

# Tackling multi-vessel coronary artery disease 'PCI in current era'



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# History

- 65 yr. old male
- Effort angina class 2
- Triple vessel CAD documented elsewhere
- Declined CABG
- Referred for multi-vessel coronary angioplasty

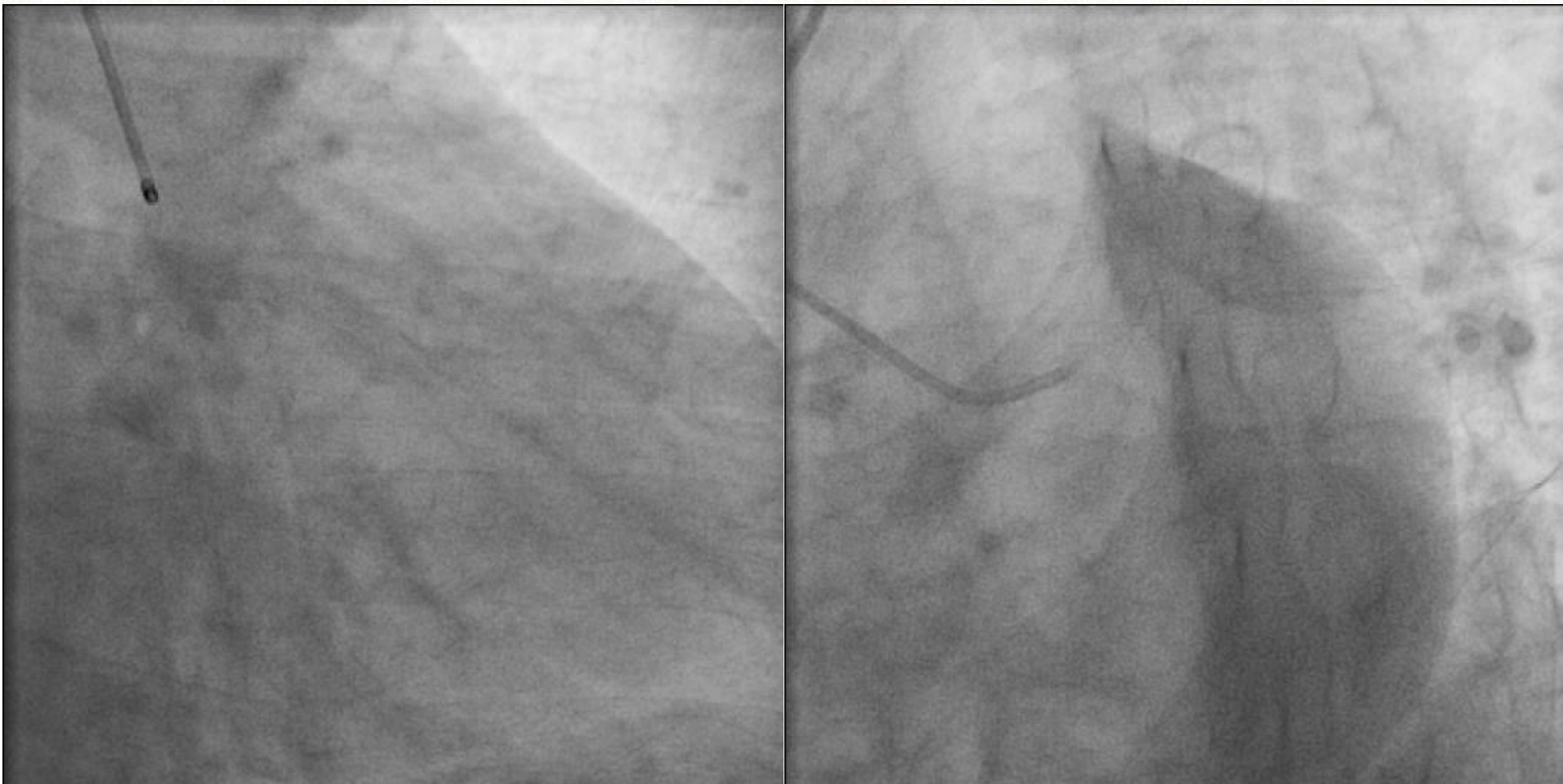
