My collections of IVUS & OCT cases
Lessons to learn

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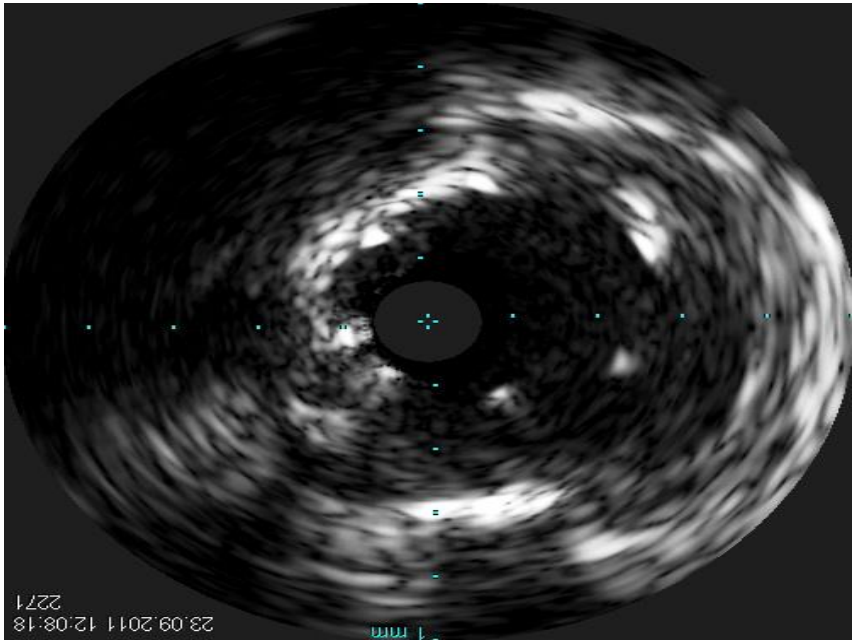
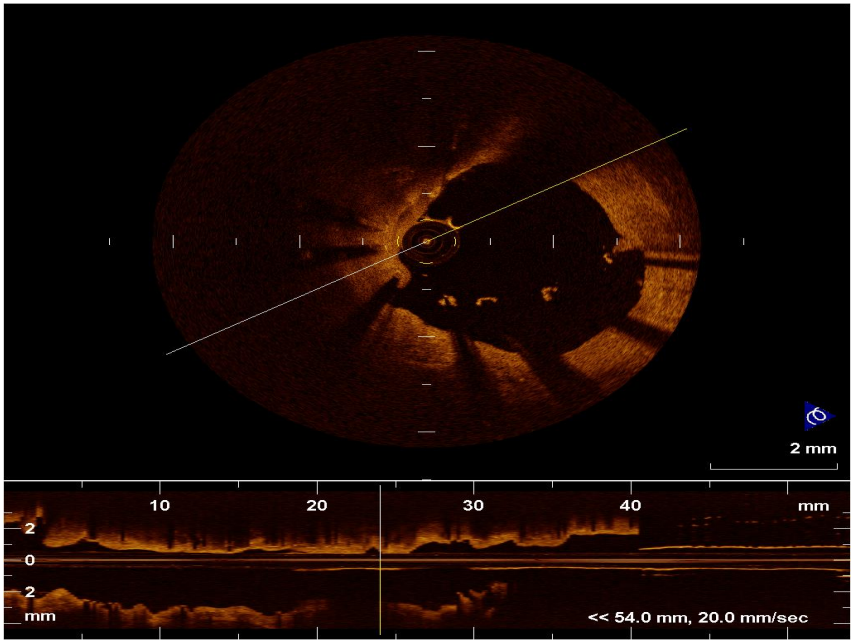
IVUS VS OCT/OFDI

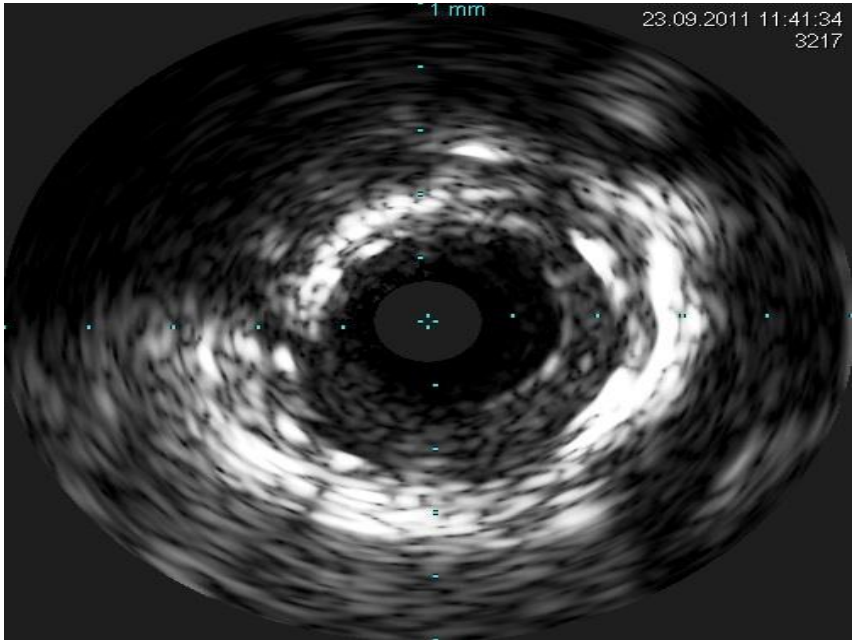
Resolution 1K vs 8K

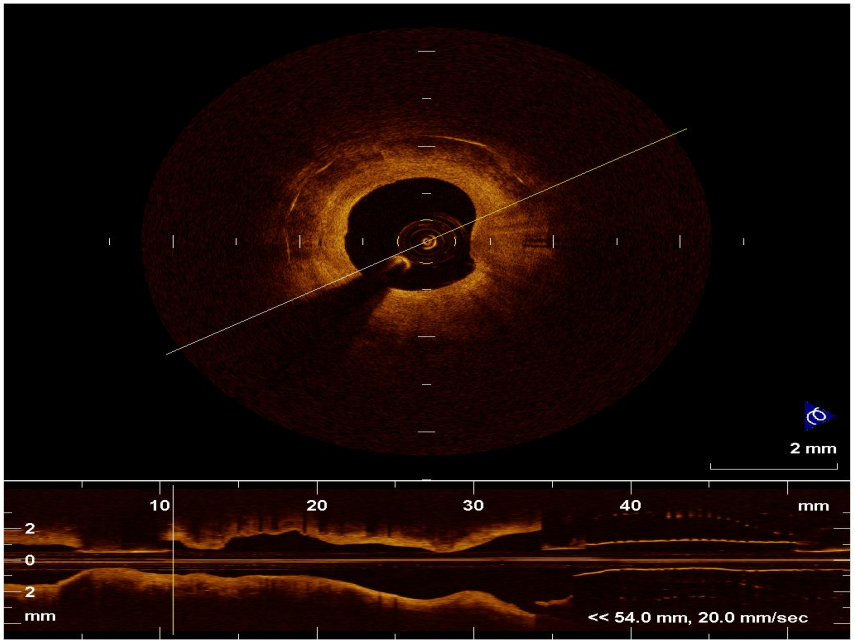
Stent malapposition: OCT wins



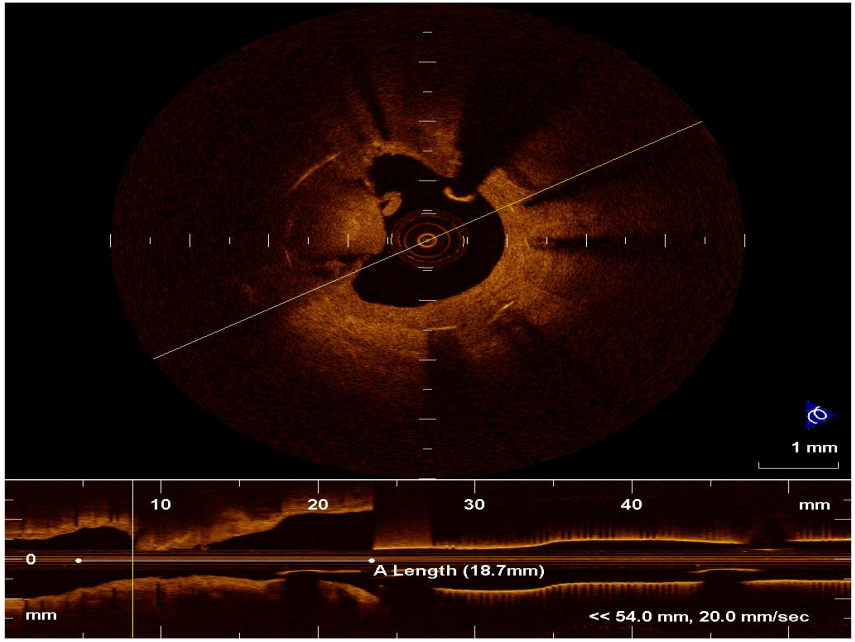


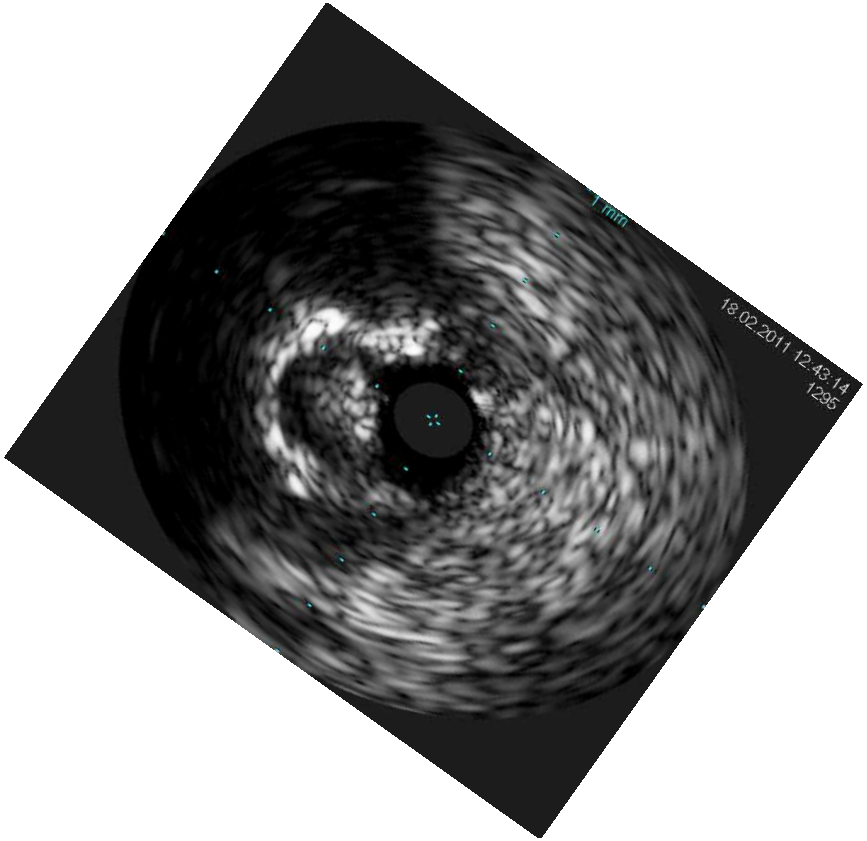
Accelerated neo-atherosclerosis – OCT wins in tissue characterization



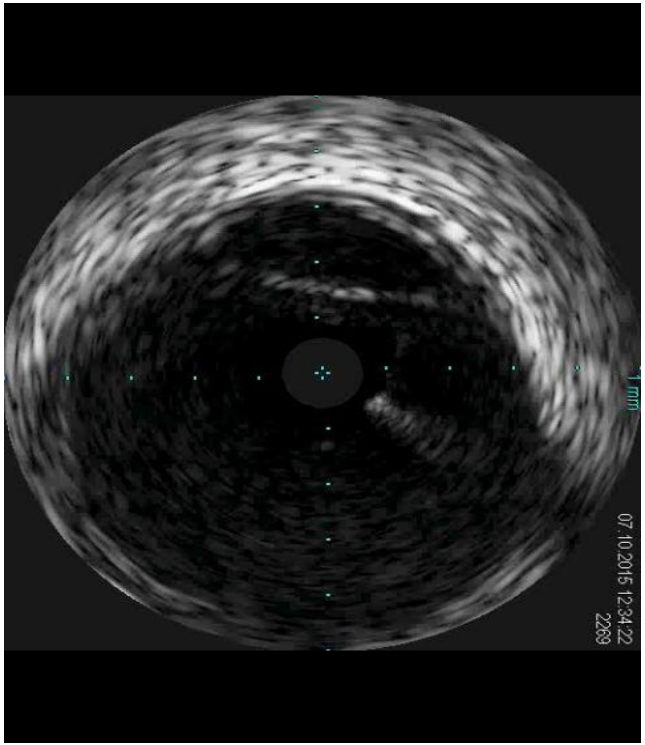


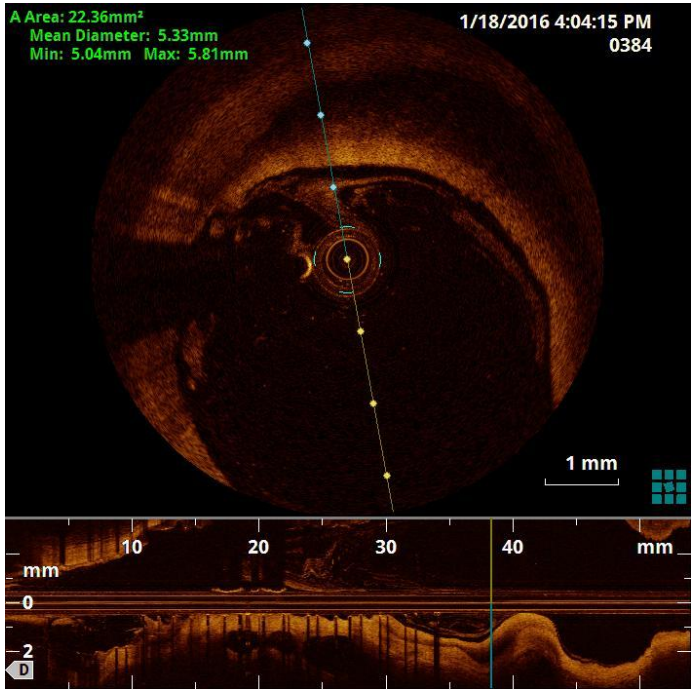
ISR and plaque rupture





Intimal tear

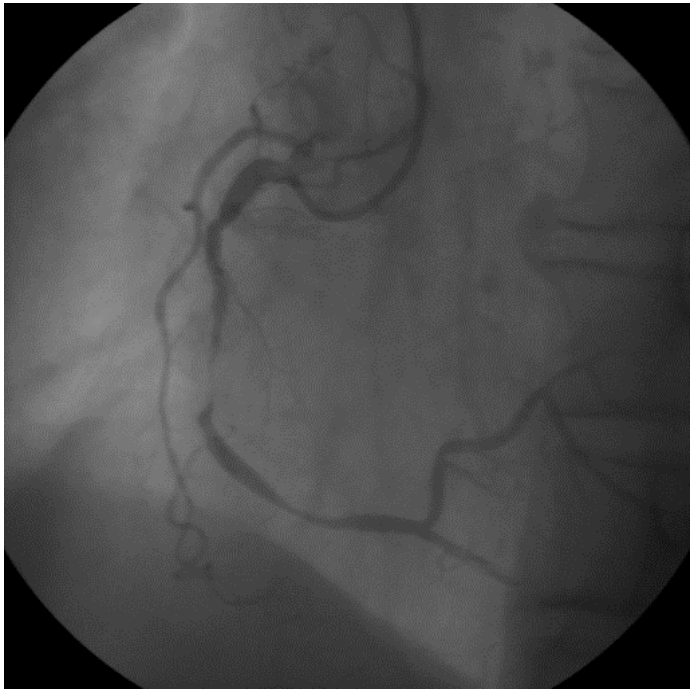


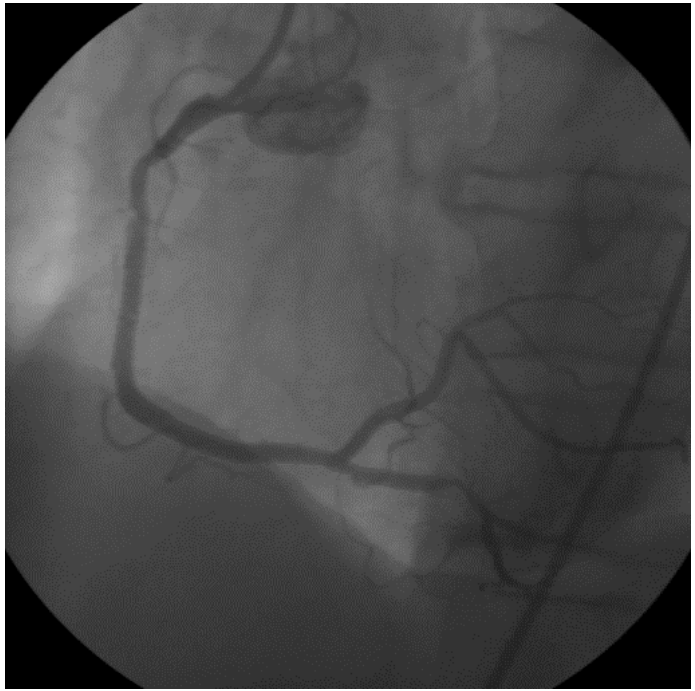


IVUS still plays an important role

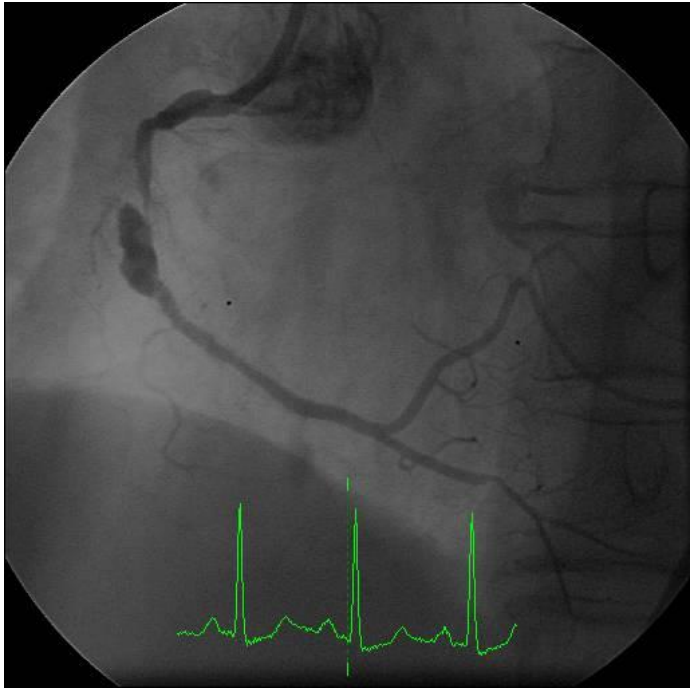
in daily operation

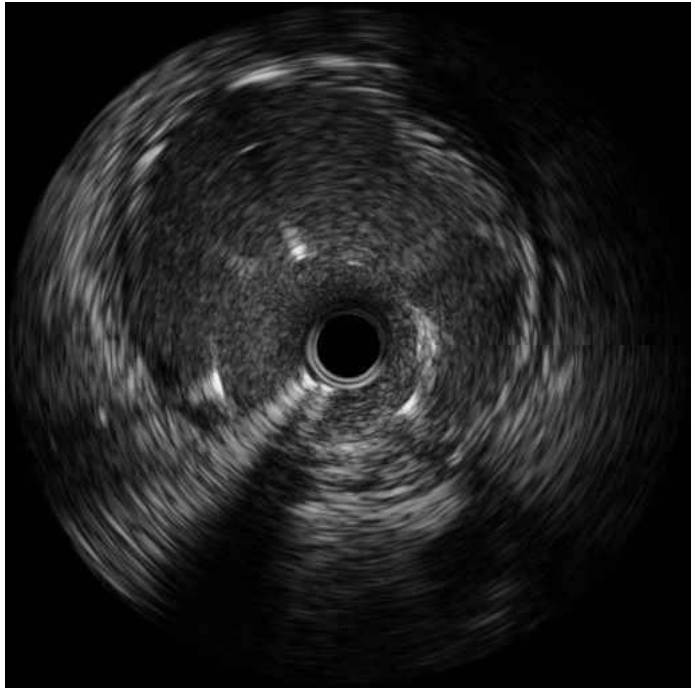
MRCA treated with DES



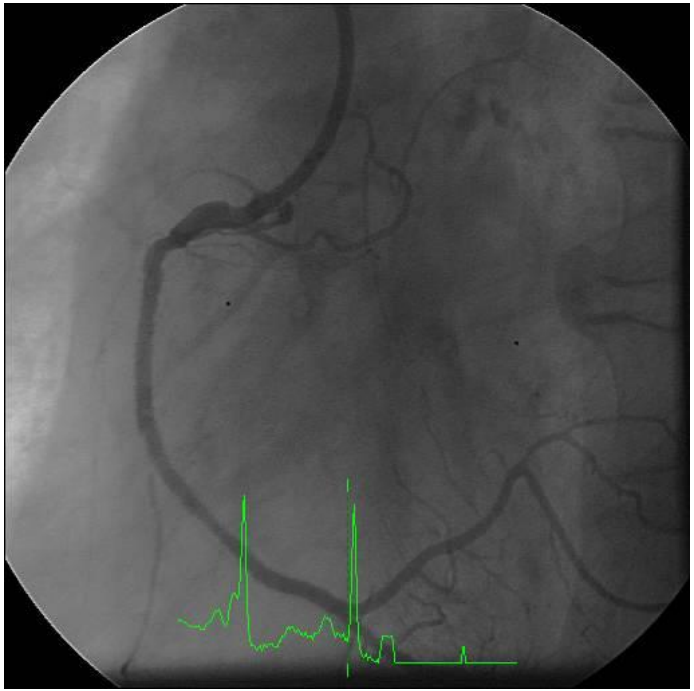


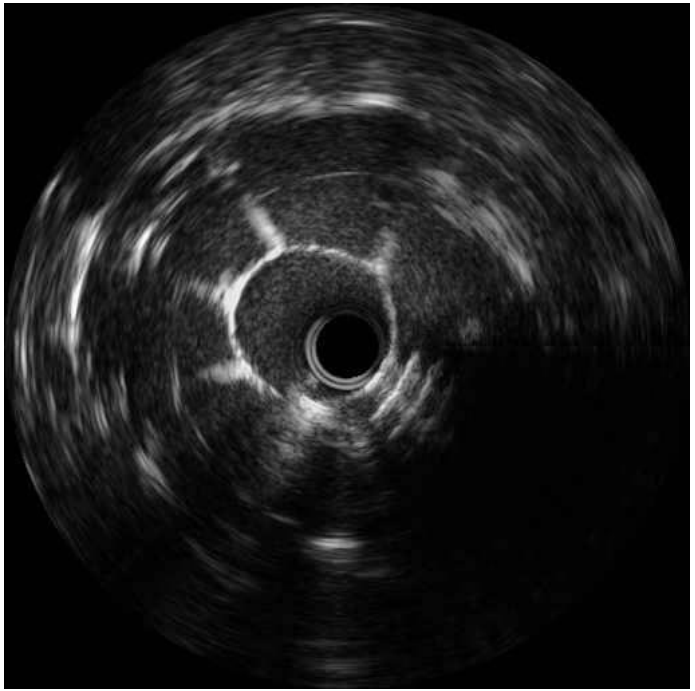
MRCA pseudo-aneurysm formation after stenting, IVUS>OCT for far field imaging



