

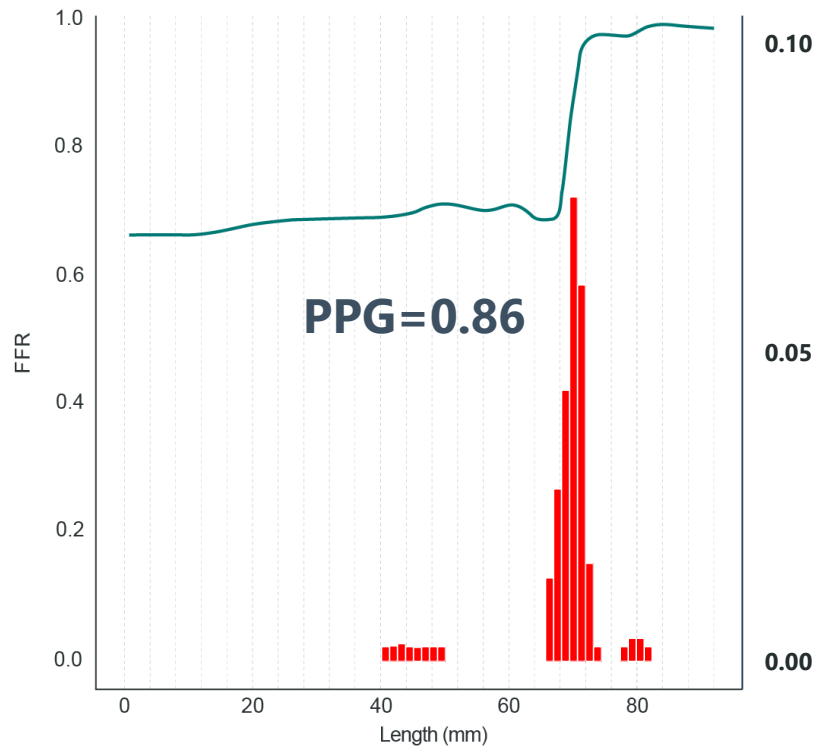
Post PCI FFR: Pressure Pullback Gradient (PPG) to Predict Prognosis after Revascularization

Carlos Collet MD, PhD
Co-director Catheterization Laboratory
OLV Aalst, Belgium

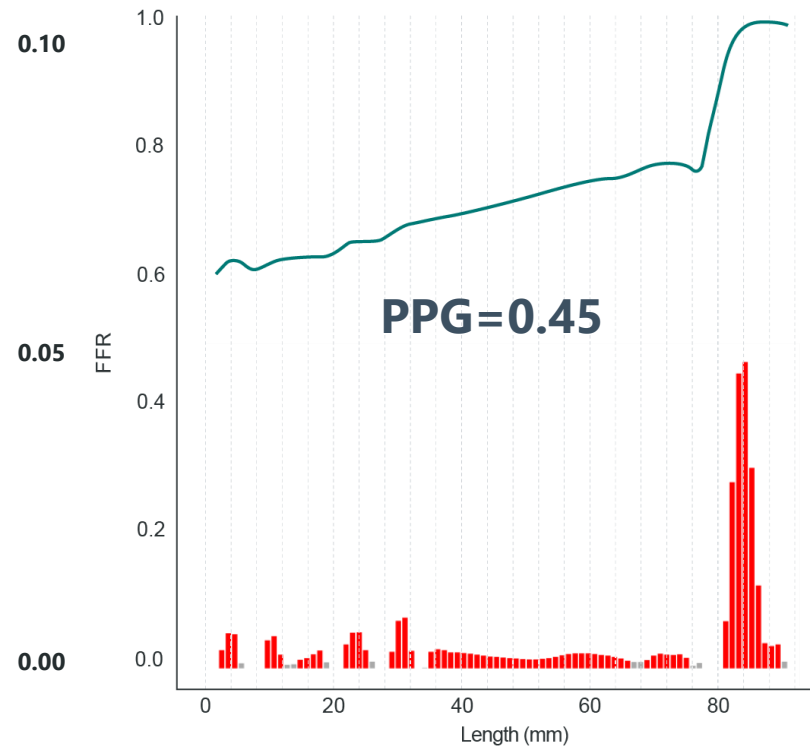
On behalf of the PPG Global Investigators

PPG: Standardizing the definition of diffuse disease

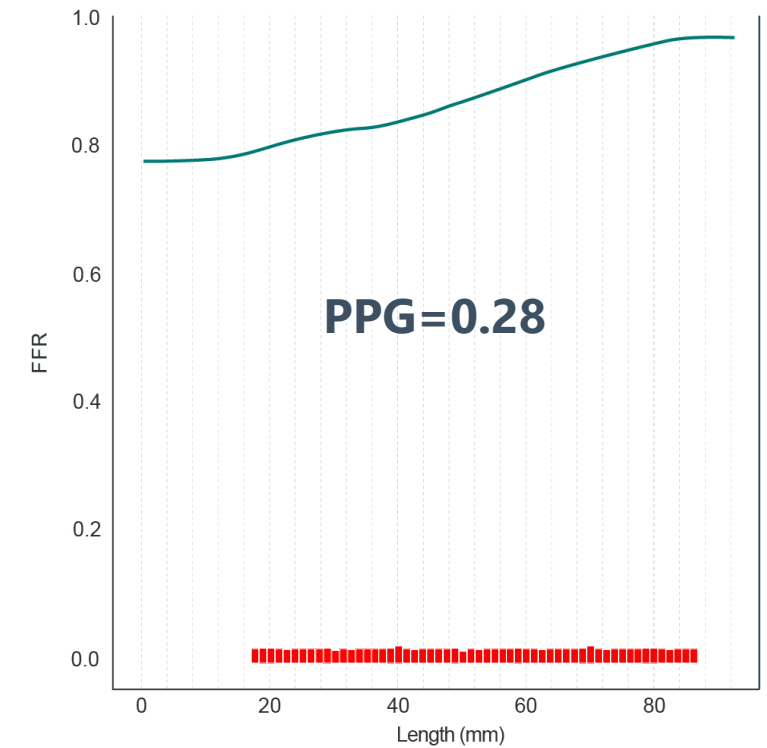
Focal CAD



Combined CAD



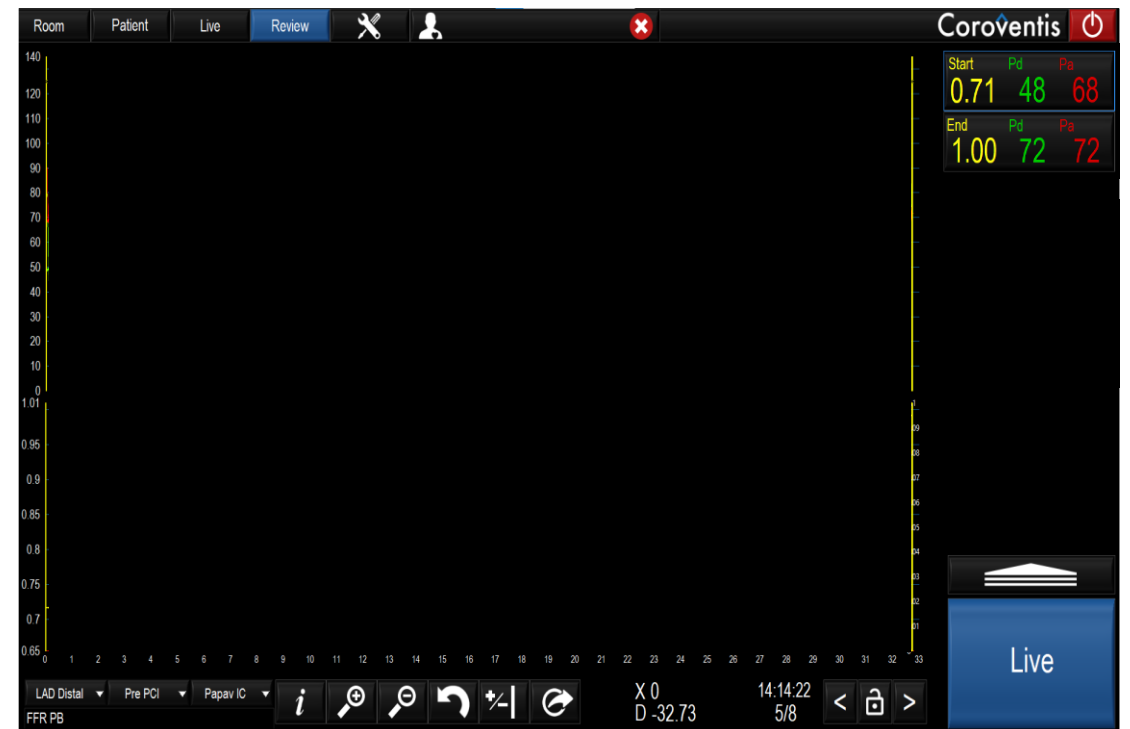
Diffuse CAD



Two steps to decision-making

1. Does this patient **need** to be treated?

2. **How** can this lesion be treated?



PCI in Focal CAD

Clinical Characteristics

Age 65 yrs, Female, BMI 25.0 kg/m²

Hyperlipidemia, Hypertension

Stable angina CCS 2

Echo EF 68% Creatinine 0.49 mg/dl (Creatinine Clearance 97.58 ml/min)

