

Expert Case Review: Complex Bifurcation PCI

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PCI Case #1

Brief Case Summary

A 82 year-old male was admitted for the evaluation of aggravating effort chest pain which was started 1 month ago. His clinical presentation was unstable angina. He was also diagnosed as **severe aortic stenosis**.

Past Medical History

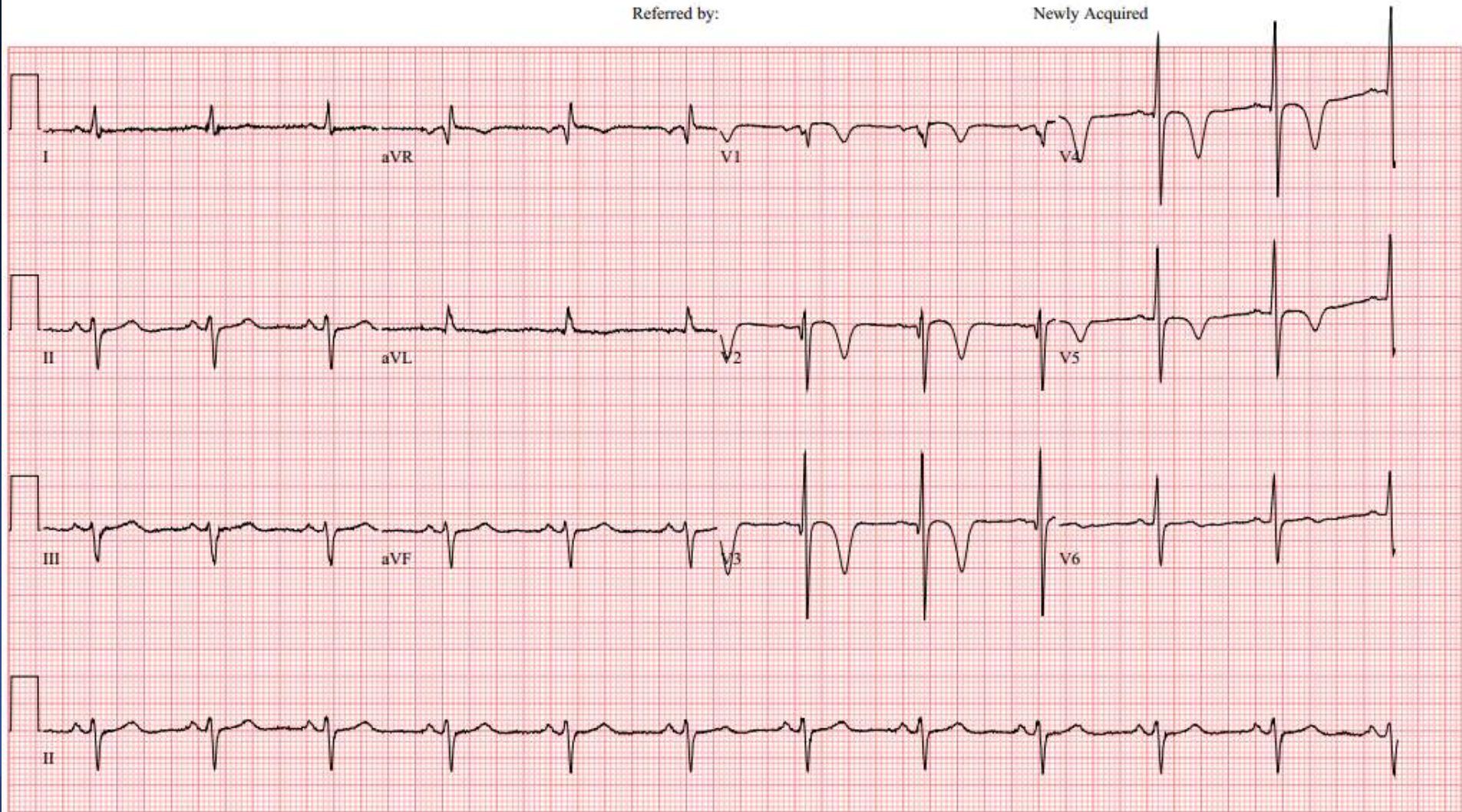
- Previous MI : N
- Previous CABG : N
- Previous PCI: N
- Cerebral aneurysm (2012)
- Severe aortic stenosis (2018.4)
- H/O NTM infection

ECG

Technician:
Test ind:

Referred by:

