

IVUS and OCT-guided Intervention in a Patient with Ostial LAD ISR Lesion with DES associated Aneurysm

Seung-Woon Rha, MD, PhD,
FACC, FAHA, FSCAI, FESC, FAPSIC

Akkala Raghavender, MD. (Fellow)

Div of Cardiovascular Intervention and Research
Cardiovascular Center,
Korea University Guro Hospital, Seoul, Korea

Patient's Baseline Data

1. A/S; 46/ Male
2. C.C.; Typical worsening effort chest pain (since 1 month ago)

3. Risk Factors

DM (-), Hypertension (-), Smoking (-),
Hyperlipidemia (-)

4. Past History

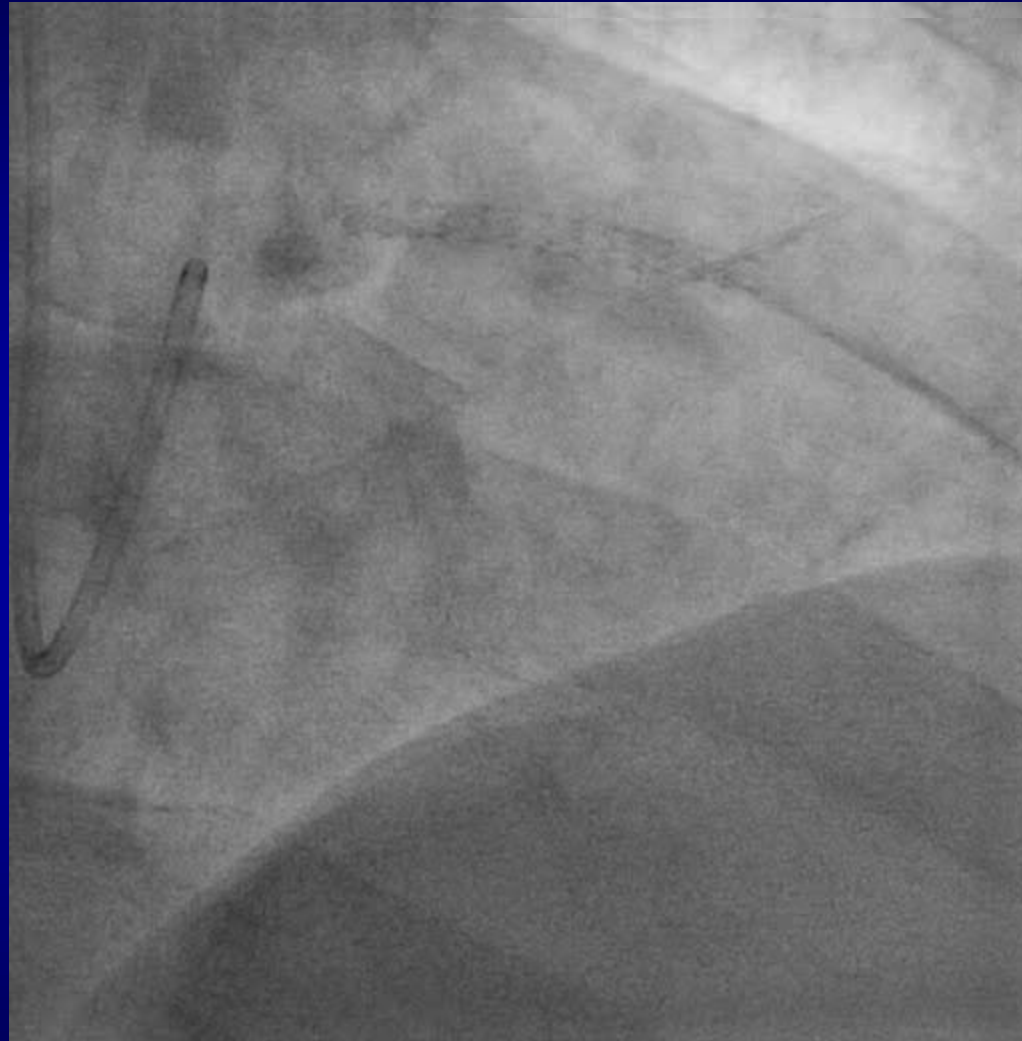
Previous PCI (Feb, 2010)

; LAD prox-Cypher (2.75X33mm)

→ Repeat PCI due to very late stent thrombosis
(April 2012) at 평촌성심병원 (등산중 헬기전원)

