STEALTH LEFT MAIN TRUNK DISEASE » DISCLOSED BY ONLY FFR

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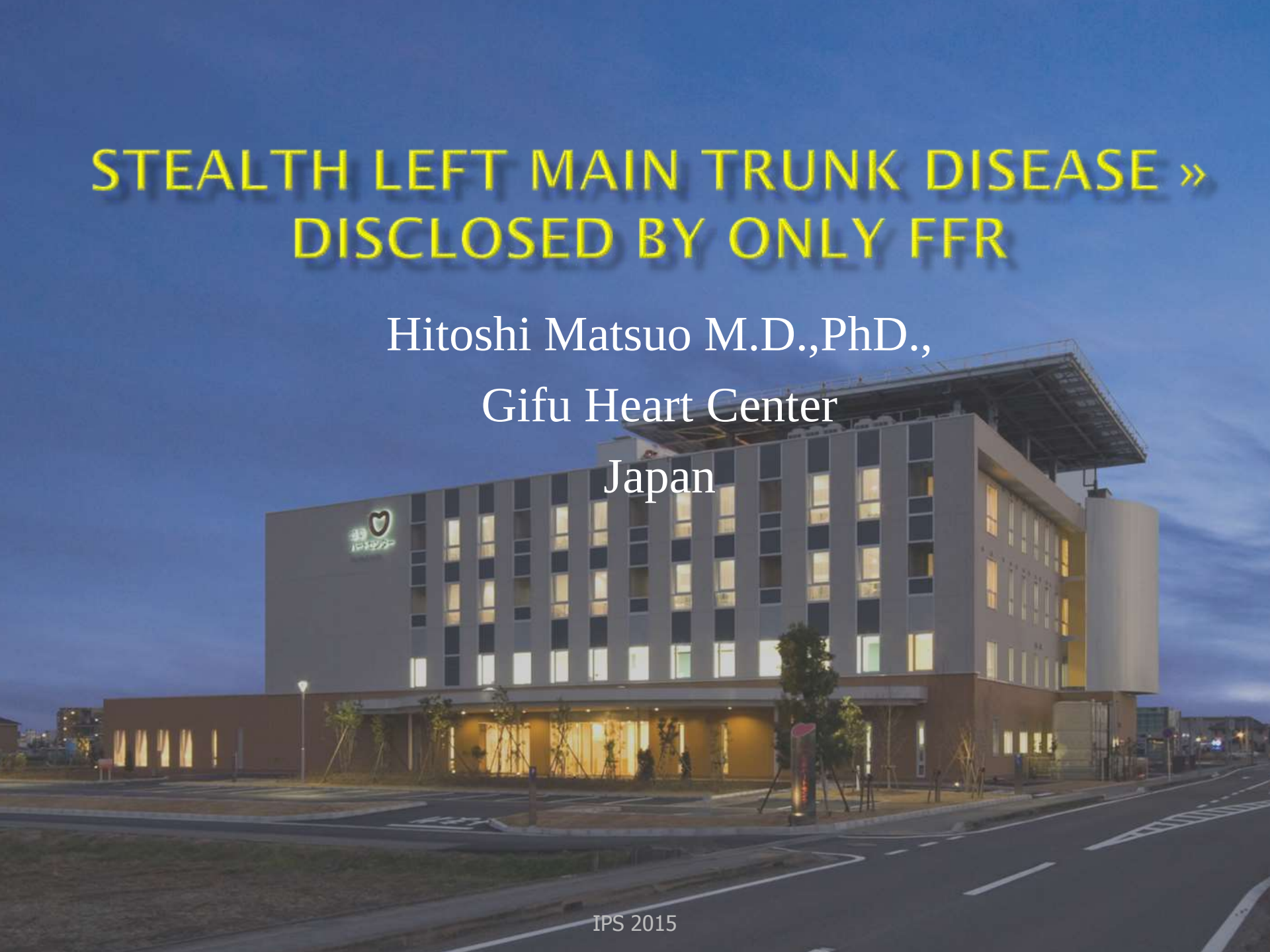
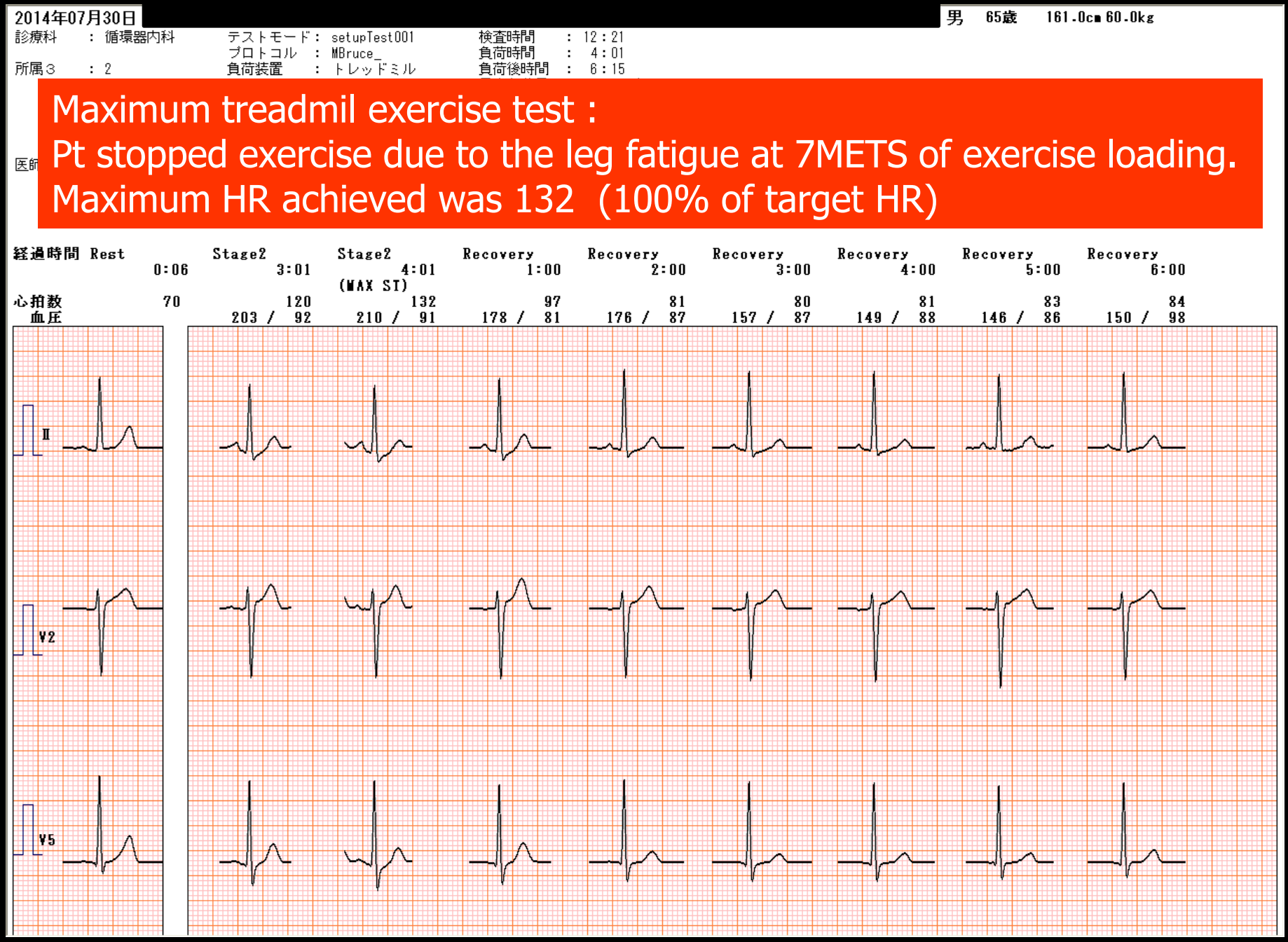