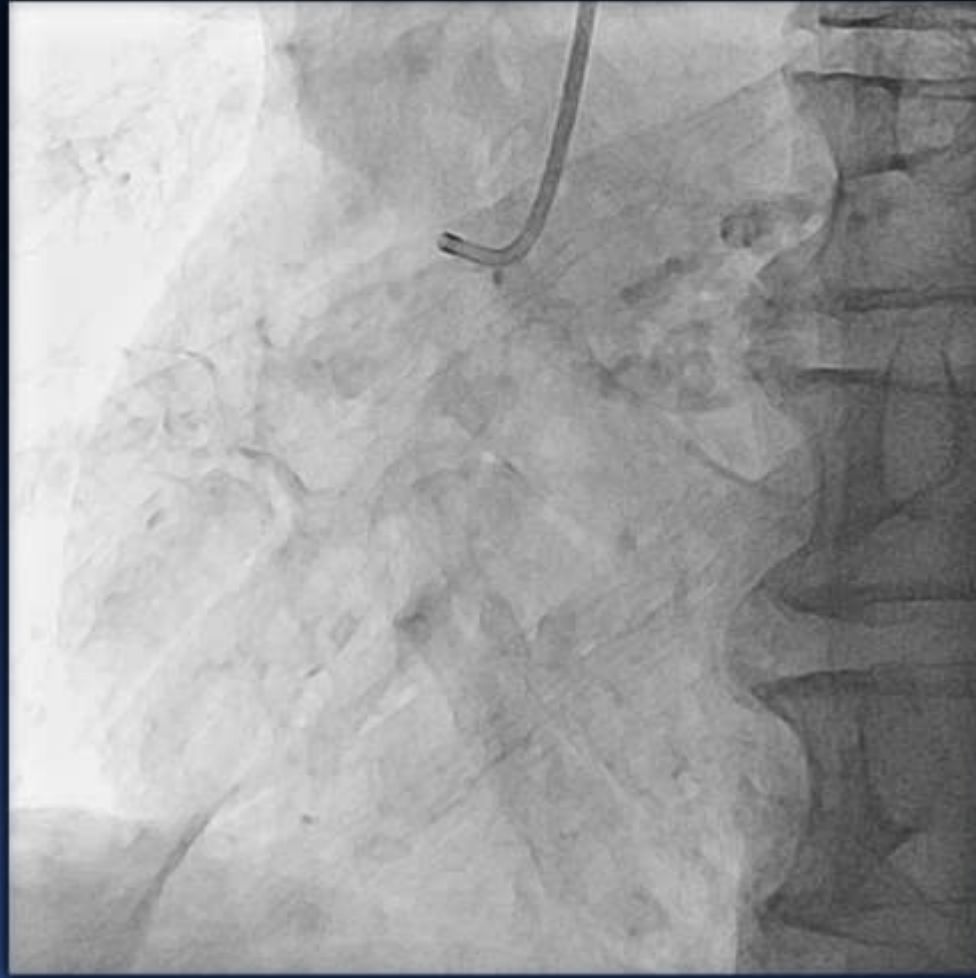
Newly Acquired



Chest X-ray



RCA

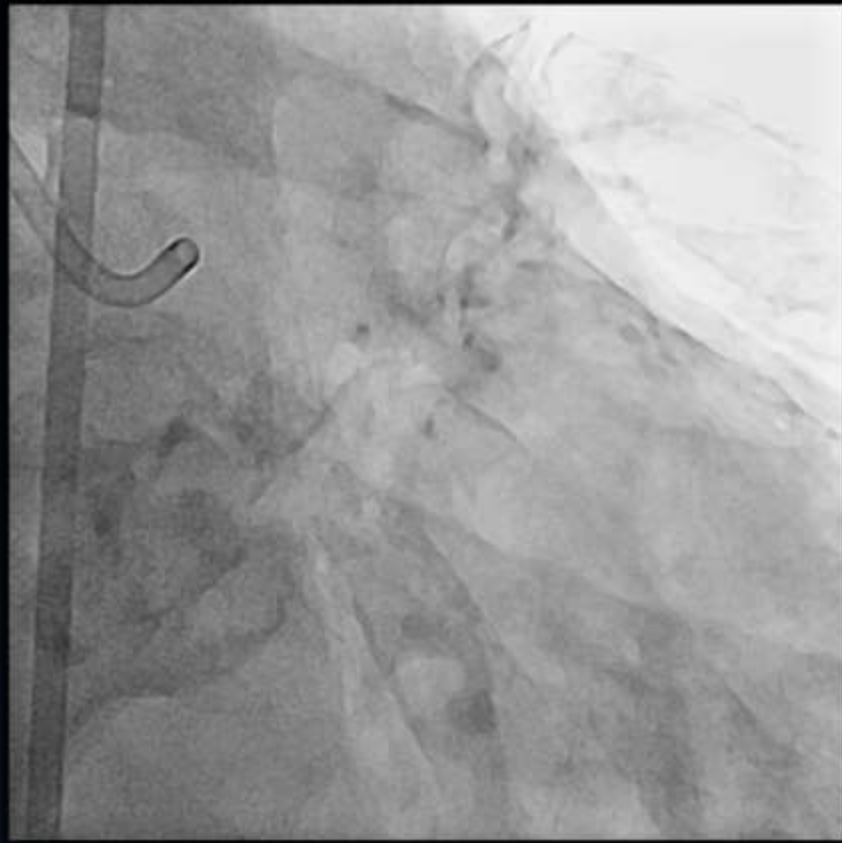


LCA

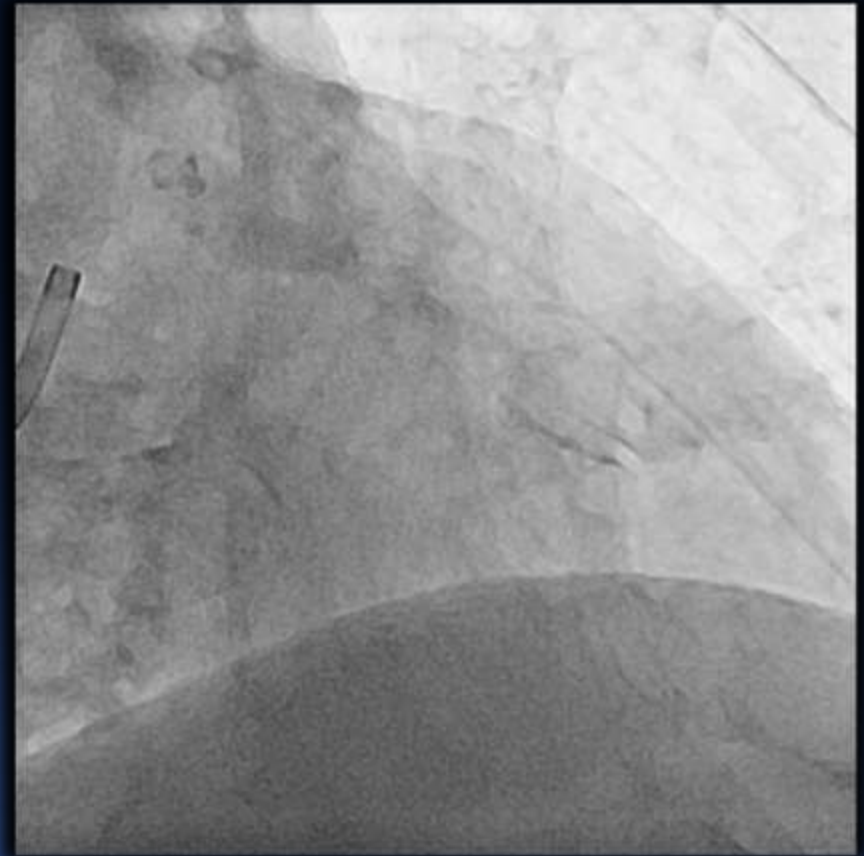


SPIDER

LCA



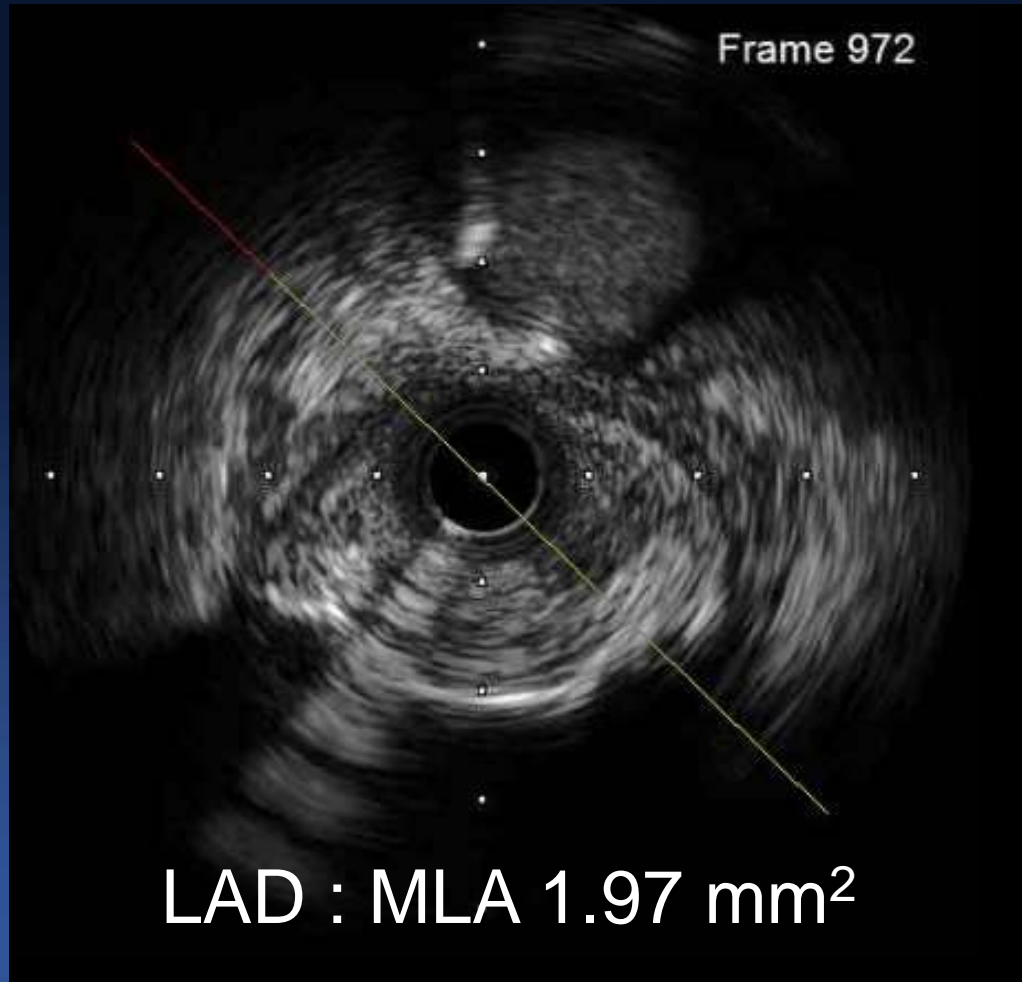
AP CAUDAL



AP CRANIAL

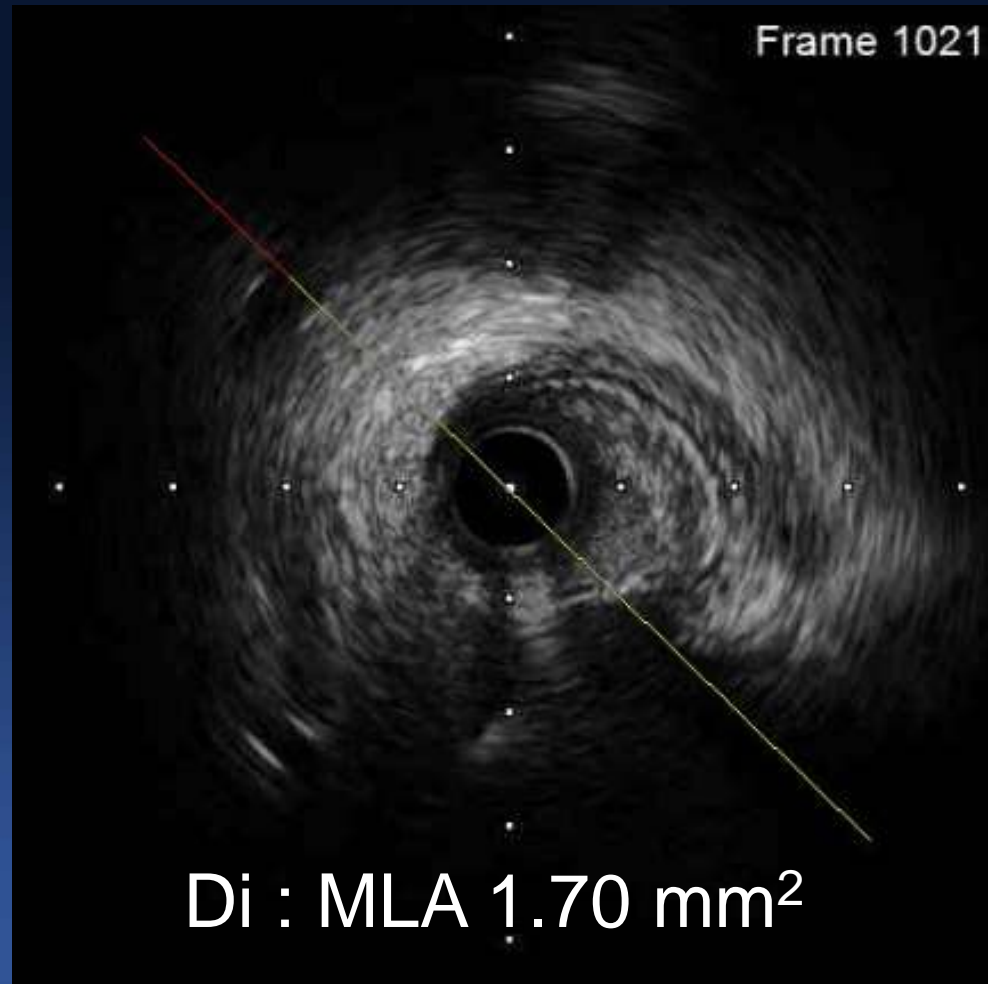
IVUS

Pre



IVUS

Pre

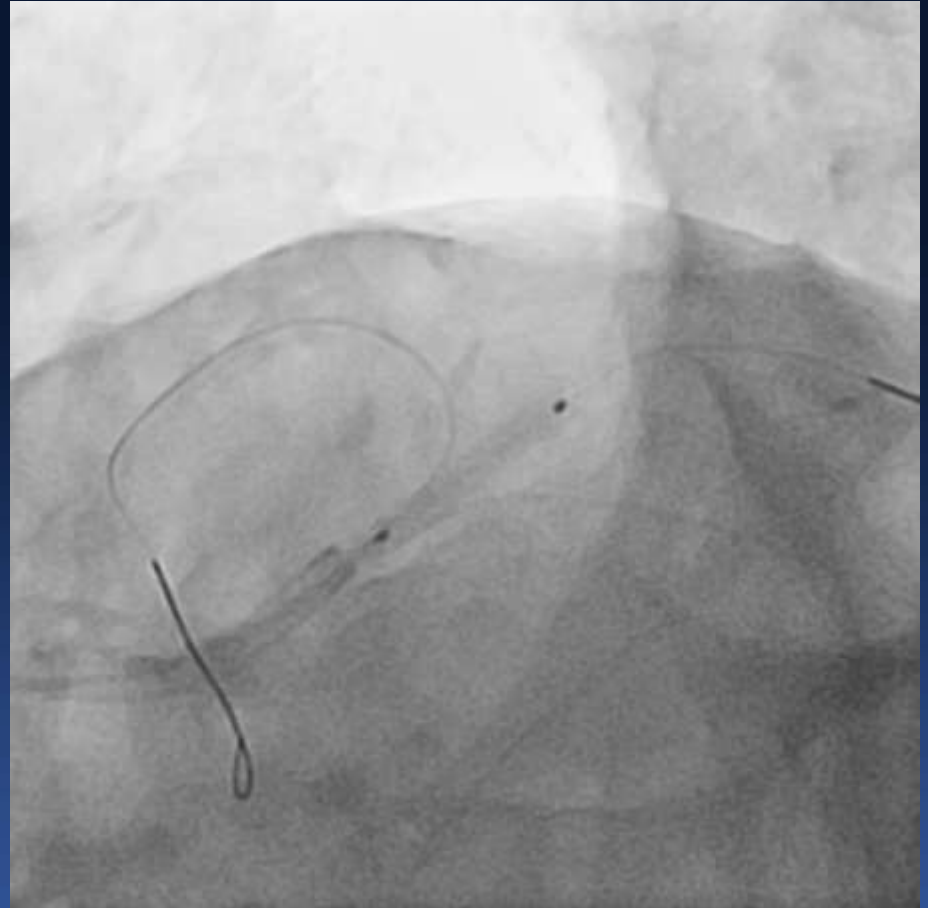
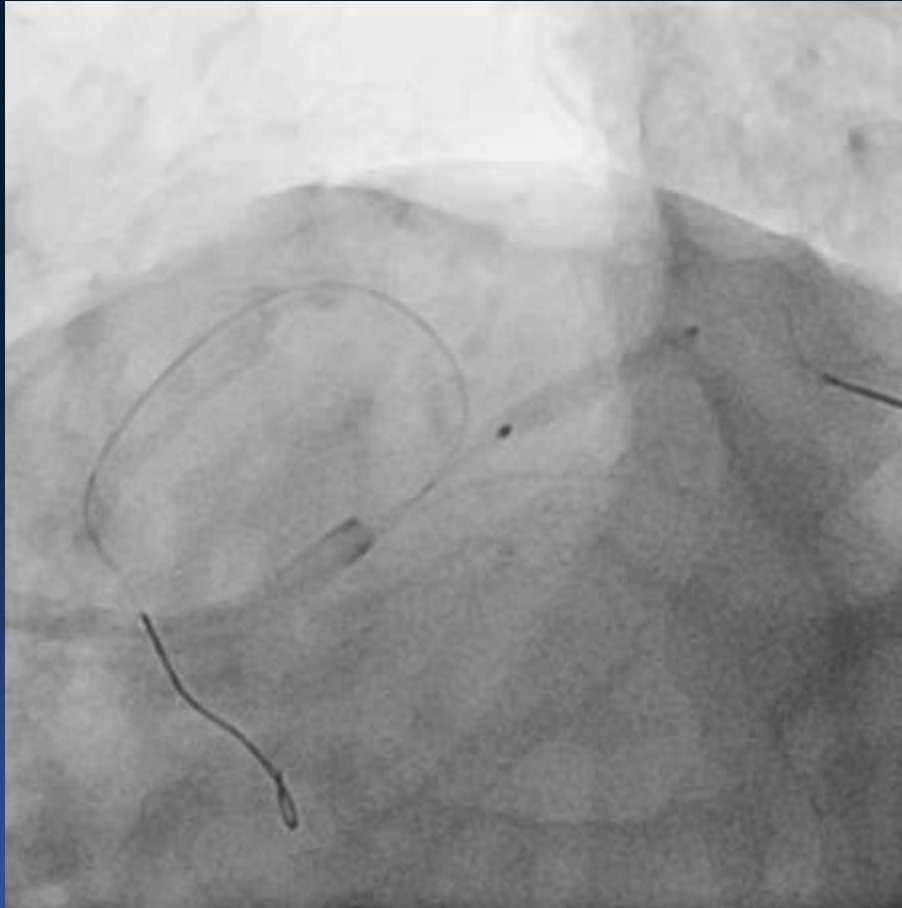


IVUS

Pre

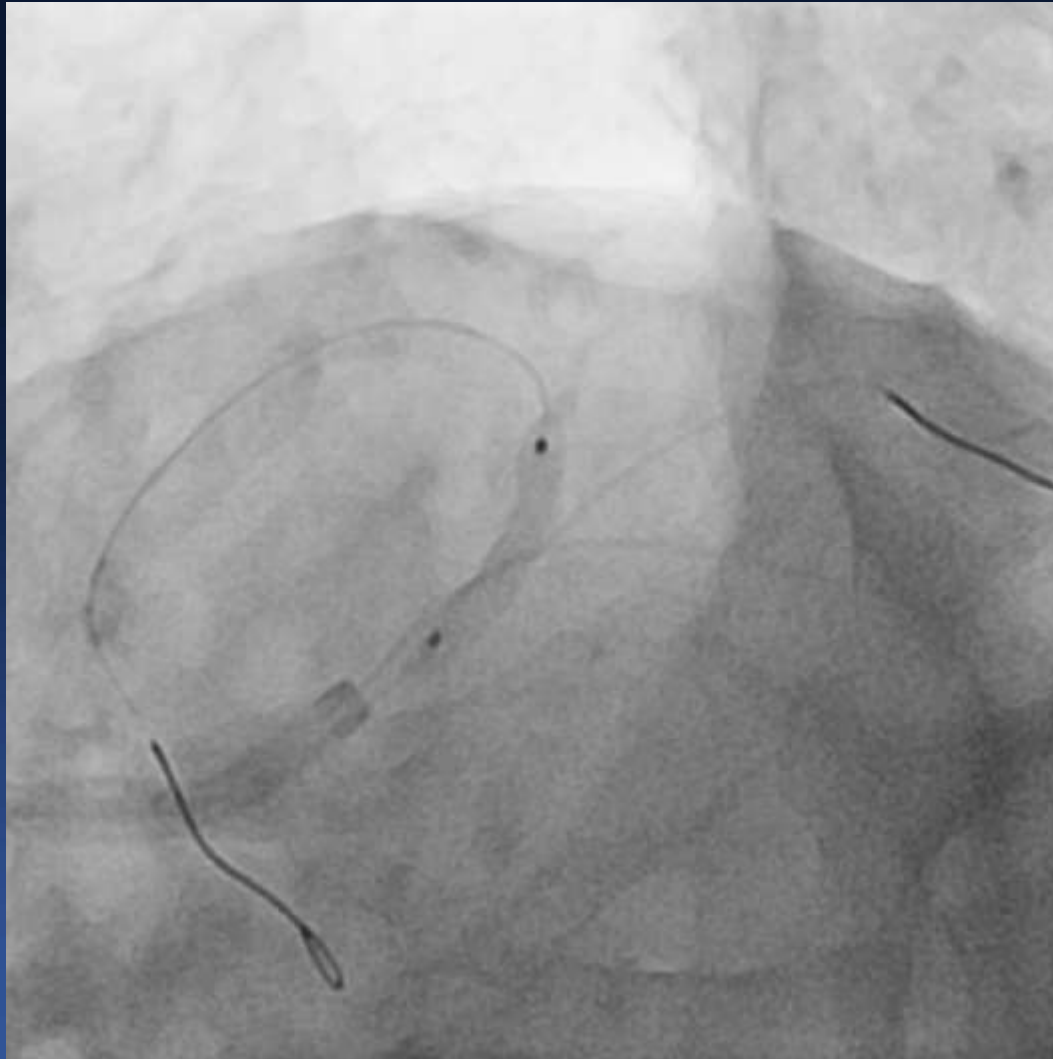


Pre-Balloon (Diagonal)



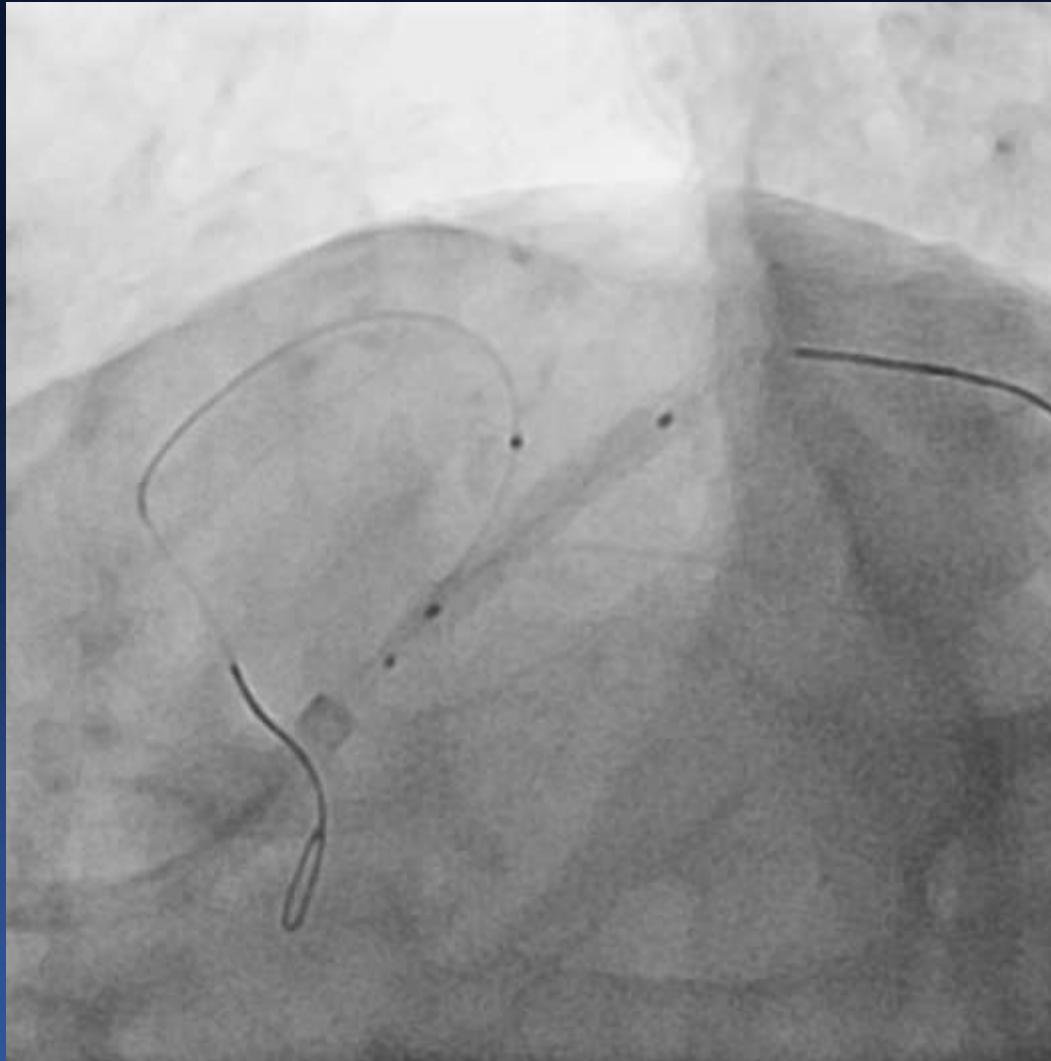
Di : NC 2.75 up to 2.75-2.95 (12-20 atm)

