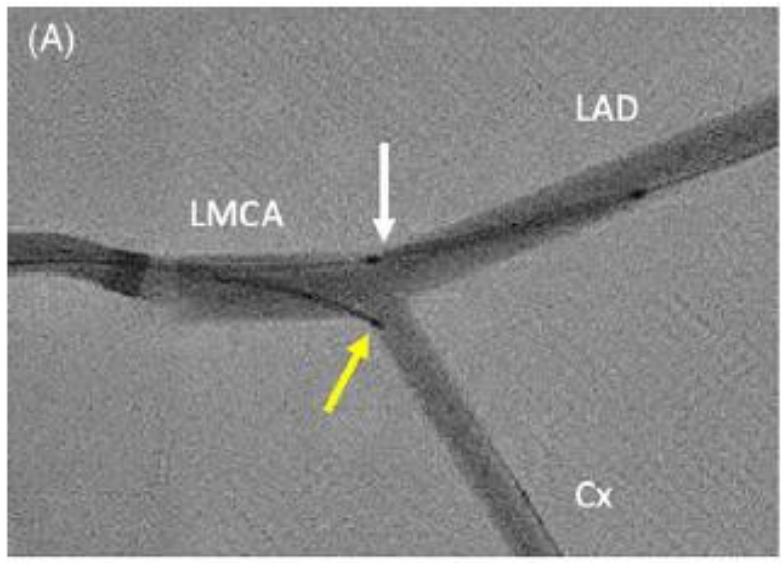
ORIGINAL STUDY

WILEY

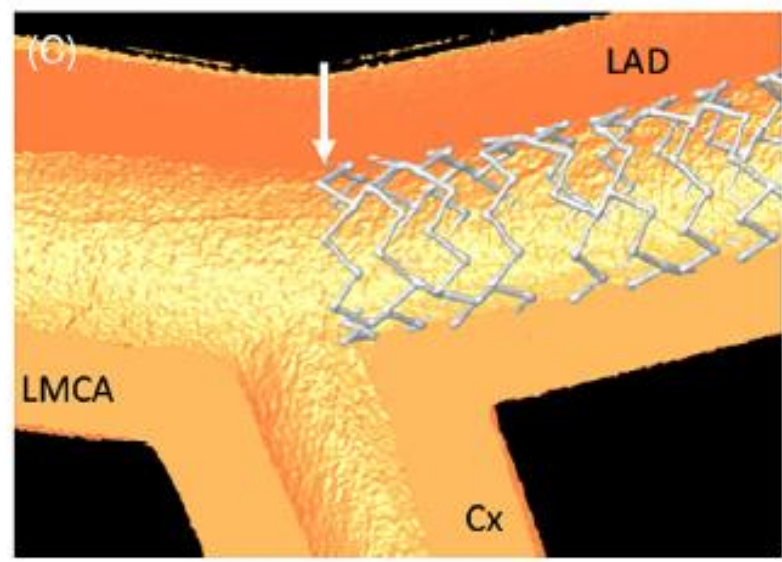
Real-time intravascular ultrasound guidance: A novel technique for accurate placement of ostial stents

Scott A. Harding MB ChB¹ | Bruce Webber MHSc² |
Sarah Fairley MBBChBAO, PhD¹  | John A. Ormiston MBChB²

Live IVUS oLAD stenting in a nutshell



7F EBU
5F IVUS Boston



Conclusion

- Medtronic has made the better even better
 - Crossing profile
 - Catheter flexibility
- Trust imaging for calcium modification – does not lie
- Nailing the oLAD – real time imaging can help