Case : 60 y.o male

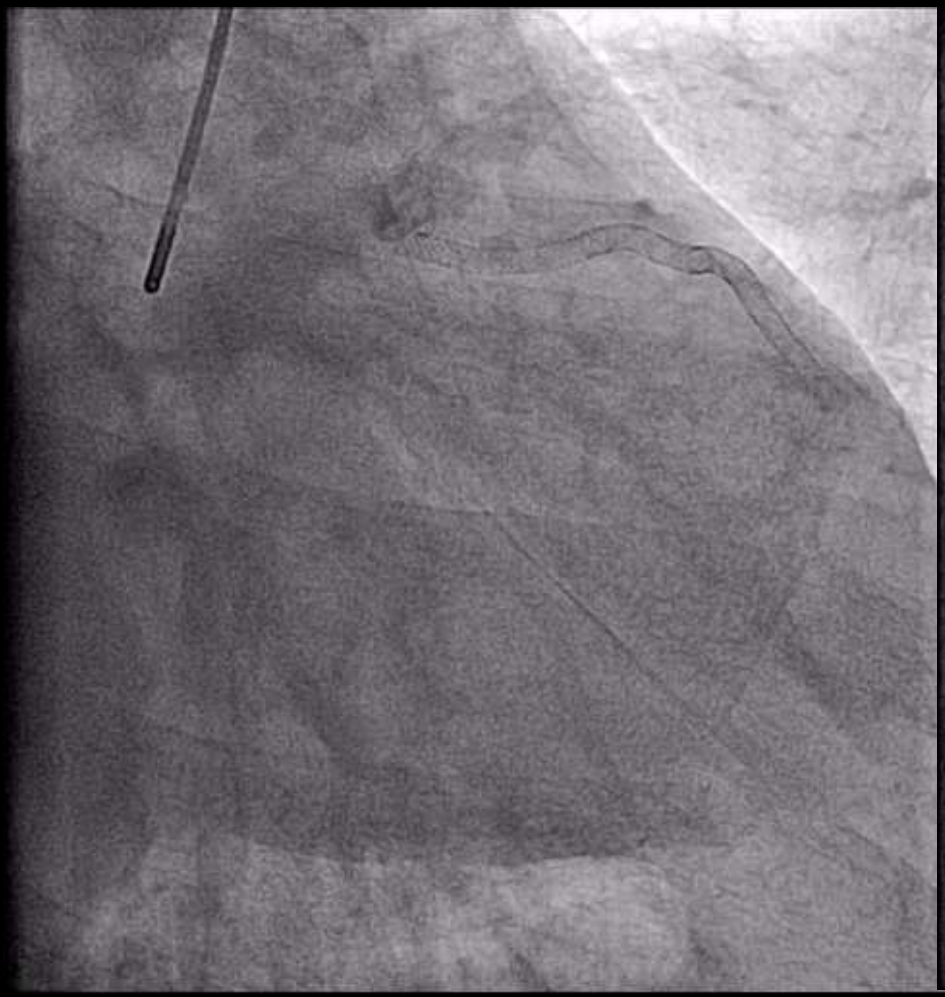
- **HD patients with CCS class 3 angina.**
- **DES implantation to LAD about 2 years ago.**
- **Ex ECG showed ST deression in inferior and lateral leads with concomitant chest pain.**
- **Pt began to feel angina sensation about several months ago.**
- **Risk factor : HT, smoking, IDDM, dyslipidemia CRF**