Pre-Balloon (LM-pLAD)



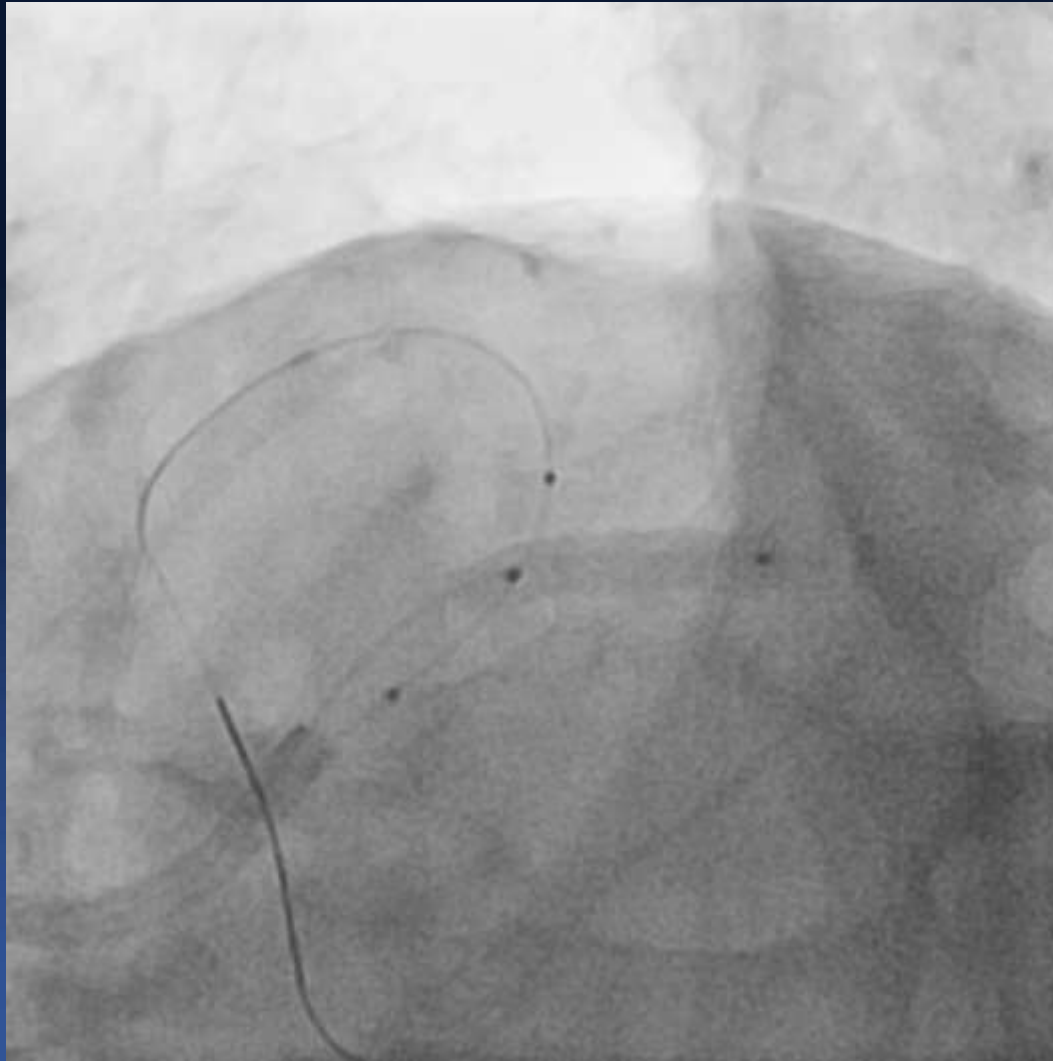
LM-pLAD : NC 2.75 up to 2.95 (20 atm)

Diagonal stenting



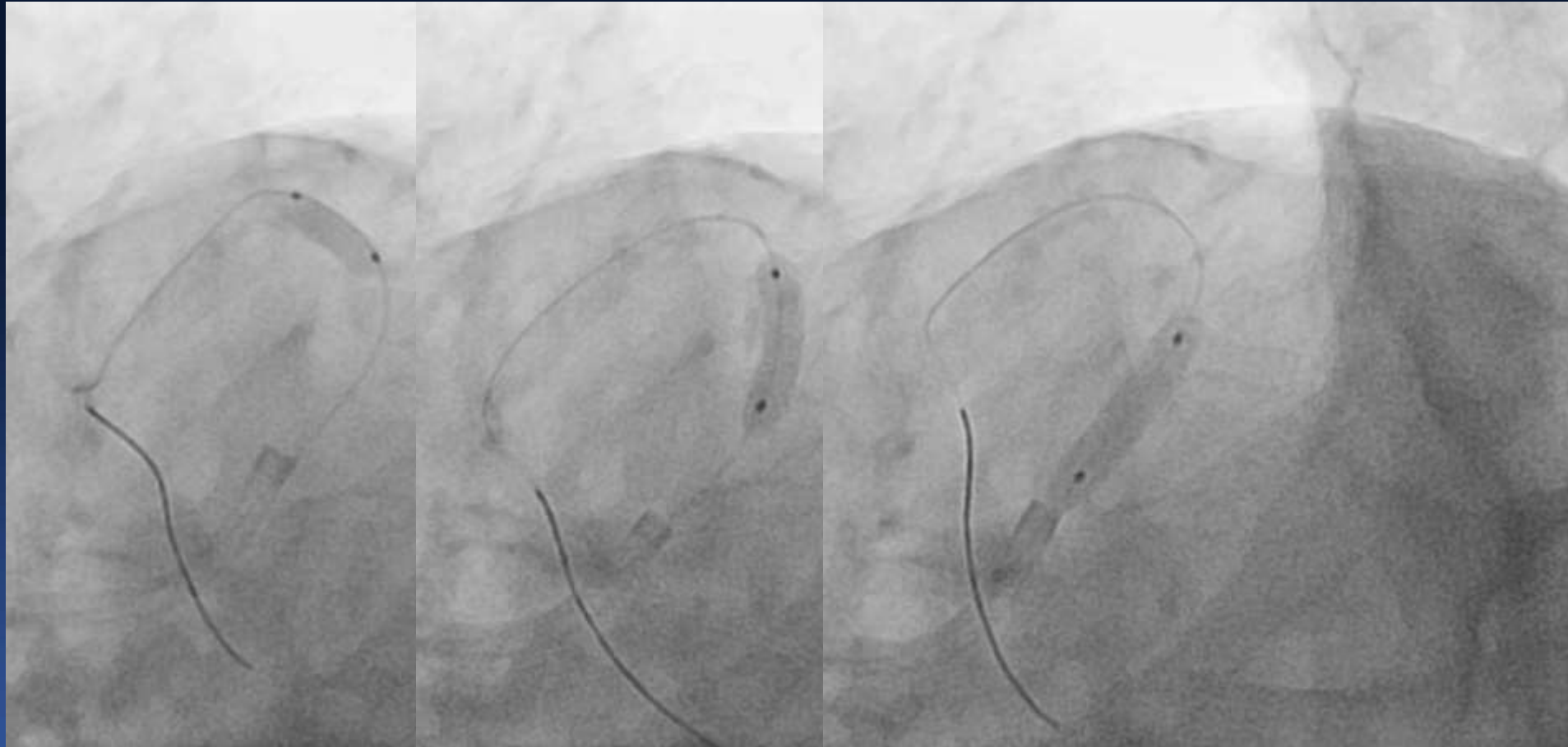
Di : Xience 2.75 * 18 mm

LCX stenting



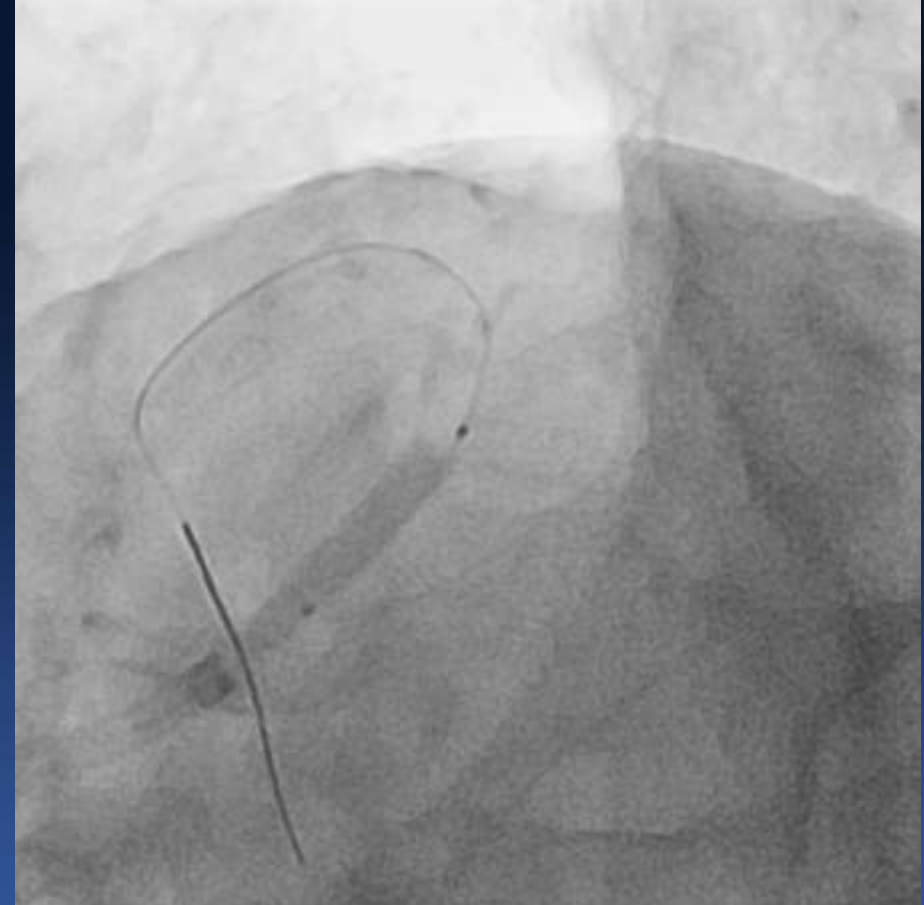
LCX : Xience 3.5 * 15 mm

Balloon Crush Technique



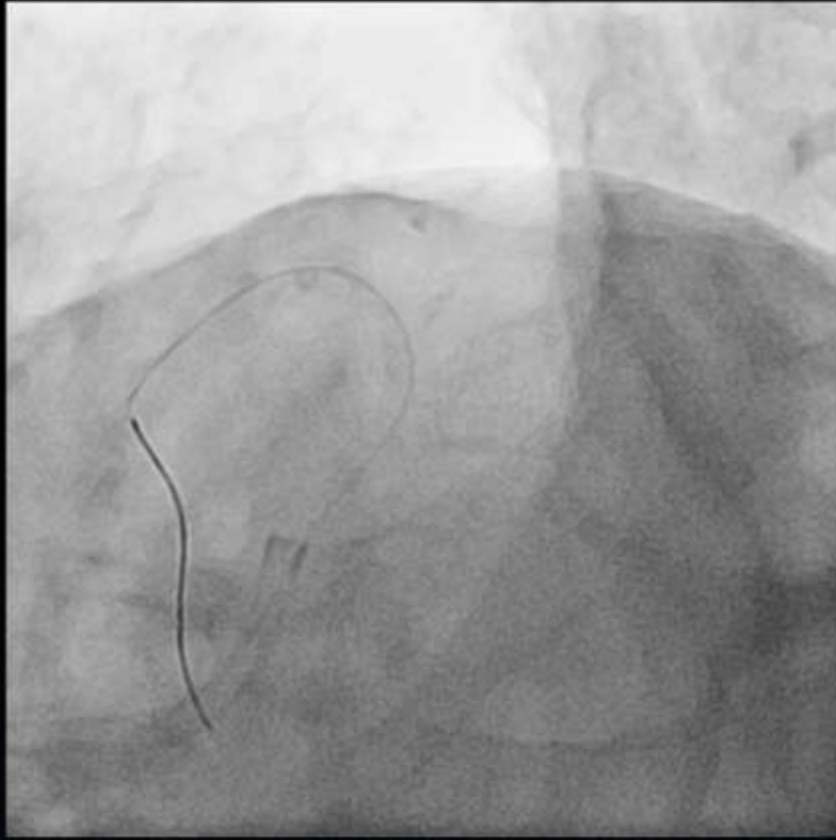
LM-pLAD : NC 3.75 up to 3.7-4.17 (10-24 atm)

