



A Ruptured Plaque Is it Still Vulnerable?

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Case



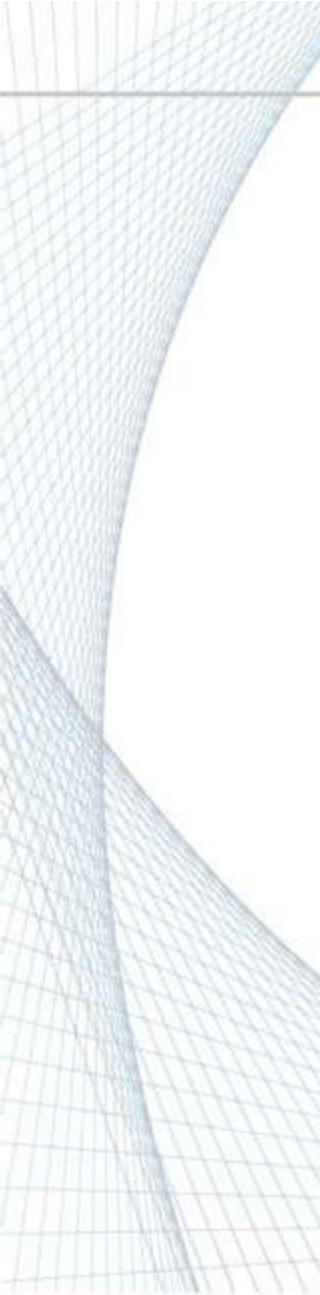
- ❖ A 72 year-old female was referred for her cardiac risk assessment prior to gynecologic surgery
- ❖ Medical history
 - ✓ HTN, DM, CRF
- ❖ She had experienced effort-related chest pain with dyspnea for 2 years