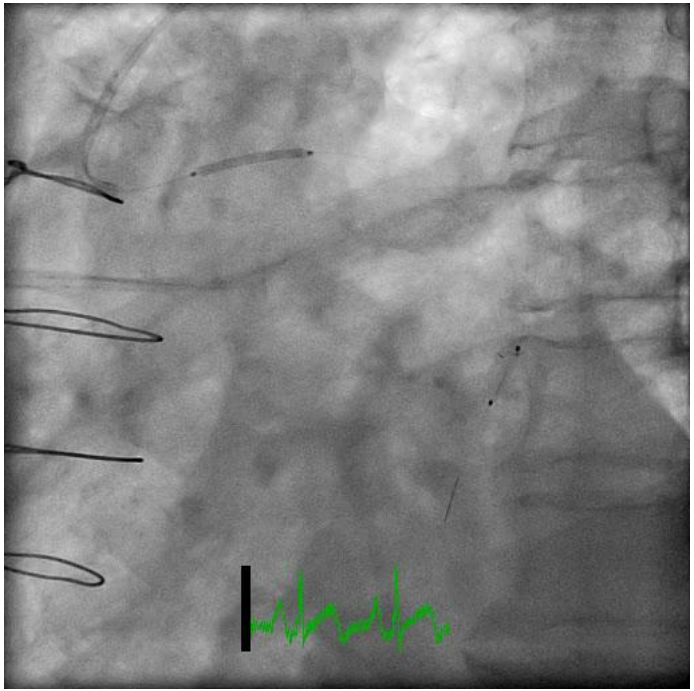


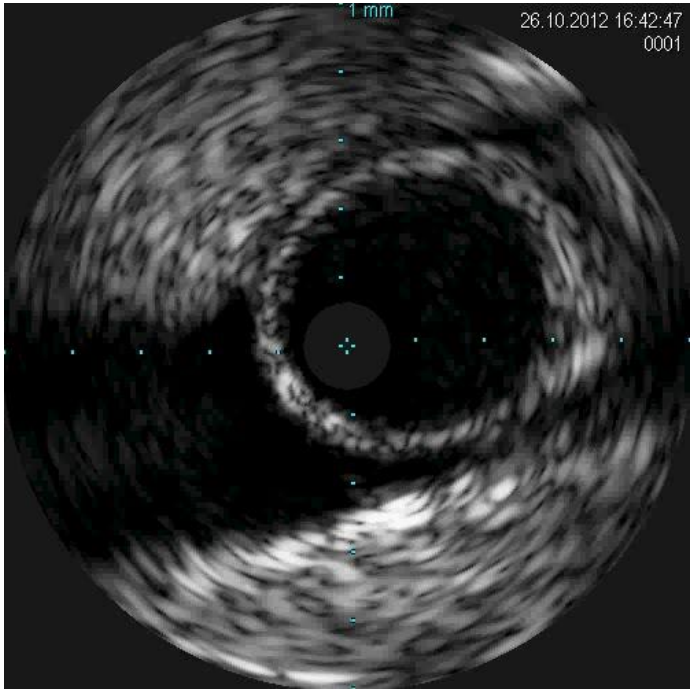
MRCA pseudo-aneurysm treated with a stent graft



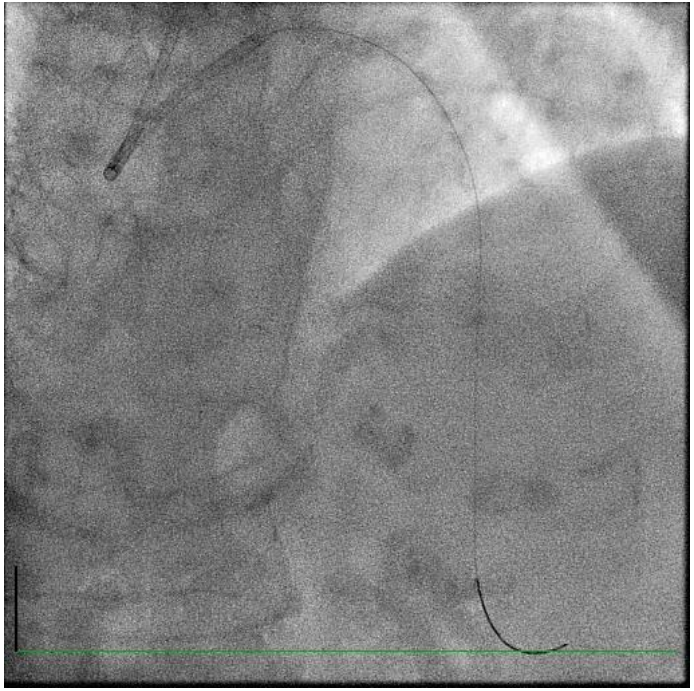


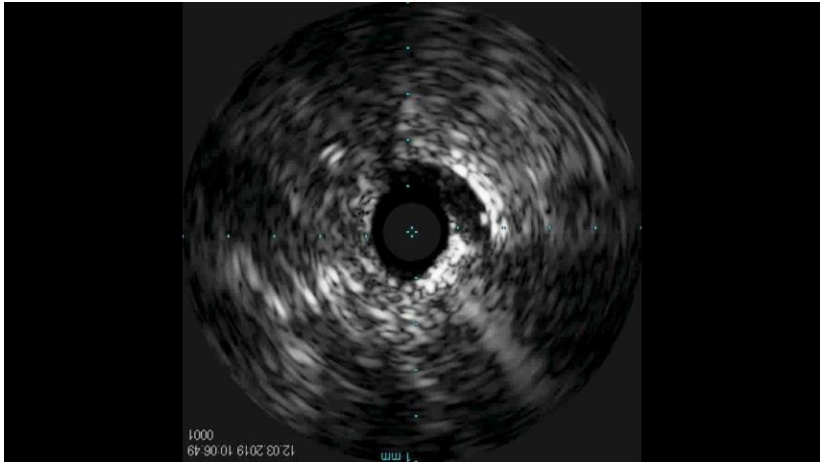
Large SVG PCI treated with stent graft and distal protection, IVUS showed angry thrombus



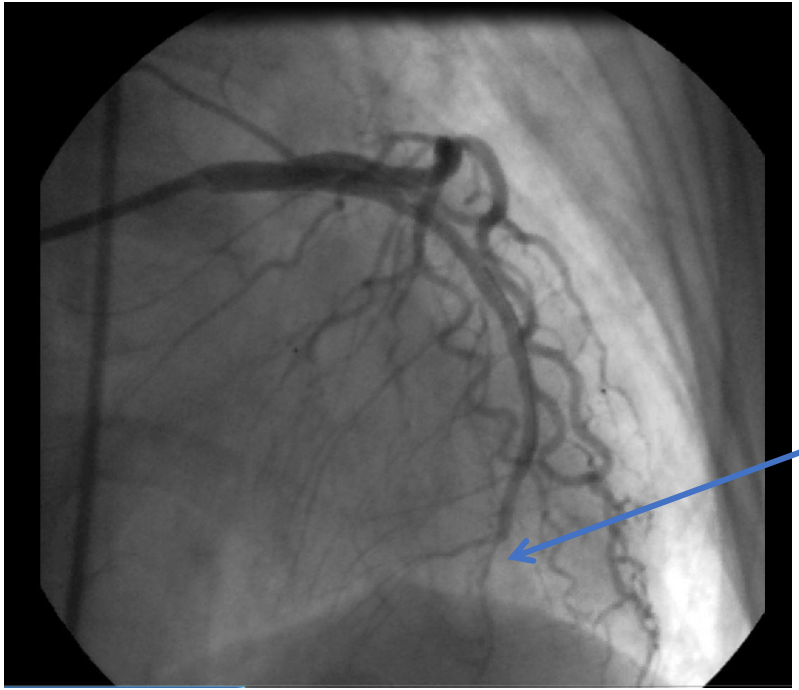


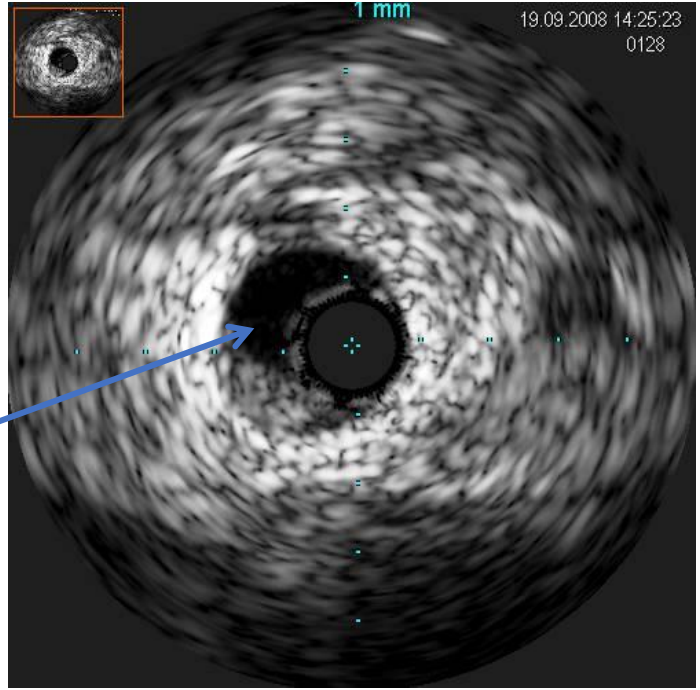
Fresh intramural hematoma / dissection
IVUS > OCT



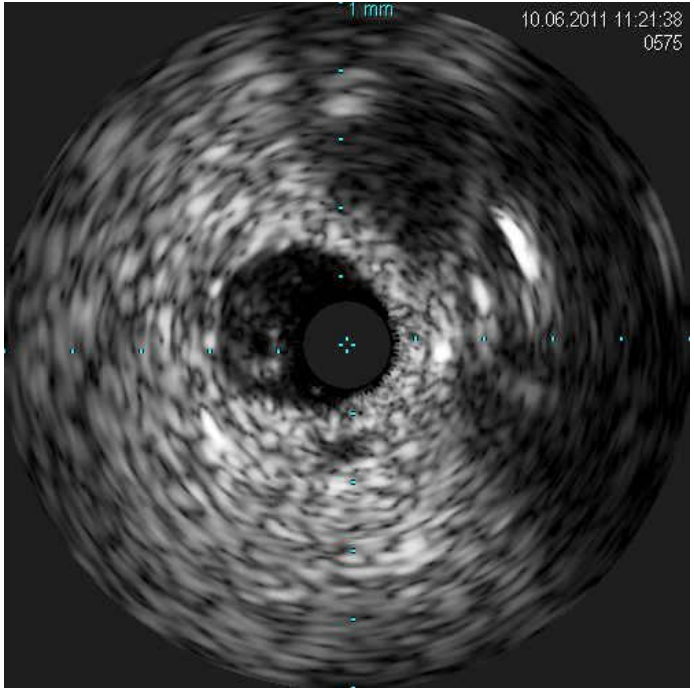


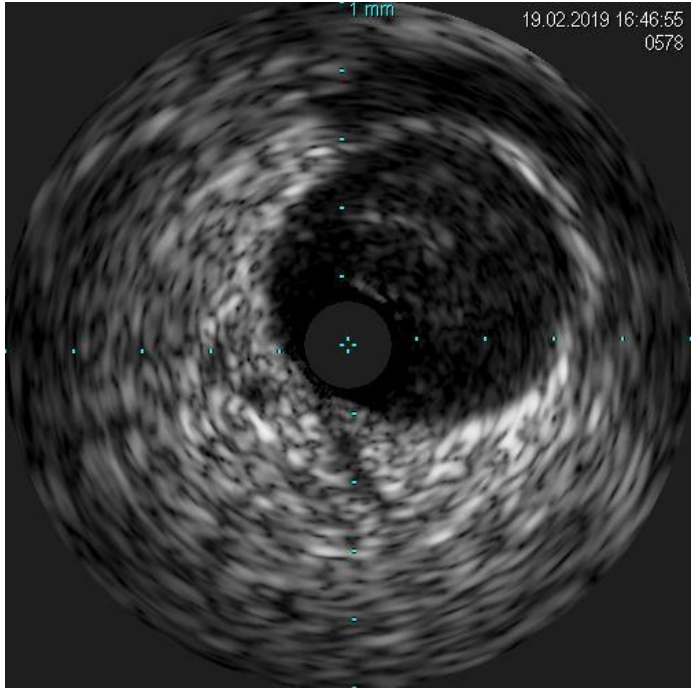
Fresh intramural Hematoma (PCI with warfarin on board), how much heparin to give



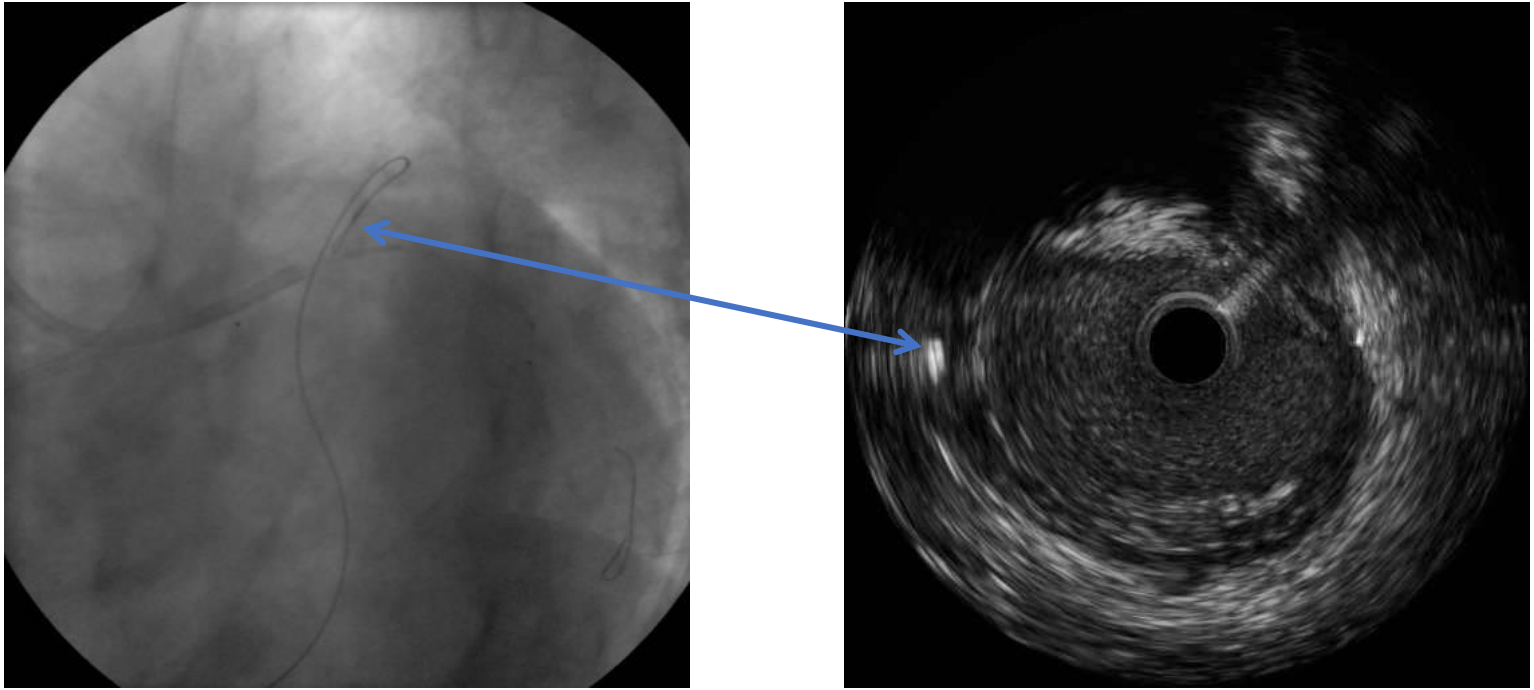


Antegrade ATO or CTO PCI - false Lumen
IVUS > OCT for real time guidance

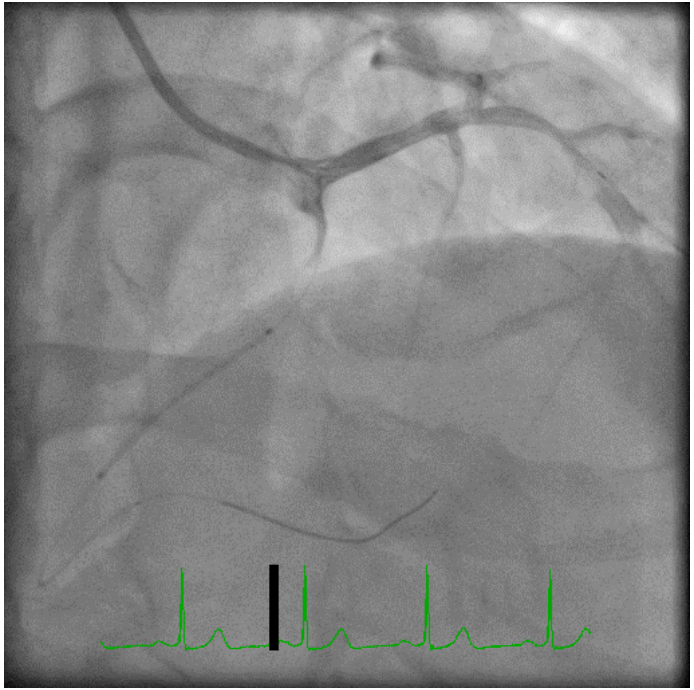


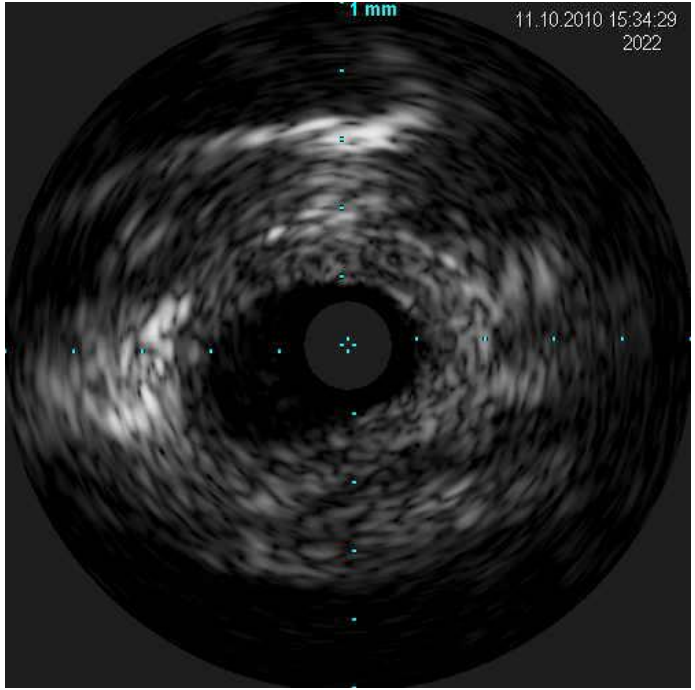


CTO retrograde PCI – IVUS guide wire reentry into LM

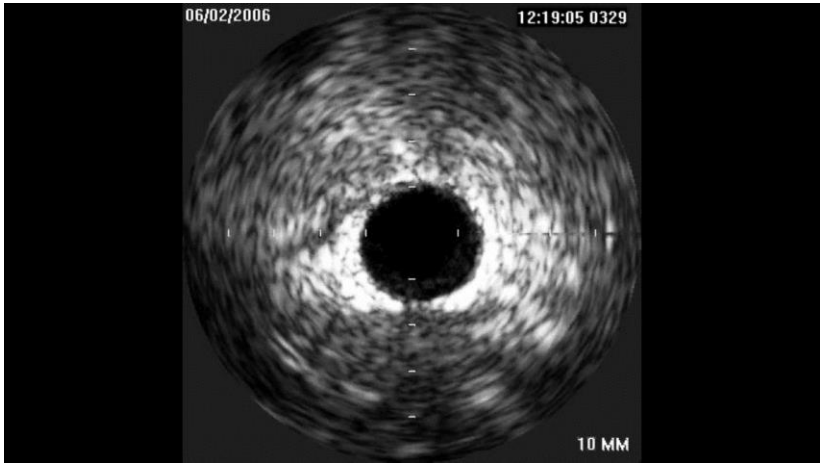


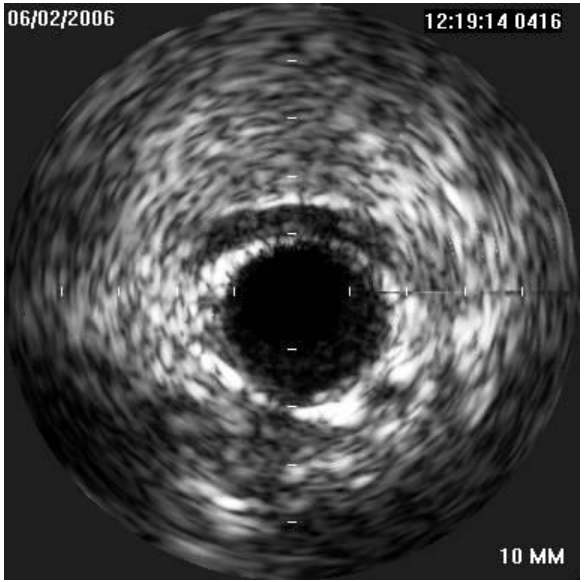
Anomalous RCA with poor guiding engagement, IVUS > OCT