Balloon Crush Technique

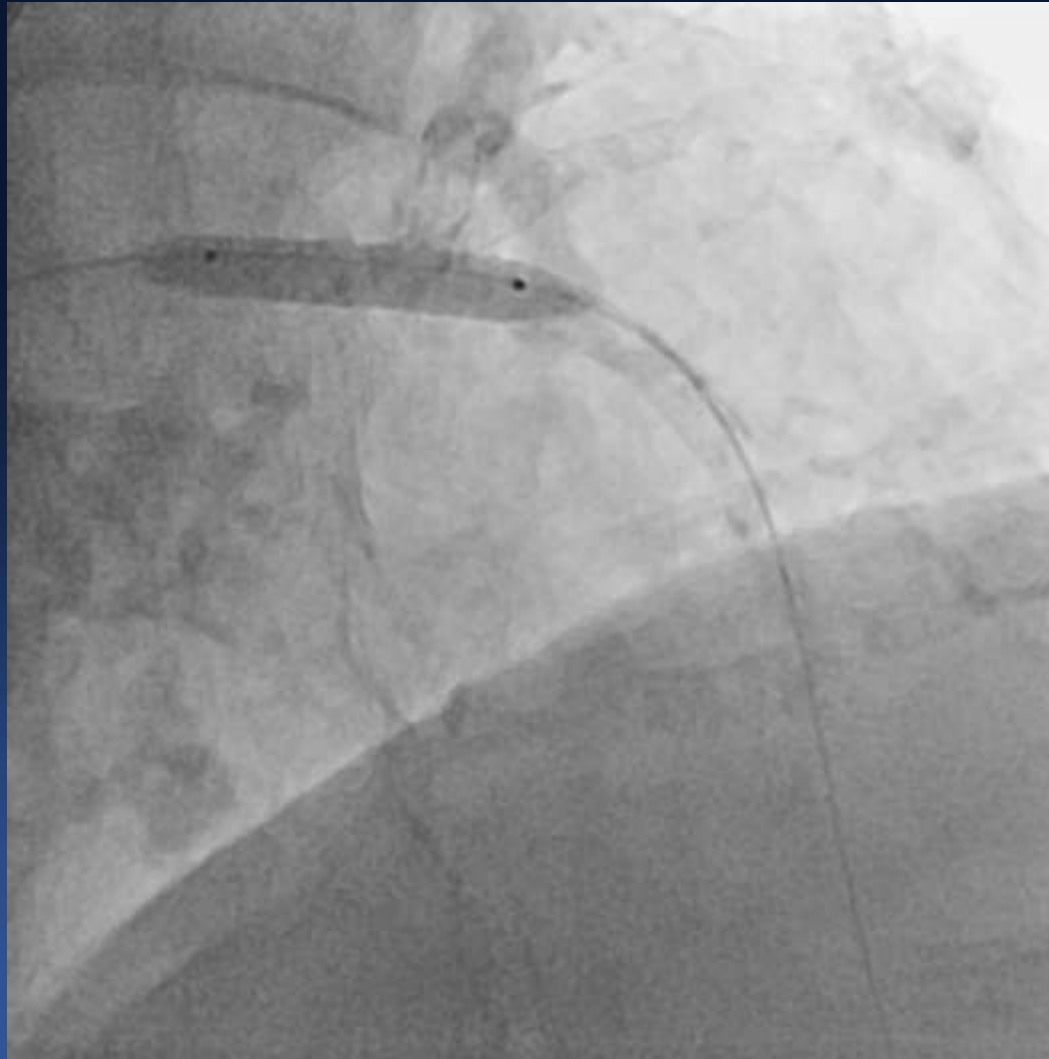


LM-pLAD : NC 4.0 up to 3.8-4.0 (8-14 atm)

After Balloon Crush

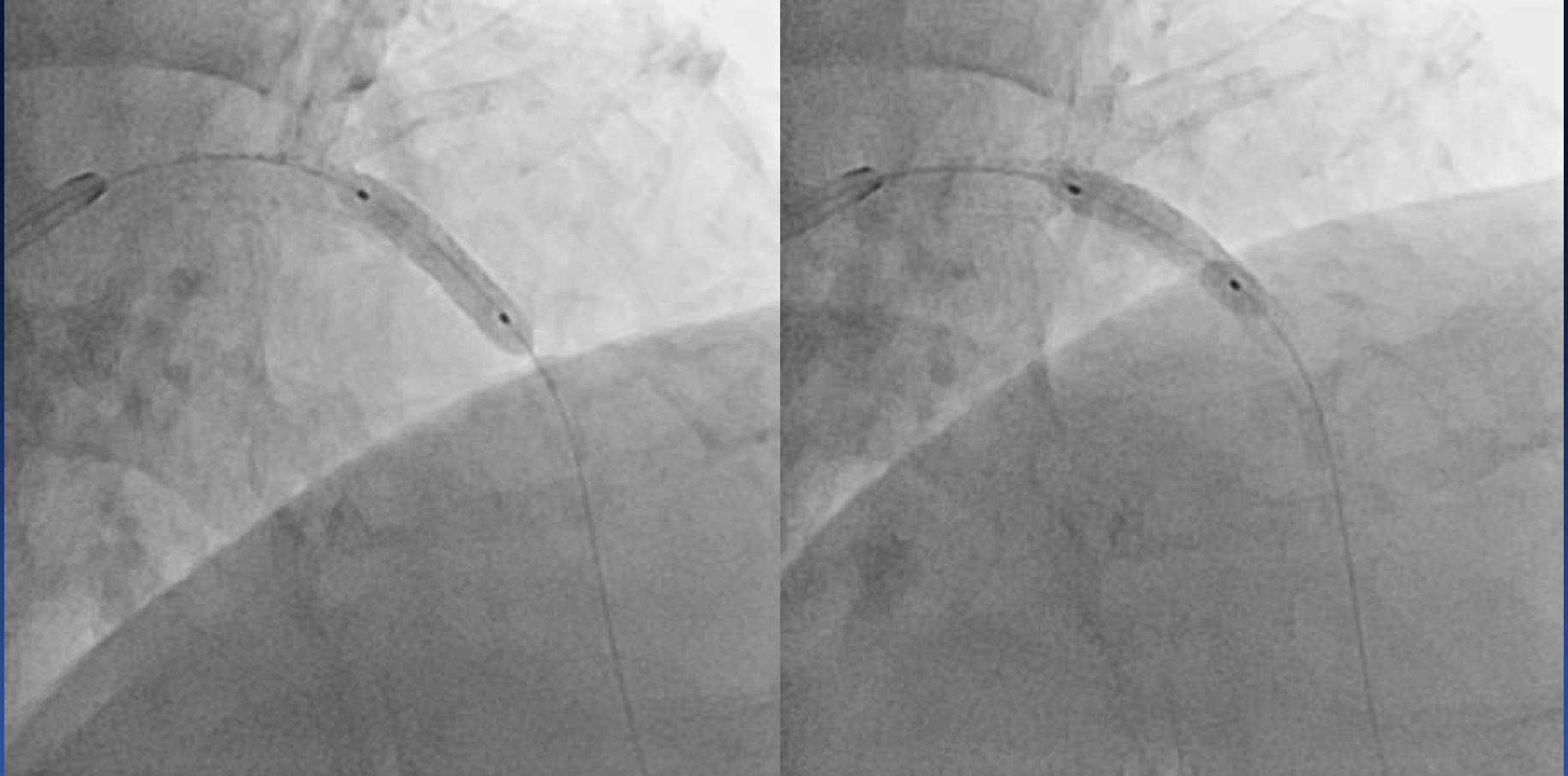


HP Balloon (LAD)



NC 4.0 up to 4.15 (20 atm)

HP Balloon (LAD)



NC 3.75 up to 3.82-3.89 (14-16 atm)

Kissing Balloon



LM-LAD : NC 4.0 up to 3.65 (5 atm)

LM-LCX : NC 3.75 up to 3.55 (5 atm)

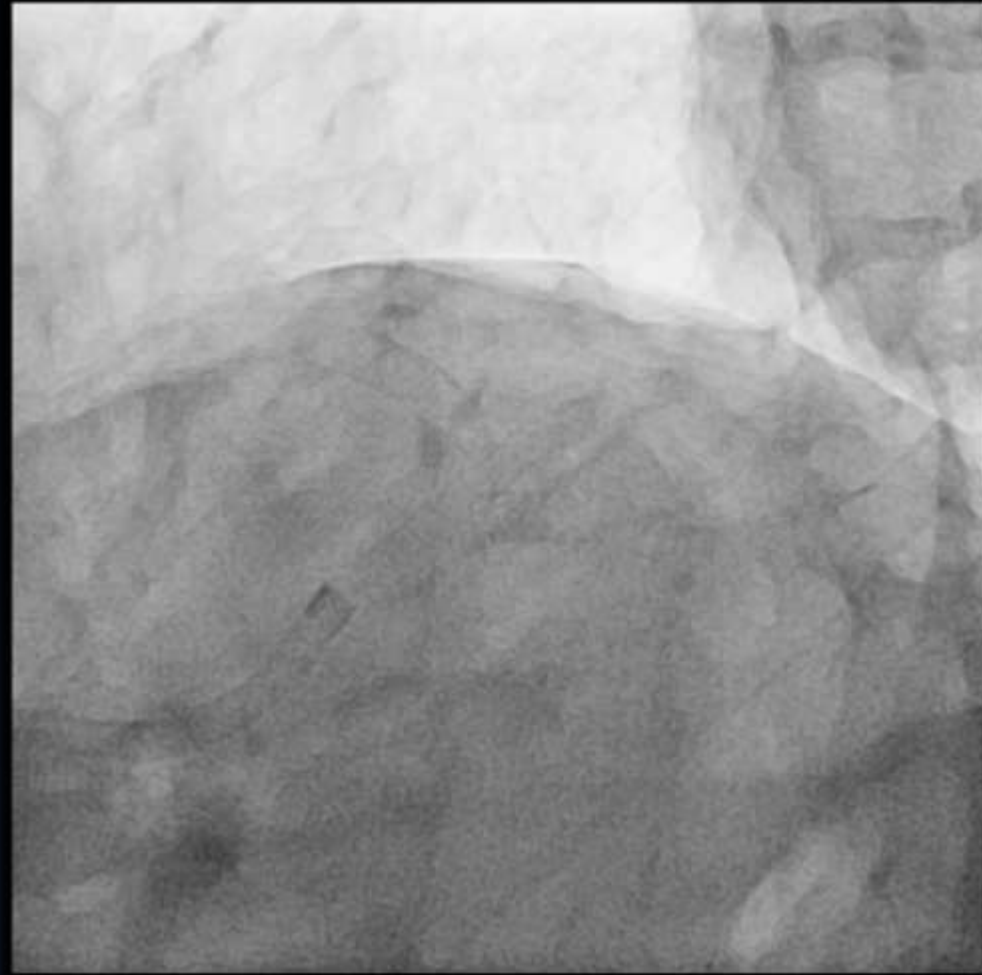
Di : NC 2.75 up to 2.6 (5 atm)

HP Balloon (LM)



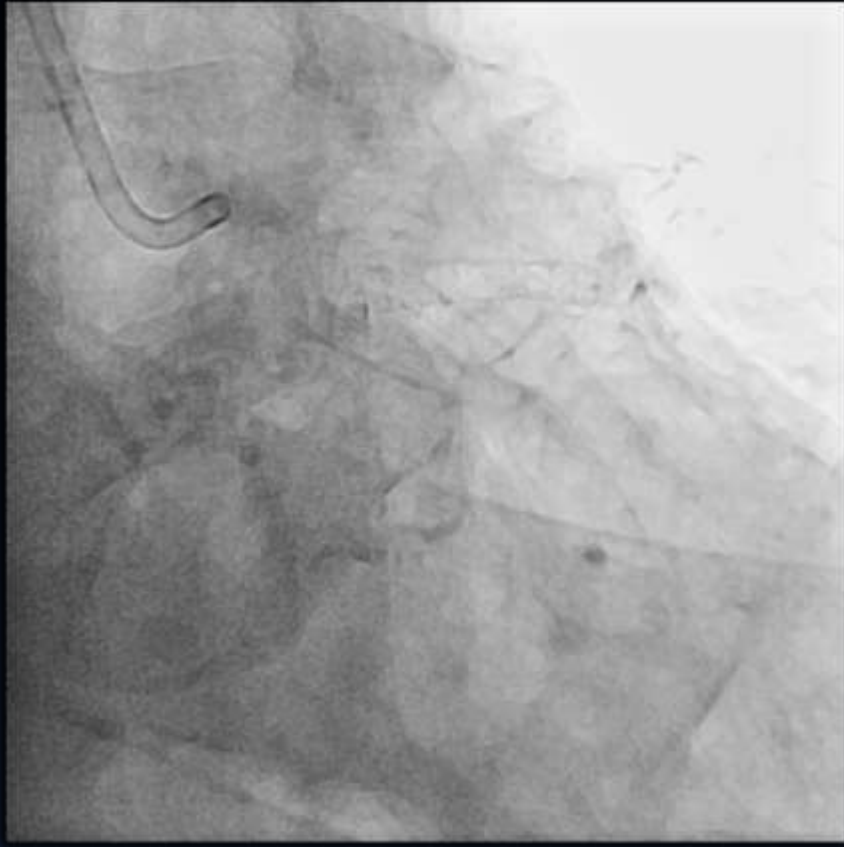
NC 4.0 up to 4.35 (28 atm)