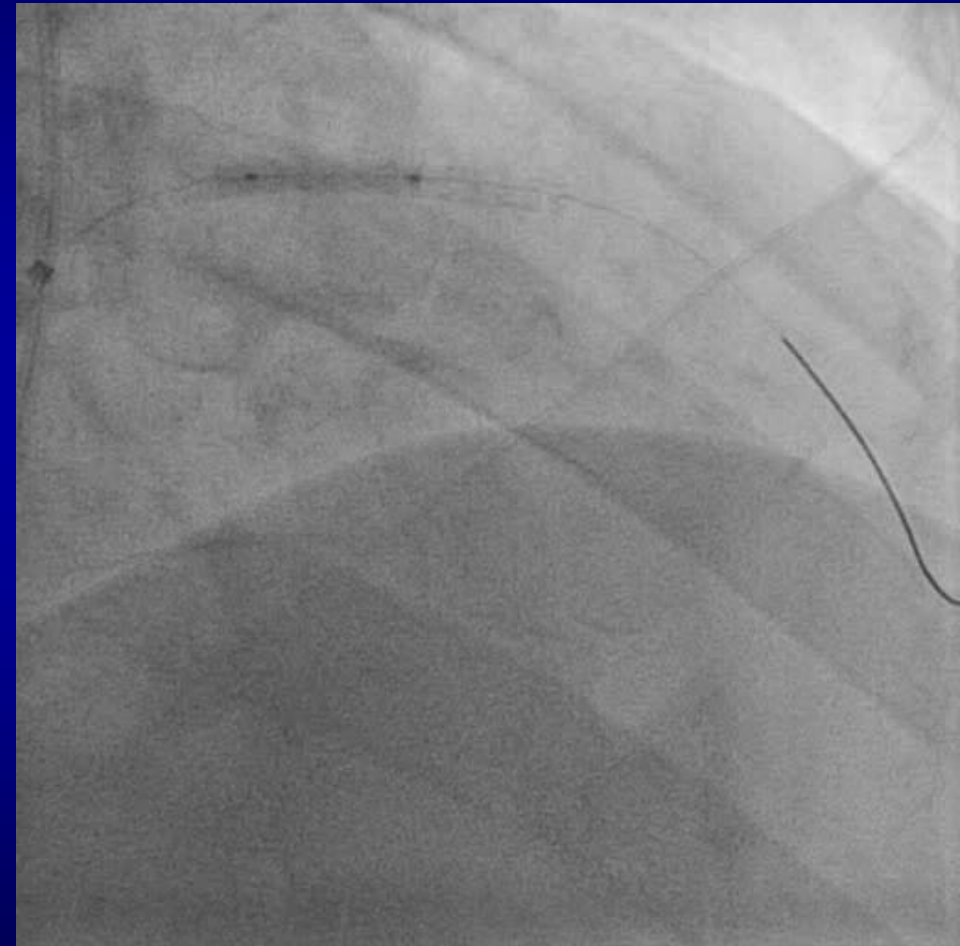
→ FU CAG-Severe ISR and DES aneurysm

Baseline Angiography

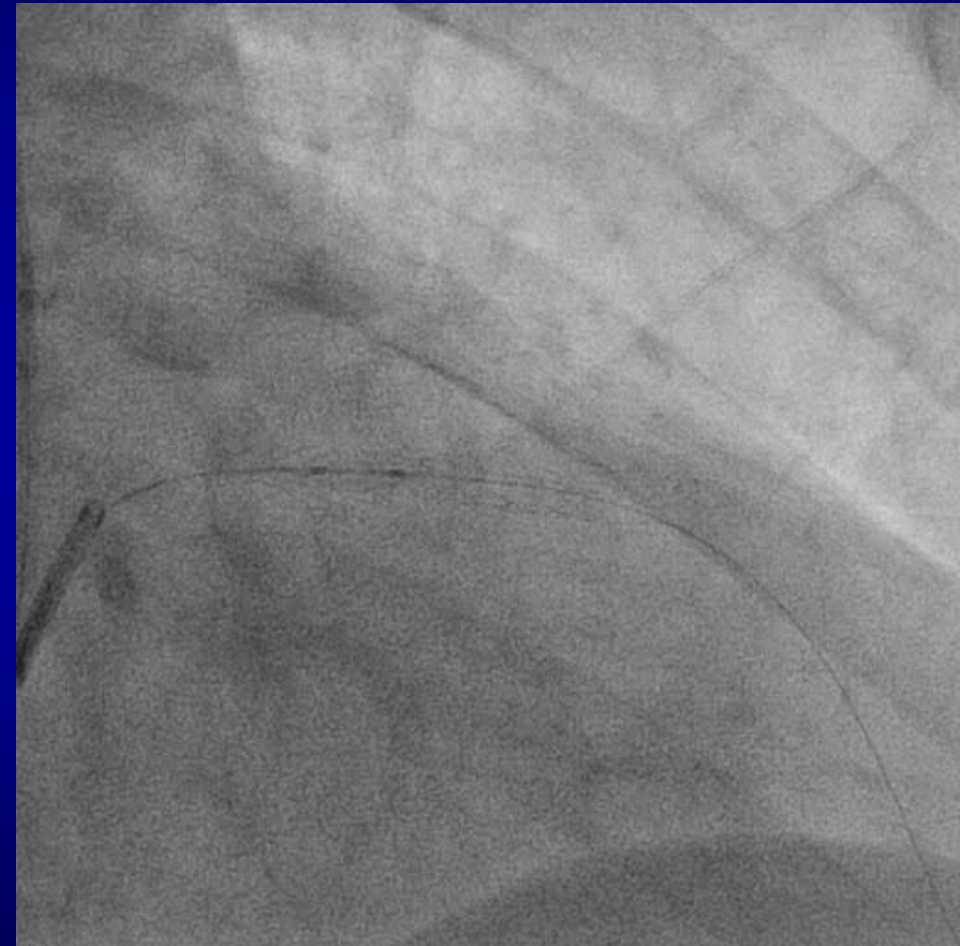


- LAD: Px to mid diffuse severe concentric stenosis (75-80%)
- LCX: mild diffuse atherosclerosis.
- RCA: mild diffuse atherosclerosis.
- Plan: Elective pci to LAD.

Predilation

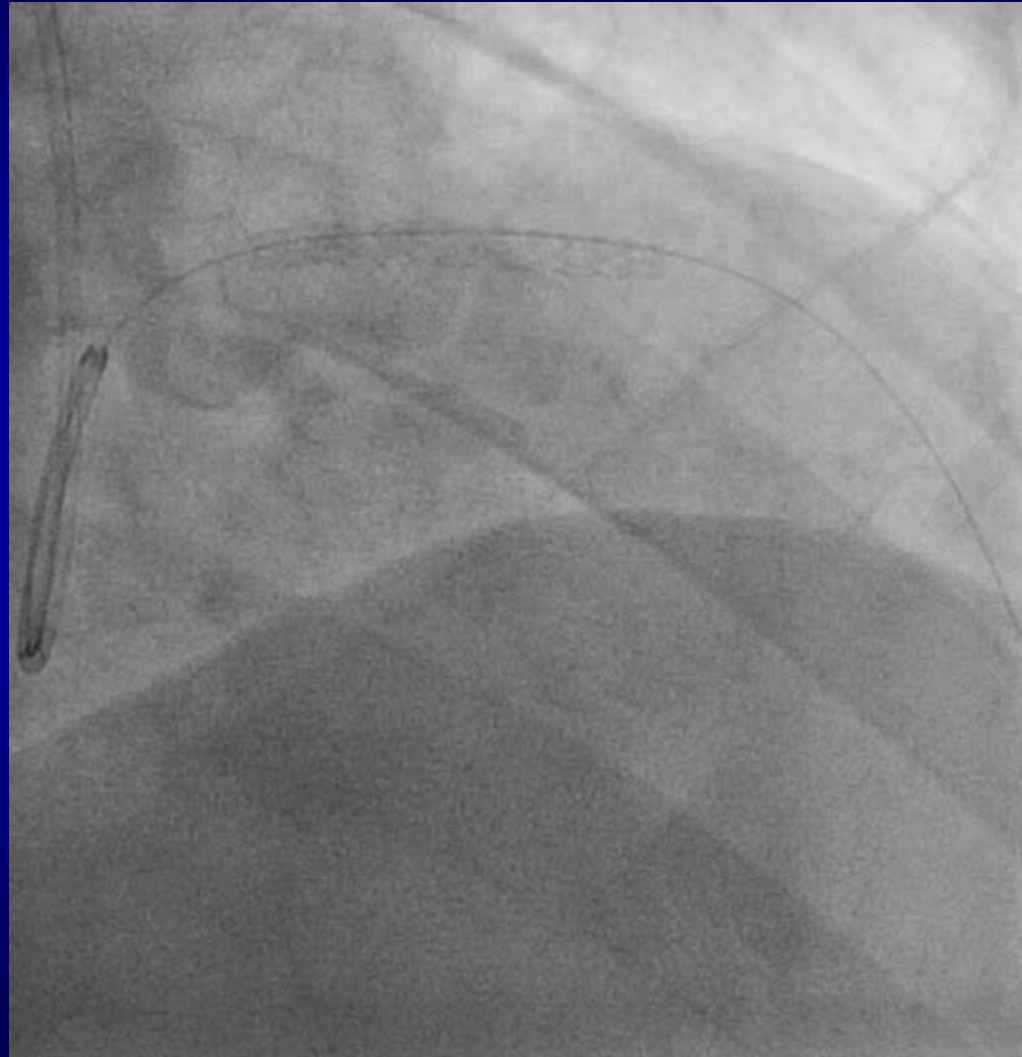


Lacrosse 2.0X15mm



Quantum 3.0X8mm

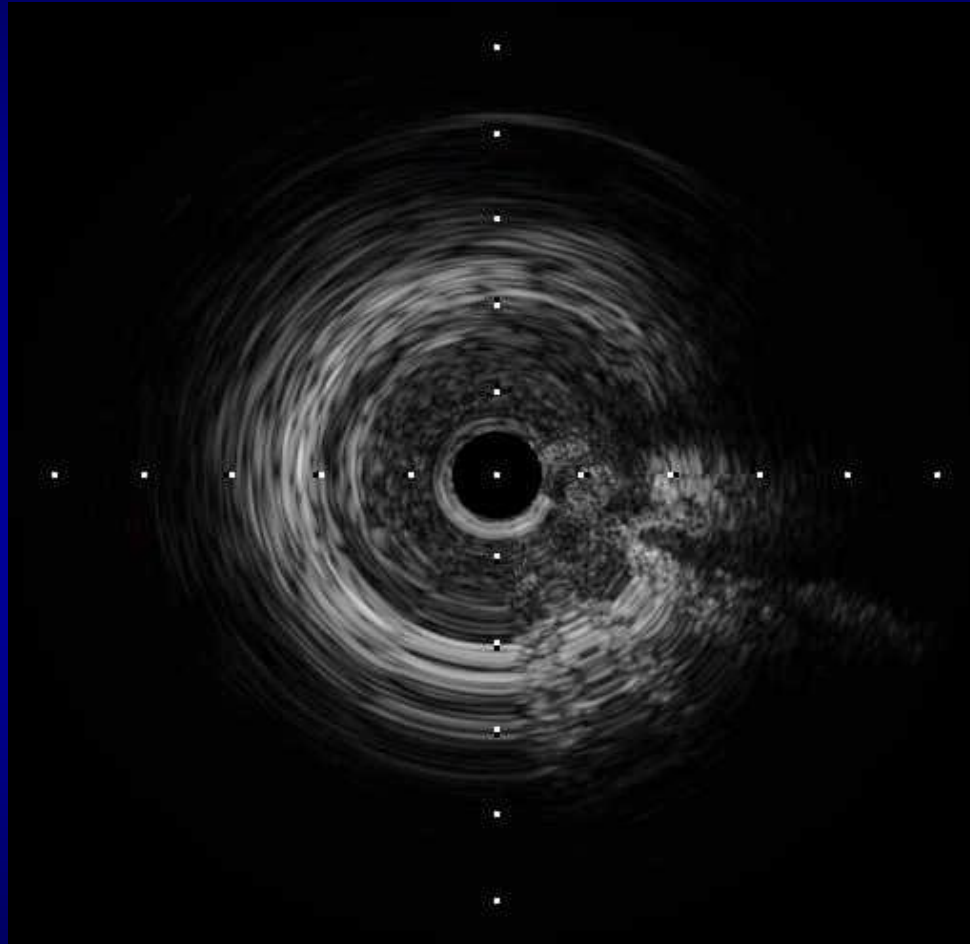
Angiogram after predilatation



Which strategy to consider!

1. Just observation with OMT (optimal medical therapy).
2. Additional DES and finalize.
3. Imaging study and make a decision for further procedure.