Physical & Lab Examination

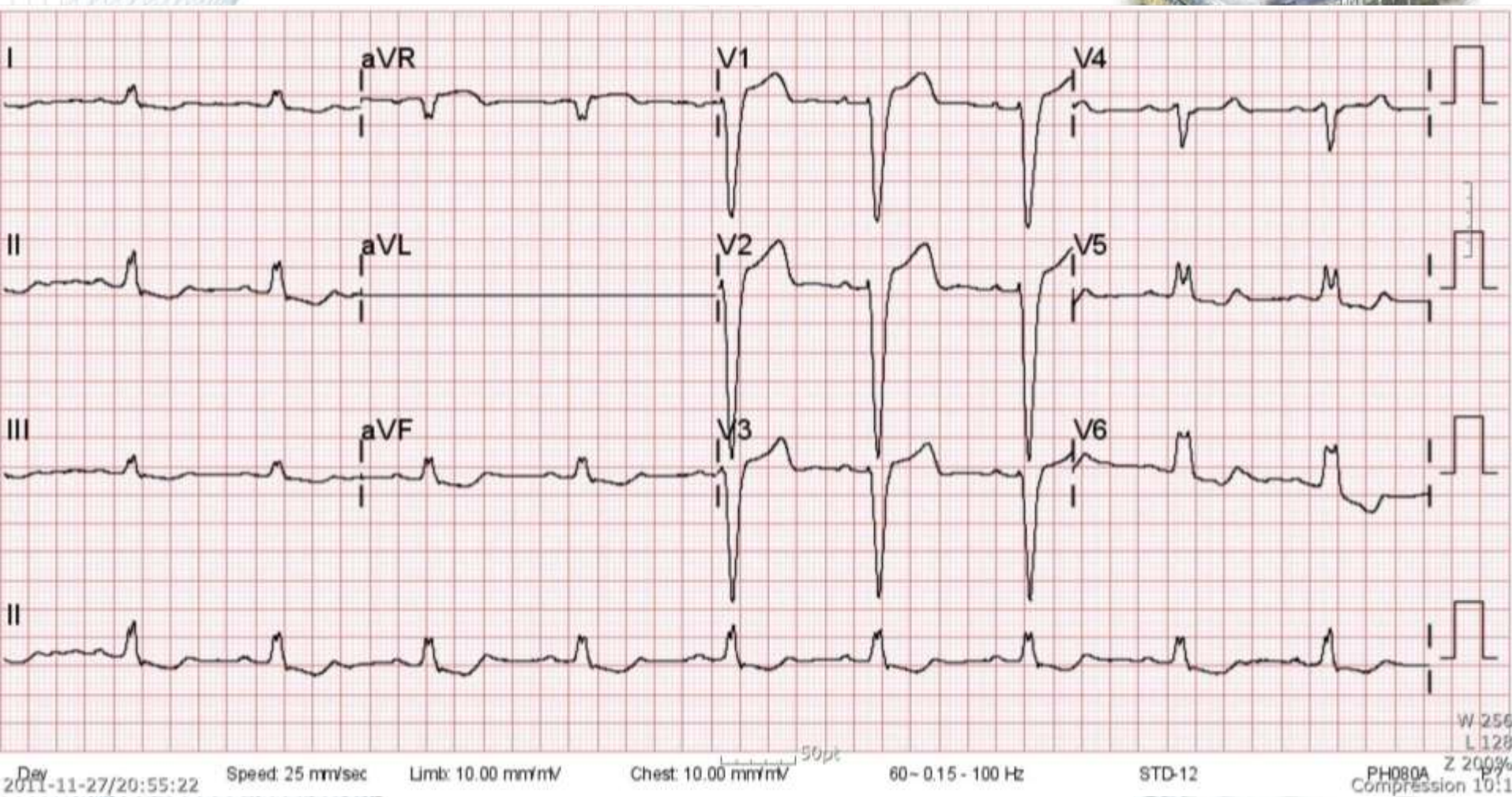


- ❖ 127/74 mm Hg, 74 bpm
- ❖ 160 cm, 72.3 kg, BMI 28
- ❖ Hb 10.3 g/dL
- ❖ Cr 2.74 mg/dl
- ❖ eGFR 17.2 ml/min
- ❖ HbA1c 7.9%

