

Managing Underexpanded Stent Beneath Calcium

A case example

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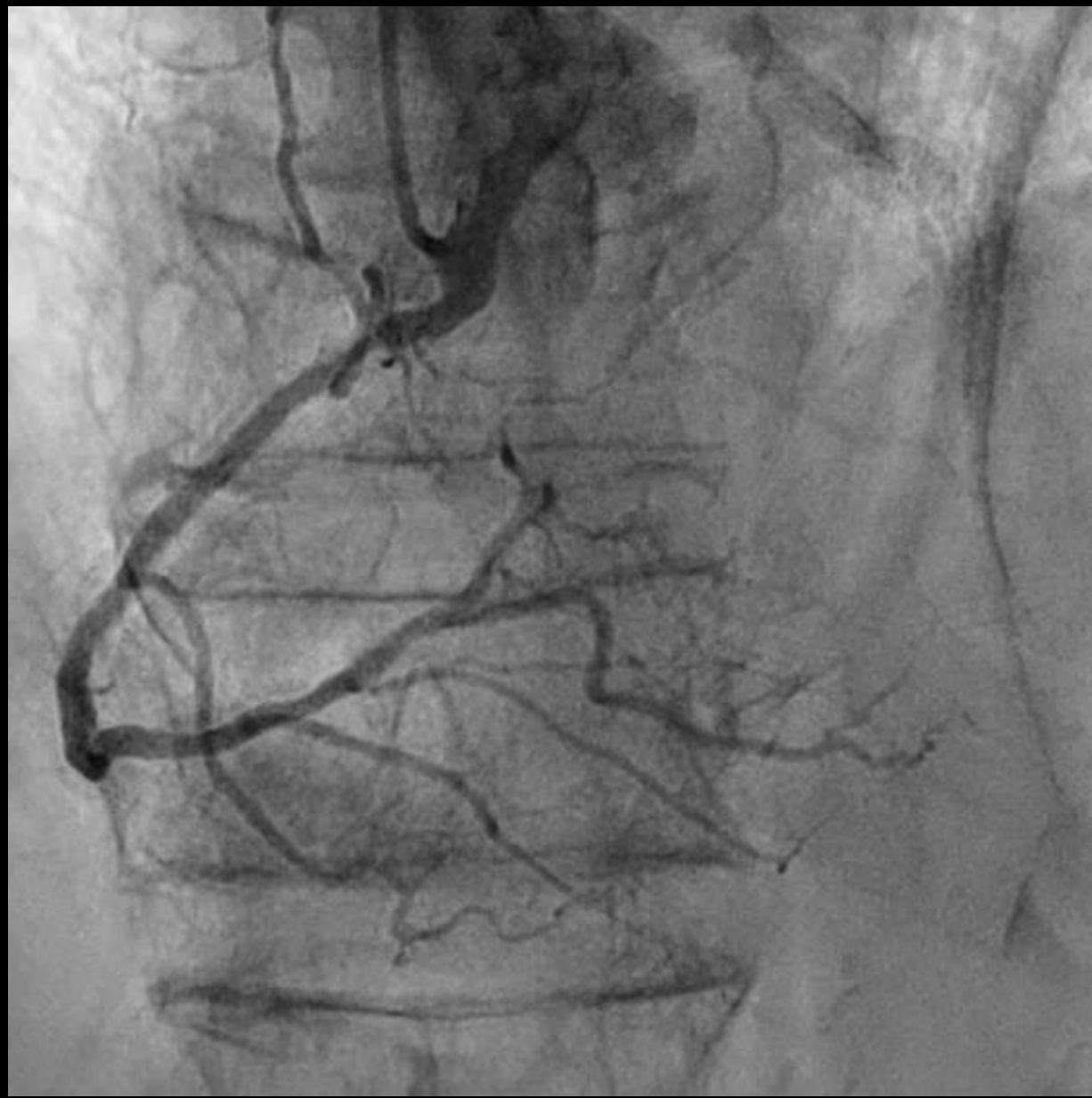


National Heart
Centre Singapore

SingHealth

Case

- 73 year old male with angina equivalent
- Ischaemic heart disease prev treated at other hospital
 - PCI 2014: DES to p-mLAD, pRCA and dRCA
 - PCI 2015: DES to mLAD “ISR”; LCX occluded
- Compliant to meds



Percutaneous Coronary Intervention (PCI)
17-01-2020 02:27 PM

15mm
[proj]

Coro 25fps Low
SE
IM: 1/10

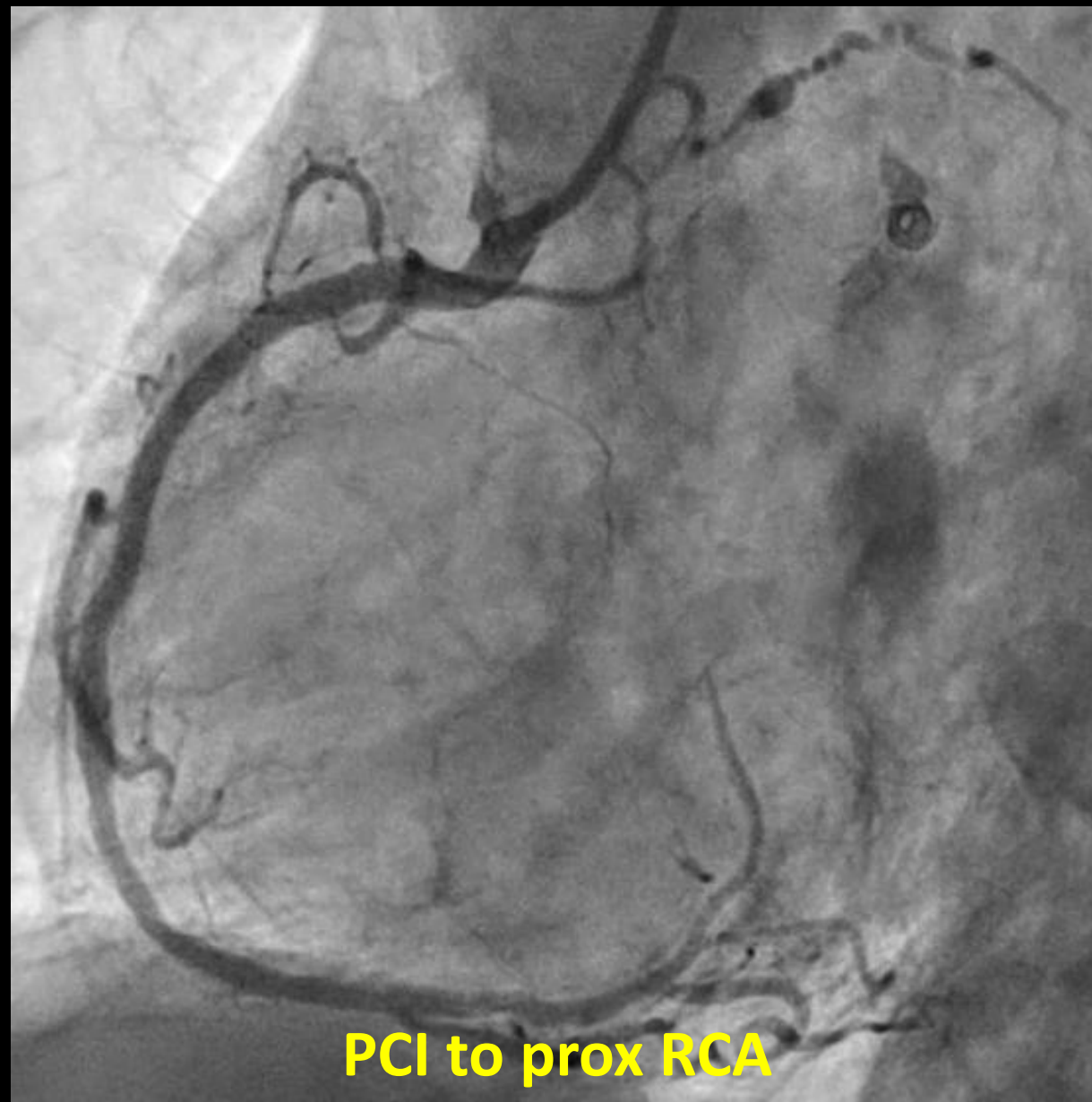
Primary -40.1° / Secondary 25.4°
National Heart Centre Singapore
VL
22011-310

