Functional Treatment giuded by IVUS/OCT

2013. 12. 7, IPS
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Ulsan University Hospital
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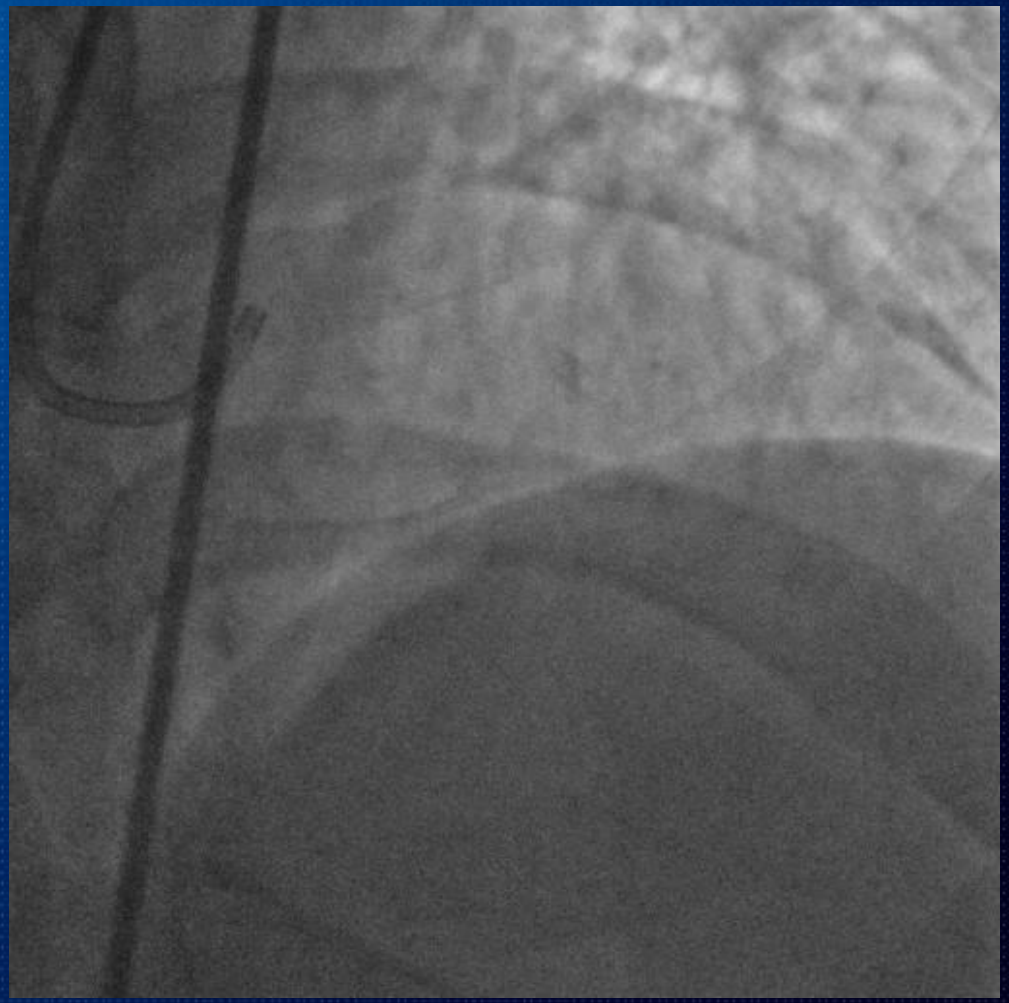
Chest pain at exertion
Aggravation, 1 wk ago

Case: M/61

Hypertension (+)
Dyslipidemia (+)



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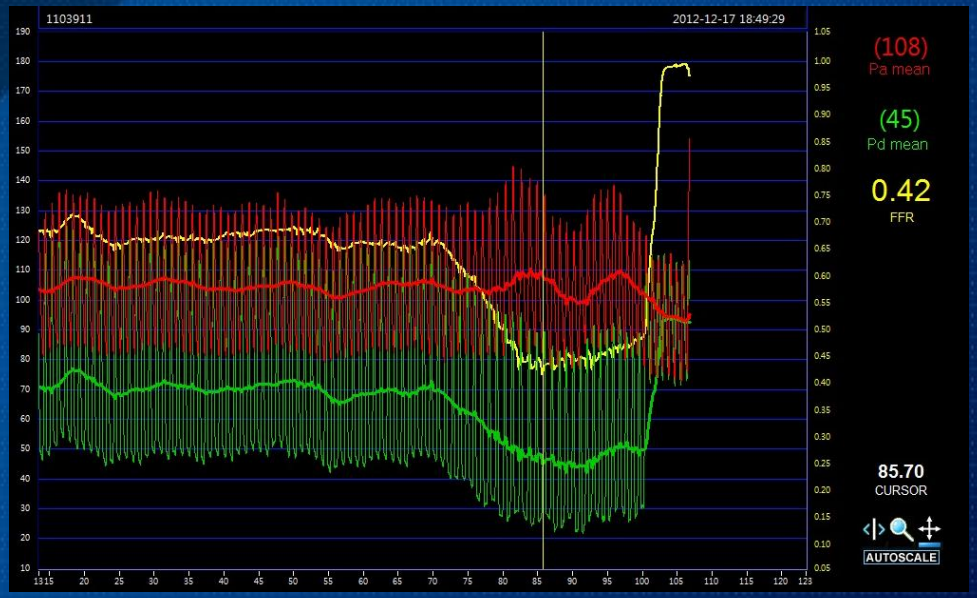
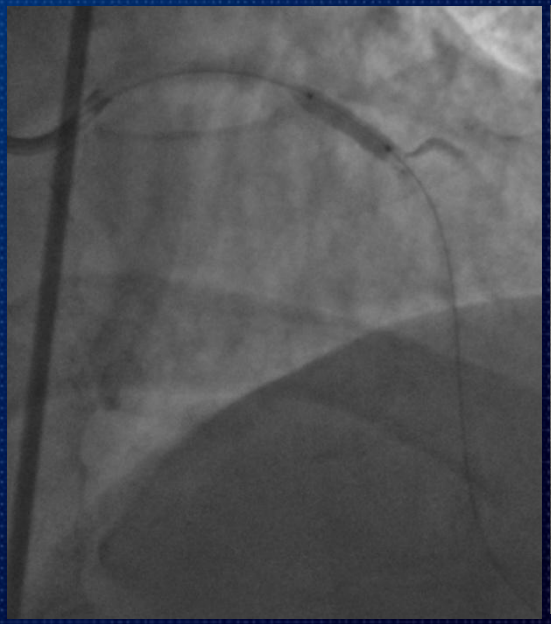
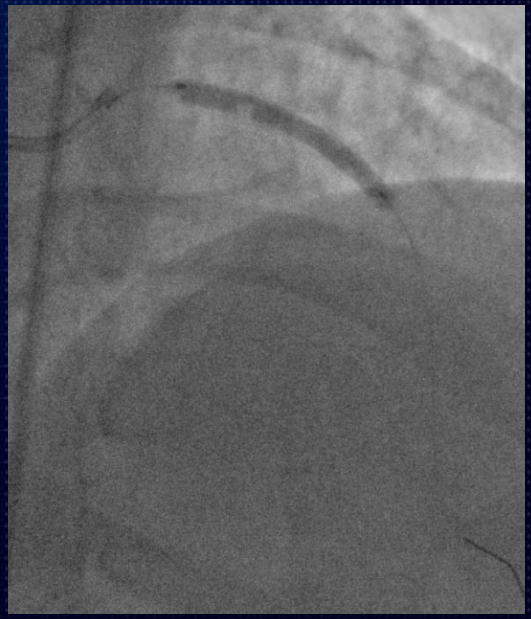
Stenting at pLAD