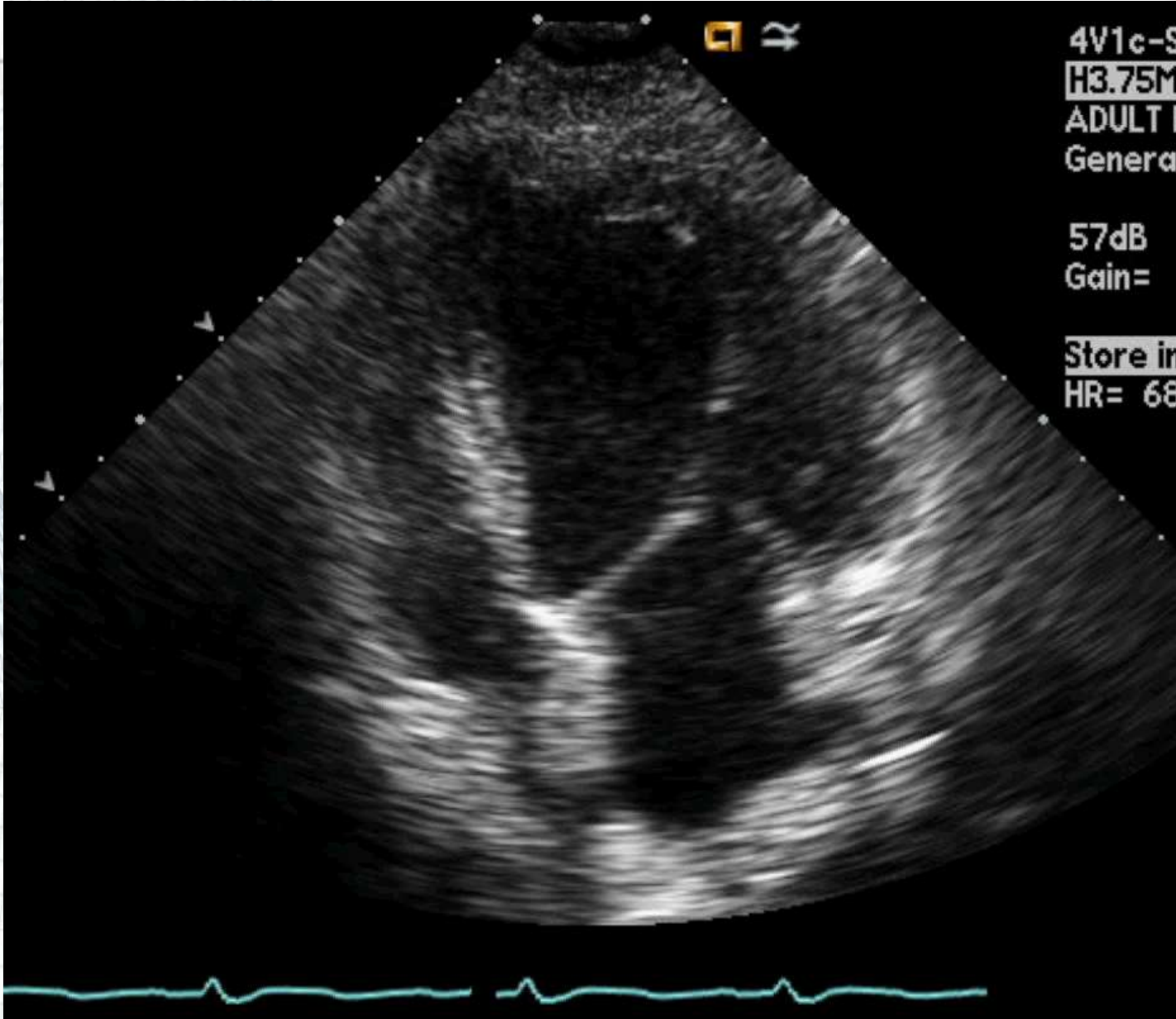
Initial Chest X-ray



Initial ECG



Echocardiography



4V1c-S
H3.75M
ADULT P
General
57dB
Gain=
Store in
HR= 68

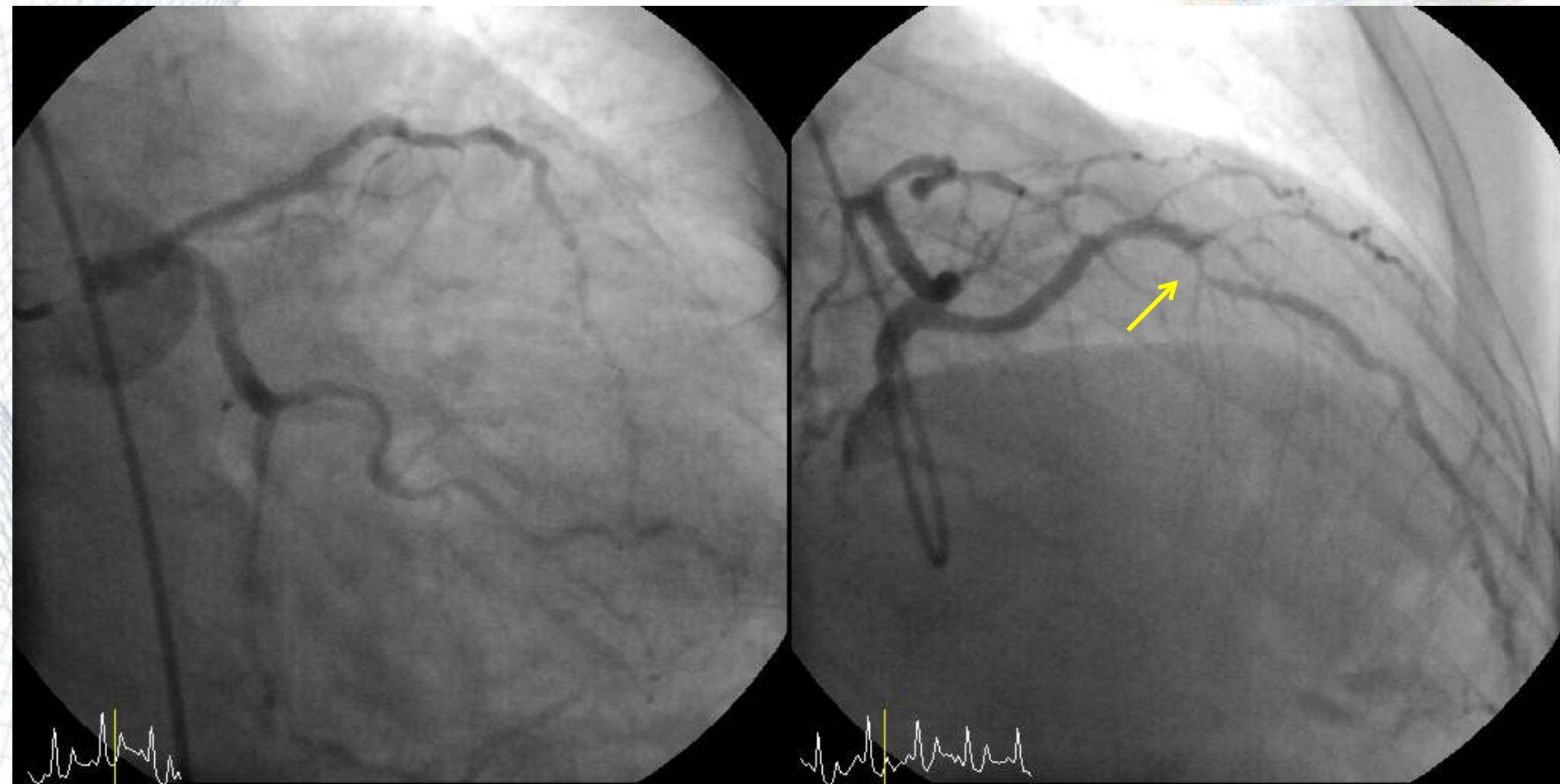
EF = 35%

Global
hypokinesia