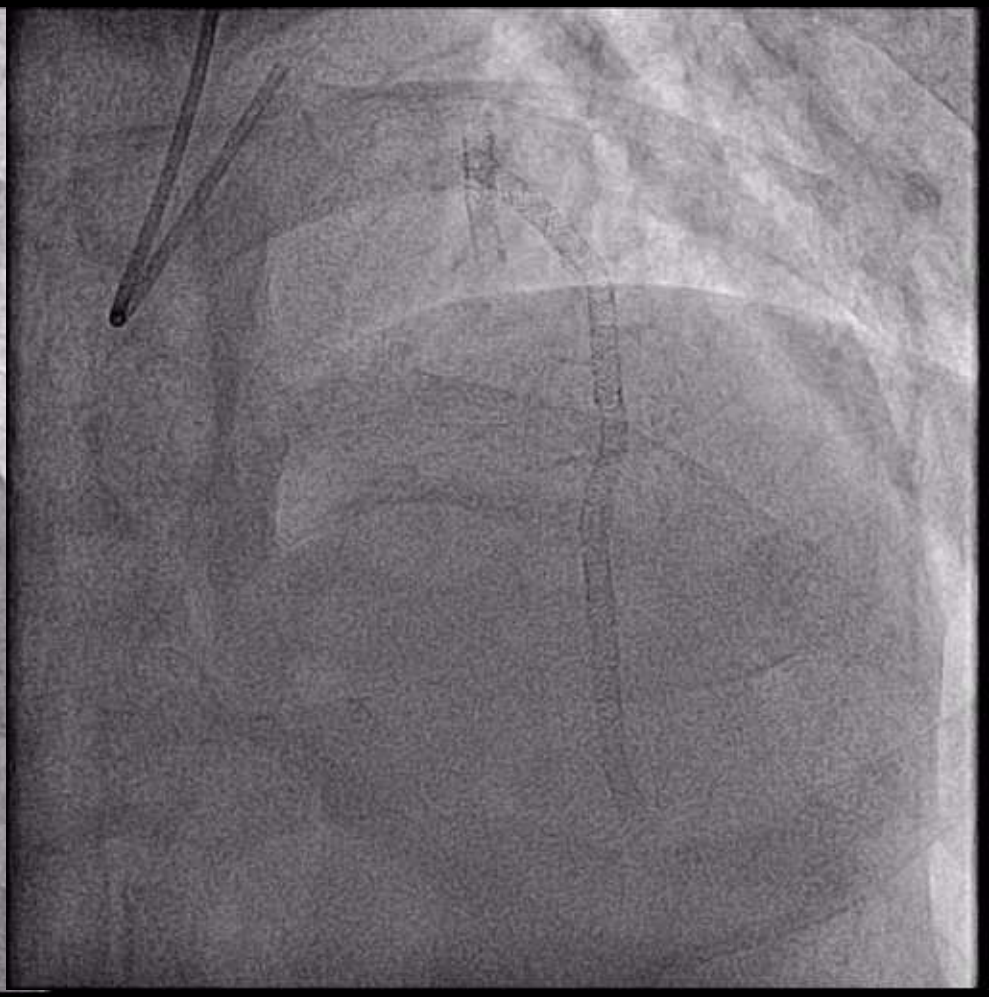

2014年07月30日
男 65歳 161.0cm 60.0kg
診療科 : 循環器内科
テストモード : setupTest001
検査時間 : 12:21
プロトコル : MBruce_
負荷時間 : 4:01
所属3 : 2
負荷装置 : トレッドミル
負荷後時間 : 6:15
Maximum treadmil exercise test :
Pt stopped exercise due to the leg fatigue at 7METS of exercise loading.
Maximum HR achieved was 132 (100% of target HR)
経過時間 Rest Stage2 Stage2 Recovery Recovery Recovery Recovery Recovery Recovery
0:06 3:01 4:01 1:00 2:00 3:00 4:00 5:00 6:00
(MAX ST)
心拍数 70 120 132 97 81 80 81 83 84
血圧 203 / 92 210 / 91 178 / 81 176 / 87 157 / 87 149 / 88 146 / 86 150 / 98
II
V2
V5