# Risk factors

- Ex- smoker
- Non Diabetic
- Non Hypertensive
- Dyslipidemia on treatment

# Baseline investigations

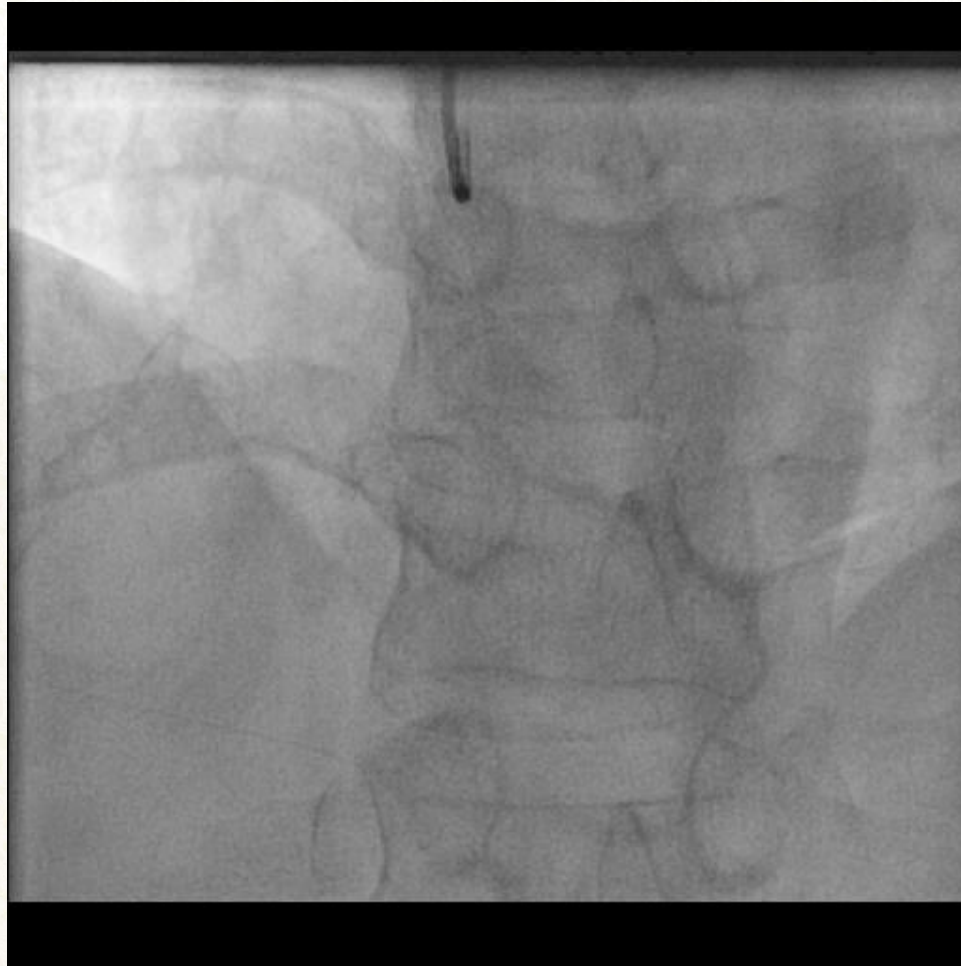
- Normal renal functions
- ECG: SR, RBBB
- CXR: CTR < 55%. Normal lung fields
- Echo: No RWMA. Grade 1 diastolic dysfunction. Normal systolic function.