Percutaneous Coronary Intervention (PCI)
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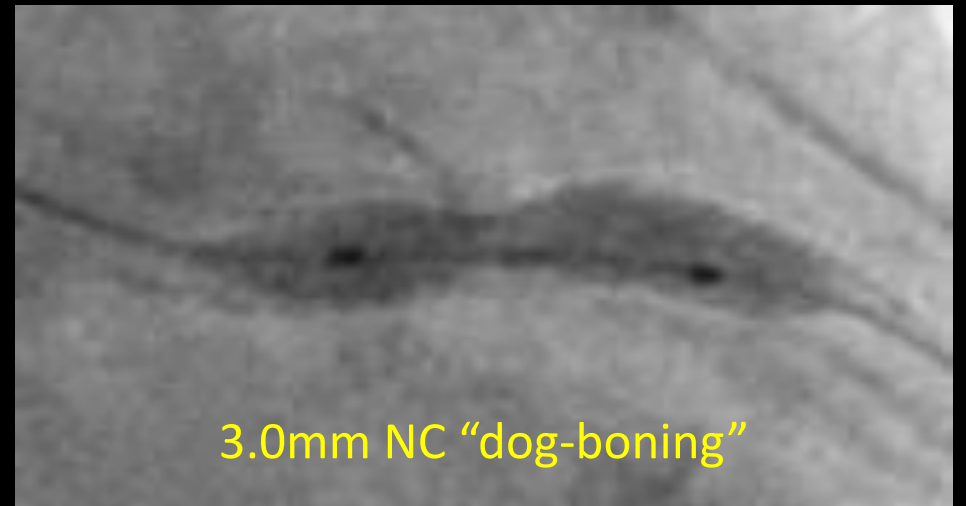
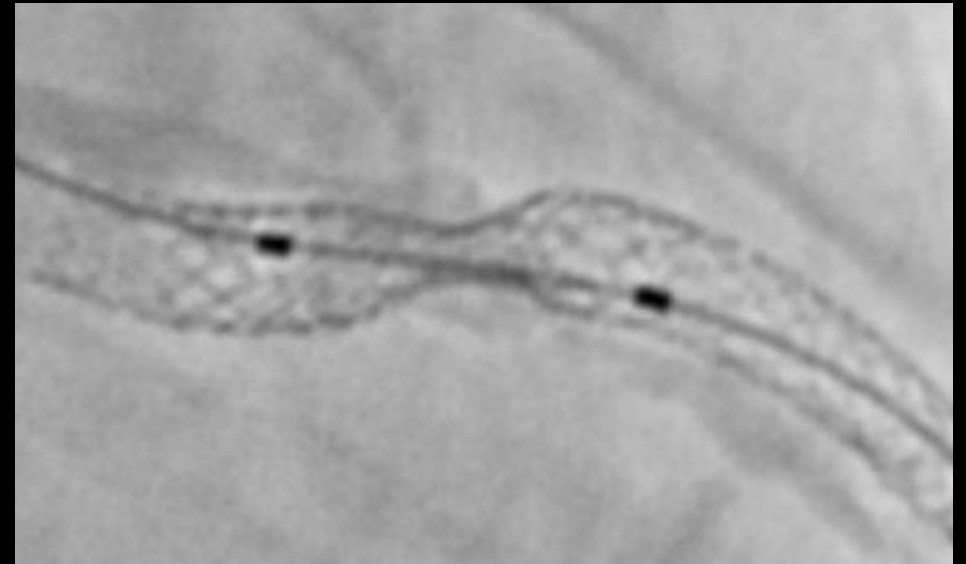
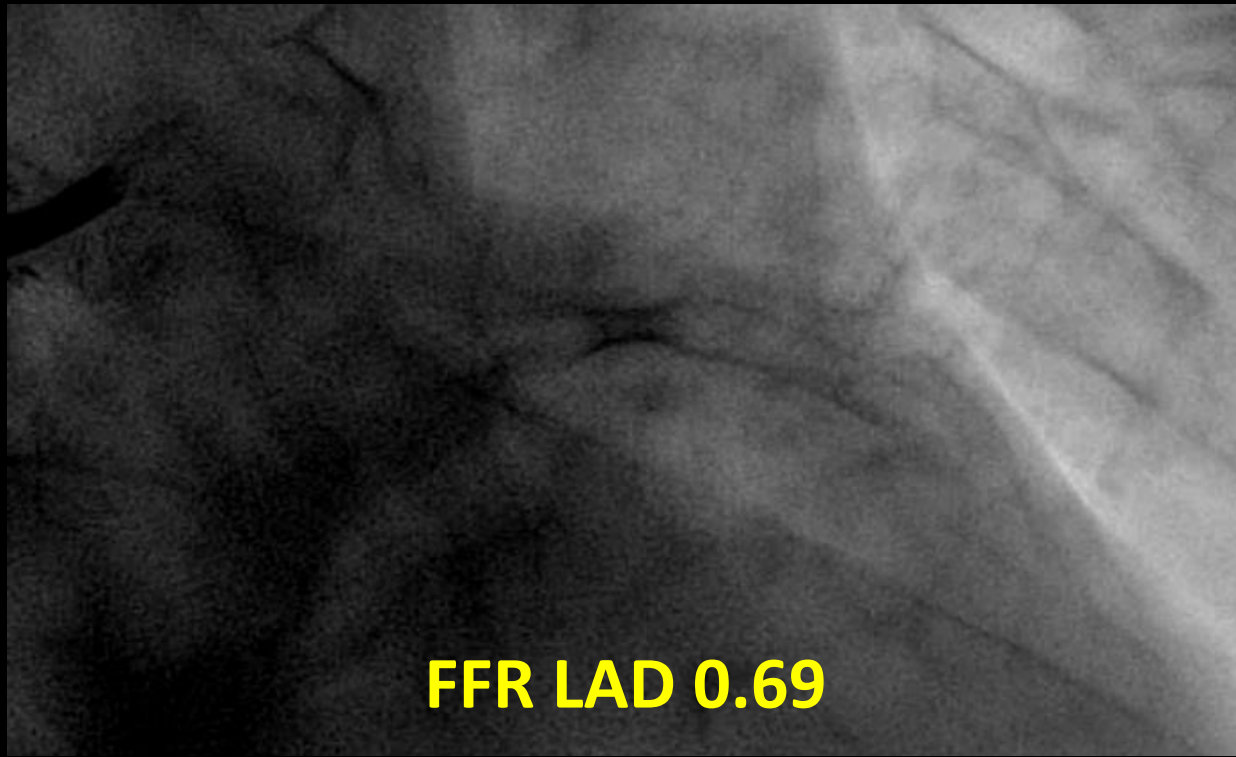
15mm
[proj]