Seattle Angina Questionnaire 7 at baseline

Physical limitation: 30

Angina frequency: 70

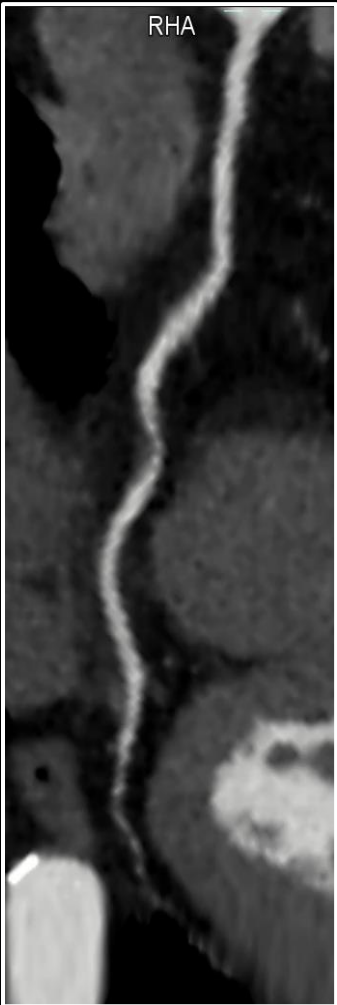
QoL: 30

Summary Score: 55

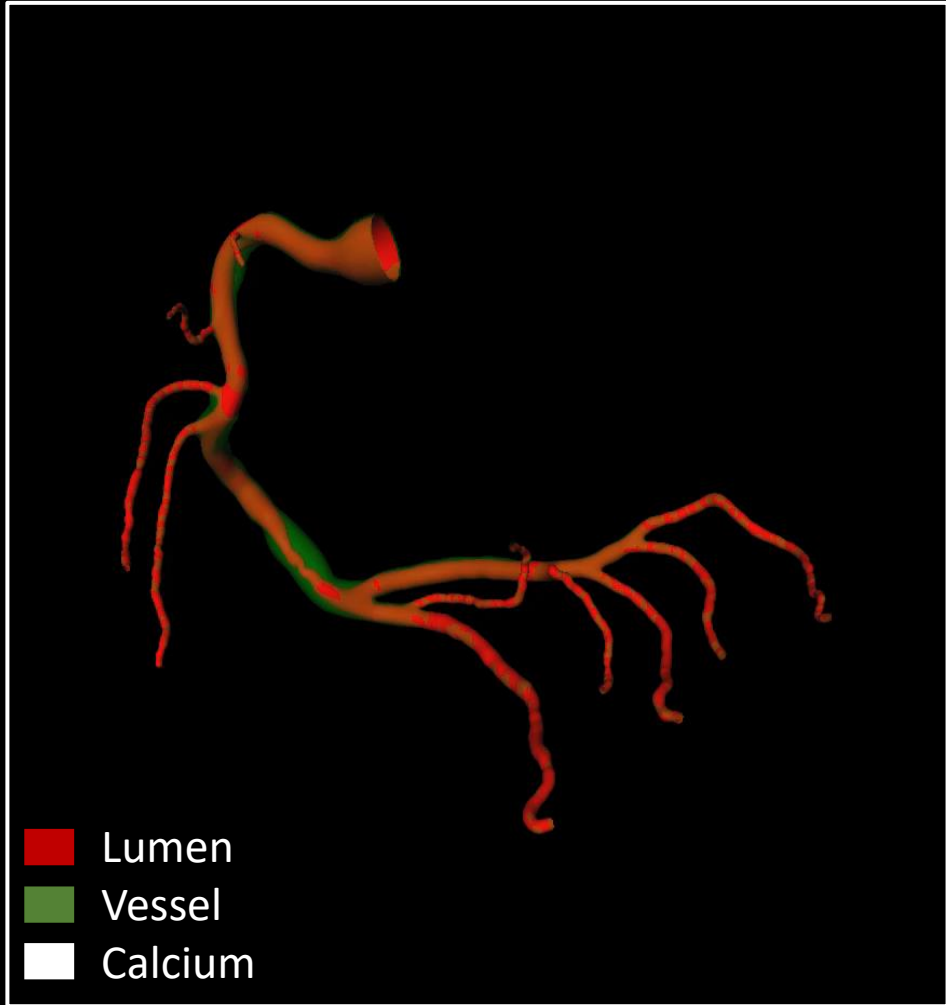
Non-invasive test

Coronary CTA

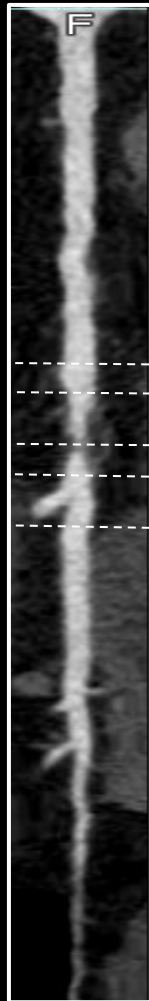
CT Angiography



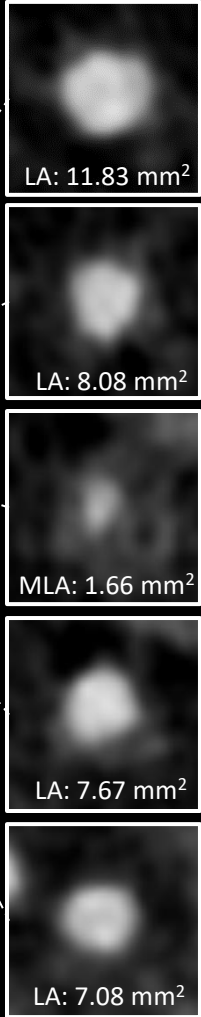
Curved MPR



Medis QAngio Cath Lab prototype

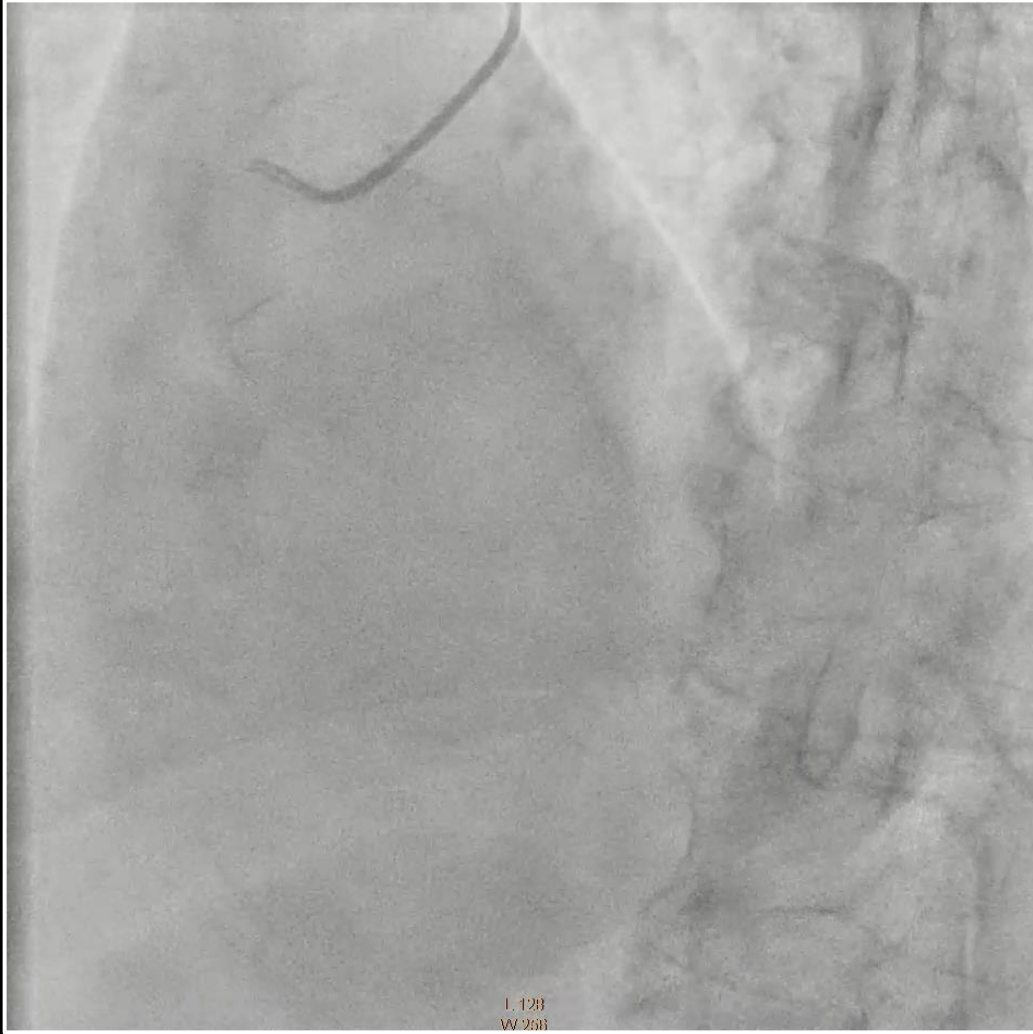


Straight MPR



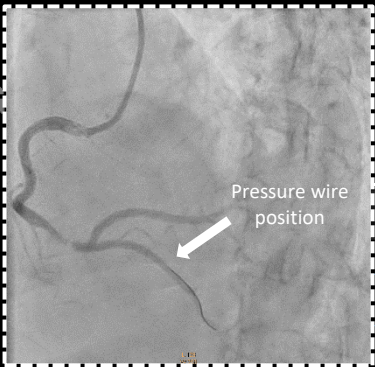
Lesion Length 29.47 mm

Coronary Angiography



Pre-PCI FFR

PPG



Patient

Live

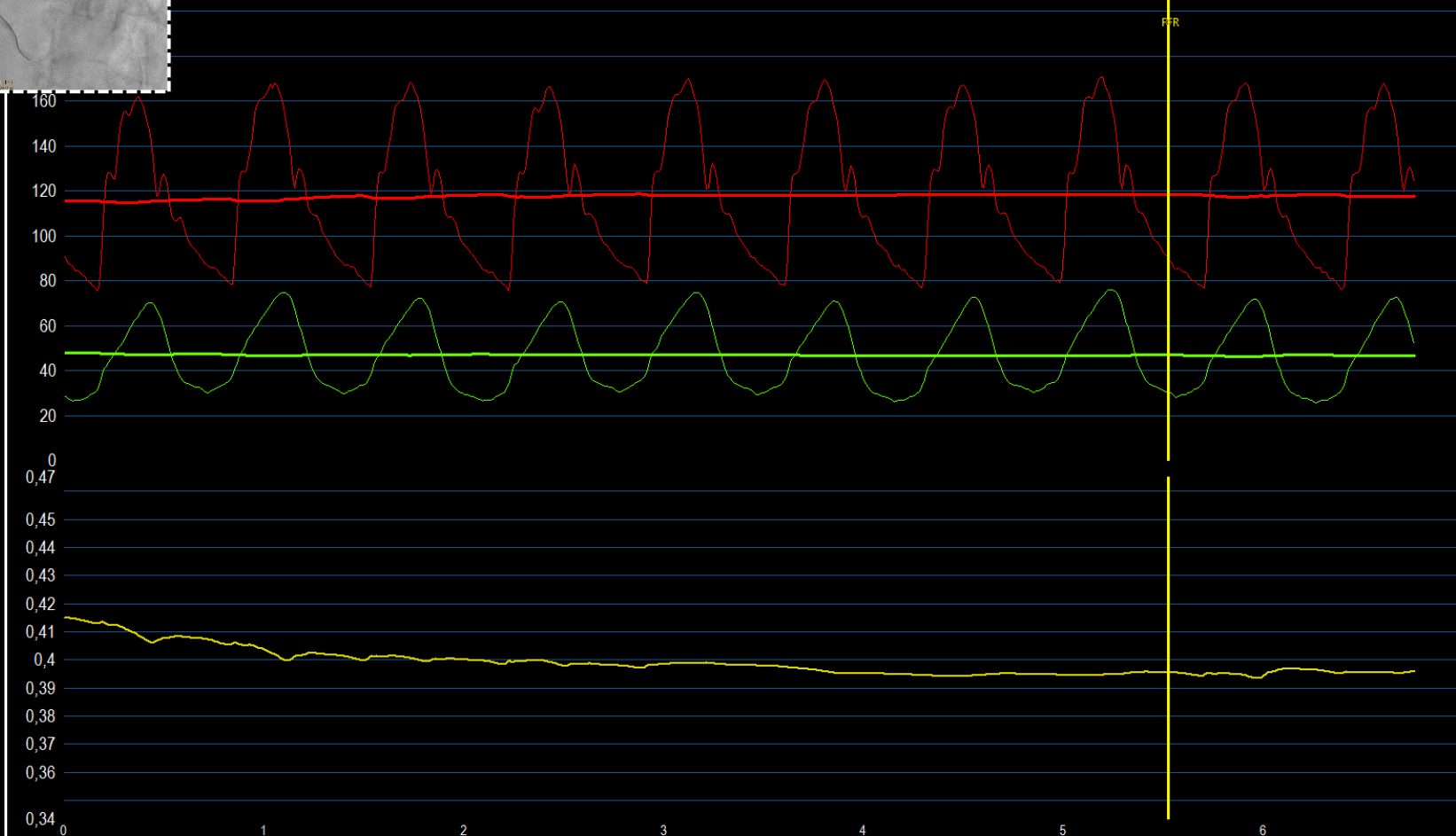
Review



Coroventis



FFR	Pd	Pa
0,40	47	118



RCA Distal

Pre PCI



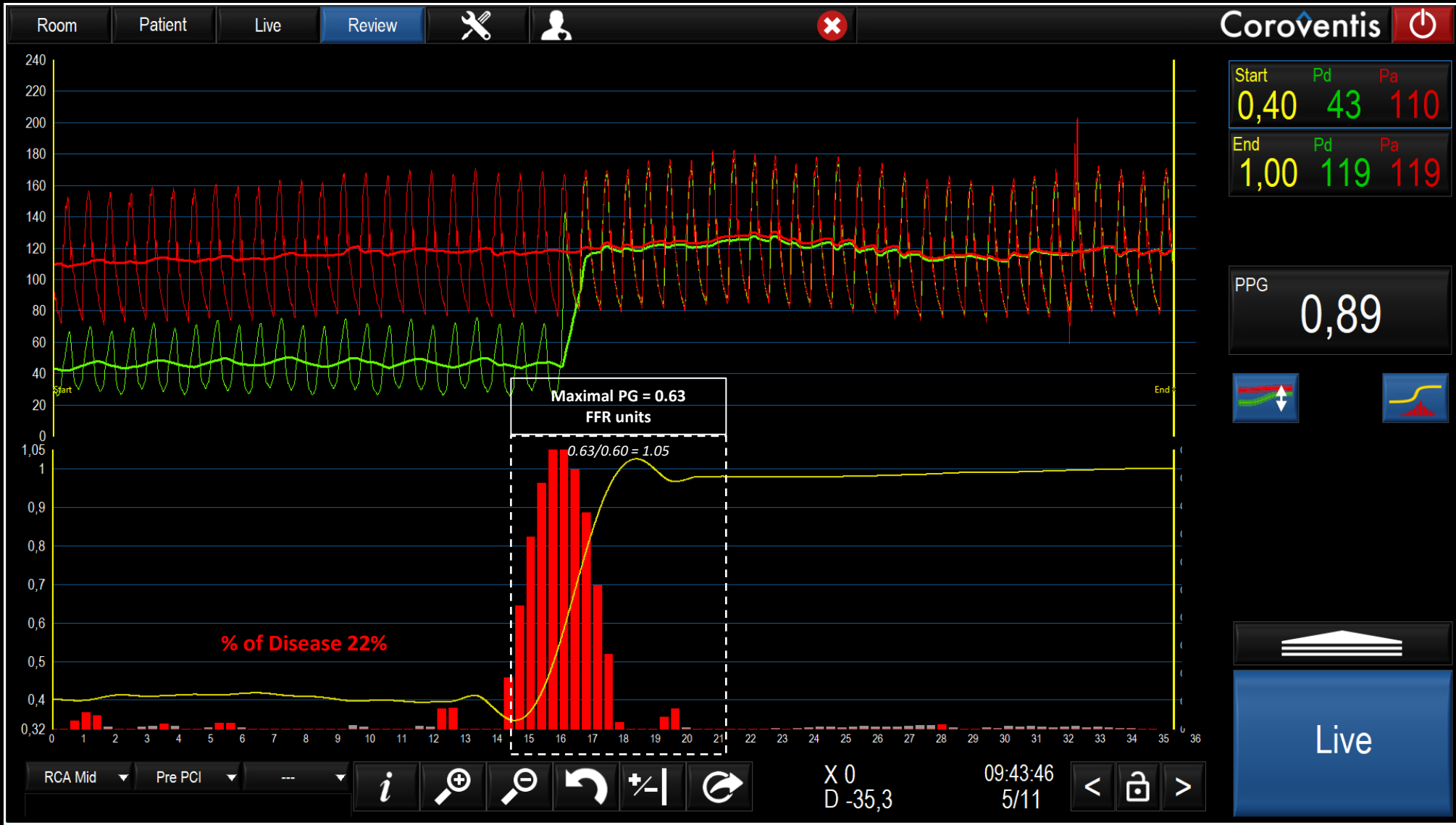
X 5,52

14:22:50
11/11



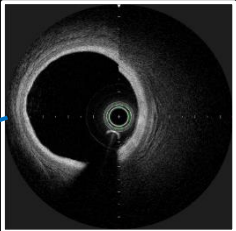
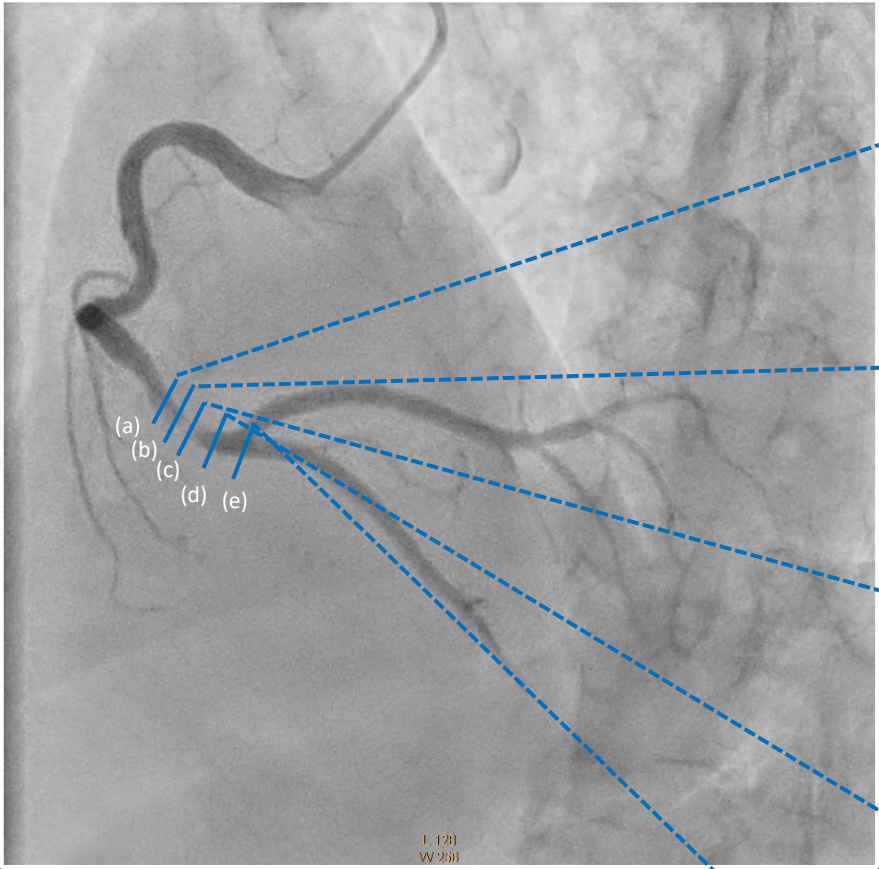
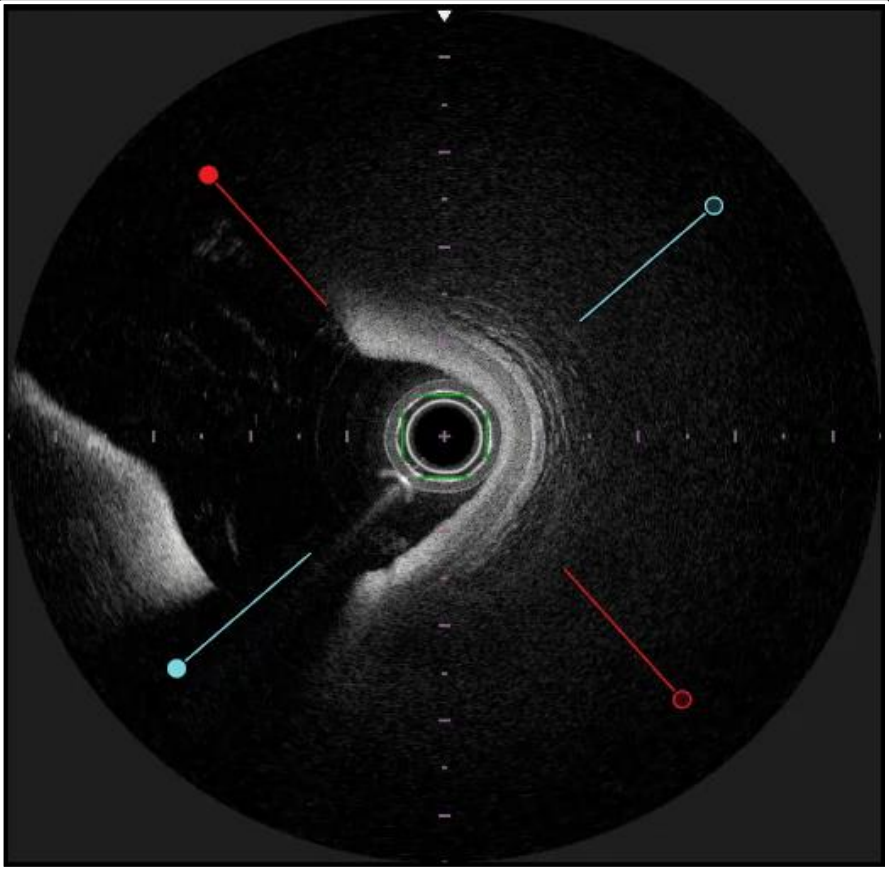
Live