Final angiography

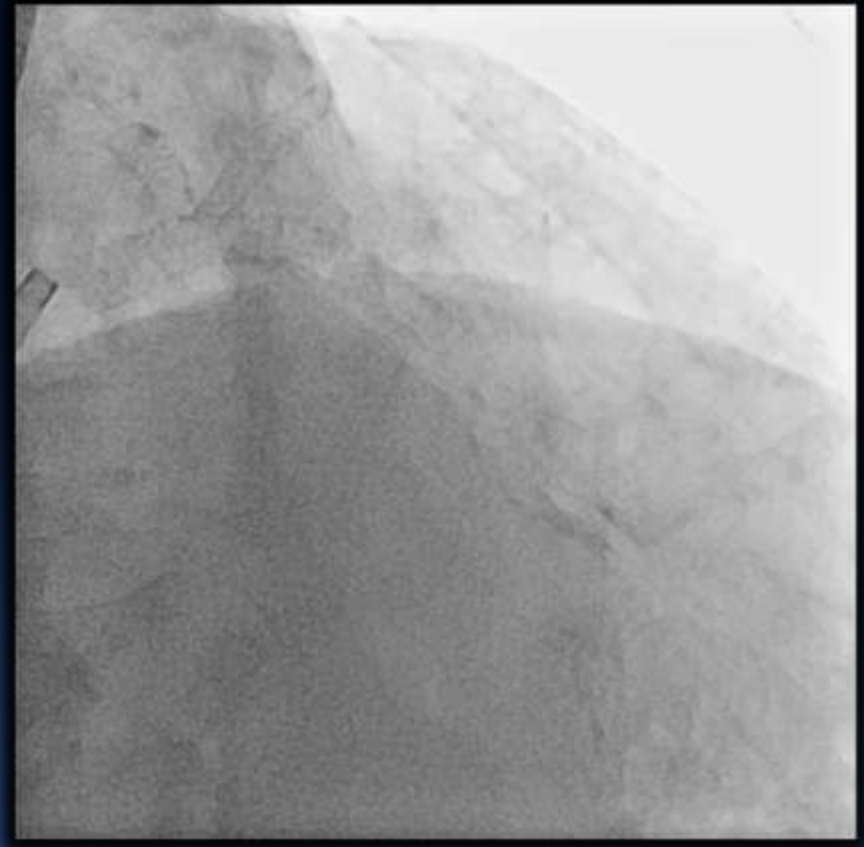


SPIDER

Final angiography

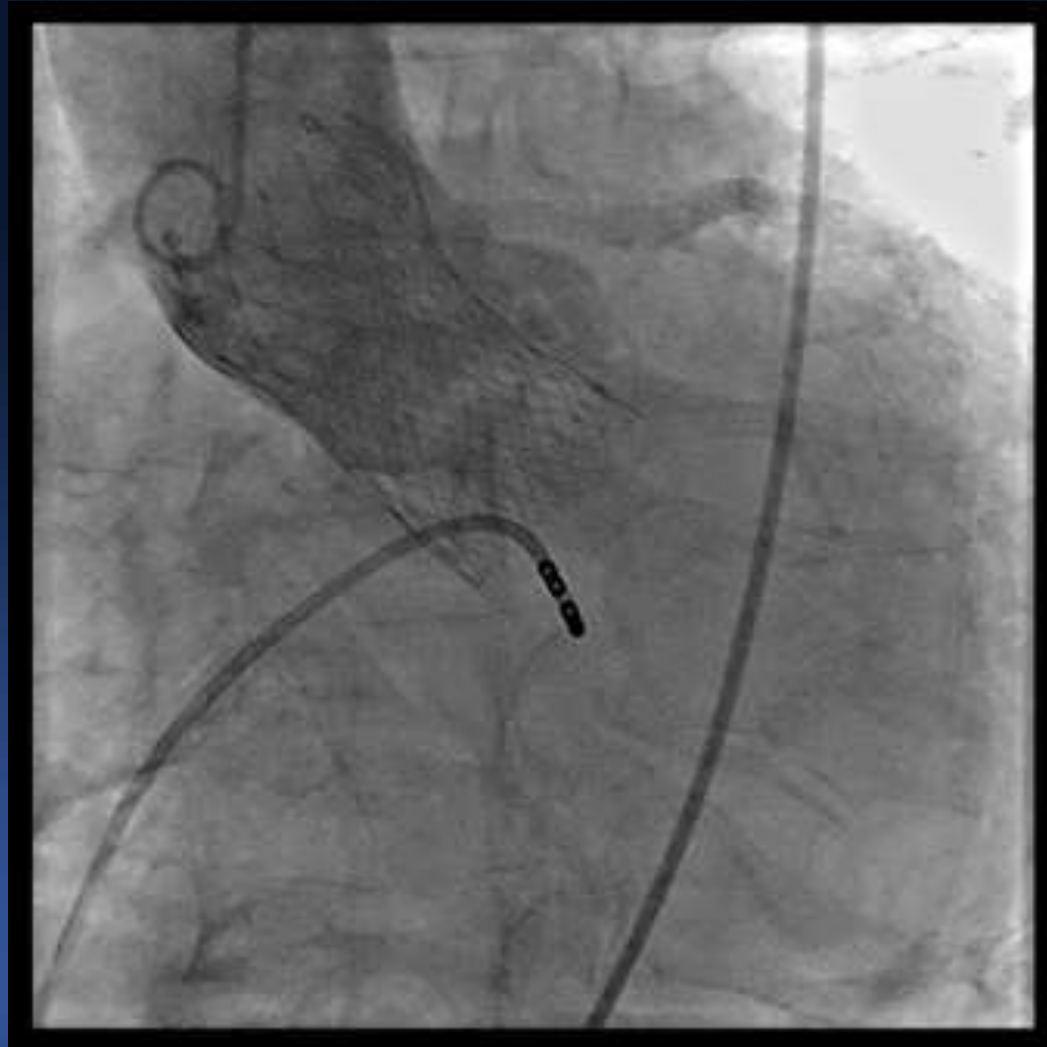


AP CAUDAL



AP CRANIAL

2 Months Later: Still Symptom



PCI Case #2

Brief Case Summary

A 82 year-old female was admitted for dyspnea on exertion which is started from 3 years ago. Her clinical presentation was stable angina. Her coronary risk factors were diabetes and hypertension.