# LCA angiogram



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# Baseline angiogram - RCA

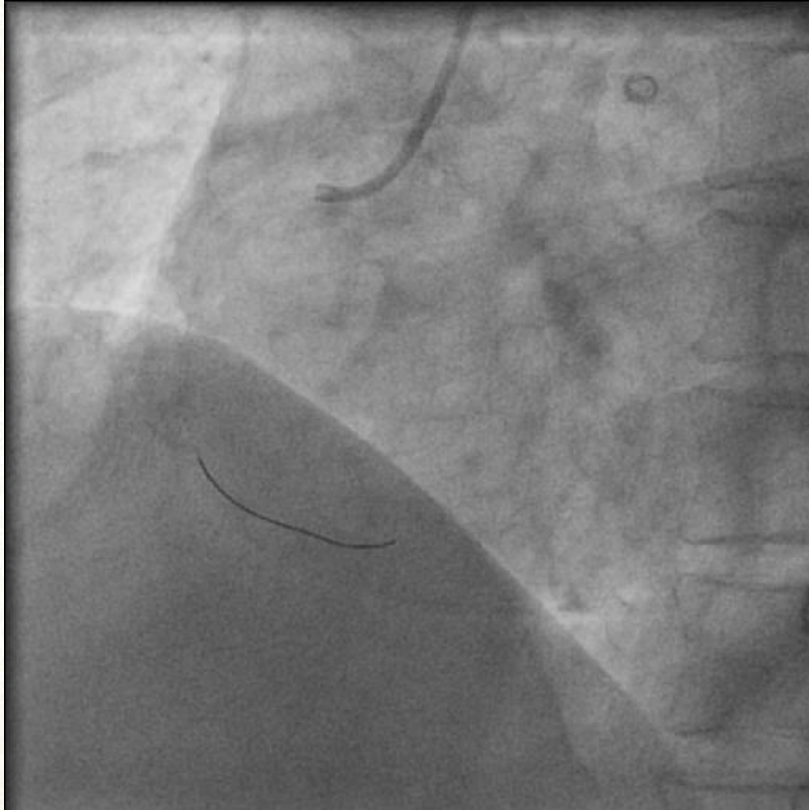


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# Procedural planning

- Syntax score: 18.5
- Right radial approach (7F)
- FFR of RCA
- Recanalization of OM
- IVUS guided PCI of Left main – LAD  
(Medina 0,1,0)