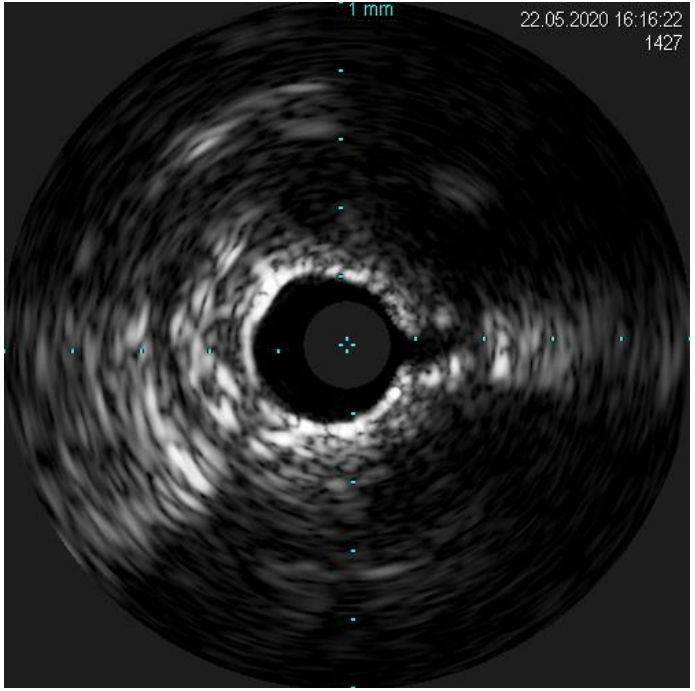
Myocardial bridging segment, lack of disease, avoid aggressive stenting



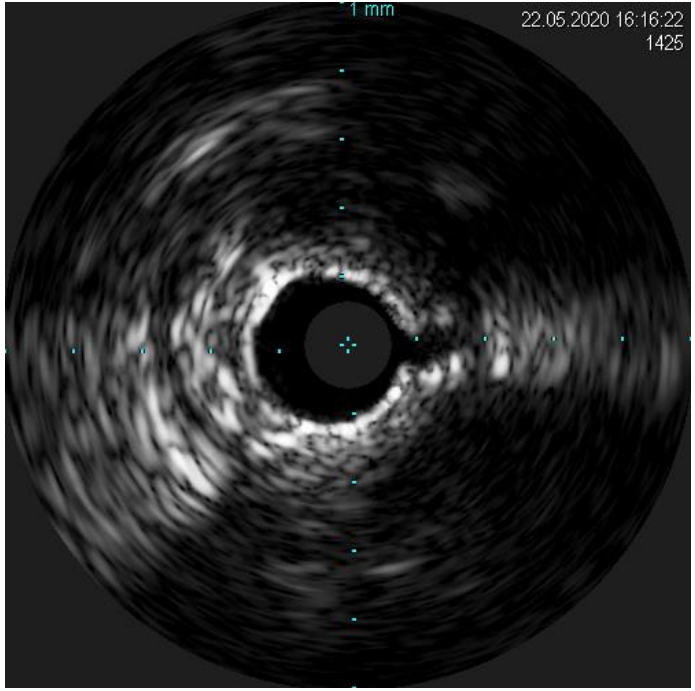


Calcified lesions treated with Rota-Shock

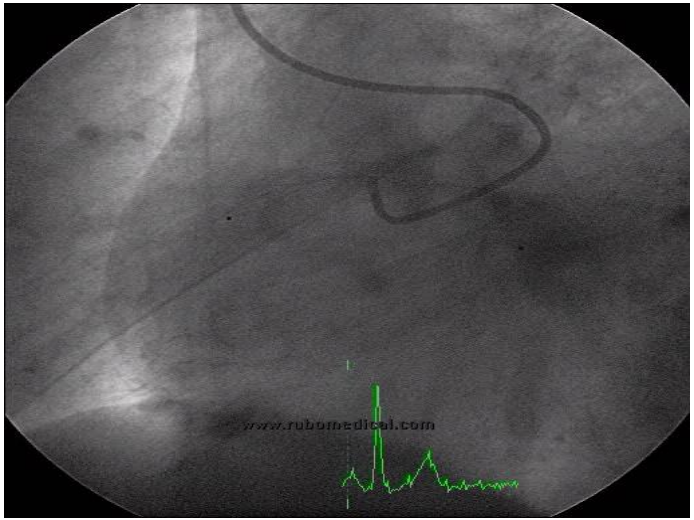
Cracking calcium by shock wave balloon as shown by IVUS

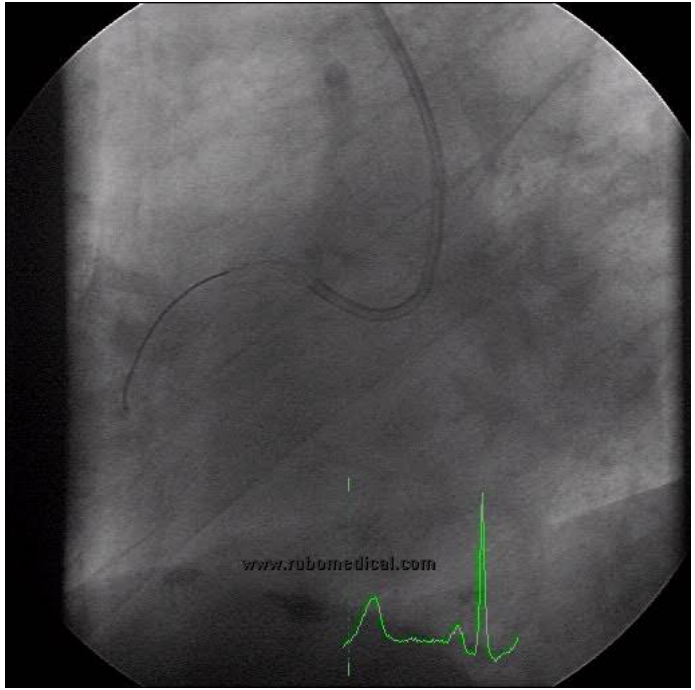


Final angiogram after Rota-Shock, make sure to give shock to all calcified segments!



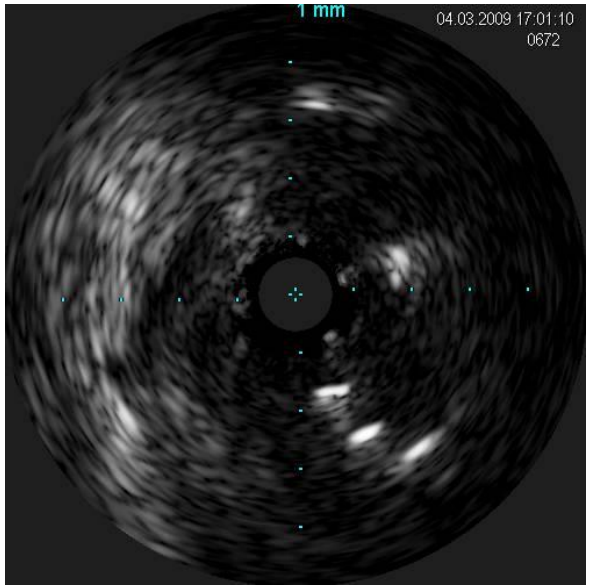
Protruded stent, do IVUS after wiring!



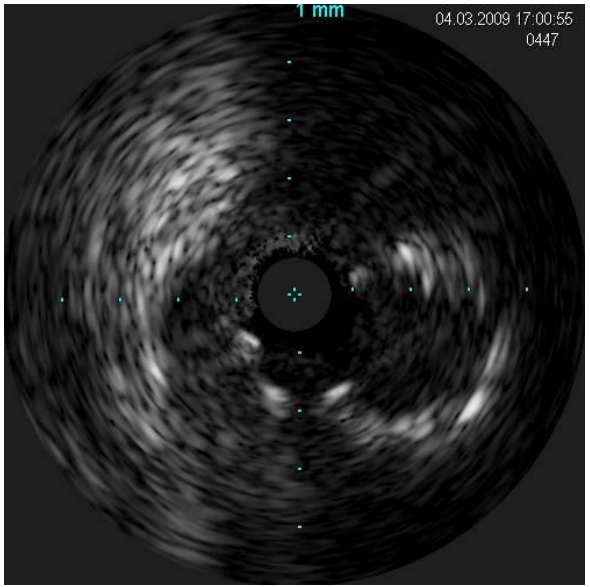


Protruded stent – wire entry from the side

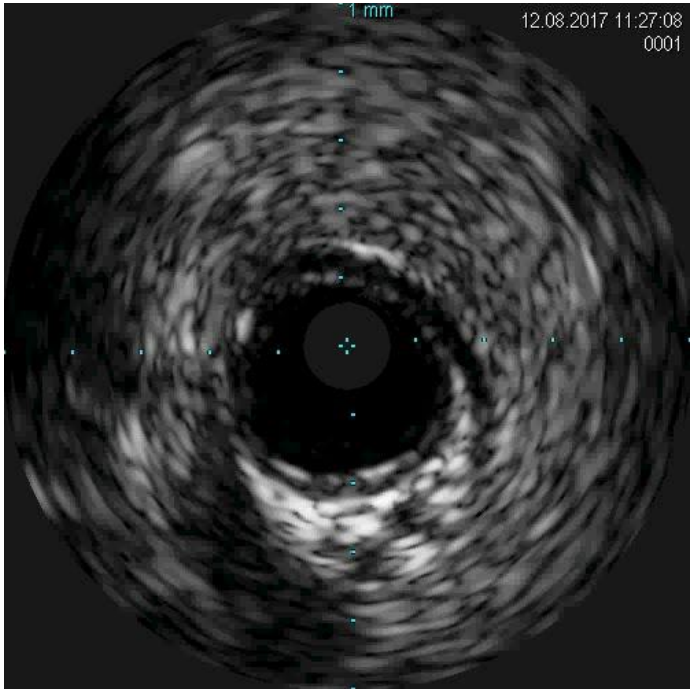
IVUS outside stent

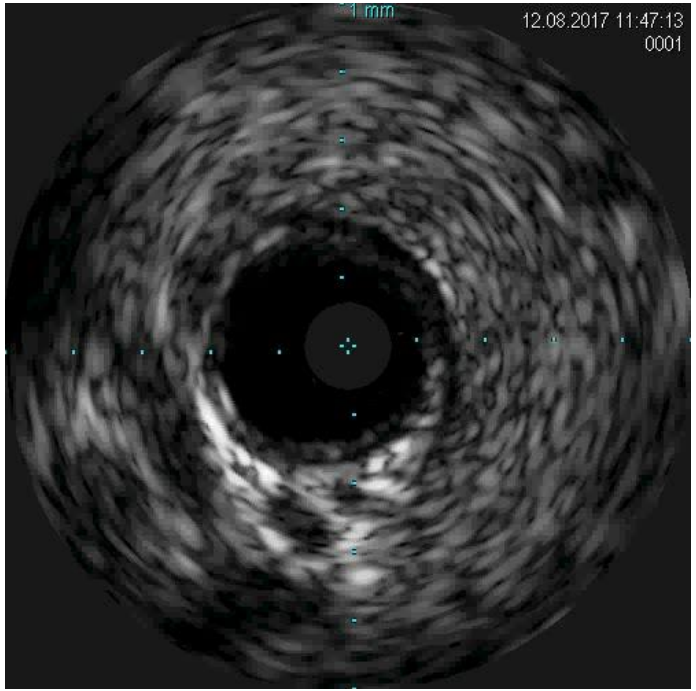


IVUS crossing stent

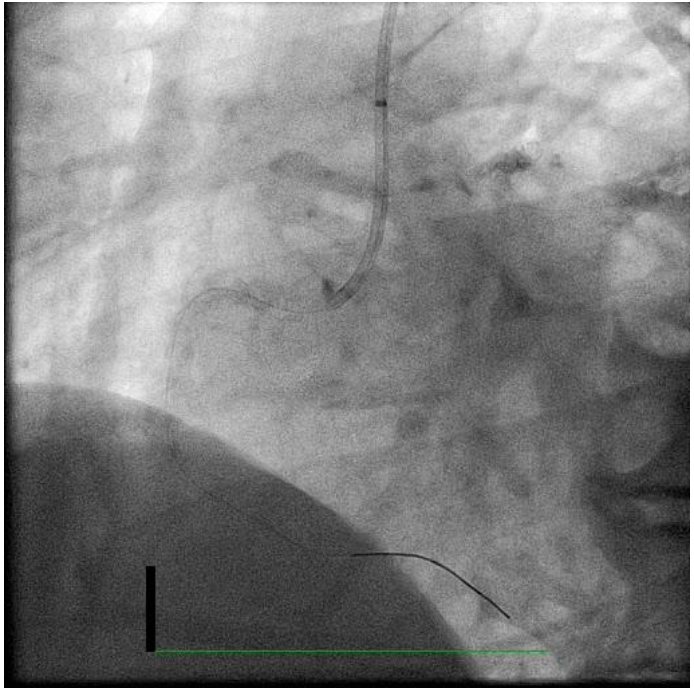


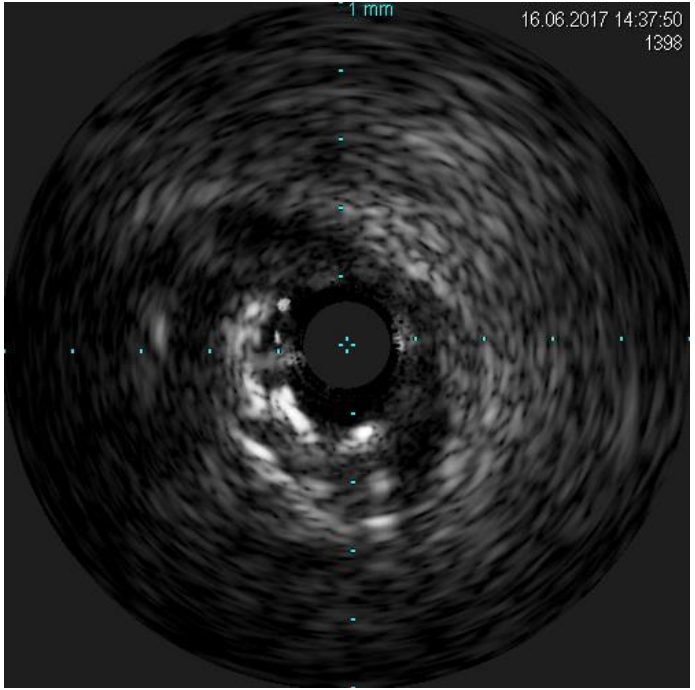
Self expanding stent for ectatic artery with intraluminal clot, it conforms with vessel architecture, no postdilatation, clots stay there and will go away



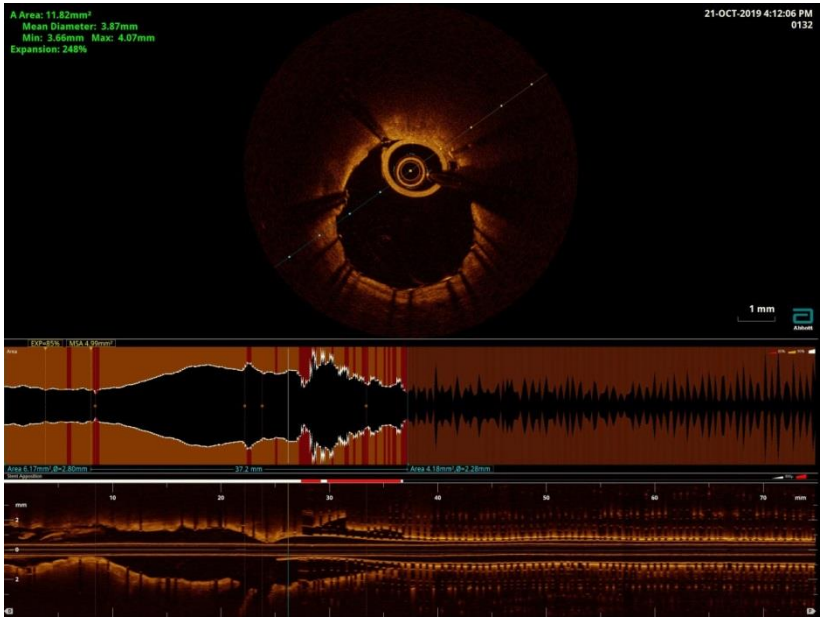


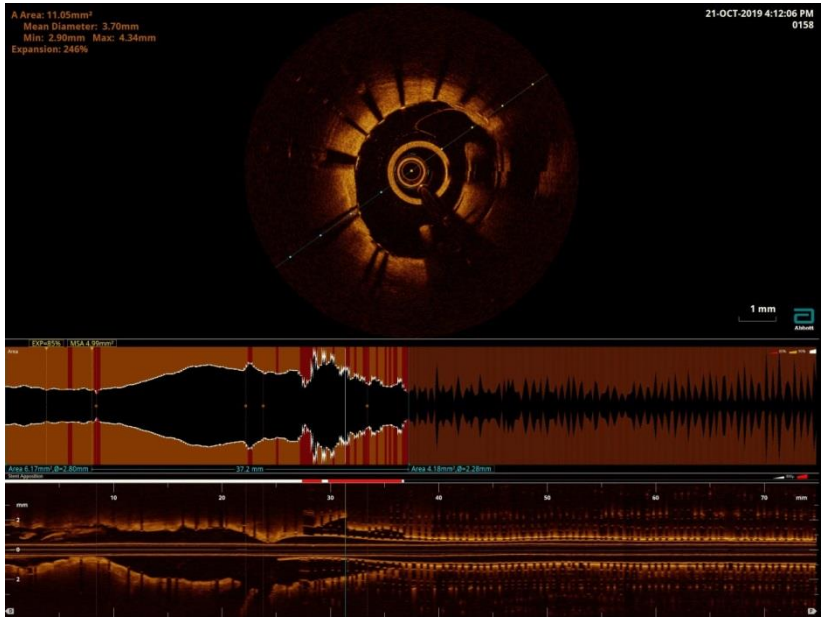
Compressed stent at ostium by guide extension, IVUS > OCT





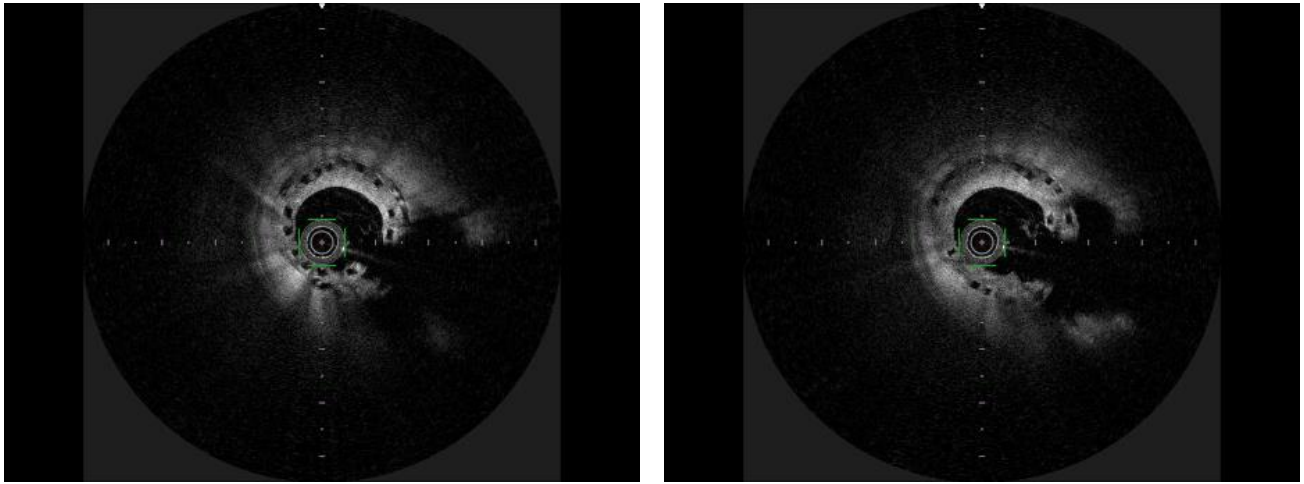
OCT imaging through guide extension for ostial lesion



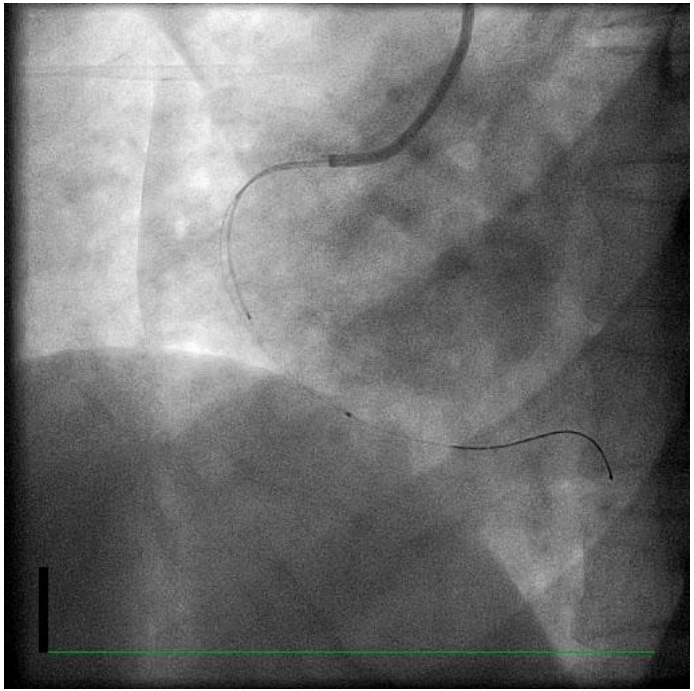


OCT/OFDI

Follow up OFDI showing previously crushed BVS, scaffold thickness!