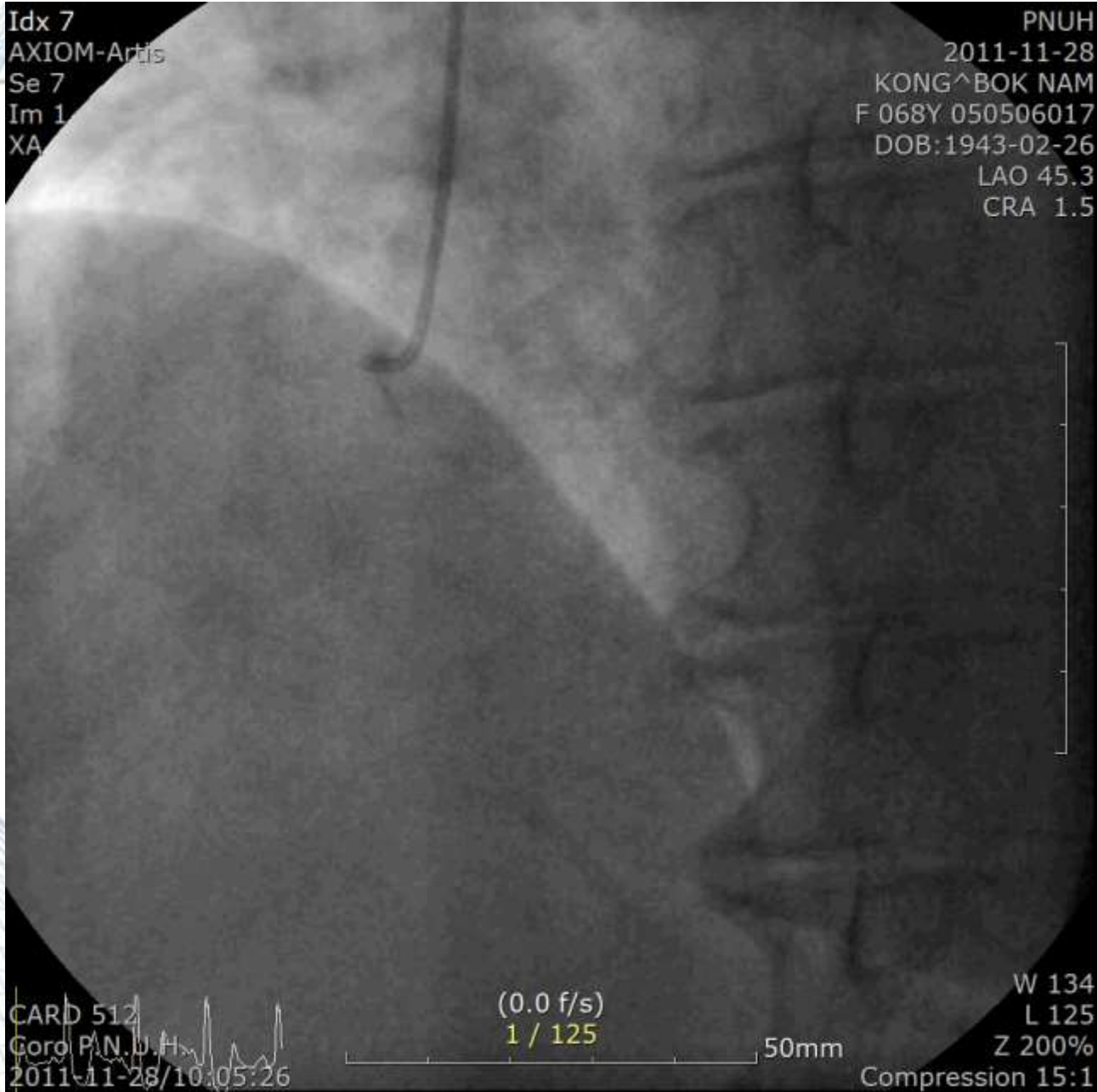
Enlarged LV

Dyssynchrony d/t
LBBB

Coronary Angiography



pRCA Ruptured Plaque



Procedure : LAD



Ryujiin 2.5x15mm

Resolute Integrity 3.0x22 mm

Adjuvant balloon

LAD Final Result

Idx 23