Past Medical History

- Previous MI : N
- Previous CABG : N
- Previous PCI: N
- DM and HTN

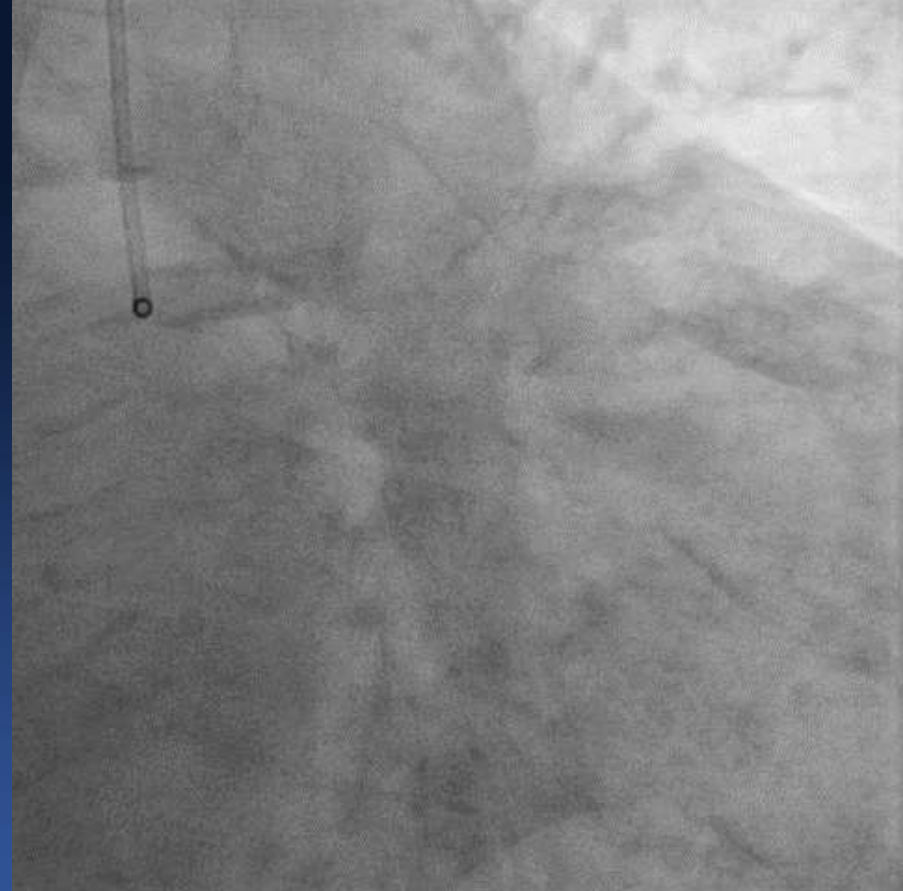
RCA



LCA

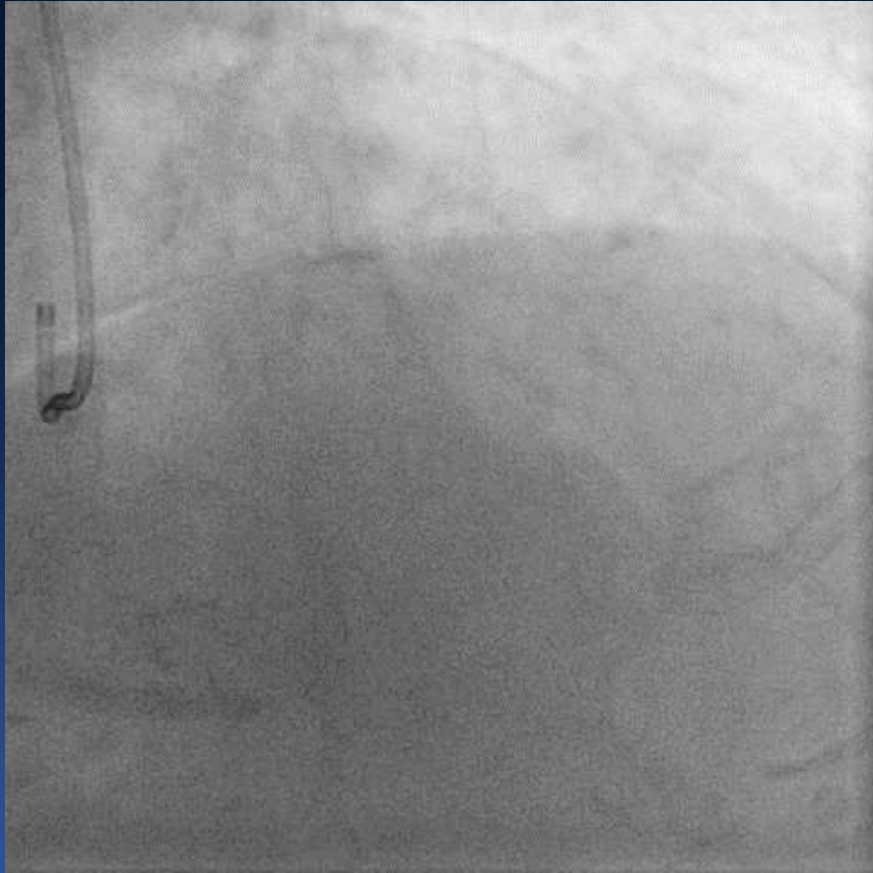


AP CAUDAL

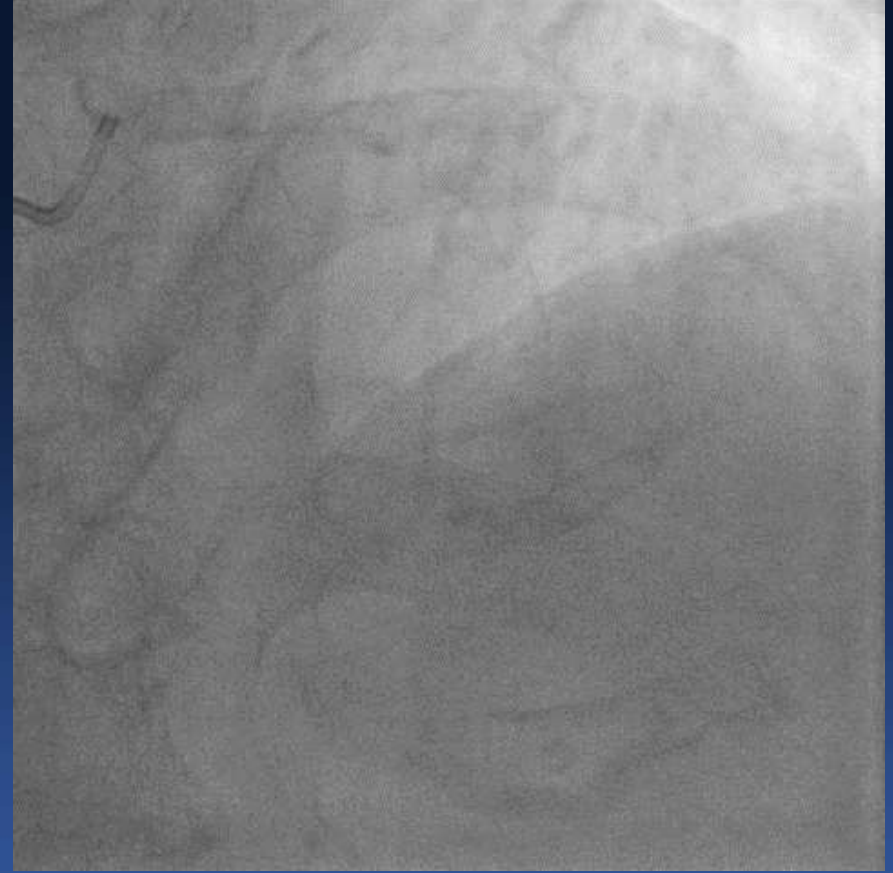


RAO caudal

LCA



RAO cranial

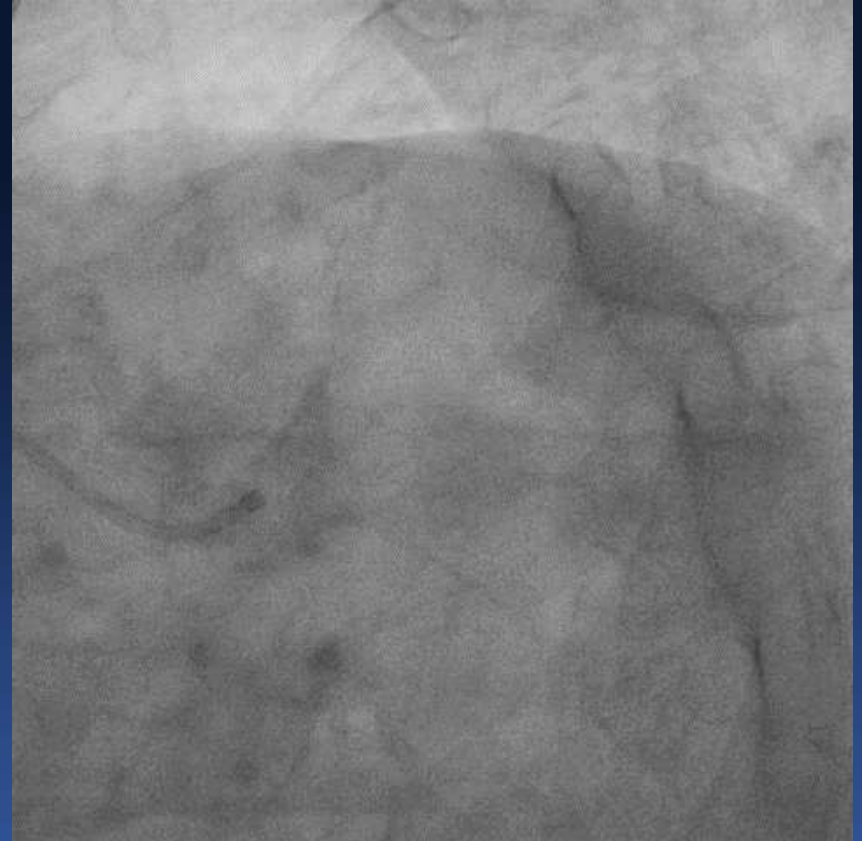


AP cranial

LCA

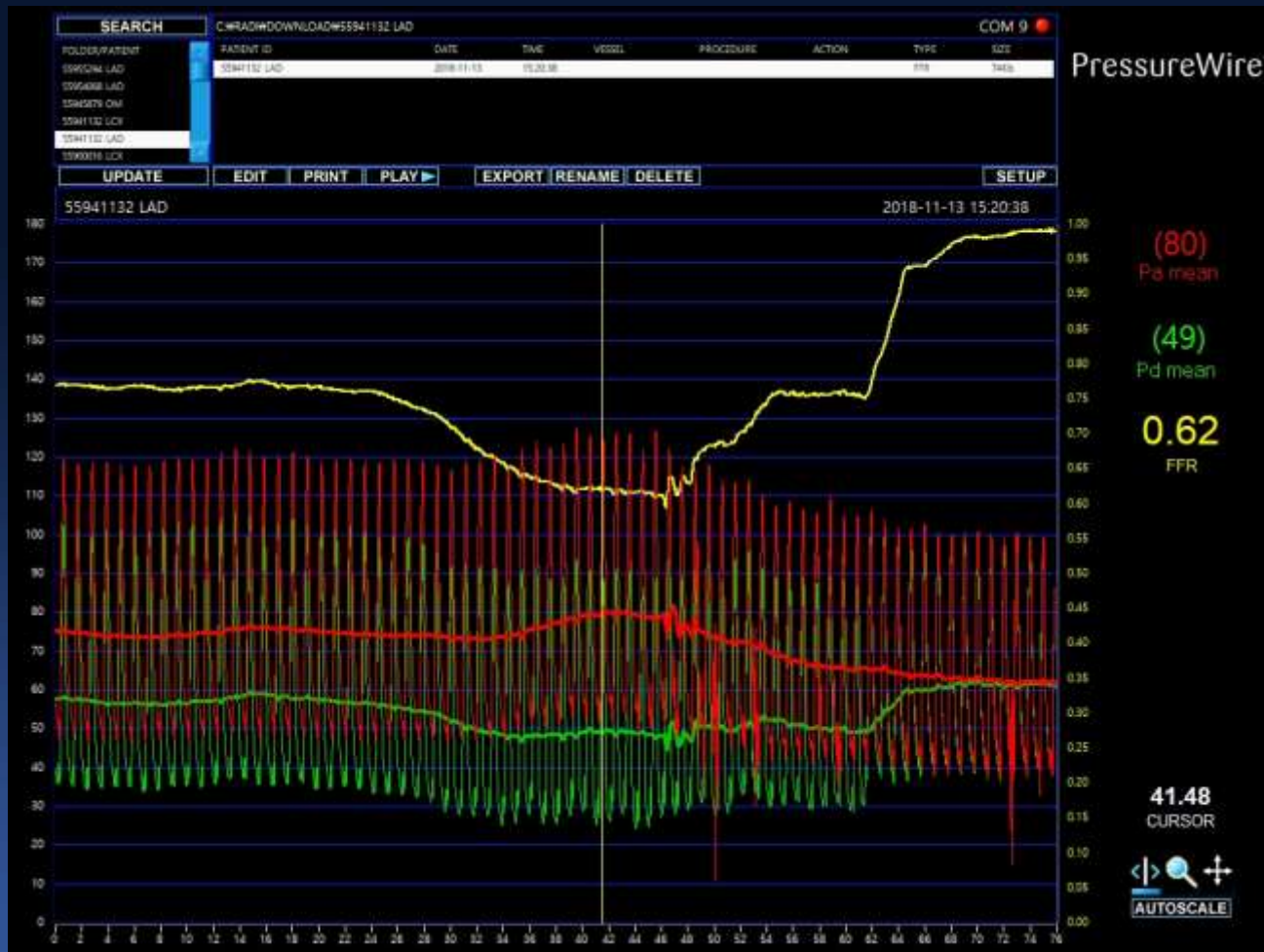


LAO cranial



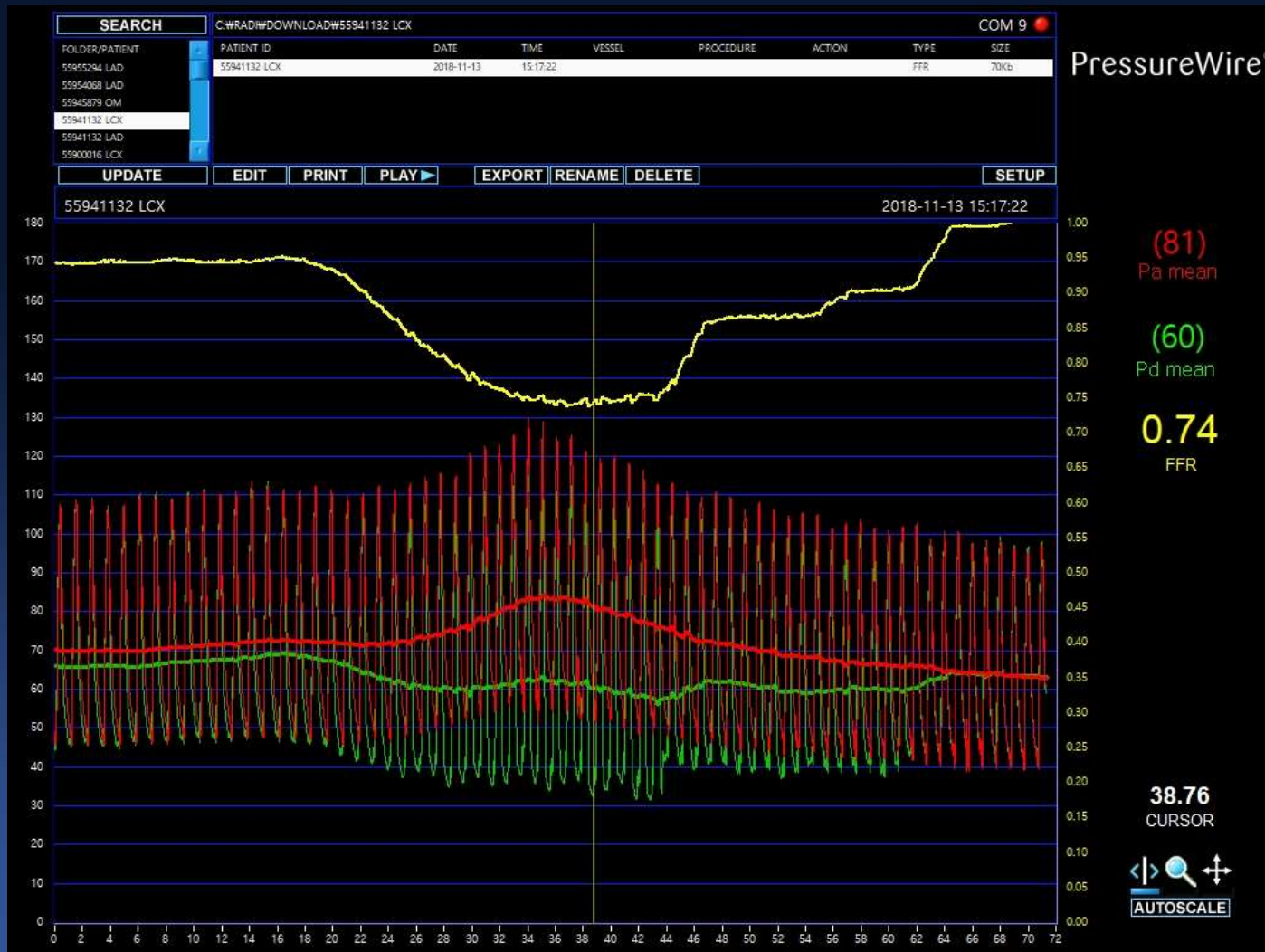
SPIDER

FFR: LAD



0.78 → 0.62

FFR: LCX



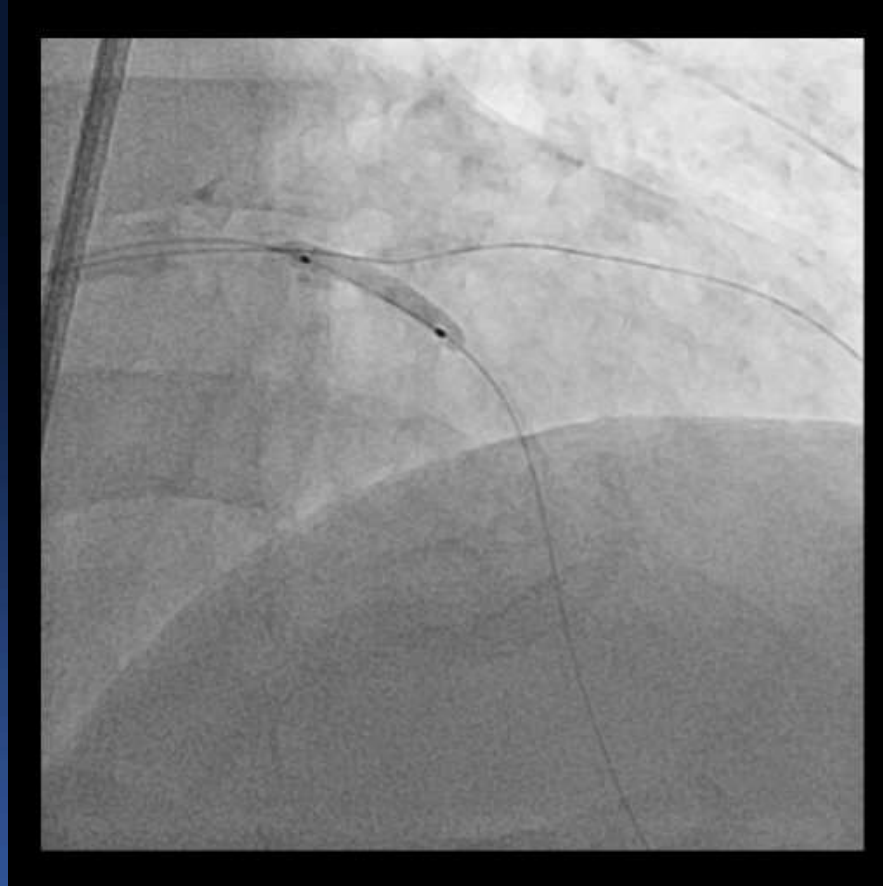
0.94 → 0.74

RCA Stenting



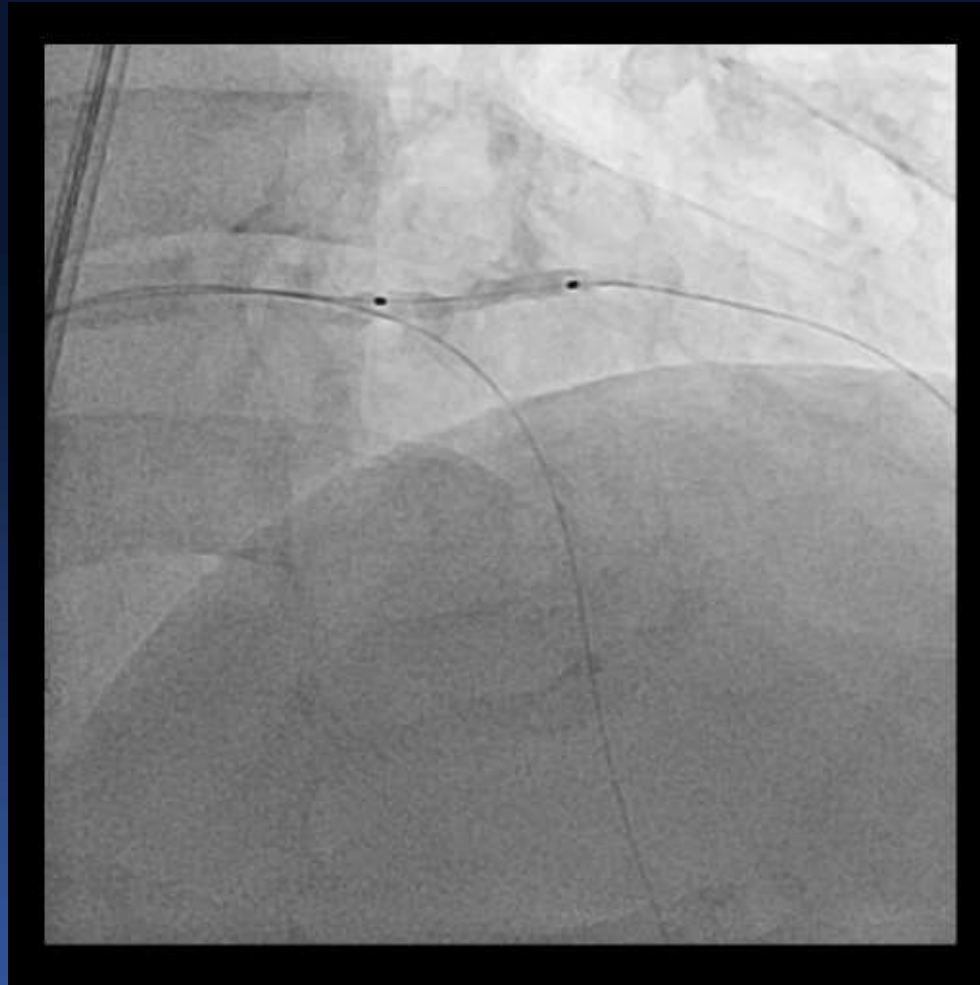
Ultimaster 3.5(28)+3.0(38)

Pre-Balloon (LAD)