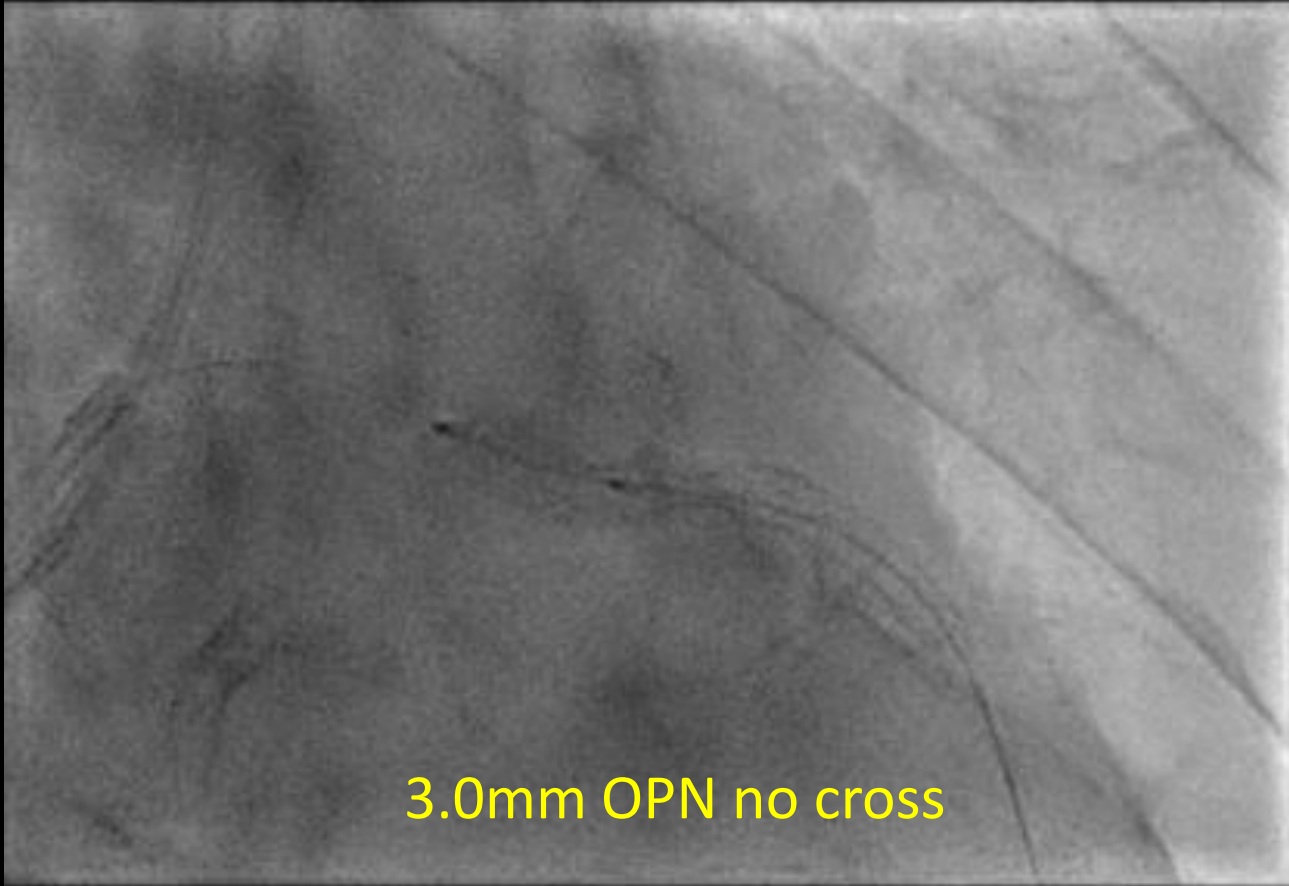
Primary -30.1° / Secondary -19.9°
National Heart Centre Singapore
VL
22011-310

