

Right Case, Right Stent Resolute Onyx in Complex PCI

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Disclosure

- None

Complex PCI

CHIP (Complex, High-risk, Indicated PCI)

Complex PCI Defined as Any of the Following Characteristics:

Three Vessels
Treated



Three Lesions
Treated



Three Stents
Implanted



≥60 mm Stent
Length



Bifurcation
with Two Stents



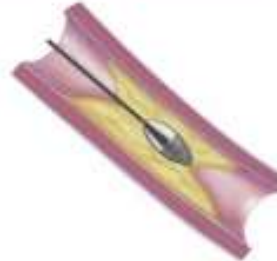
Left Main PCI



CTO PCI



Use of Atherectomy



Bypass Graft PCI



Resolute Onyx

Single Wire Design
Increased conformability and apposition



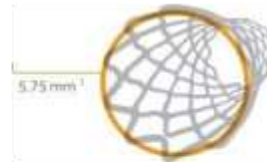
Truly Rounded Struts
Easier side branch access



Platinum Iridium Core
Enhanced visibility for precise stent placement

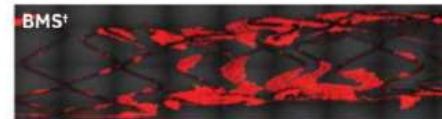


Broadest Size Matrix
Optimized deployment and expansion



BioLinx™ Polymer

Offers superior thromboresistance⁴

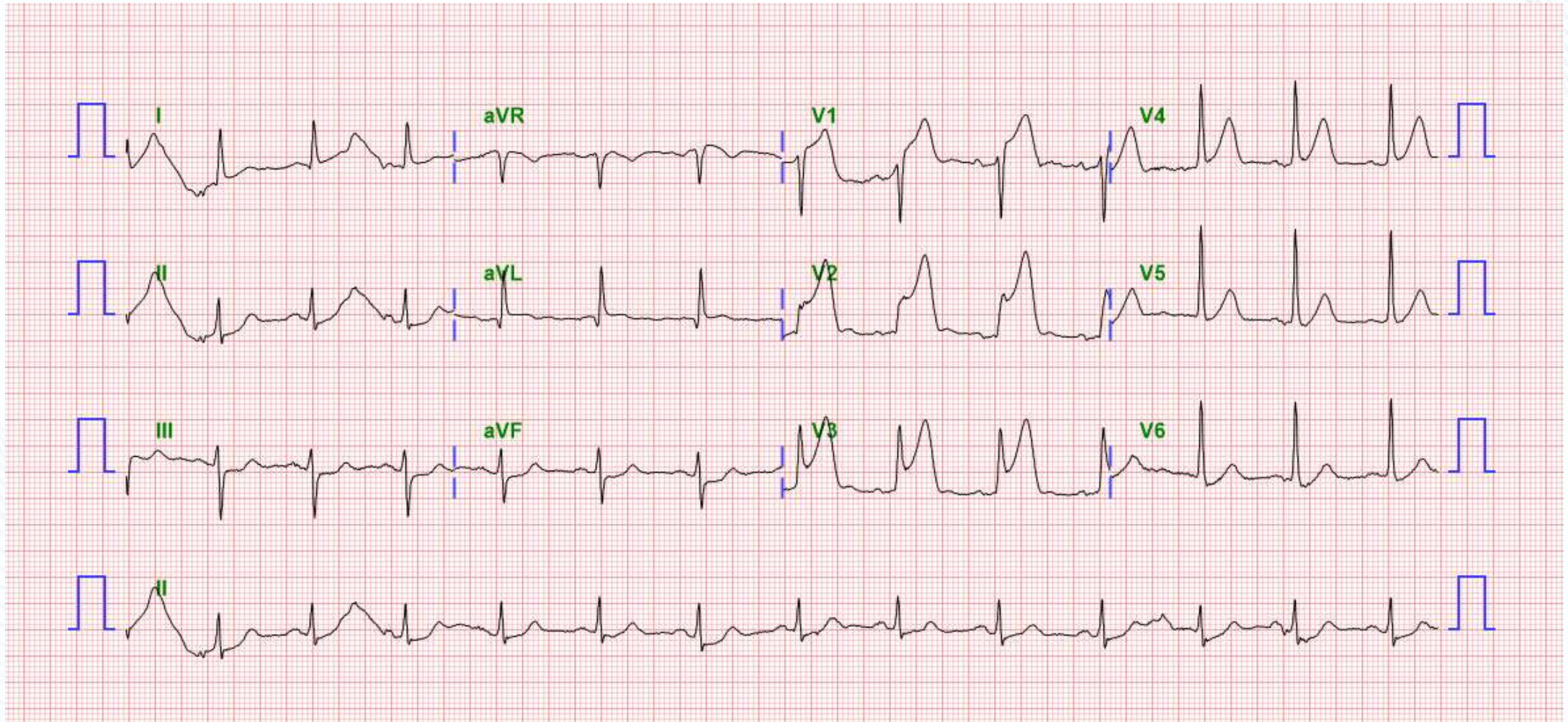


Less fluorescence (red) is better

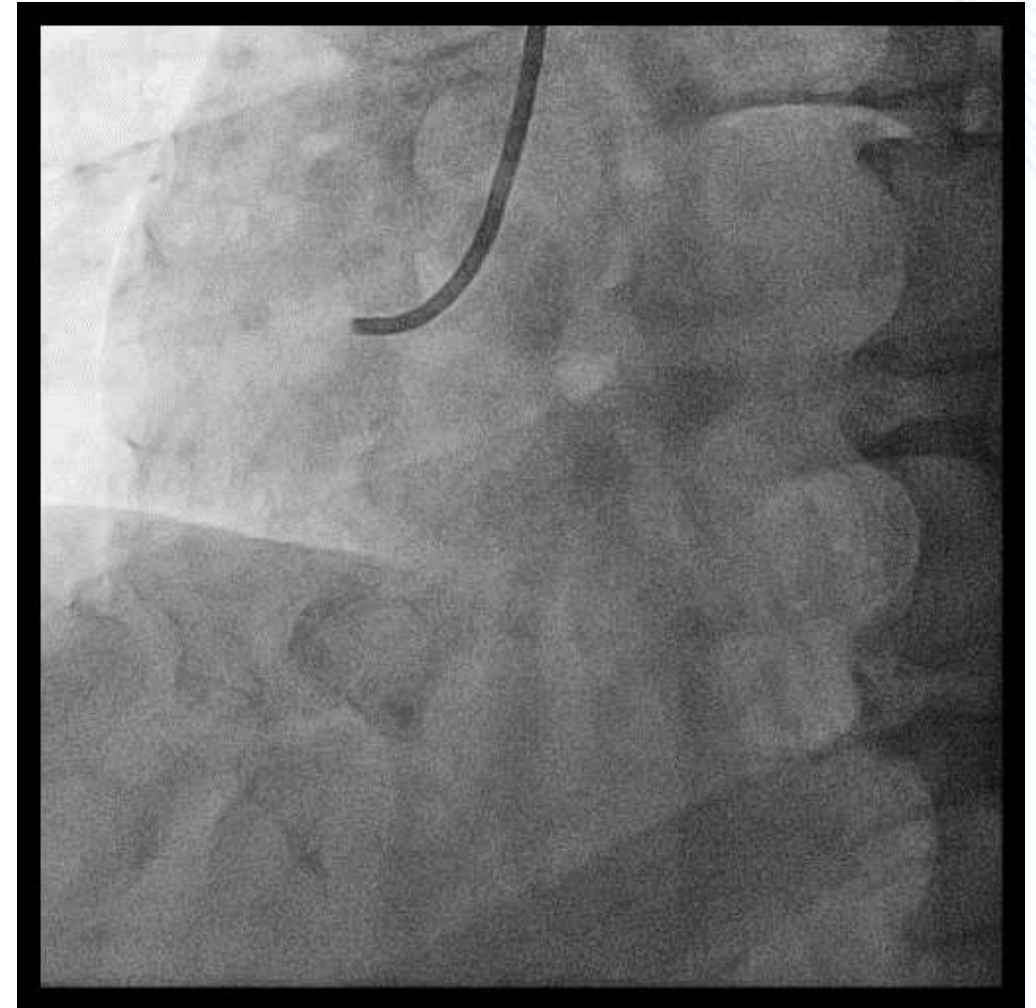
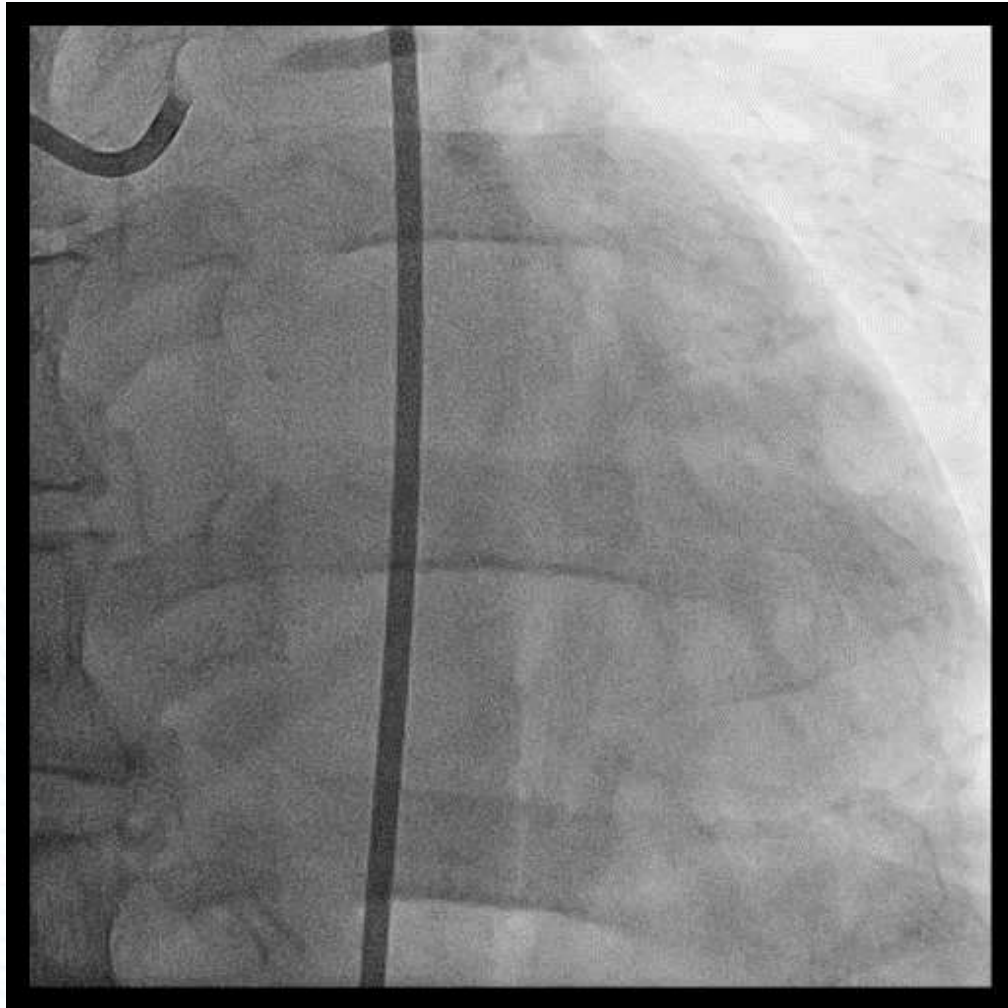
Combined, these elements promote fast healing evidenced by nearly 90% strut coverage at 30 days.⁵



57-year-old male with STEMI

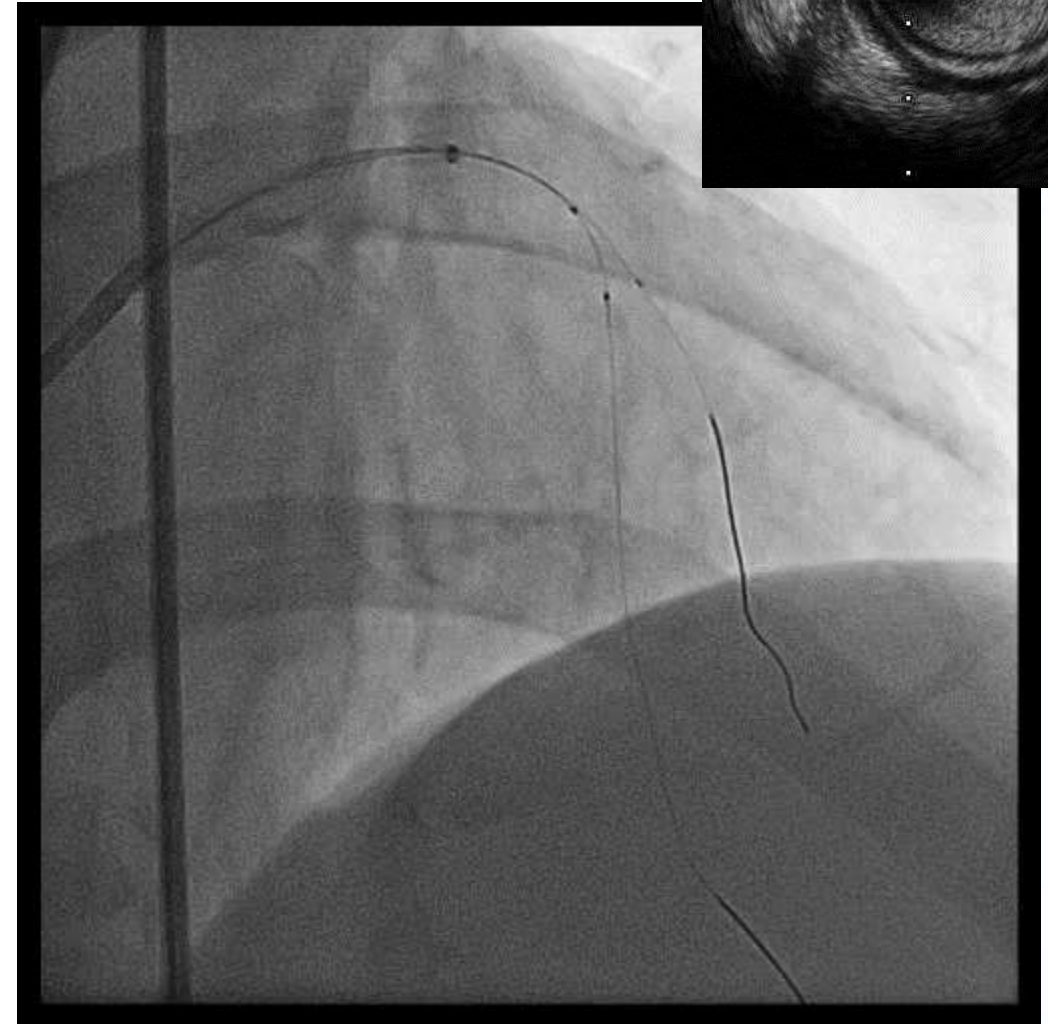
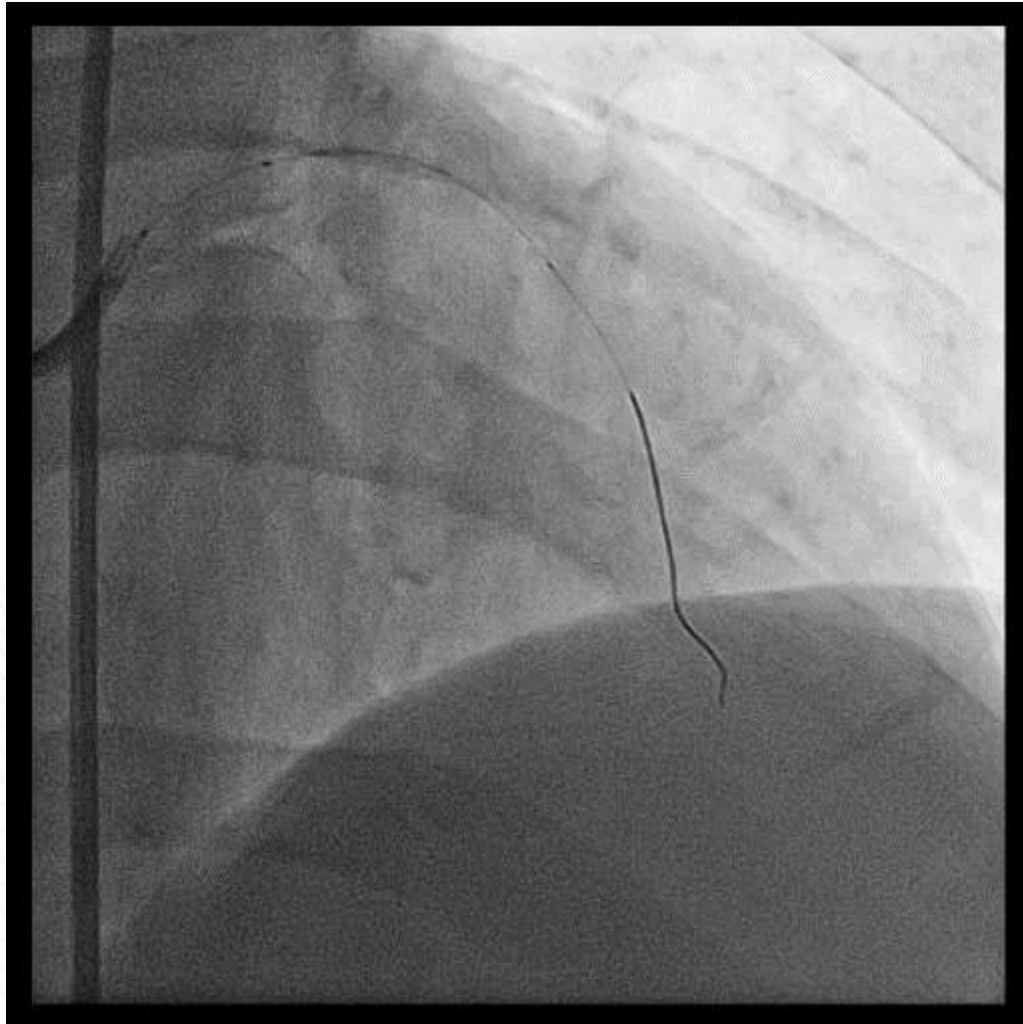
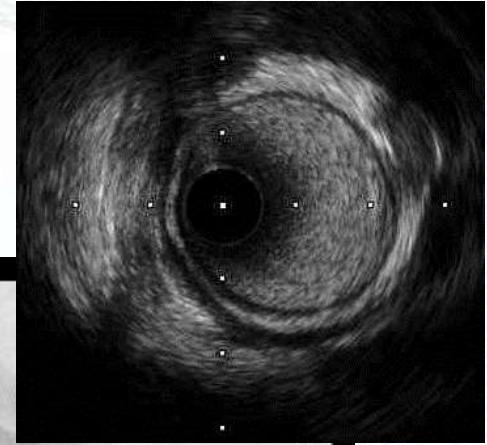