# FFR of RCA



FFR with intracoronary Adenosine  
80 mcg : 0.94

Hemodynamically insignificant lesion

Not intervened

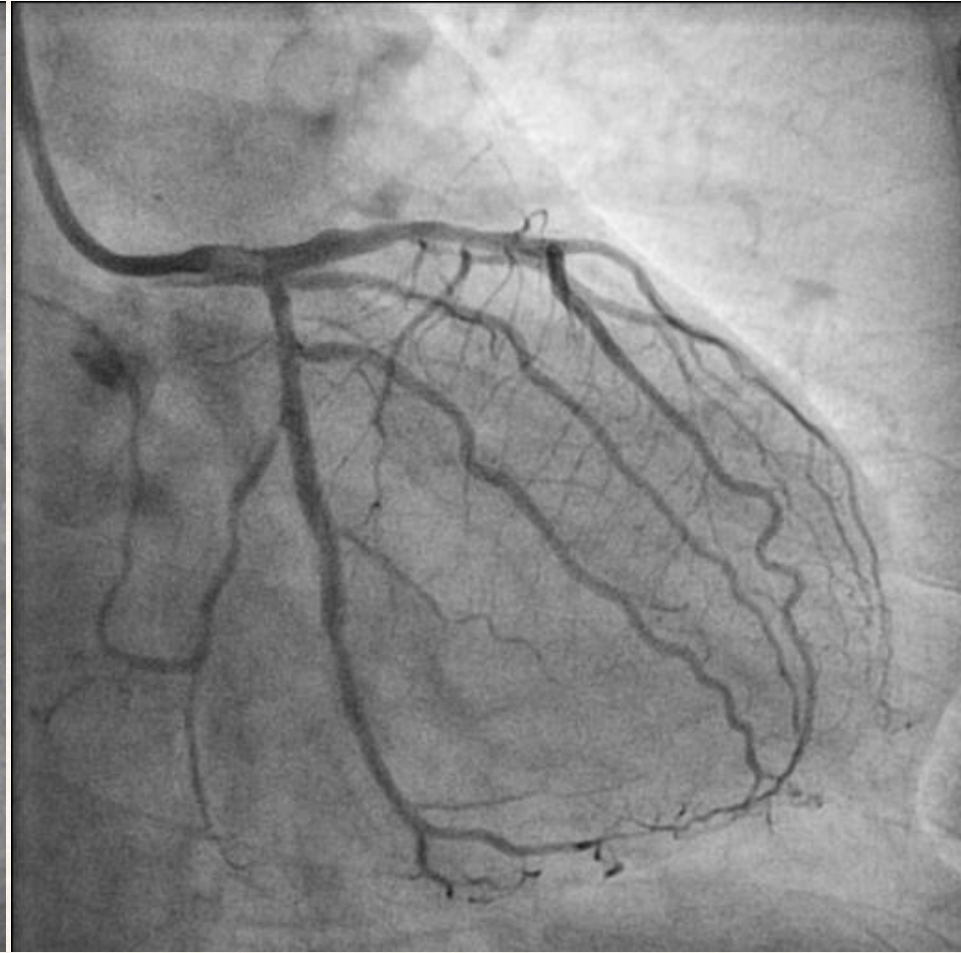
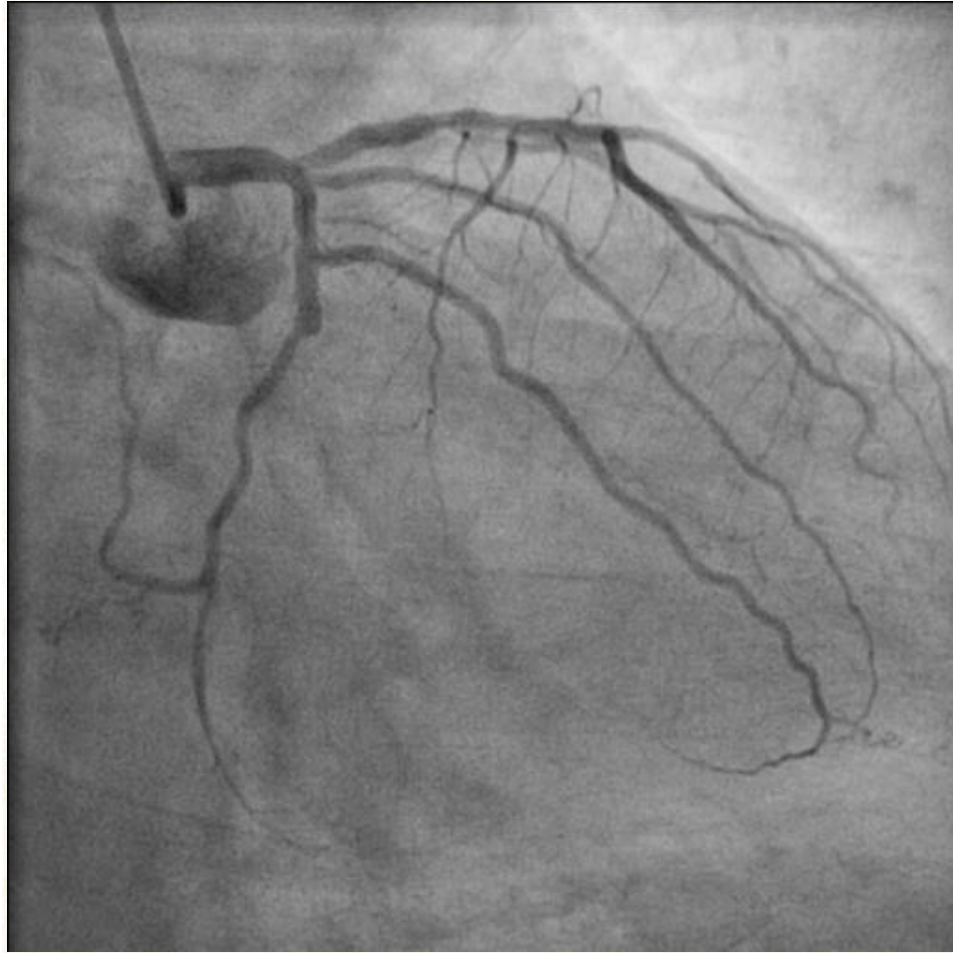