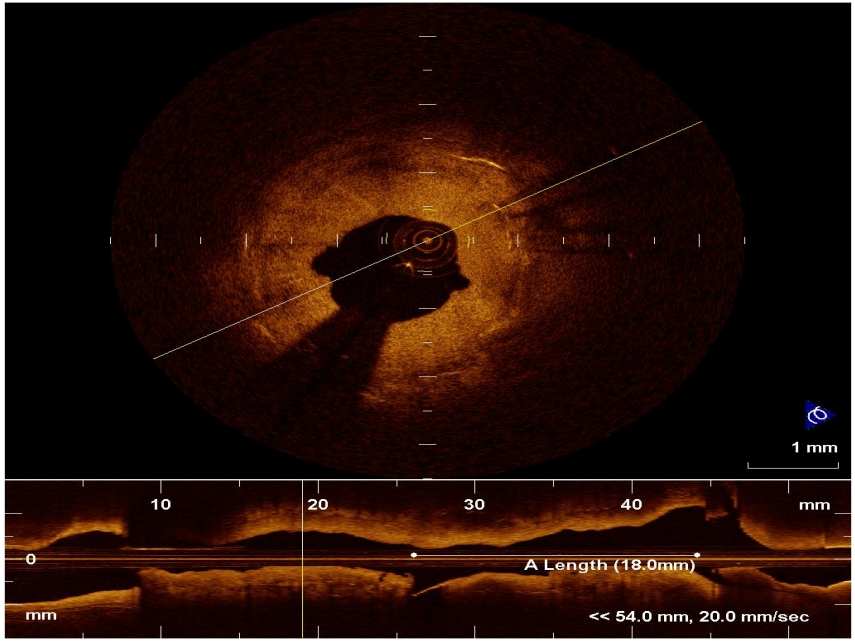


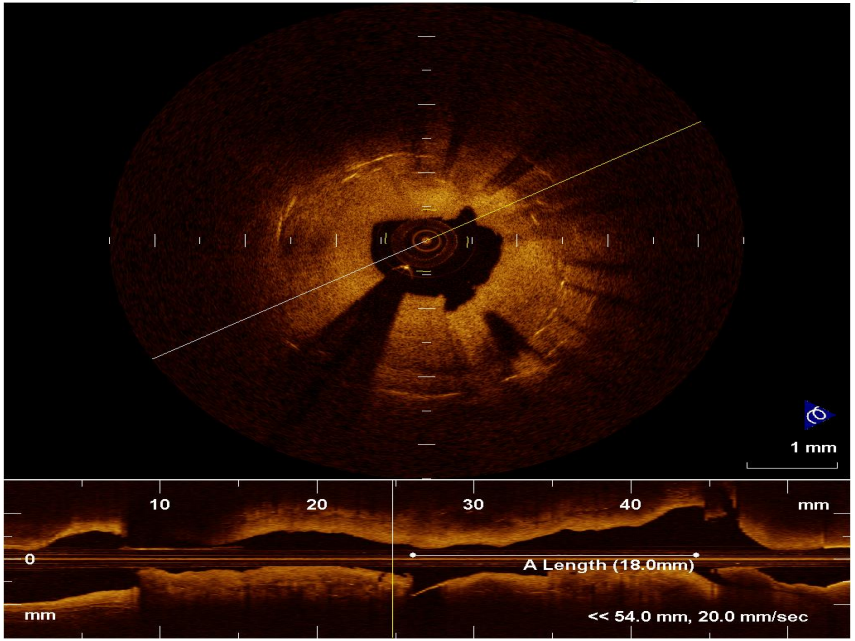
OFDI 4 years FU BVS, sometimes it works



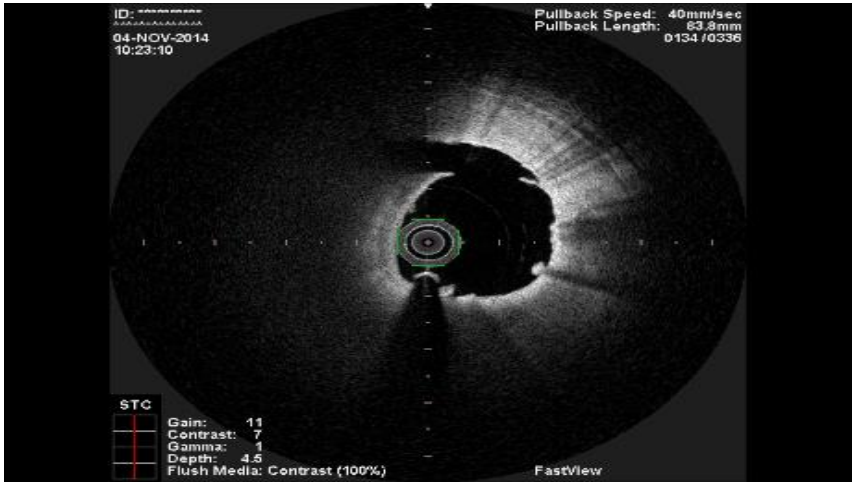
Comparing various scoring balloons

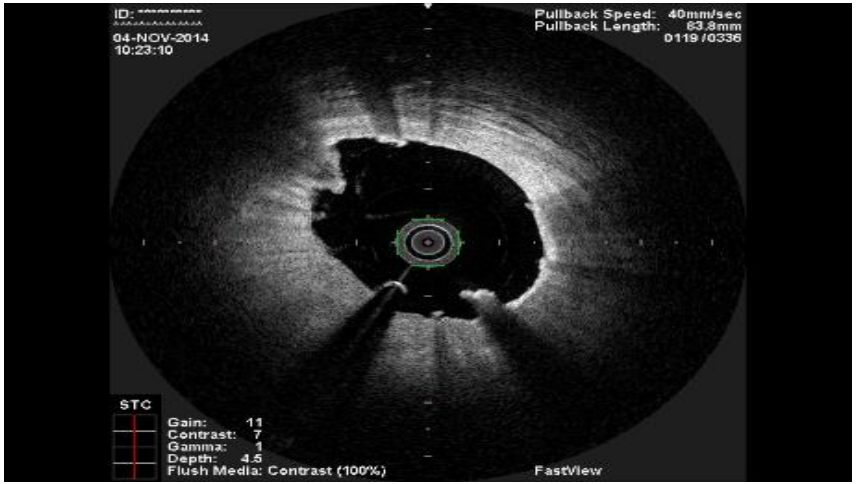
GRIP, dimples only, for fibrous lesion and not for calcified lesion

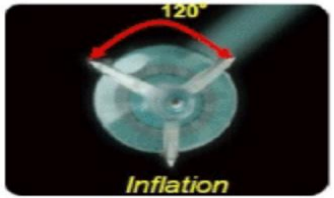




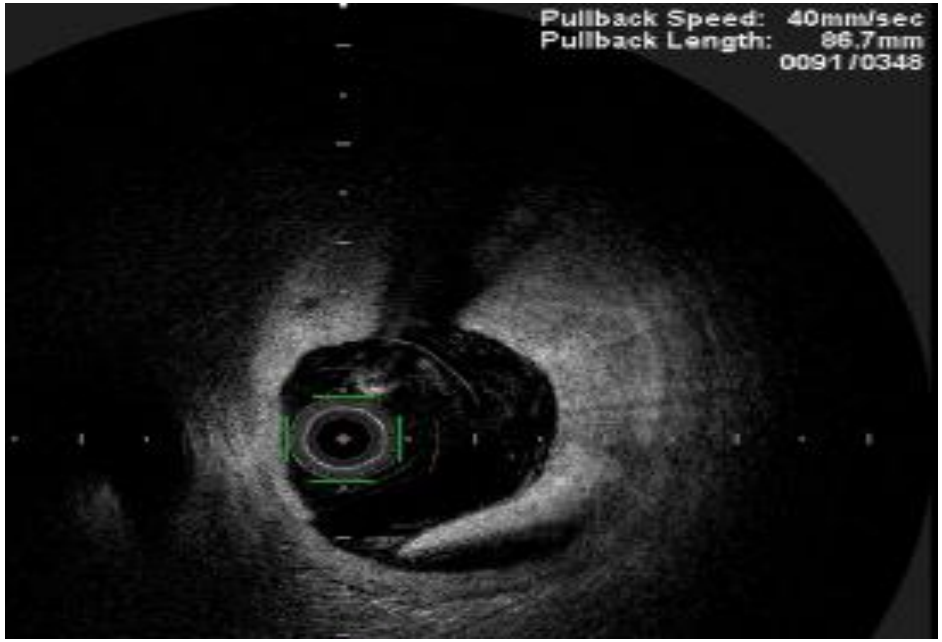
NSE Balloon, superficial cuts, for fibrous lesion and not for calcified lesion

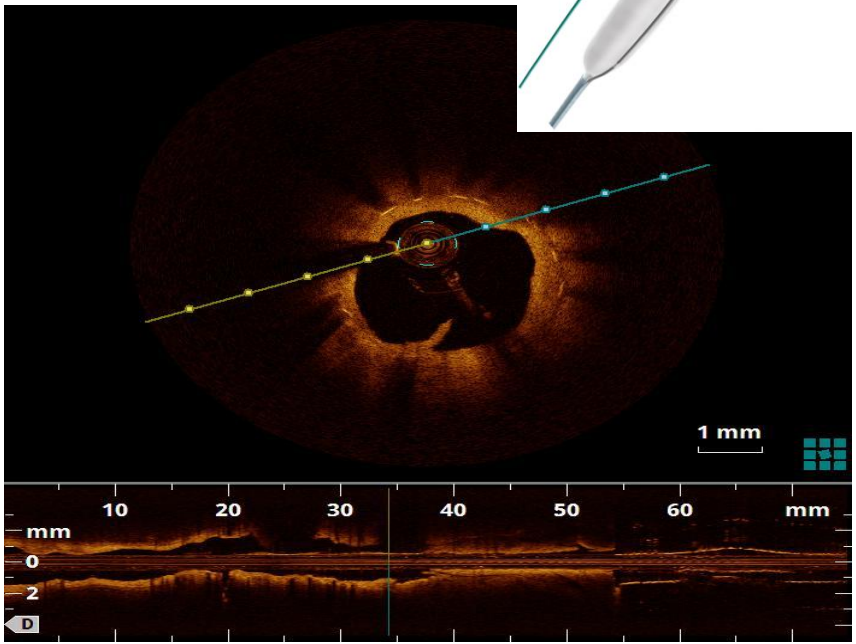


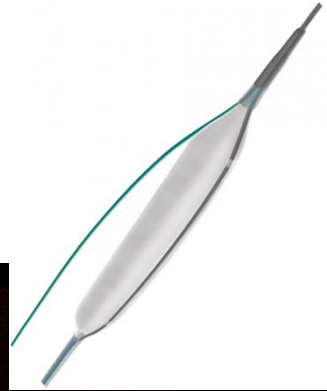




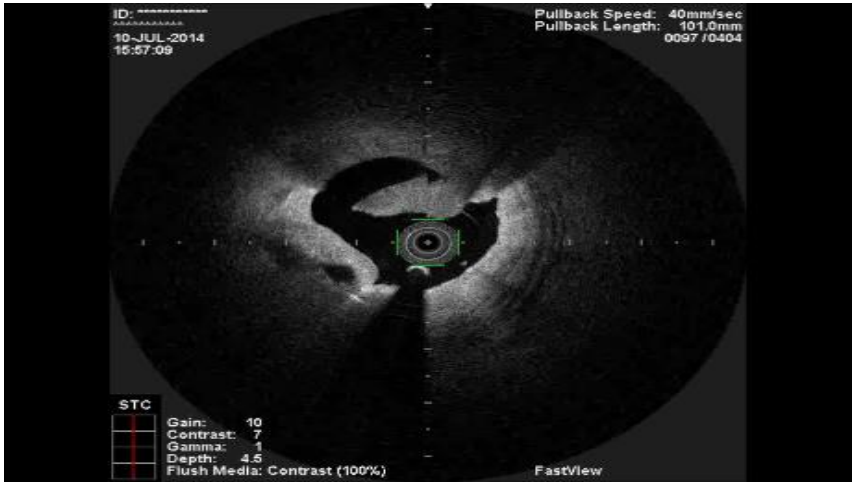
SCOREFLEX Balloon, ONE deep cut

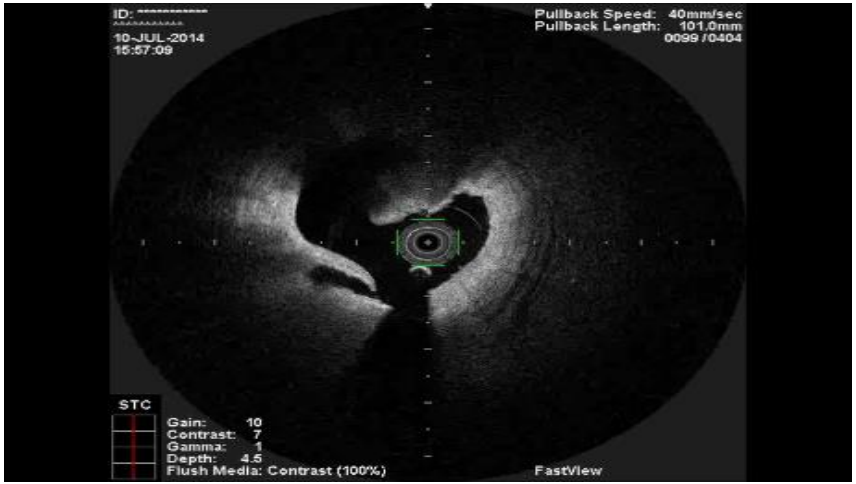




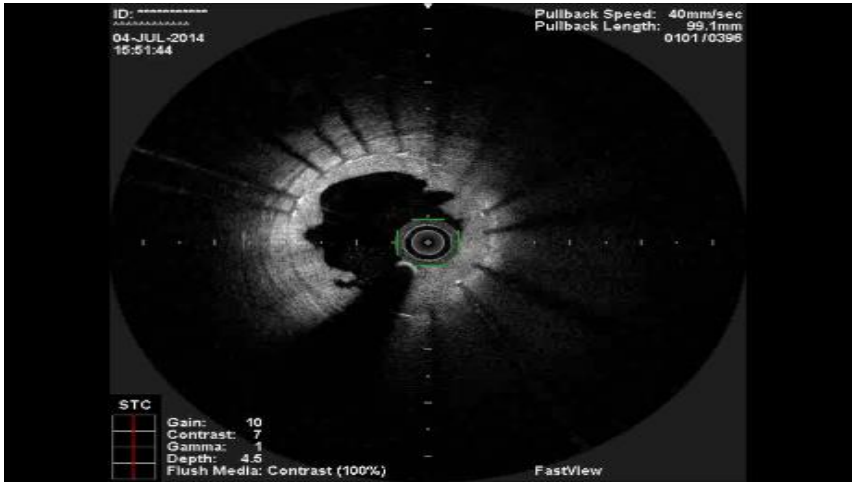


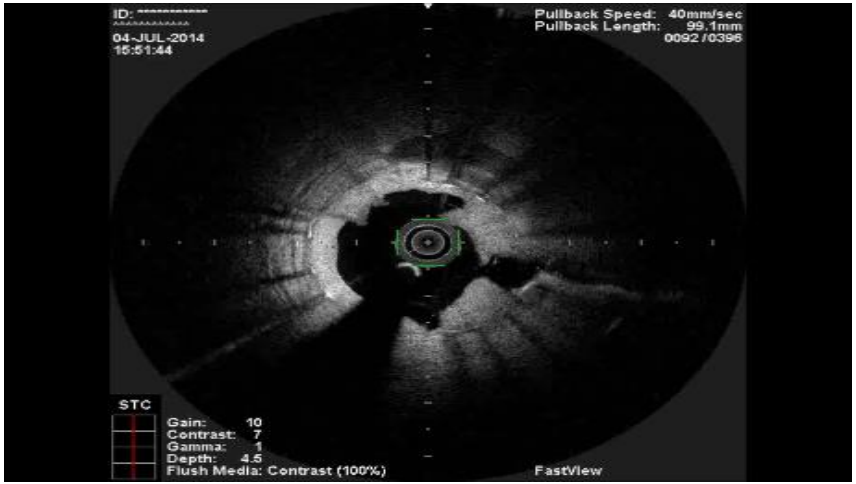
ANGIOSCULP, multiple deep cuts





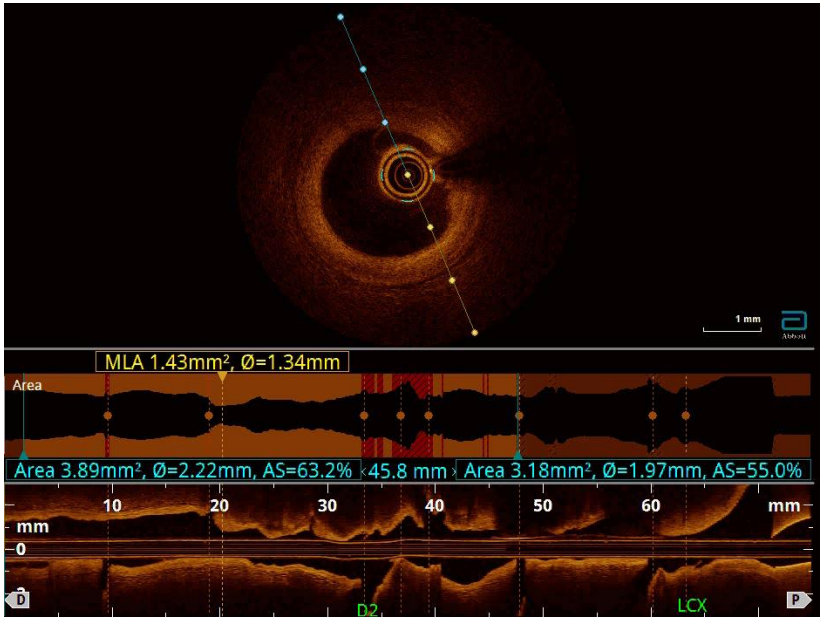
CUTTING BALLOON, multiple deep cuts

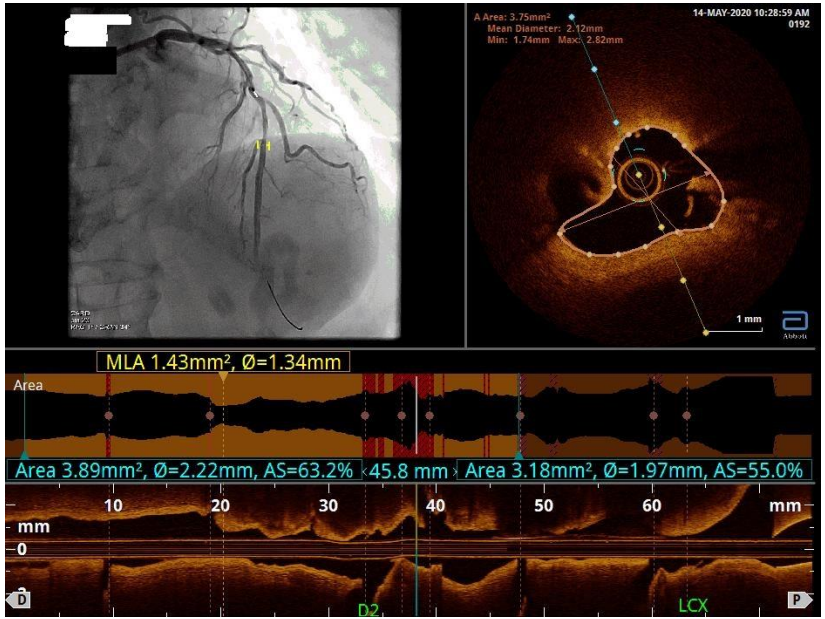




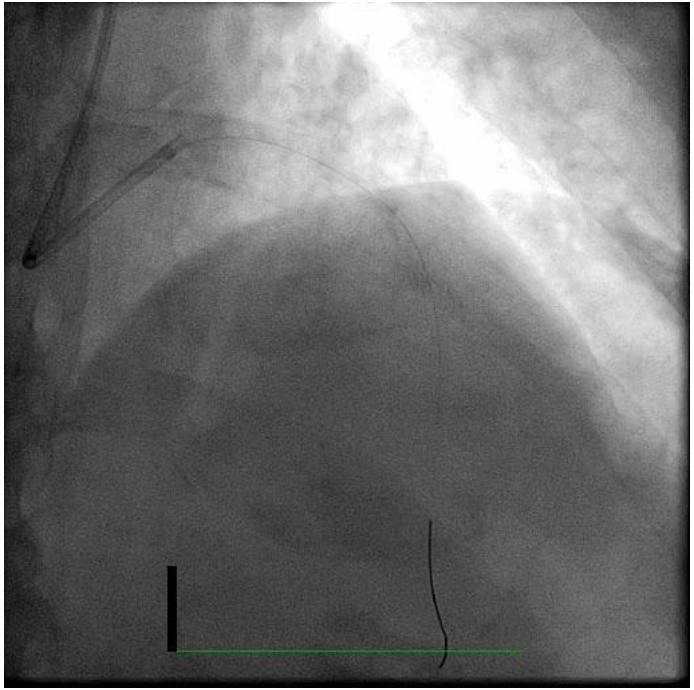
Calcified lesions

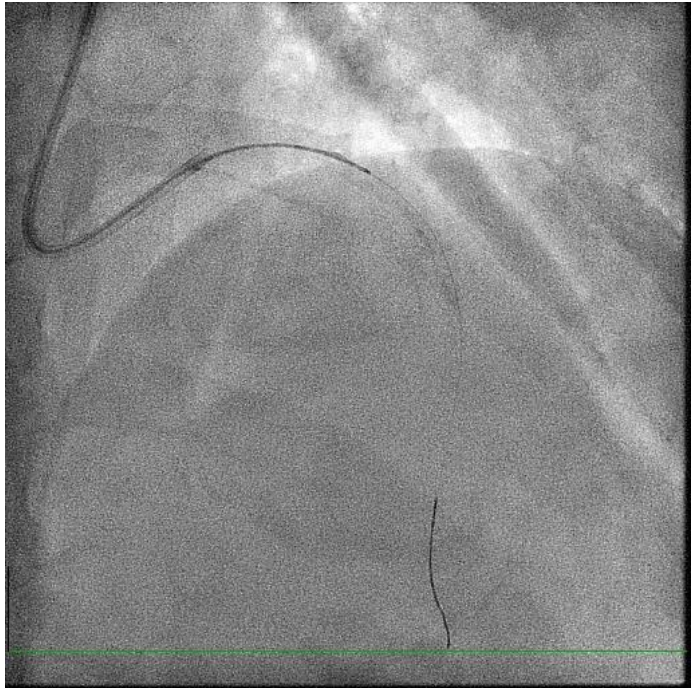
OCT after rotablation (Dr David Lo's case)