Pre-Stenting IVUS



Stent Booster

HAN SEUNG HO

Rot: RAO 45
Ang: Cran 31
Run Number: 5014
Reliability: 100 %

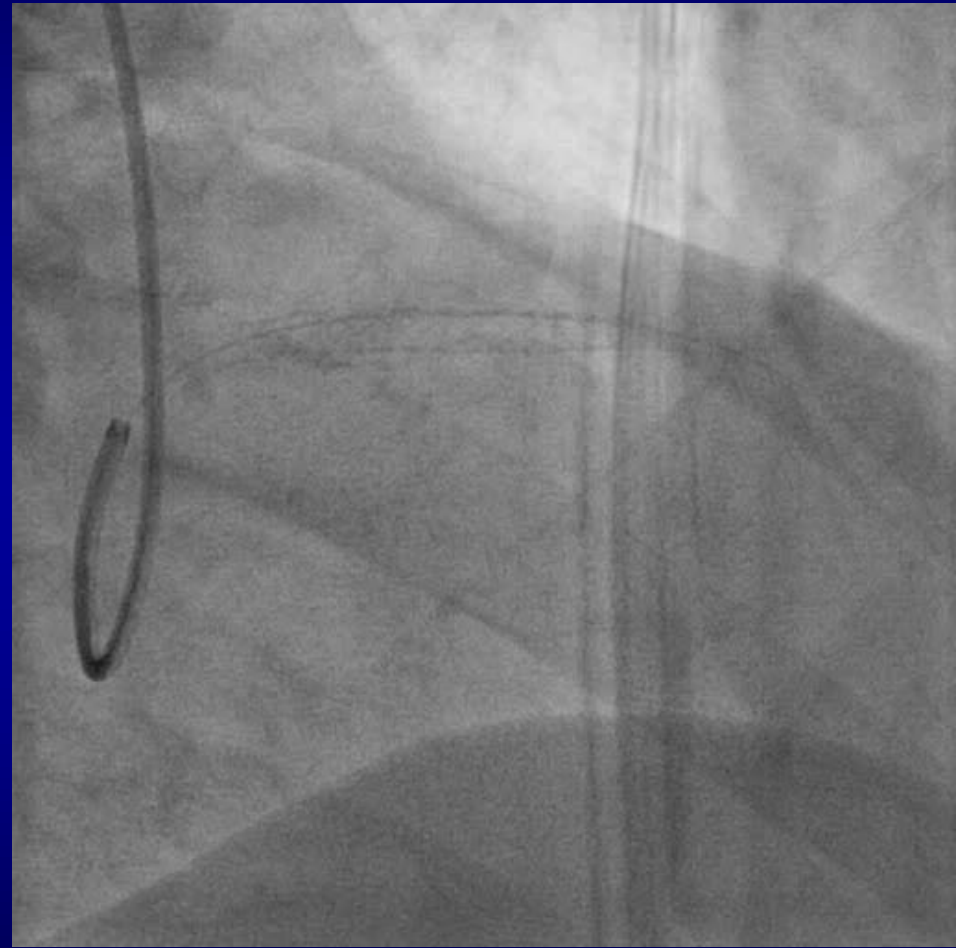


Stenting



Resolute Integrity 3.0X34mm

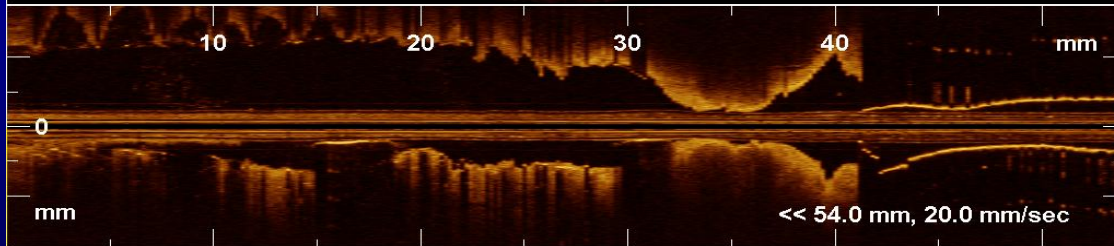
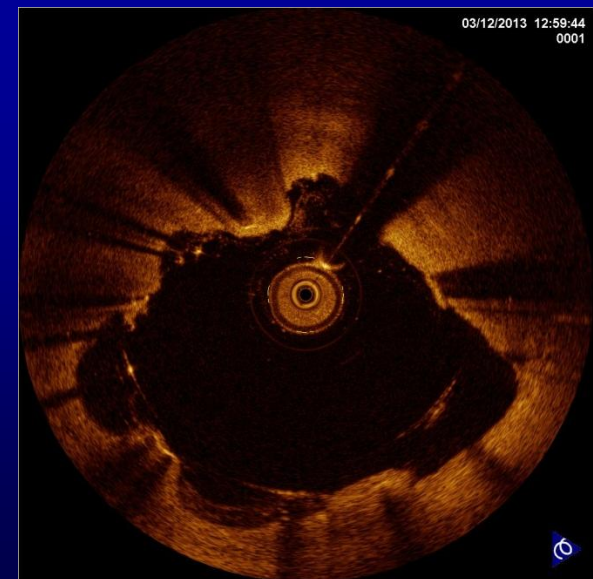
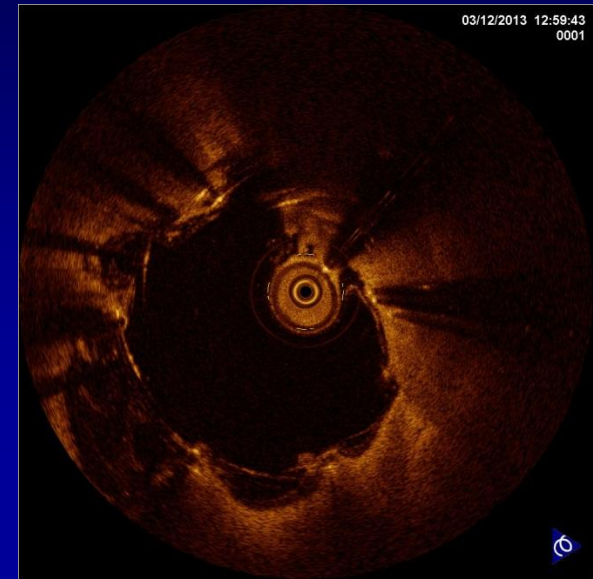
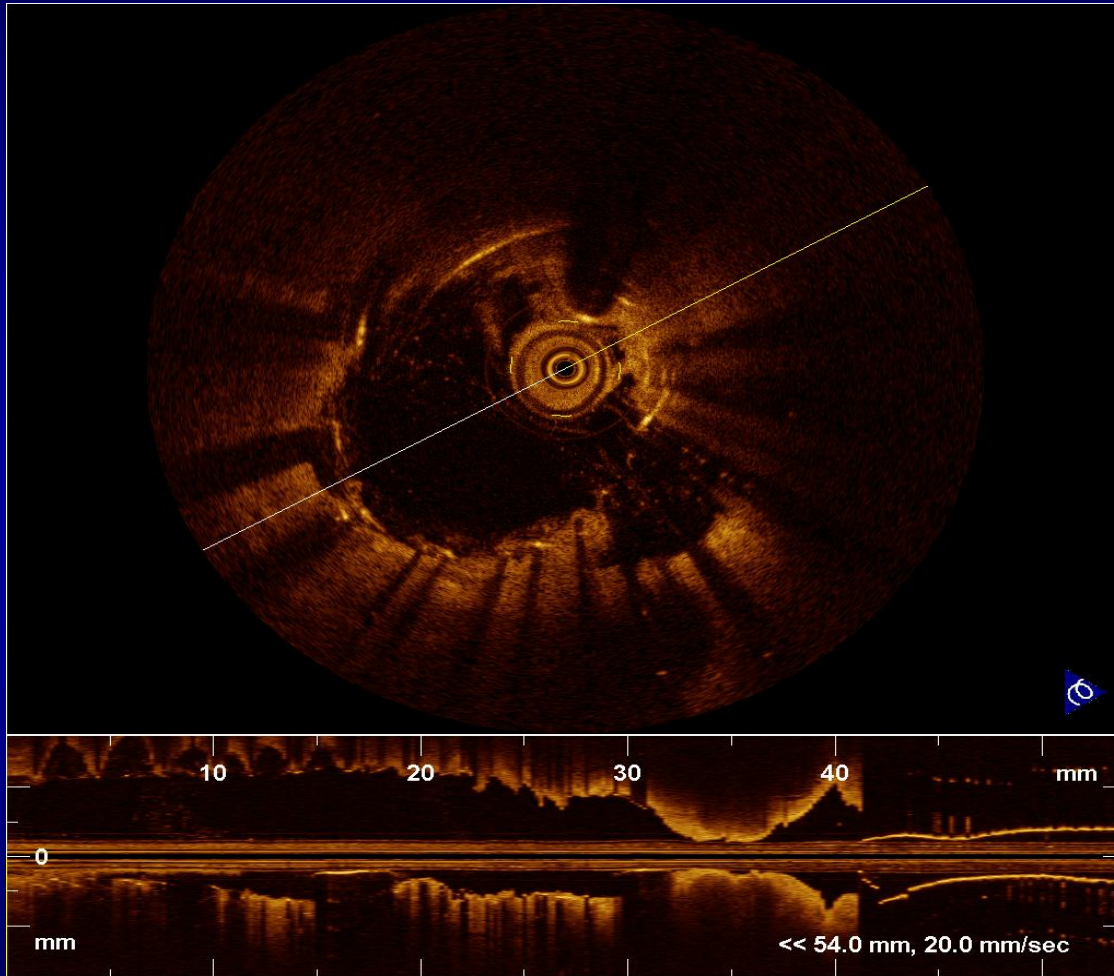
Post Stenting