Coro 25fps Low
SE
IM: 1/12



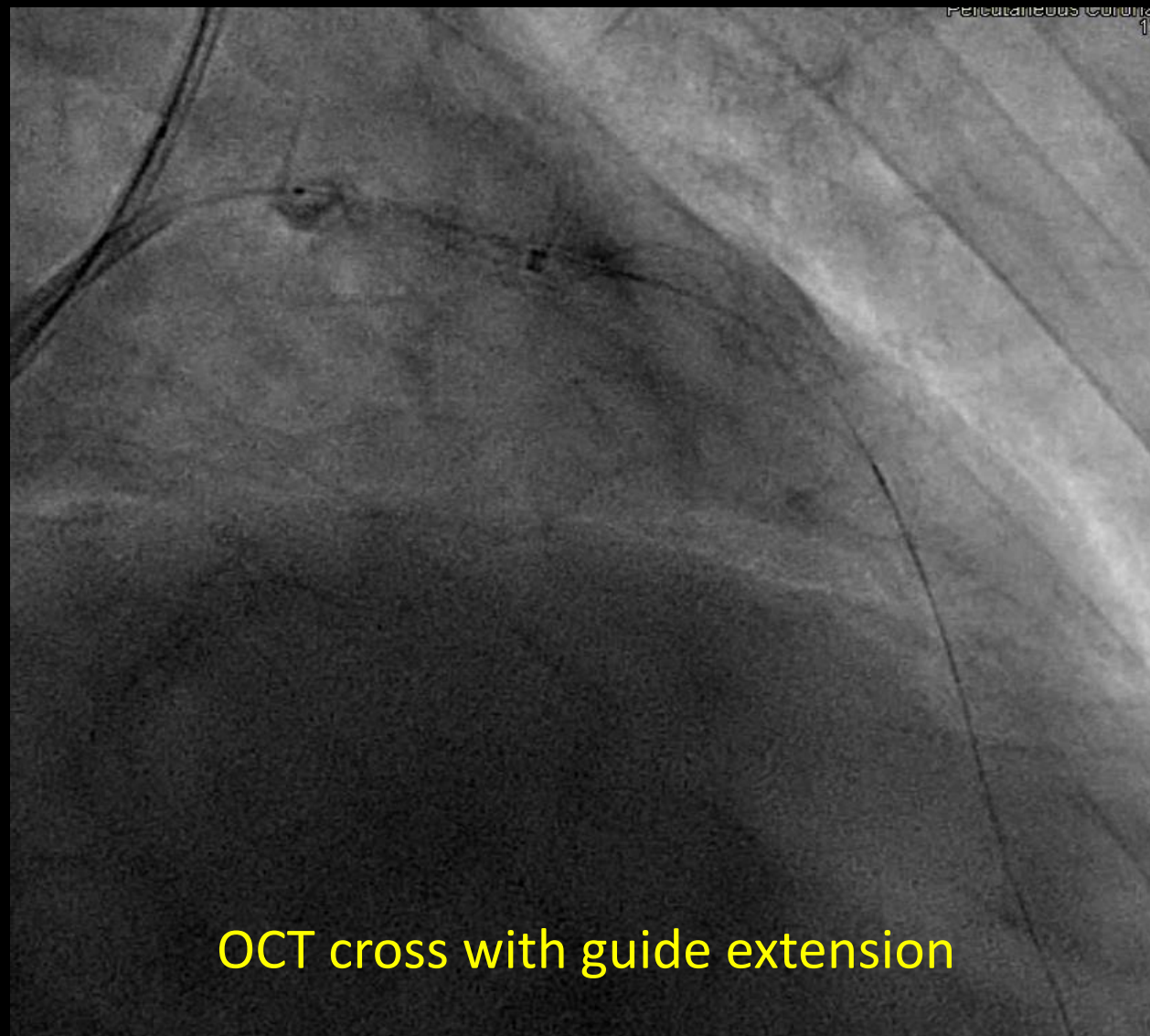
PCI to prox RCA



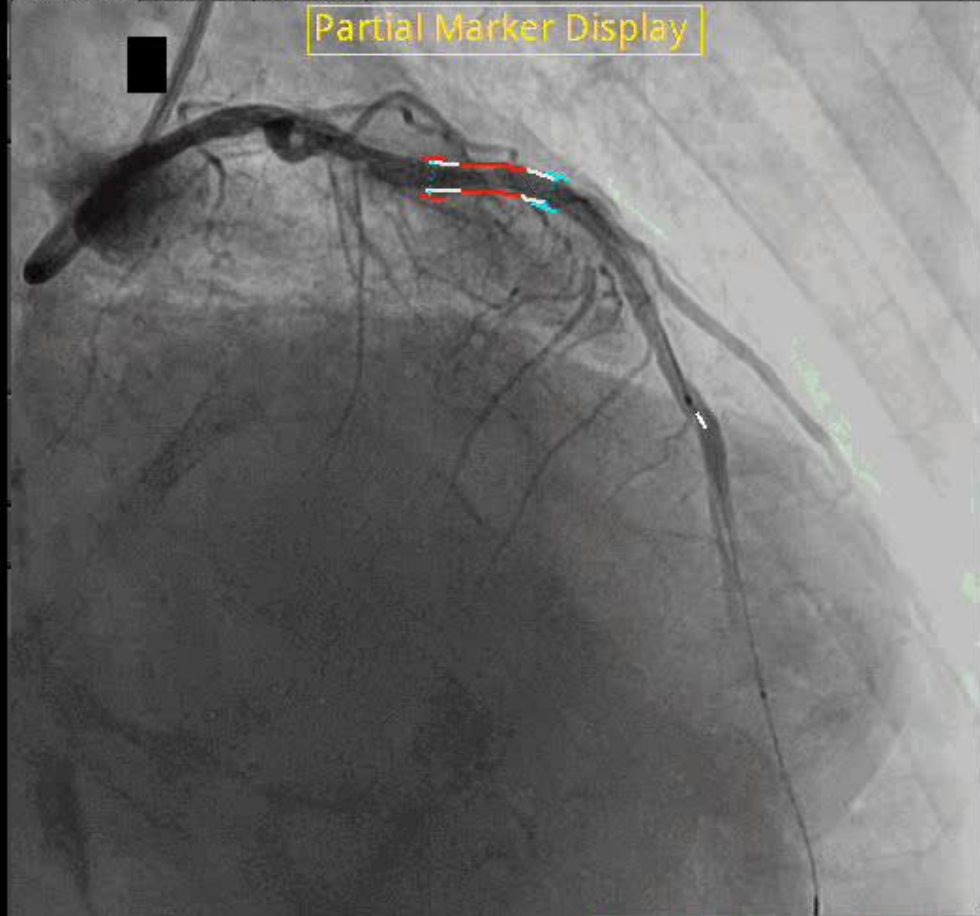


Procedure stopped,
plan for staged PCI

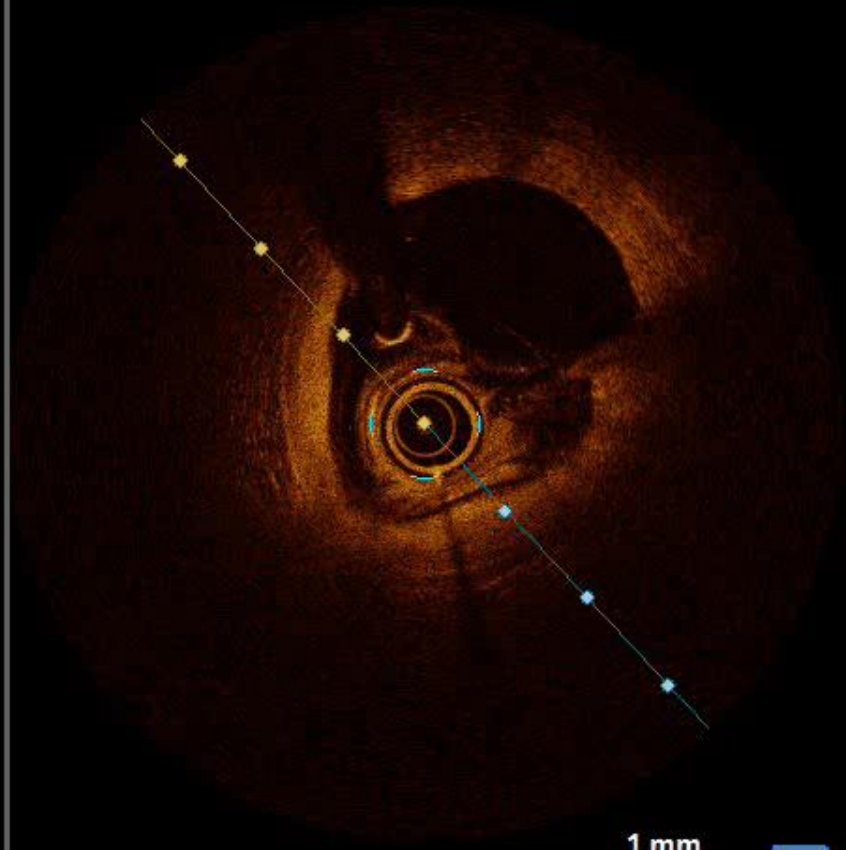
Staged procedure



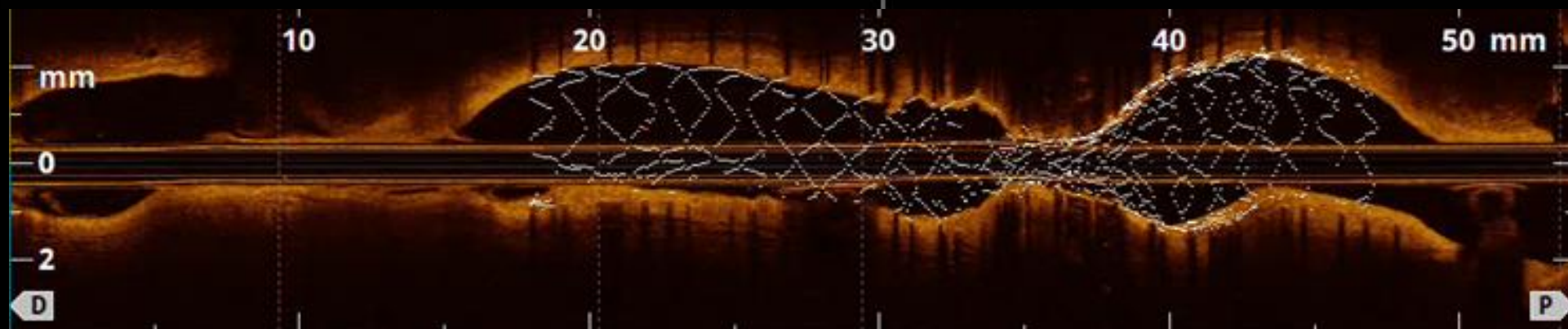
Partial Marker Display



Expansion: 90%



1 mm



mm

10

20

30

40

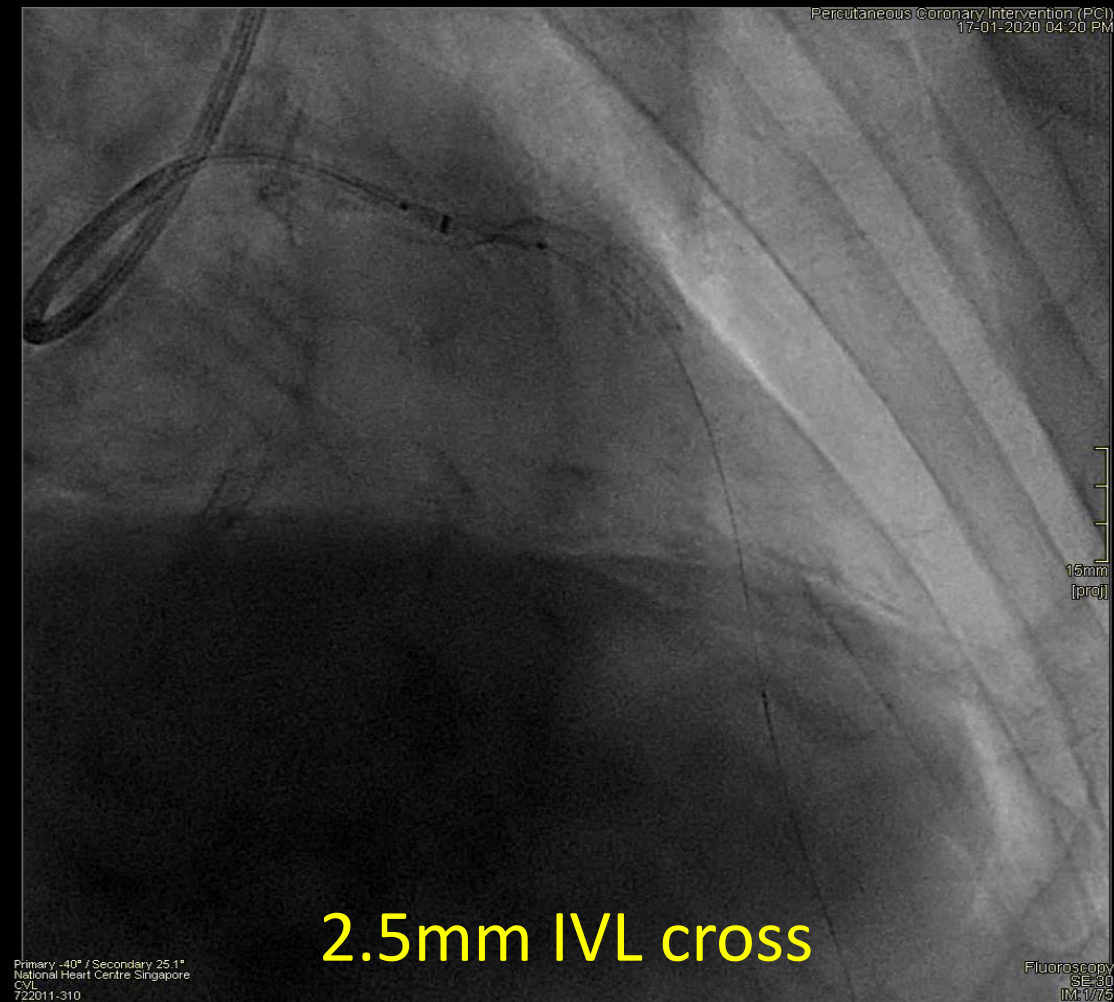