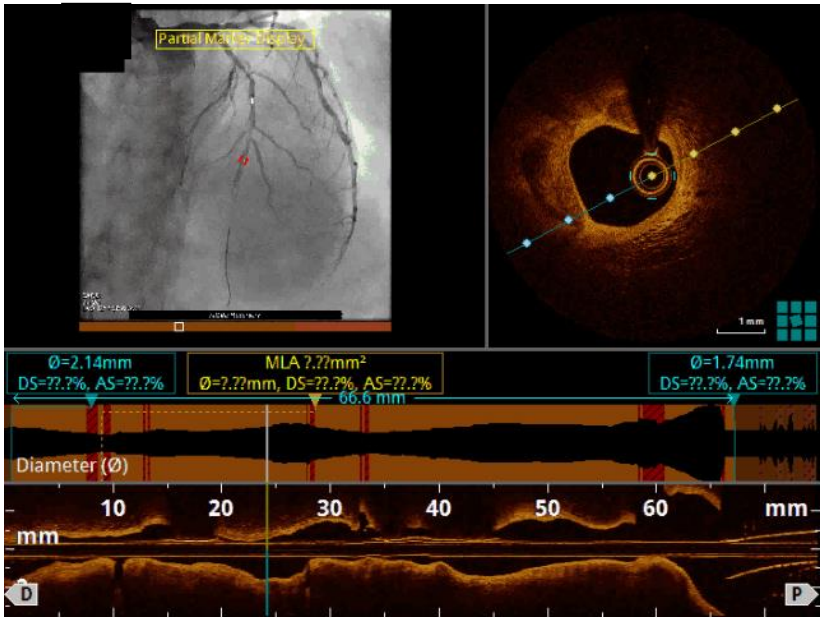


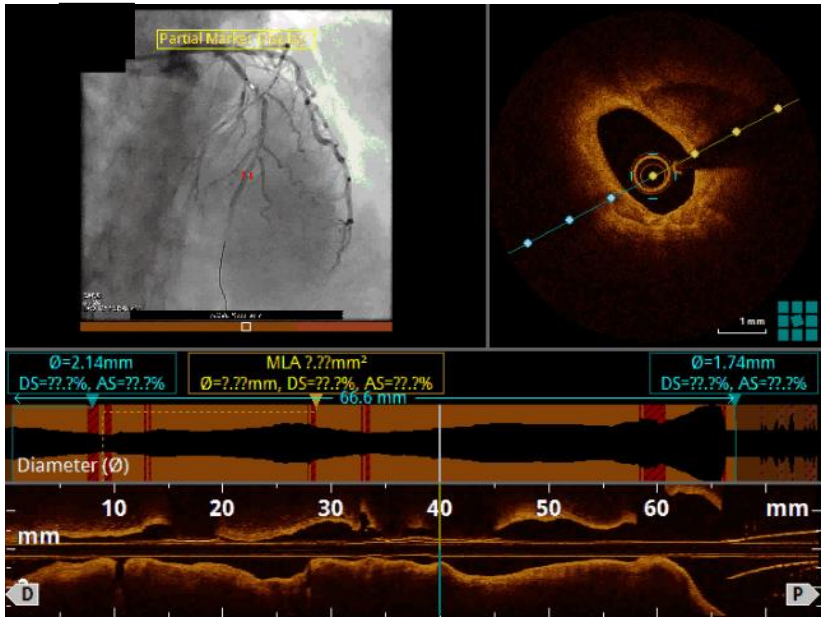


Calcified MLAD treated with Orbital atherectomy

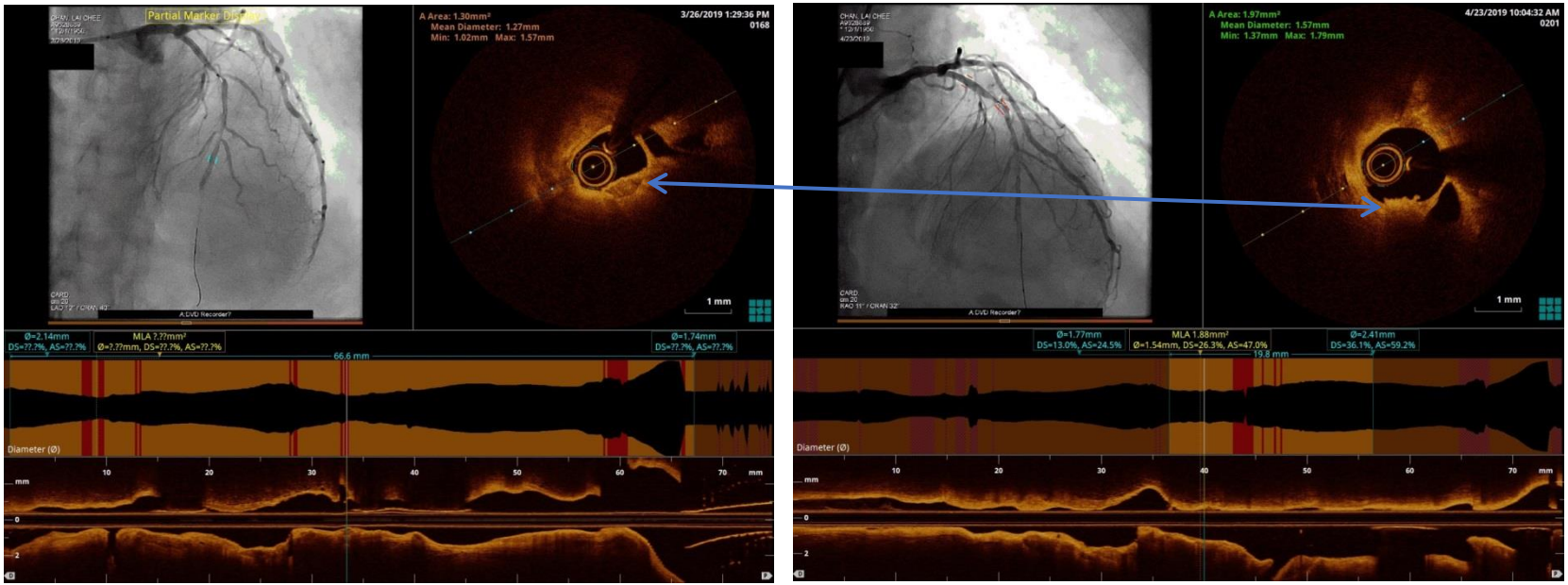




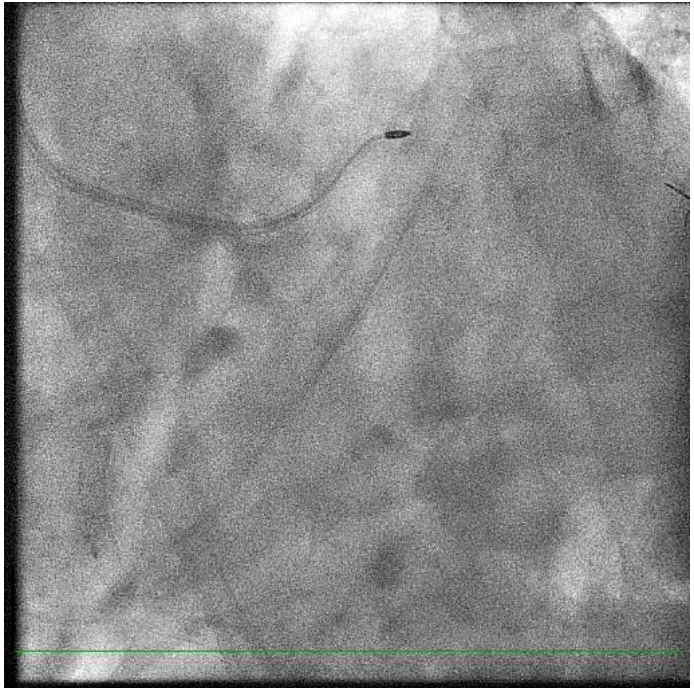

Ø=2.14mm
DS=??.?%, AS=??.?%
MLA ?.??mm²
Ø=?.??mm, DS=??.?%, AS=??.?%
Ø=1.74mm
DS=??.?%, AS=??.?%
66.6 mm
Diameter (Ø)
10
20
30
40
50
60
mm
mm
D
P

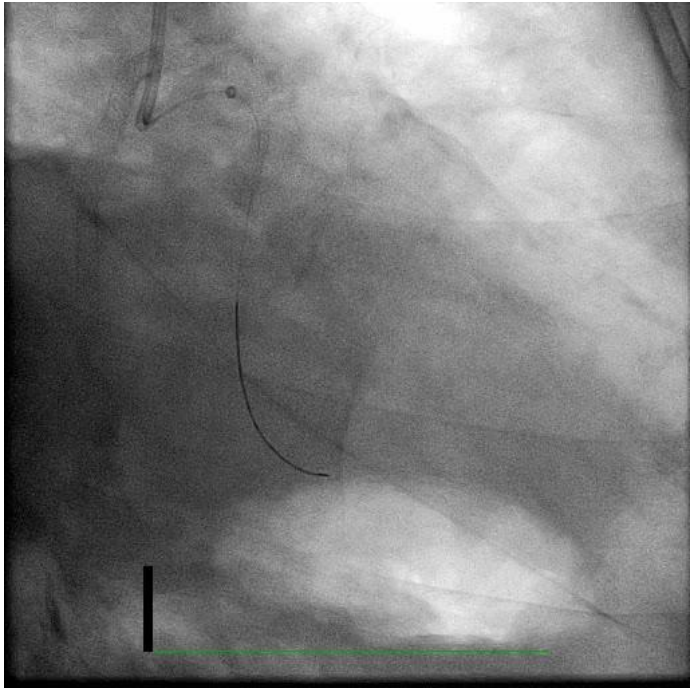

Ø=2.14mm
DS=??.?%, AS=??.?%
MLA ?.??mm²
Ø=?.??mm, DS=??.?%, AS=??.?%
Ø=1.74mm
DS=??.?%, AS=??.?%
66.6 mm
Diameter (Ø)
10
20
30
40
50
60
mm
mm
D
P

Pre and Post Orbital Atherectomy

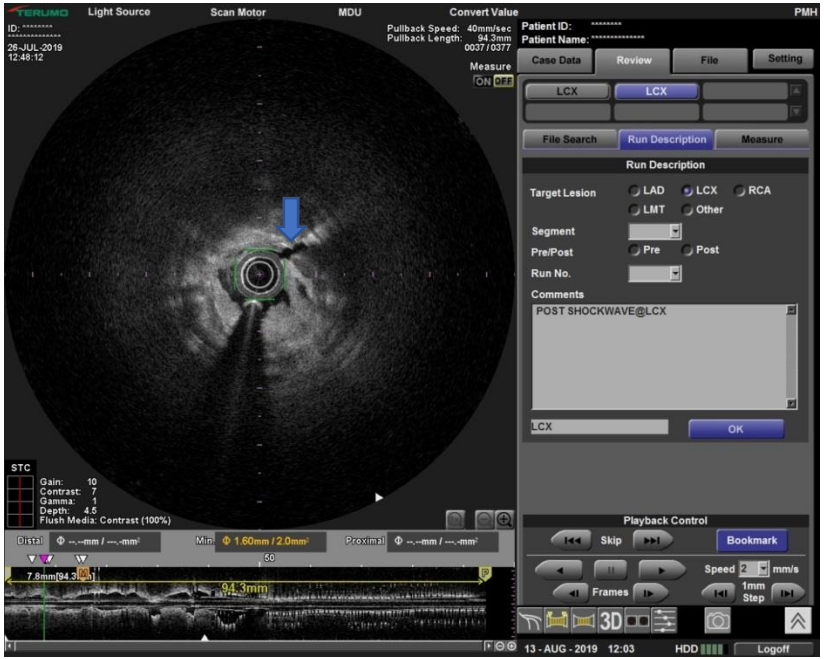


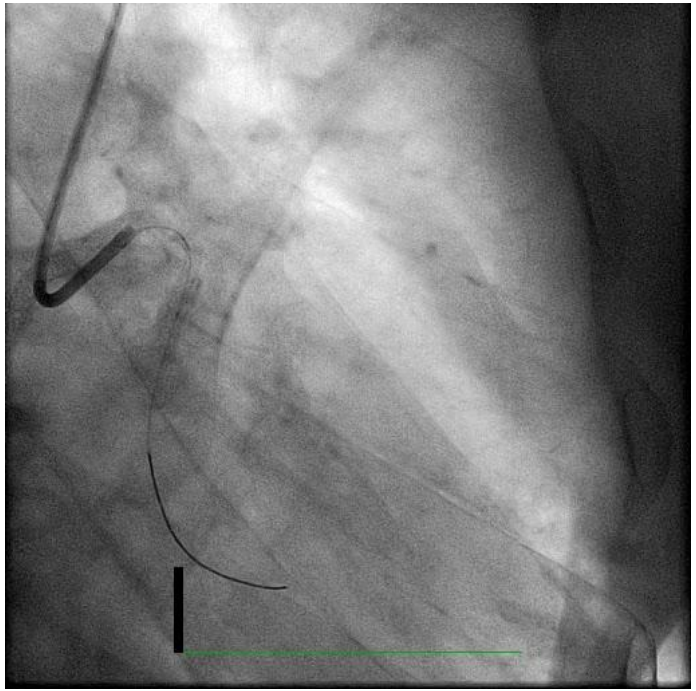
ESRF, calcified and tortuous LCX, rotablator burr could not pass, DES in PLCX



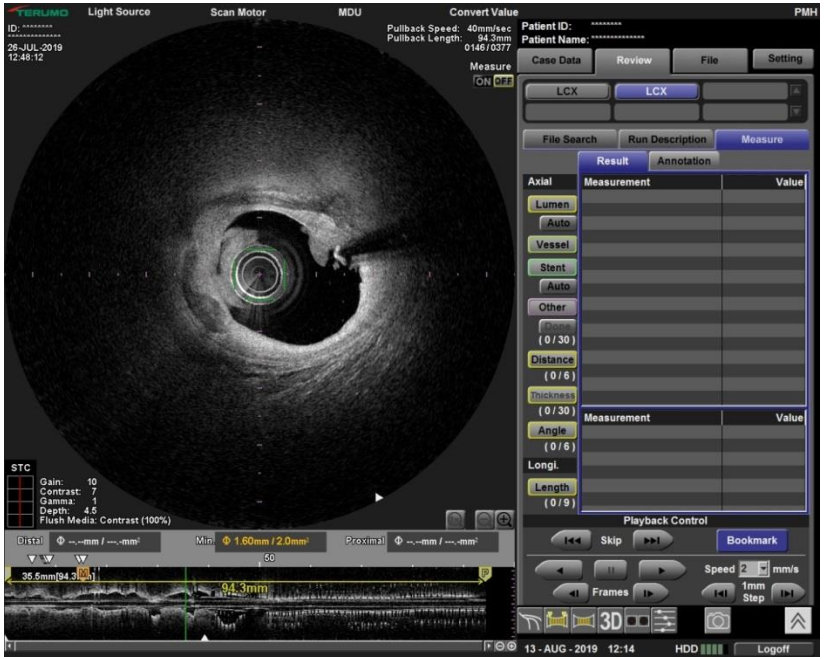


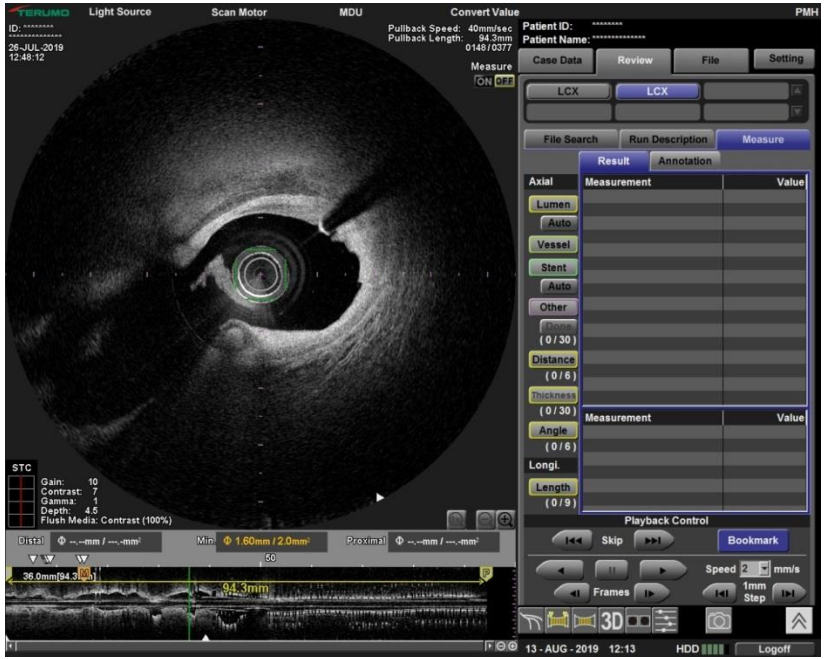
Shock wave balloon created deep cut into calcium, but it ruptured when inflated from 4 to 6 ATM