FFR: 0.70→ 0.42



Balloon angioplasty



Stenting

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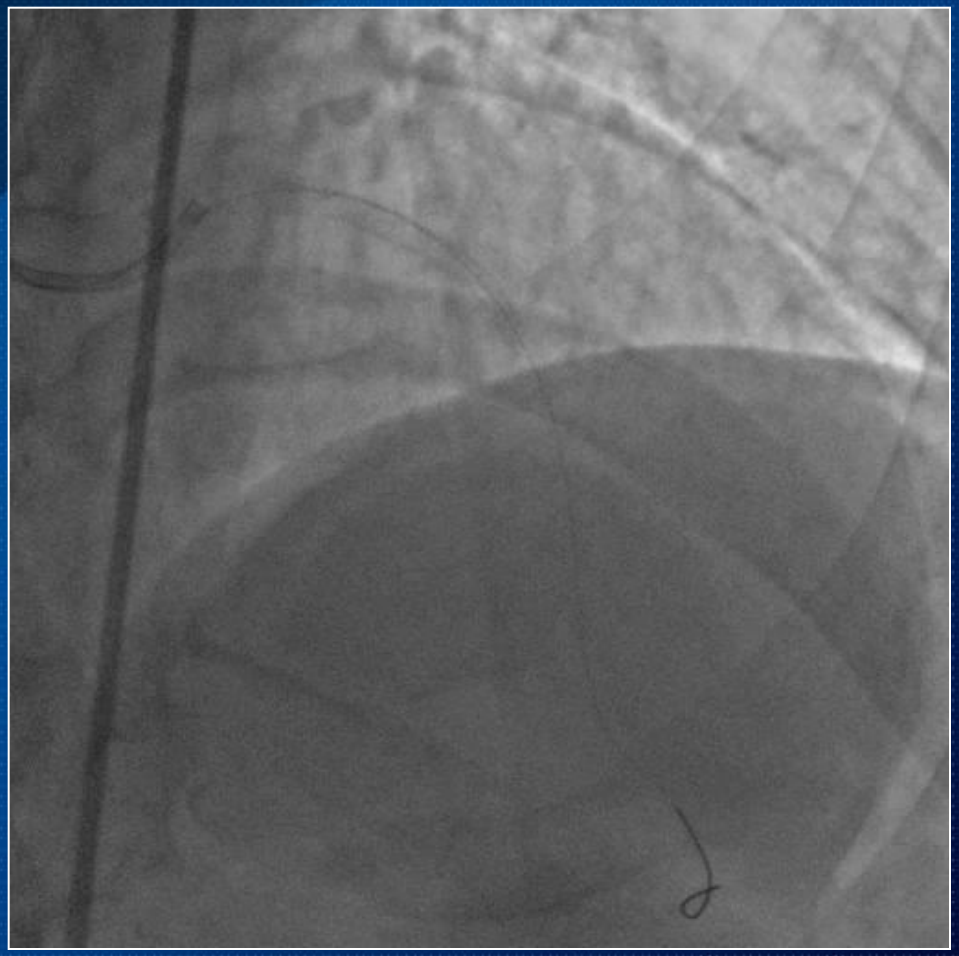
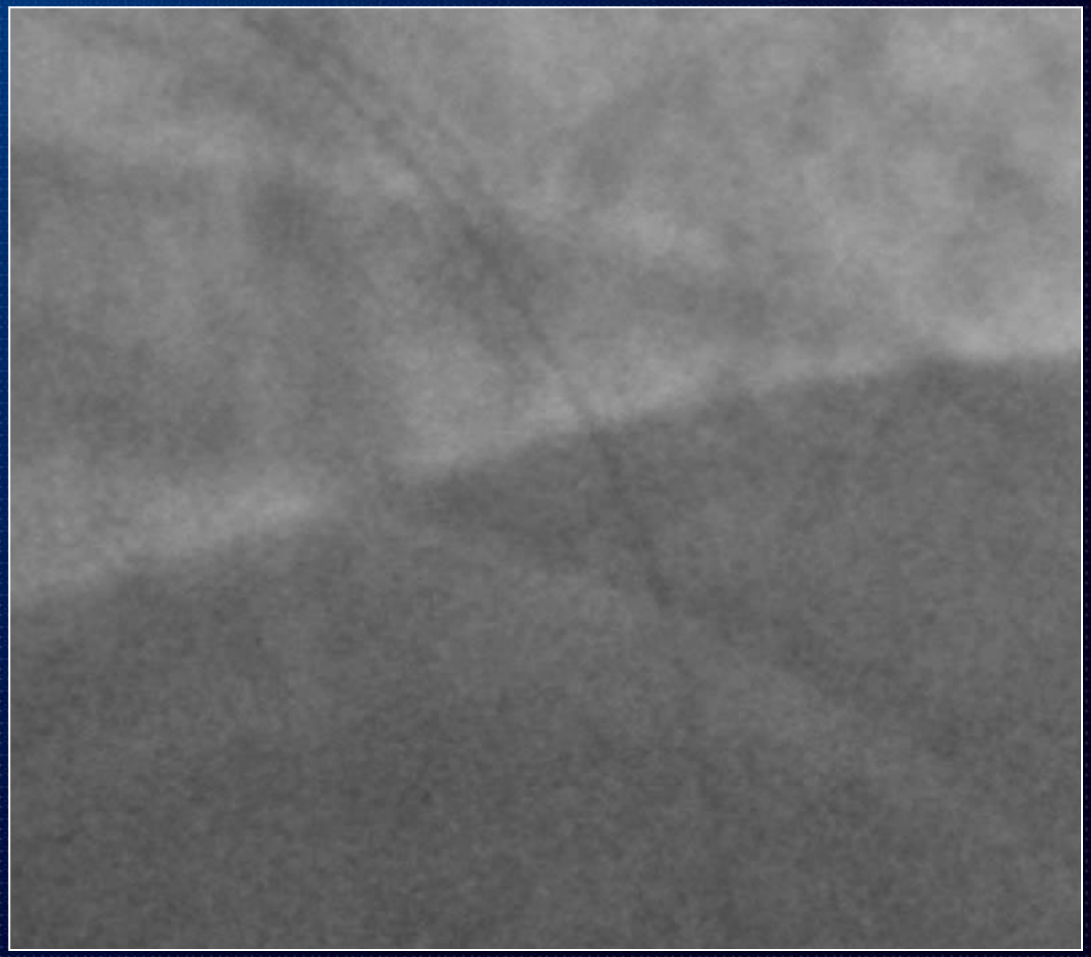
Coronary angiography after stenting



LAD



Zoom-in

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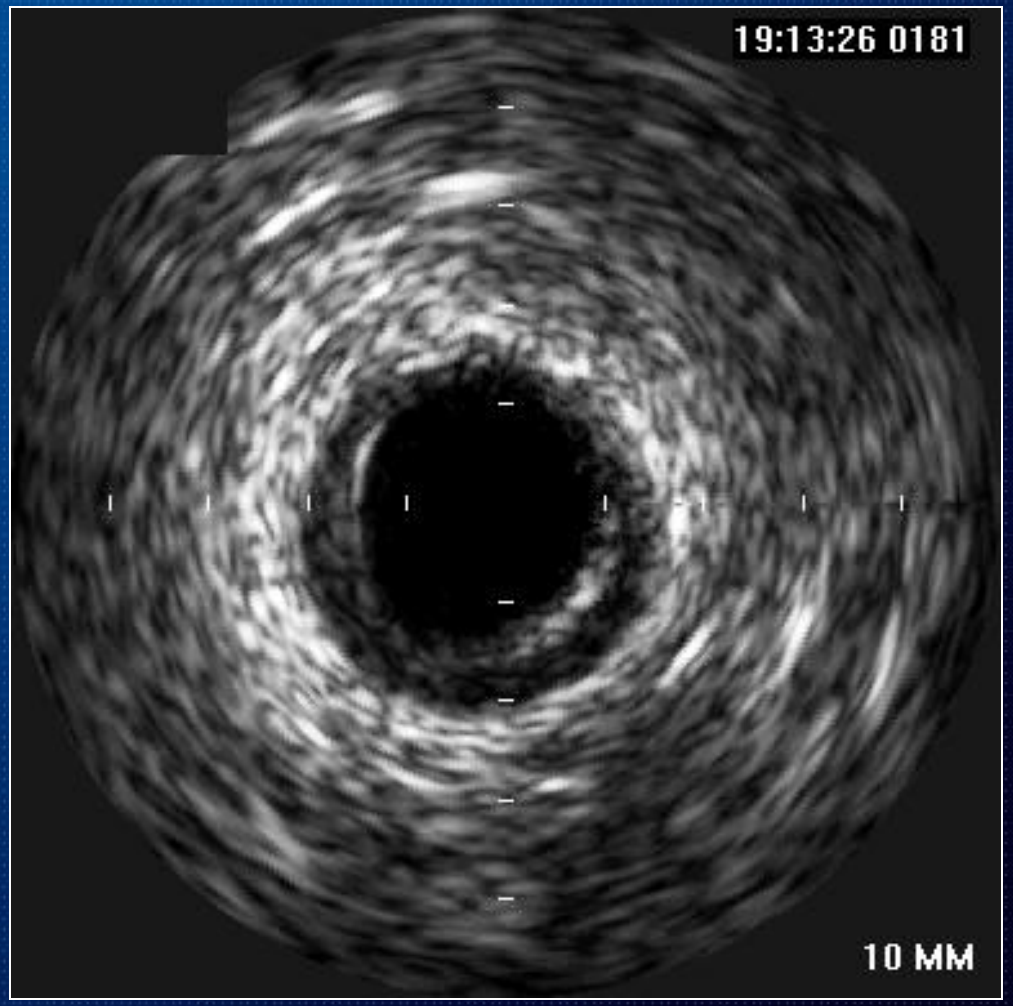
IVUS



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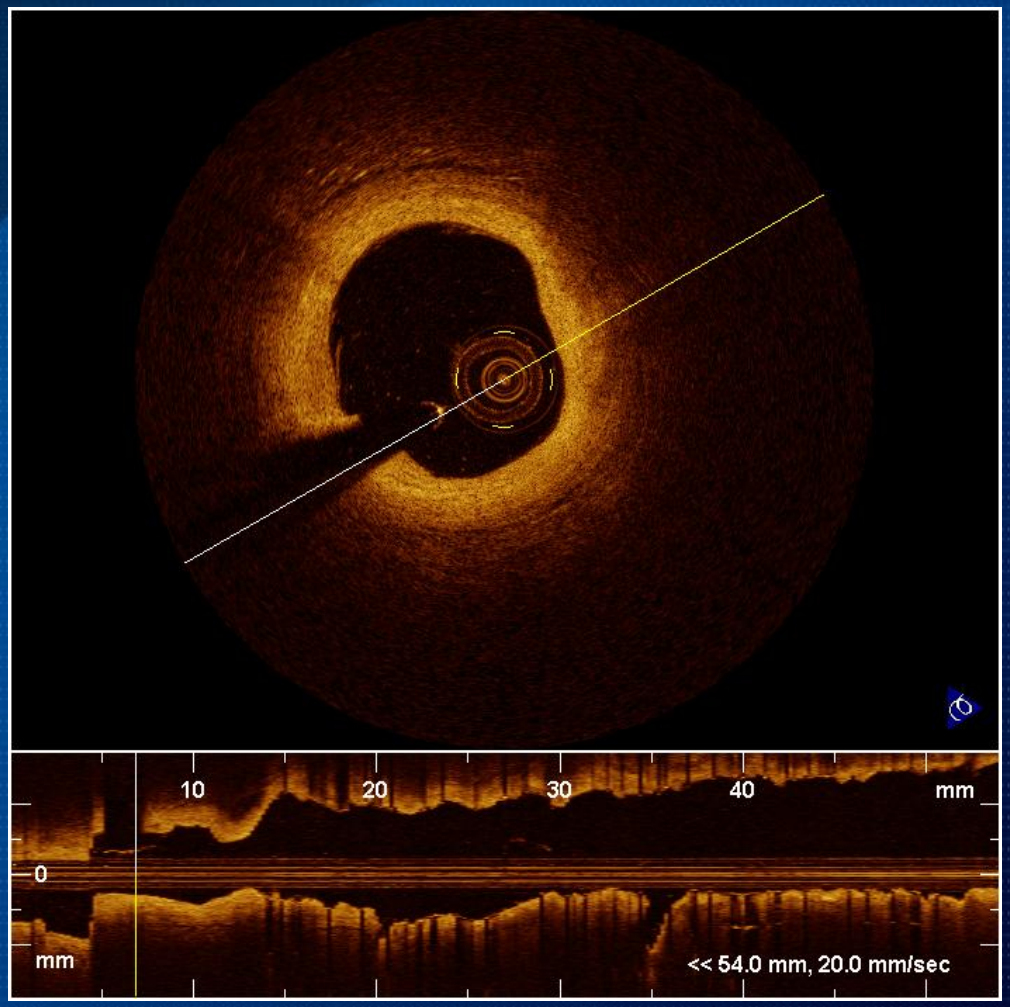
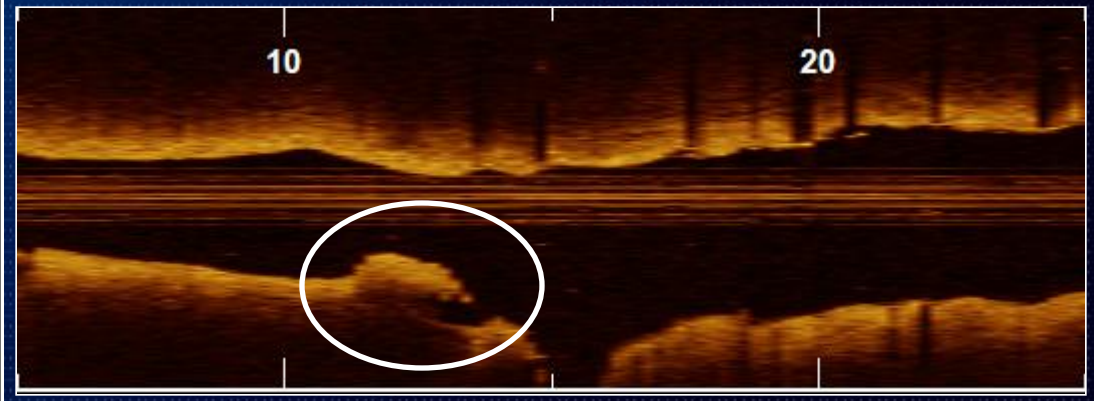
OCT