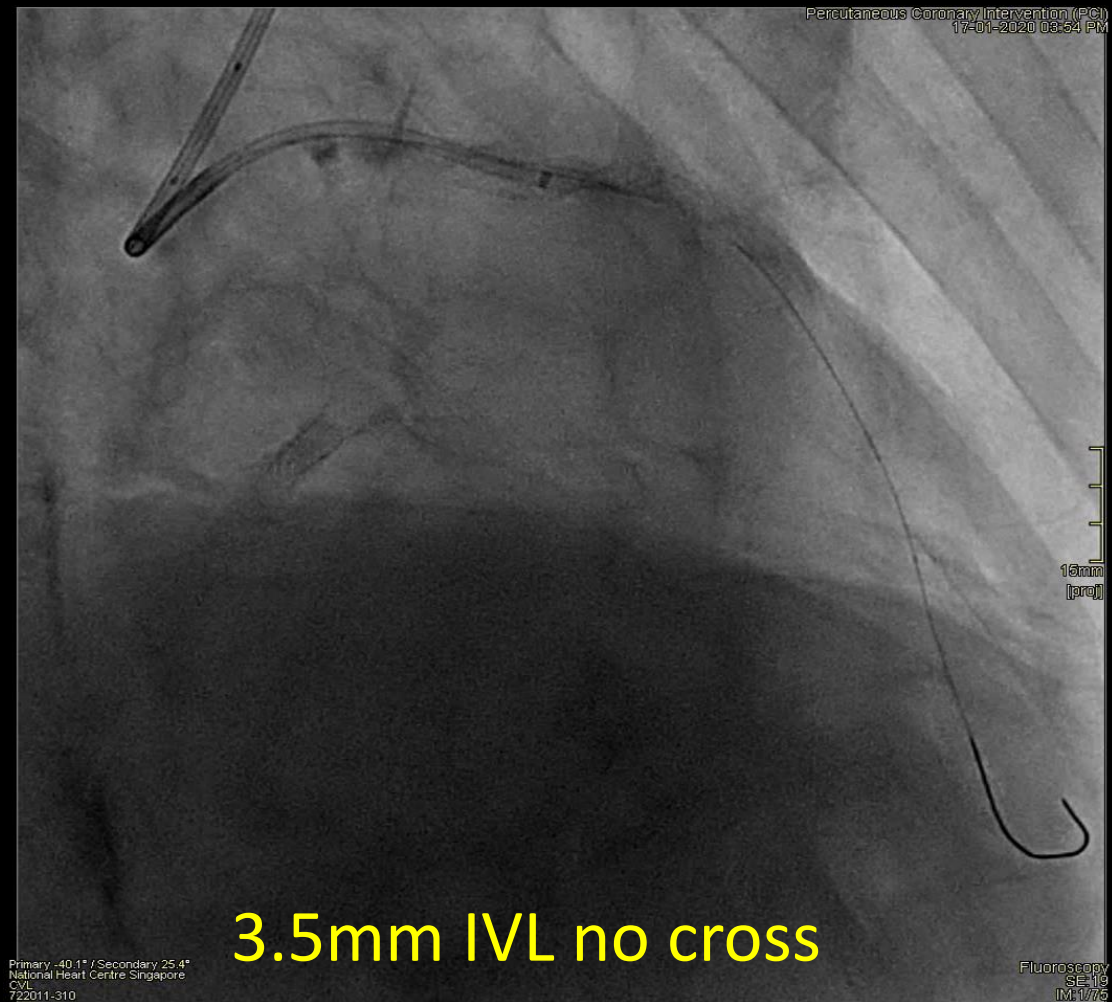
50 mm

0

2

D

P



Percutaneous Coronary Intervention (PCI)
17-01-2020 04:23 PM

19mm
[pre]

Primary -40° / Secondary 25.1°
National Heart Centre Singapore
CWL
722011-310

2.5mm IVL 80 pulses

Fluoroscopy
SE-35
IM-1/11

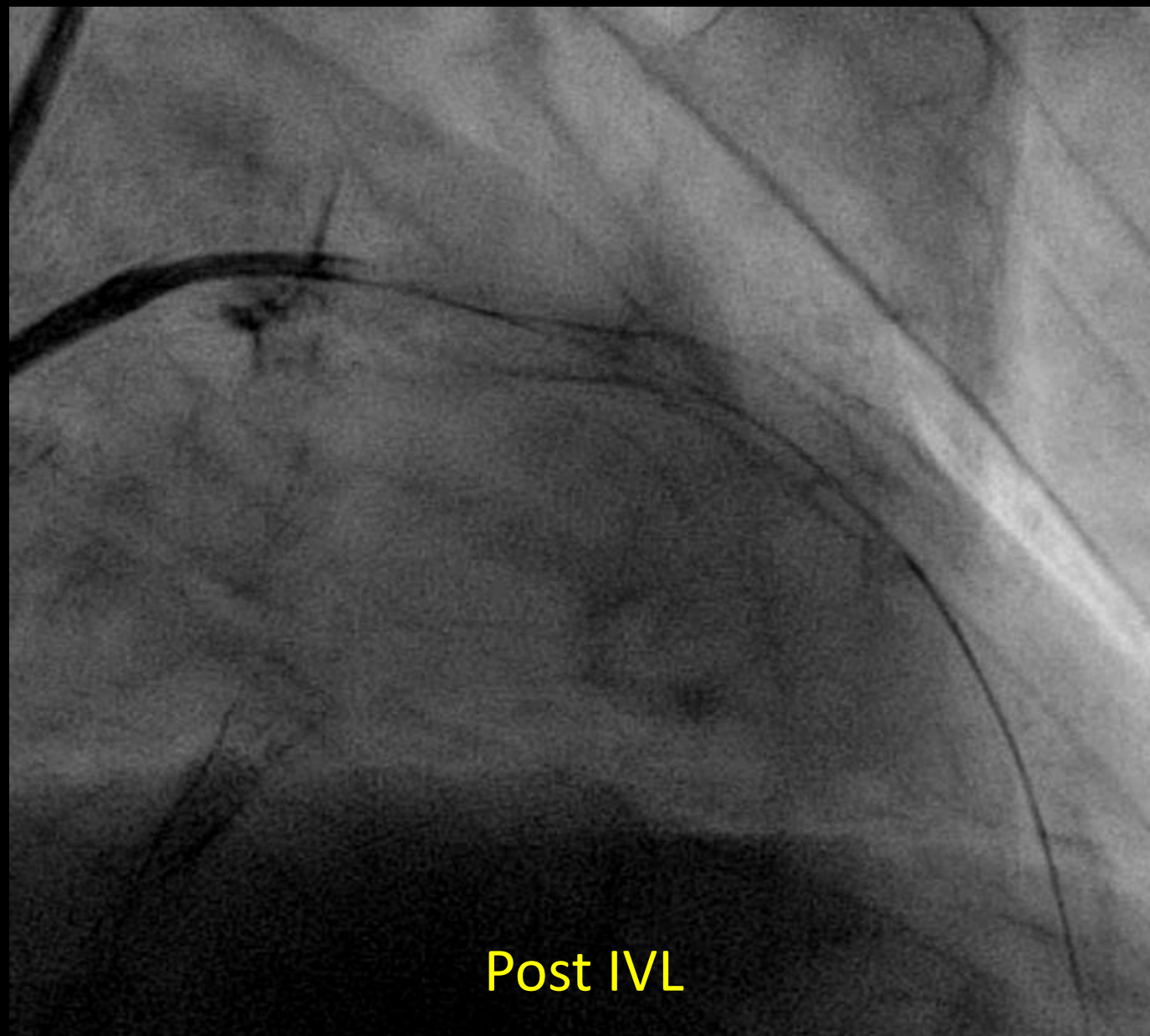
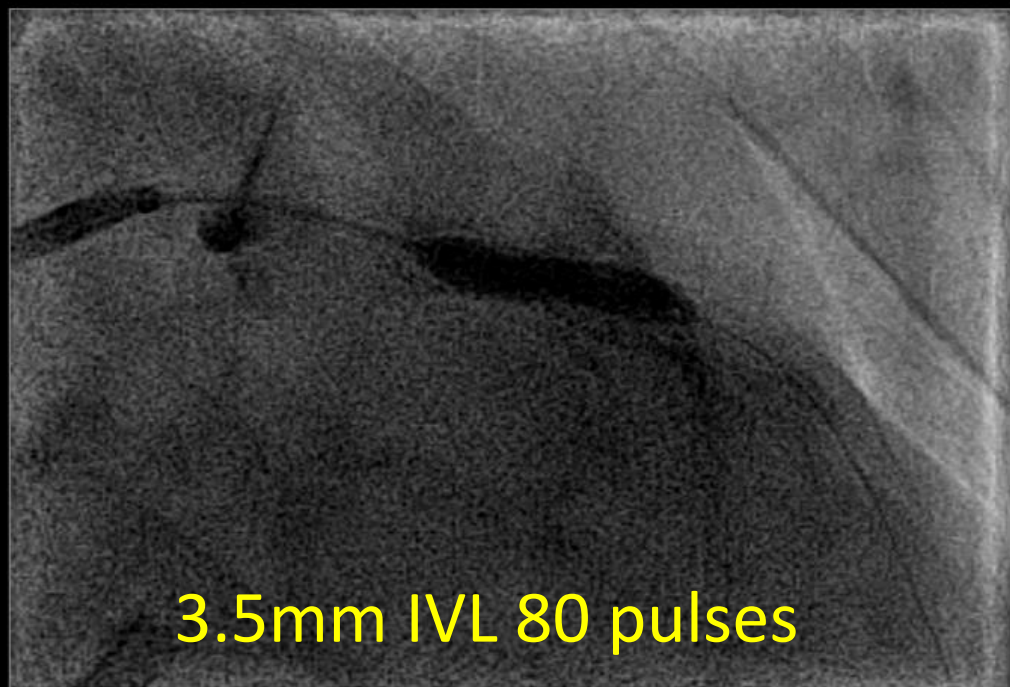
Percutaneous Coronary Intervention (PCI)
17-01-2020 04:23 PM