AXIOM-Artis
Se 23
Im 1
XA

PNUH
2011-11-28
KONG BOK NAM
F 0687 050506017
DOB:1943-02-26
RAO 20.9
CRA 32.1

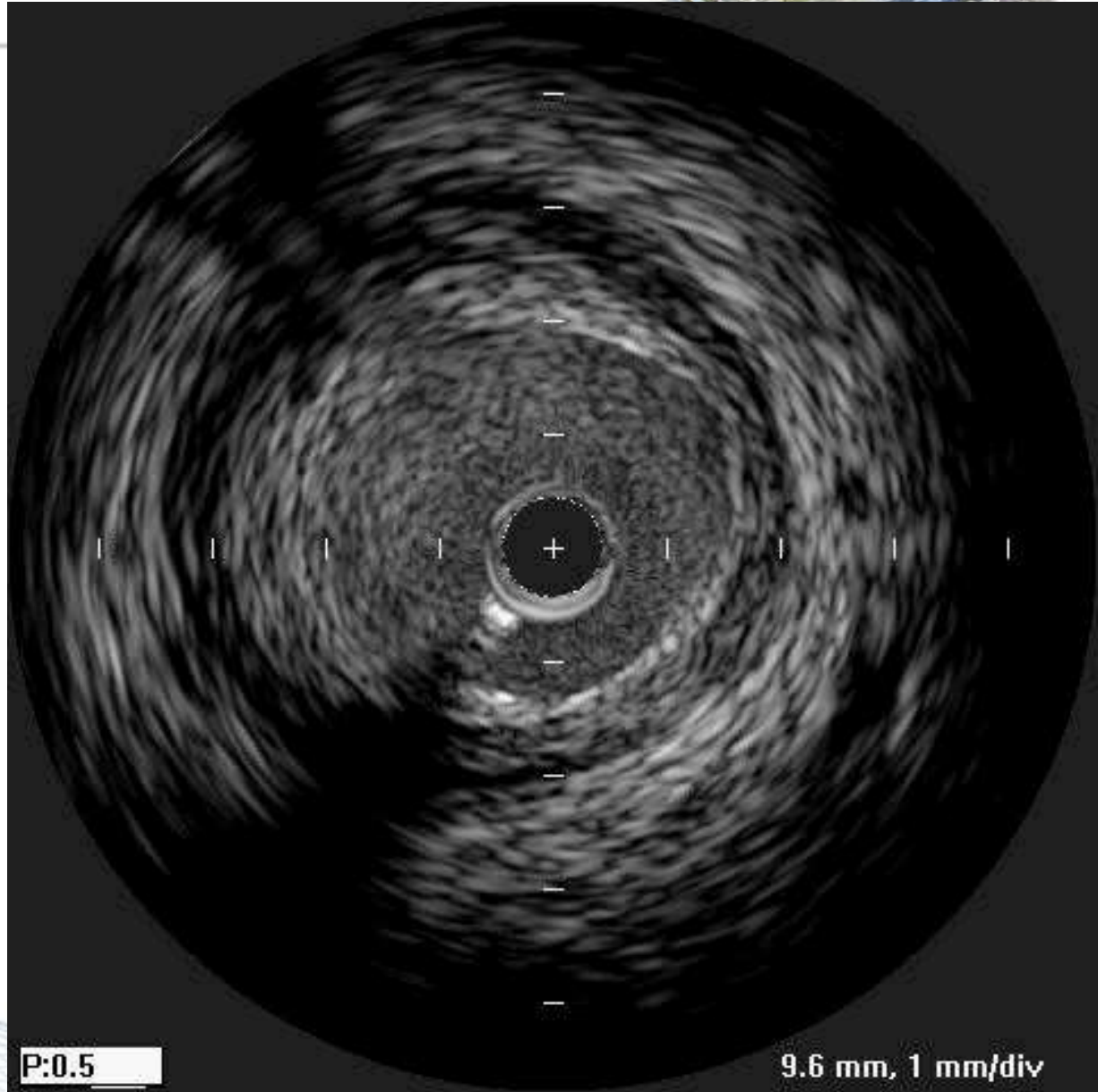
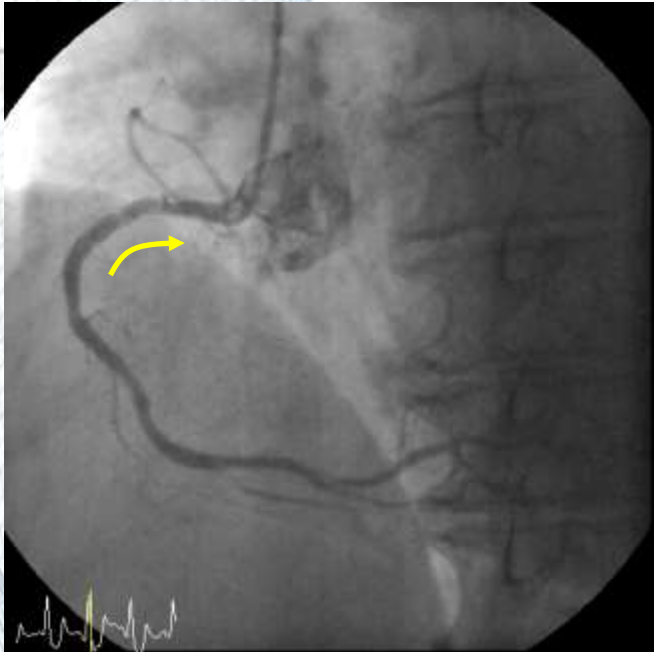
CARD 512
Coro P.N.U.H.
2011-11-28/10:48:10