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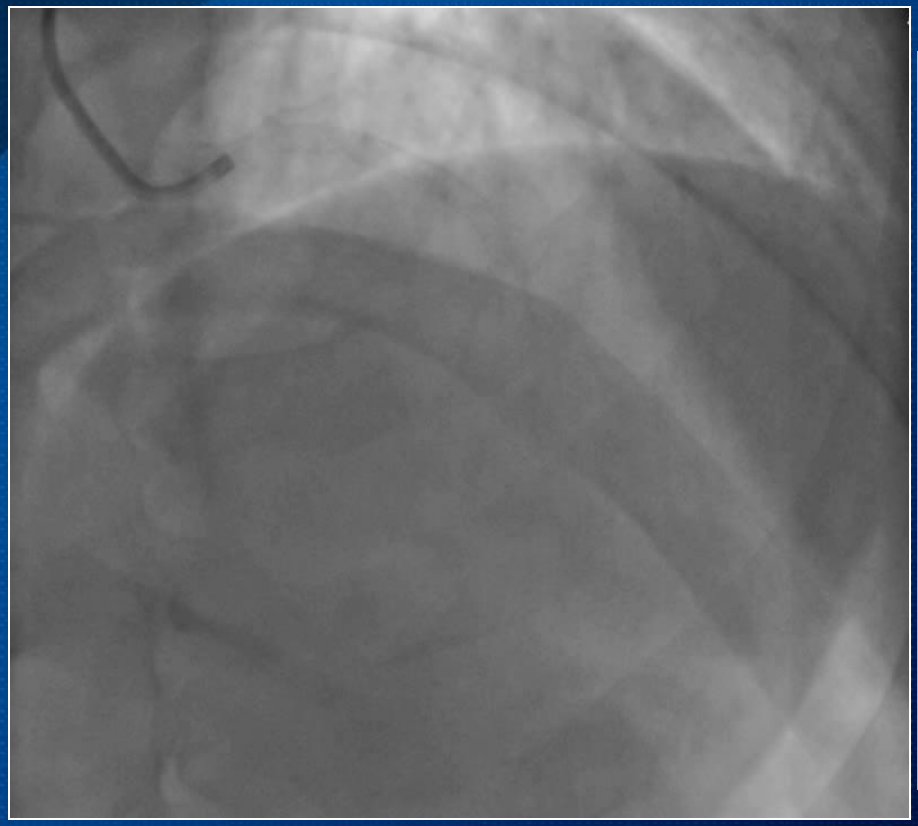
FFR in distal LAD

FFR:0.97→0.89

CAG & FFR: 9 months later



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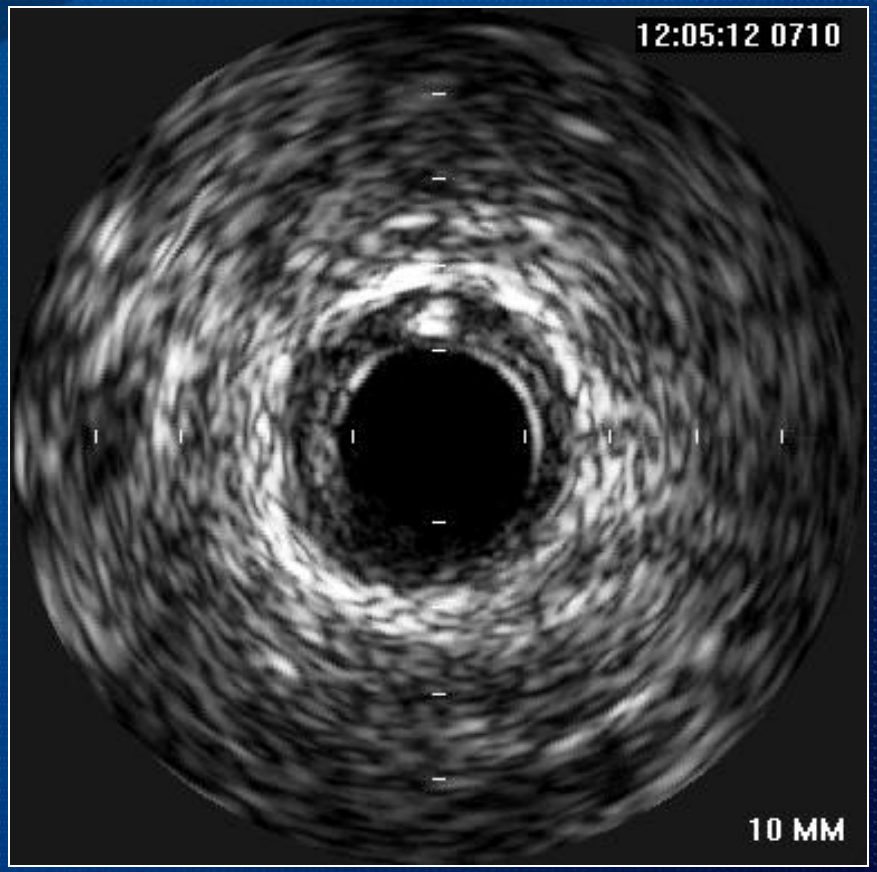
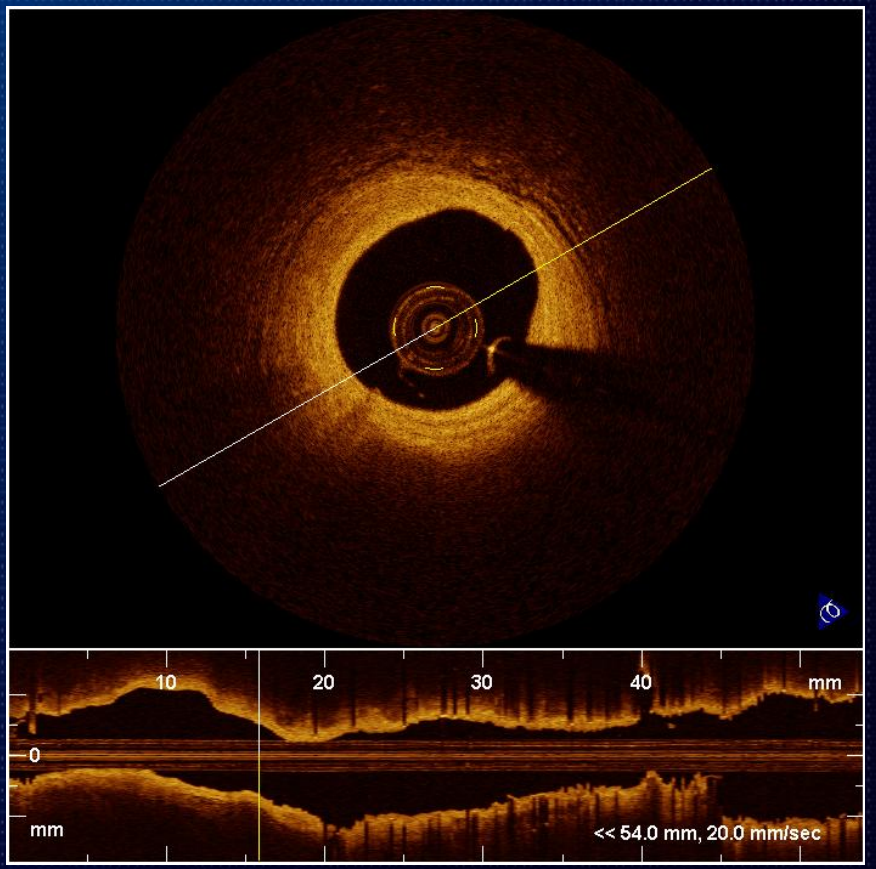
IVUS & OCT: 9 months later





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Chest discomfort

Case: M/49

Dyslipidemia (+)