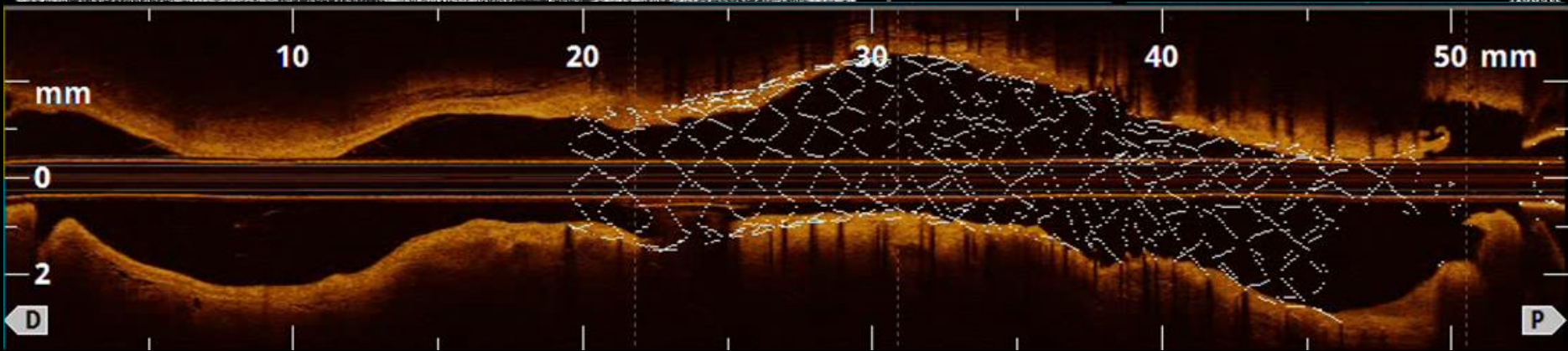
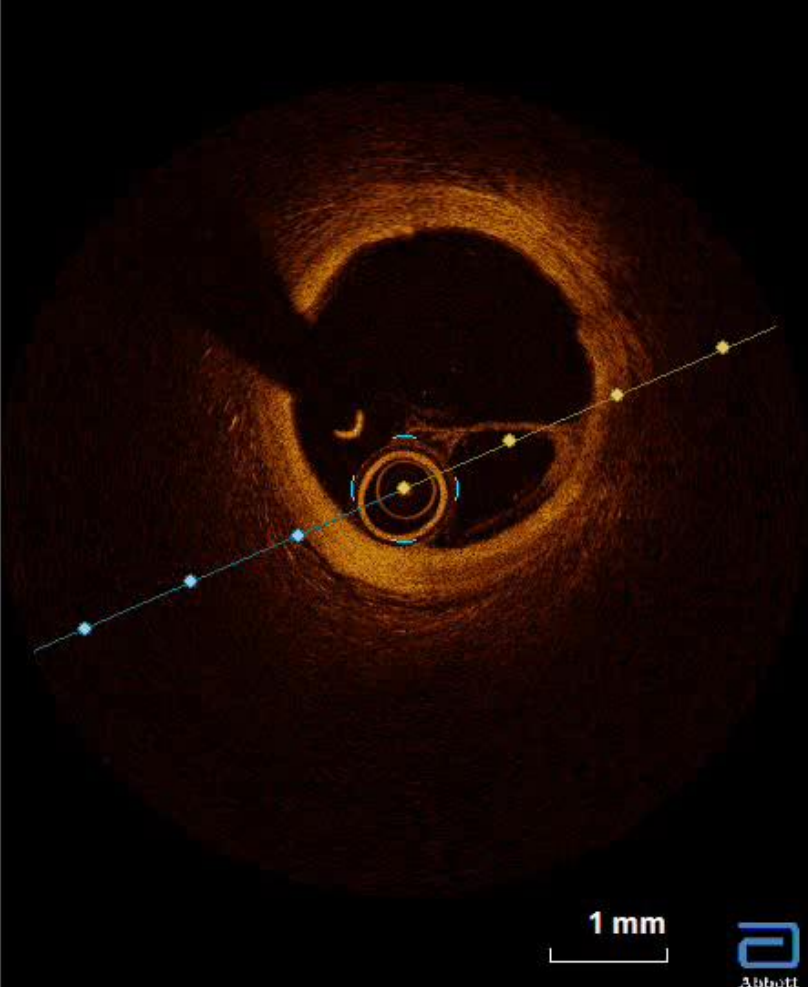
19mm
[pre]