# LCX angioplasty



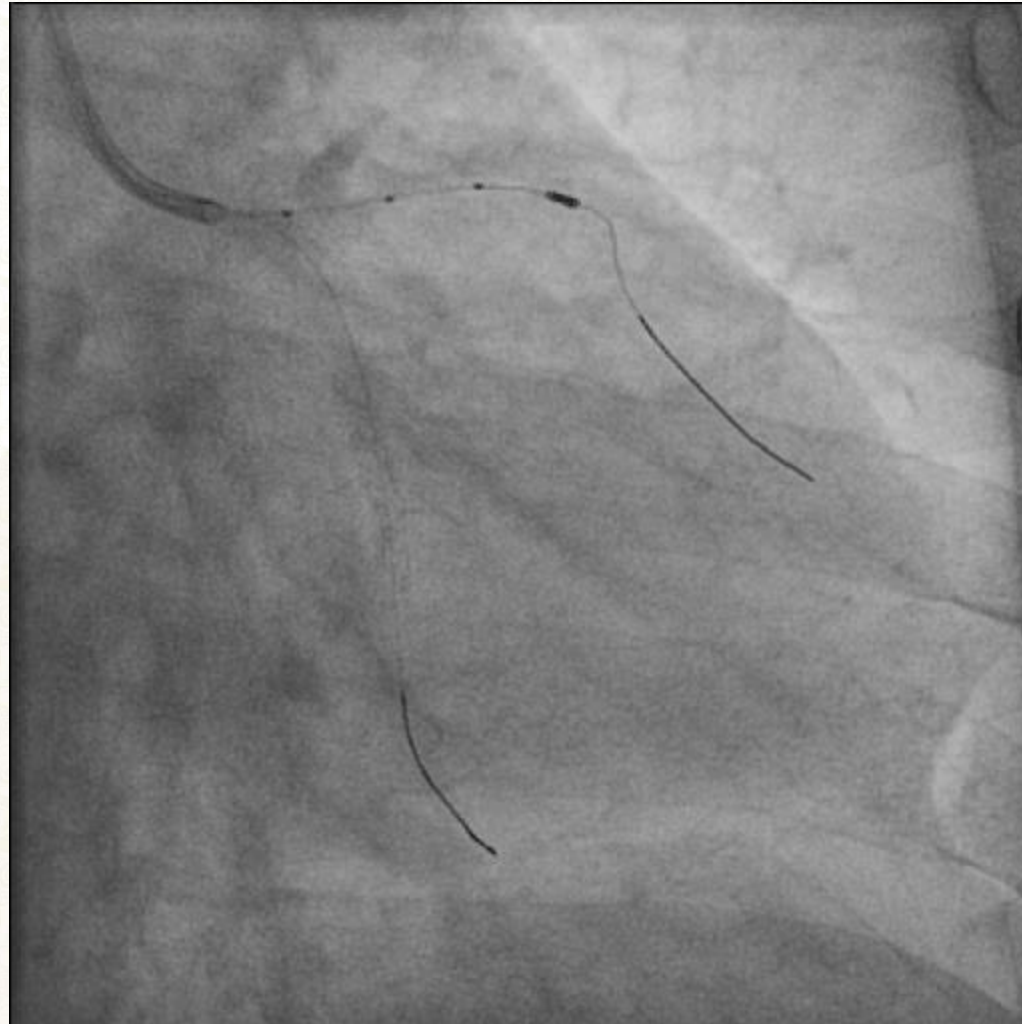
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# Recanalization of LCX



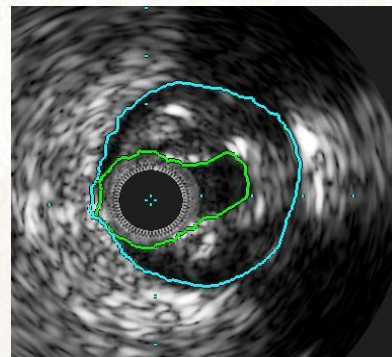
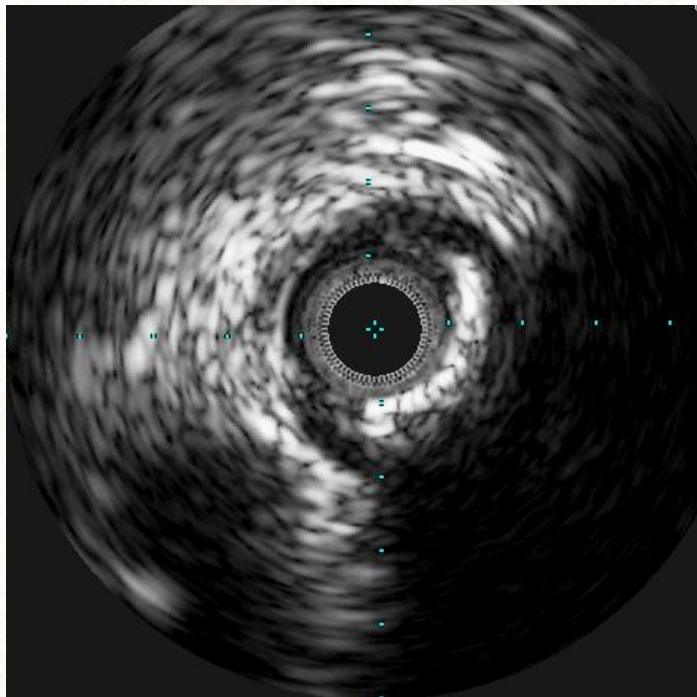
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# Pre intervention IVUS of LM - LAD