LCX *LAD* *RCA*

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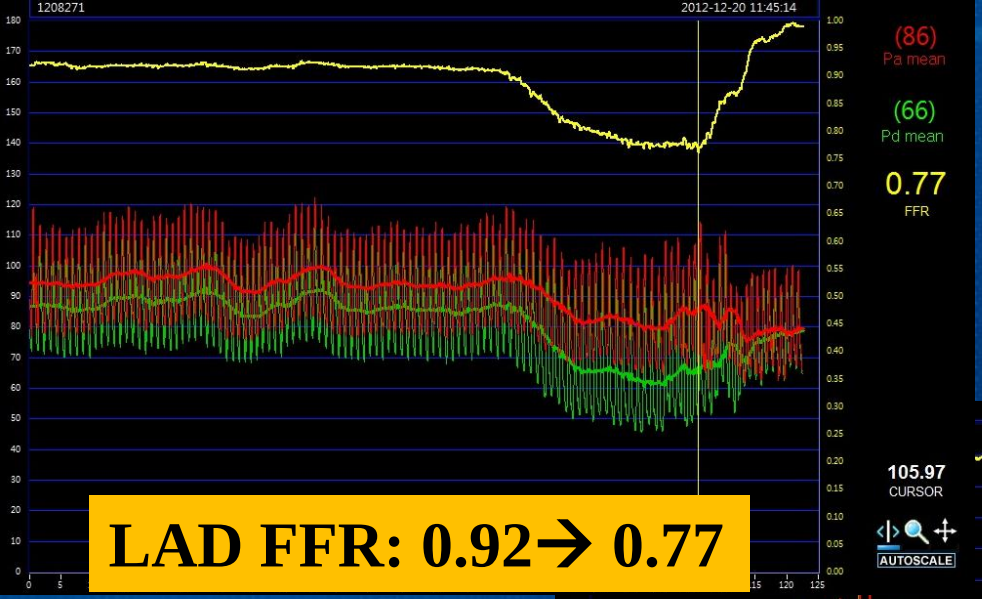
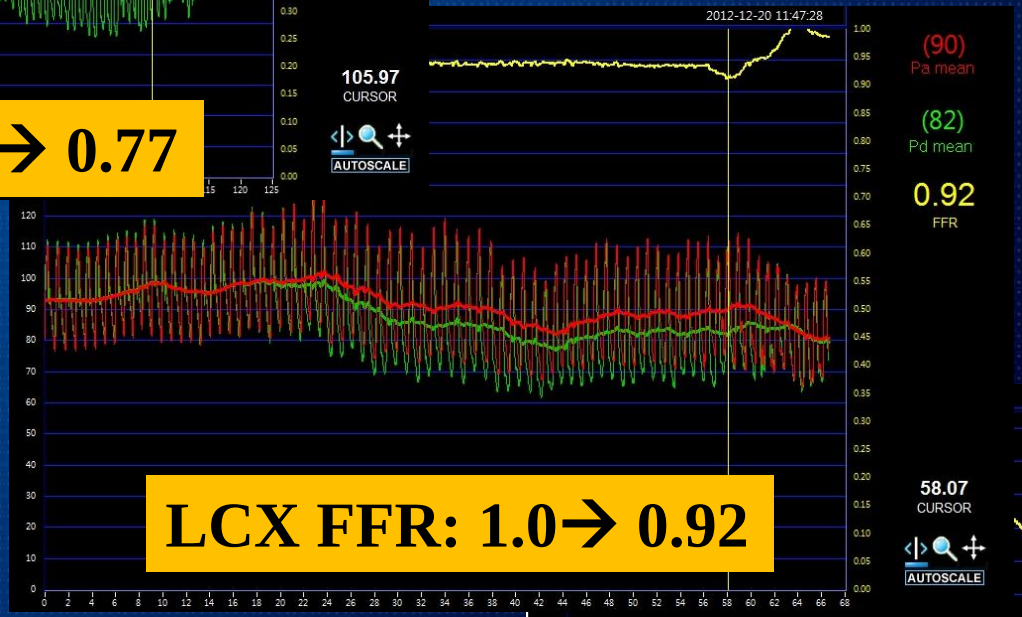
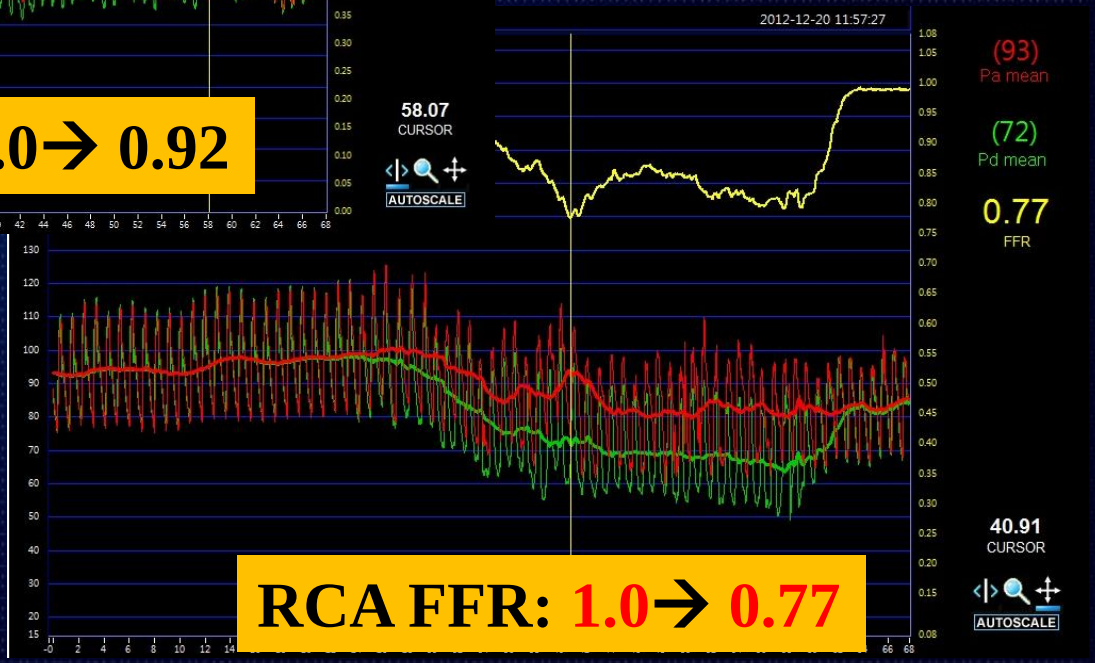
FFR in 3 vessels