Coronary angiography

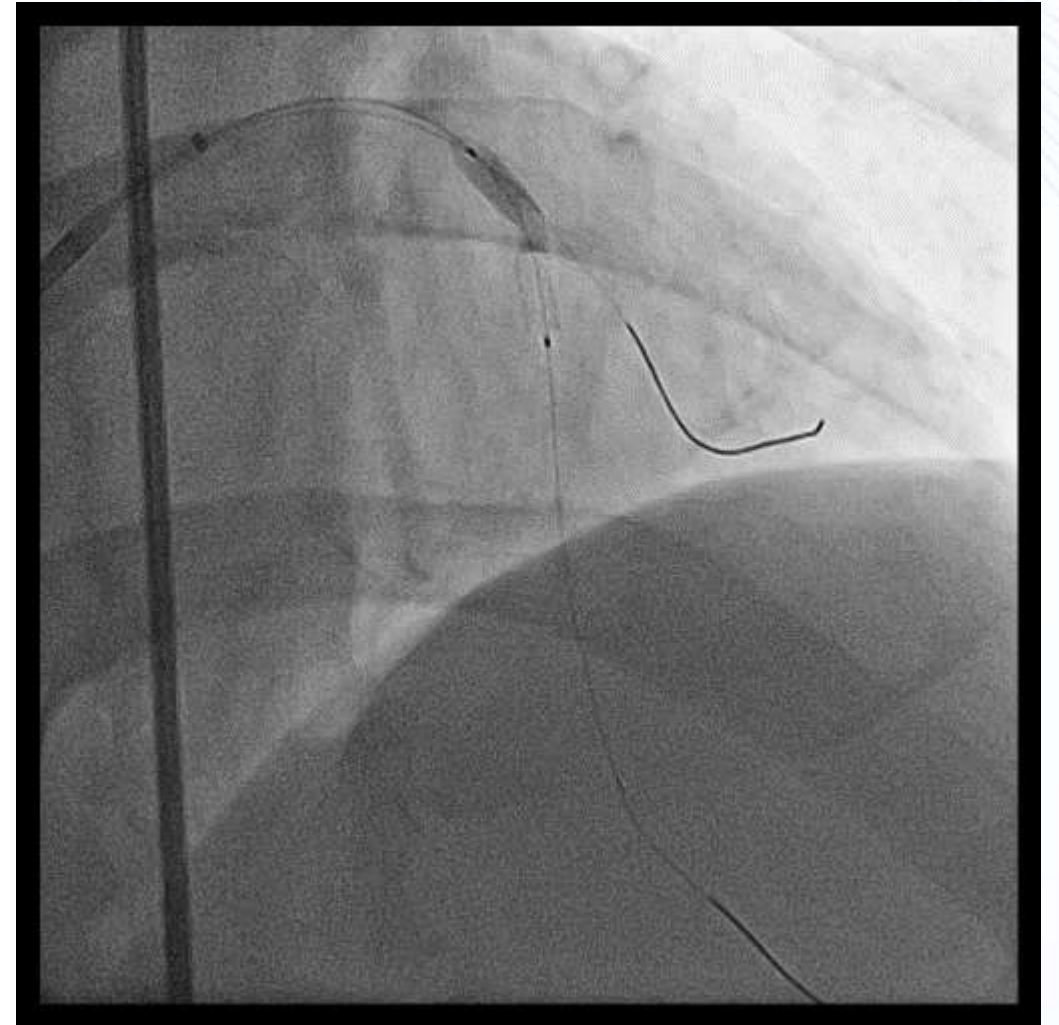
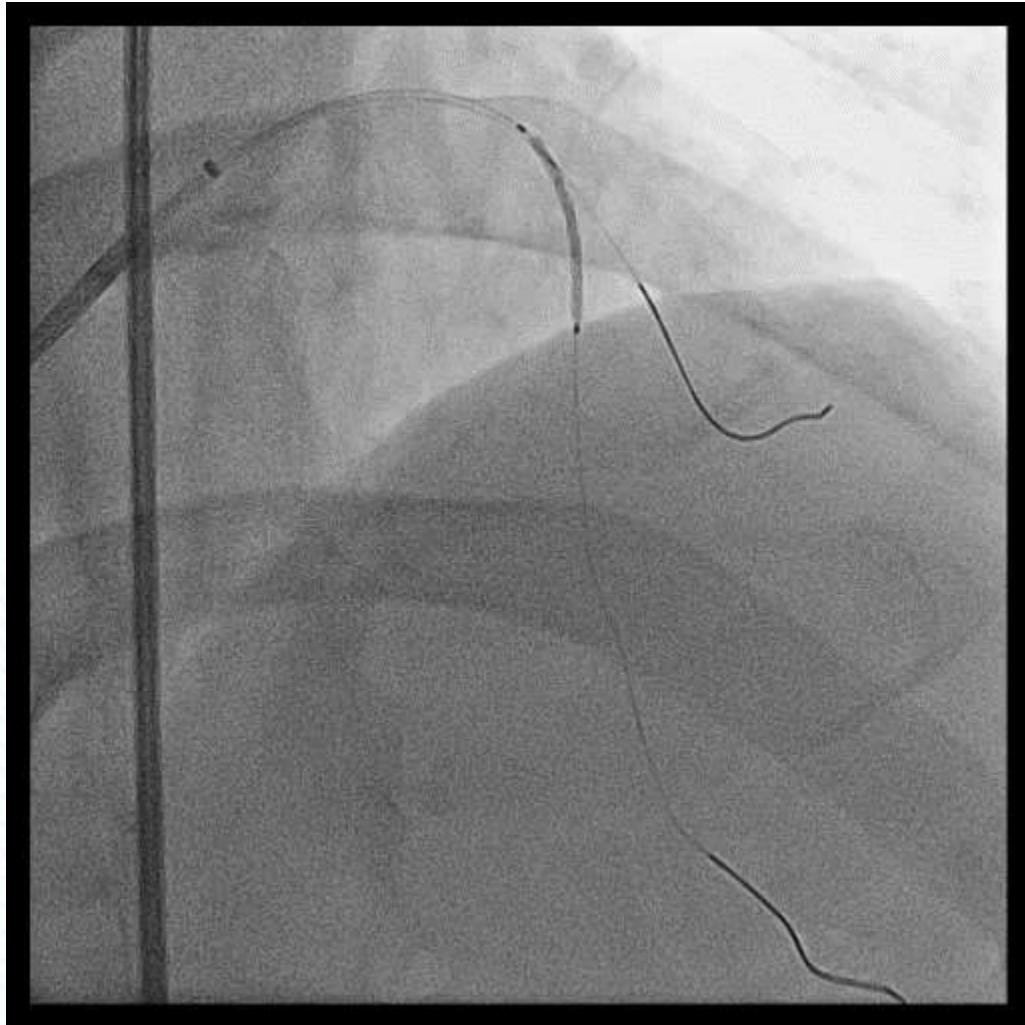


Wire passage & POBA

Sion / BMW in Dg / LAD, Euphora 2.5 x 15mm,

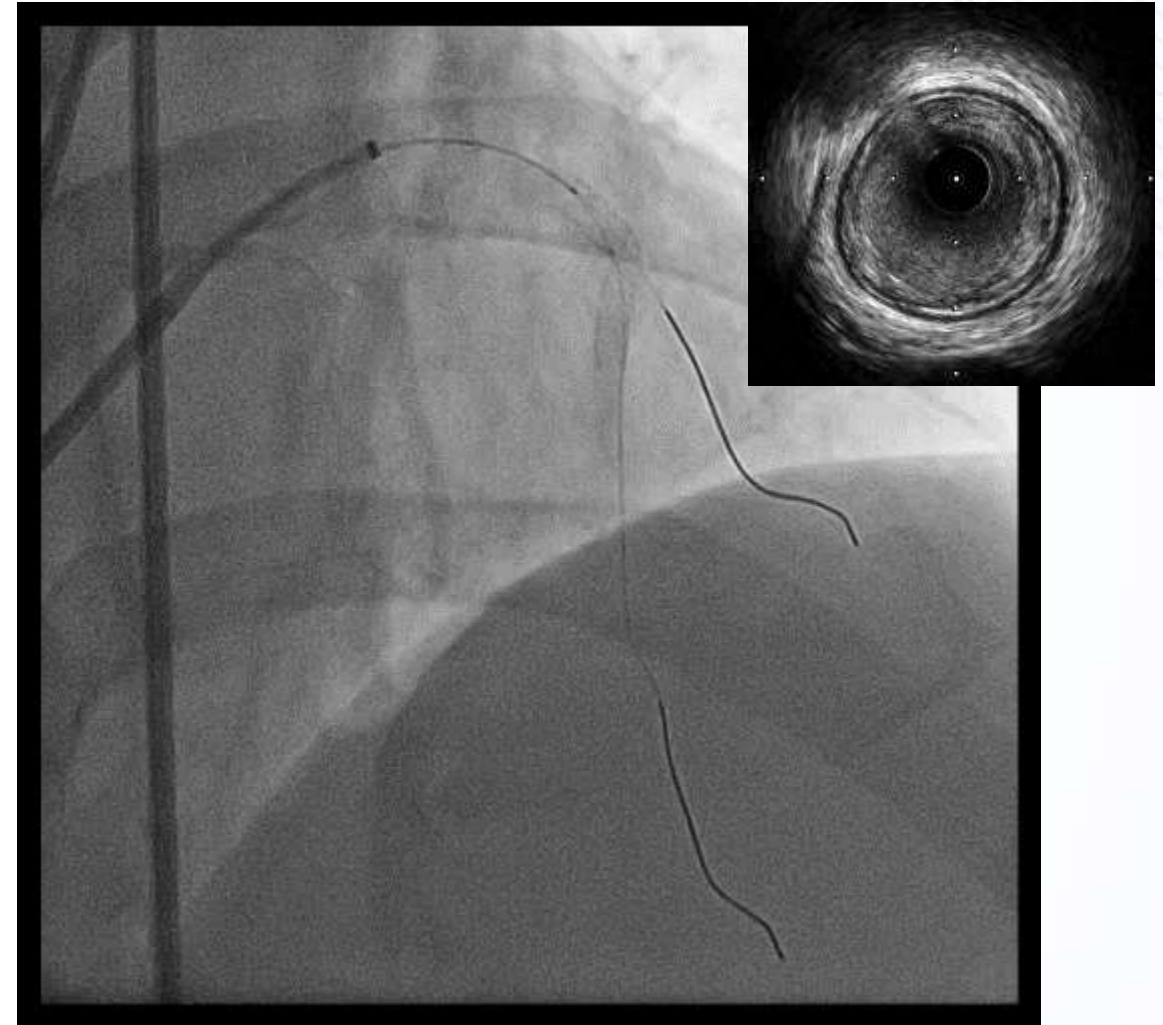
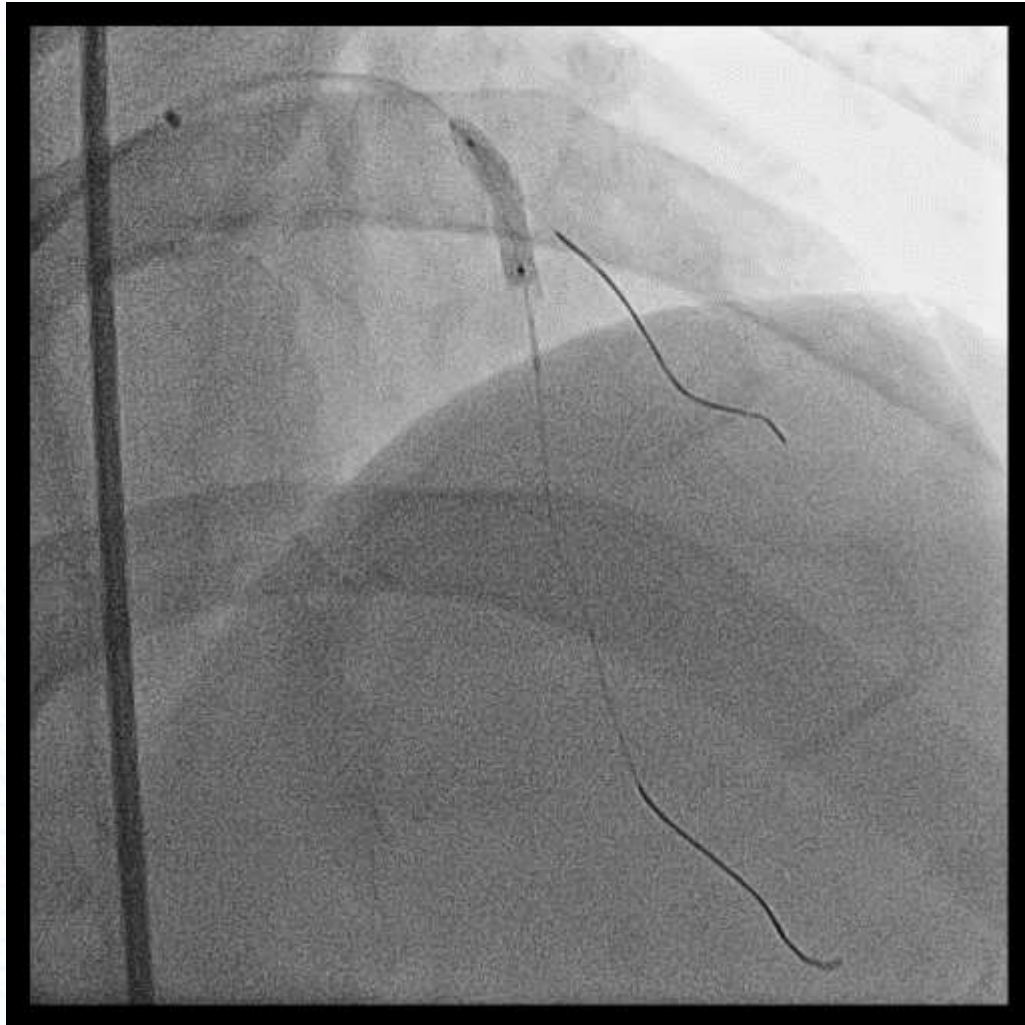


Resolute Onyx 3.5 x 18mm in p-mLAD



Adj. ballooning with 3.5 x 15mm NC balloon

Big Dg ostium was compromised (aggravating pain even with TIMI 3 flow)