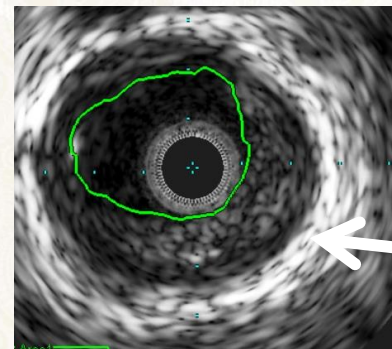


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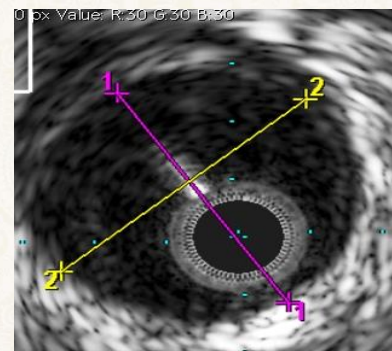
# IVUS of prox- LAD to Left Main



LAD ostium  
Area: 3.9 mm<sup>2</sup>  
Vessel Dia: 3.9 mm

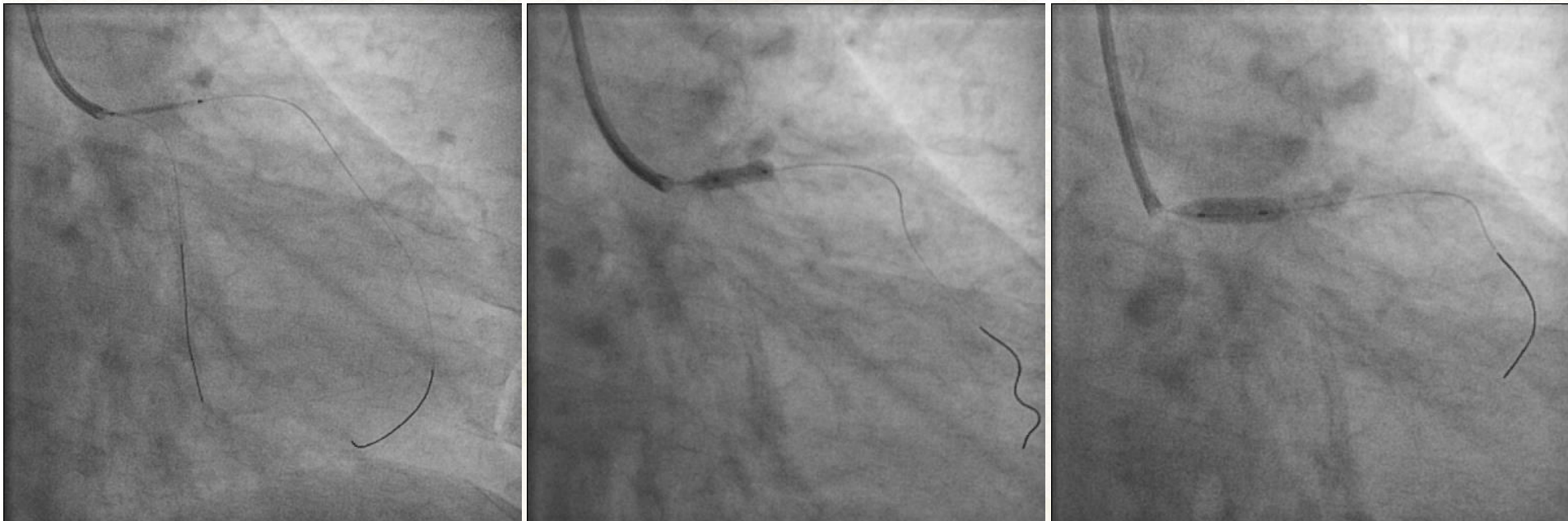


Distal left main plaque  
Area: 8.5 mm<sup>2</sup>  