Pre-PCI FFR Pullback & PPG

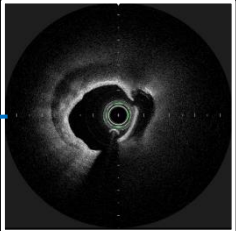


PG = Pressure gradient

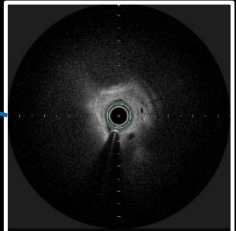
OCT Pre PCI



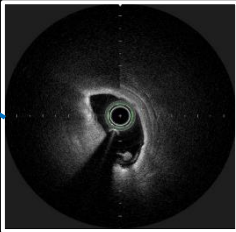
(a) LA 15.46mm²



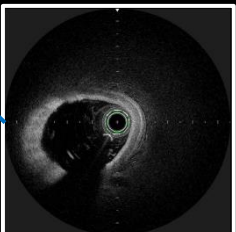
(b) LA 4.91mm²



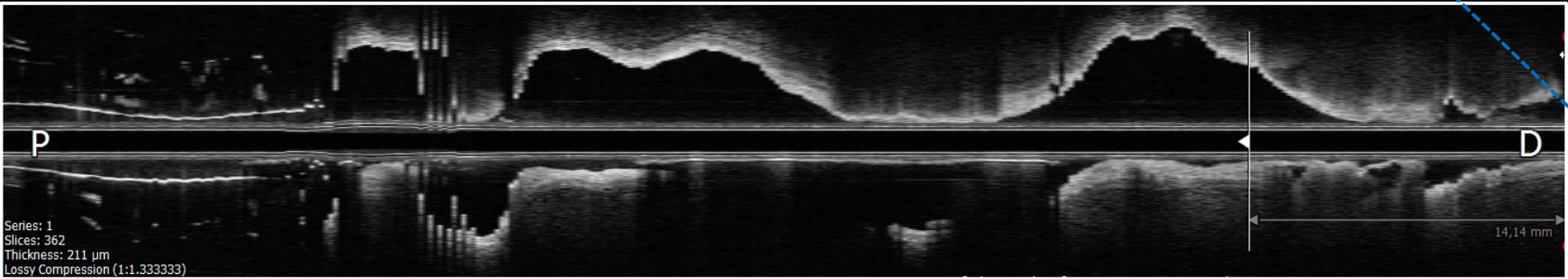
(c) MLA 0.82mm²
(PB 89.1 %)