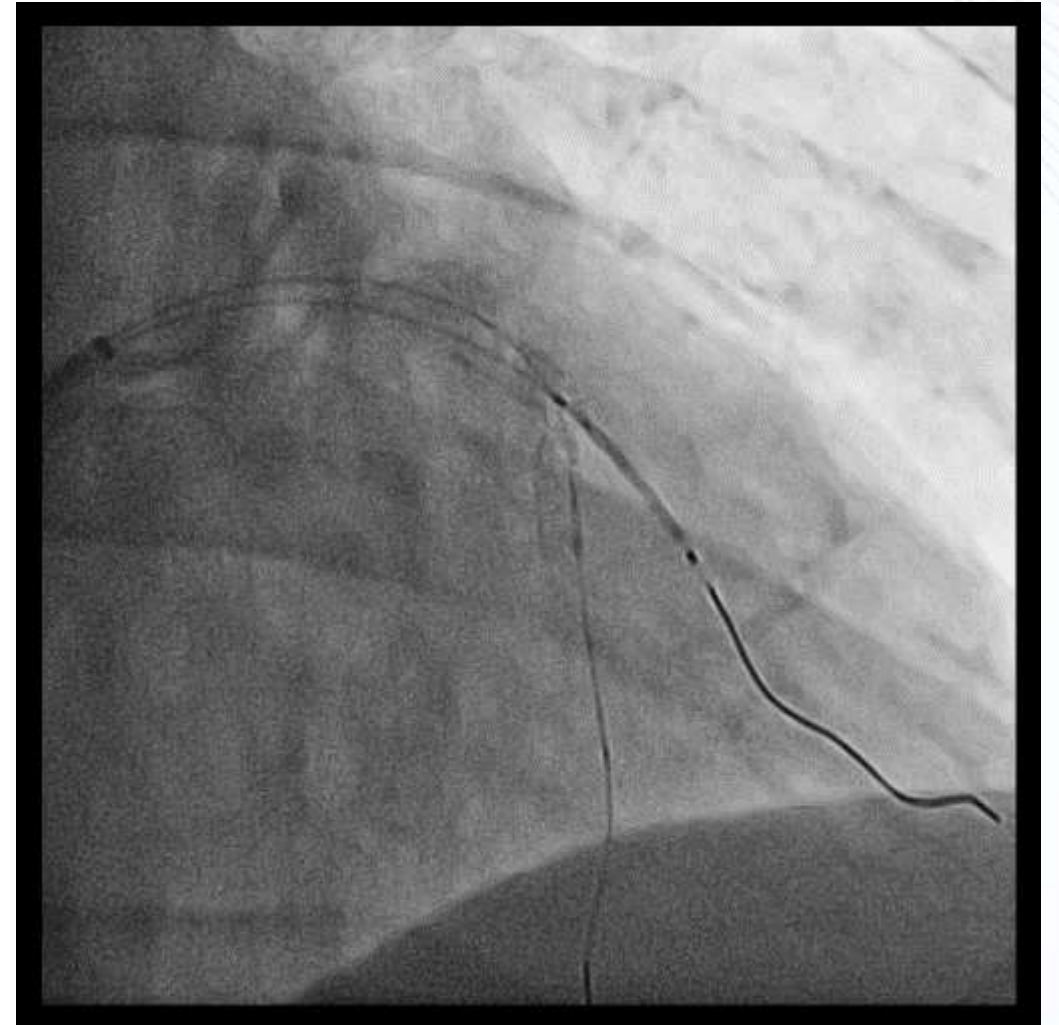


POT → Provisional T-stenting

POT with 3.5 x 15mm NC balloon

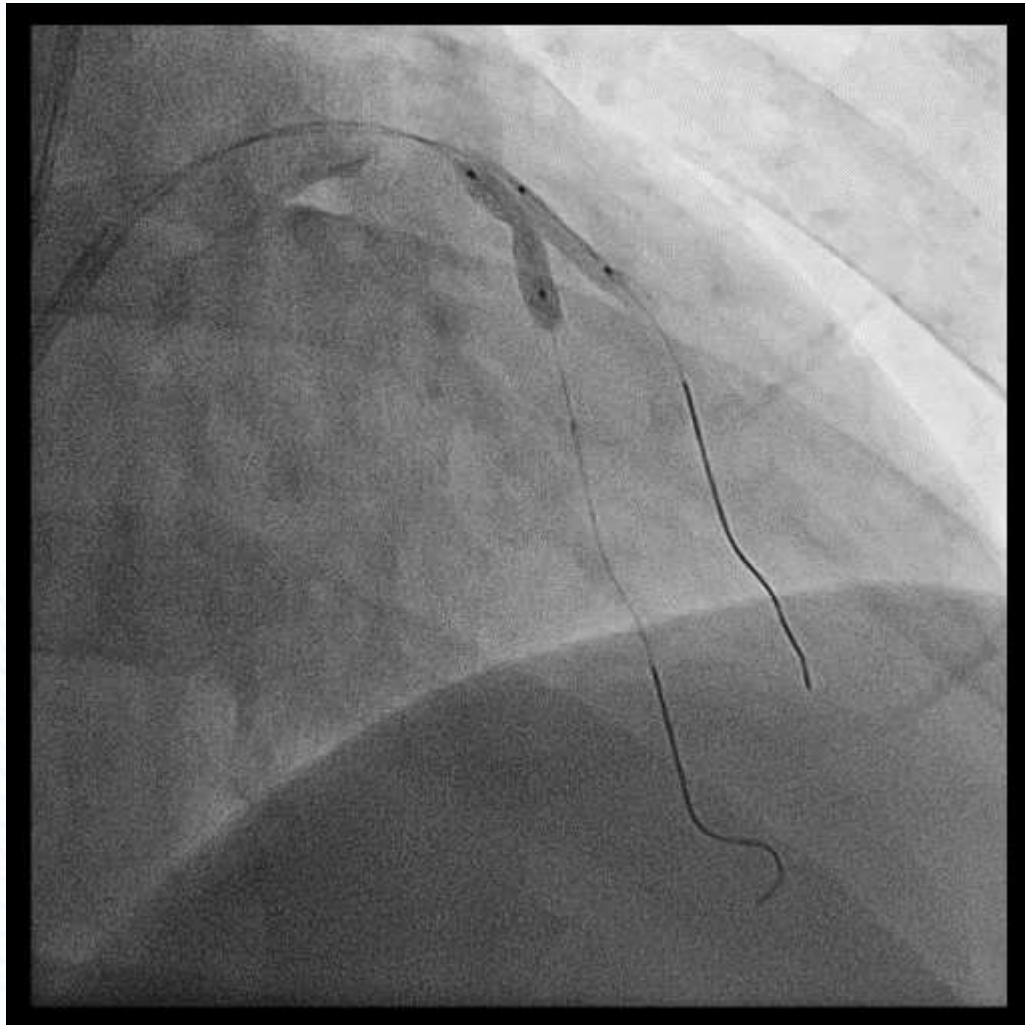


Resolute Onyx 2.5 x 12mm

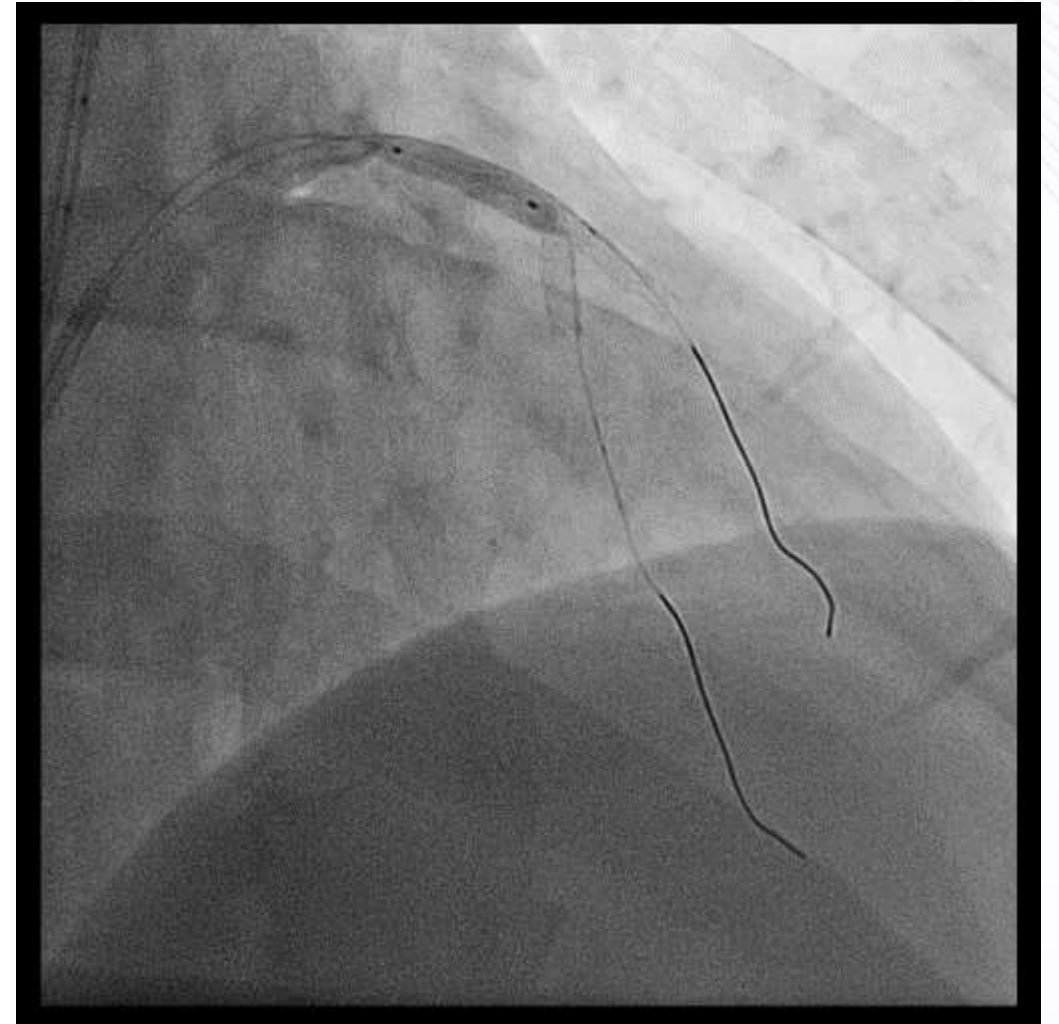


Kissing balloon inflation → rePOT

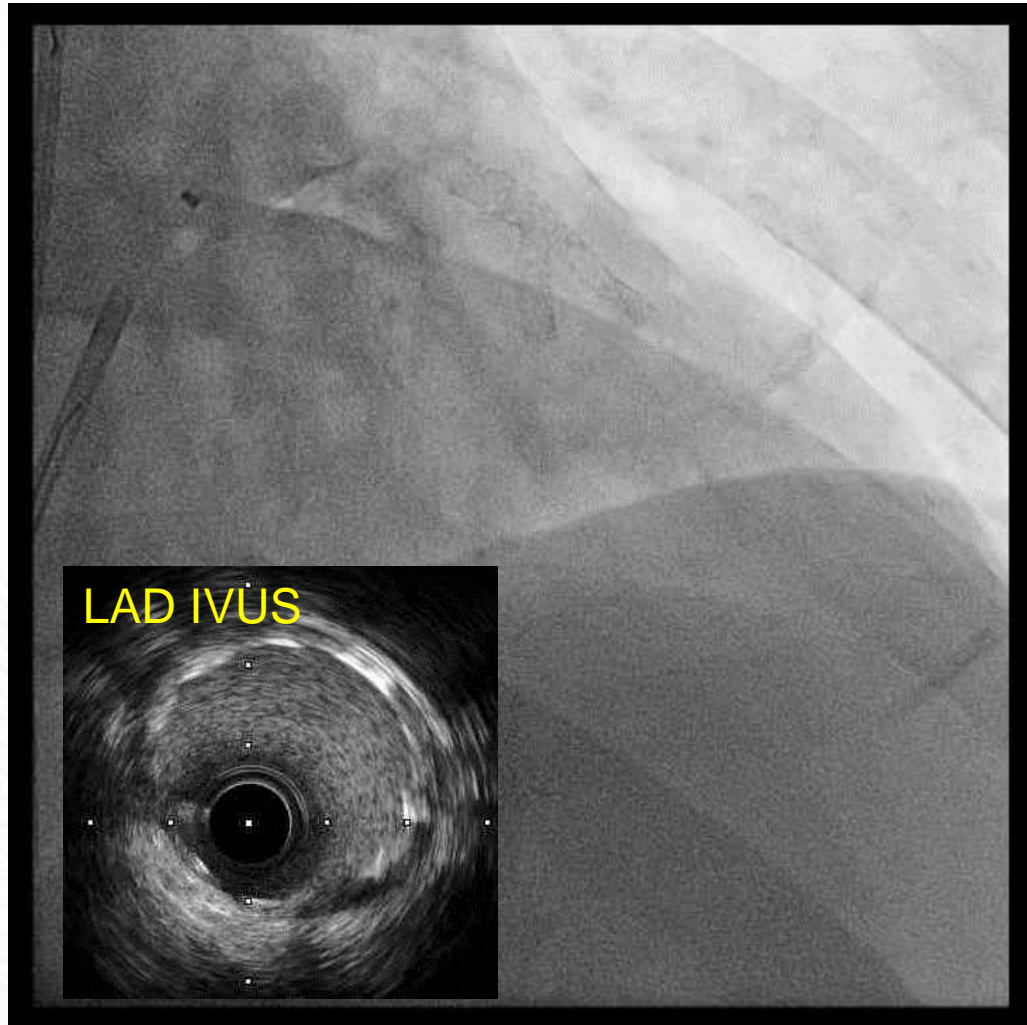
KBI with 3.5 x 15mm, 2.5 x 12mm NC balloons



Final POT with 3.5 x 15mm NC balloon



Final angiography



Follow-up

- Doing well
- On aspirin, ticagrelor for a year
→ changed to clopidogrel SAPT after 12 months

74-year-old female with unstable angina

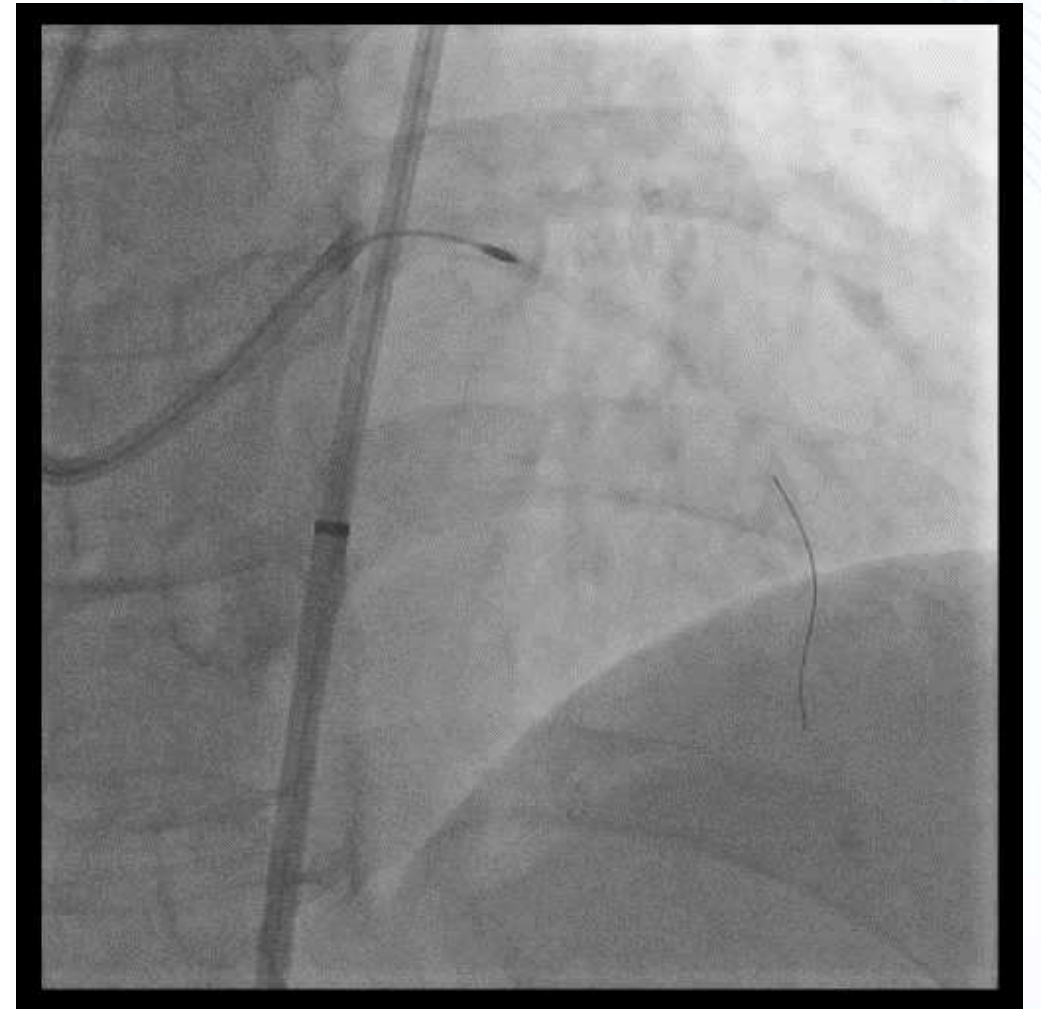
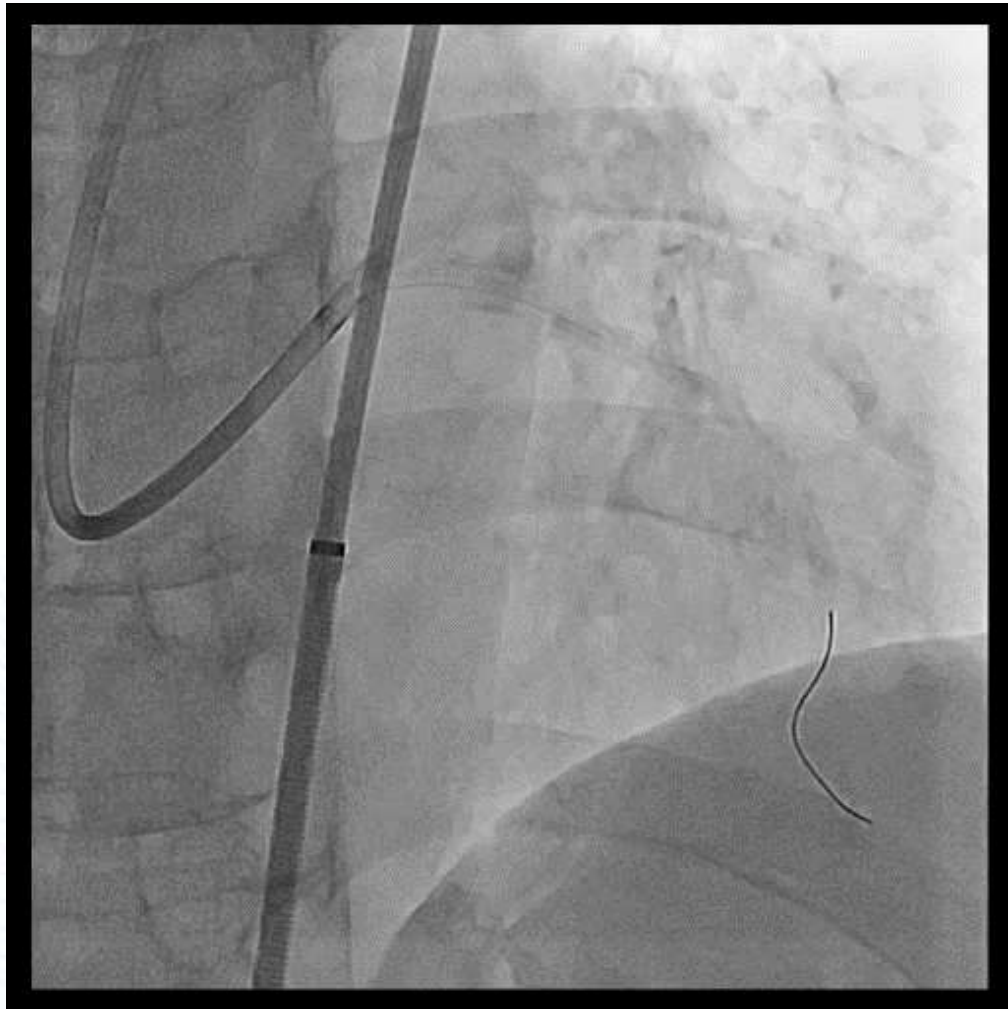
CCS grade 3 angina, ECG TWI, LAD territory rwma+