Plaque burden



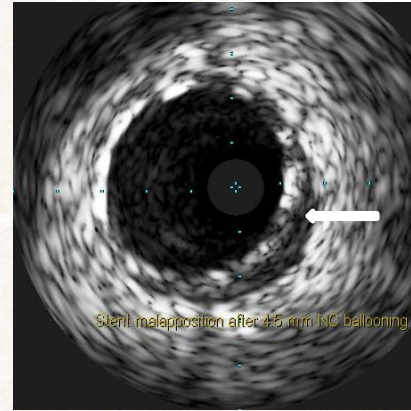
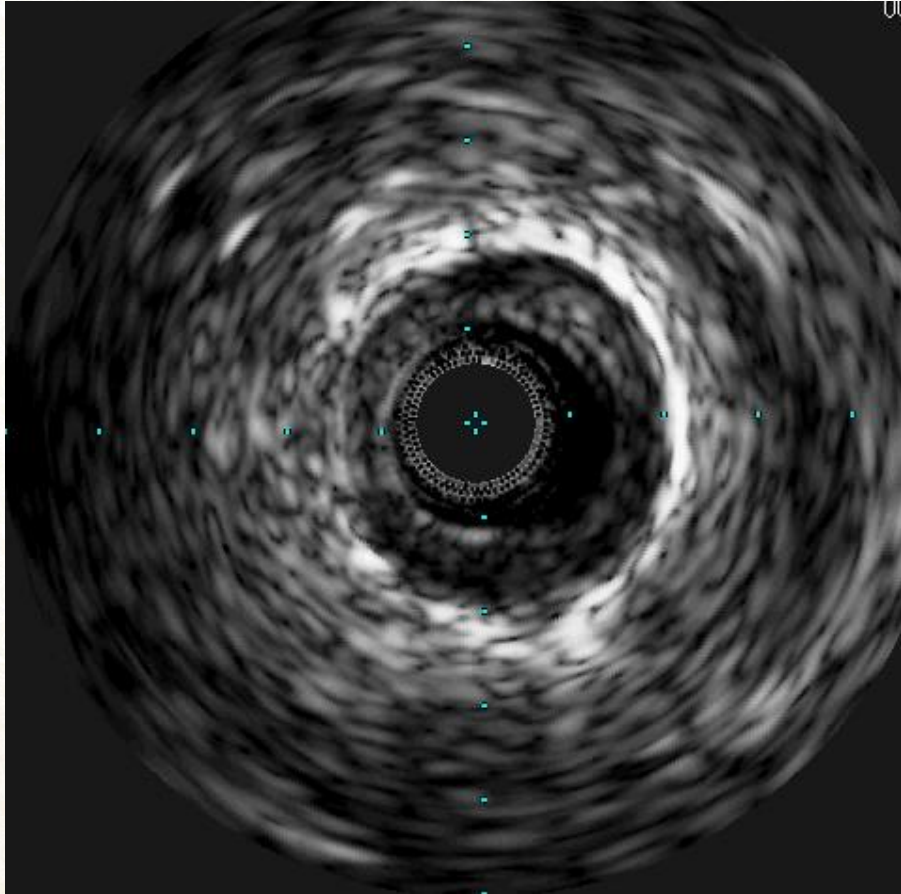
Proximal left main  
Vessel Dia: 4.7 mm  
Plaque burden: 35%

# Left Main – LAD stenting

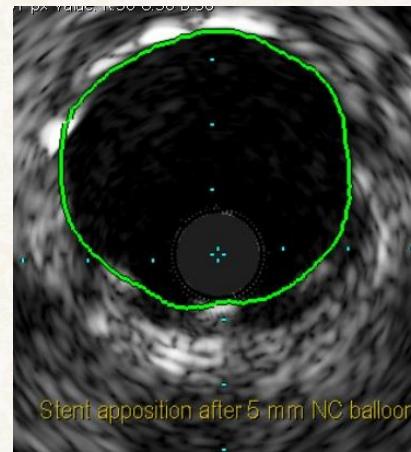


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# IVUS imaging after 4.5 and 5 mm NC balloon dilatation