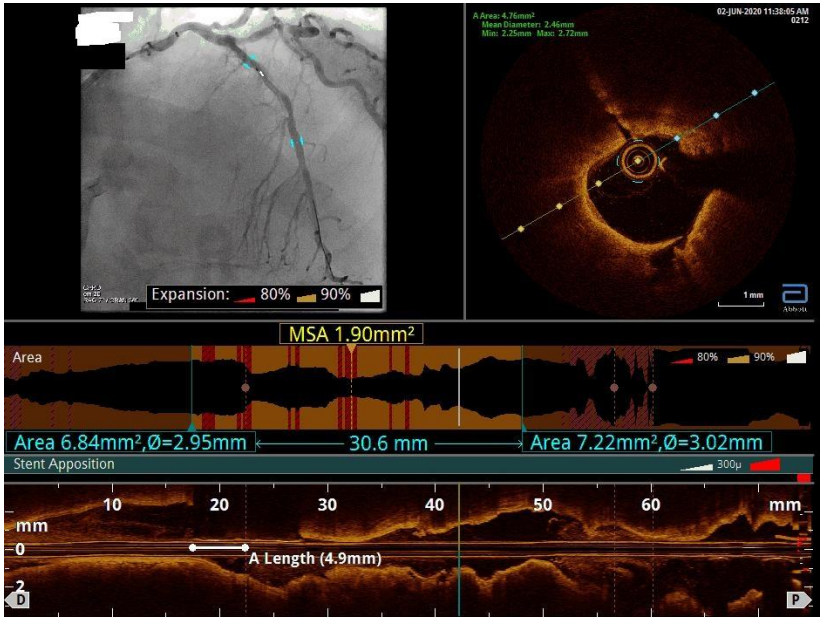


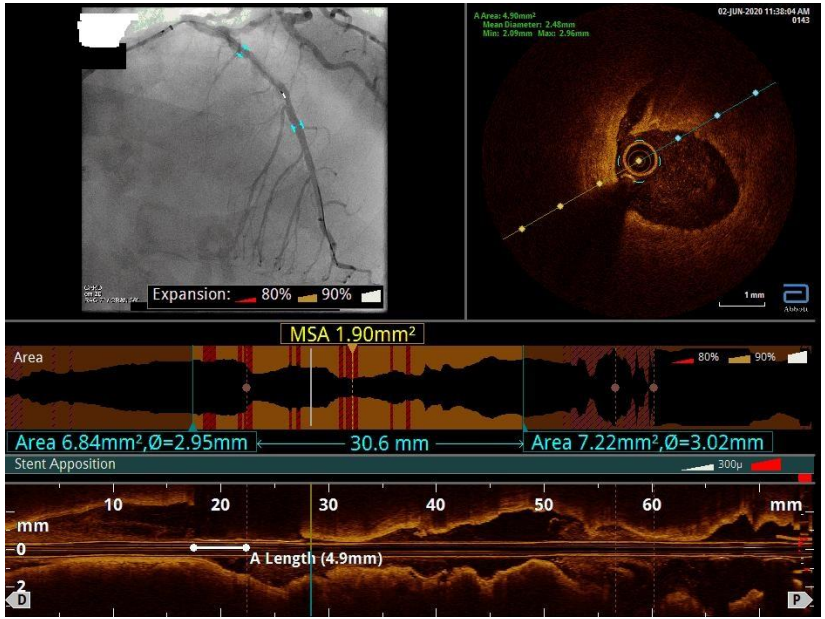
White thrombus in OLAD





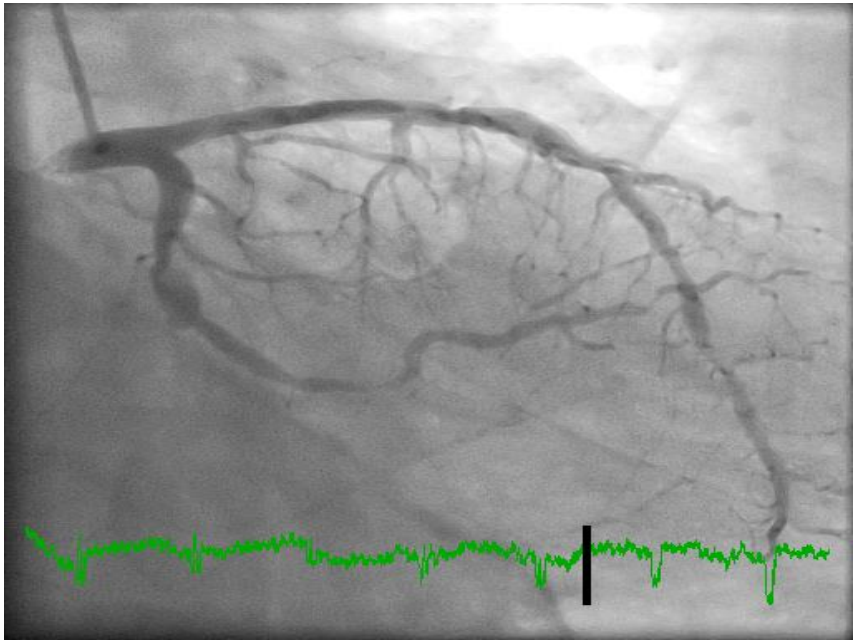
Shock Wave Balloon

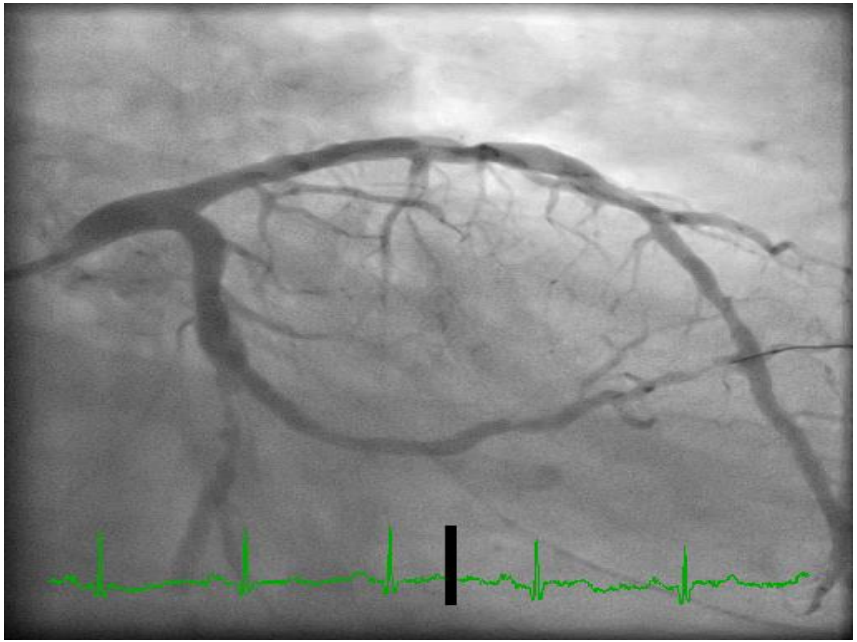




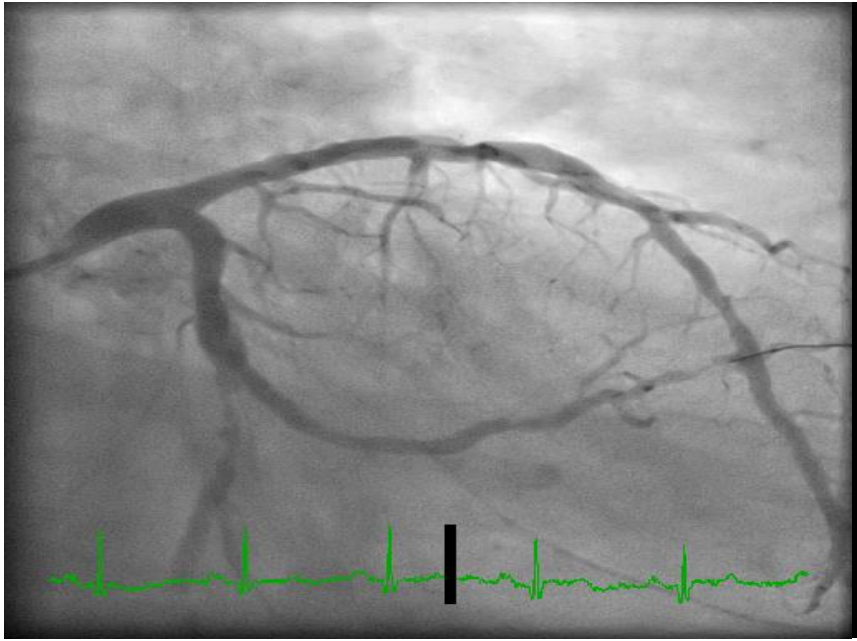
Understanding pathophysiology

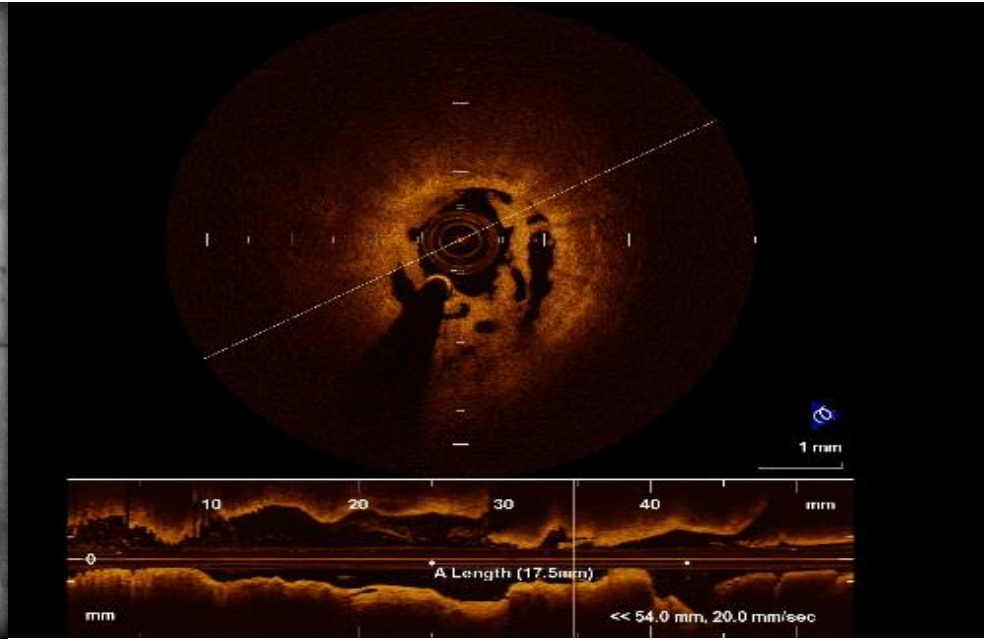
DLCX ATO recanalized with more potent DAPT therapy





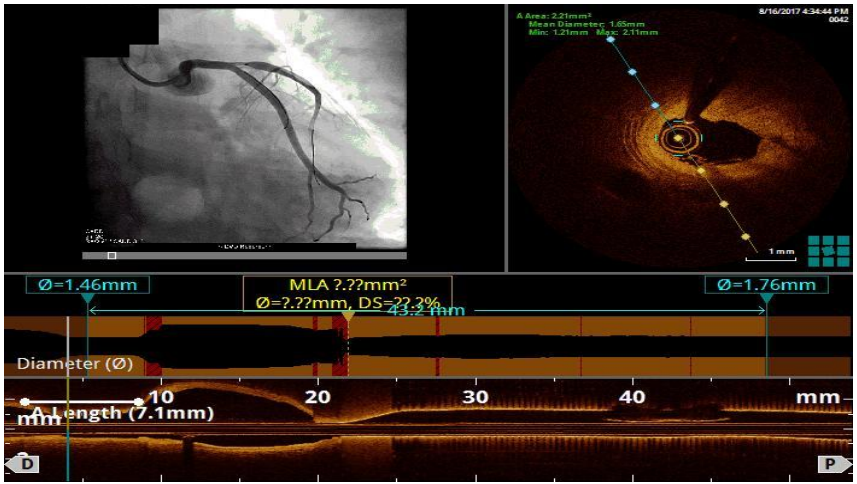
OCT LCX after small balloon POBA, honeycomb architecture



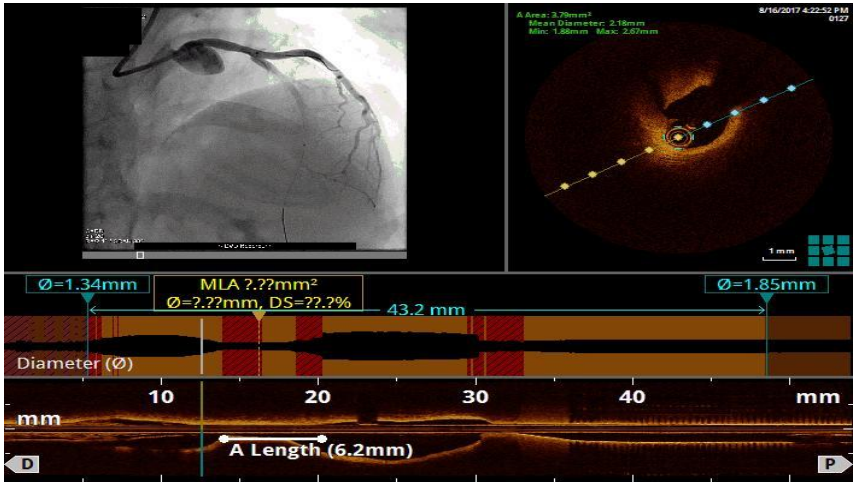


Young lady with ACS, dissection!!!

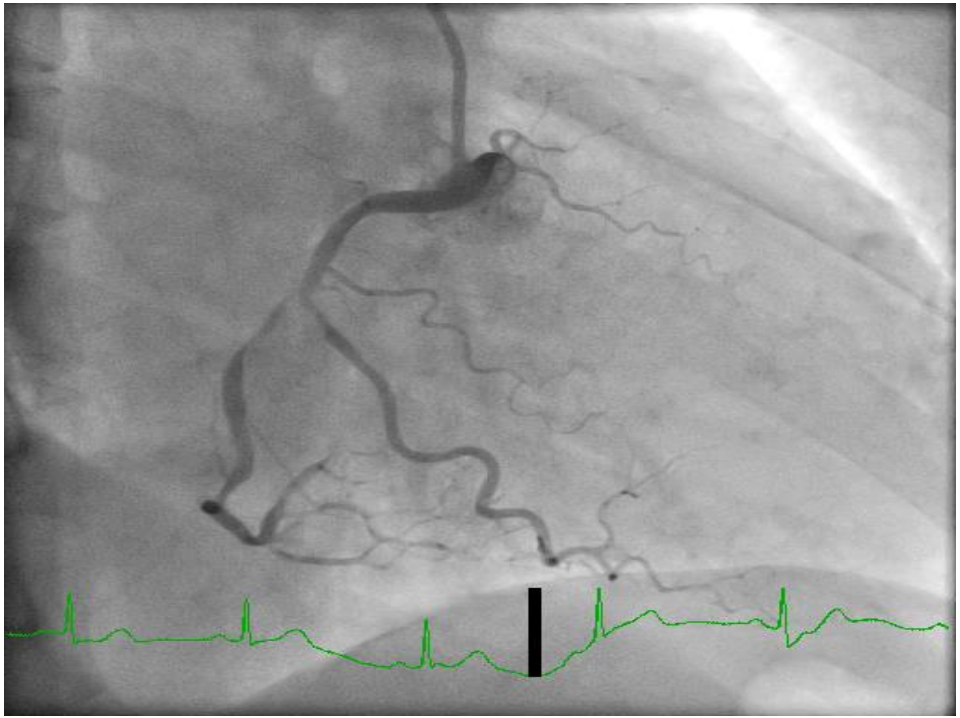
Intramural hematoma



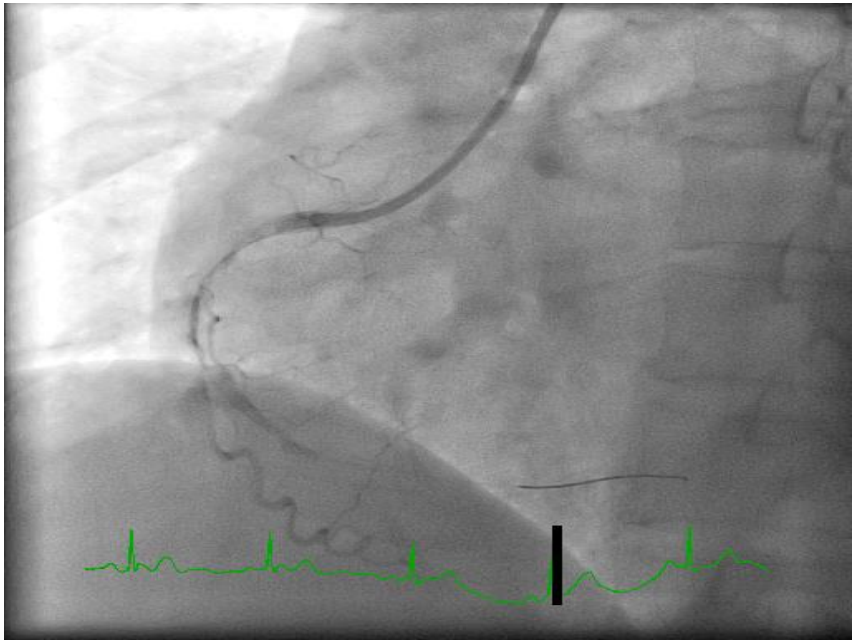
Dissection entry site



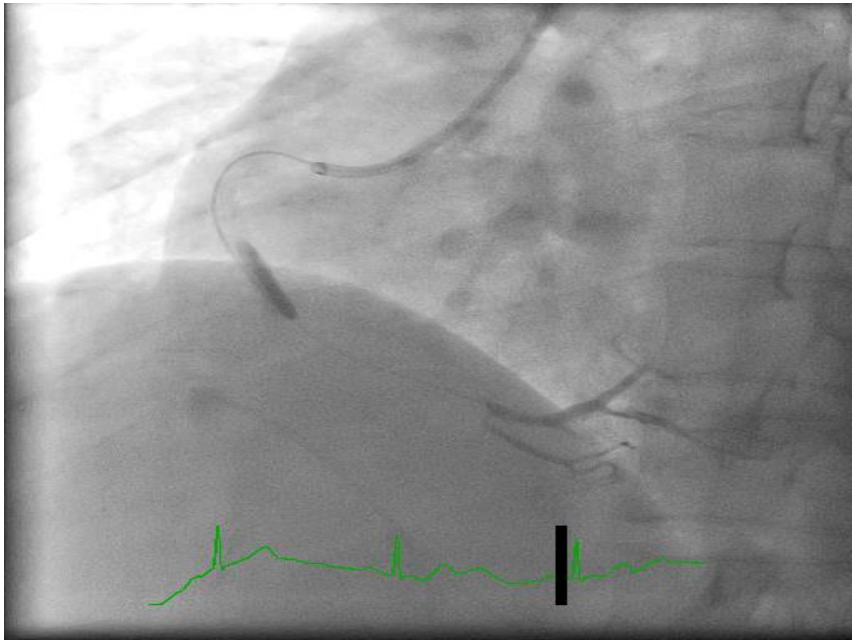
Another young lady with ACS

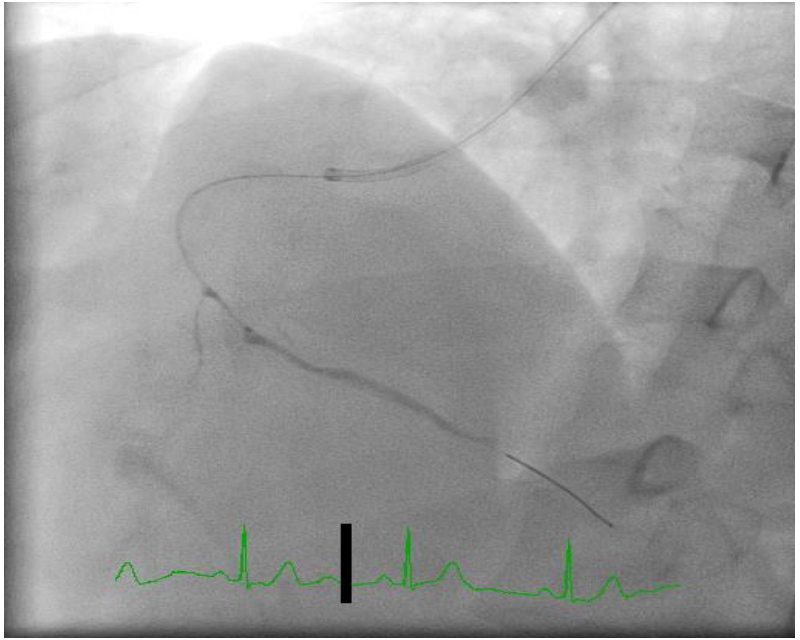


Dye staining! True lumen?