LAD FFR: 0.92→ 0.77

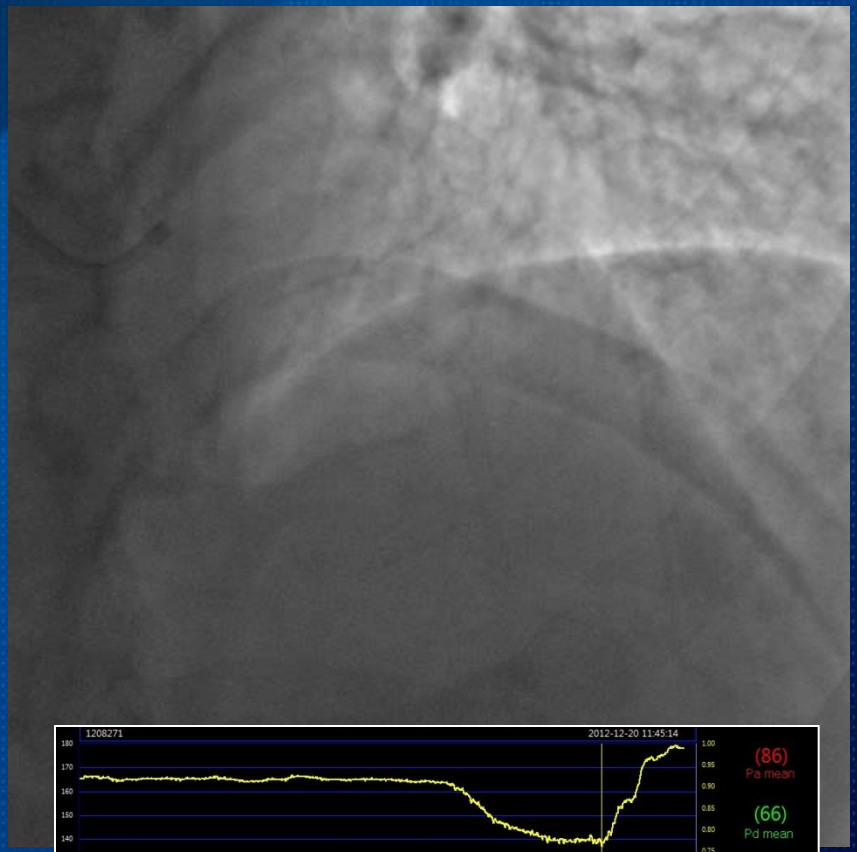


LCX FFR: 1.0→ 0.92



RCA FFR: 1.0→ 0.77

LAD & RCA



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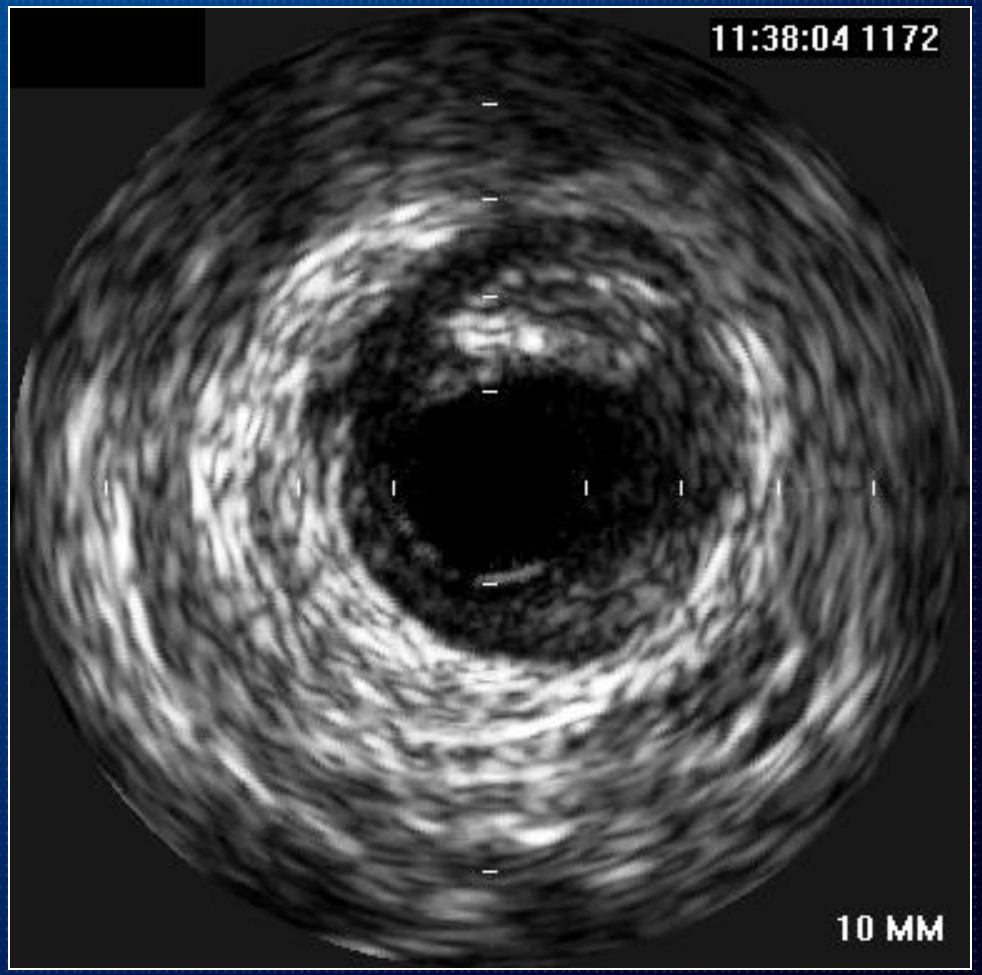
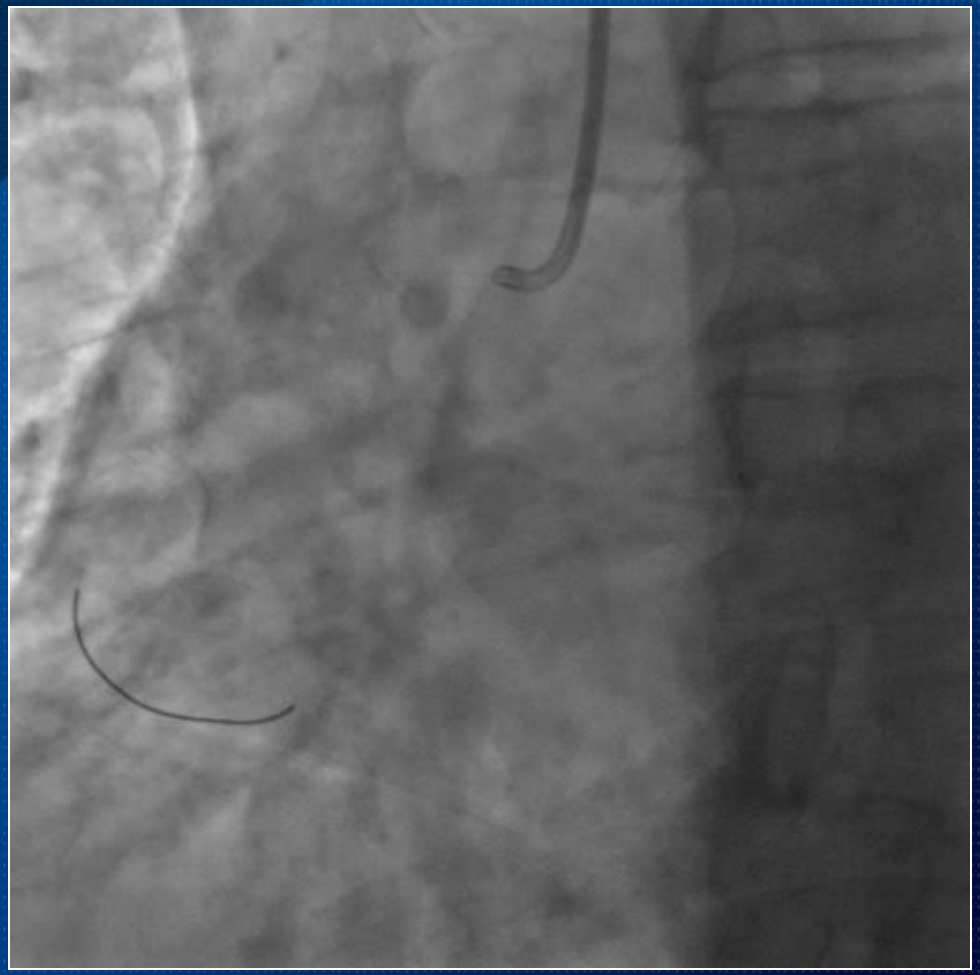
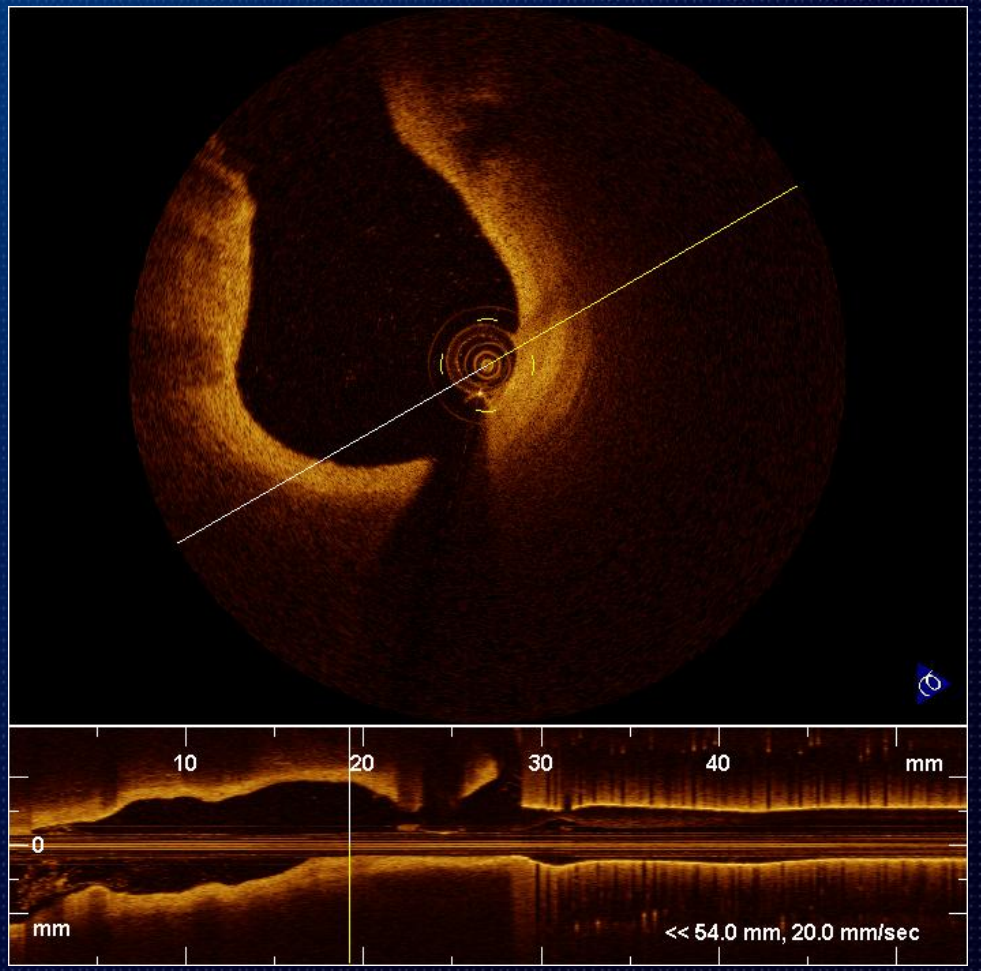
IVUS



Angiography & OCT of RCA





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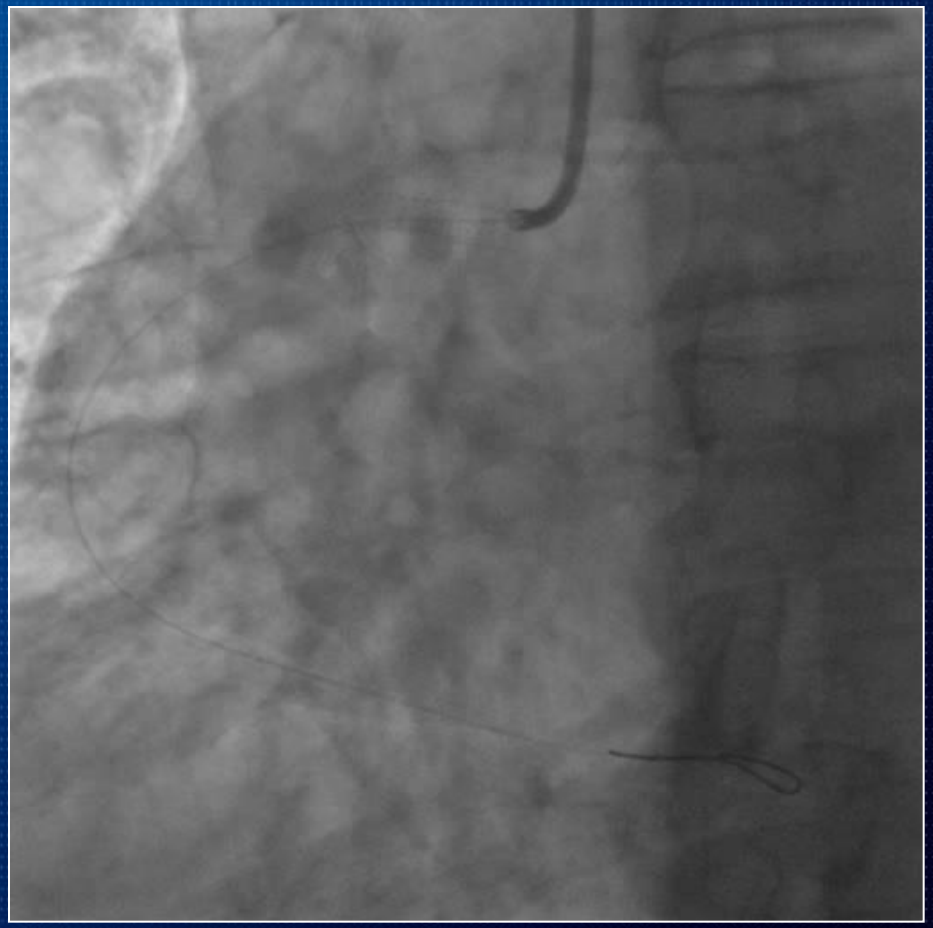
Stenting at RCA ostium