Coronary angiography

R30,CAU30

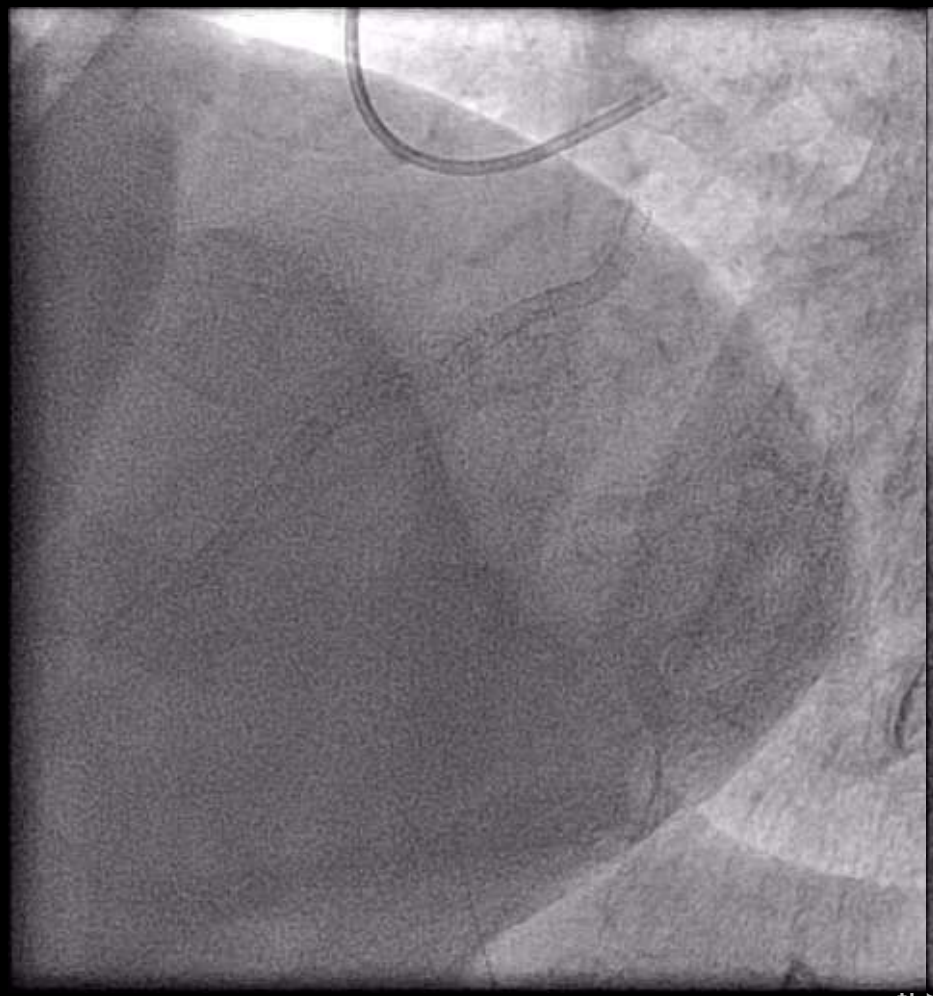
ST.CRA



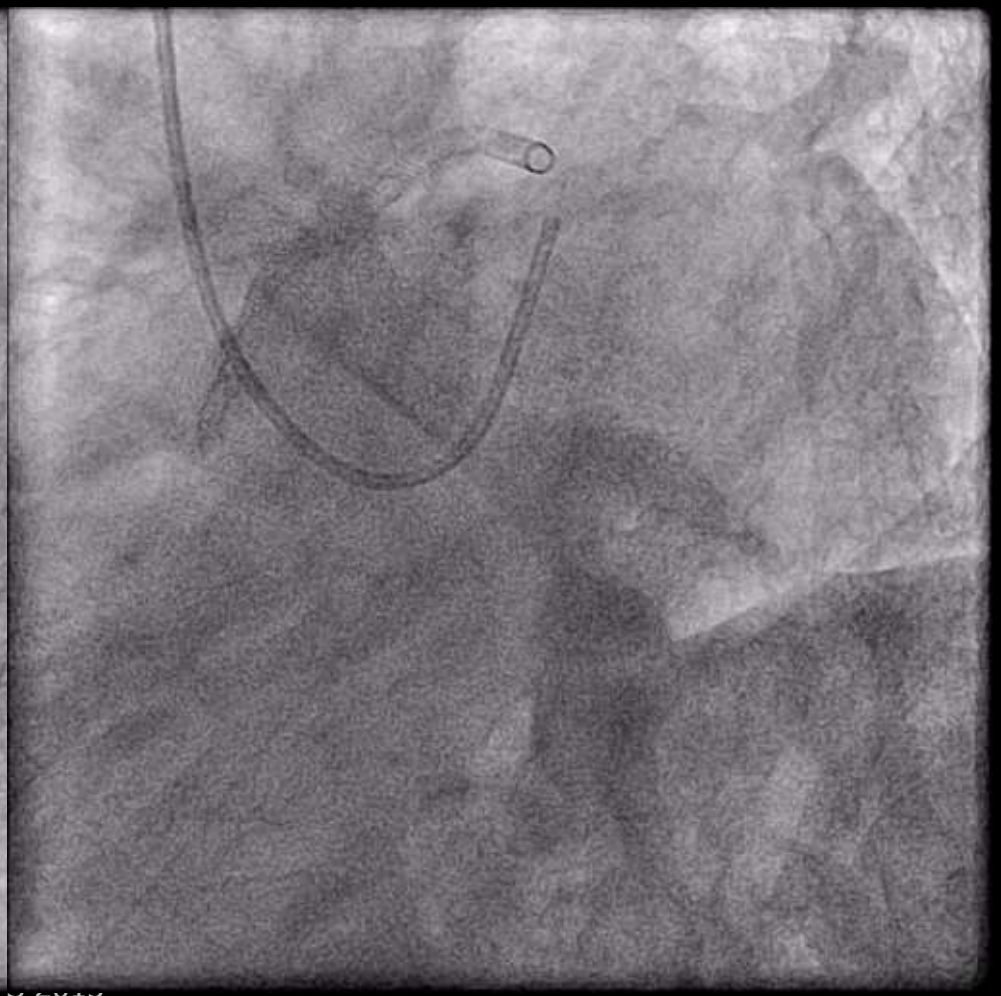


Coronary angiography

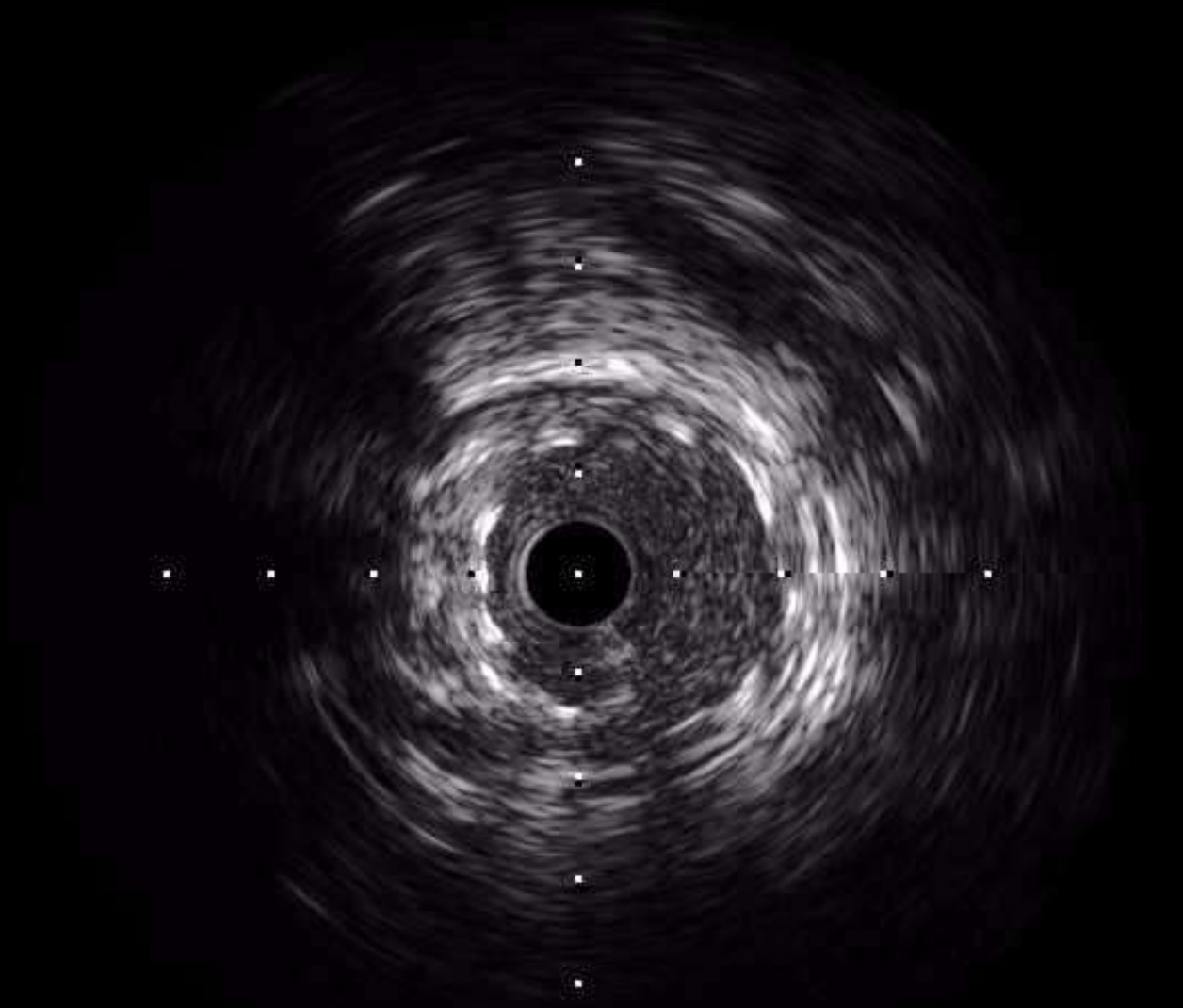
L30,CRA30



L30 .CAU 30

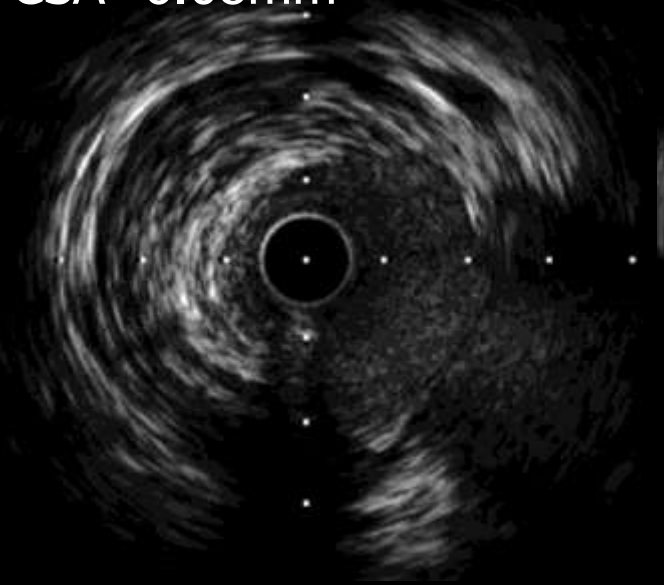