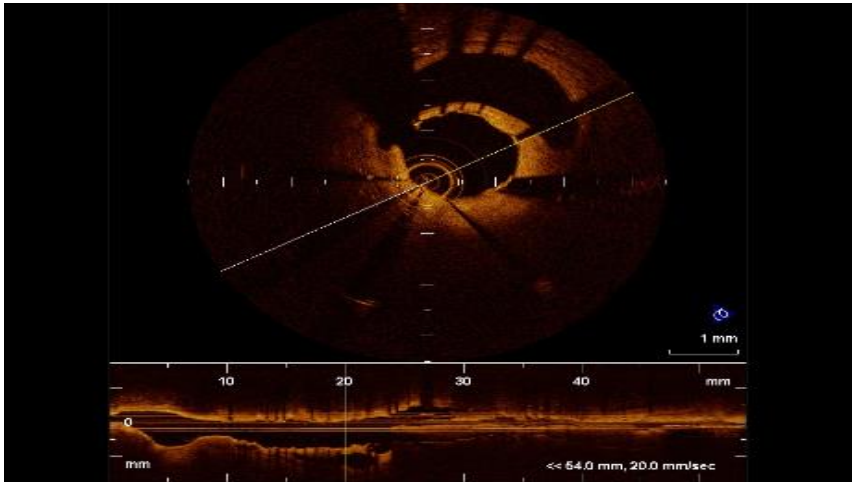


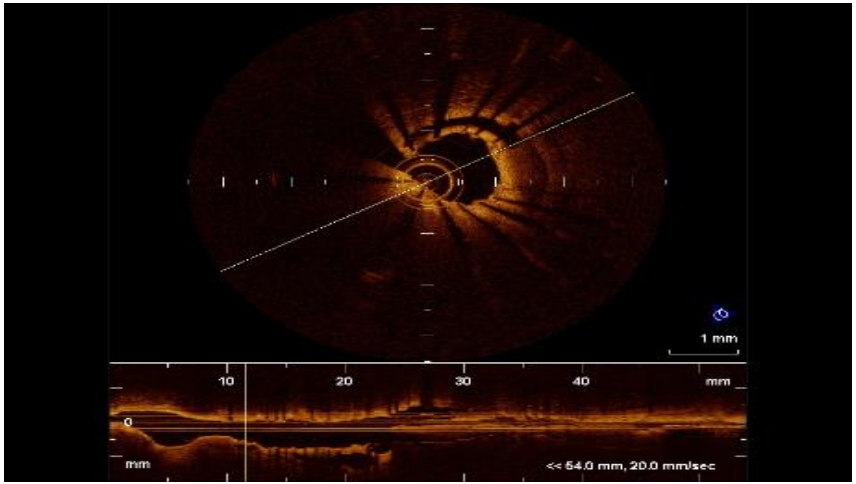
Double lumen catheter testing > OCT



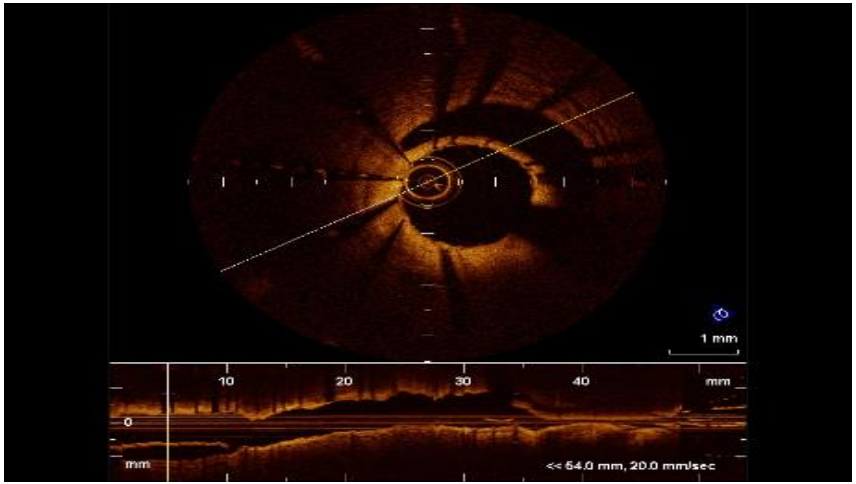


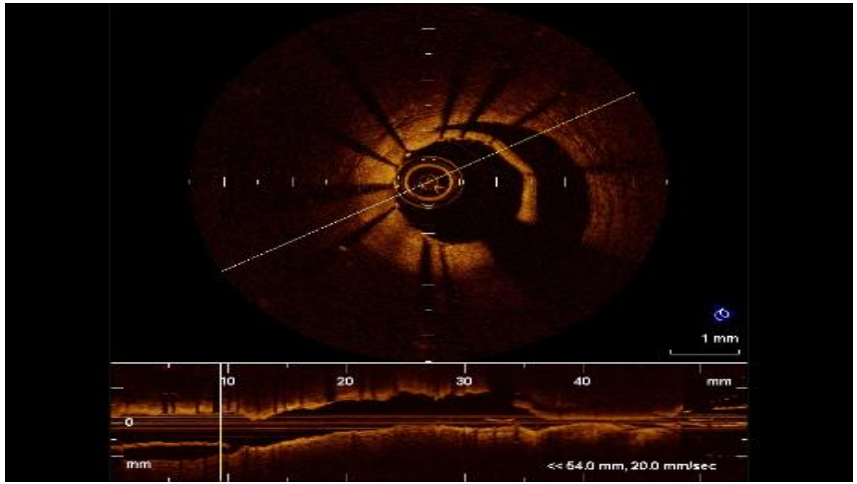
OCT AFTER proximal stenting



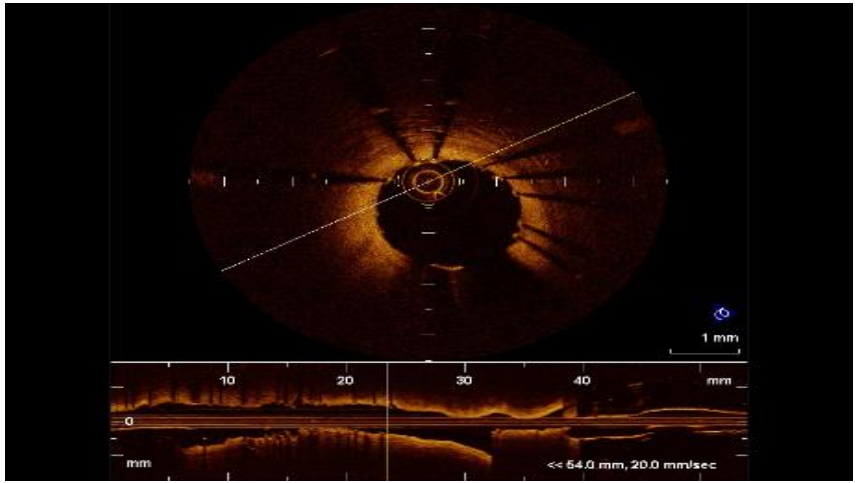


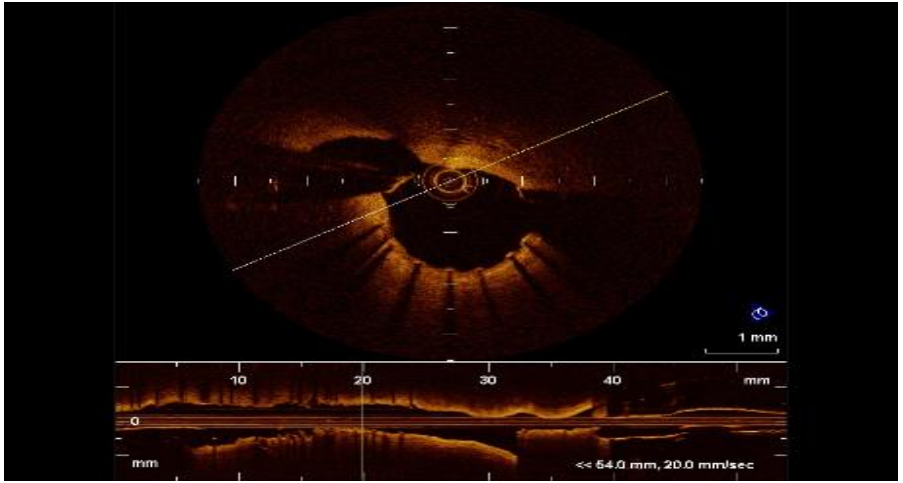
True lumen but big dissection





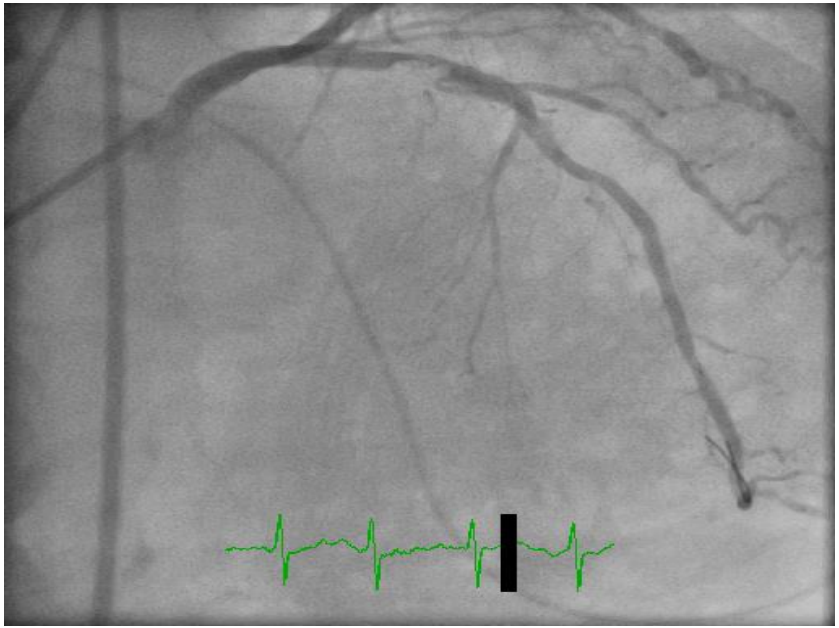
Good stent apposition

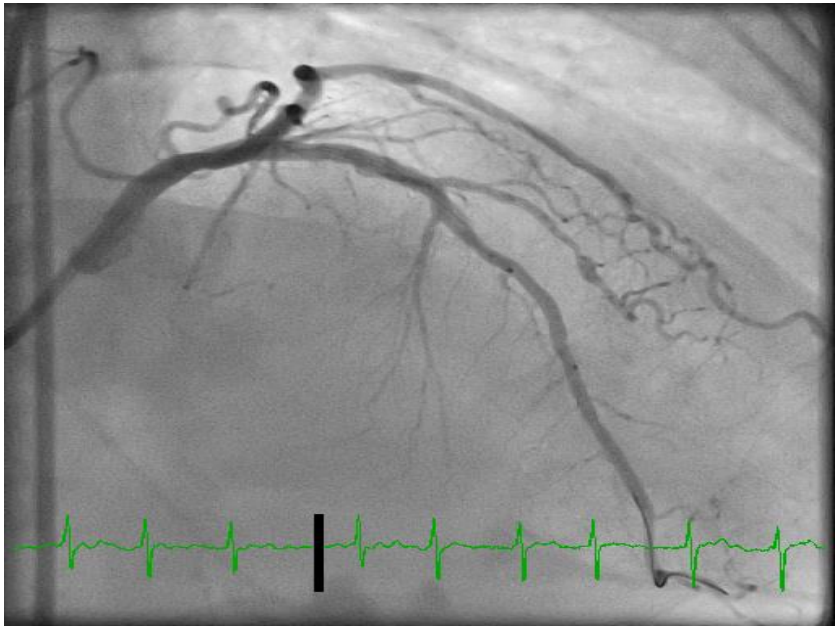




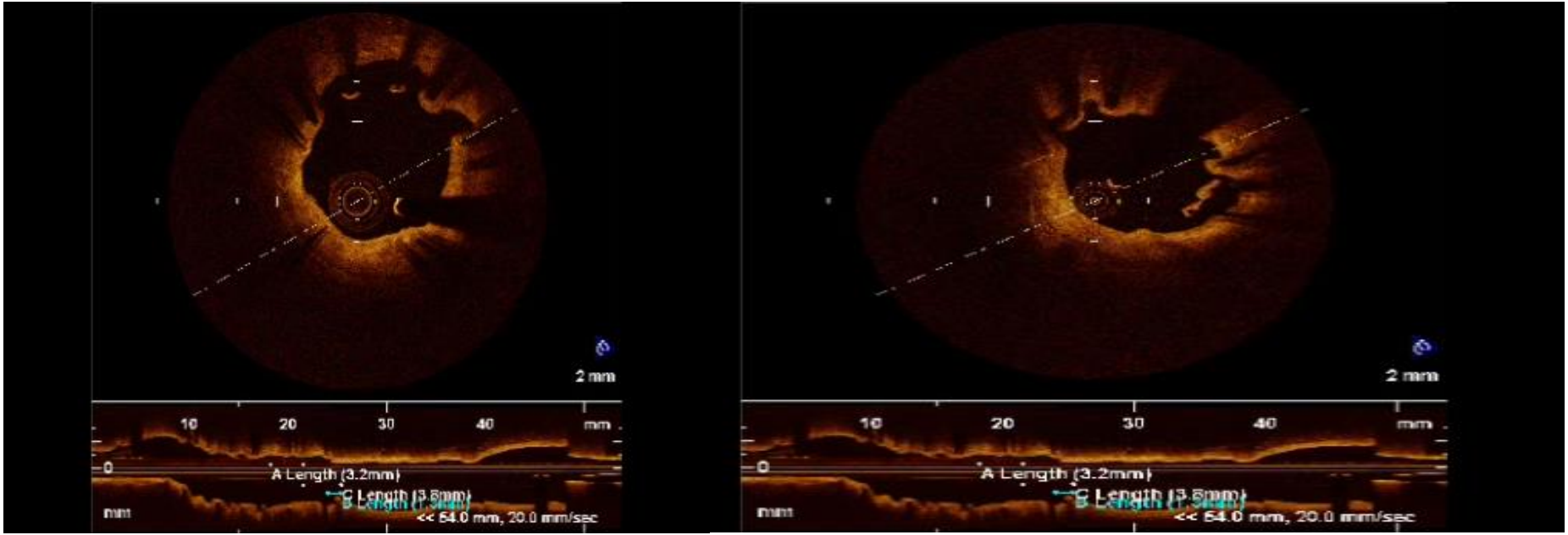
Understanding DES failure

Very Late Stent Thrombosis

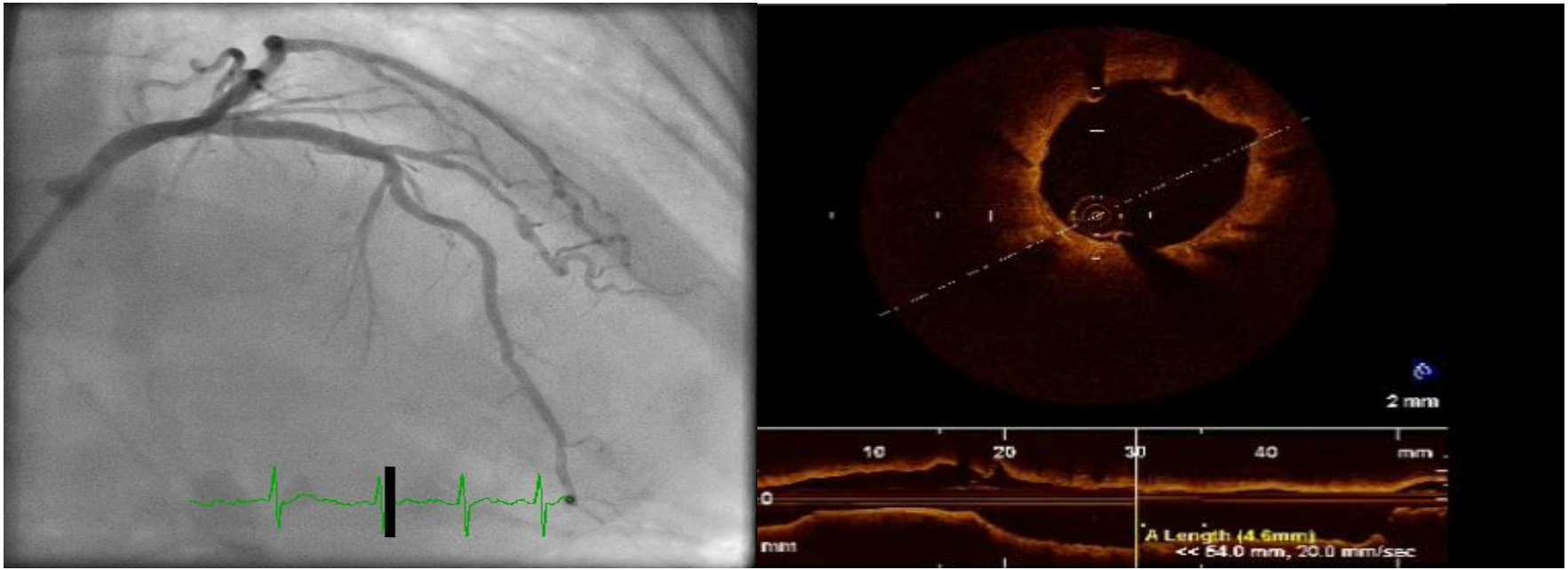




Very late stent thrombosis, uncovered struts and malapposition



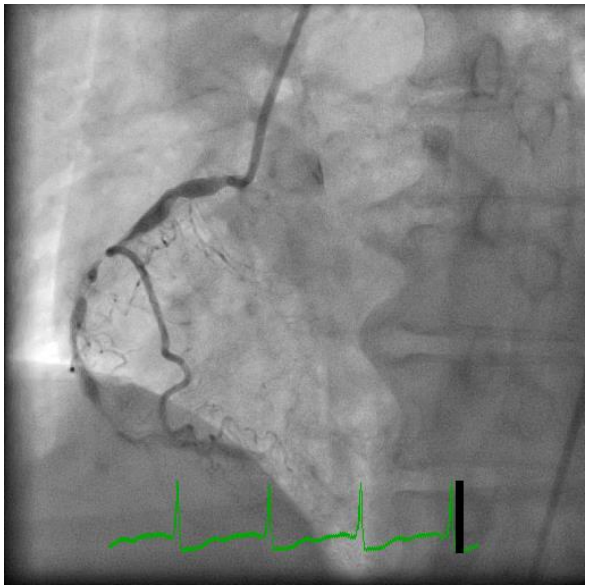
After HP POBA



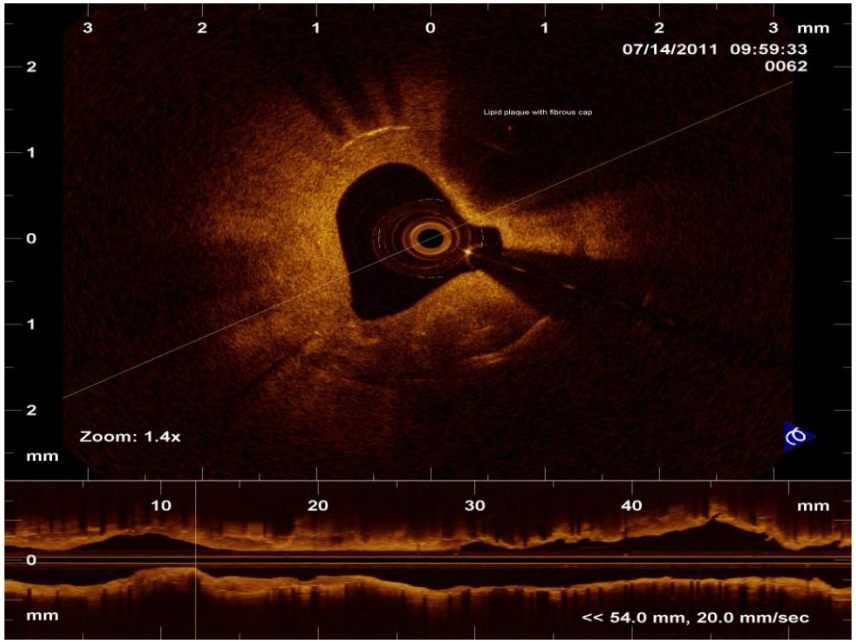
RCA filling defects: Recurrent DES ISR

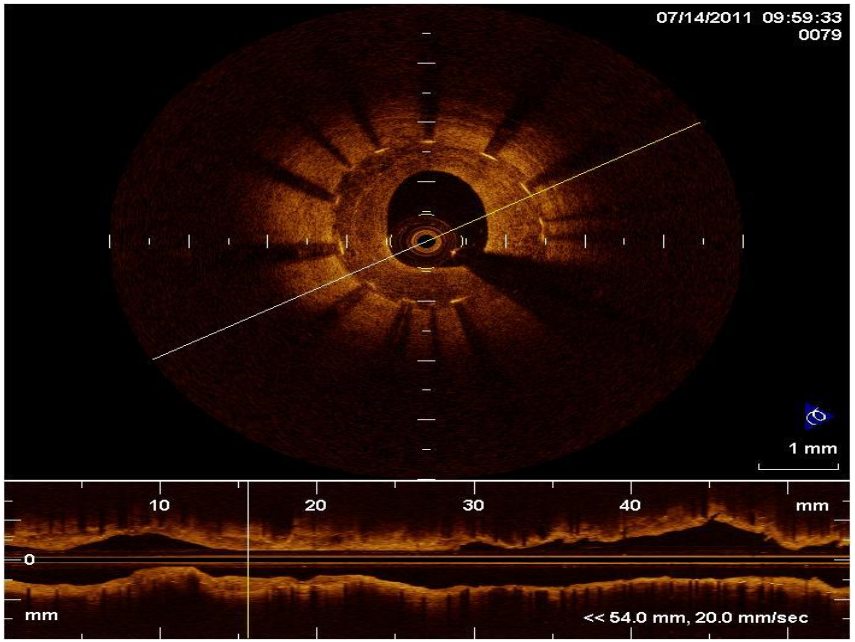
Aggressive neoatherosclerosis

Progressive neoatherosclerosis

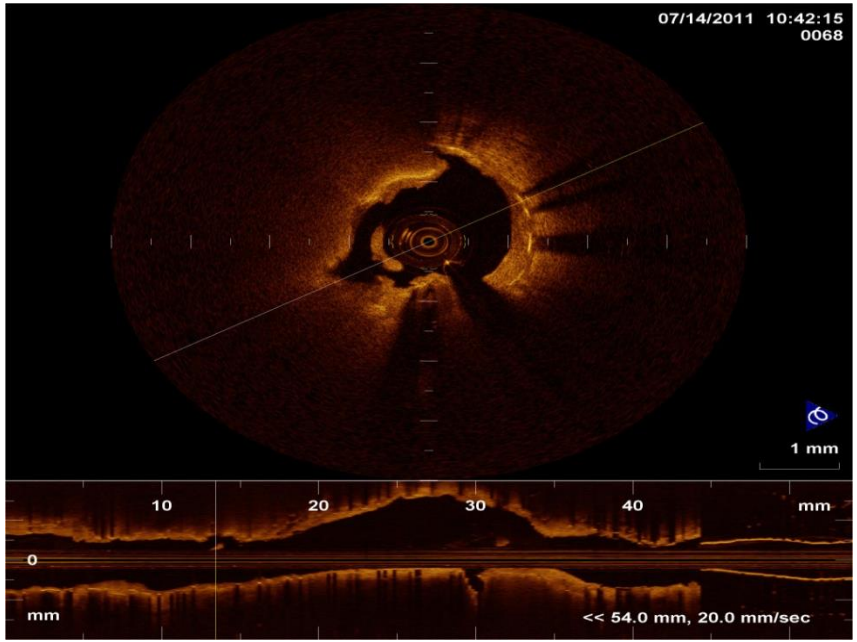


Accelerated neo-atherosclerosis in RCA



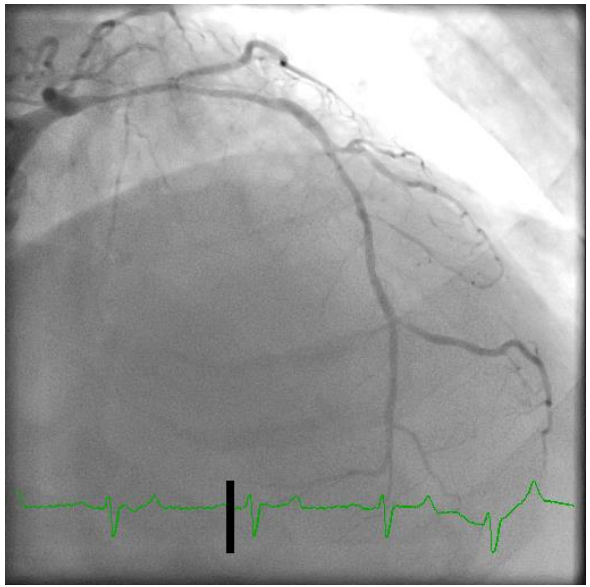


RCA Final after DCB

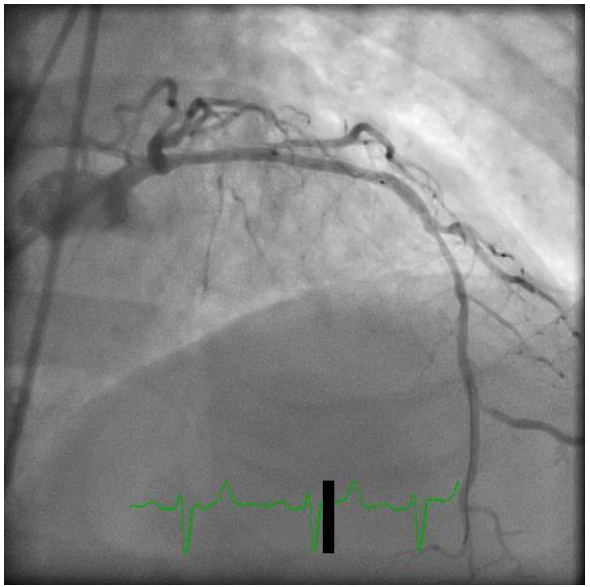


DES ISR LAD

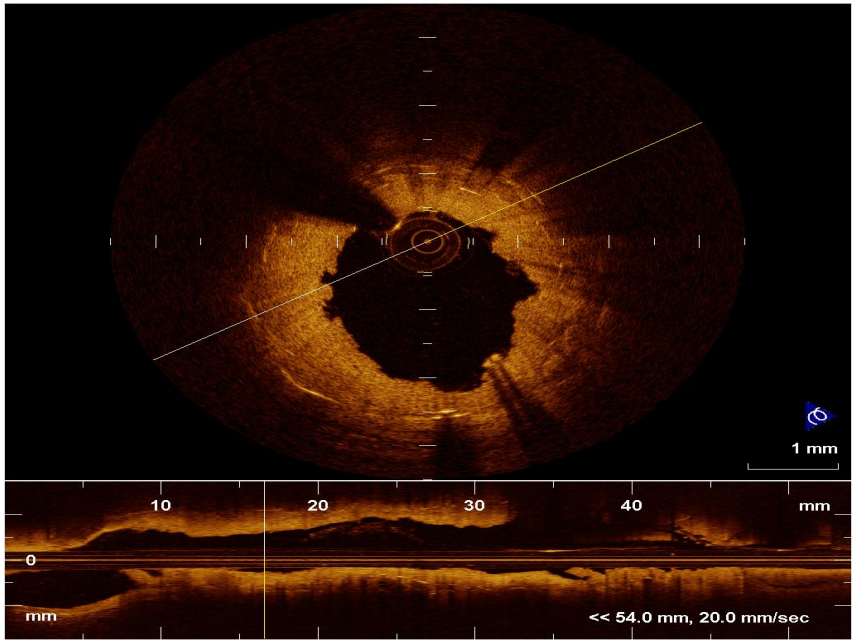
Before PCI

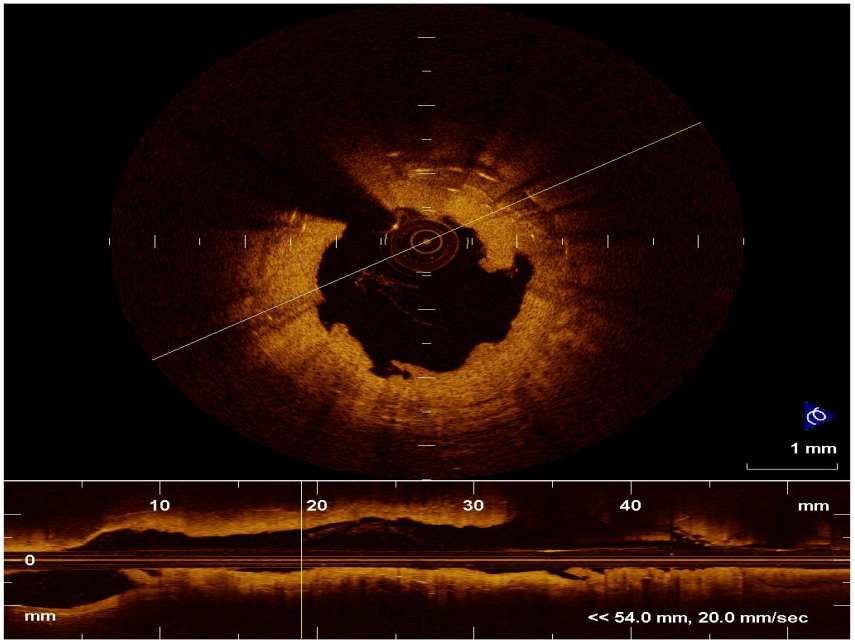