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FFR

RCA FFR: 0.99→ 0.82

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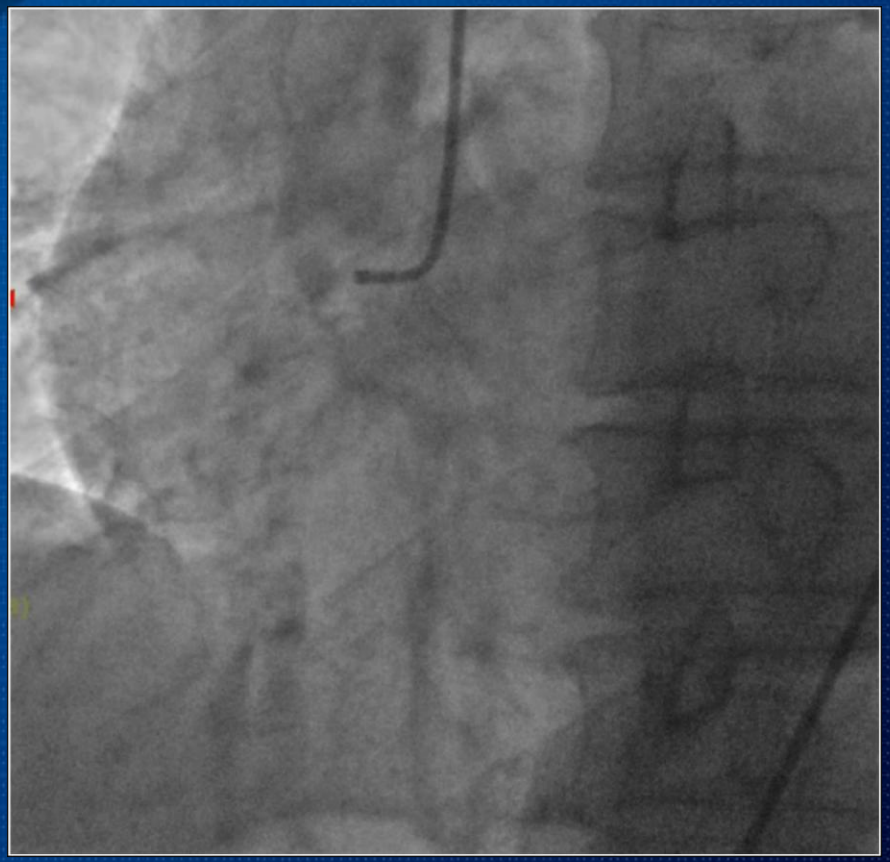
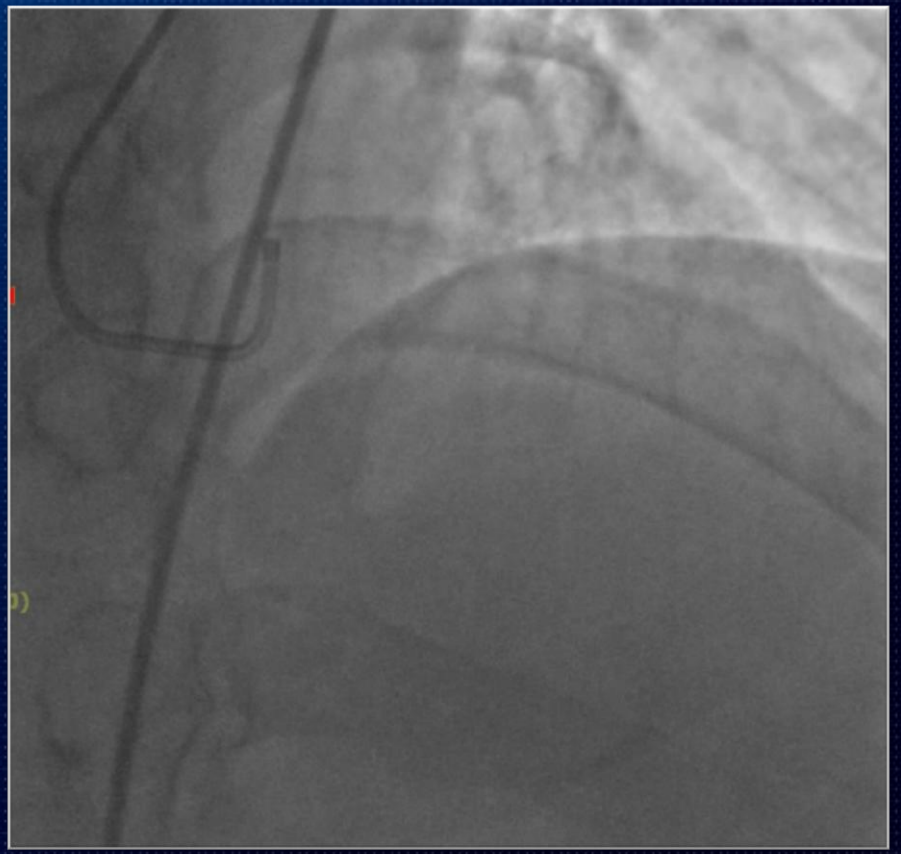
Resting chest pain

Case: M/57

DM (+), HTN (+)
Dyslipidemia (+)





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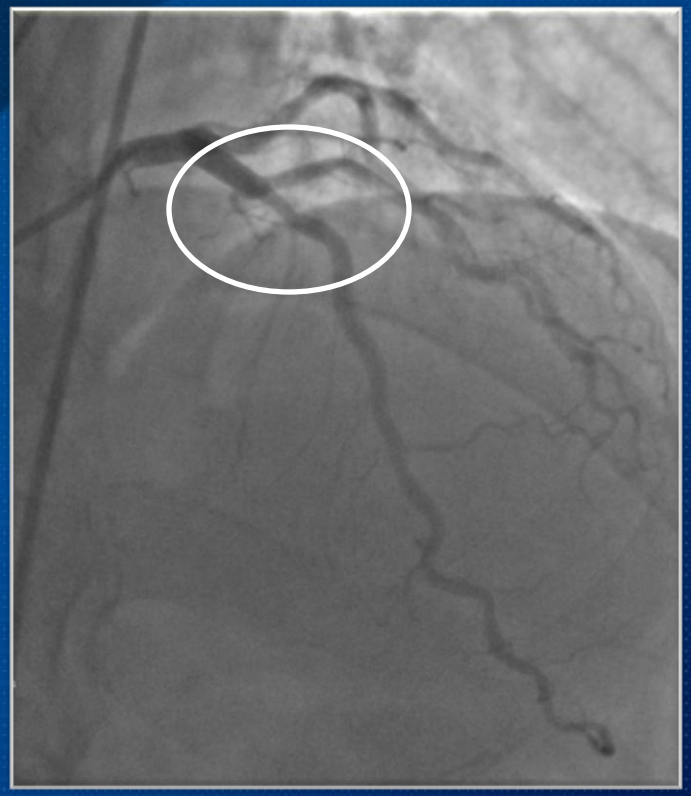
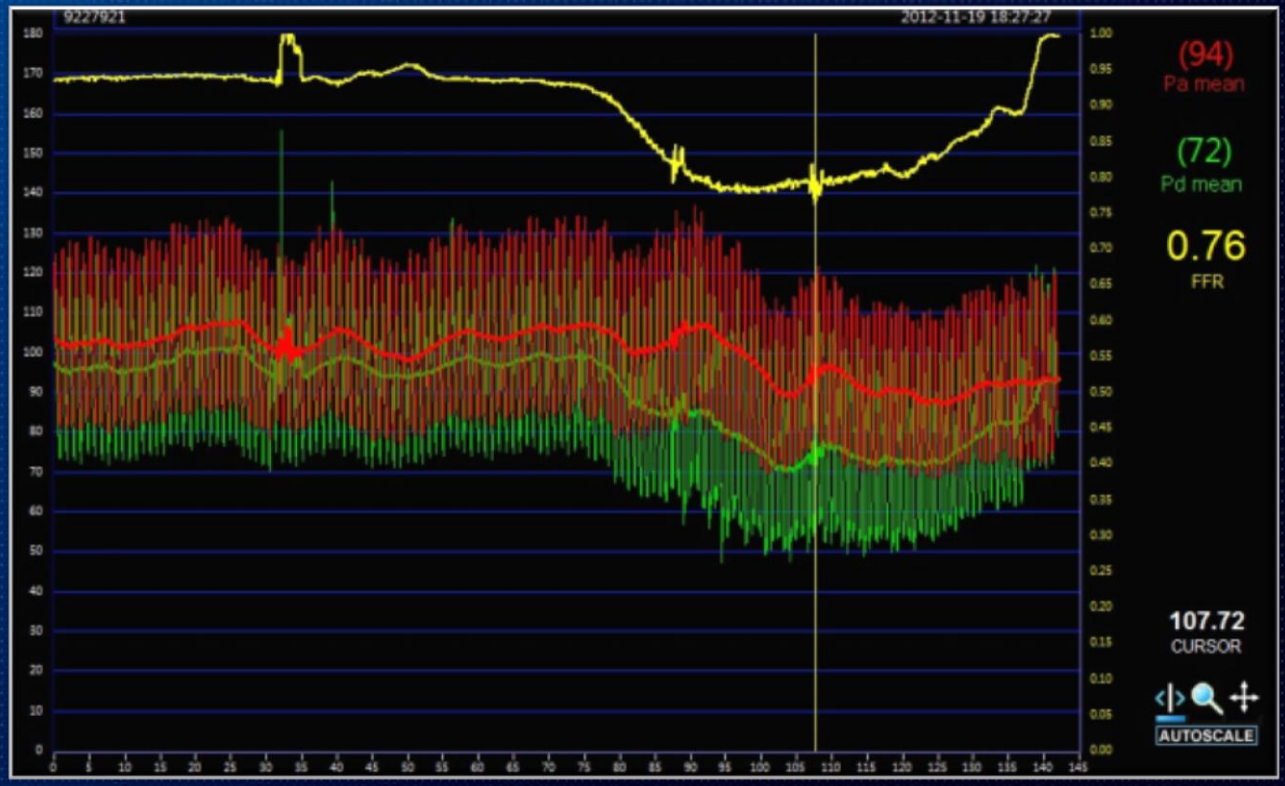
Coronary angiography - FFR