Diffuse, but intermediate RCA lesion. Tight p-mLAD stenosis with calcification

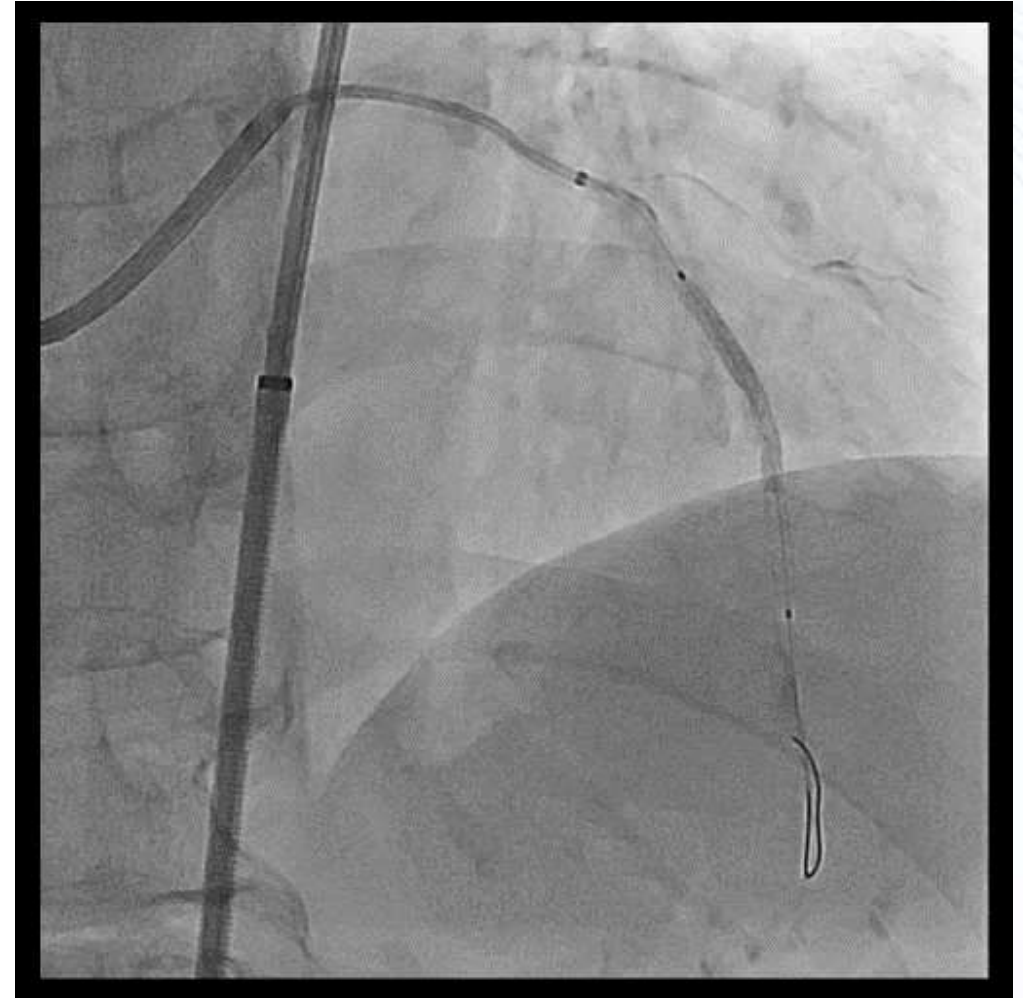
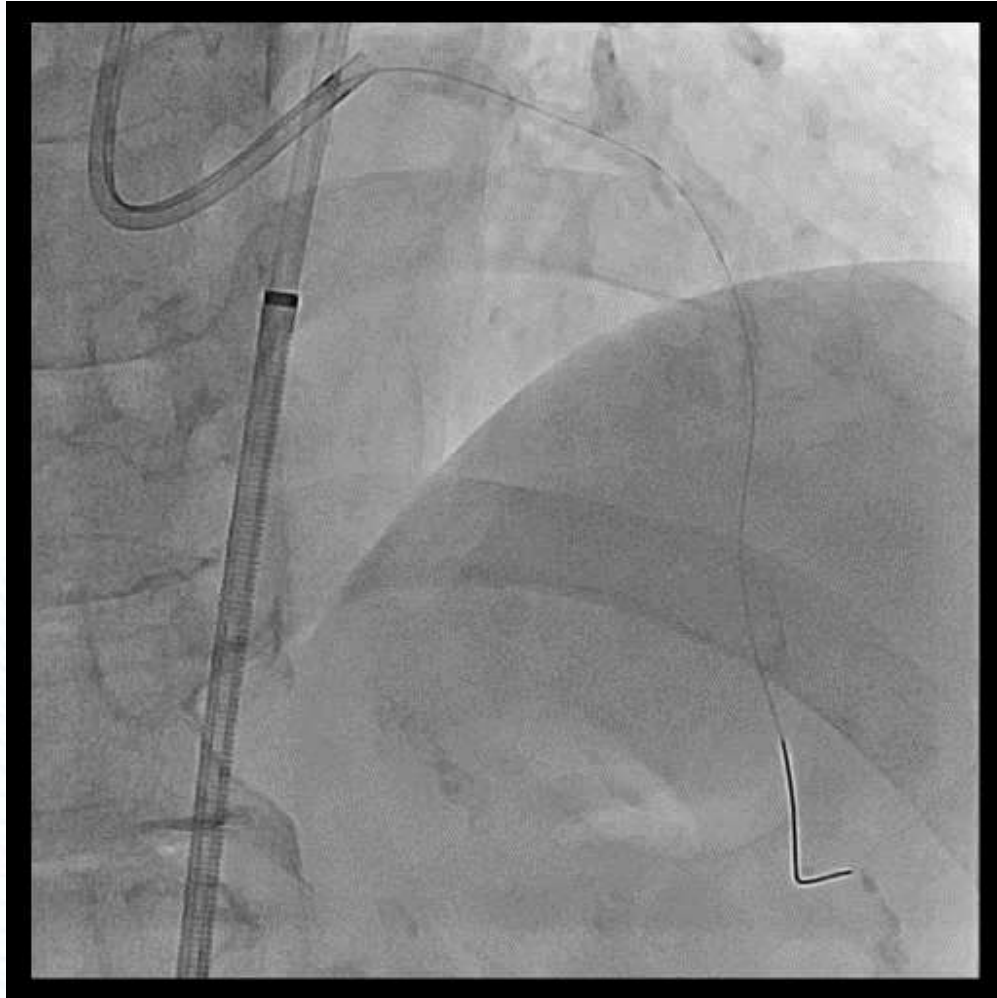
Rotational atherectomy with 1.25 mm burr

2.5 x 15mm NC balloon does not crack calcium

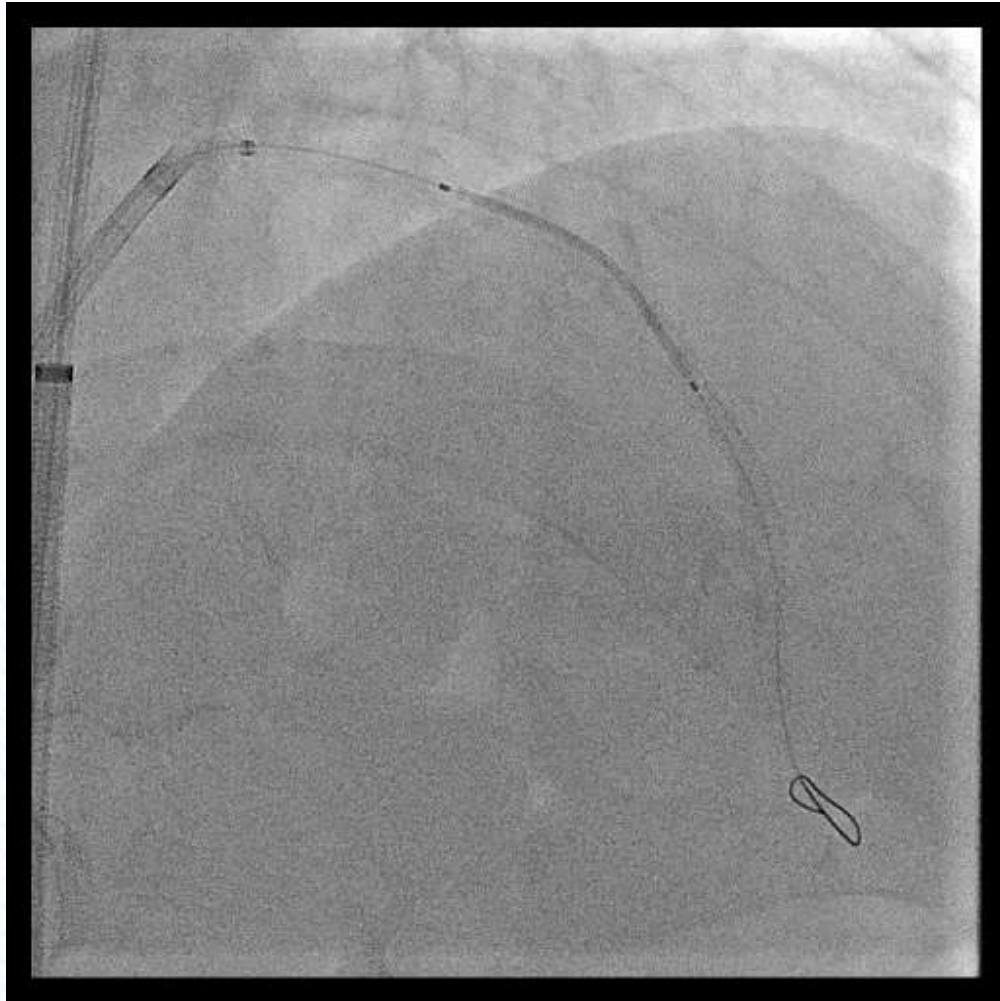


Resolute Onyx 2.5 x 38mm at dLAD

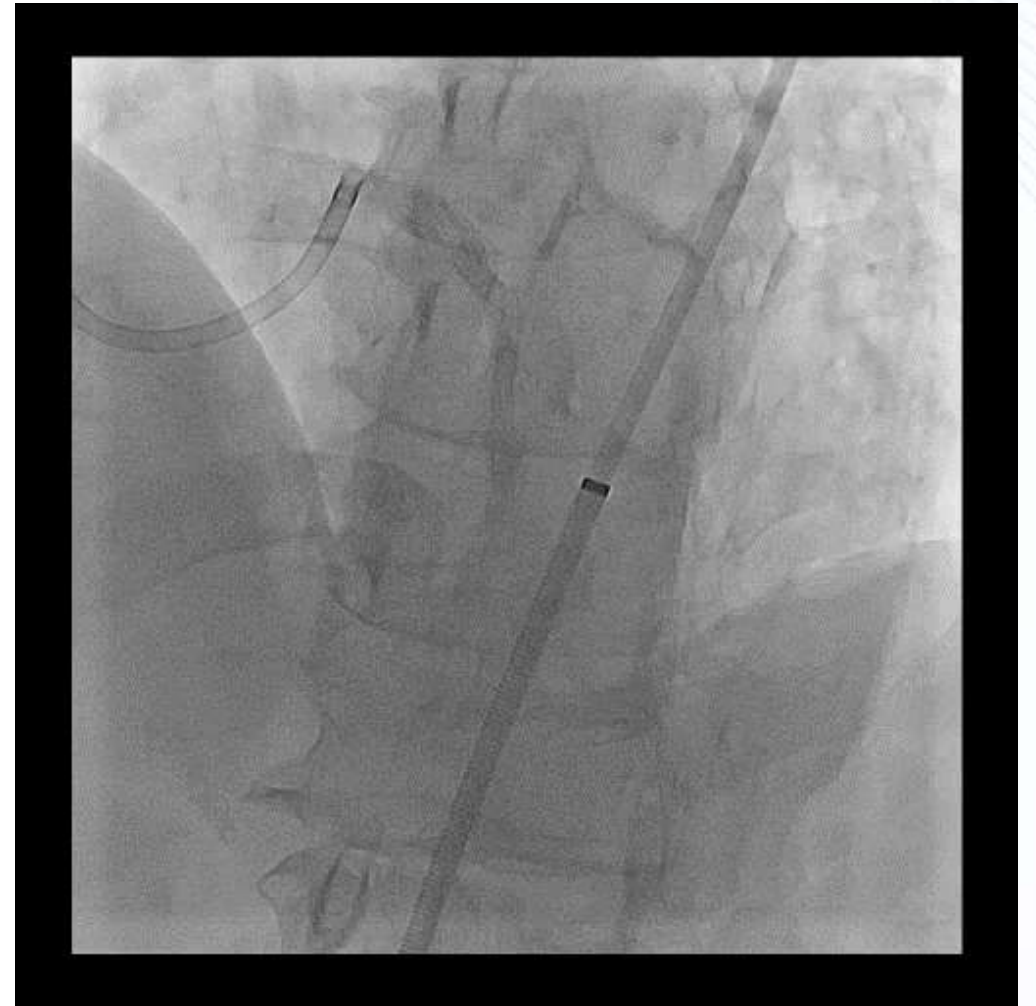
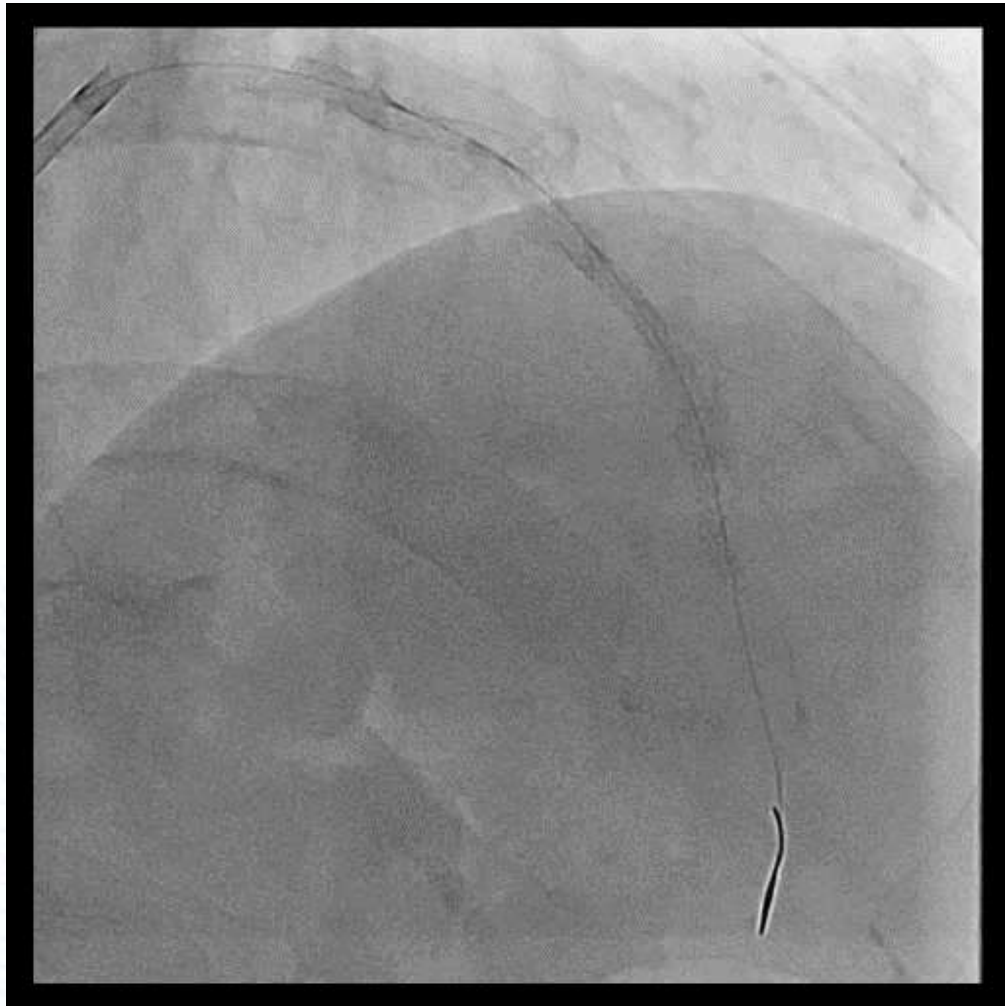
After POBA with 2.5 x 15mm NC balloon