(d) LA 3.96mm²



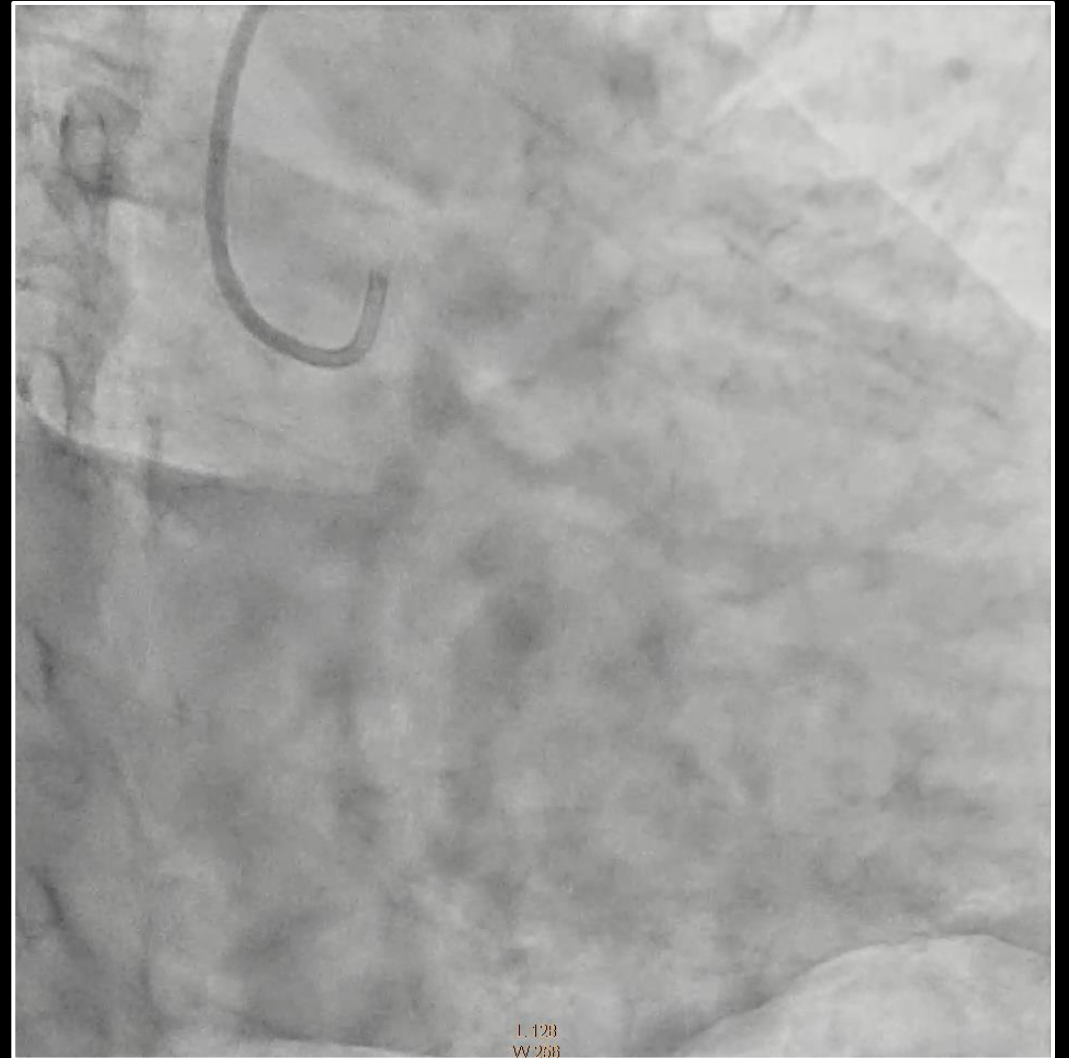
(e) LA 8.51mm²





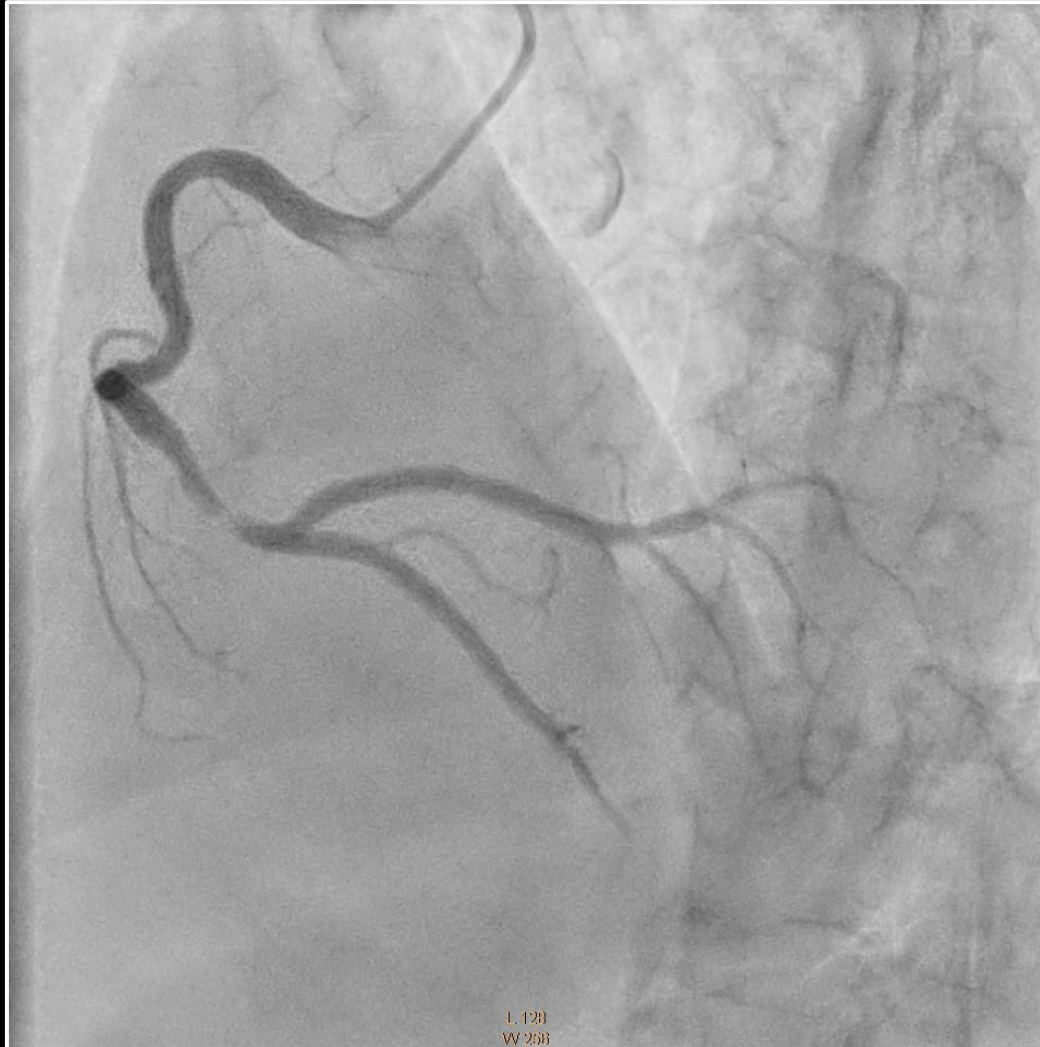
Ultimaster tansei 3.0 x 18mm

Result



Result

Pre PCI



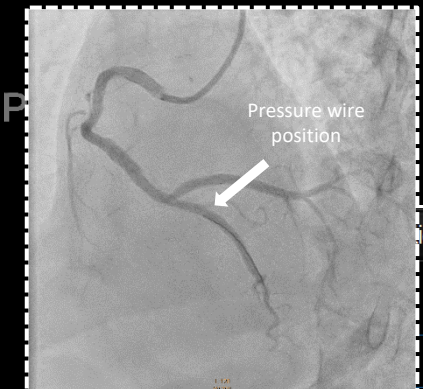
Post PCI



Post-PCI Rest Pd/Pa

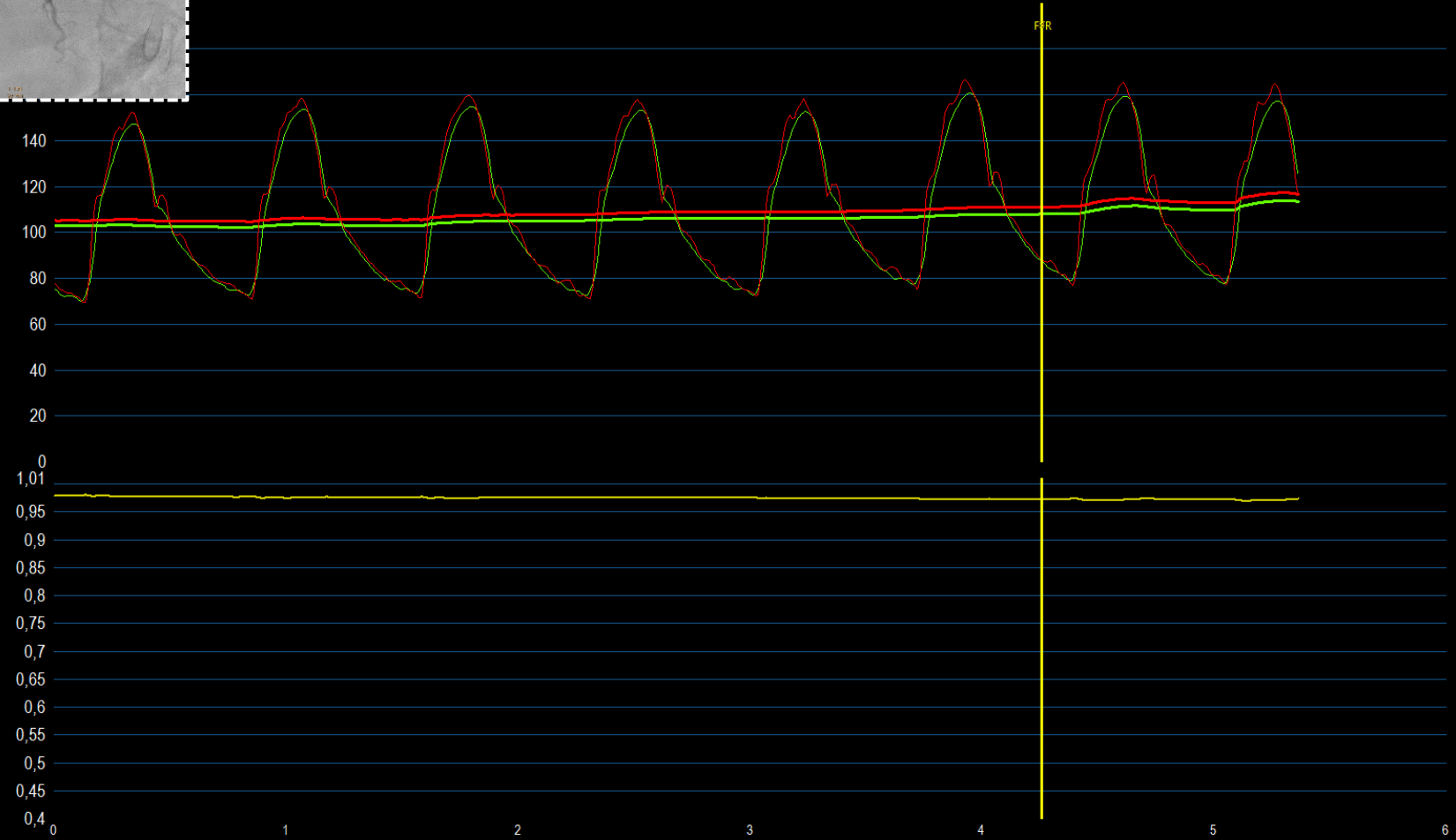


Post-PCI FFR



ment Live Review Coroventis

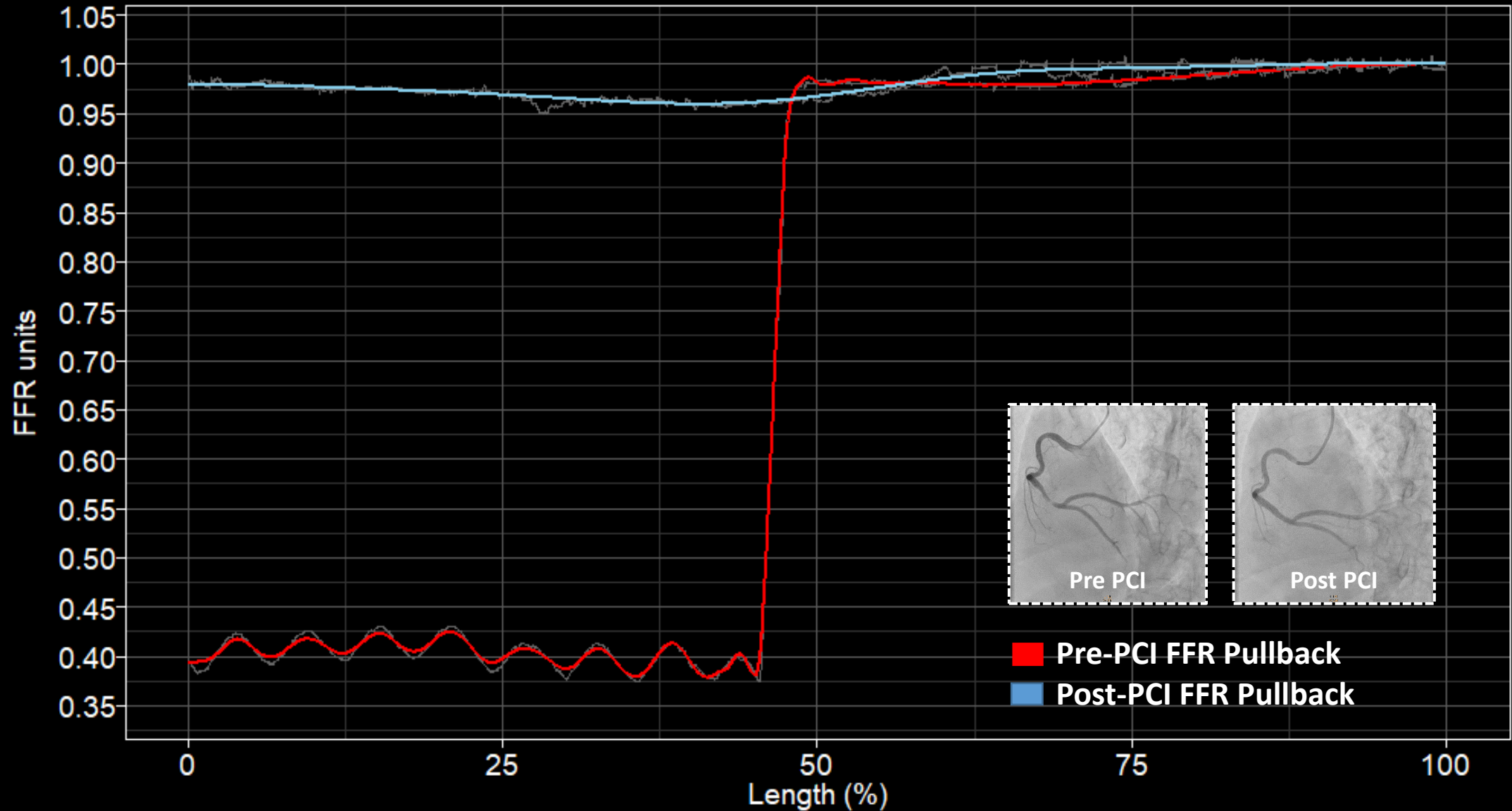
FFR Pd Pa
0,97 108 111



Live

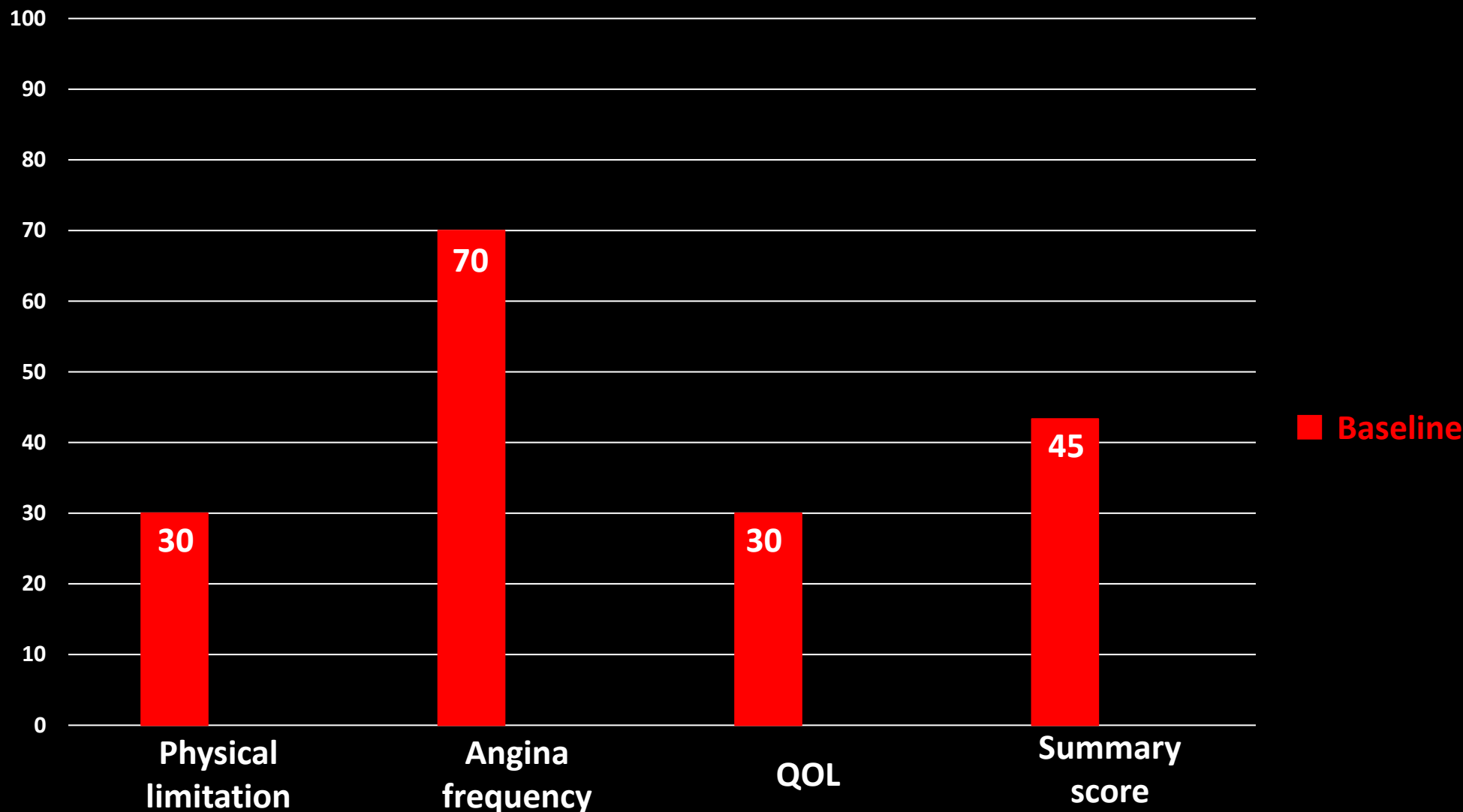
RCA Distal Post PCI X 4,26 15:09:43 13/13

High PPG: **Pre** and **Post** PCI FFR Pullback



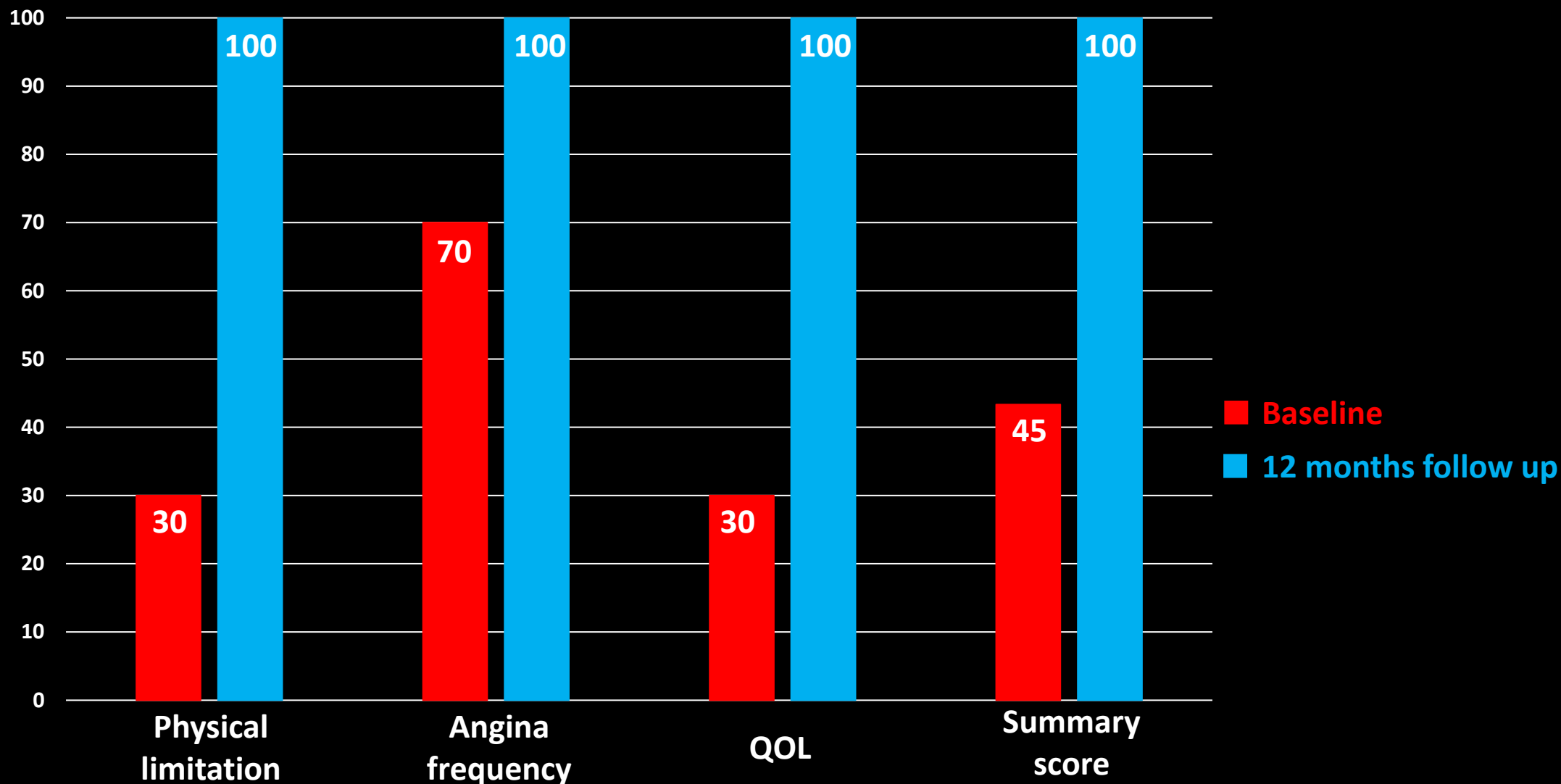
PPG and Angina Post-PCI

Angina frequency, physical limitation and quality of life measured by the Seattle Angina Questionnaire (SAQ7) at Baseline



PPG and Angina Post-PCI

Angina frequency, physical limitation and quality of life measured by the Seattle Angina Questionnaire (SAQ7) at 12 months after PCI



PCI in Diffuse CAD

Clinical Characteristics

Age 51 yrs, Male, BMI 28 kg/m²

No cardiovascular risk factor known

Stable angina CCS 2

Echo EF 60% Creatinine 0.83 mg/dl (Creatinine Clearance 97.7 ml/min)

Seattle Angina Questionnaire 7 at baseline

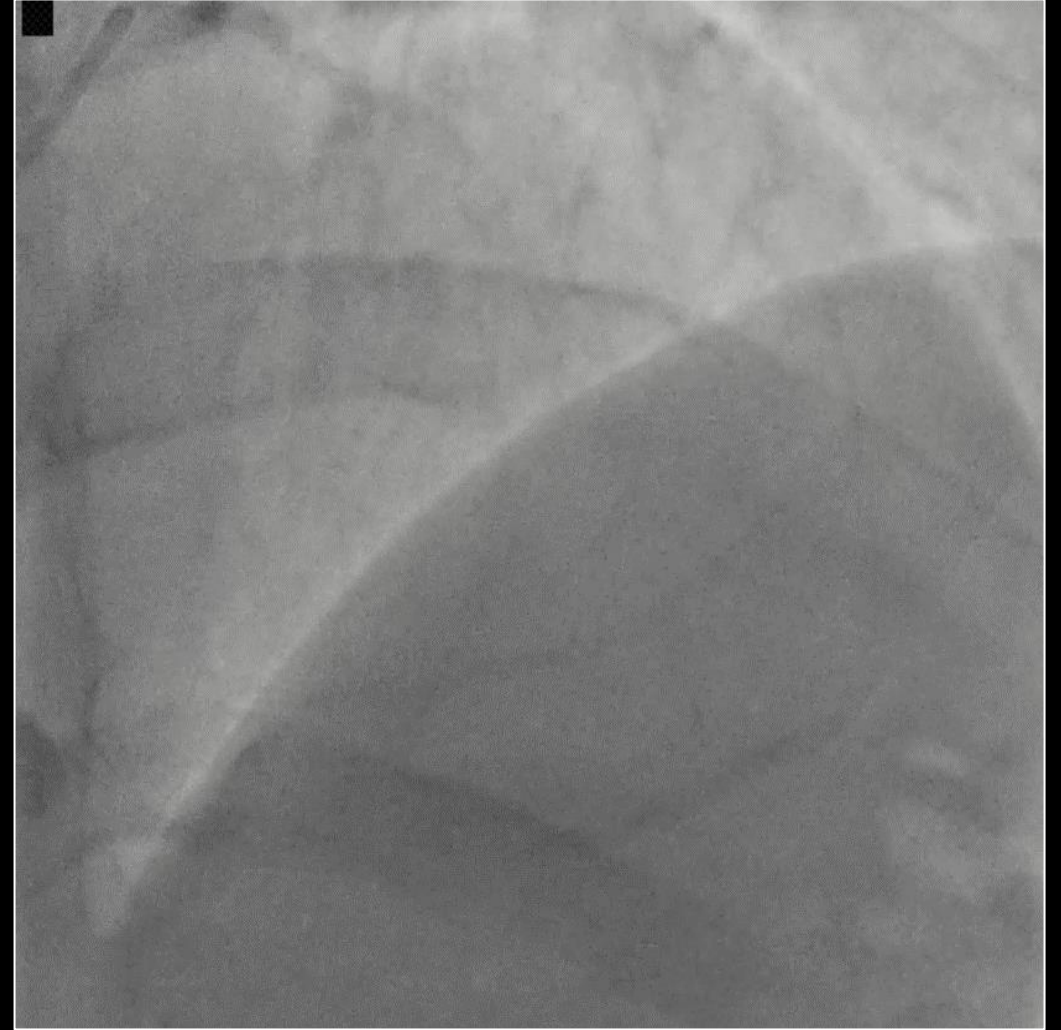
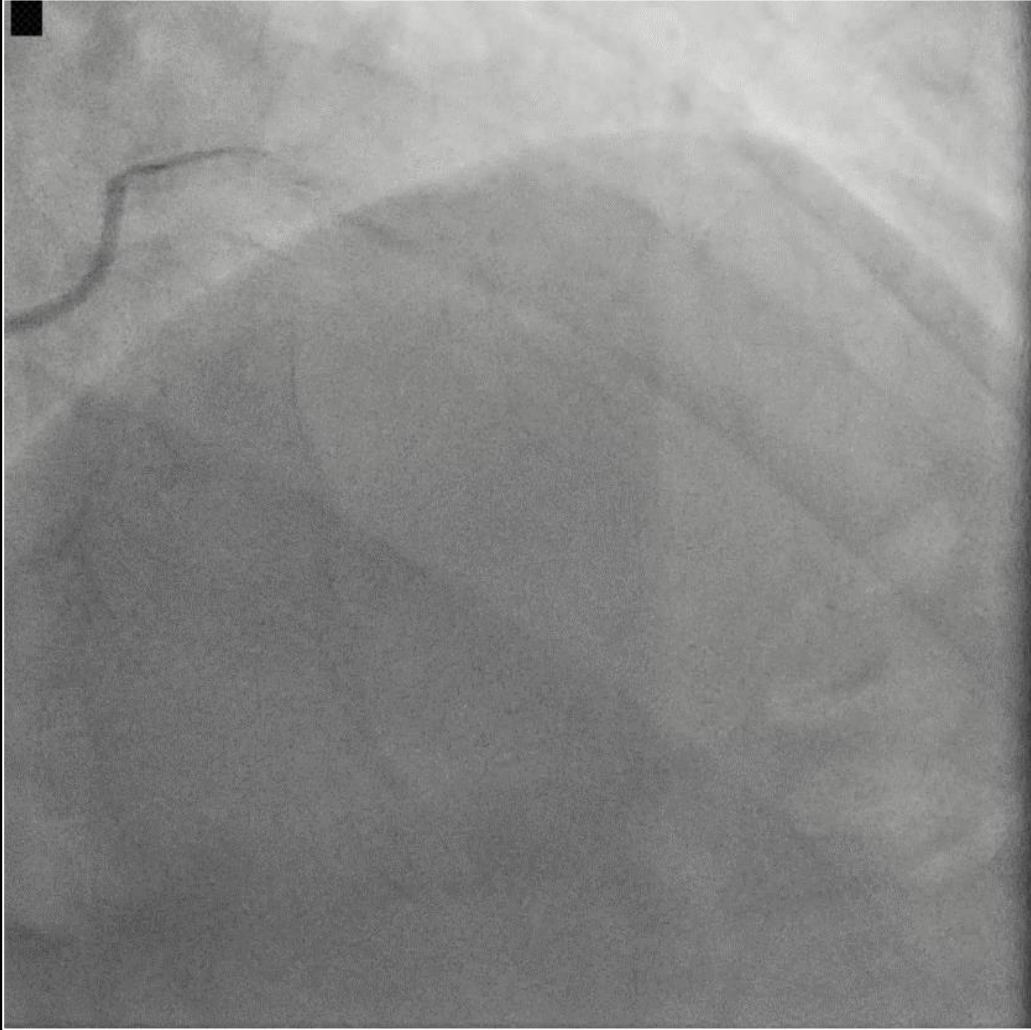
Physical limitation: 25