(30.0 f/s)
1 / 77

W 136
L 126
Z 200%
50mm
Compression 14:1



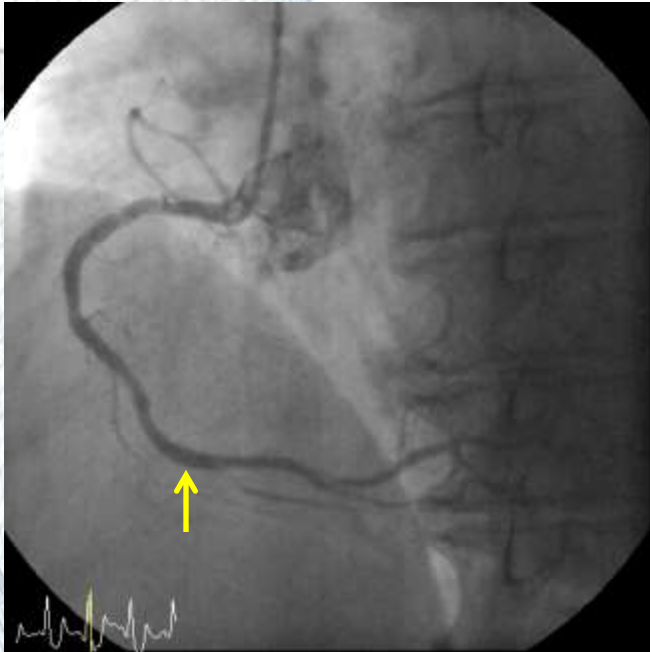
RCA



❖ MLA 2.6 mm²

9.6 mm, 1 mm/div

RCA FFR



- ❖ FFR 0.95
- ❖ IMR 22

Six Months Later

- ❖ She presented with acute onset chest pain
- ❖ 110/70 mm Hg, 102 bpm
- ❖ SpO₂ 85% with room air
- ❖ Laboratory findings
 - ✓ Hb 13.2 g/dL
 - ✓ TnI 0.08 (>0.05 ng/mL)
 - ✓ CK-MB 7.07 (>5.0 ug/L)
 - ✓ BNP 1487 pg/mL



Chest X-ray

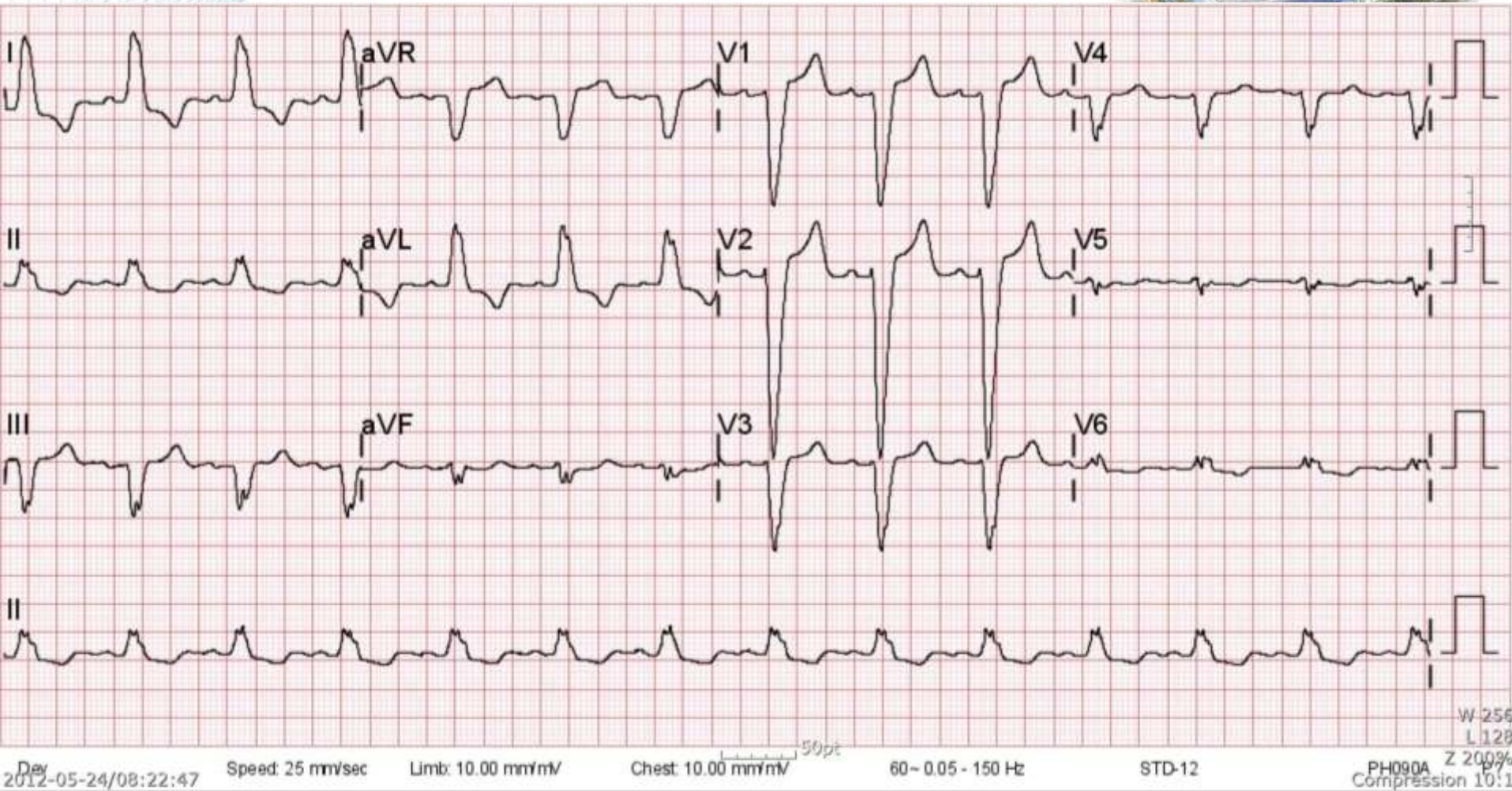


After Index Procedure



6 months later

ECG (6mo later)