Post NC balloon  
4.5 mm



Post NC balloon  
5 mm

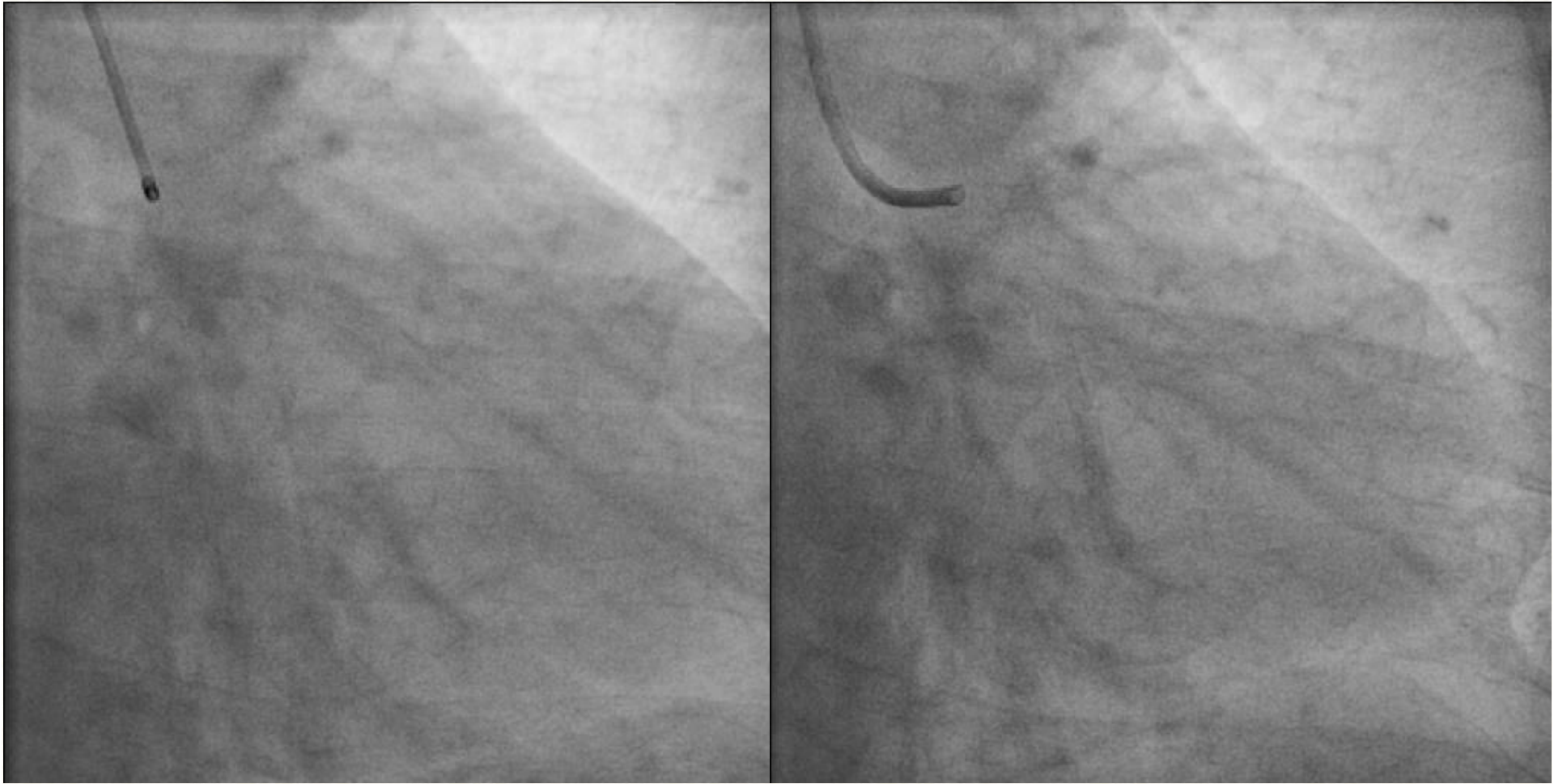
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# Angiographic result



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# Angiographic result



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# Teaching points

- Left Main – LAD stenting a reasonable option when plaque extends into the distal Left Main
- Single stent strategy – good option if TIMI 3 preserved in the non-stented branch vessel
- IVUS ensures adequate stent apposition – especially in Left Main stenting
- FFR aids in judicious stenting of vessels with borderline lesion
- Radial intervention feasible if vessel size can accommodate 7F sheath