Angina frequency: 70

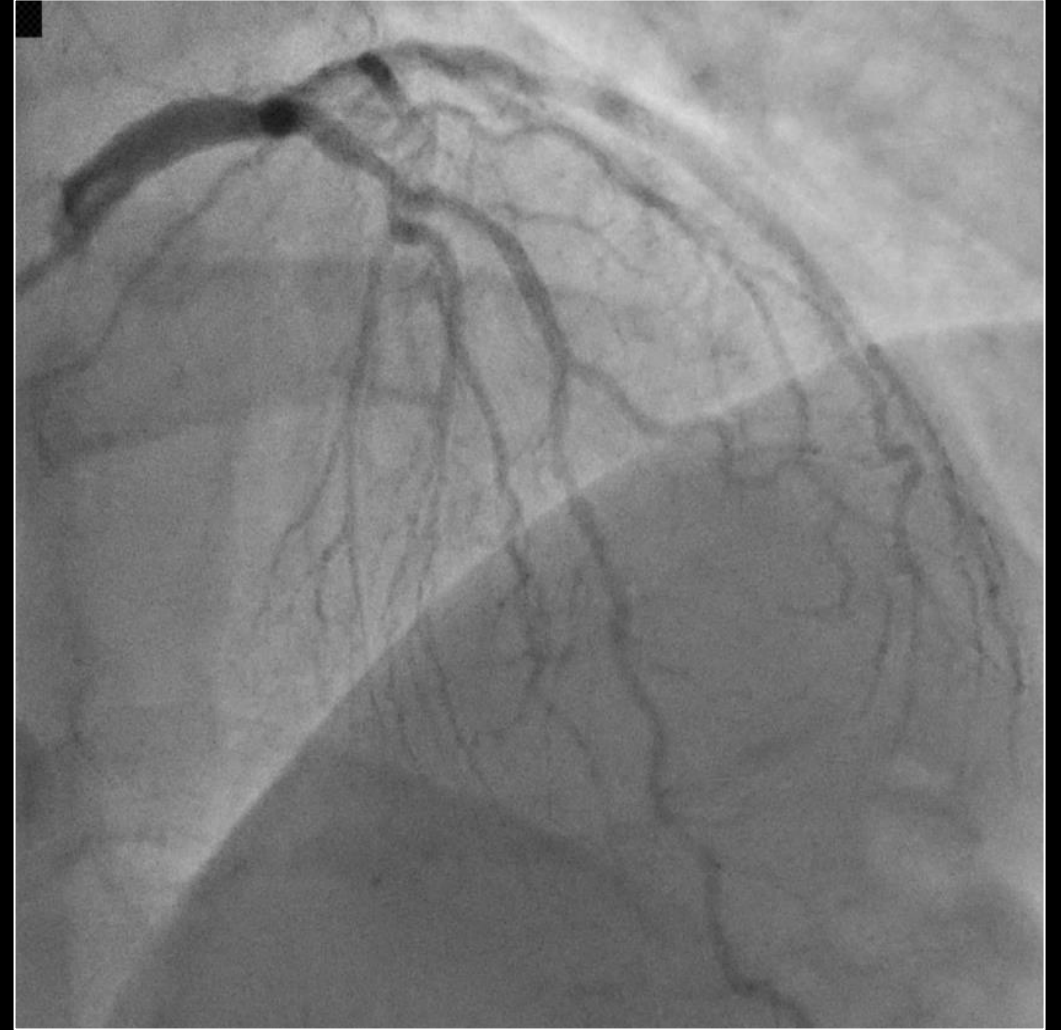
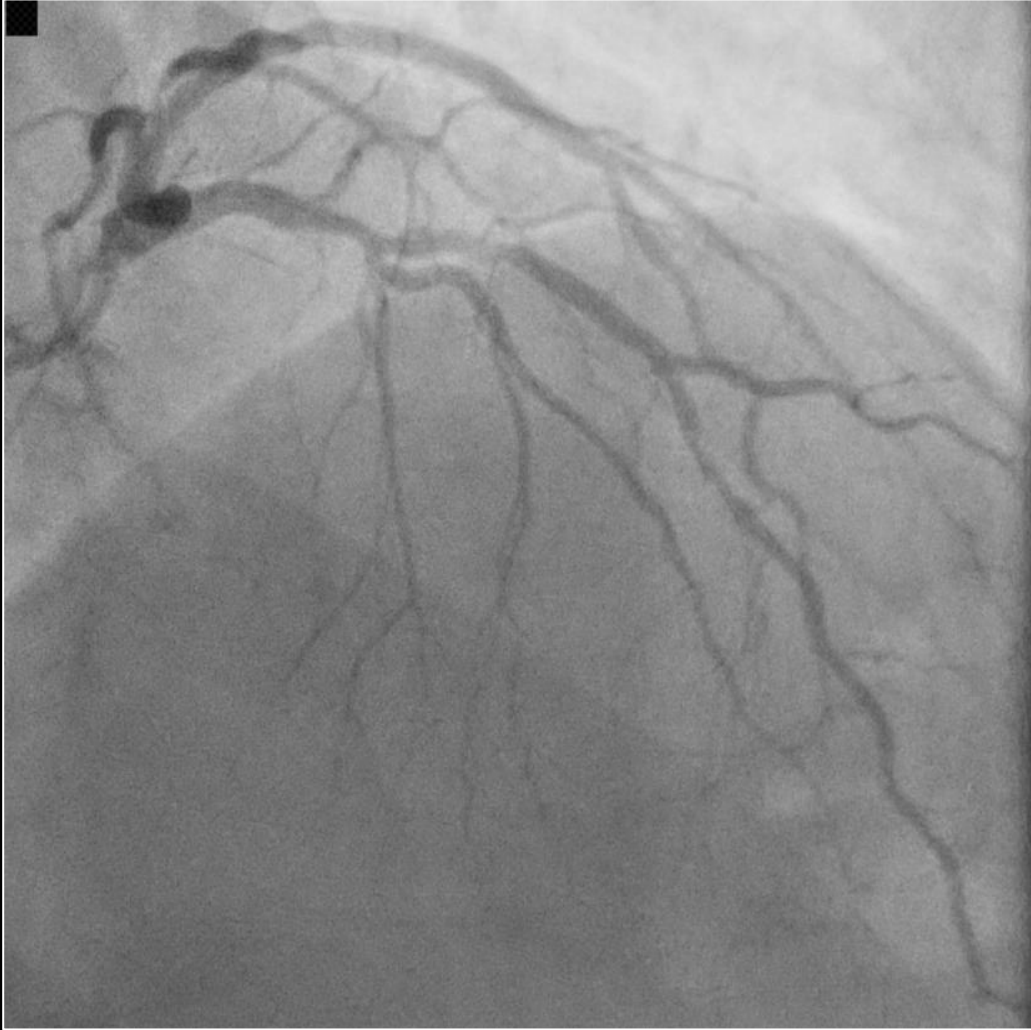
QoL: 12.5