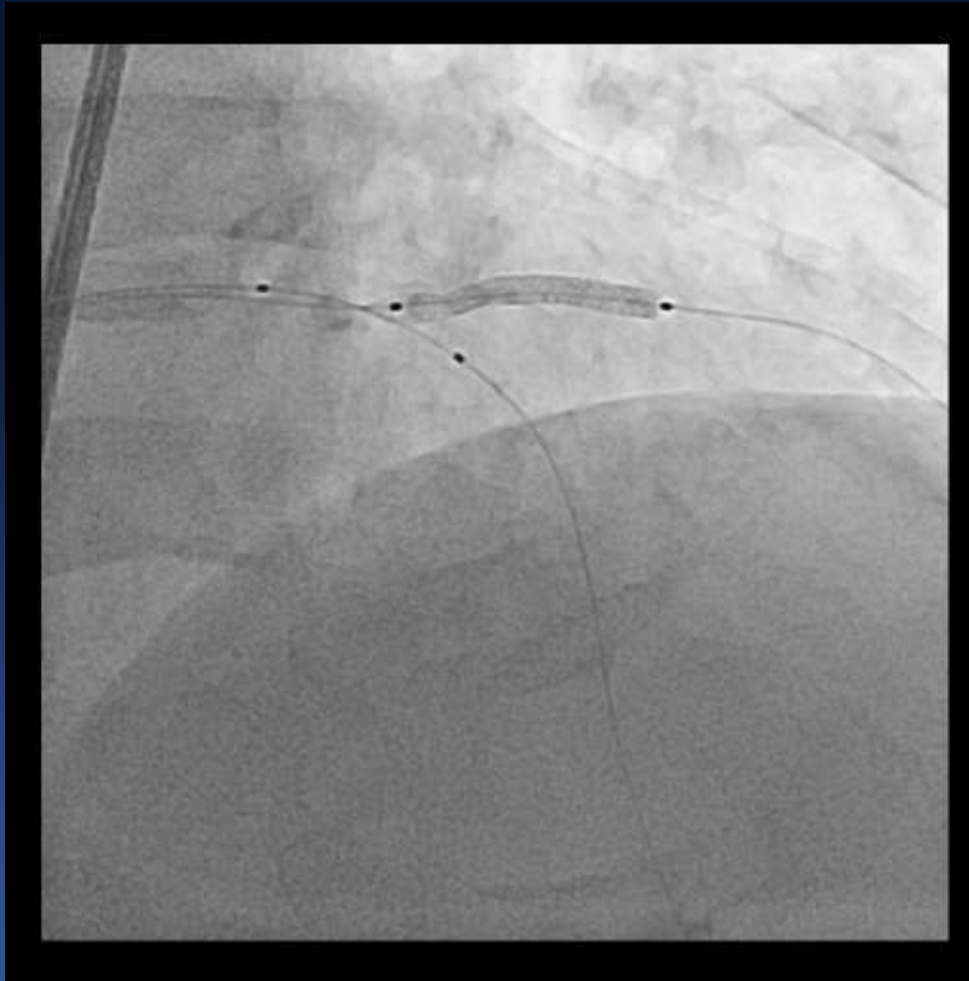
pLAD : Sapphire NC 2.5(18) upto 20 atm (2.65)

Pre-Balloon (Diagnoal)



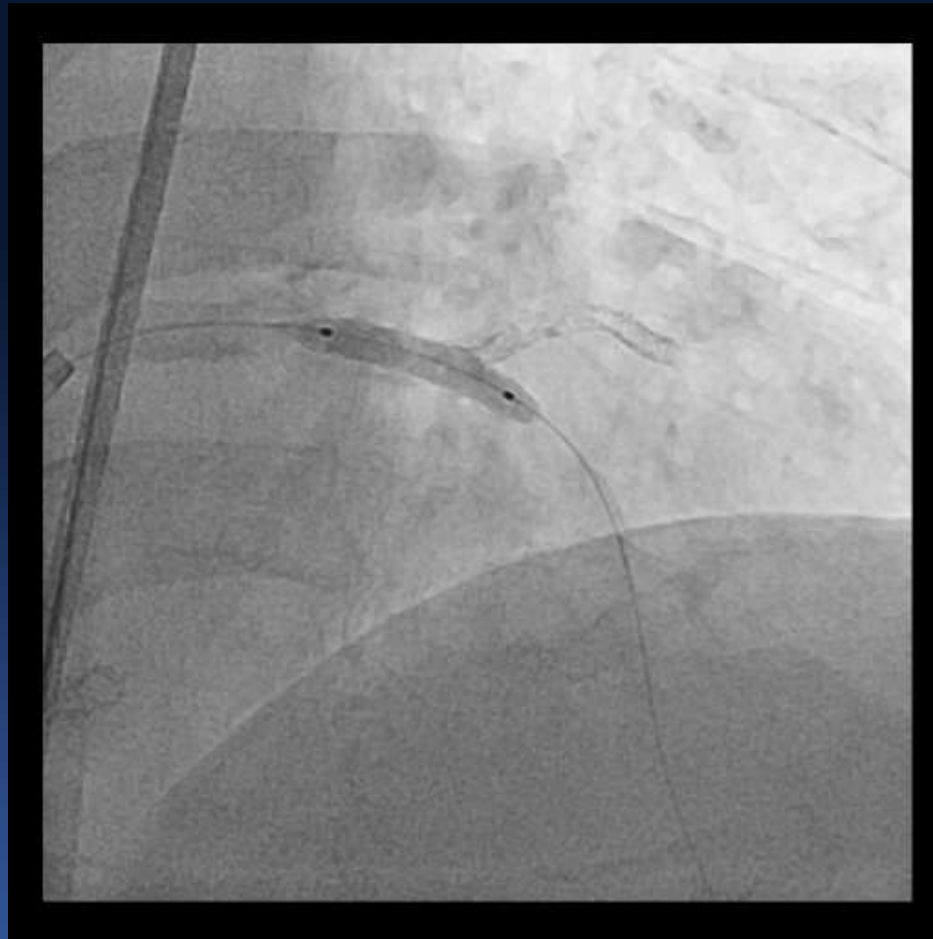
Di: Sapphire NC 2.5(18) upto 14 atm (2.53)

Diagonal stenting



Di : Ultimaster 2.5 (24)

Balloon Crush Technique

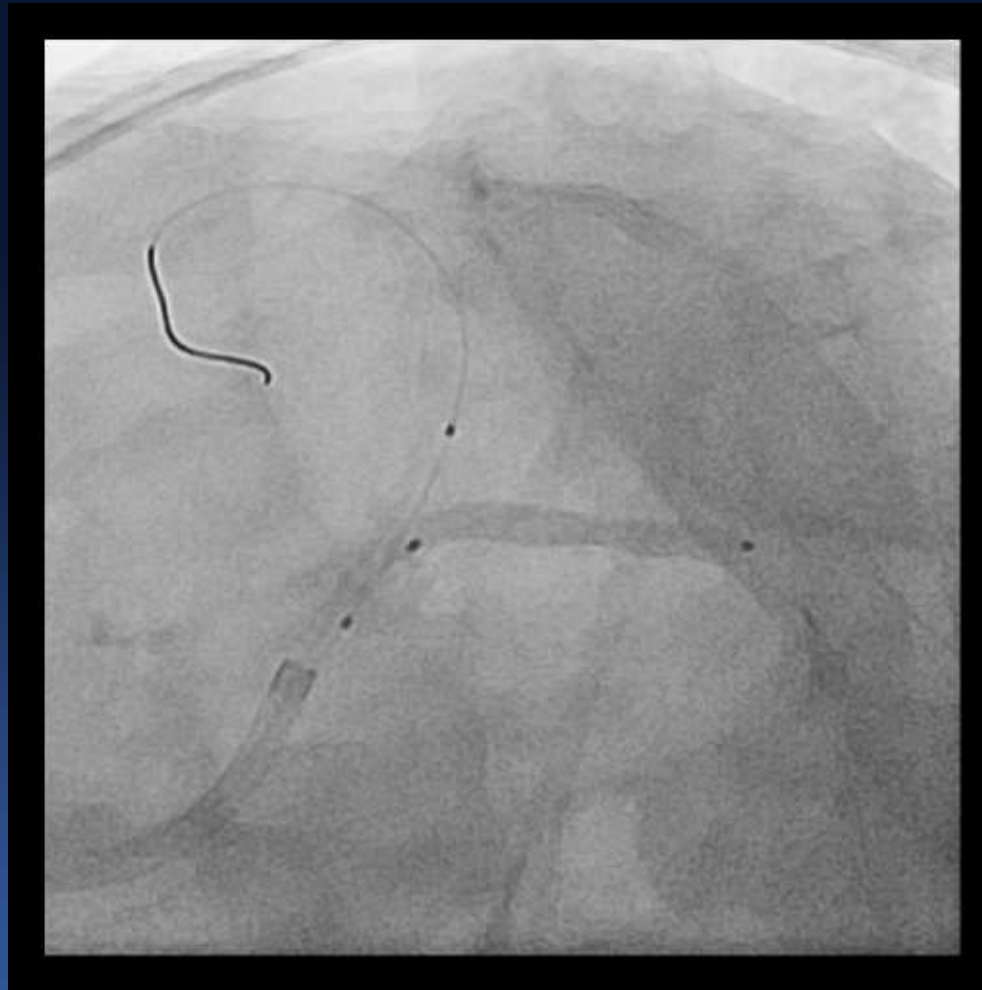


pm LAD: Raiden 3 3.75 (20) upto 16 atm (3.86)

After Balloon Crush



LCX stenting



LCX : Ultimaster 3.5 (24)

Balloon Crush Technique

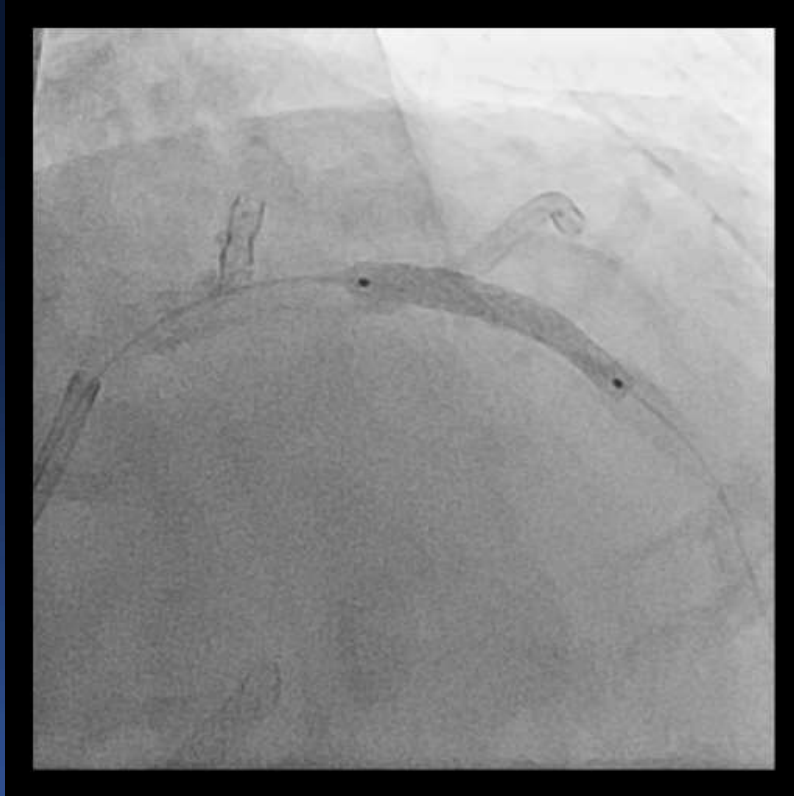


LM-pLAD : Raiden 3 3.75 (20) upto 20 atm (3.94)

After Balloon Crush

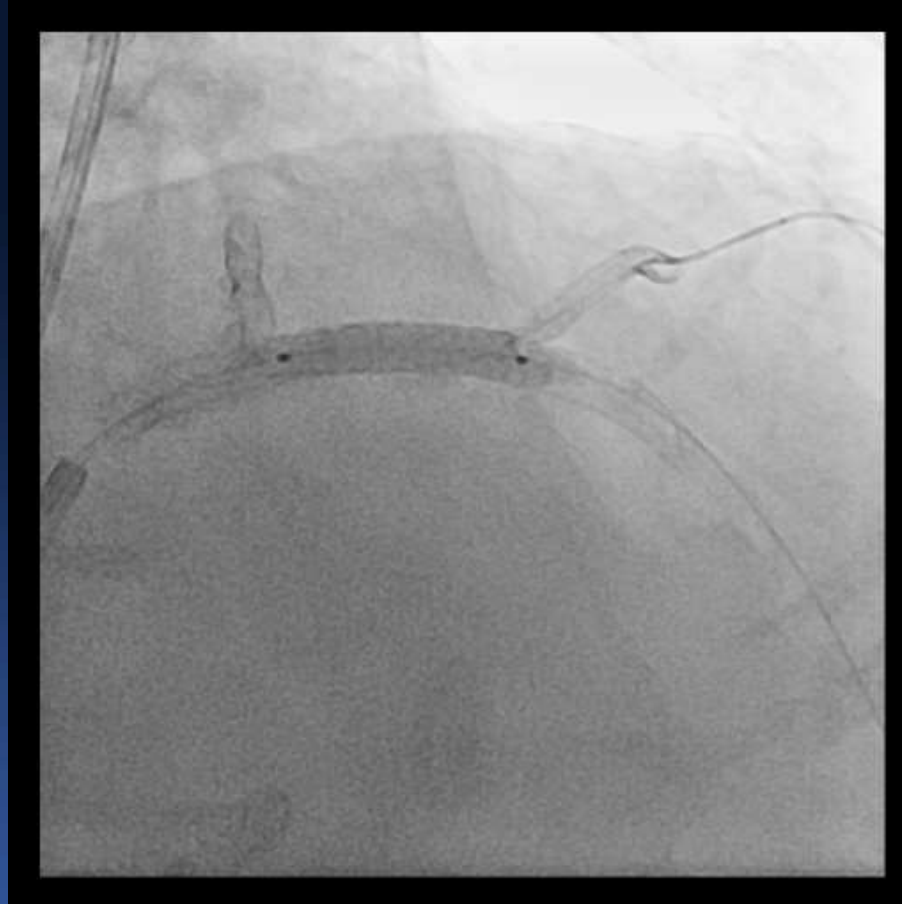


Left main to LAD stenting



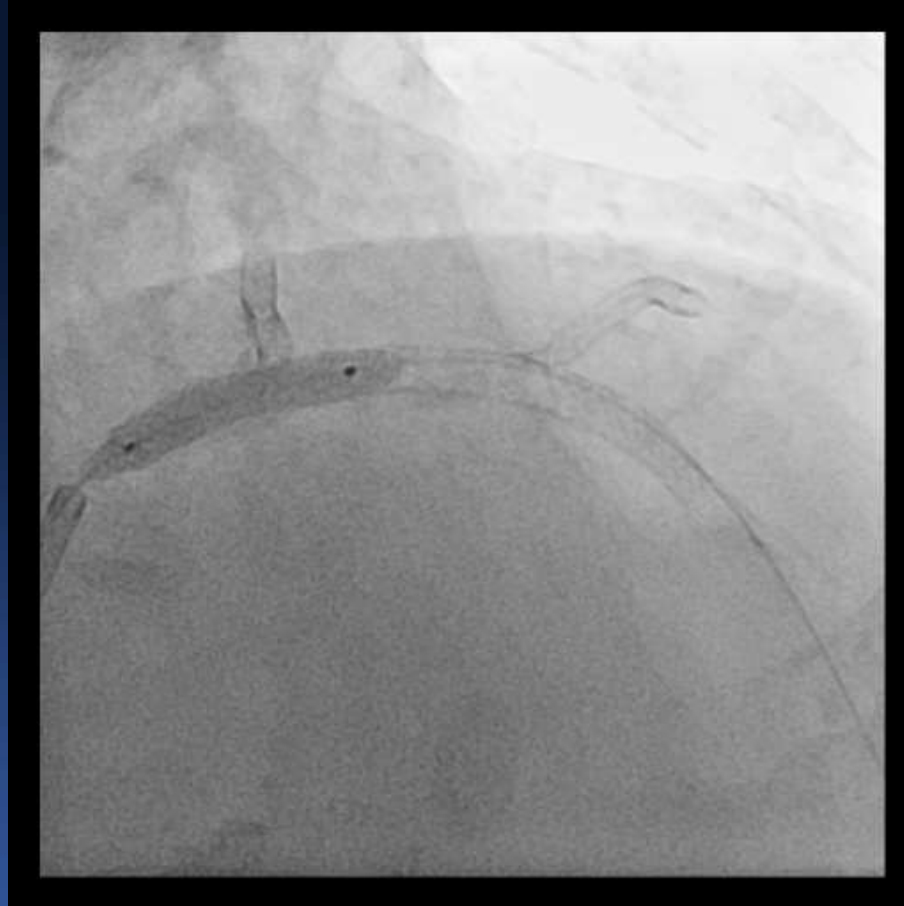
LM-pmLAD: Ultimaster 4.0(28)+3.5(24)