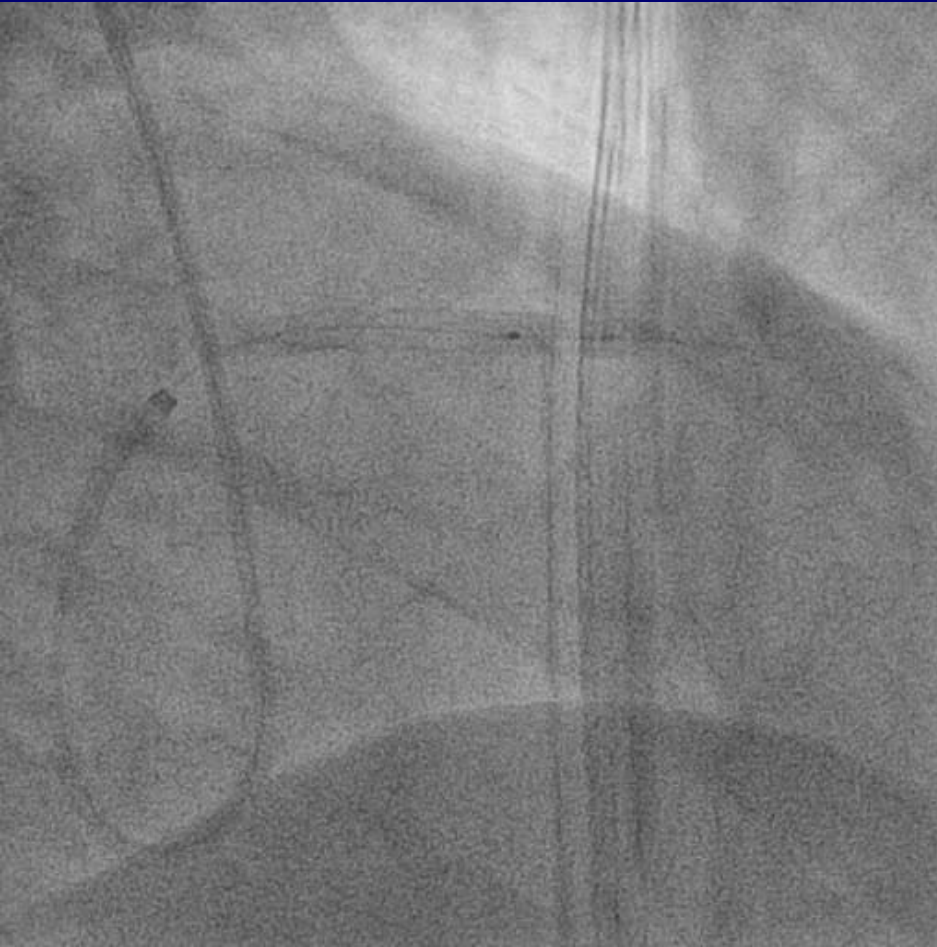
Options at this point of time!

1. Leave it and follow up with OMT
2. Imaging study and then decide for further procedure.
3. Routine adjuvant ballooning with bigger NC balloon.