Onyx 3.0 x 30mm, 3.5 x 18mm at p-mLAD



Final angiography



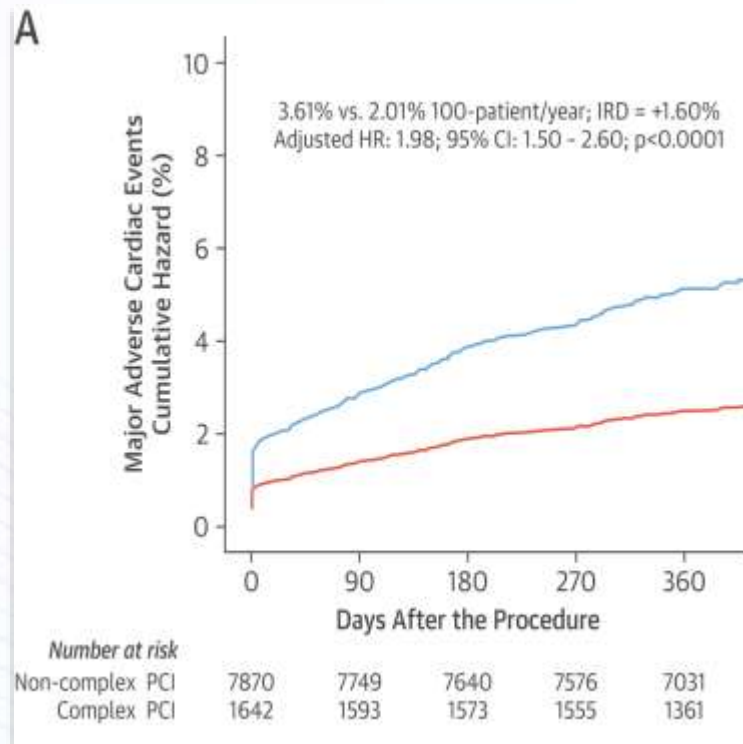
Follow-up

- Started with aspirin, prasugrel (5mg, d/t low body weight)
- Had to switch to clopidogrel, as patient turned 75, 3 months after PCI
- Still doing well after 2 years

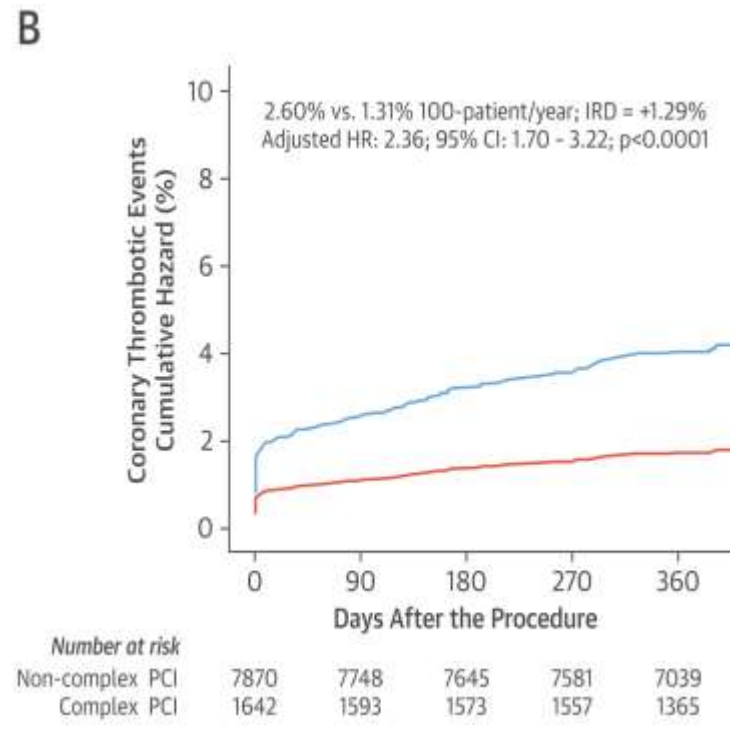
Increase in ischemic events after complex PCI

Patient-level analysis of 6 RCTs (9,577 patients)

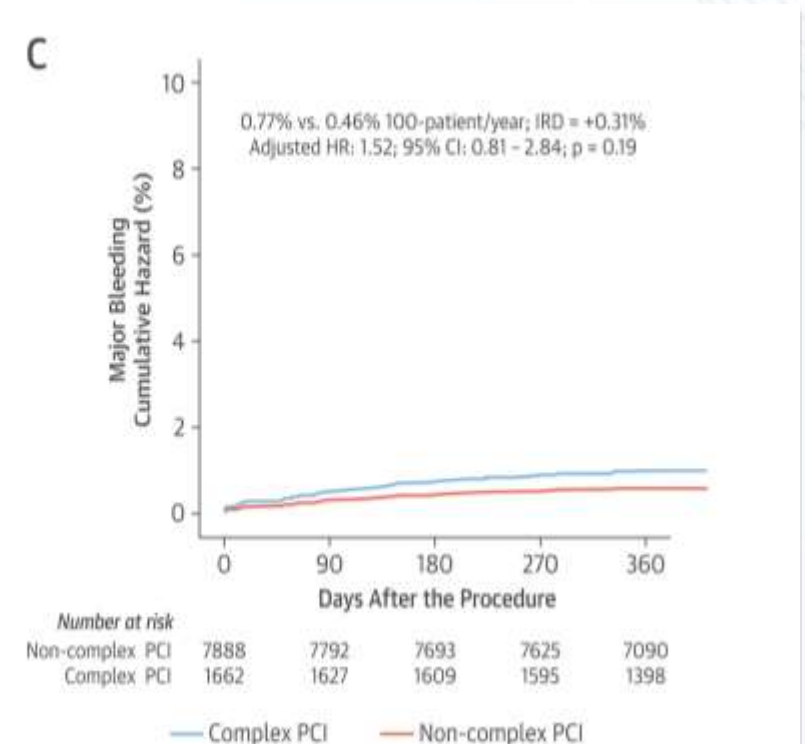
MACE



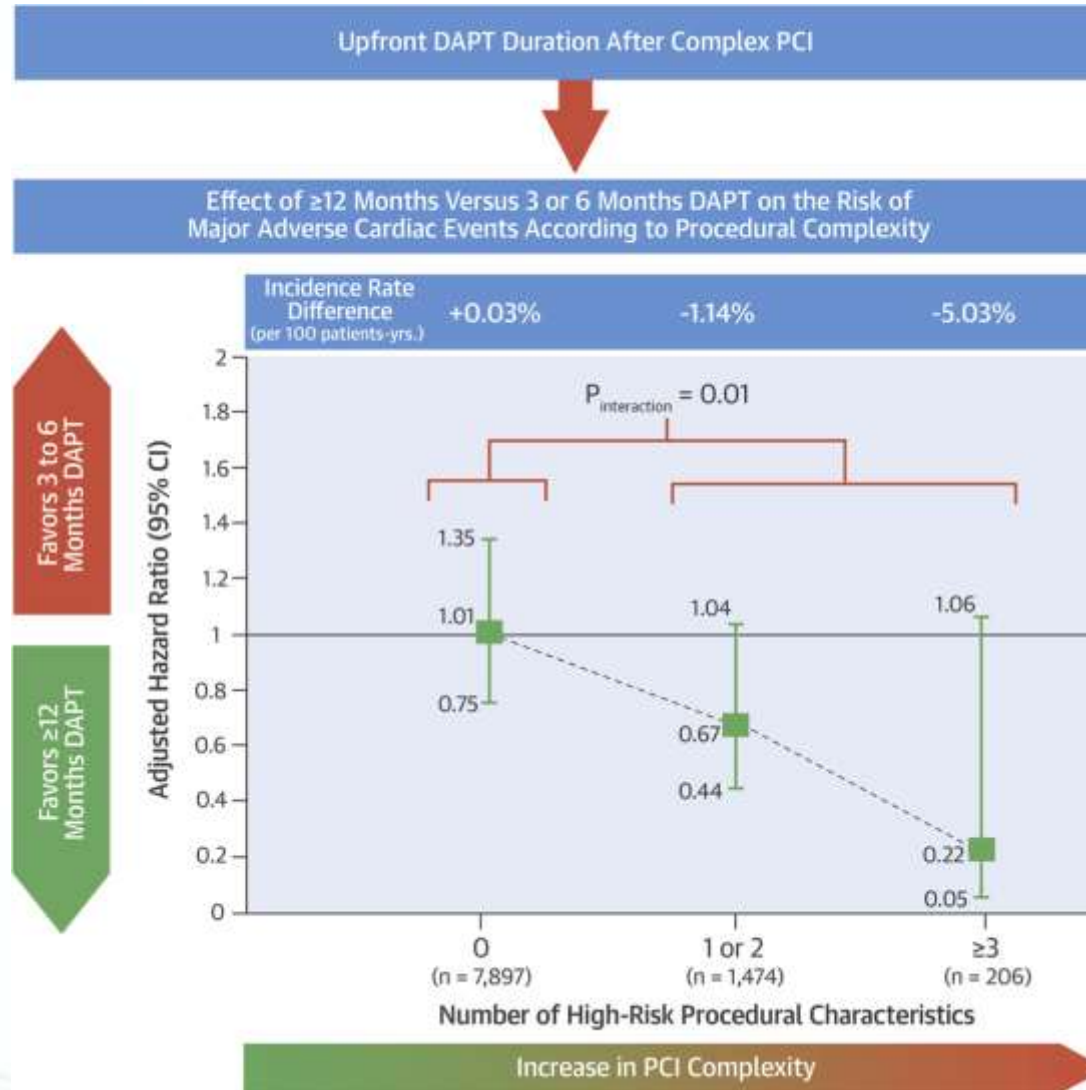
Coronary thrombotic events



Major bleeding



Complex PCI requires longer, potent DAPT?



Short DAPT possible with Resolute Onyx?

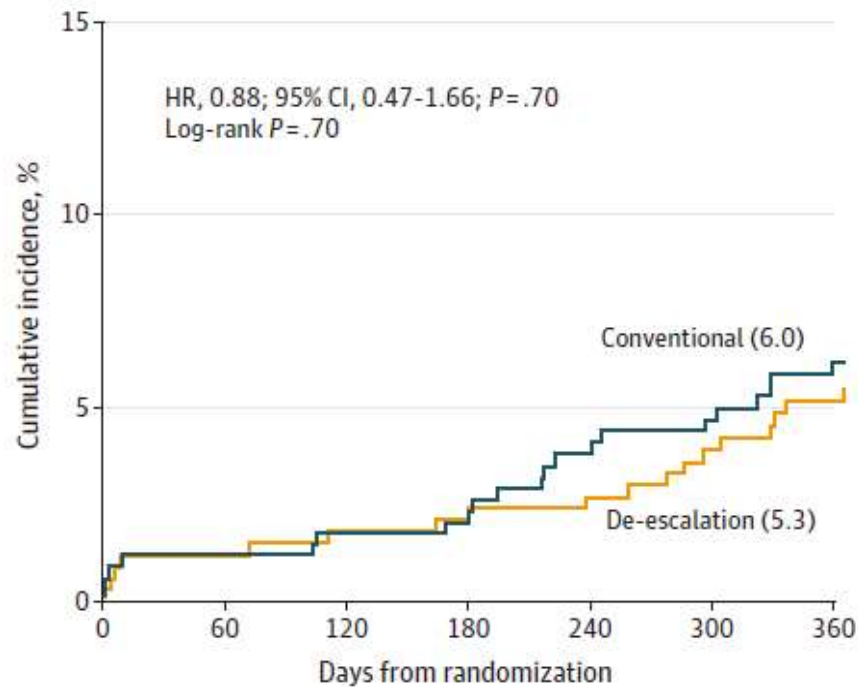
THE ONYX ONE MONTH DAPT PROGRAM ENROLLED HIGHLY COMPLEX HIGH BLEEDING RISK PATIENTS, REFLECTIVE OF A REAL-WORLD PATIENT POPULATION.⁶

		NO VESSEL OR LESION LIMITATIONS			REAL-WORLD PATIENTS			BROAD HBR INCLUSION CRITERIA ^{††6}	
		B2/C LESIONS	AVERAGE STENTED LENGTH	MOD/SEV CALCIFIED LESIONS	AVERAGE AGE	DIABETES	PRIOR REVASC.	HBR CRITERIA PER PATIENT	PATIENTS HAVING TWO OR MORE HBR CRITERIA
ONYX ONE GLOBAL STUDY	Resolute Onyx DES Arm (1,003 patients)	80%	38 mm	46%	74	39%	31%	1.6	46%
ONYX ONE CLEAR ANALYSIS	"Clear" patients treated with Resolute Onyx DES (1,506)	79%	37 mm	50%	74	39%	36%	1.6	44%

Complex PCI in HOST-RP-ACS

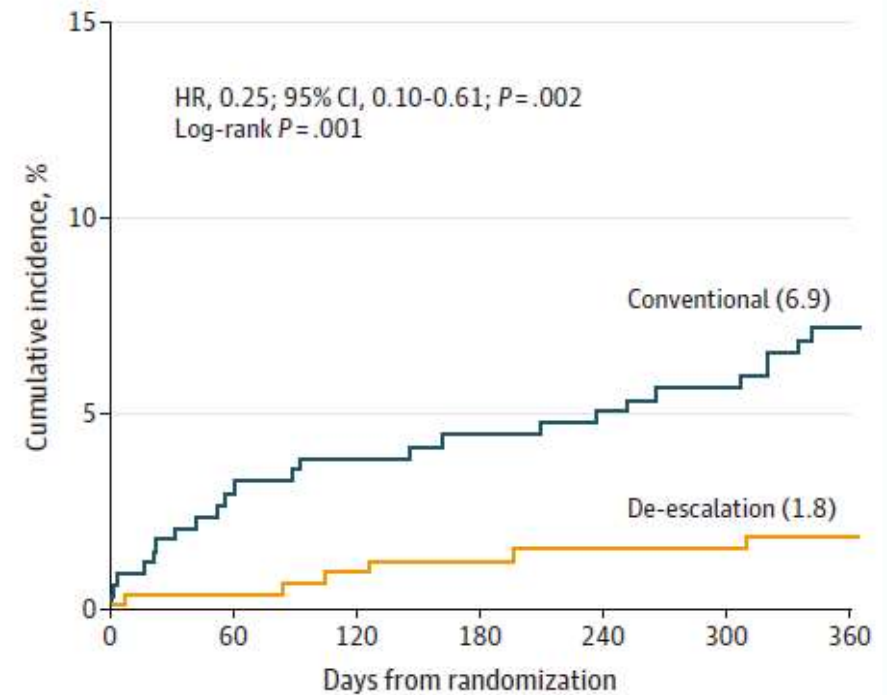
De-escalation was not associated with an increase in ischemic events, irrespective of PCI complexity

A Major adverse cardiac events



No. at risk	0	60	120	180	240	300	360
Conventional	356	348	346	345	339	336	331
De-escalation	349	337	334	332	330	326	322

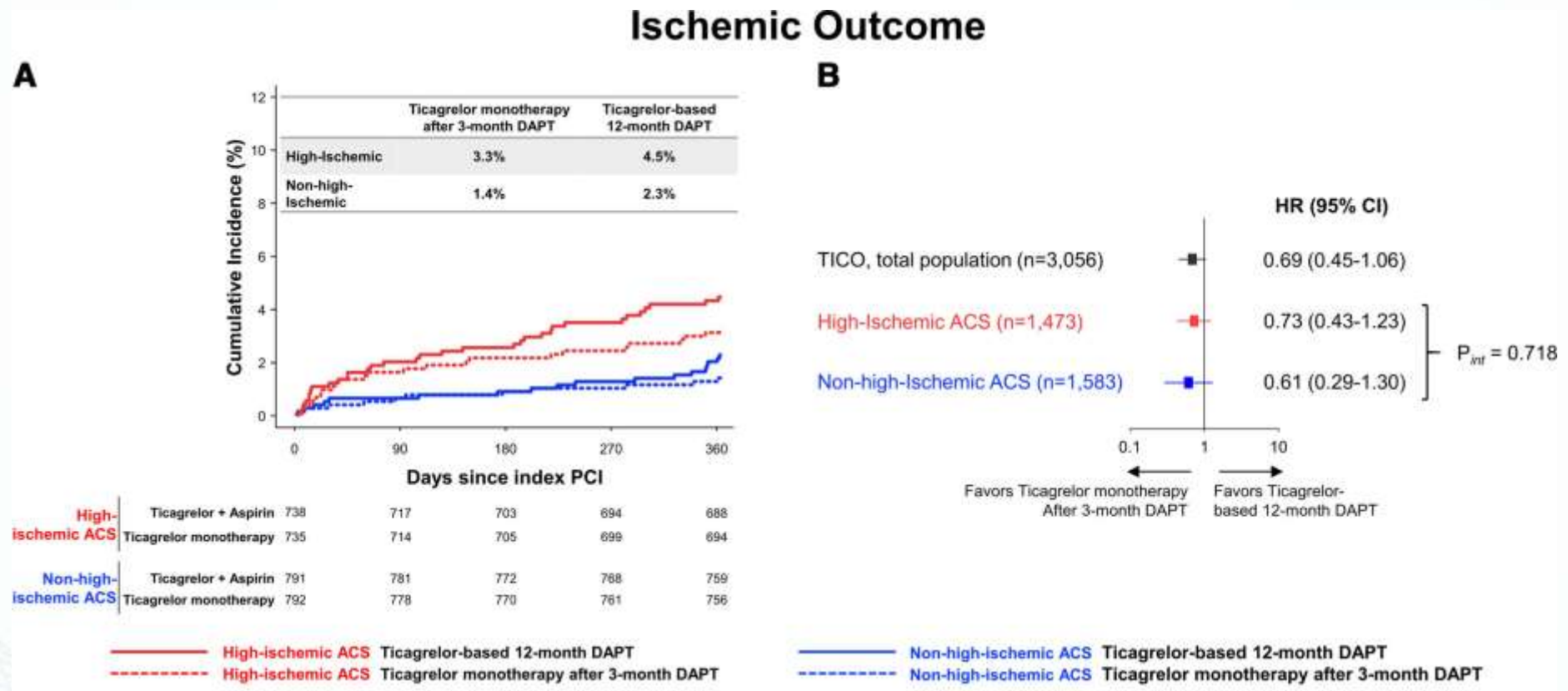
B BARC class ≥ 2 bleeding events



No. at risk	0	60	120	180	240	300	360
Conventional	356	338	335	333	330	328	322
De-escalation	349	339	336	334	333	332	331