Primary -40° / Secondary 25.1°
National Heart Centre Singapore
CWL
722011-310

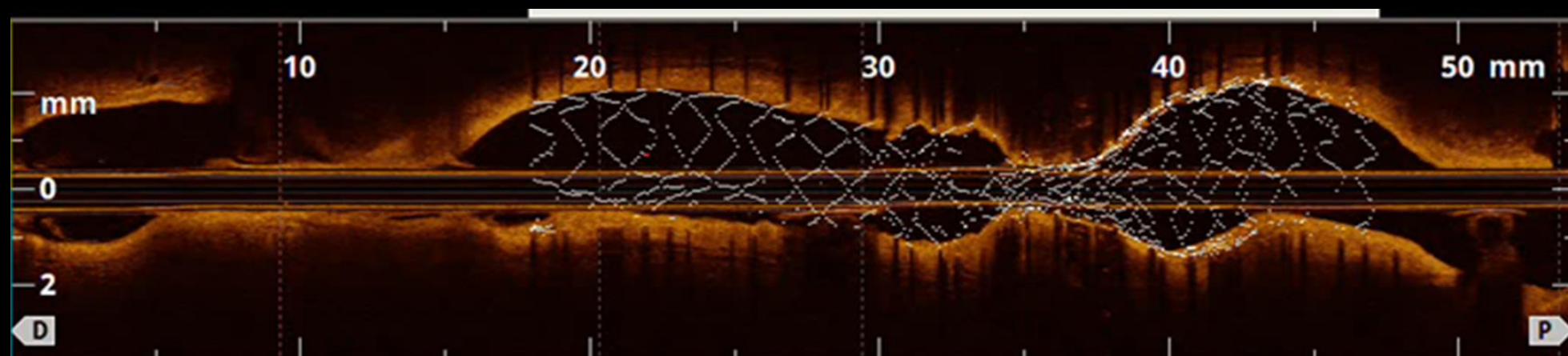
Guide extension cross

Fluoroscopy
SE-36
IM-1/75

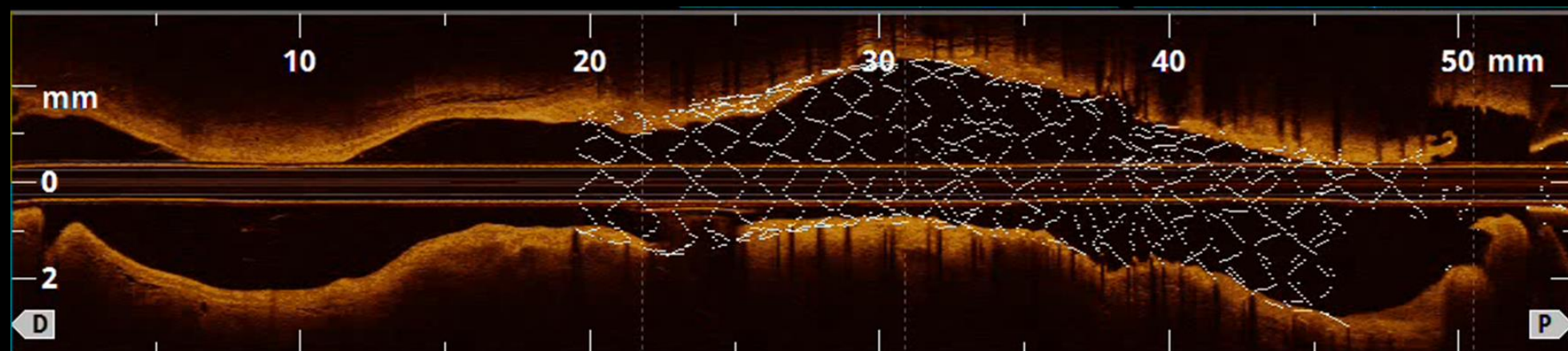


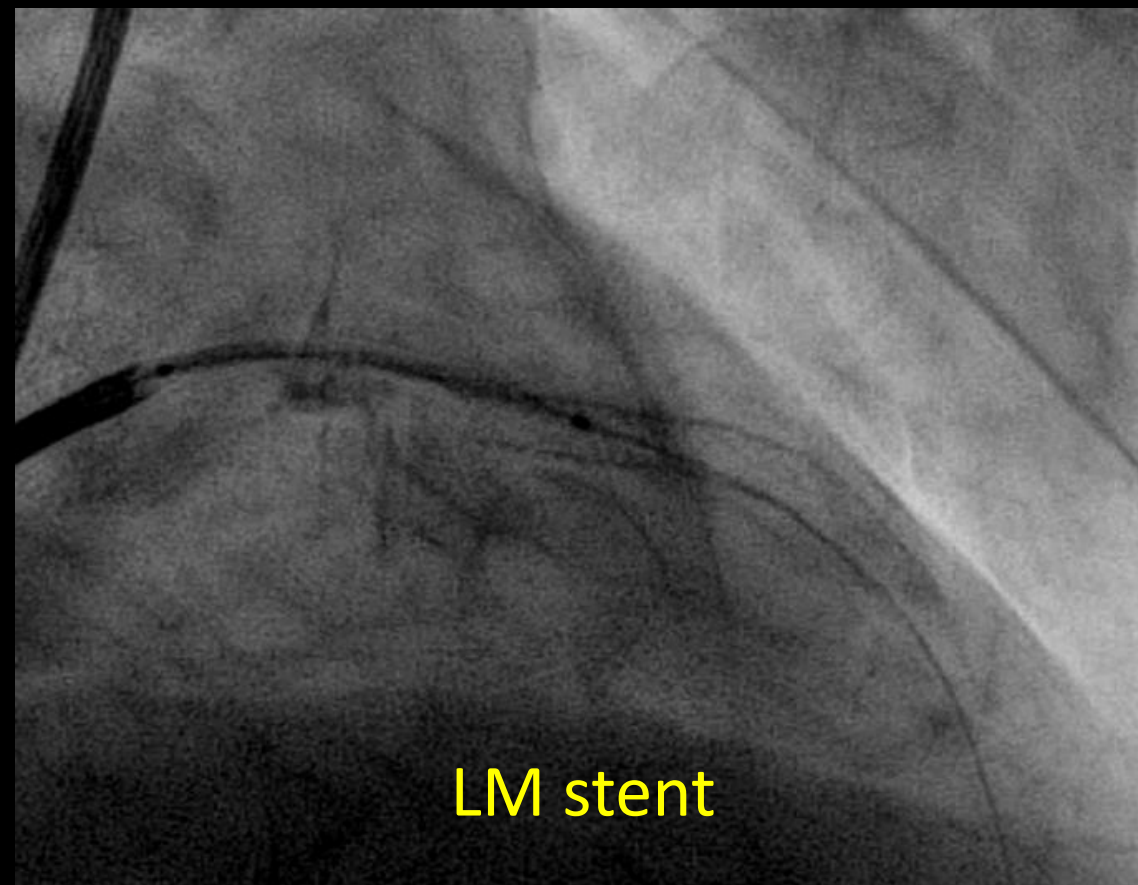
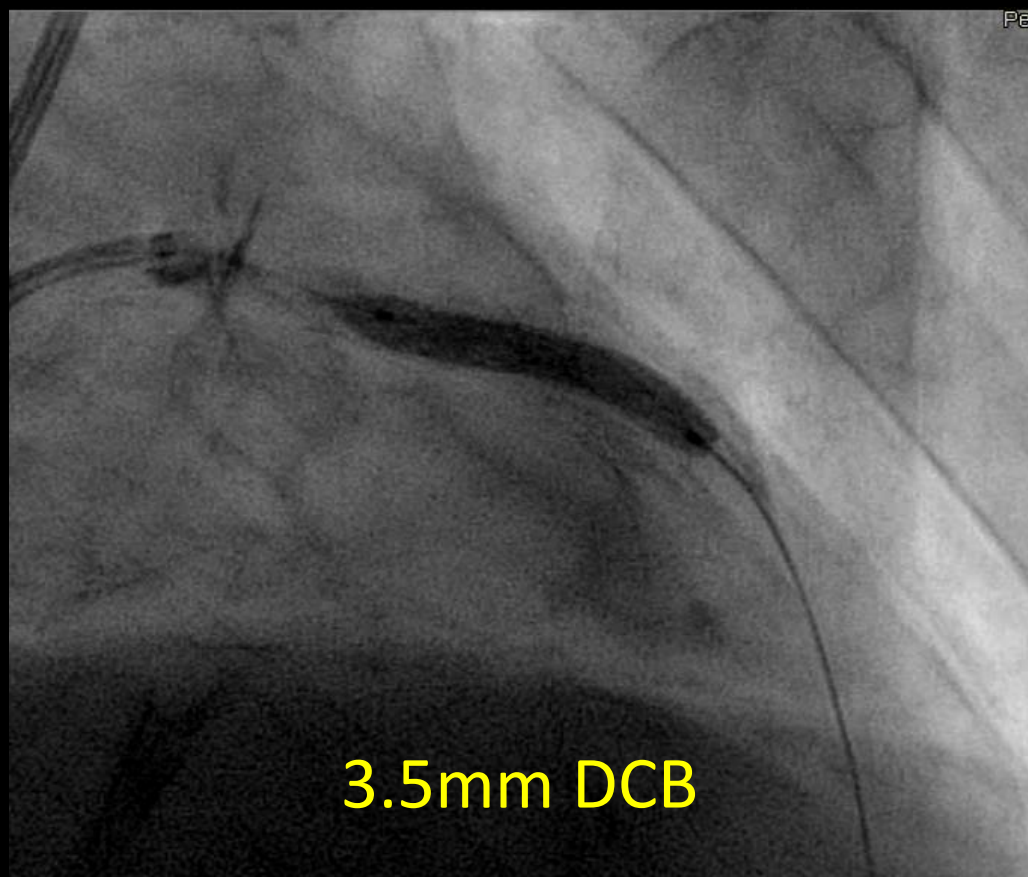