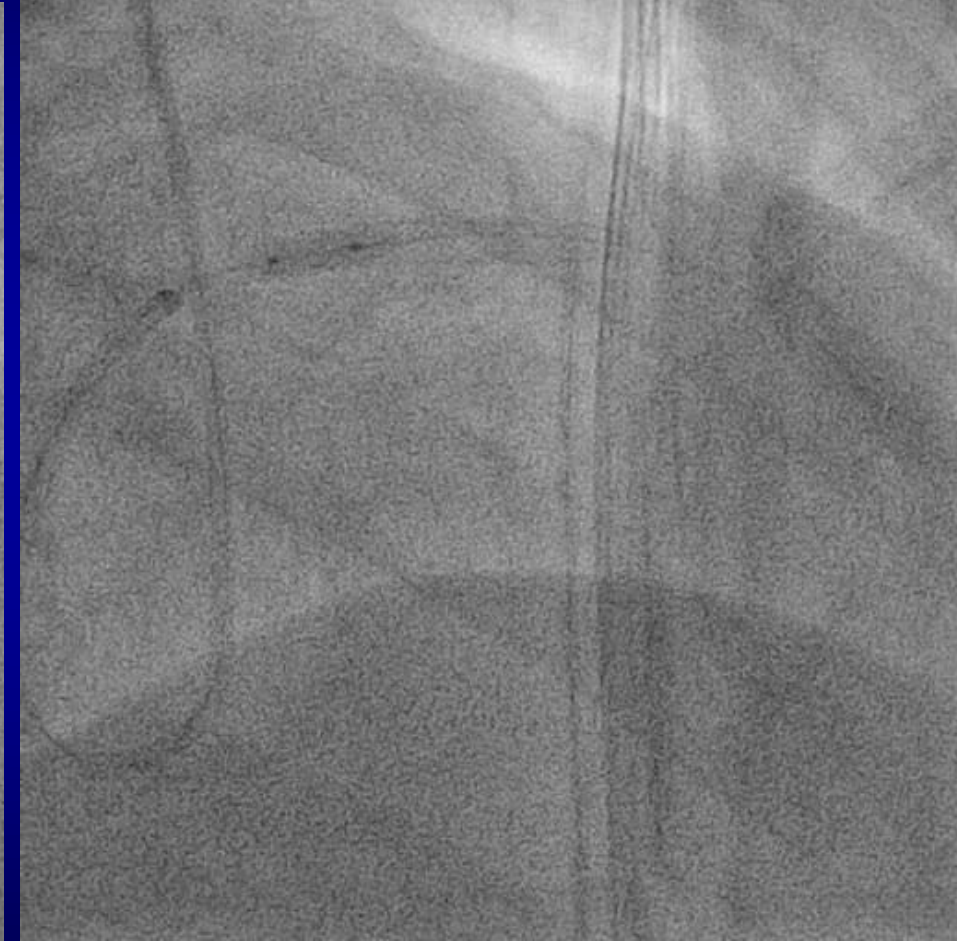
Immediate Post-Stenting OCT



Post Stenting Adjuvant Ballooning

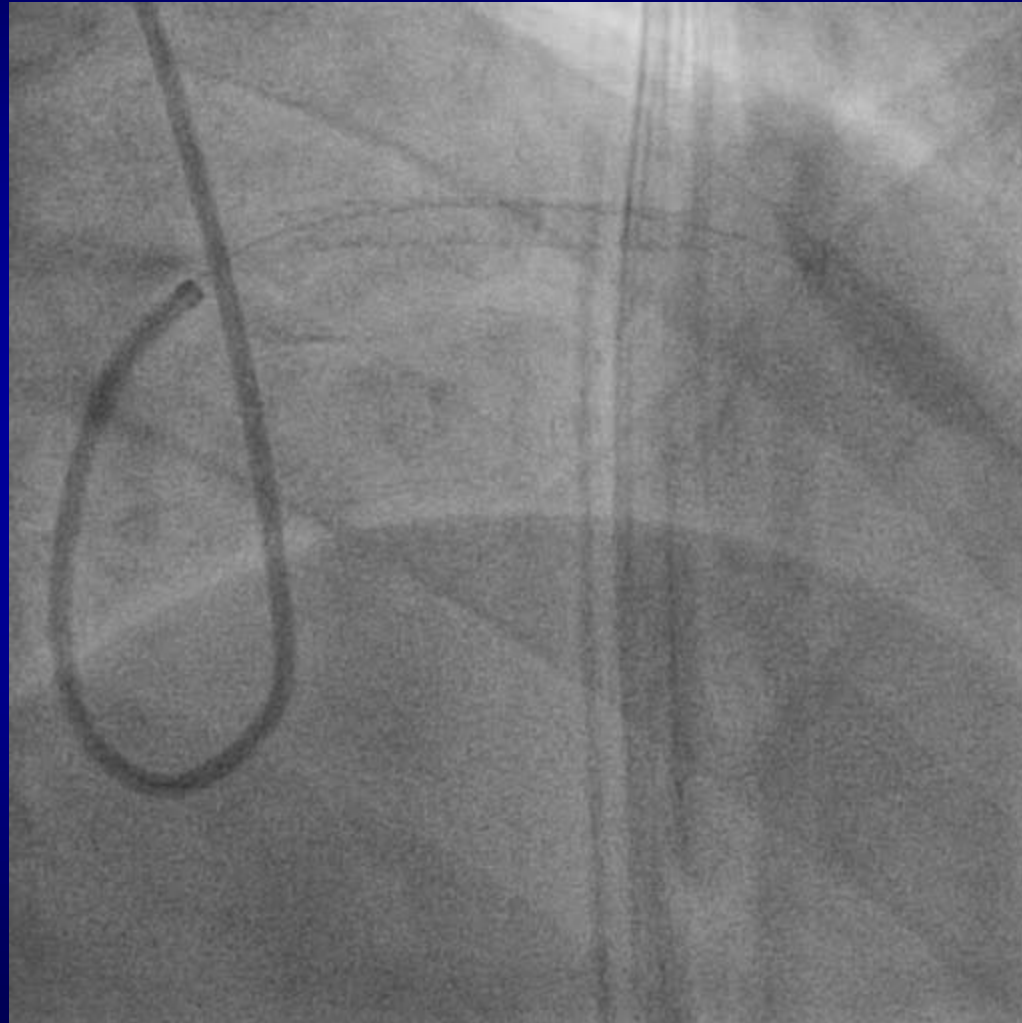


Durastar 4.0X10mm

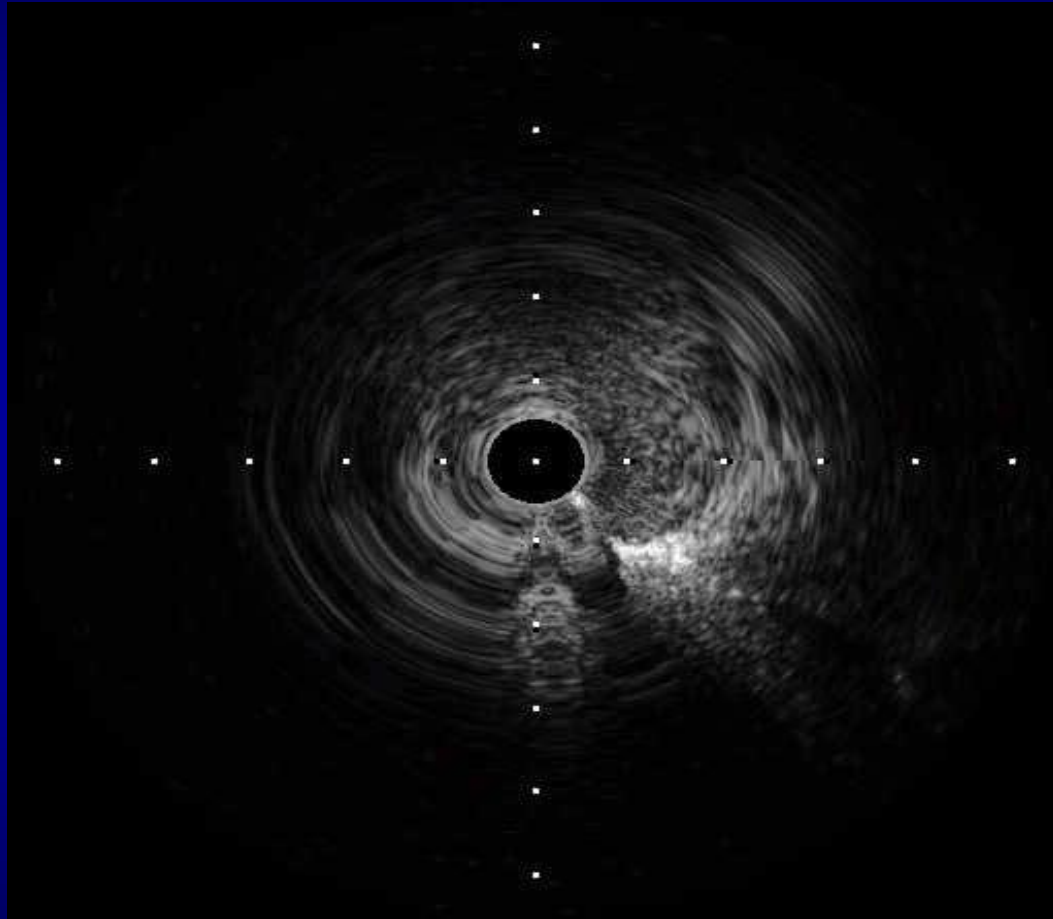


Quantum 4.5X8mm

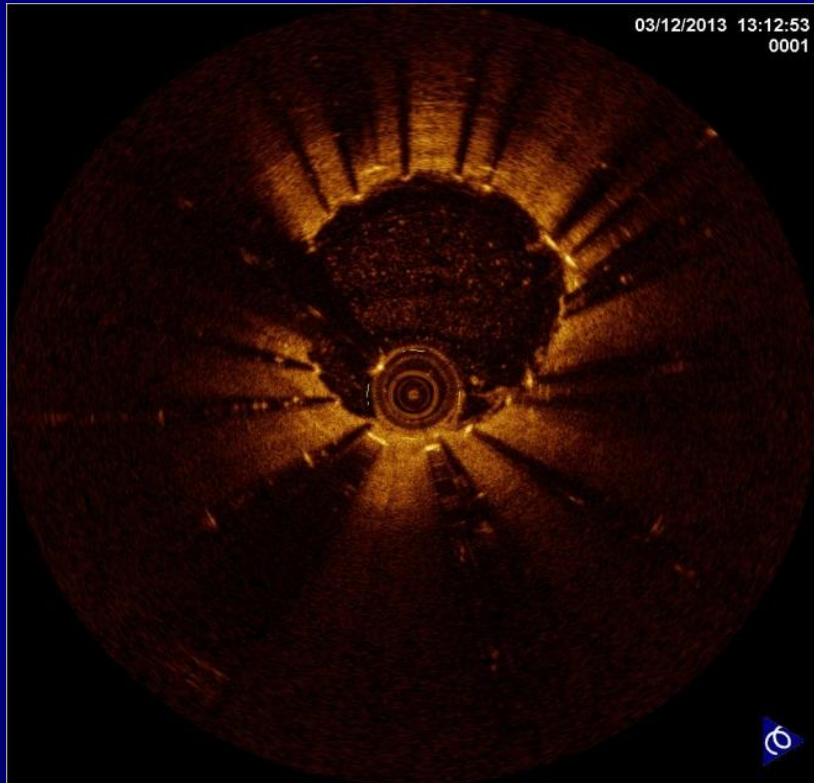
Post NC Balloon