IVUS pullback from LAD to LMT

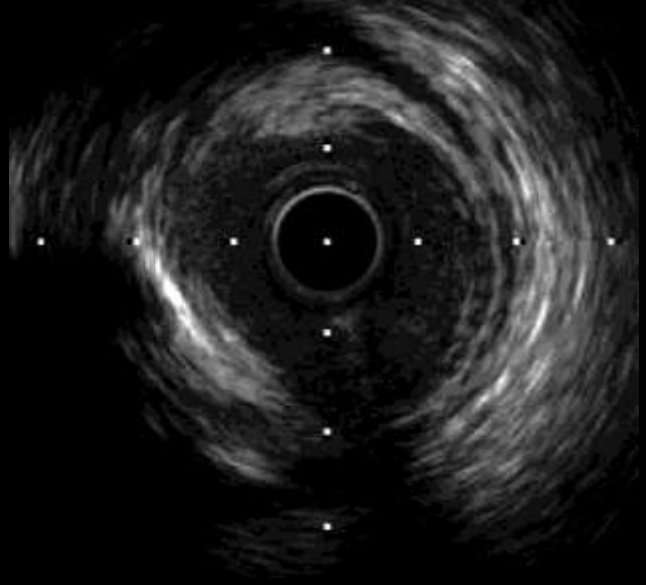


IVUS

LAD jp Lumen
CSA=6.08mm²

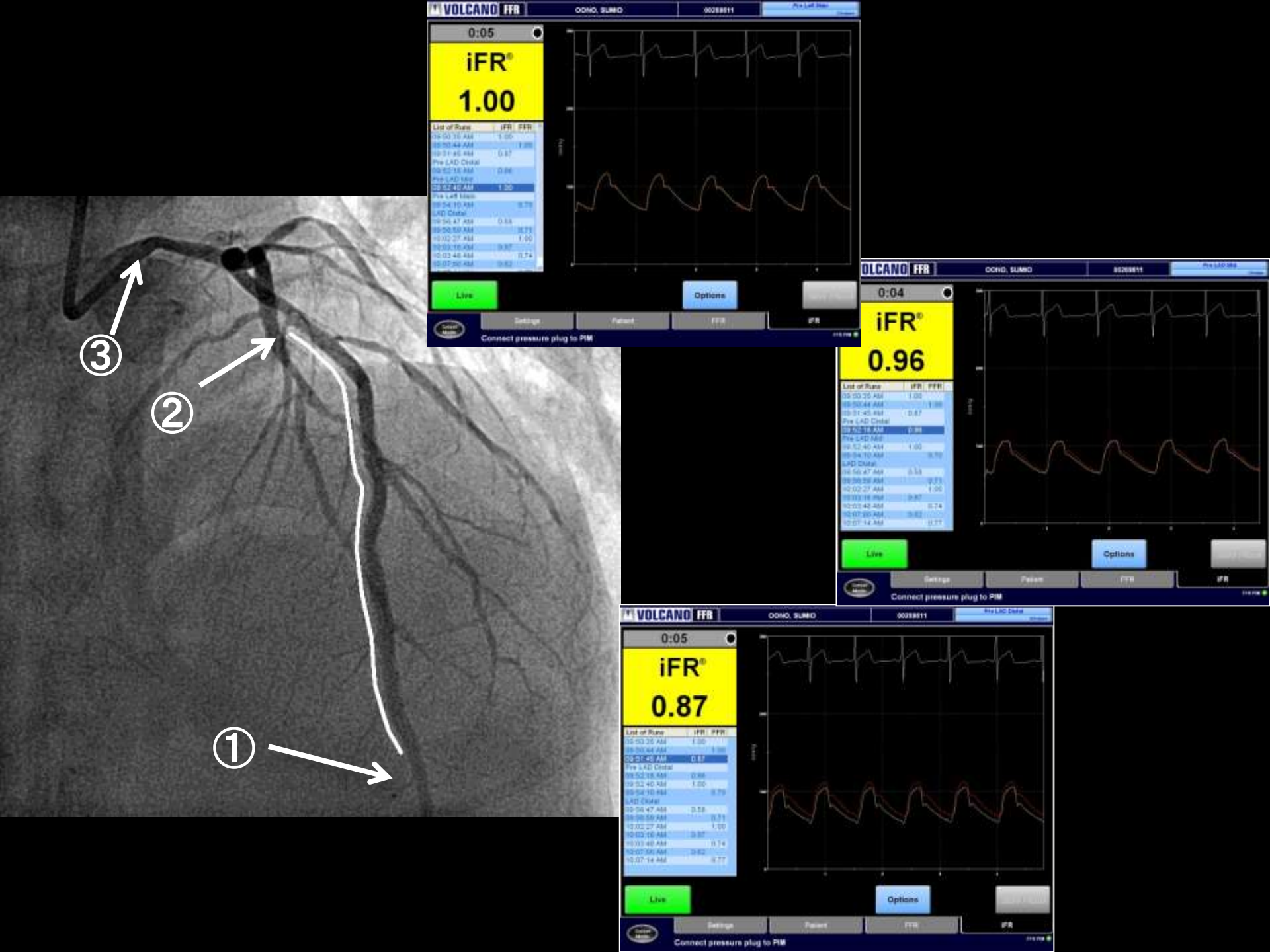


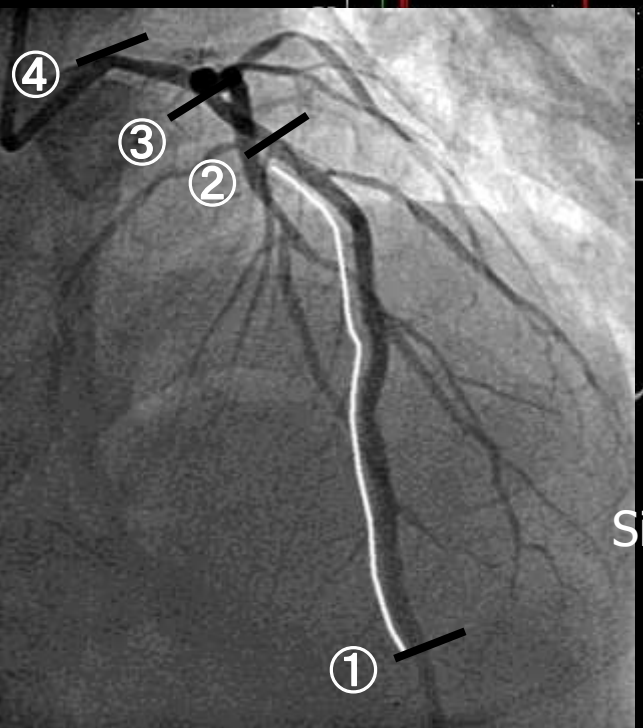
LMT Lumen
CSA=7.26mm²



LMT ostium