Complex PCI in TICO

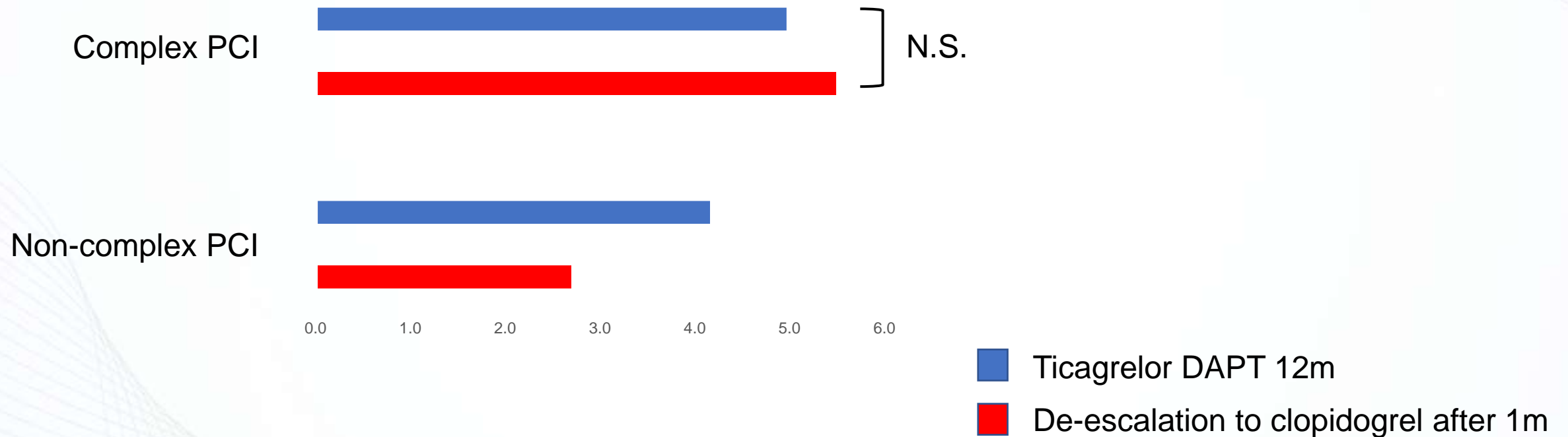
No significant heterogeneities in the impact of ticagrelor monotherapy according to high-ischemic risk



Complex PCI in TALOS AMI

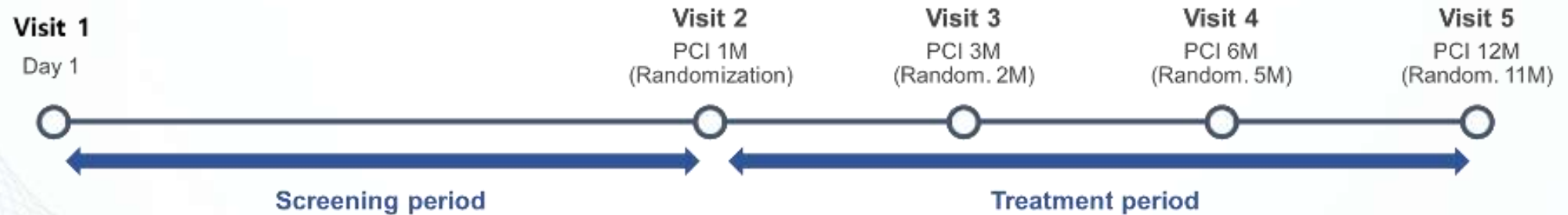
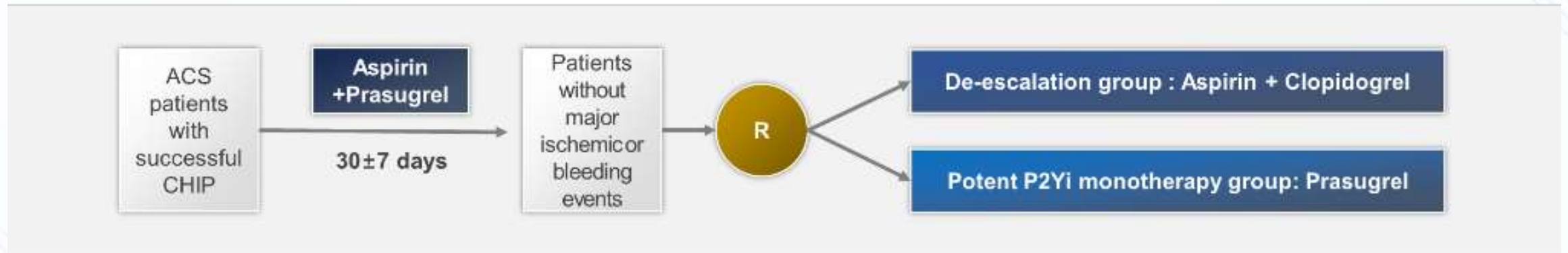
De-escalation to clopidogrel DAPT 1-month after PCI

- Ischemic events



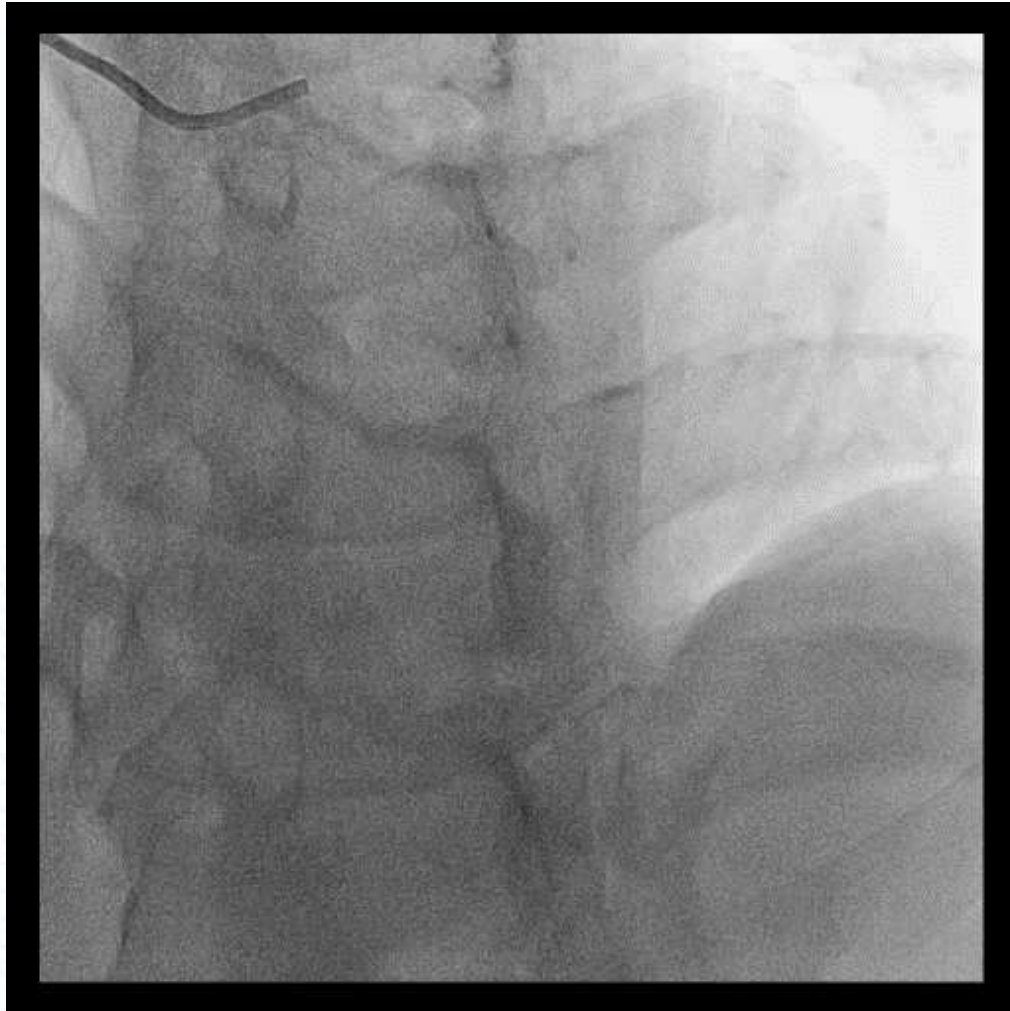
PRADO-CHIP RCT

A multicenter, open-label, randomized controlled trial



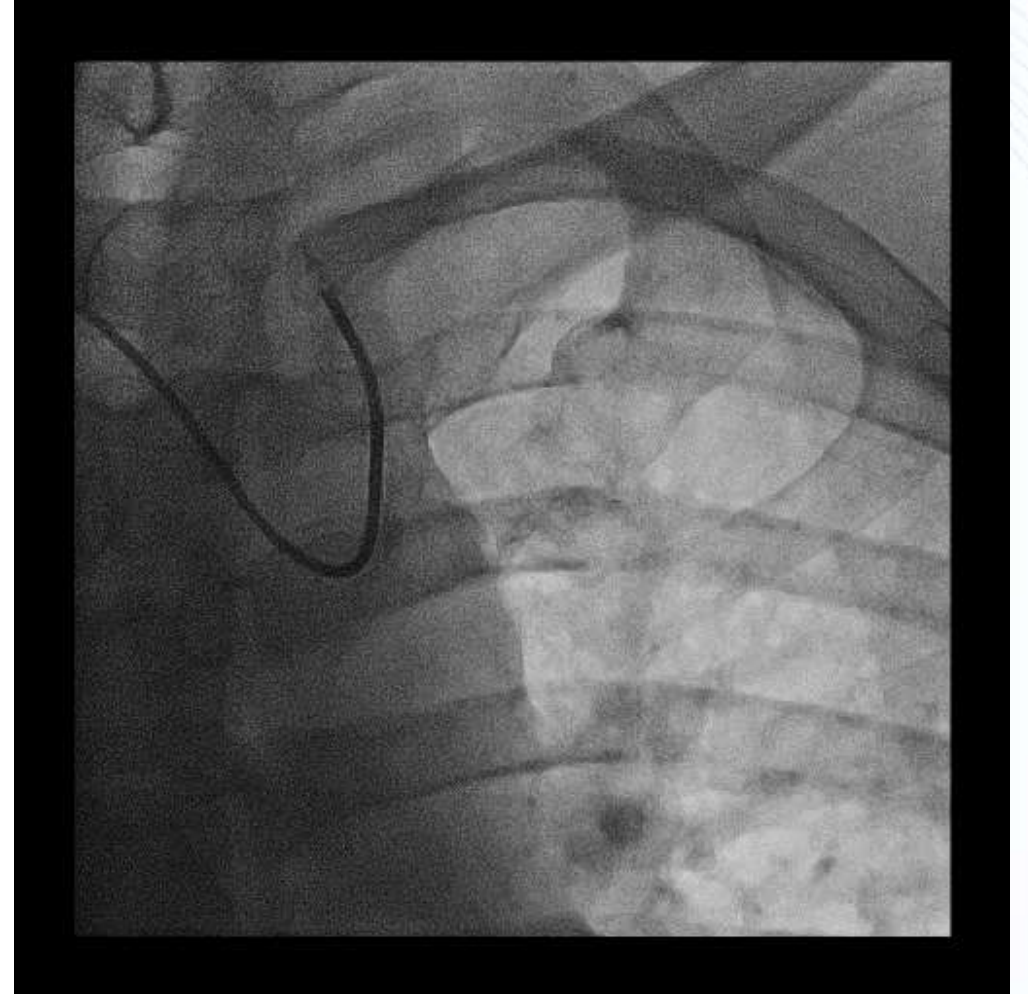
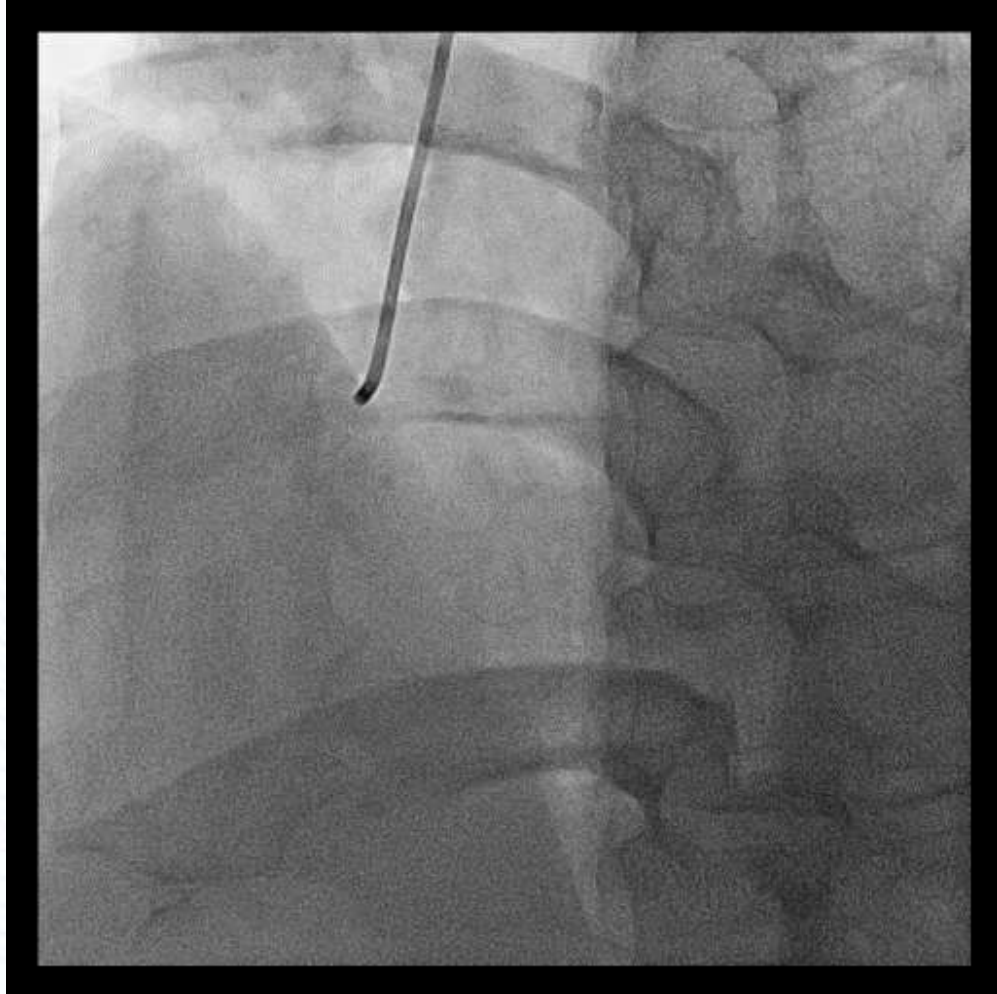
50-year male with unstable angina

CCS Gr.3, TMT(+), normal EF, apical RWMA



50-year male with unstable angina

CCS Gr.3, normal EF



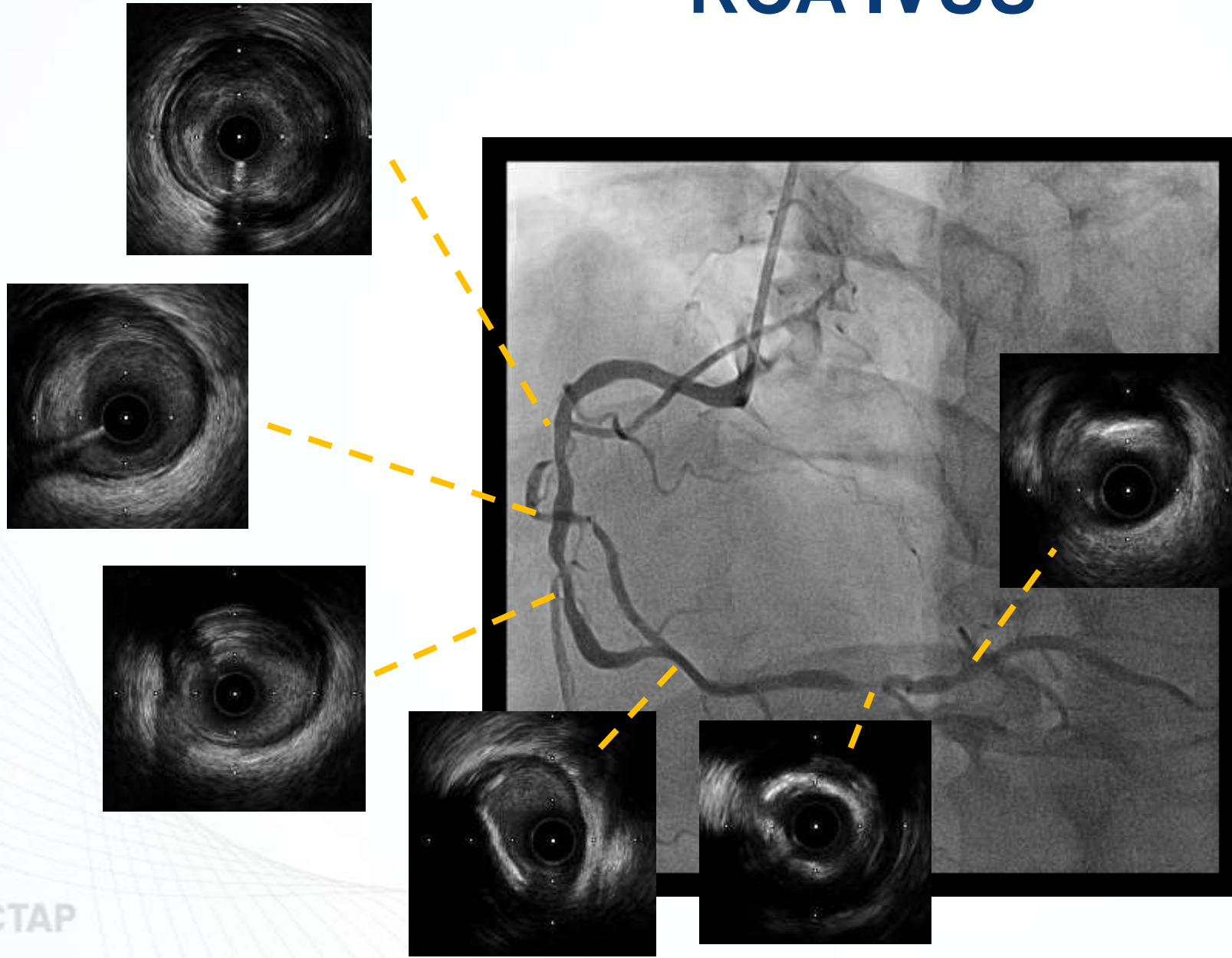
Heart Team meeting

- Age – 50 years old
- Comorbidities – Hypertension, **Diabetes**, Dyslipidemia
- CAG – 3 vessel disease with **LM** involvement
- TTE – normal EF, no RWMA
- SYNTAX score = **51.5**