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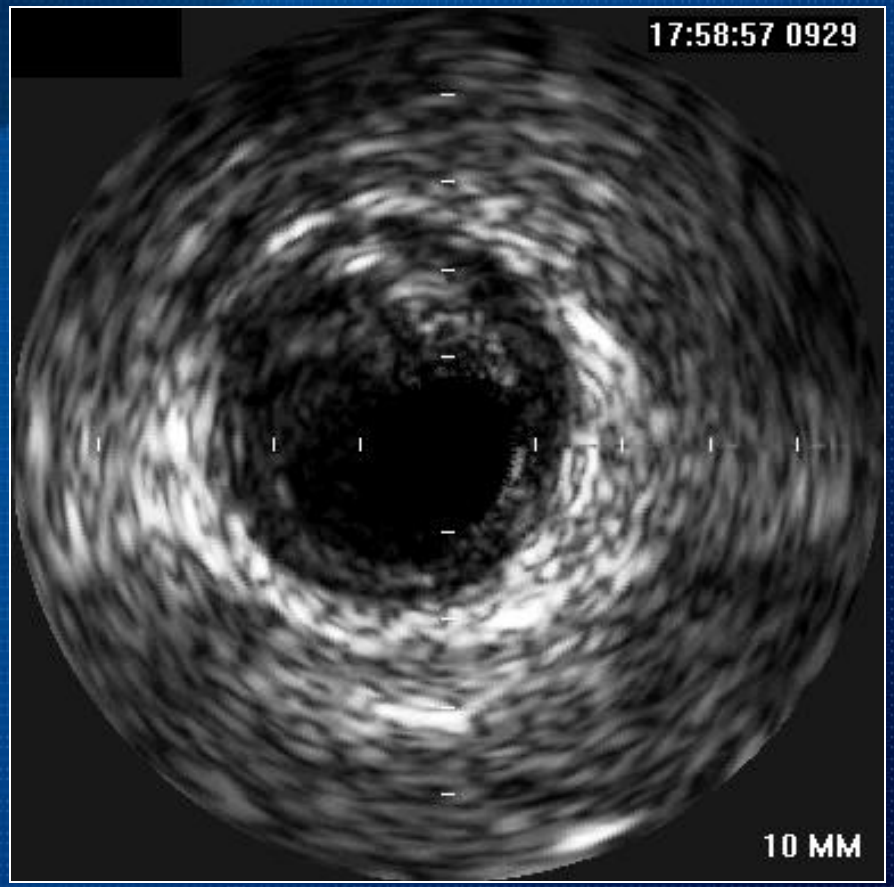
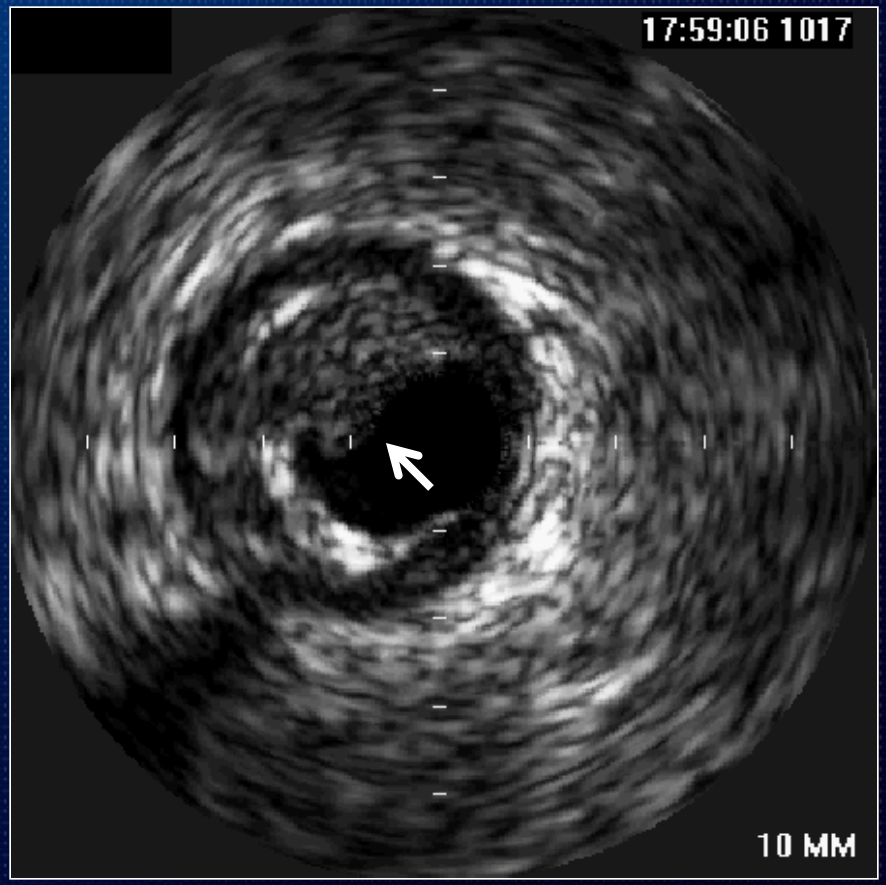
IVUS





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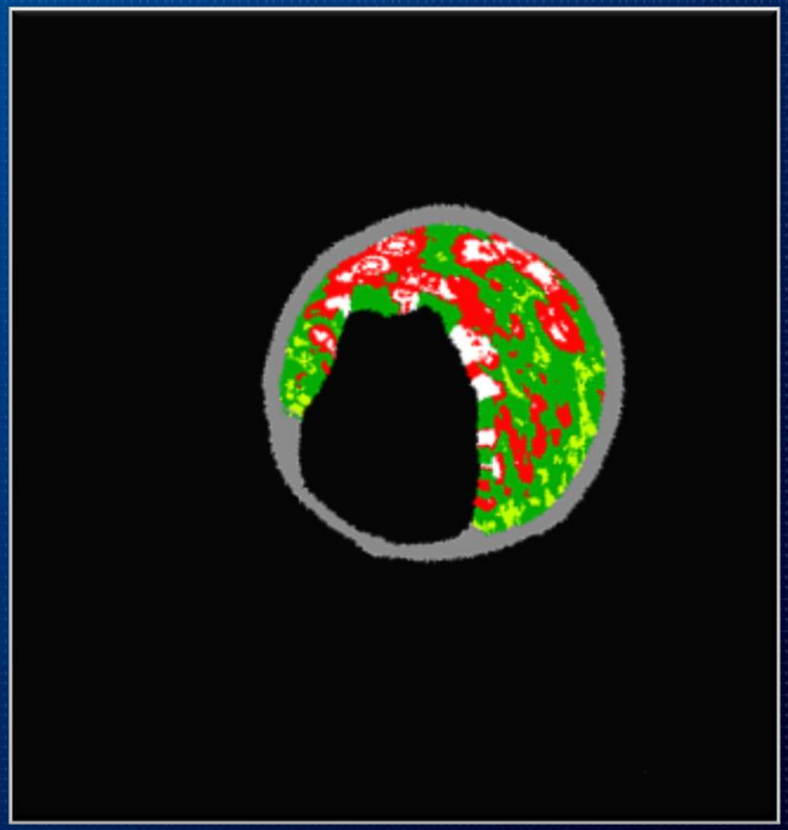
IVUS-VH



MLA : 3.1mm^2

Plaque Burden 76%

VH-TCFA

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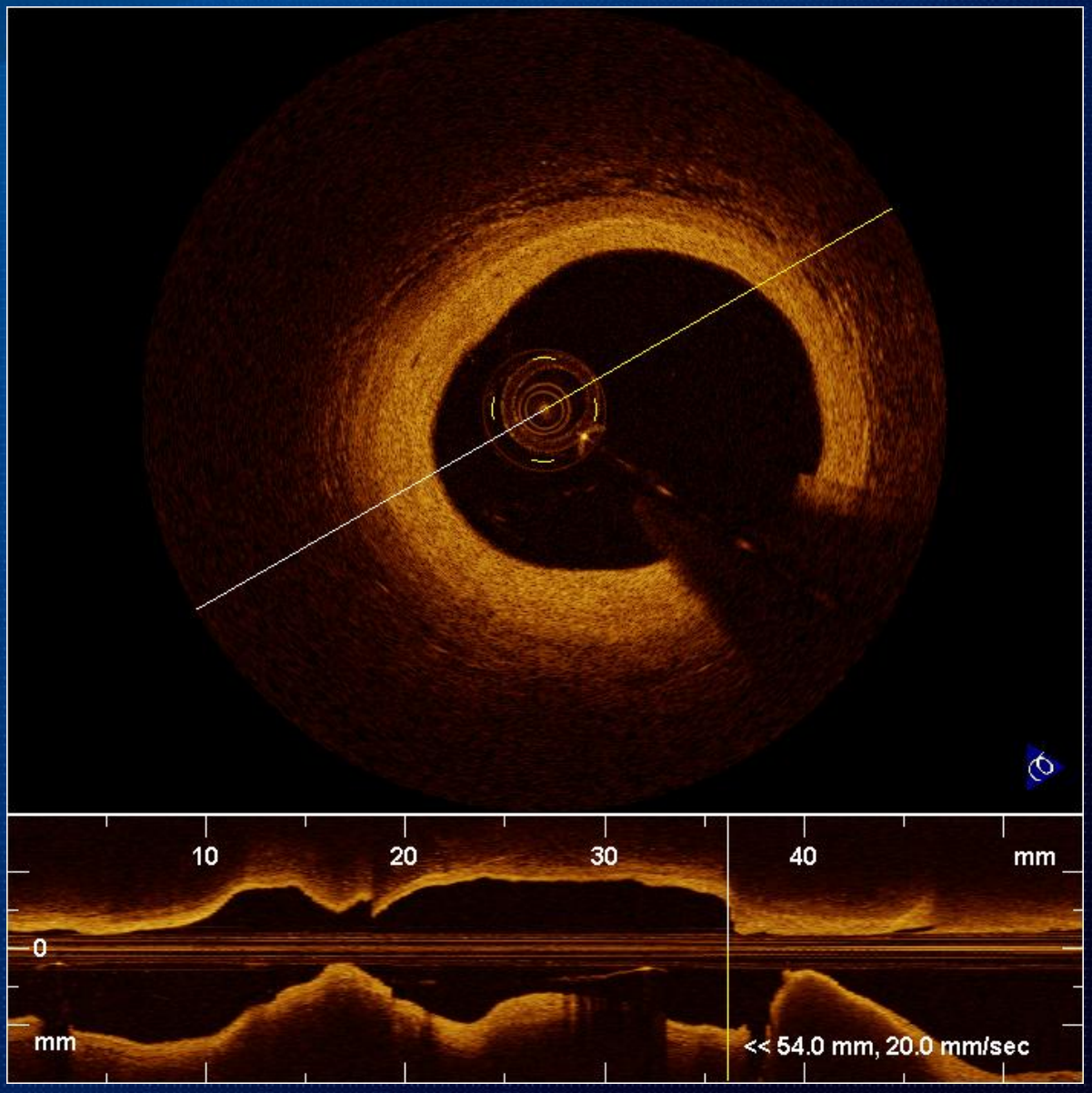
OCT