CSA=7.12mm²

IVUS could not confirm the presence of severe stenosis at LMT.
MLA of LMT was 7.12mm^2 which is above the threshold of ischemia causing LMTD


VOLCANO FFR
0:05
iFR®
1.00
Live
Options
Connect pressure plug to PIM
VOLCANO FFR
0:04
iFR®
0.96
Live
Options
Connect pressure plug to PIM
VOLCANO FFR
0:05
iFR®
0.87
Live
Options
Connect pressure plug to PIM
③
②
①



0.70 0.81 0.84 1.0

① ② ③ ④

mmHg

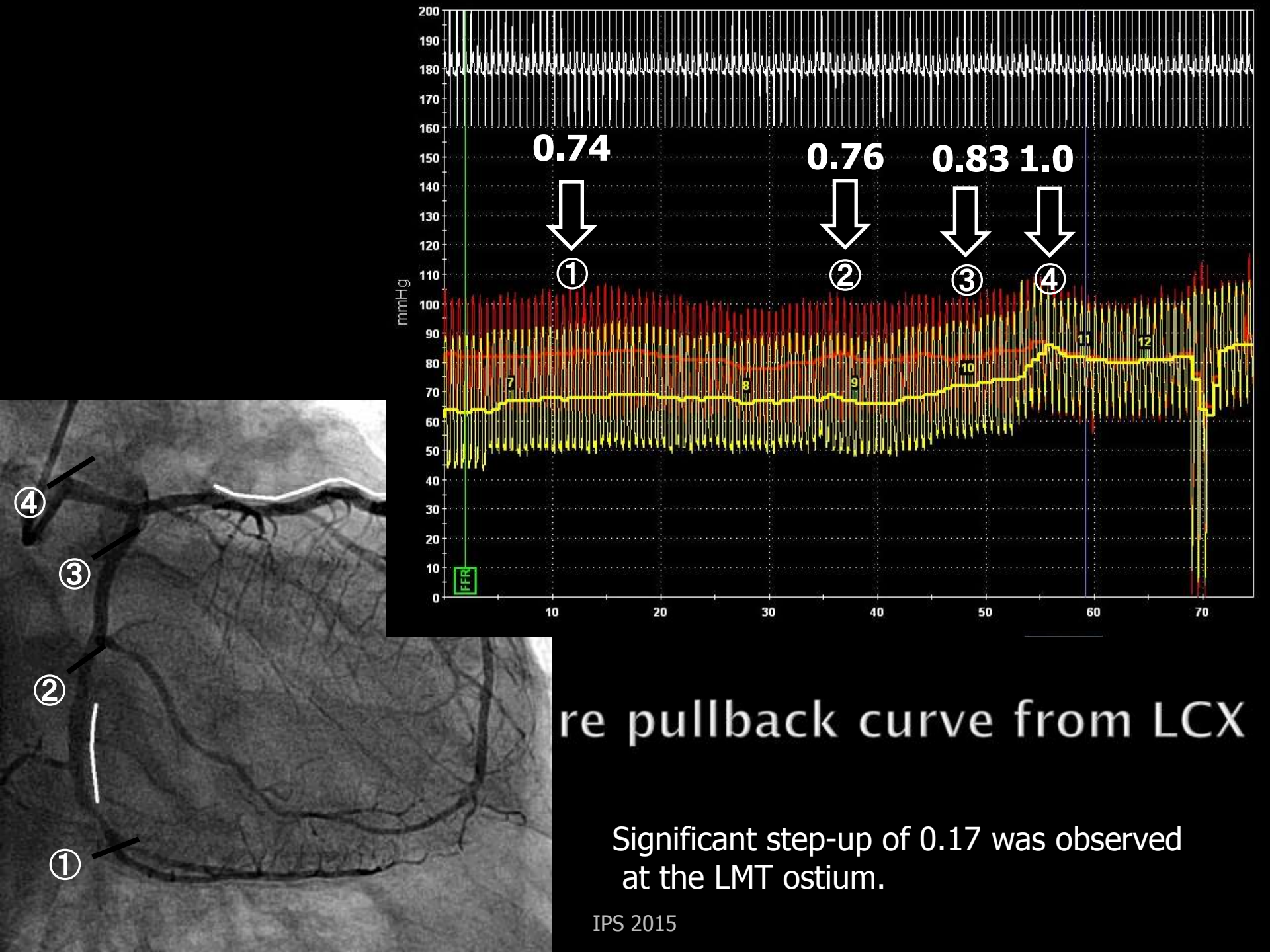
160 150 140 130 120 110 100 90 80 70 60 50 40