Day 2012-05-24/08:22:47

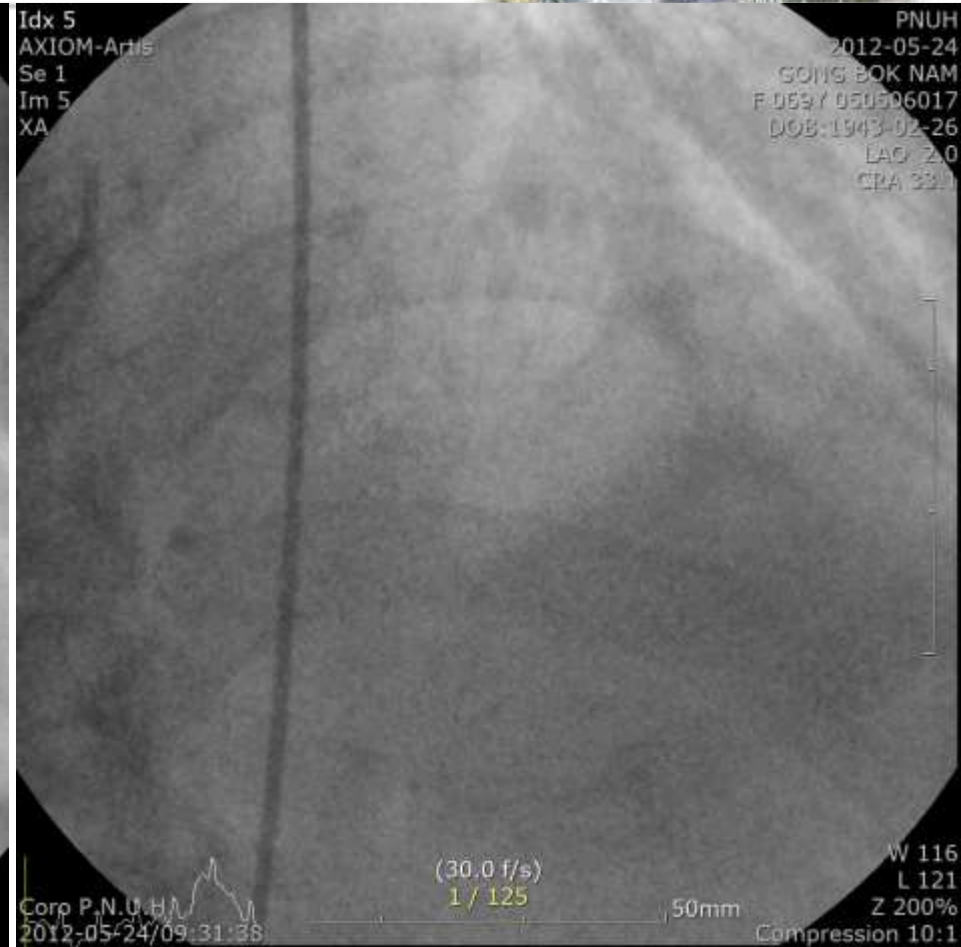
W 256
L 128
Z 200%
b7f

Which one is the Culprit?

- ❖ Ruptured plaque at the prox. RCA ?
- ❖ ISR at the mLAD stent ?
- ❖ Another de novo lesion?