- Surgeon did not want to graft the RCA

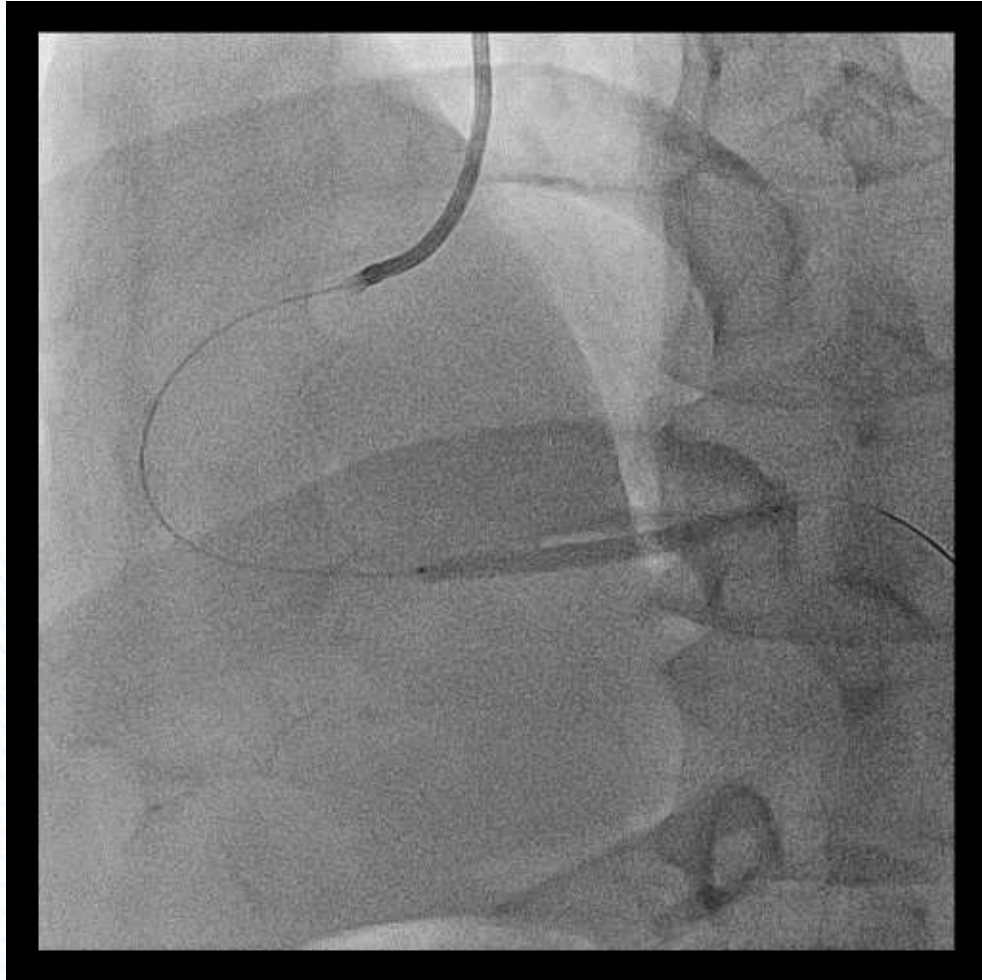
- So, PCI for RCA → CABG for LAD/LCx was decided upon

RCA IVUS



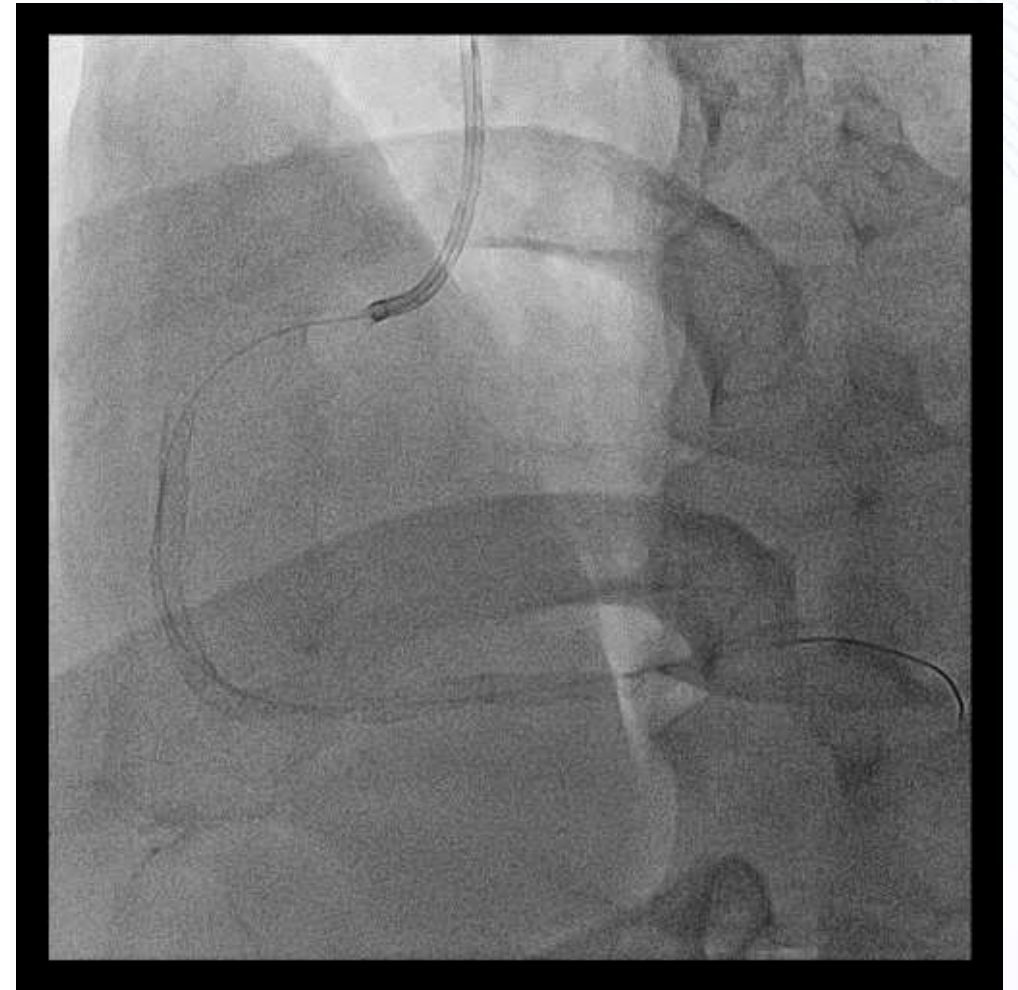
PCI to RCA

Resolute Onyx 2.75 x 38mm (dRCA-PL), 3.0 x 38mm (m-dRCA)



PCI to RCA

Resolute Onyx 3.5 x 38mm in mRCA

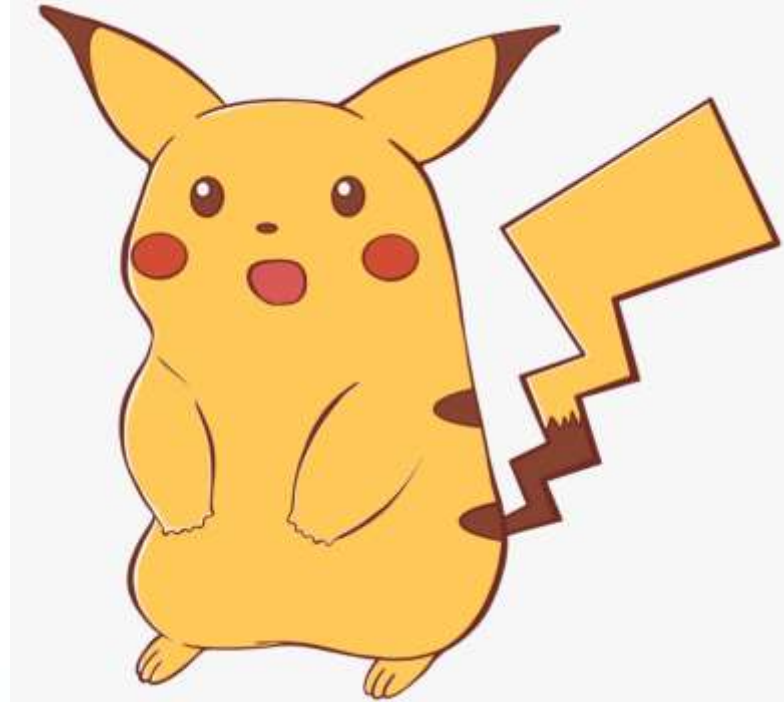


Patient is off to CABG



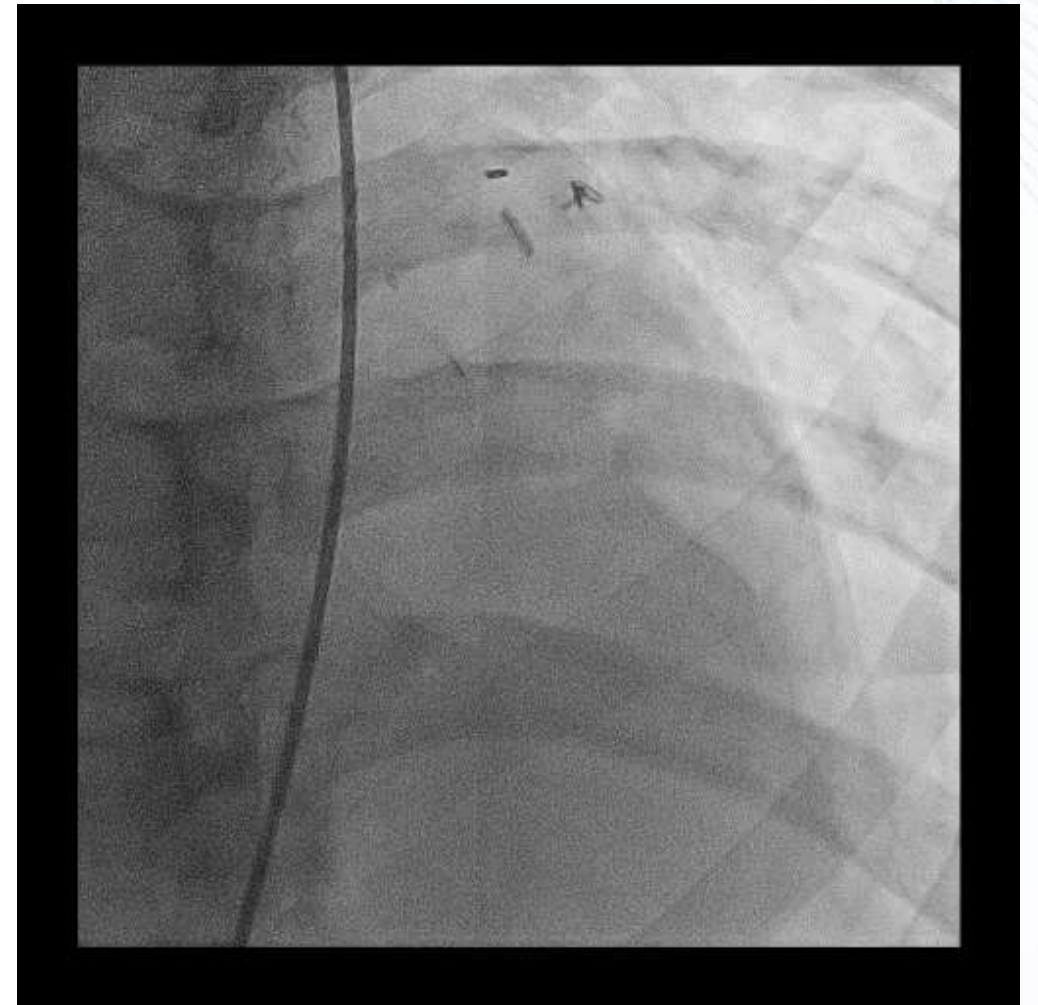
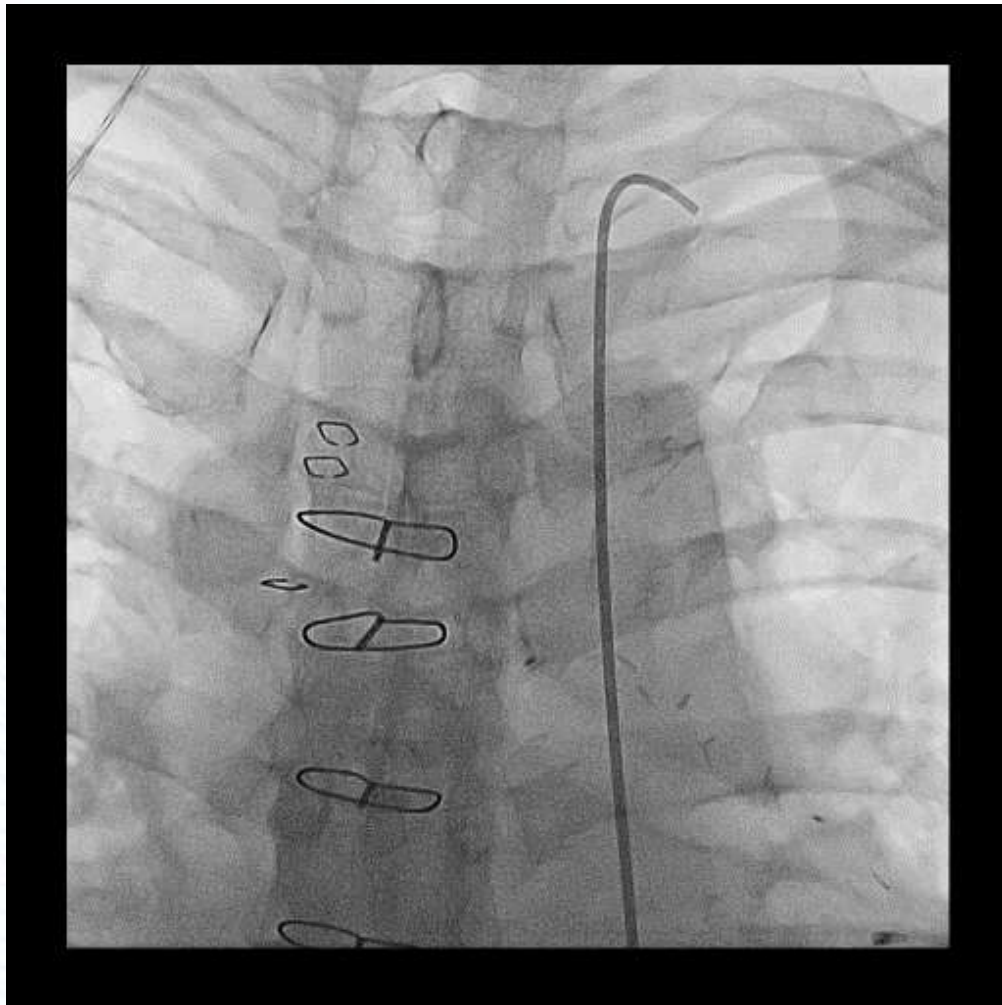
9 days after transfer...(7 days after surgery...)

- Surgeon: “Sorry, couldn’t graft the LAD... to small, not a good candidate to graft due to heavy atherosclerosis....”