Summary Score: 35.8

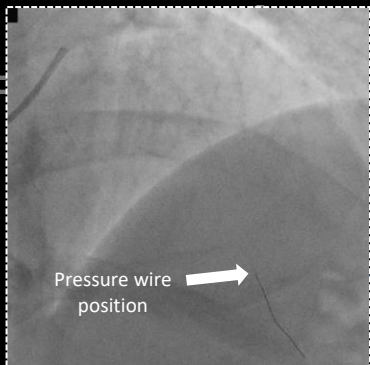
Coronary Angiography



Coronary Angiography



Pre-PCI FFR



Patient

Live

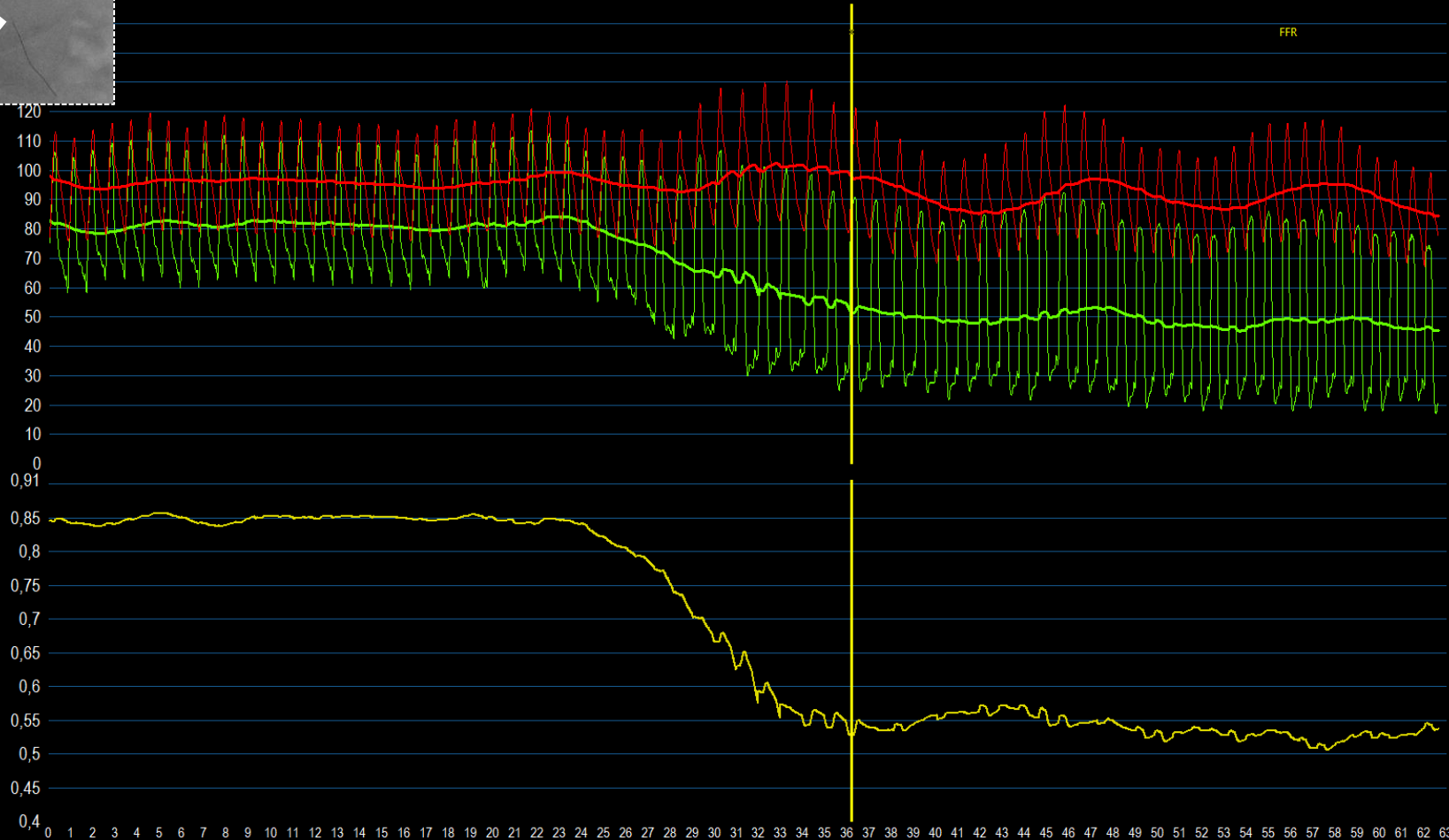
Review



Coroventis



FFR Pd Pa
0,53 52 98



LAD Mid



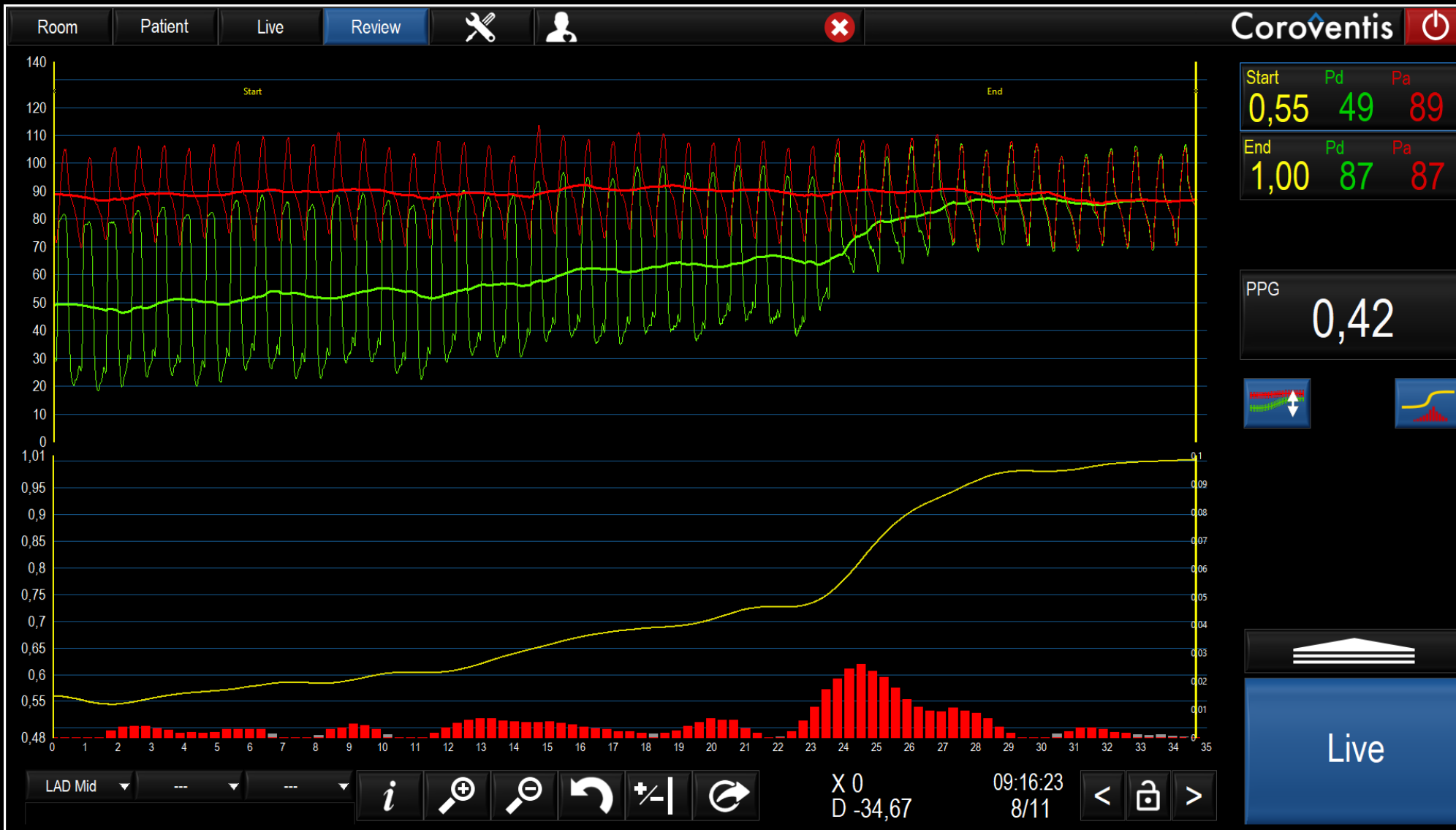
X 36,17

09:15:14
6/11

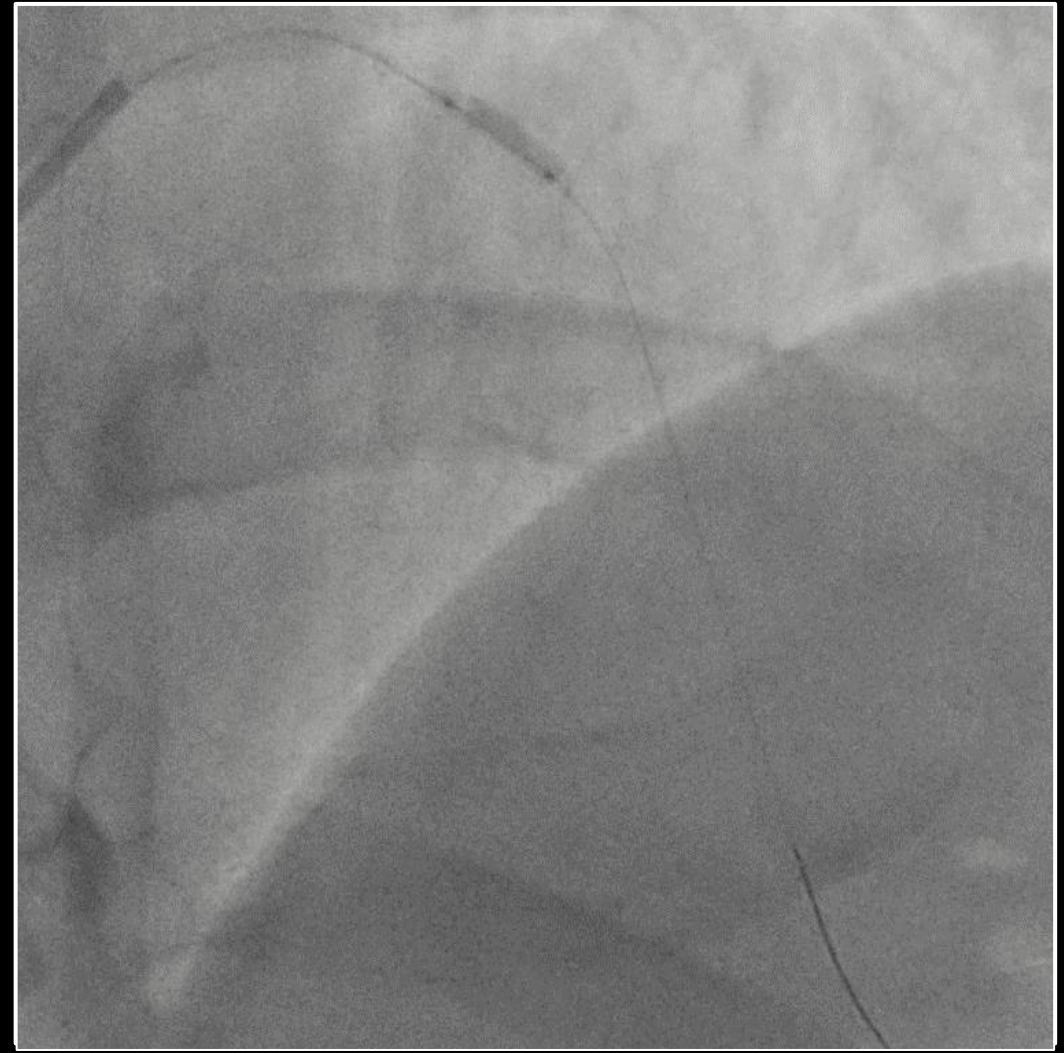
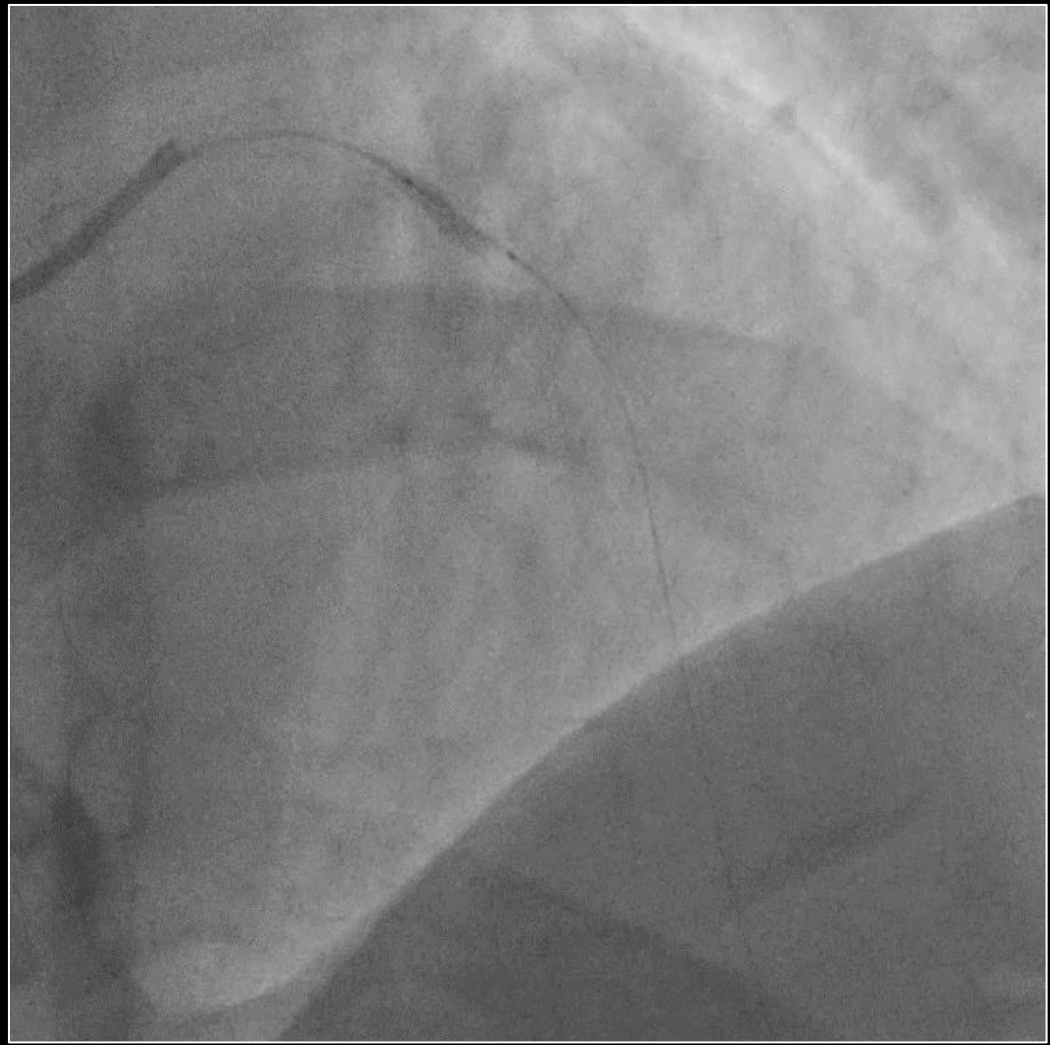


Live

Pre-PCI FFR Pullback & PPG

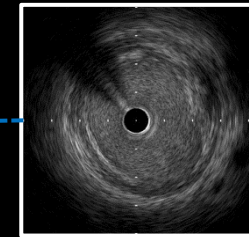
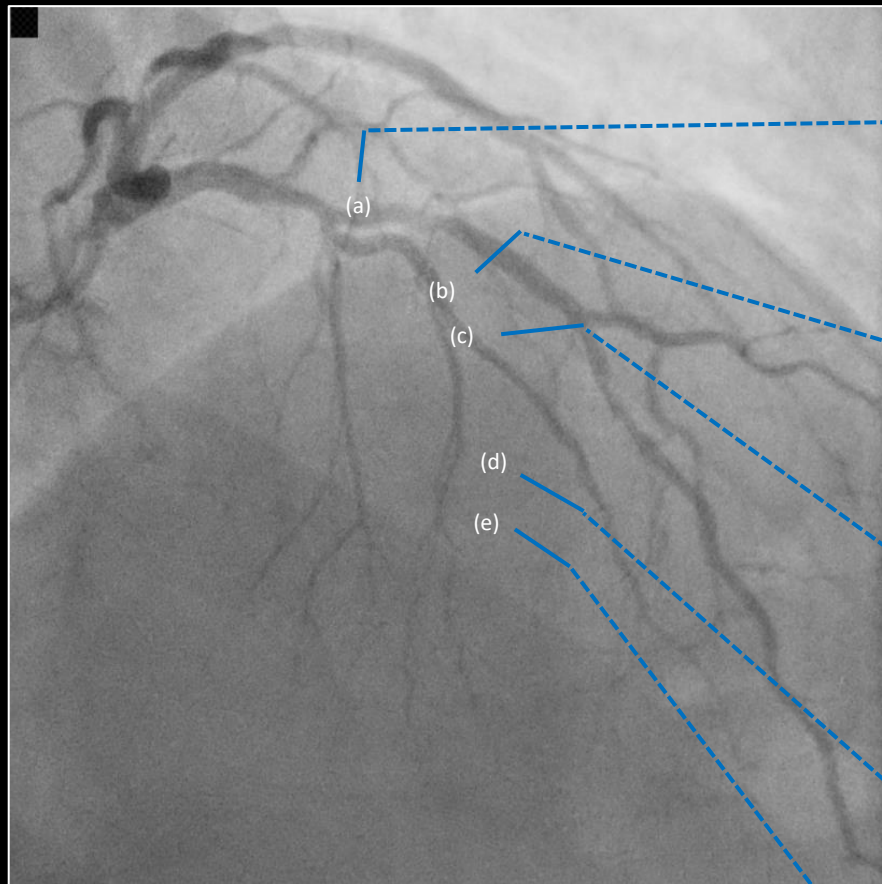
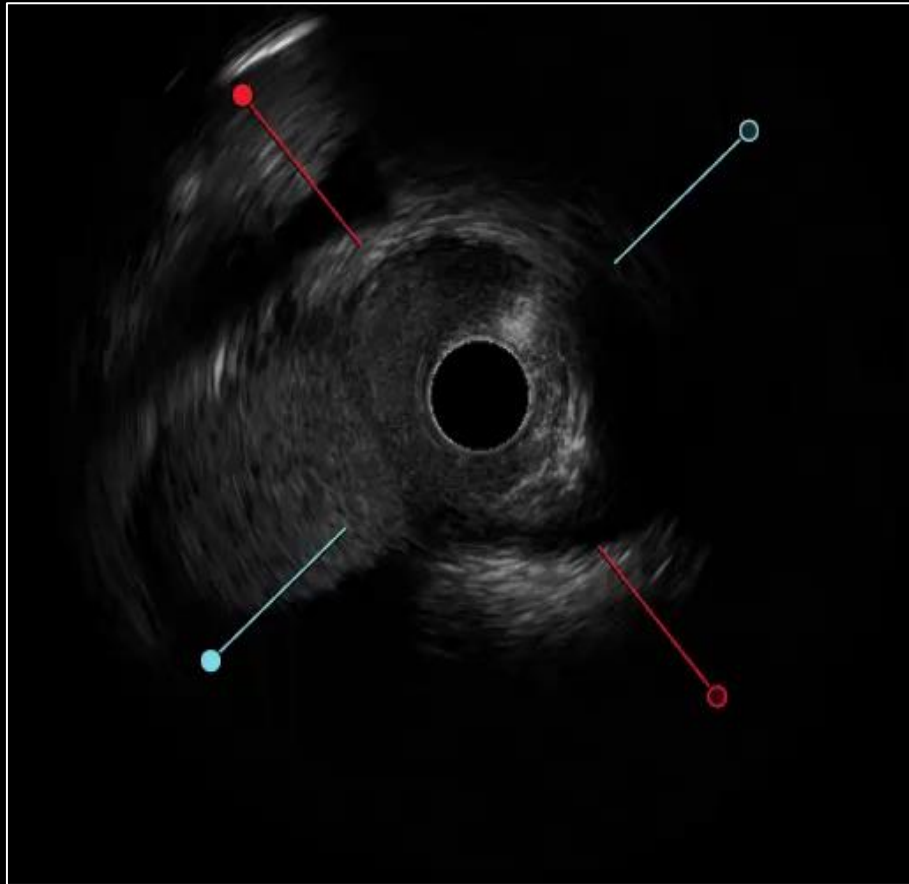


PCI

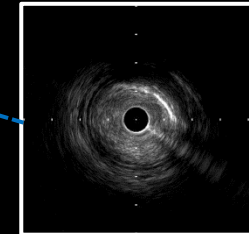


Scoring balloon 3.5 x 12 mm / Semi-Complaint Ballon 2. 5 x 20mm

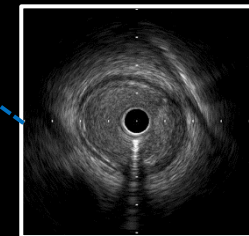
IVUS Pre-PCI



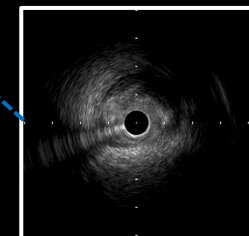
(a) LA 13.6mm²



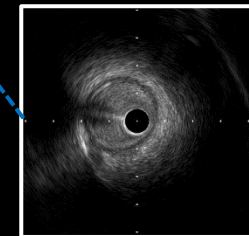
(b) LA 1.6mm²
(PB 84.8 %)