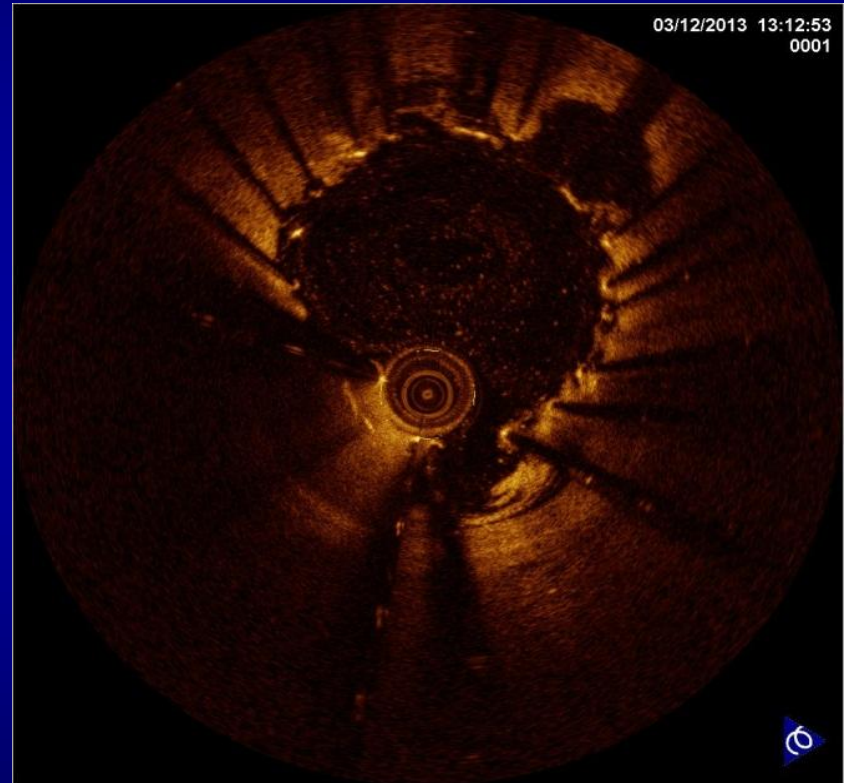
Post NC IVUS



Post NC OCT images



Proximal part of stent

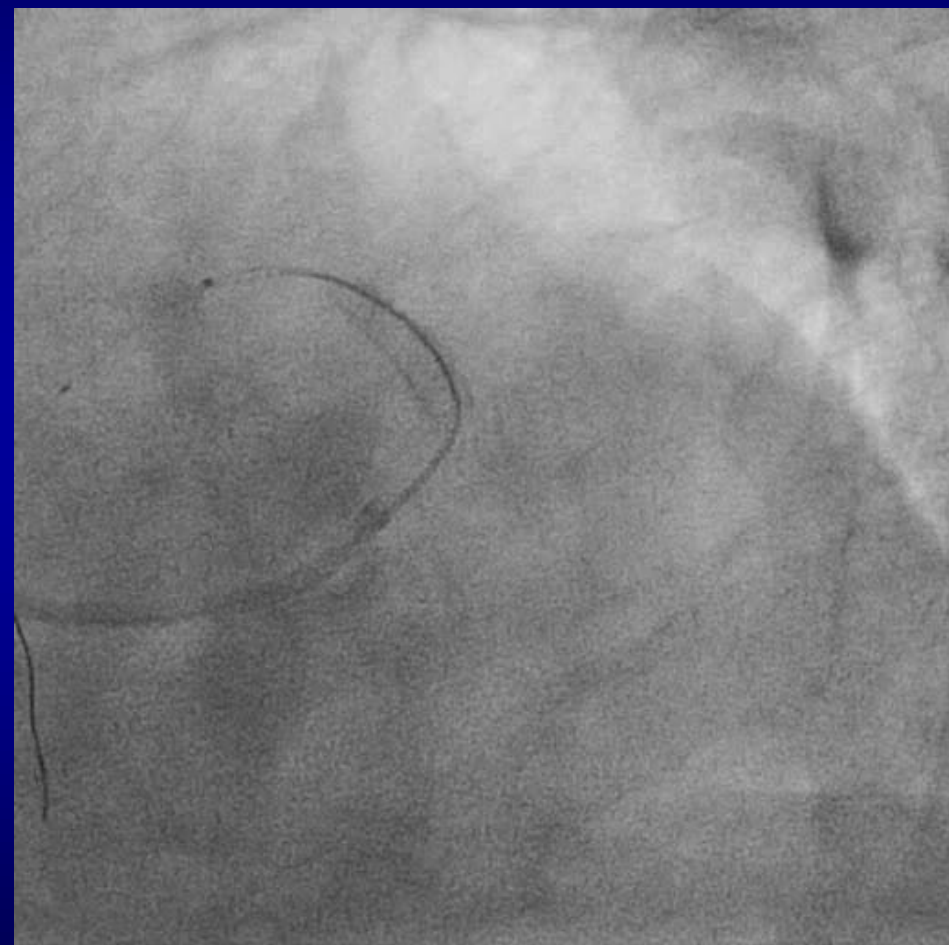
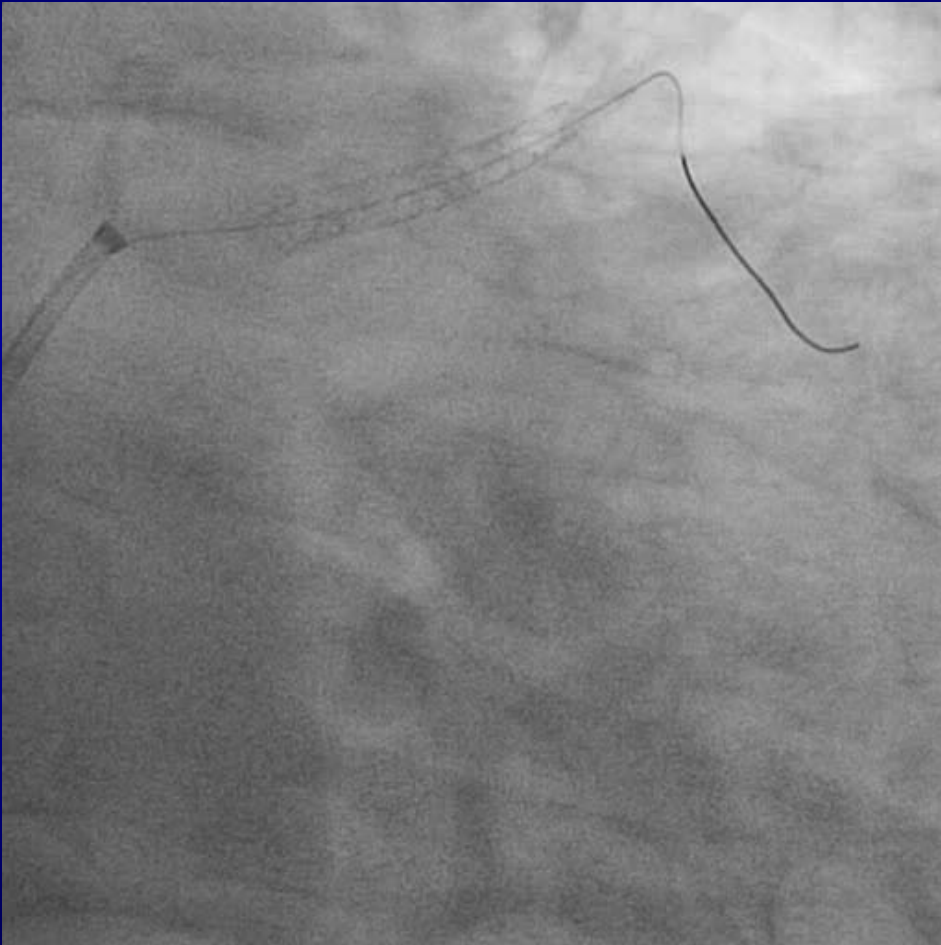


Mid to distal part of stent

Further NC Ballooning

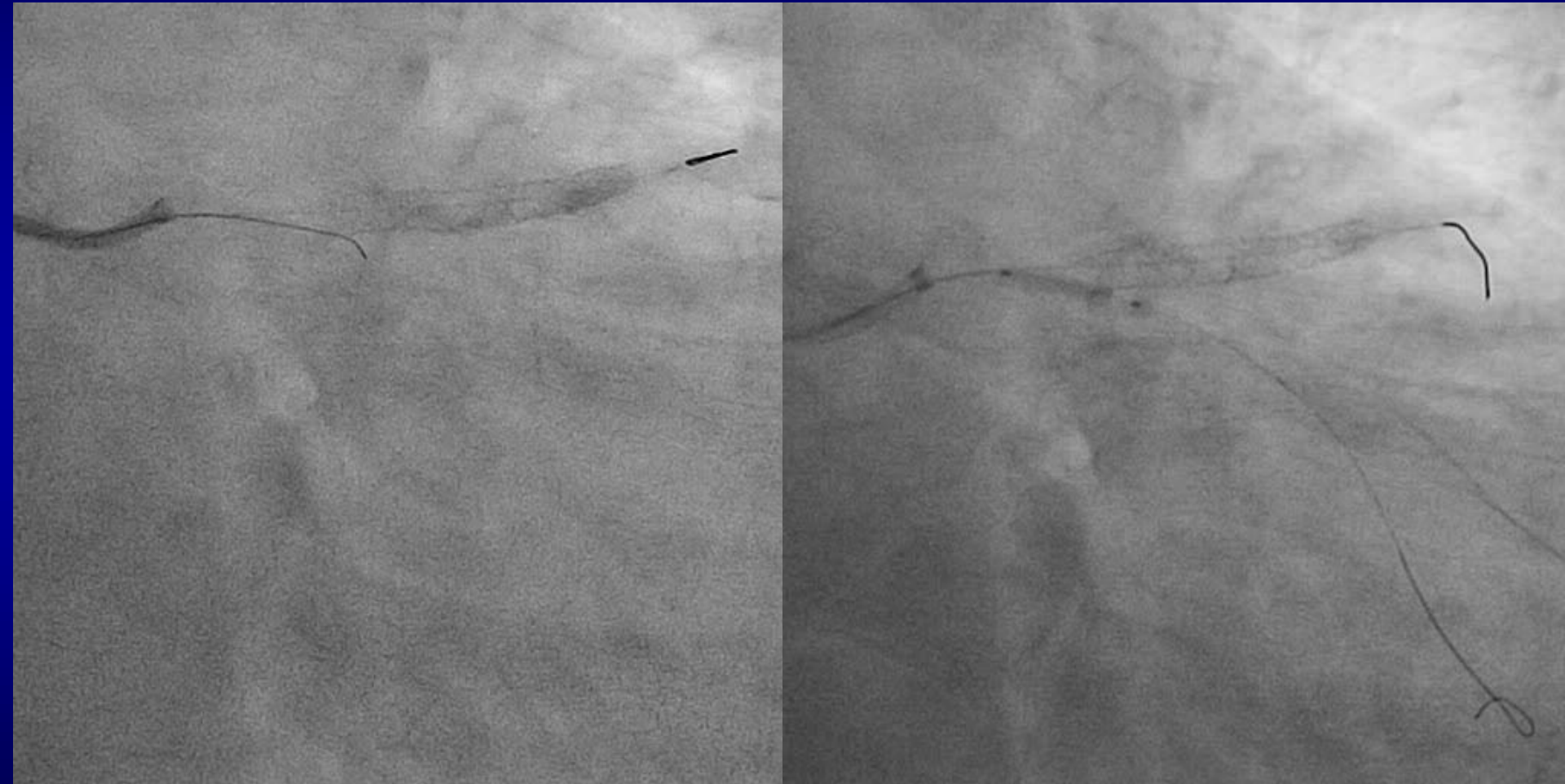


Post NC (2)