After POBA



OCT Fibrotic Intimal Hyperplasia

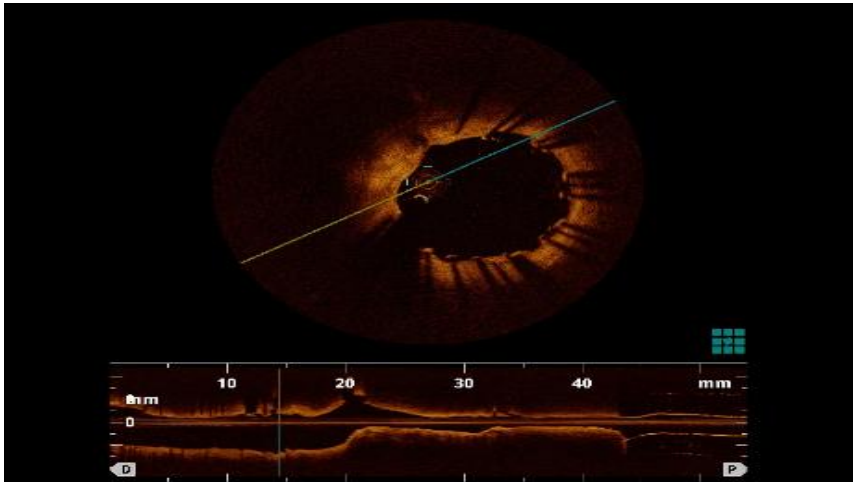




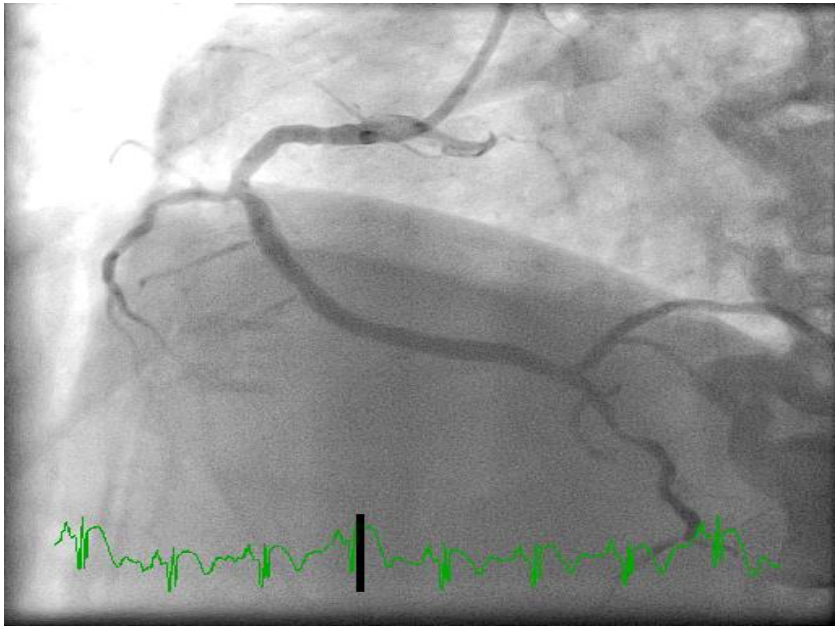
Stent coverage by follow up OCT

STEMI and VLST after EPC antibody coated stent

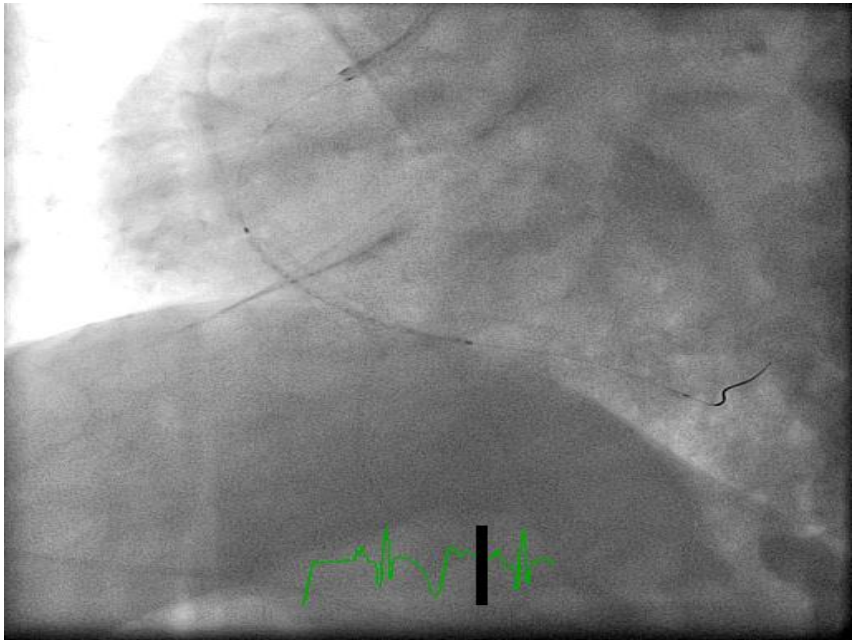
Lack of stent coverage by OCT

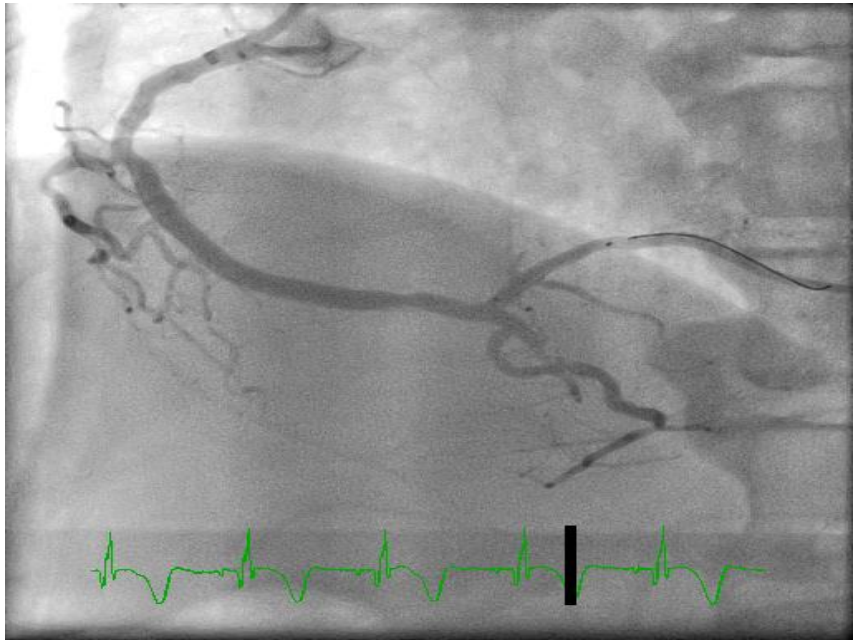


“Good” result after thrombectomy

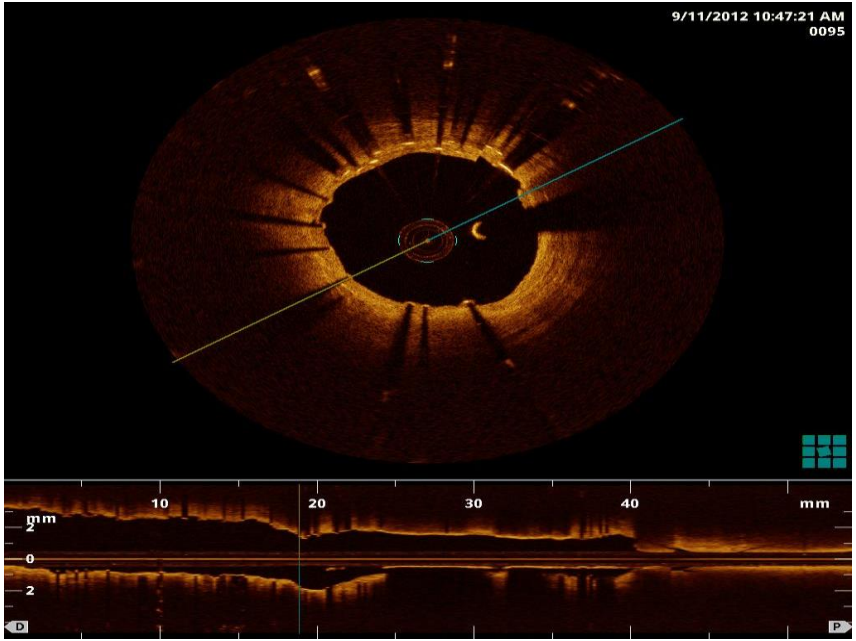


EPC antibody coated stent implanted





Healing!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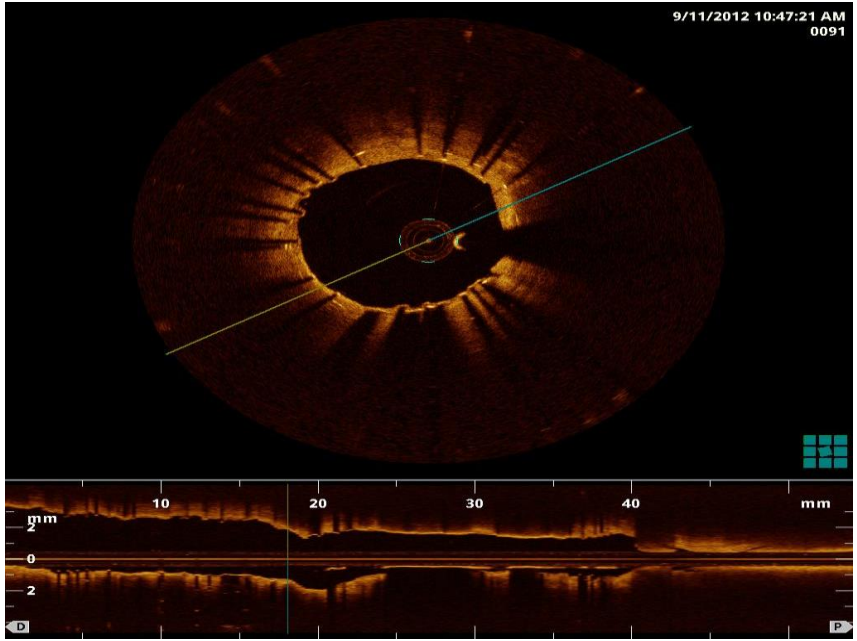
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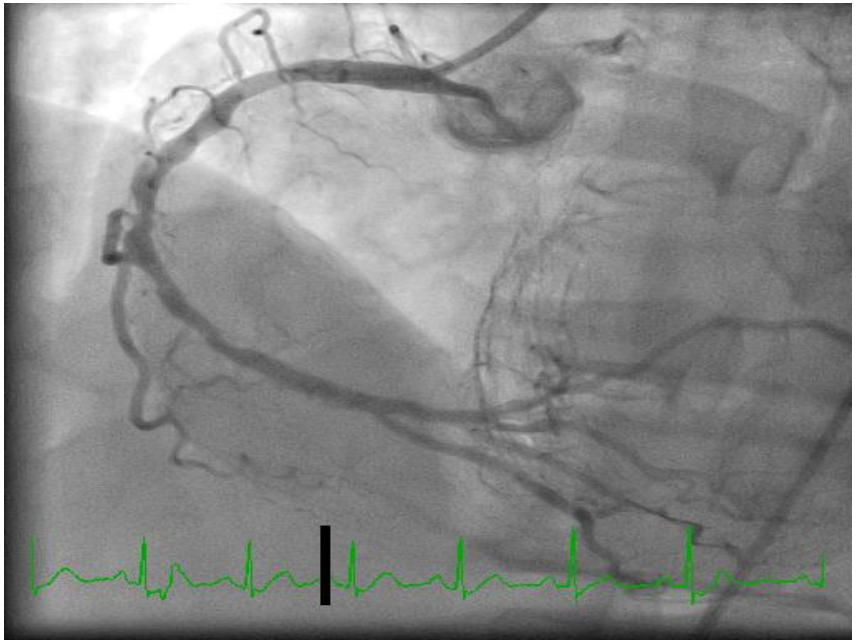
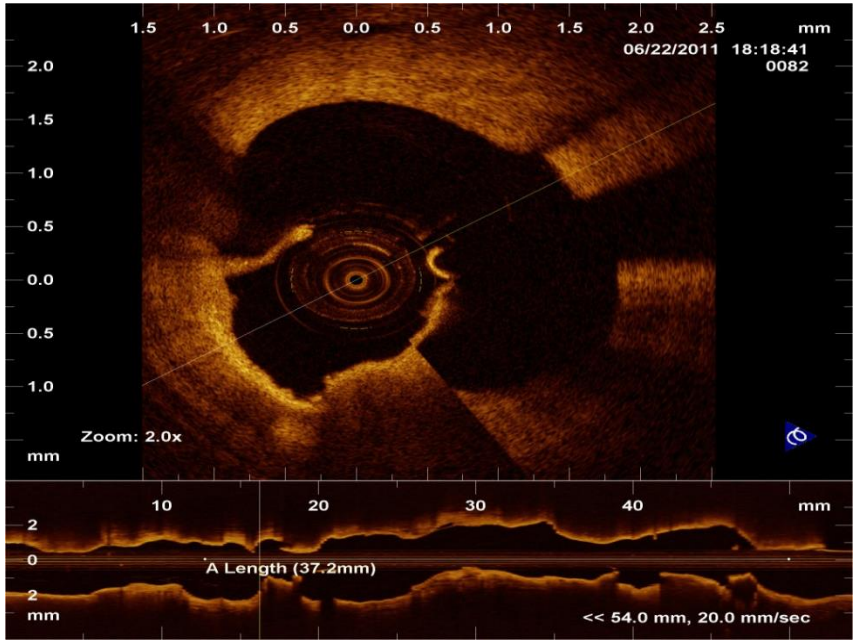
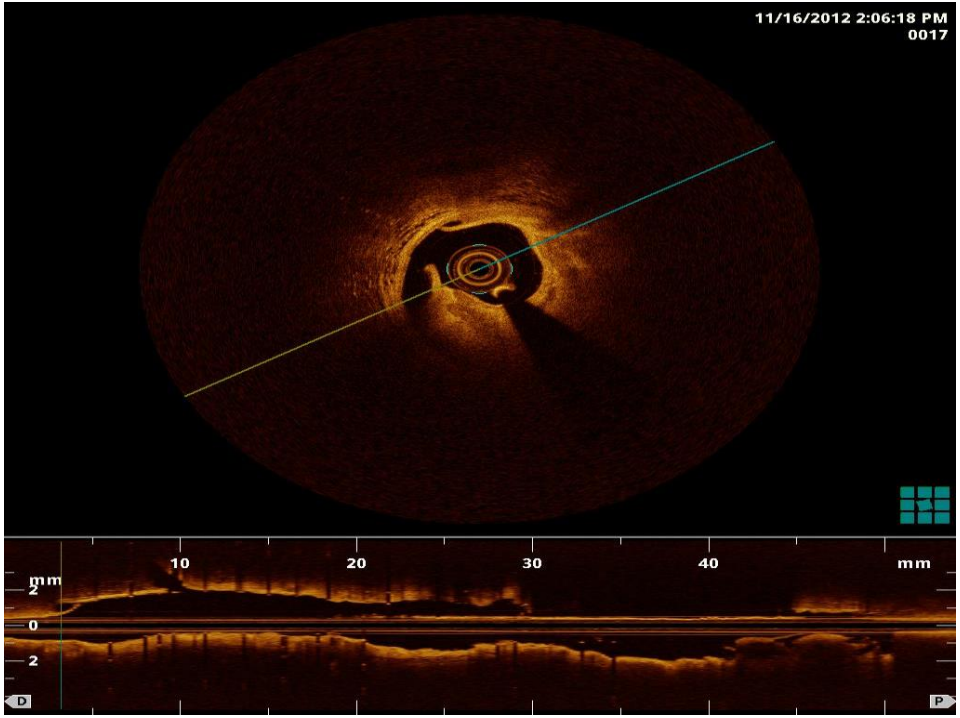
Dissections

Asymptomatic dissections



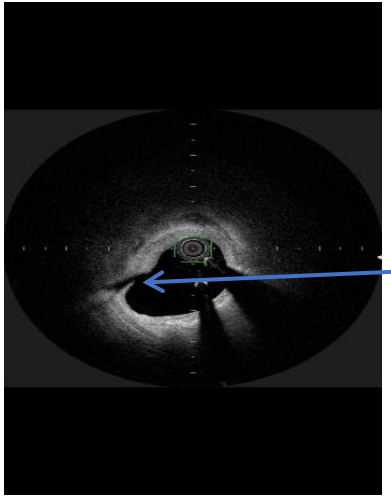


Stent edge dissection, beware of second stent edge dissection, land on normal segement!

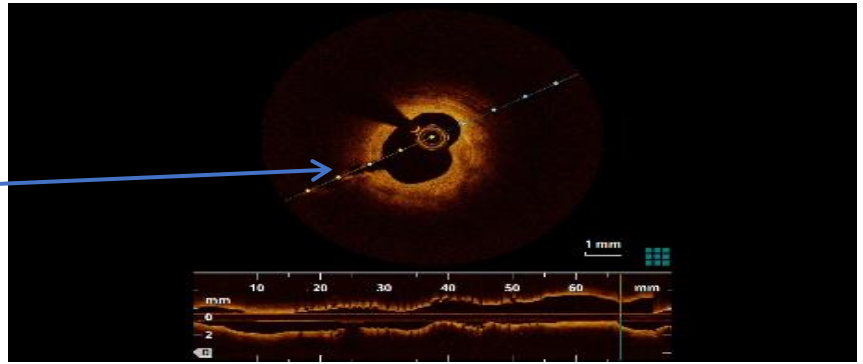


Left main dissection, both the dissection and the patient survive

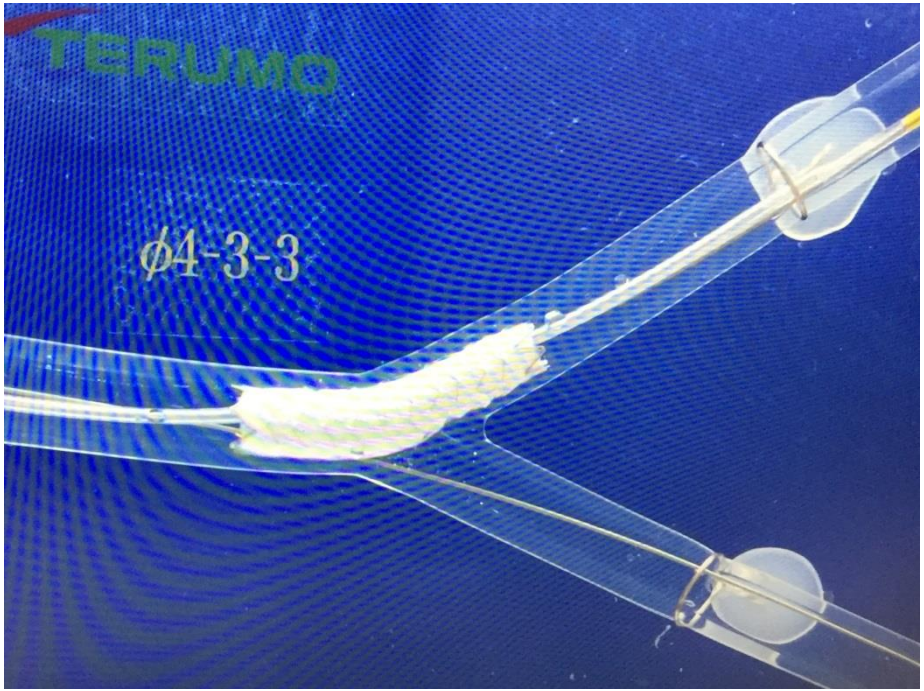
Baseline



Follow up



Bench testing



OFDI bench test, conquest pro punctured a stent graft for side branch access, proximal vs distal cell crossing