HP Balloon (LAD)



pmLAD: Raiden 3 3.75(20) upto 20atm (3.95)

HP Balloon (LM)



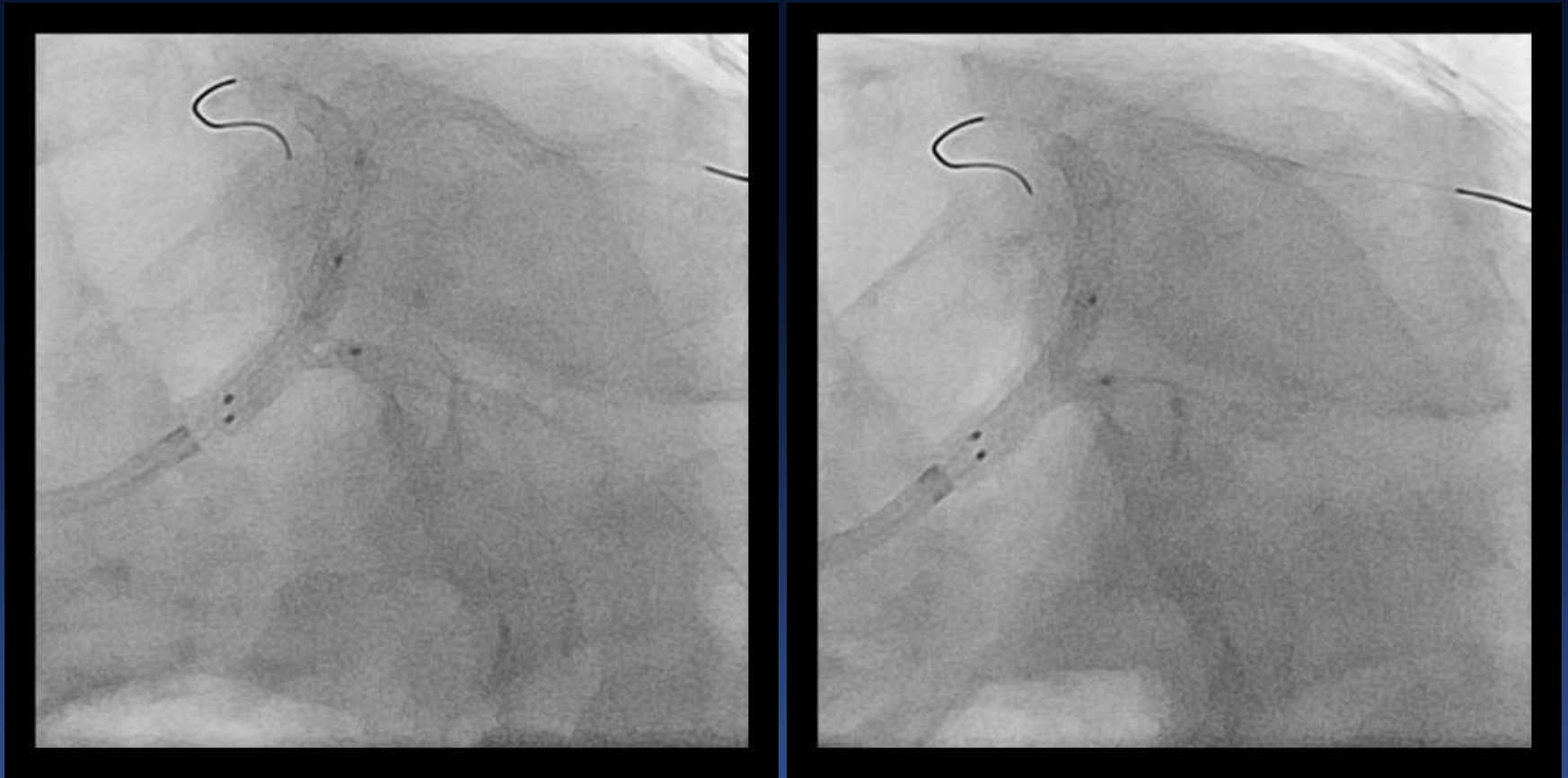
LM: Raiden 3 3.75(20) upto 24atm (4.05)

HP Balloon (LCX)



pLCX: Sapphire NC 3.25(15) upto 20 atm(3.45)

Kissing Balloon at LM Bifurcation



LM-LAD : Raiden 3 3.75(20) upto 7 atm (3.5)

LM-LCX : Sapphire NC 3.25(15) upto 7atm (3.1)

HP Balloon (Diagonal)



Di: Sapphire NC 2.5(18) upto 18 atm (2.6)

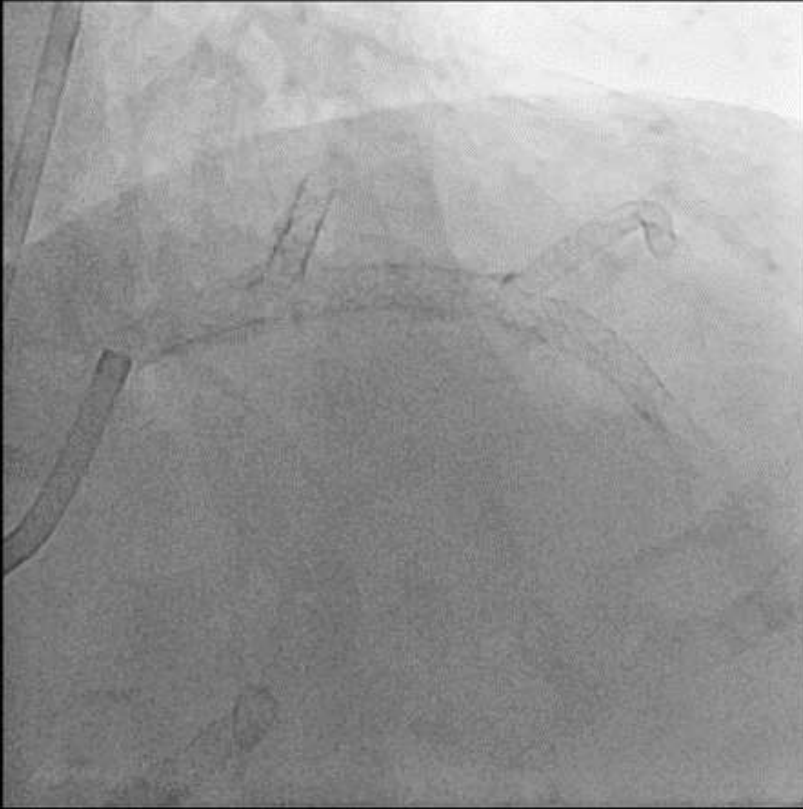
Kissing Balloon at LAD/Di Bifurcation



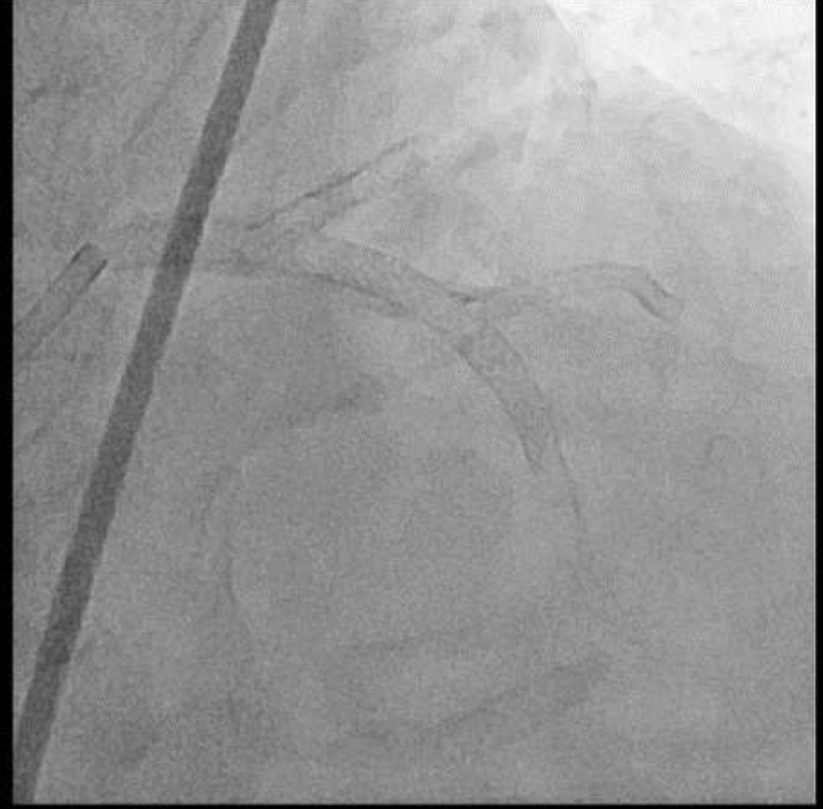
pmLAD : Sapphire NC 3.25(15) upto 10atm (3.2)

Diagonal : Sapphire NC 2.5(18) upto 10atm (2.47)

Final angiography

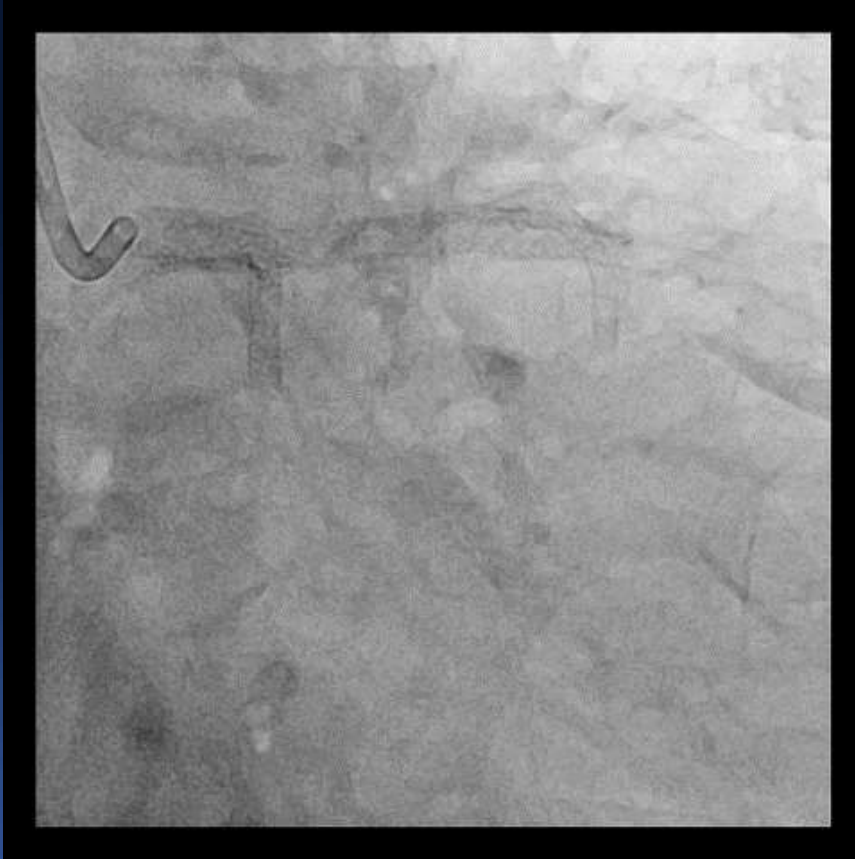


RAO CRANIAL

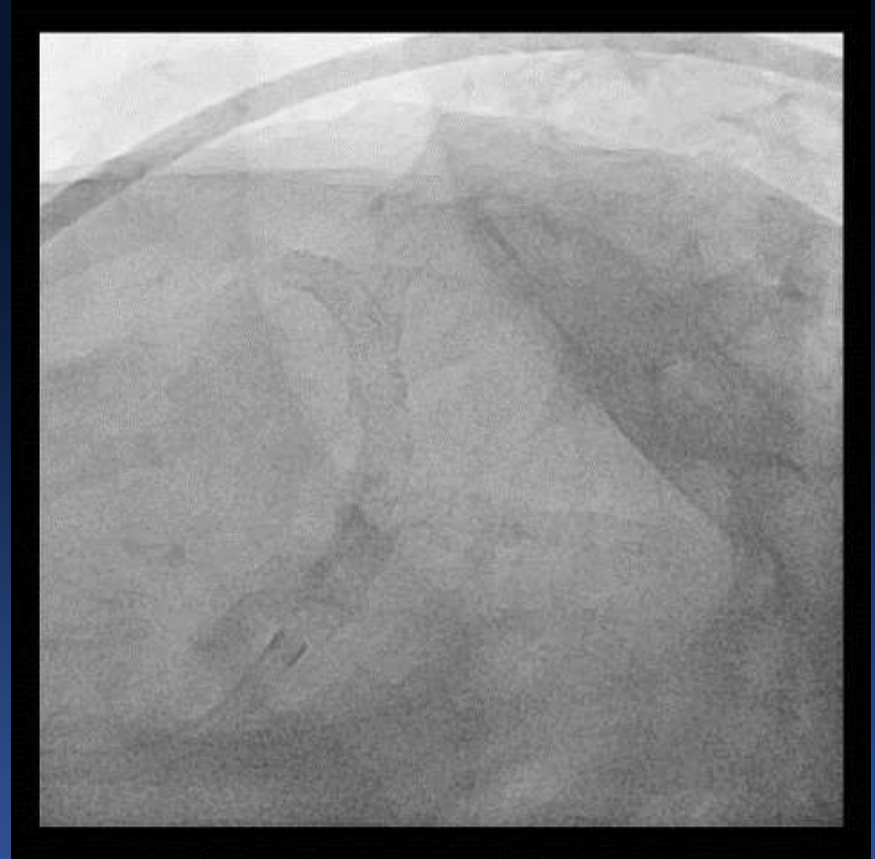


AP CRANIAL

Final angiography



AP CAUDAL



SPIDER