CAG @6mo



Prox. Edge ISR



Resolute Integrity 3.5x15

RCA @6mo



Idx 1
AXIOM-Artis
Se 1
Im 1
XA

PNUH
2012-05-24
GONG BOK NAM
F 069Y 050506017
DOB:1943-02-26
LAO 34.6
CRA 1.3



Coro P.N.U.H.
2012-05-24/09:28:18

(30.0 f/s)
1 / 102

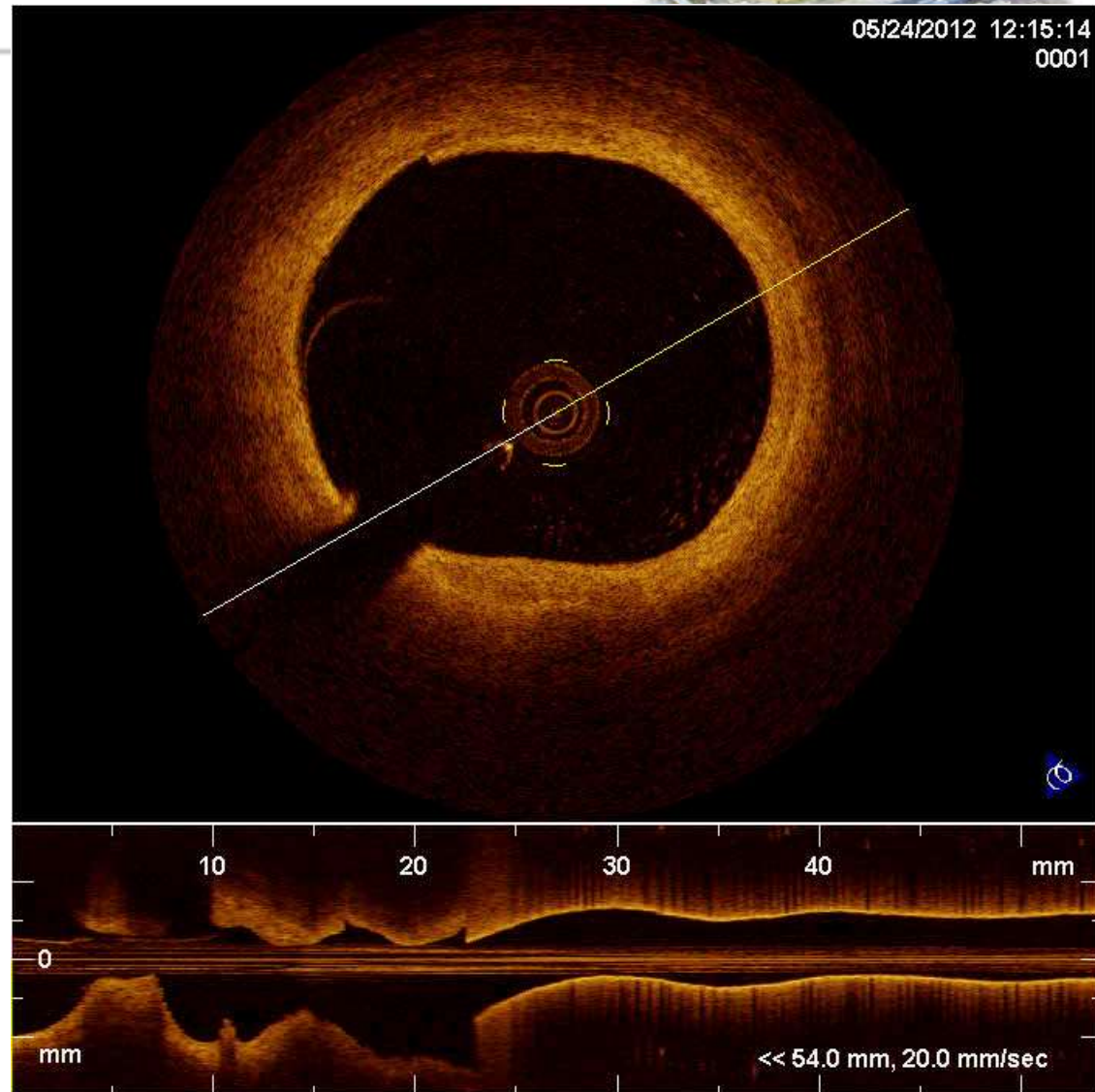
50mm

W 178
L 162
Z 200%
Compression 10:1

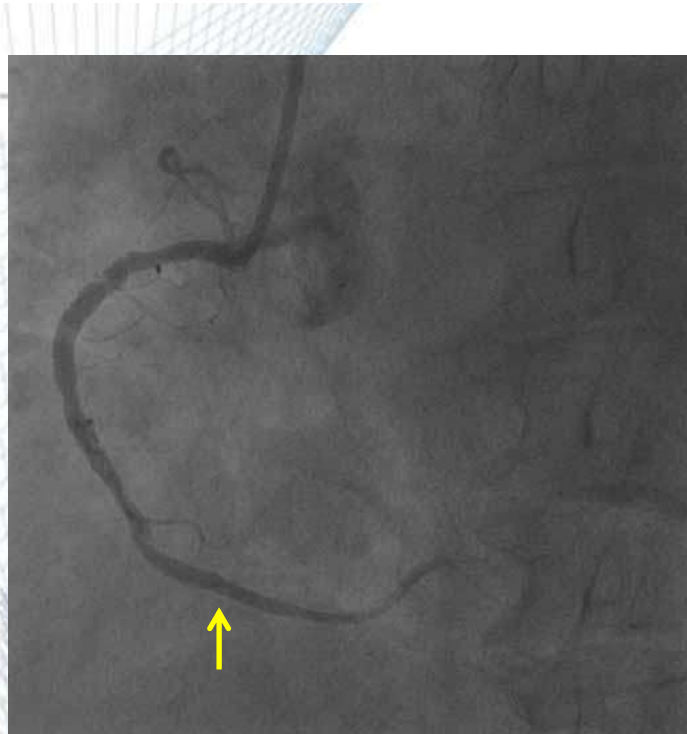
RCA OCT @6mo



❖ MLA 2.4 mm²



FFR & IMR for RCA @6mo



❖ FFR 0.95
 ❖ IMR 22

Index



❖ FFR 0.96
 ❖ IMR 17

6m later



Follow-up



- ❖ She's been doing well for more than 3 years after the second procedure
- ❖ Echocardiography at 3 years after the 2nd PCI
 - ✓ EF 50% without RMWA except dyssynchrony d/t LBBB

Conclusion



- ❖ This case suggests that not all the ruptured plaque on angiography is vulnerable
- ❖ Those plaque having no hemodynamic significant could be managed with optimal medical therapy safely
- ❖ Especially its FFR value is higher than 0.80