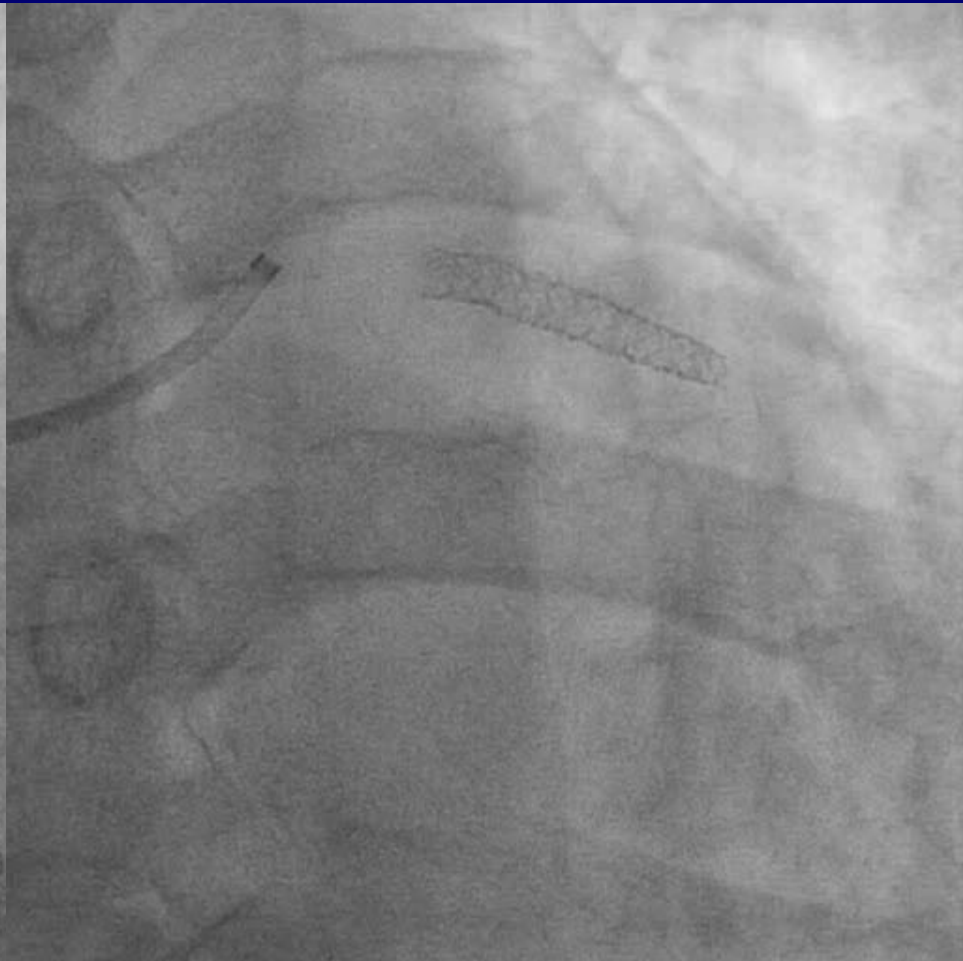
- There was a concern about the jailing of LCX ostium.
- LCX was safely secured with Whisper wire.
- Ballooning was done with Lacrosse 2*15 mm.

Side Branch Management



Lacrosse 2.0X15mm

Post Ballooning



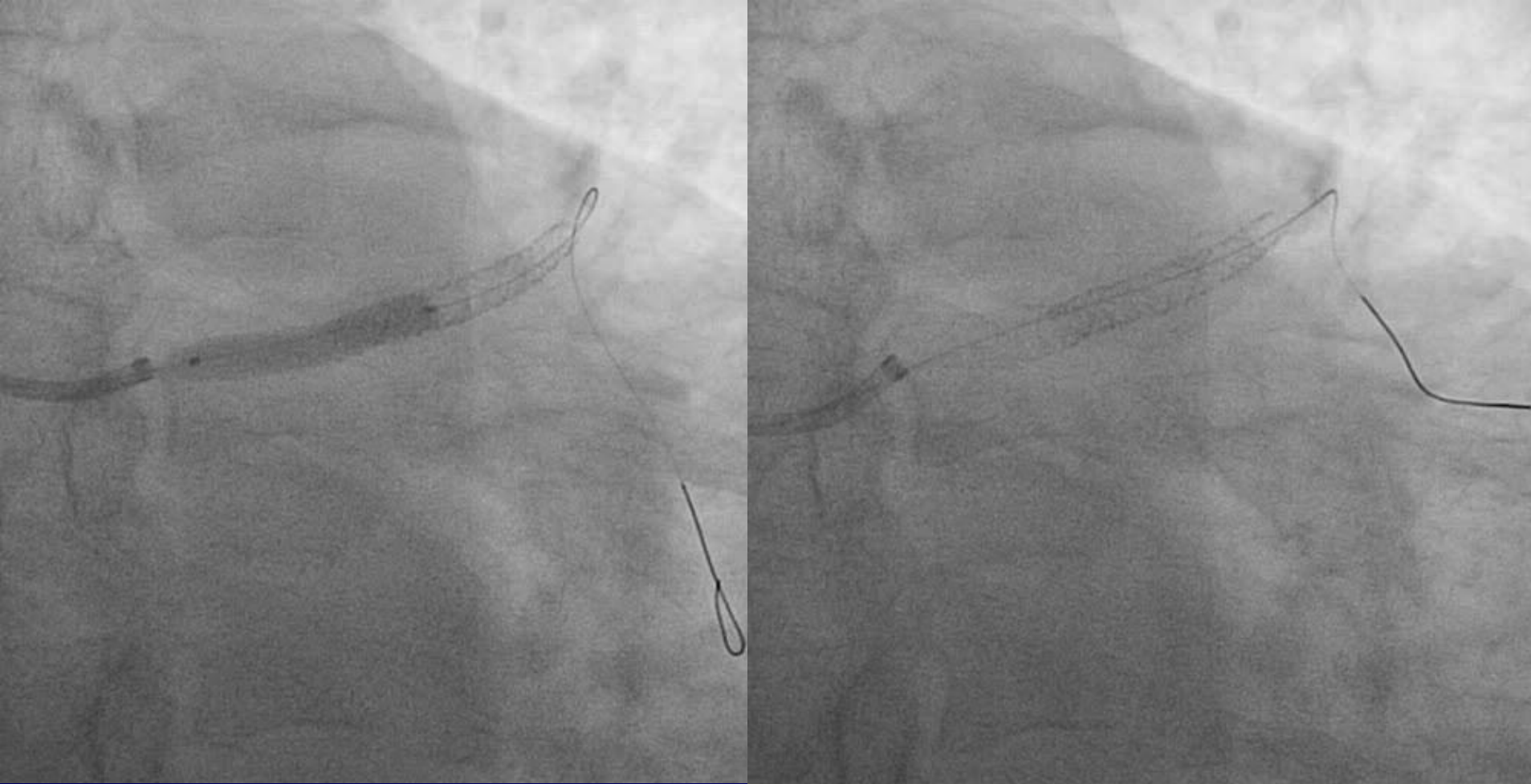
Something Wrong.....