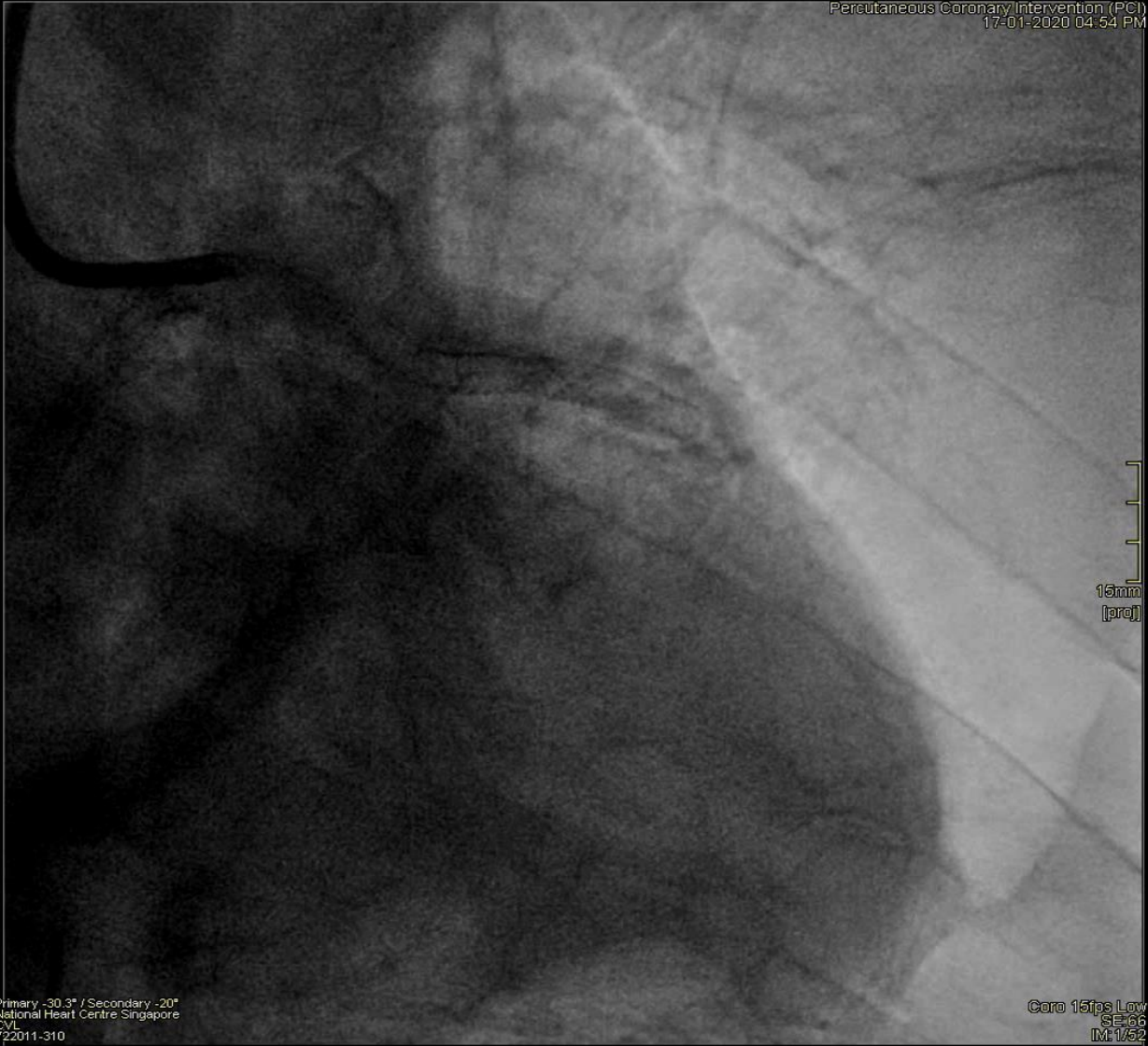
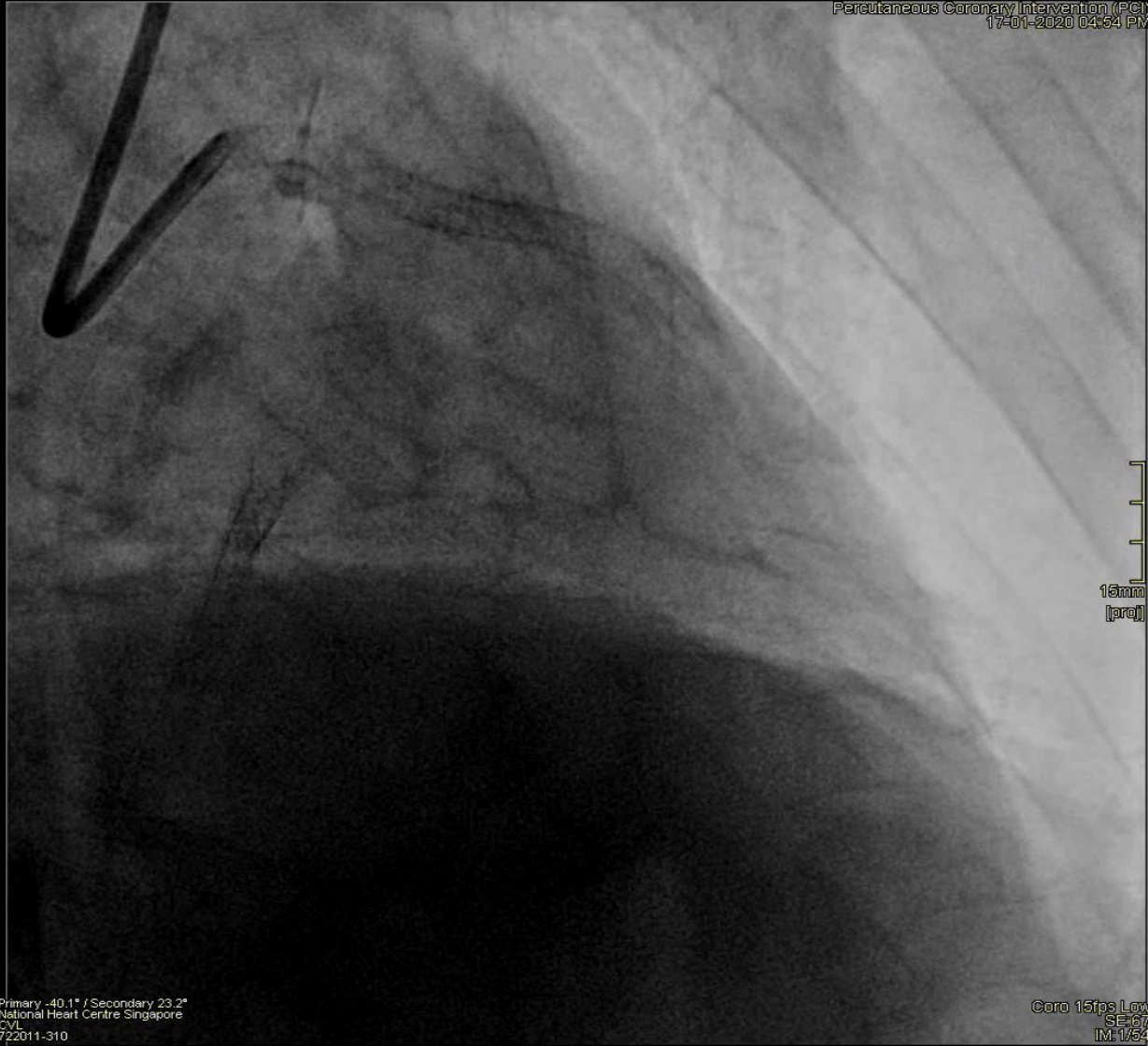
Pre



Post







Summary

- Calcium remains one of the biggest challenges of contemporary PCI
- Good lesion preparation is crucial, prior to stent implantation, to improve stent results
- In stent underexpansion due to underlying calcium, intravascular lithotripsy offers a unique option for calcium modification without stent disruption