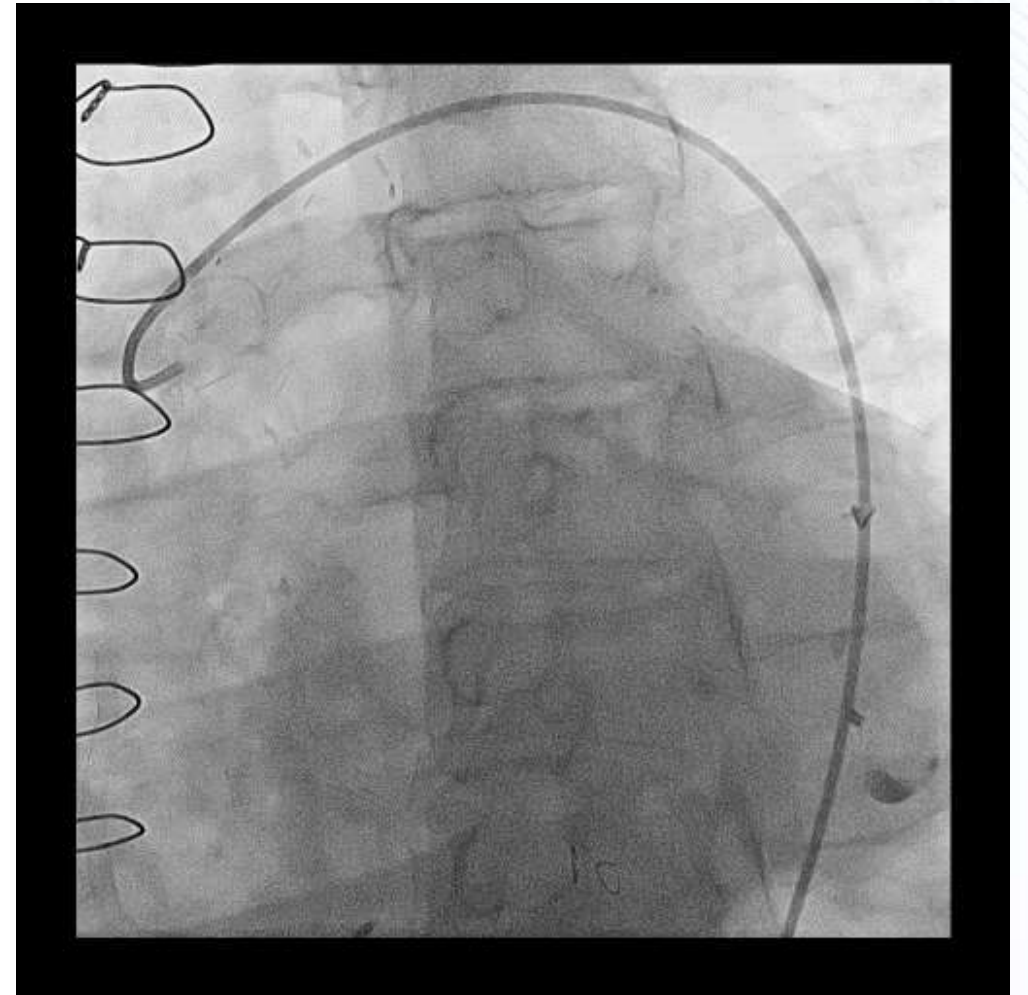
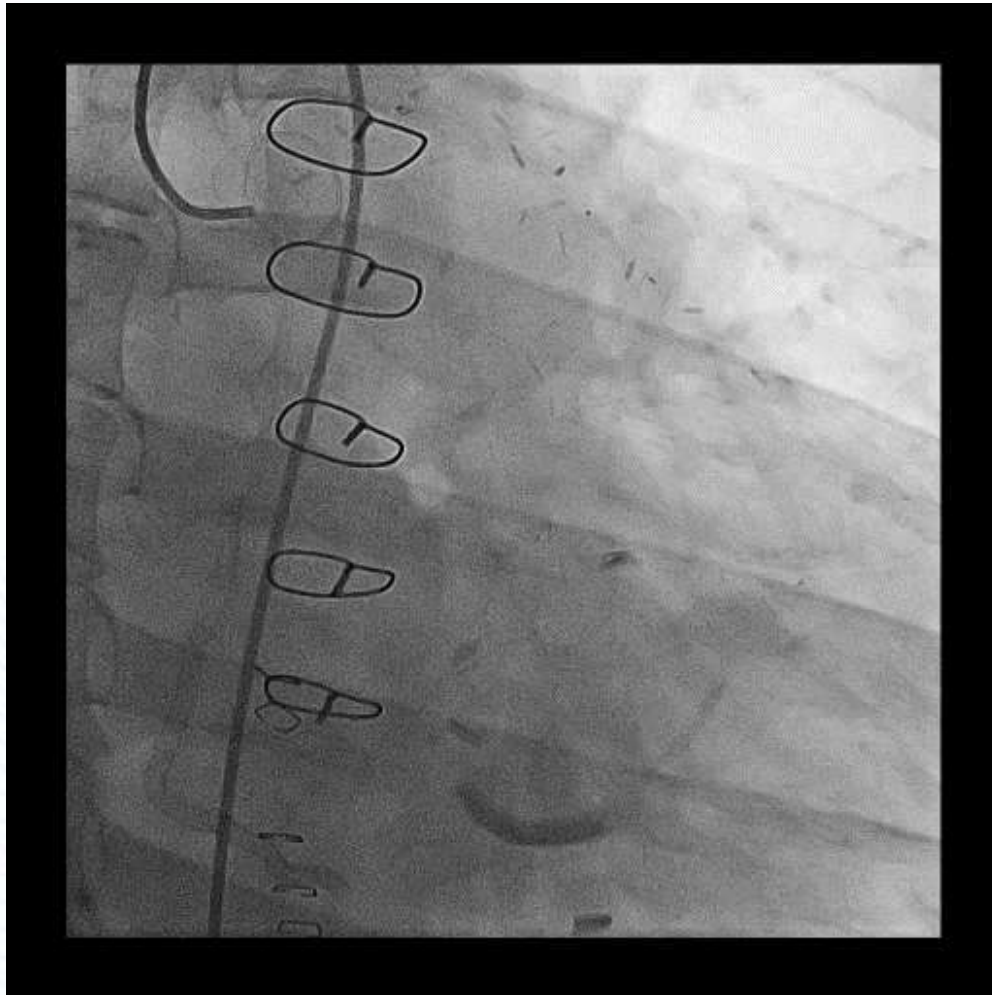
Let's see what happened

LIMA to Diagonal (What happened to the good, straight LIMA?)



Let's see what happened

SVG to early OM / dLCx (poor graft flow)



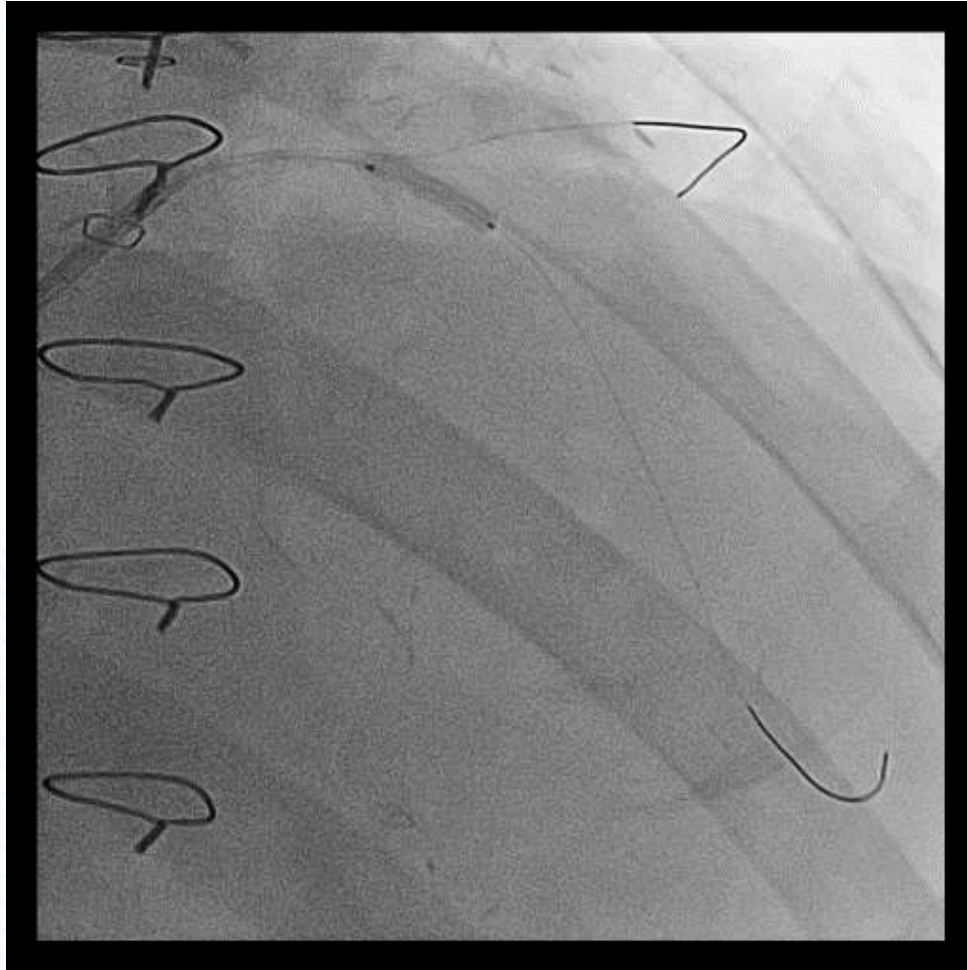
Damage control

Need to revascularize the LAD



POBA with 3.0 x 15mm NC balloon

Sion Blue in LAD, BMW in Dg



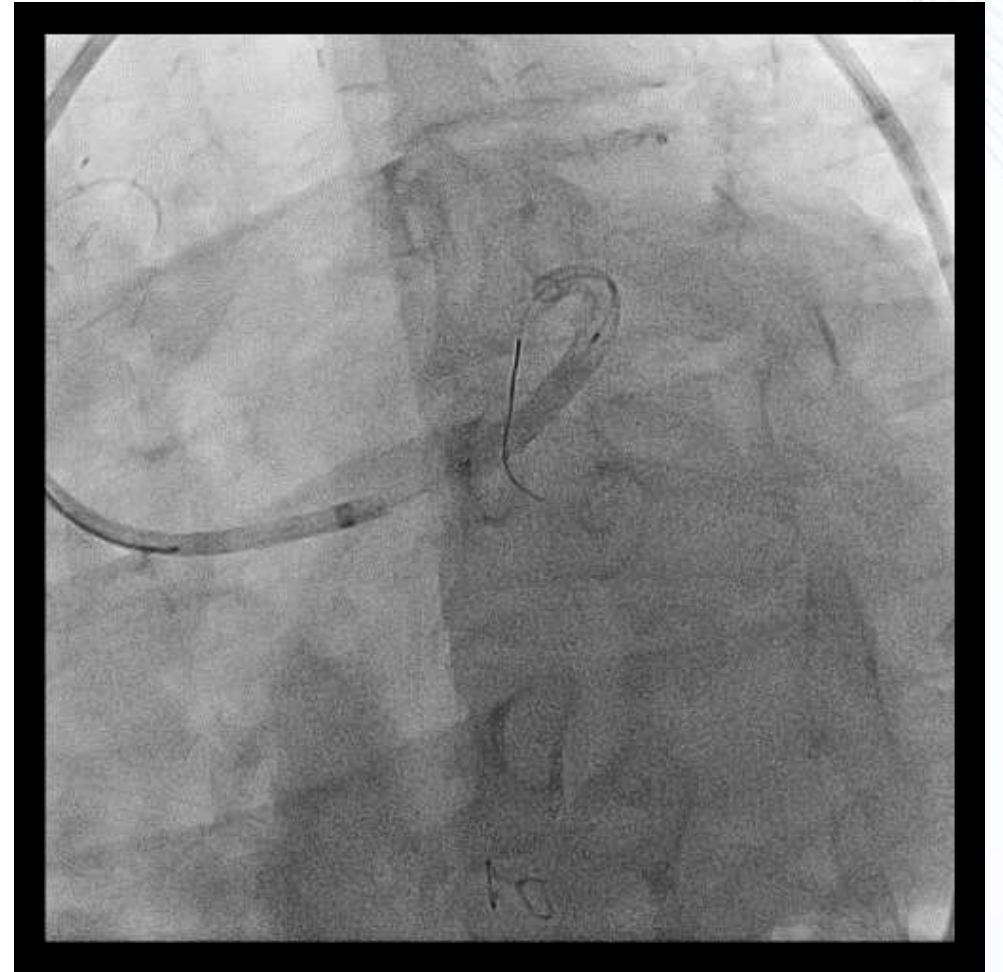
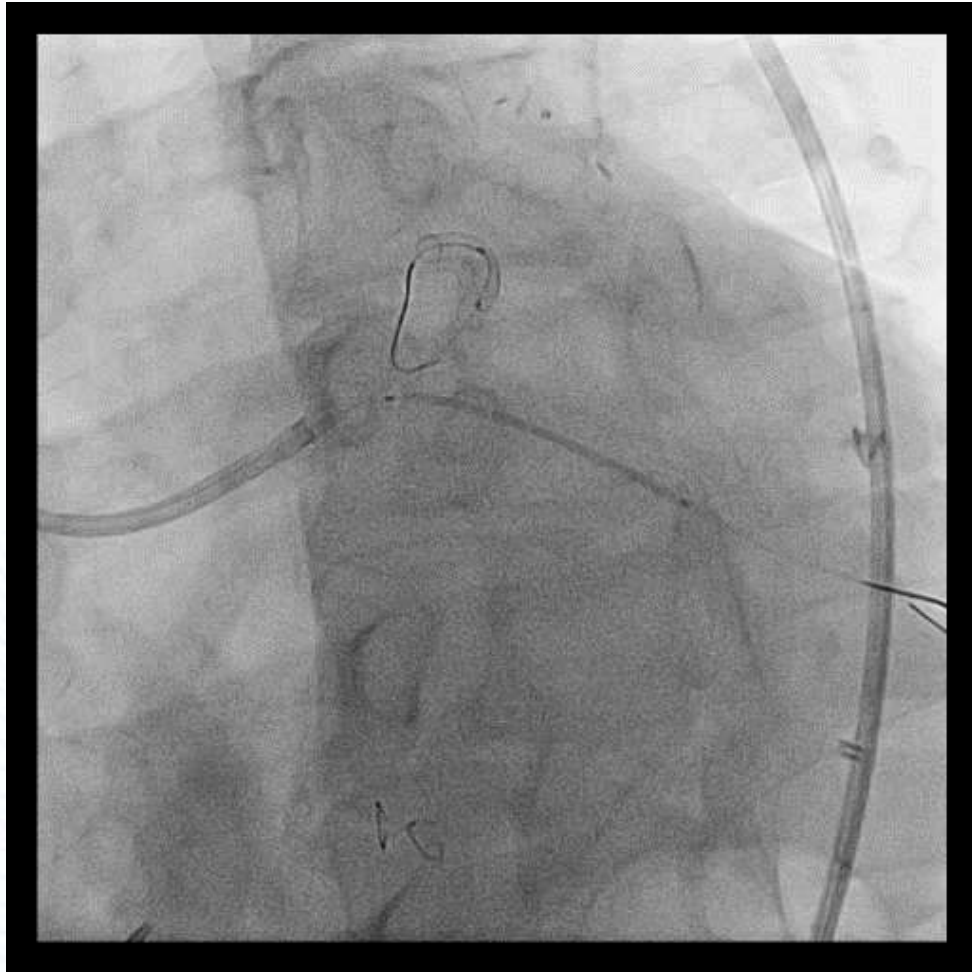
Resolute Onyx 3.0 x 38mm in p-mLAD

Wiring to LCx with BMW, POBA with 2.75 x 15mm NC balloon



Onyx 2.75 x 30mm (LCx), 4.0 x 22mm (LM-LAD)

Mini-crush technique

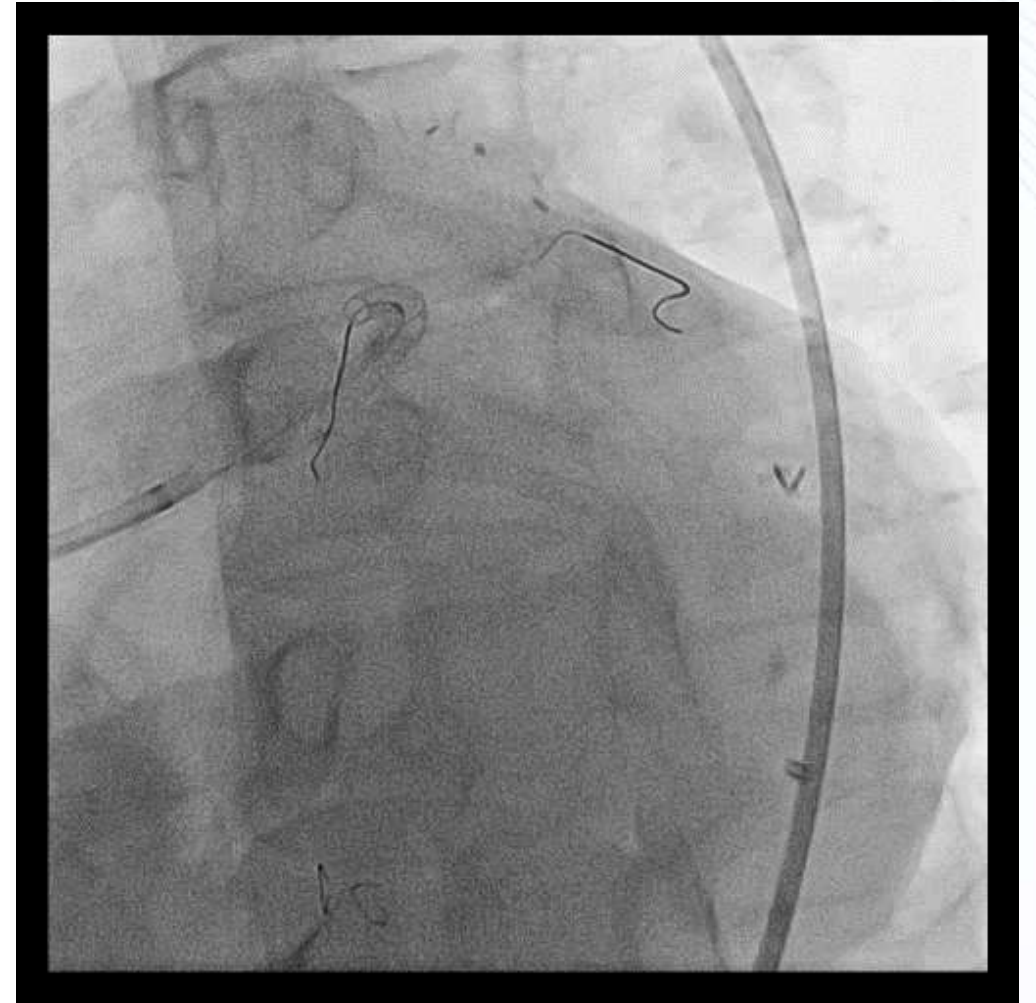


Kissing Ballooning & POT (4.0mm)



Final angiography

dLCx CTO is left for another day... (too many stents...)



Follow-up

- Patient is doing well.

Conclusion

- The Resolute Onyx stent helps us achieve optimal results, even in the toughest, complex situations