Linear dissection of LM and px LAD

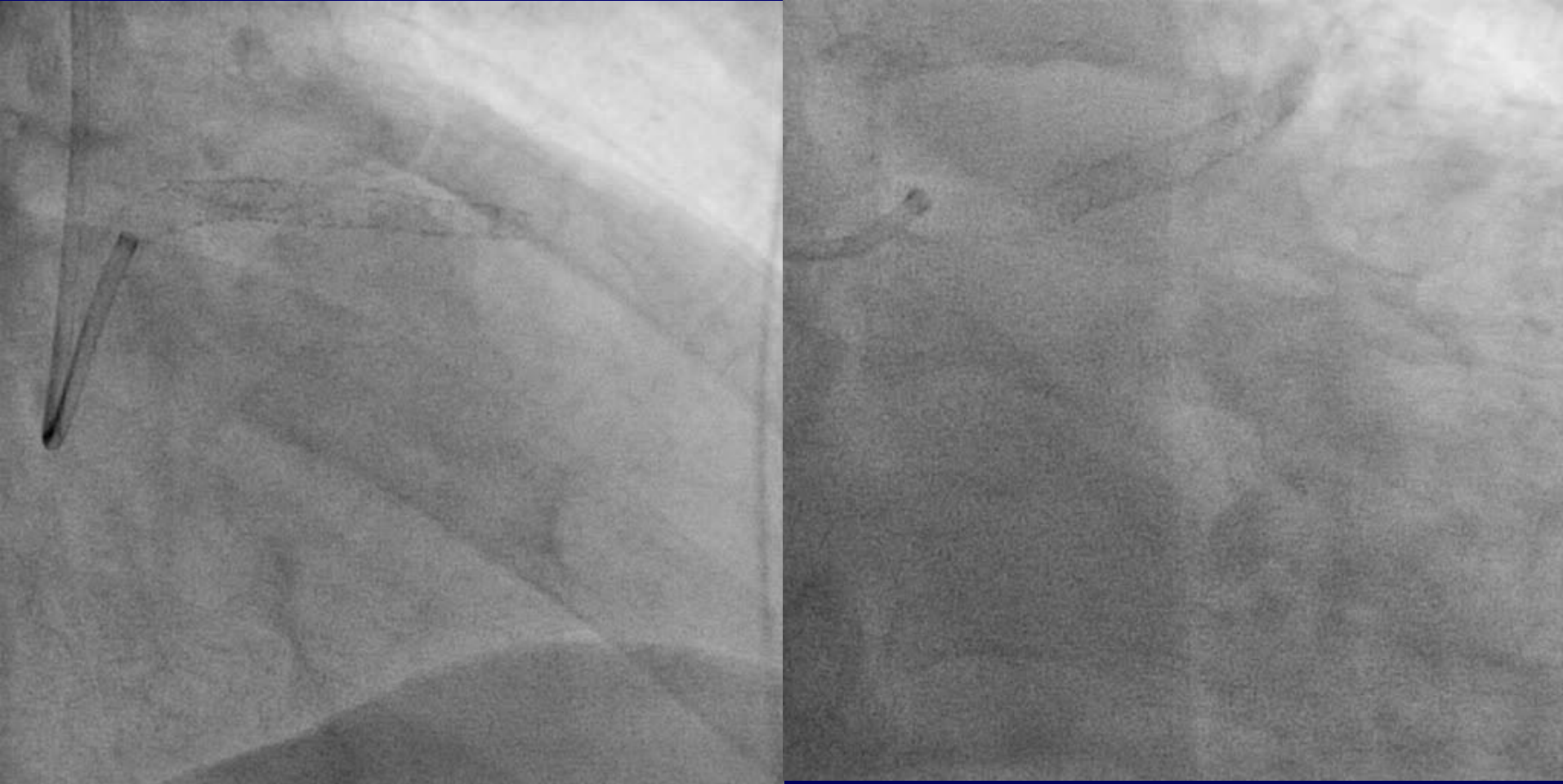
High pressure ballooning with Durastar 4*10 mm was done

Additional Stenting

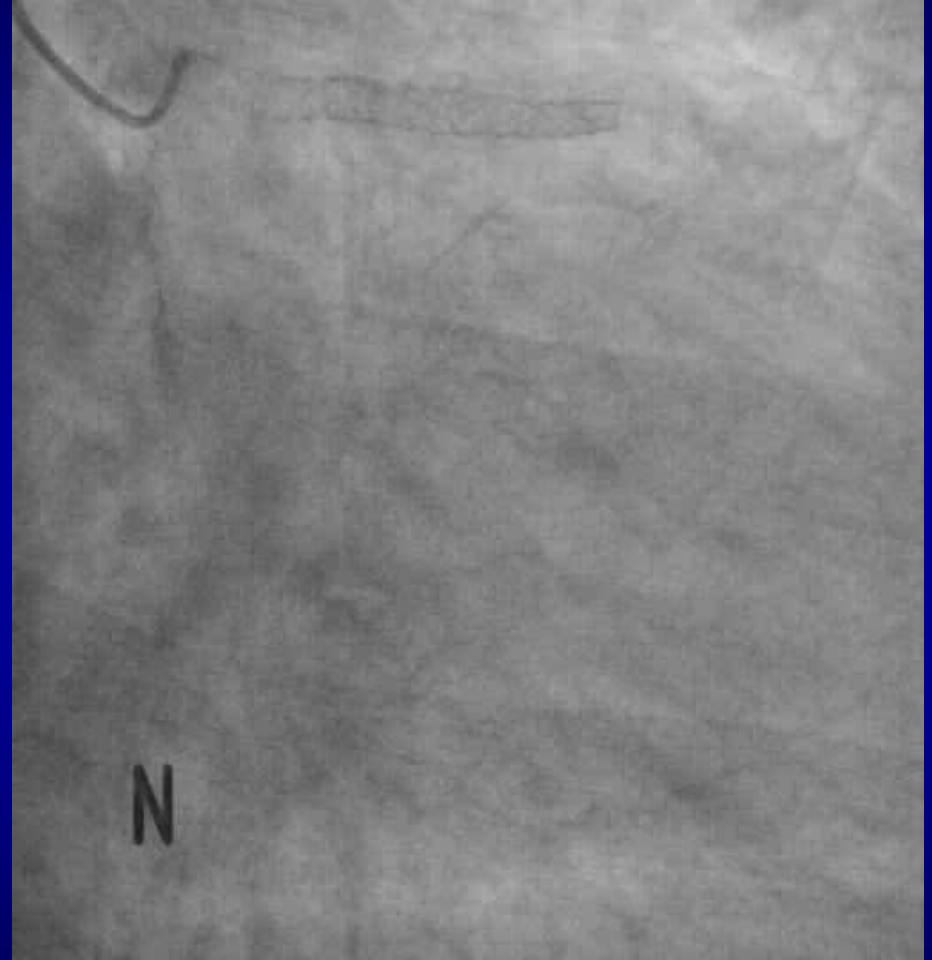
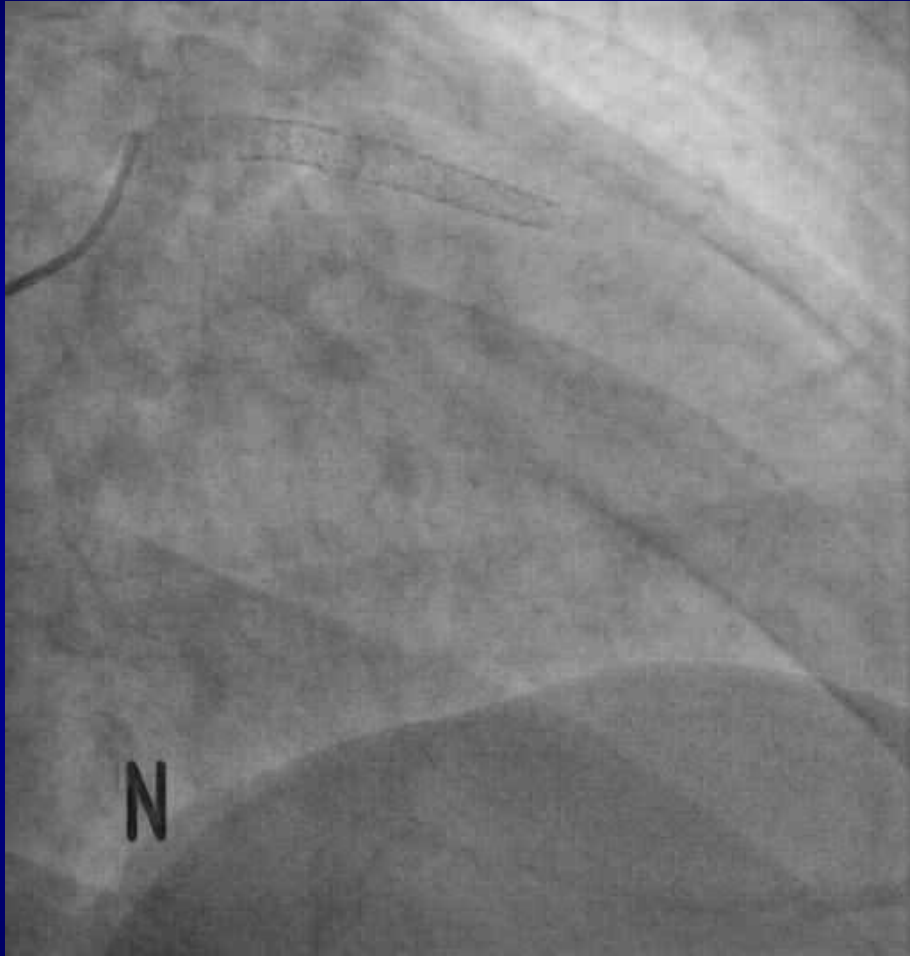


Resolute Integrity 4.0X22mm

Final Angiography



Follow-up angiogram at 6 months



Discussion

1. For complex ISR reintervention, multiple devices should be ready.
2. Importance of image device-guided intervention (IVUS, OCT and Stent booster).