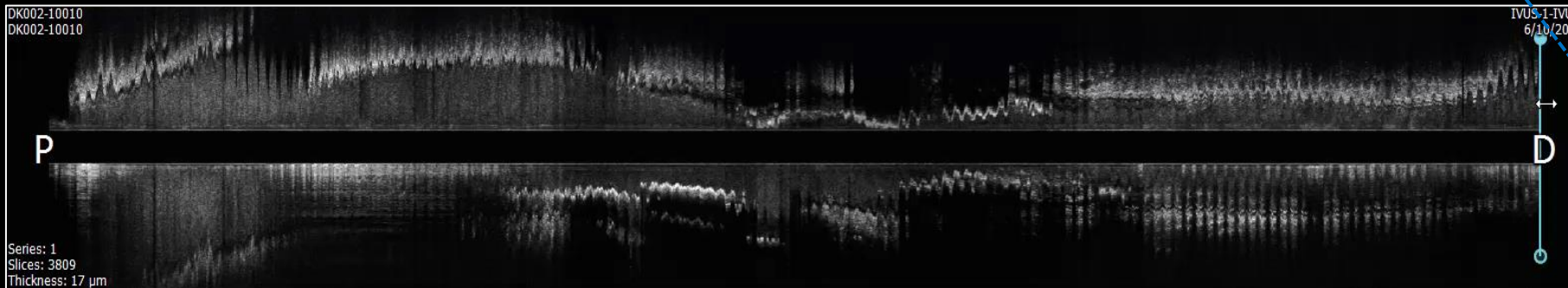
(c) LA 6.0mm²



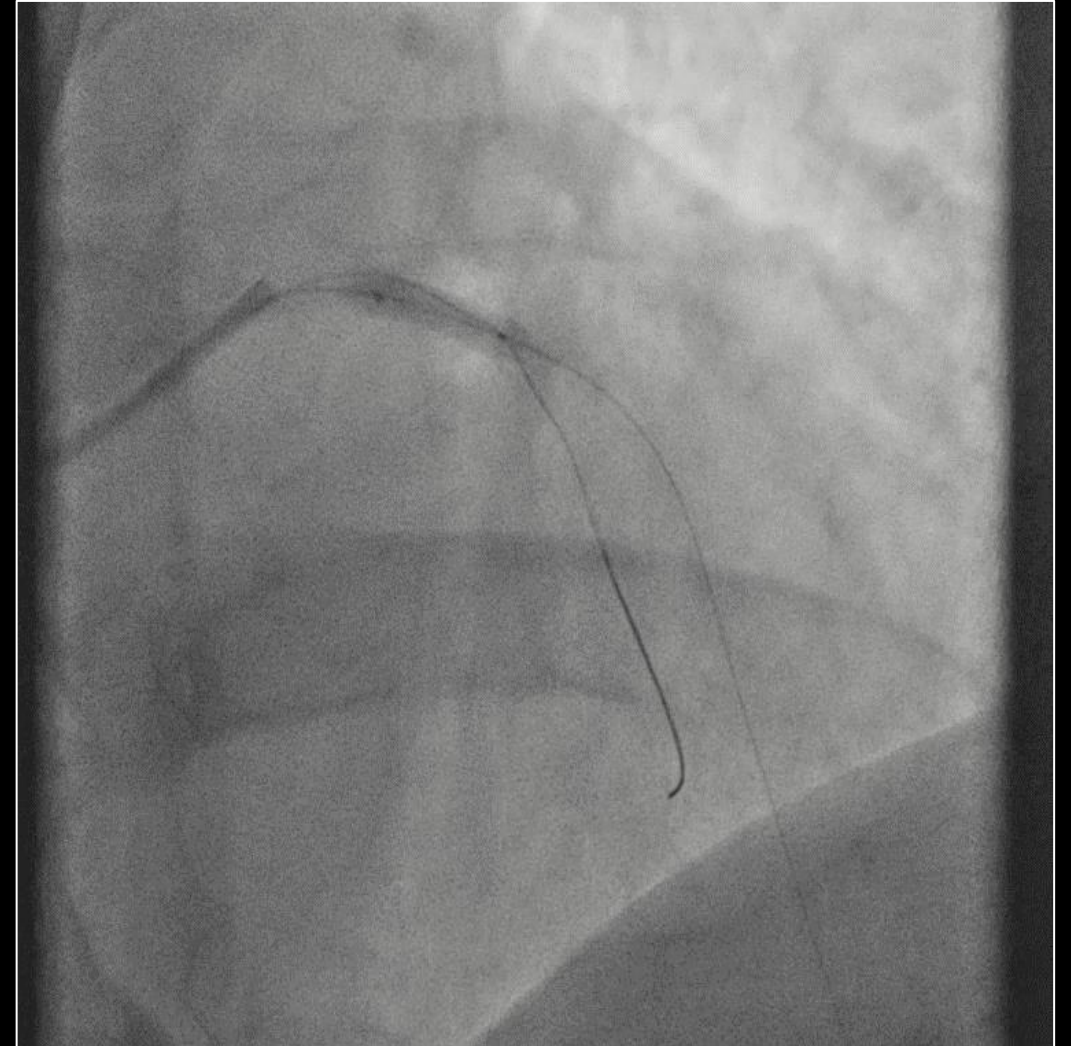
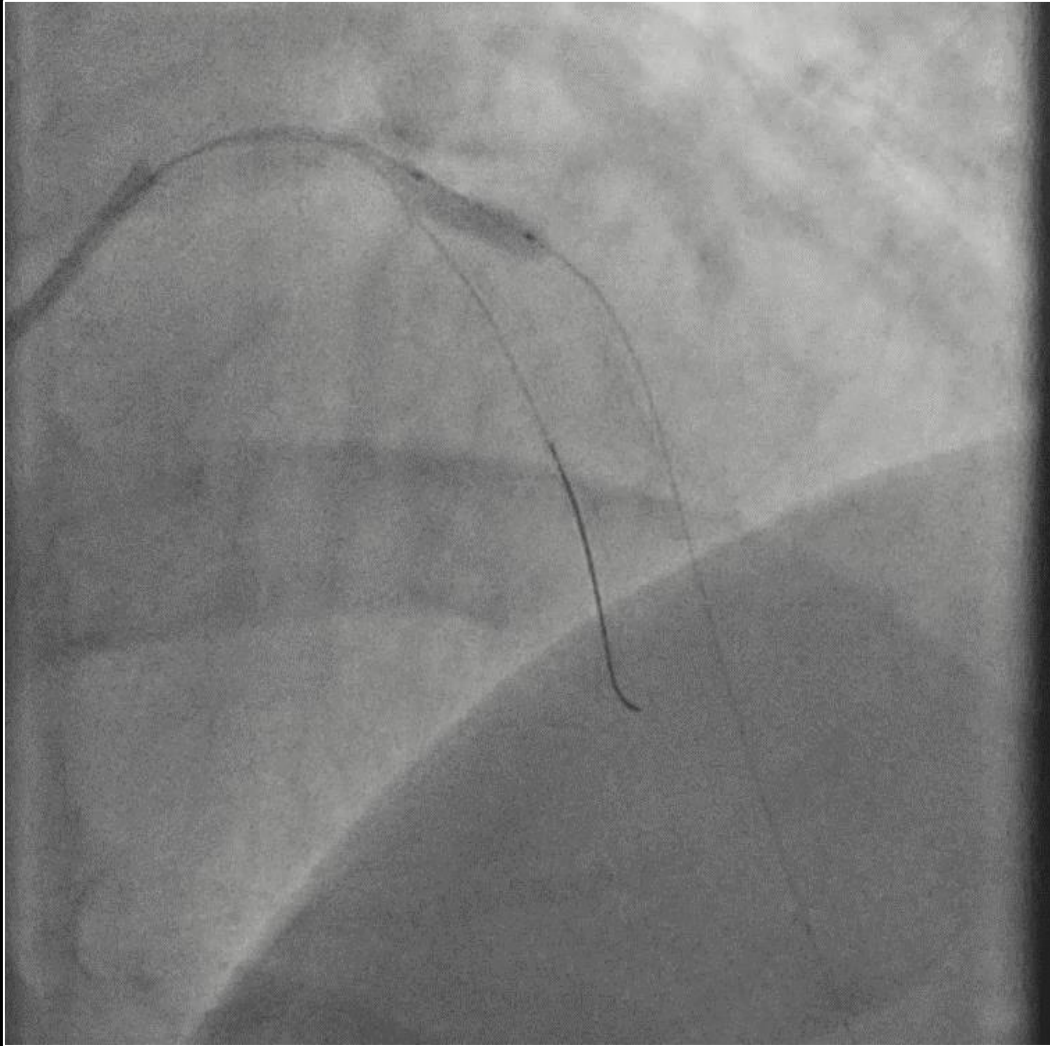
(d) MLA 1.31mm²
(PB 78.1 %)



(e) LA 4.2mm²

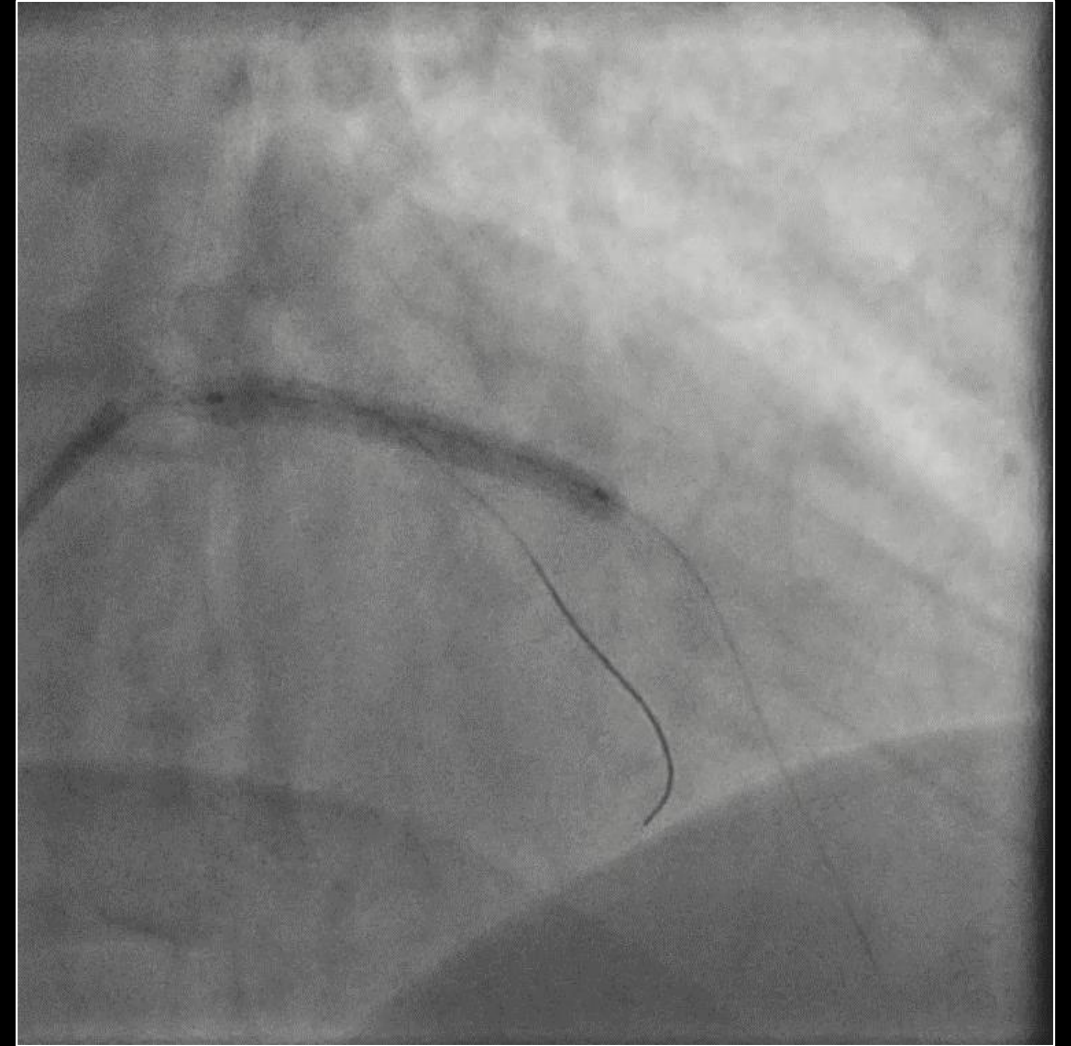
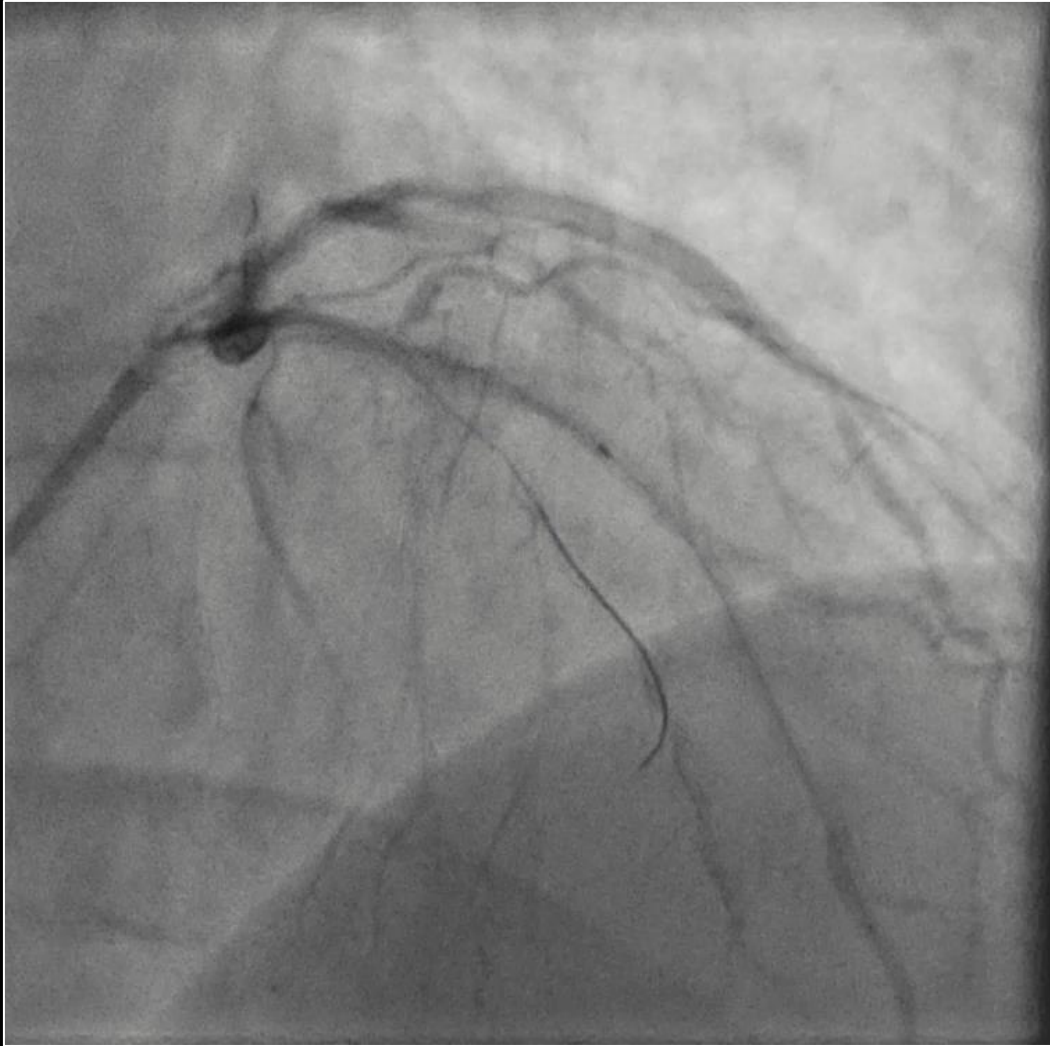