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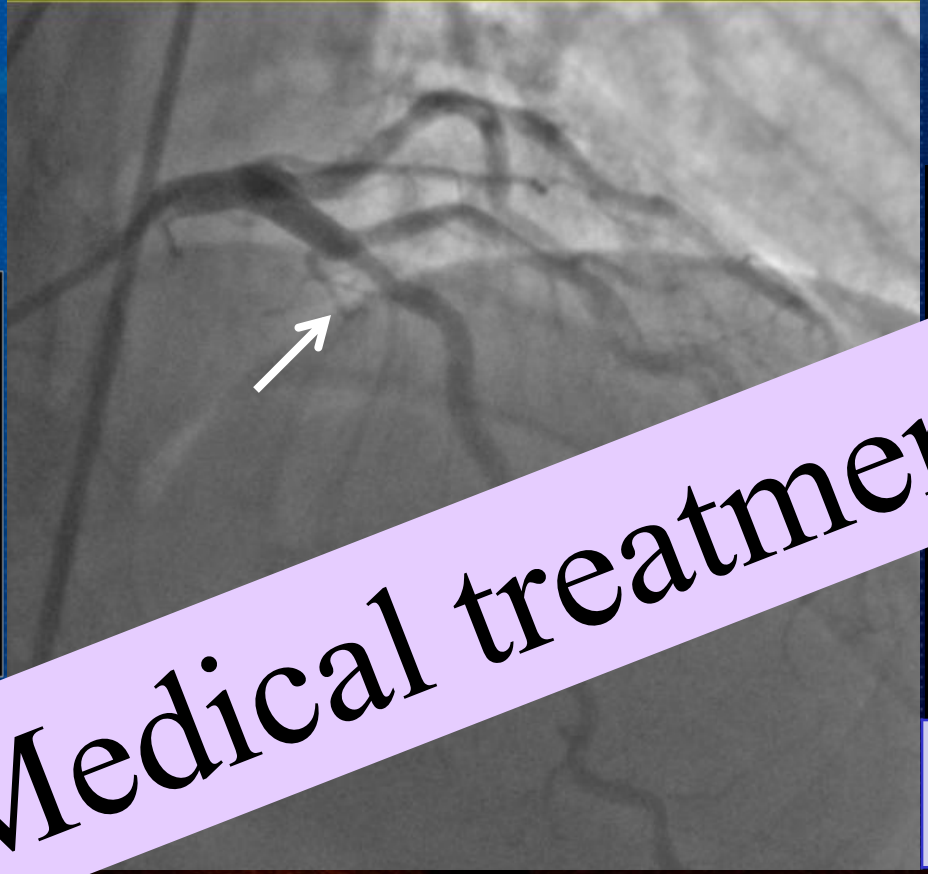
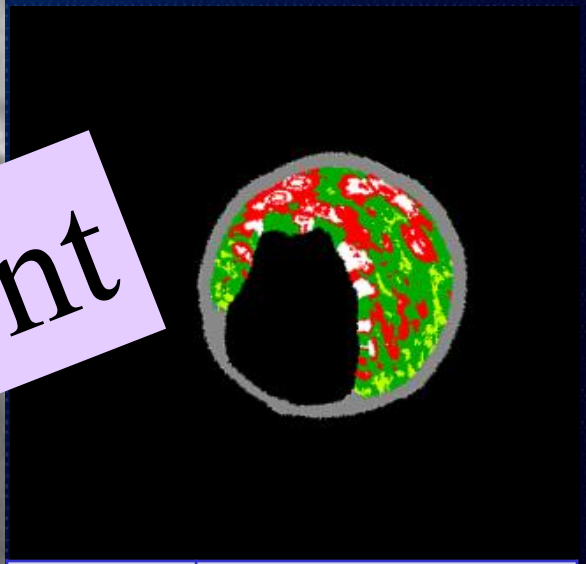
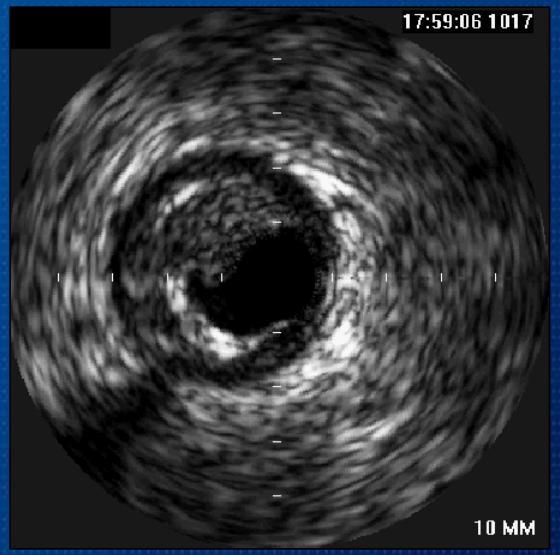
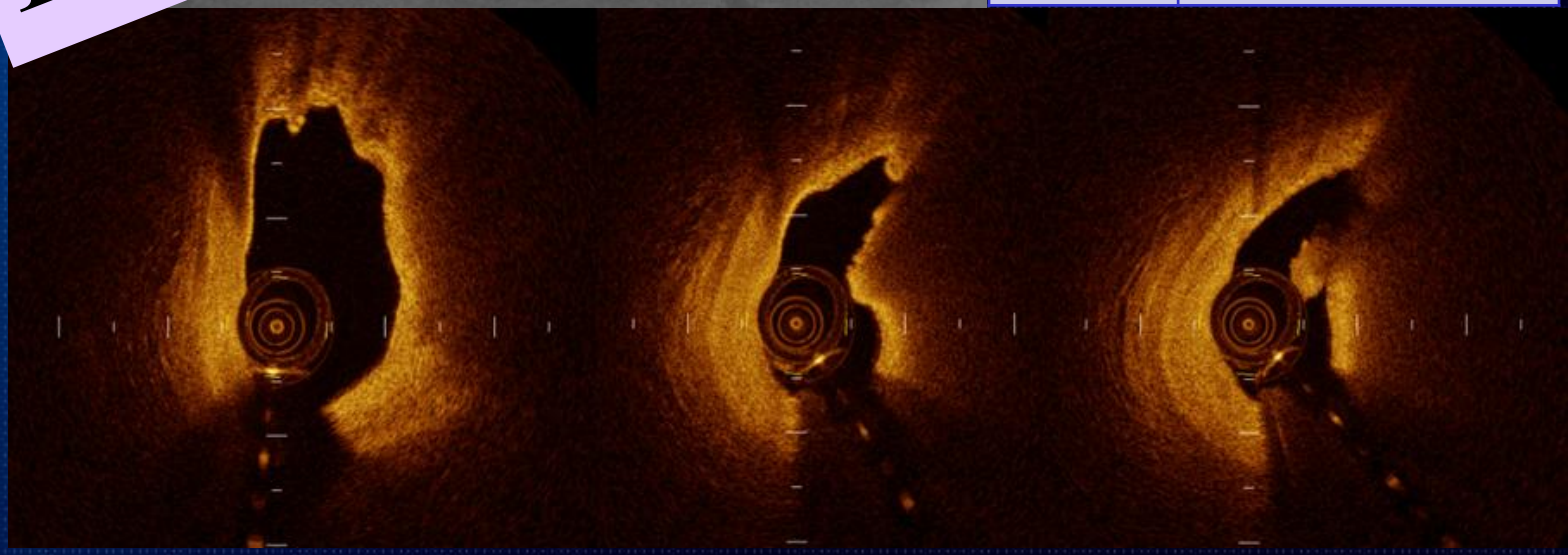


Medical treatment



IVUS	MLA: 3.1mm^2 PB: 76 %





What does this value mean?

Need to dilate

Why?
How to treat?

Functional optimization with FFR

Anatomical optimization with IVUS/OCT

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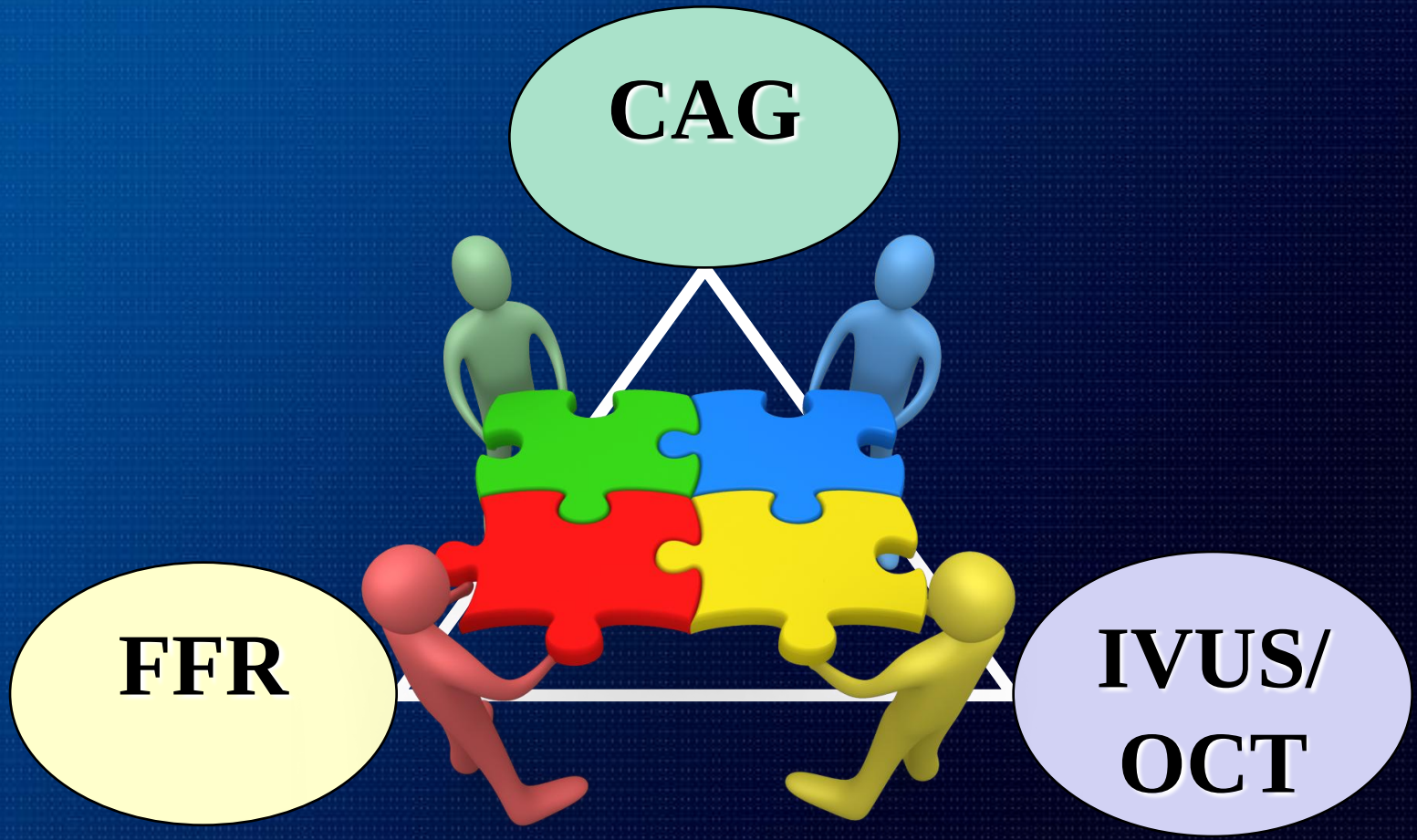
Take home message

- Tailored approach to treatment of individual coronary artery disease with multimodality diagnostic tool like FFR, IVUS and OCT will be better outcome for CV disease.

Thank you for your attention !



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