1 2 3 4 5 6

20 30 40 50 60 70

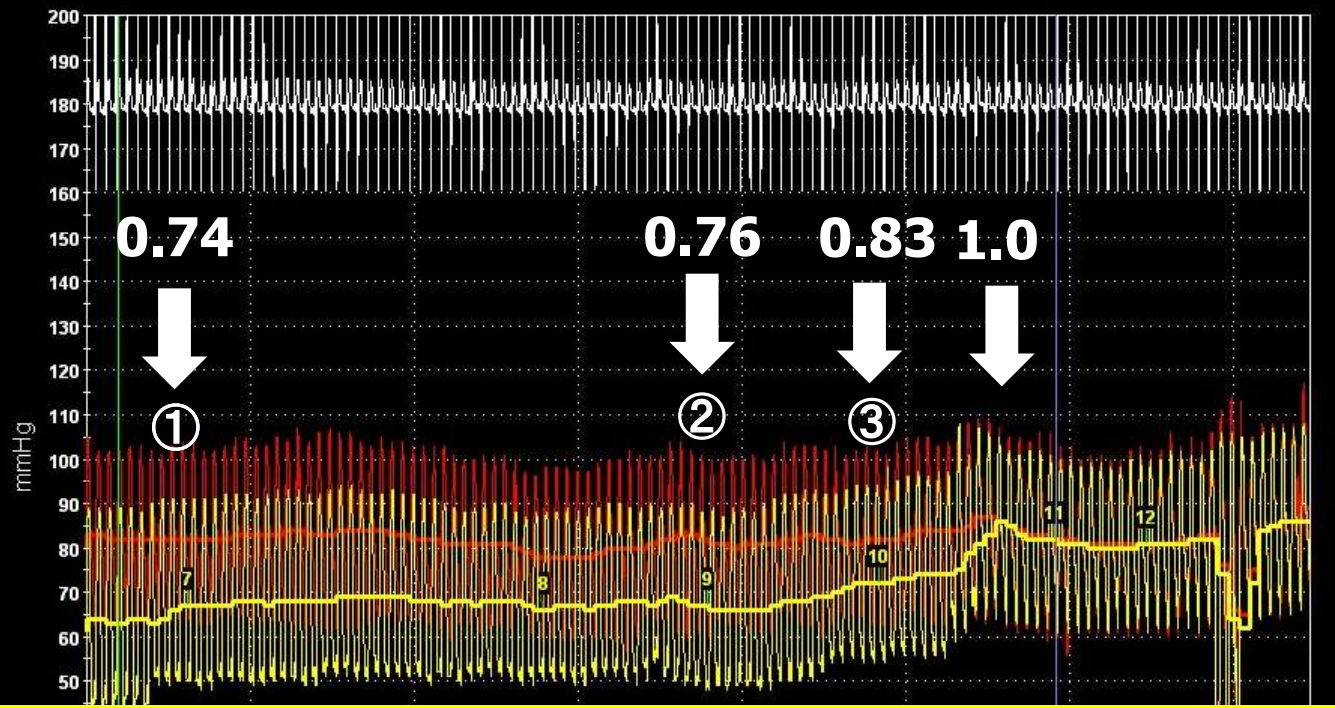
ure pullback curve from LAD

Significant step-up of 0.19 was observed at the LMT ostium.

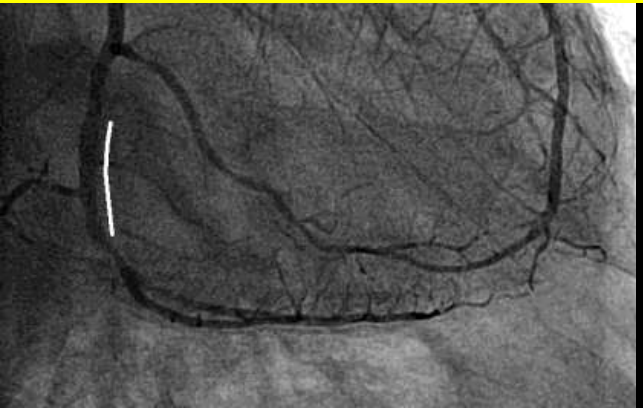


re pullback curve from LCX

Significant step-up of 0.17 was observed at the LMT ostium.



« STEALTH left main trunk disease » disclosed by only FFR



Pressure pullback curve from LCX

Significant step-up of 0.17 was observed at the LMT ostium

Case summary

Ischemia test	Result
Treadmill	Equivocal
Coronary angiography	Not significant
IVUS	Negative
iFR	Negative
FFR	**positive**

FFR for LMTD

- The evidence showing FFR based deferral with optical medical therapy demonstrated fairly good prognosis.
- Anatomical imaging modalities such as IVUS, OCT, and angiography does not always concordant with FFR.
- Careful attention should be paid to avoid misdiagnosis of functionally significant LMT lesions.
- FFR should be measured, if the operator have any subtle suspicion about the lesion severity of LMT.
- If we did not measure FFR in this case, the symptom and equivocal exercise test may be considered to be caused by microvascular disease.

Thank you for your attention.