PCI



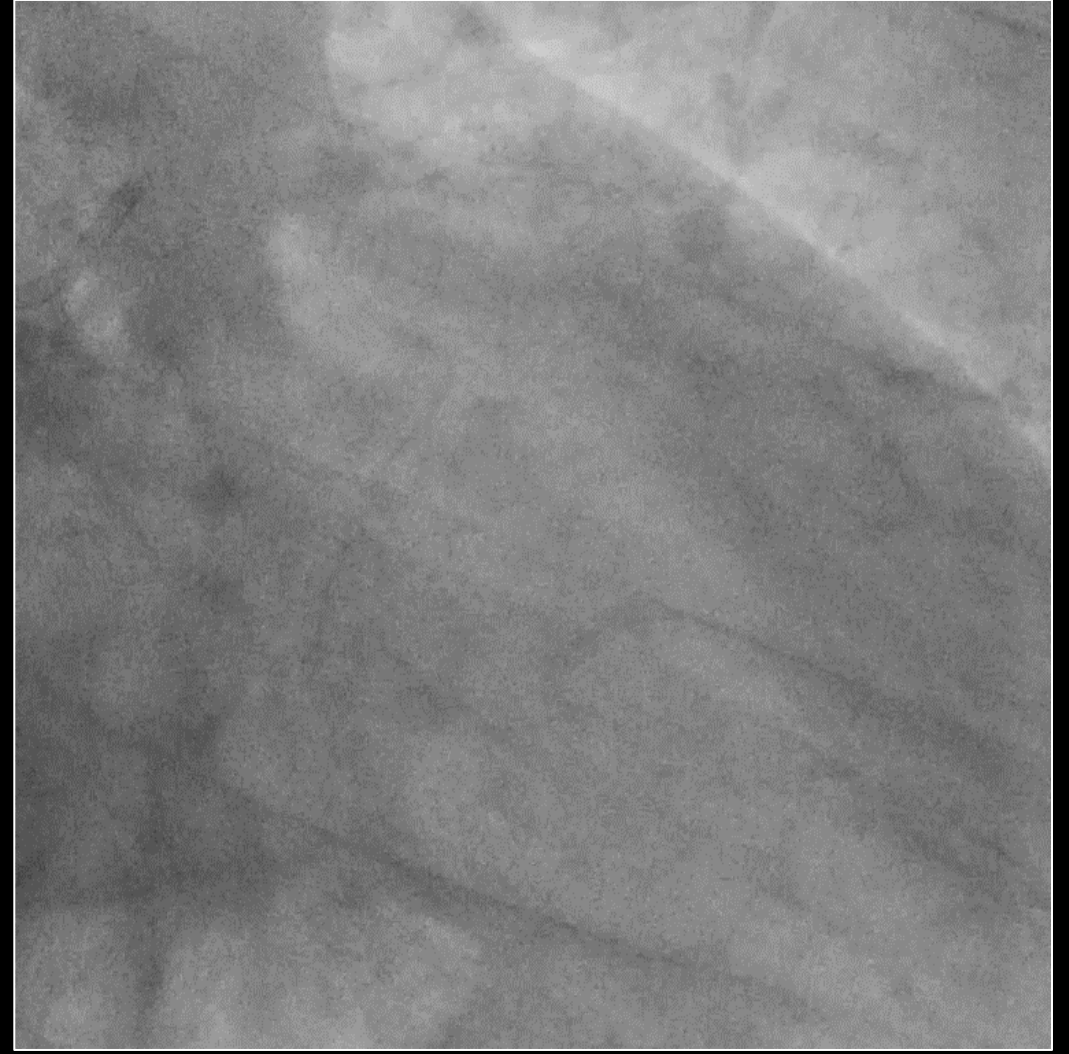
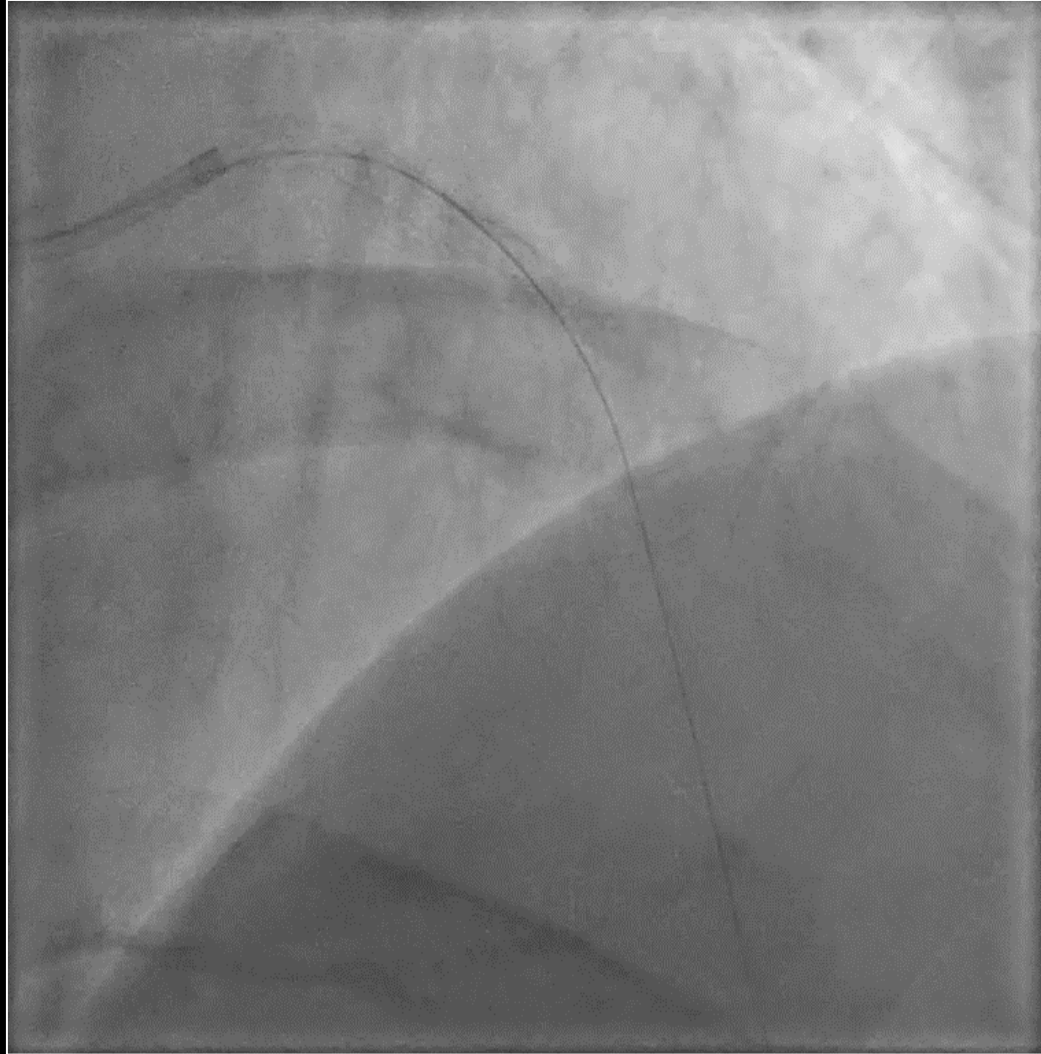
Scoring balloon 4.0 x 12 mm

PCI



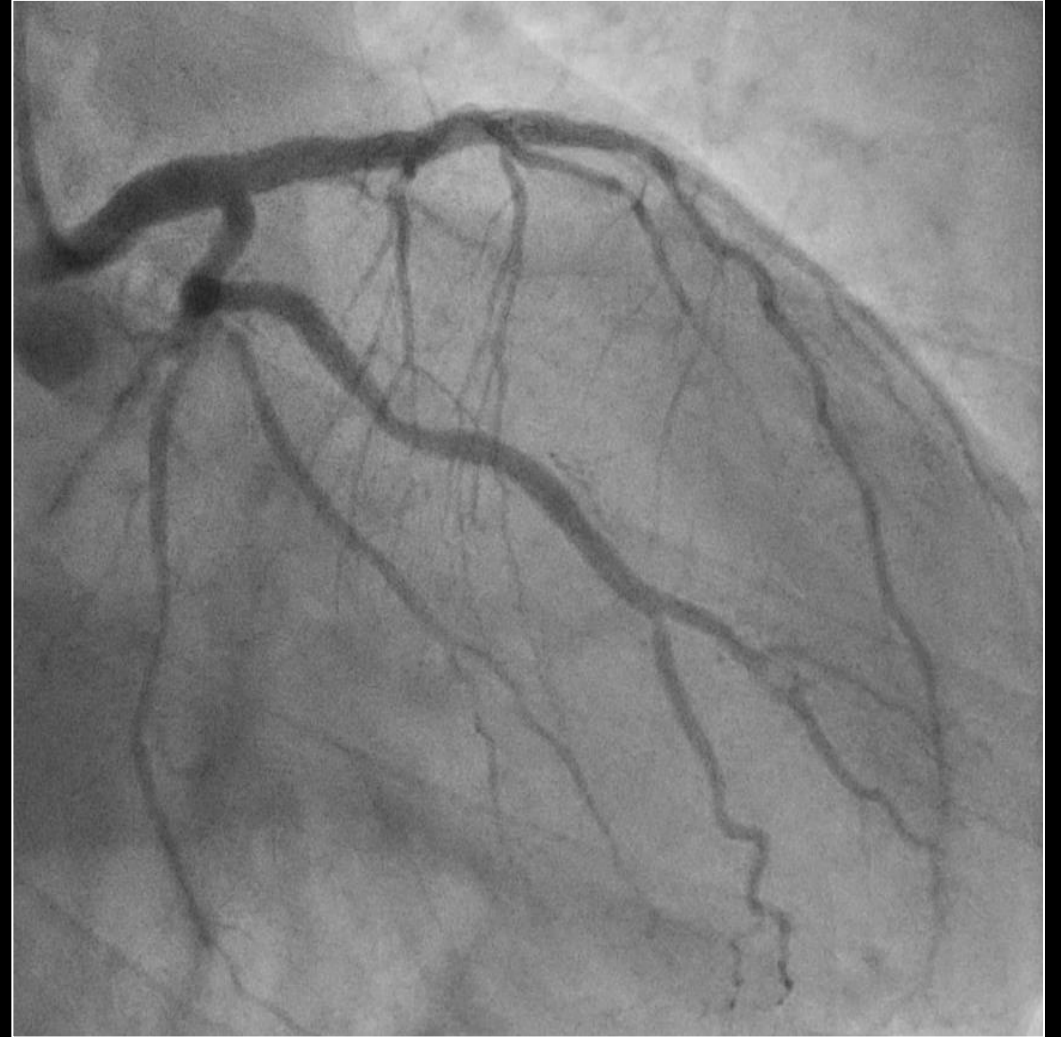
Xience 3.5 x 38 mm

Result



After Post Dilatation with NC Balloon 4.5 x 15mm

Result



Result

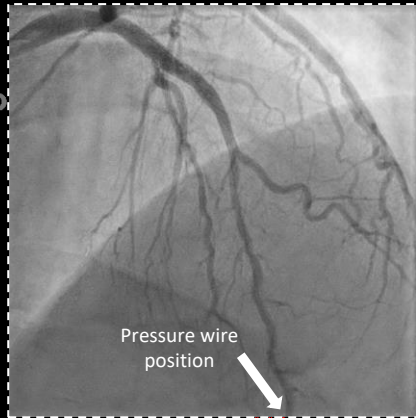
Pre PCI



Post PCI

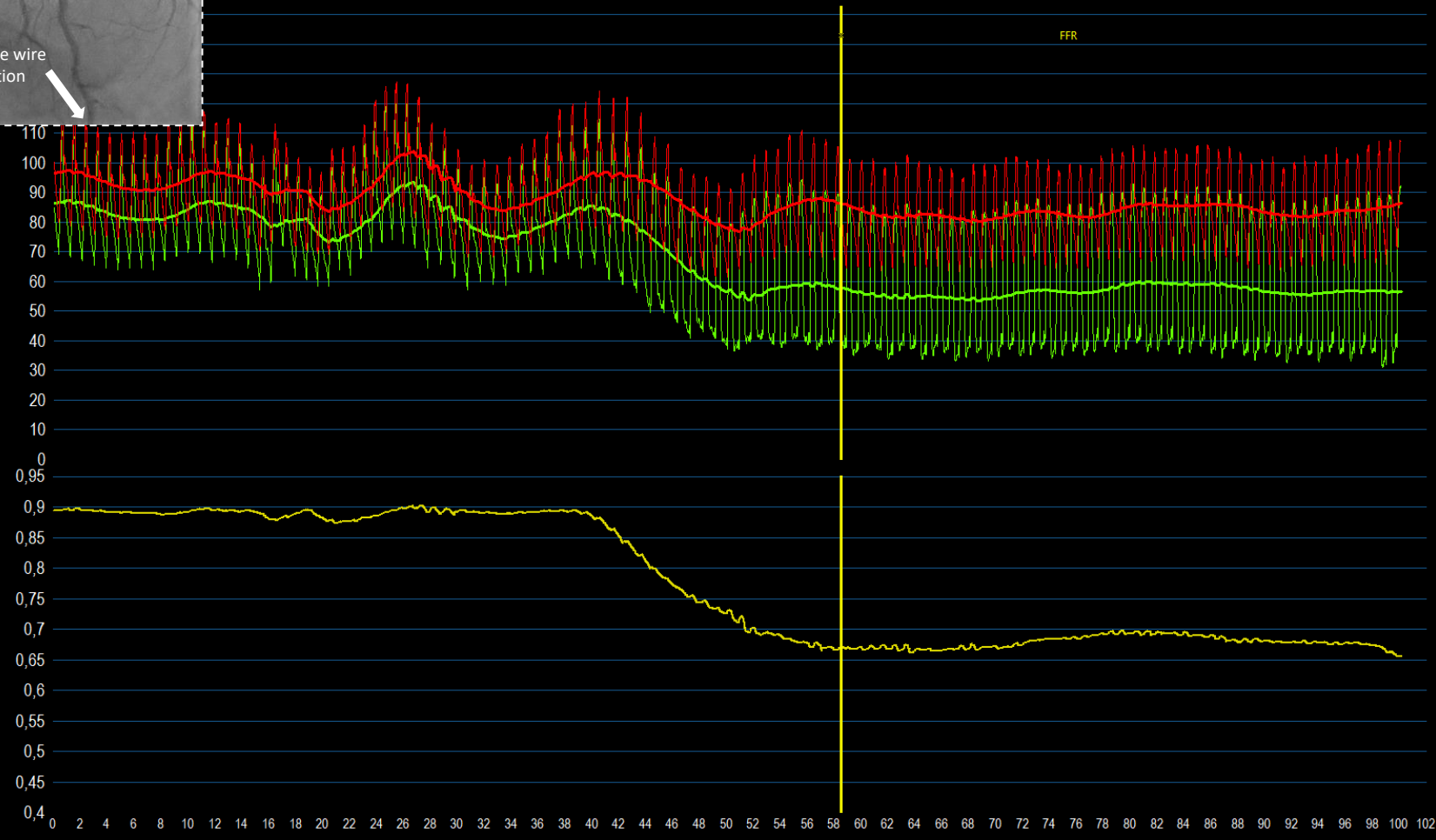


Post-PCI FFR



ht | Live | Review | | | | **Coroventis**

FFR Pd Pa
0,67 **58** **86**



Live

LAD Mid | | | | | | X 58,5 | 10:30:55 10/11 |

Pre-PCI FFR

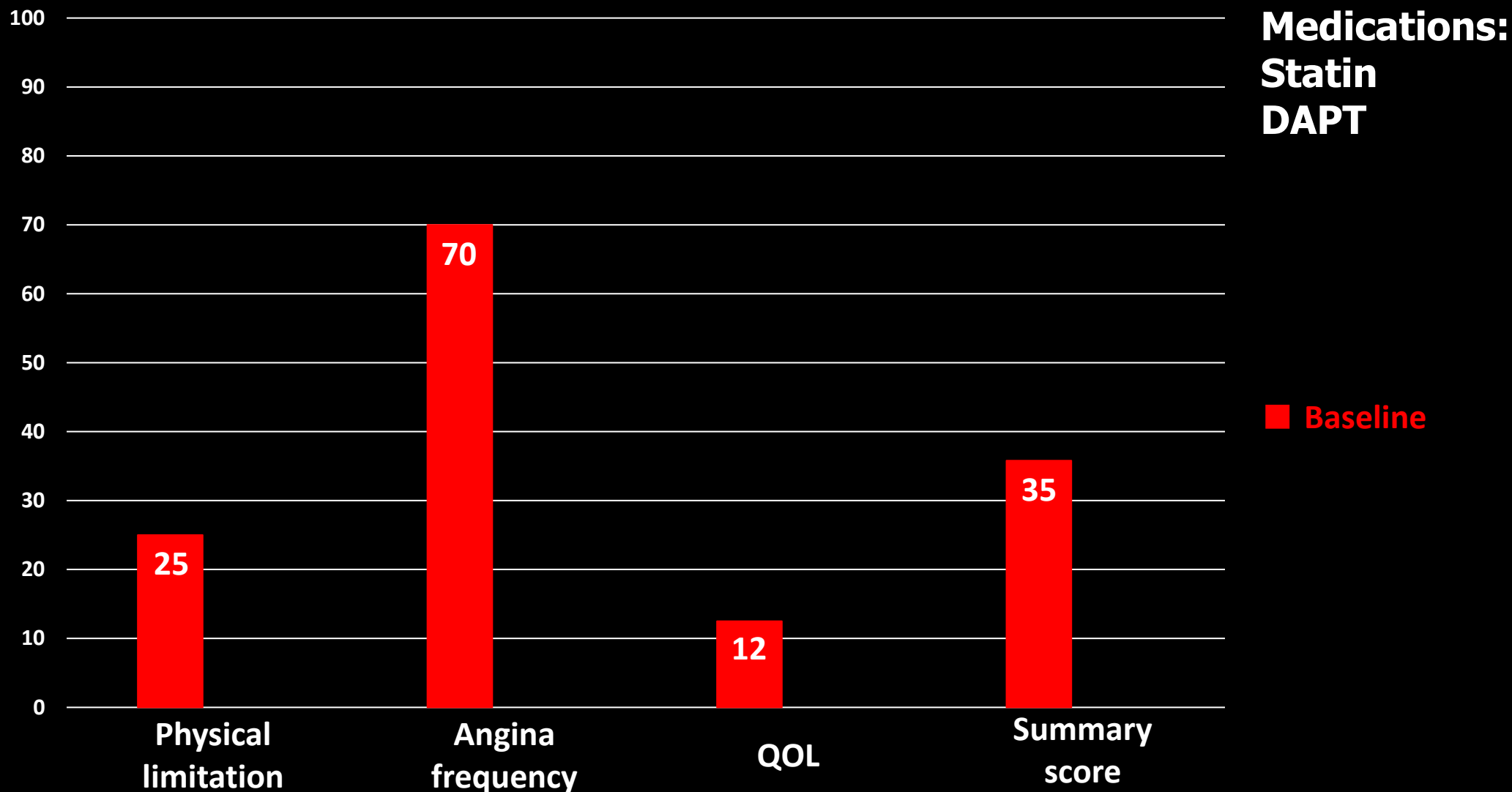


Post-PCI FFR



PPG and Angina Post-PCI

Angina frequency, physical limitation and quality of life measured by the Seattle Angina Questionnaire (SAQ7) at Baseline



PPG and Angina Post-PCI

Angina frequency, physical limitation and quality of life measured by the Seattle Angina Questionnaire (SAQ7) at 12 months after PCI

