



**Imaging and Physiology Summit
November 20th, 2009**



Coronary Artery Dissection Involving Left Main, LAD, and LCX During Diagnostic Angiography

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36/M

C/C Chest pain (O: 1day ago)

Location: Anterior chest

Recent : 2008-08-27 pm 1:20

Nature : Heaviness, Squeezing

Radiation : None

Associated symptom N/V(-/-), Cold sweating (+), Dyspnea (+)

NTG response : negative

P/H No known Hx of DM, HTN

Operation: cholecystectomy 5 years ago

Cerebral artery stenosis : Balloon Angioplasty at SNUH

S/H Alcohol : Social

Smoking : Current smoker : 1P x 15Y = 15PYRS

F/H Non-specific

P/I

This 36-year-old man presented with continuous chest pain for one hour. He had been treated in Nephrology by low-molecular weight heparin for acute renal infarction during 3 days. He had experienced intermittent abdominal and chest discomfort within a few minutes. At this time, however, chest pain was distinctly more severe, prolonged than previously, and not relieved by sublingual nitroglycerin. So he referred to our department for further evaluation and management about his symptom.

ROS

Fever/chills(-/-)

Cough/sputum (-/-)

Nausea/vomiting(-/-)

Headache/dizziness(+/+)

V/S

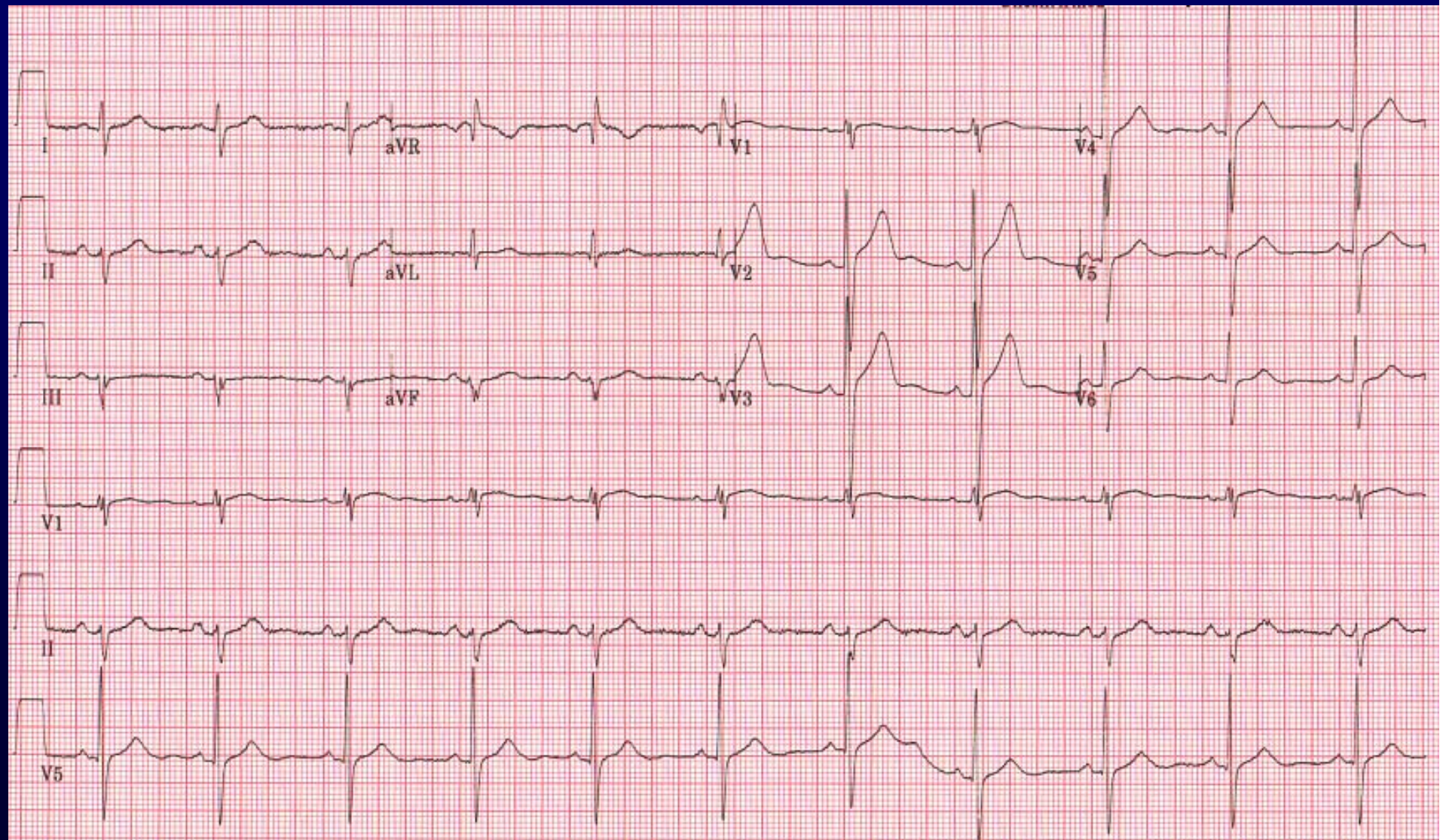
BP **210/100 mmHg**

PR 82/ min

BT 36 °C

RR 20/ min

ECG



Laboratory findings

CBC

WBC 10700/mm³
Hgb 15.4 g/dL
PLT 191 x10³/mm³

LFT

AST 20 U/L
ALT 14 U/L

RFS and electrolyte

BUN 11.9 mg/dl
Cr 0.7 mg/dL
Na/K/Cl 136/3.4/96

ProBNP 1232 pg/mL
hsCRP 10.0 mg/dL

Coagulation profiles

aPTT 27.1/sec
PT 10.1/114.9/0.94(sec/%/INR)

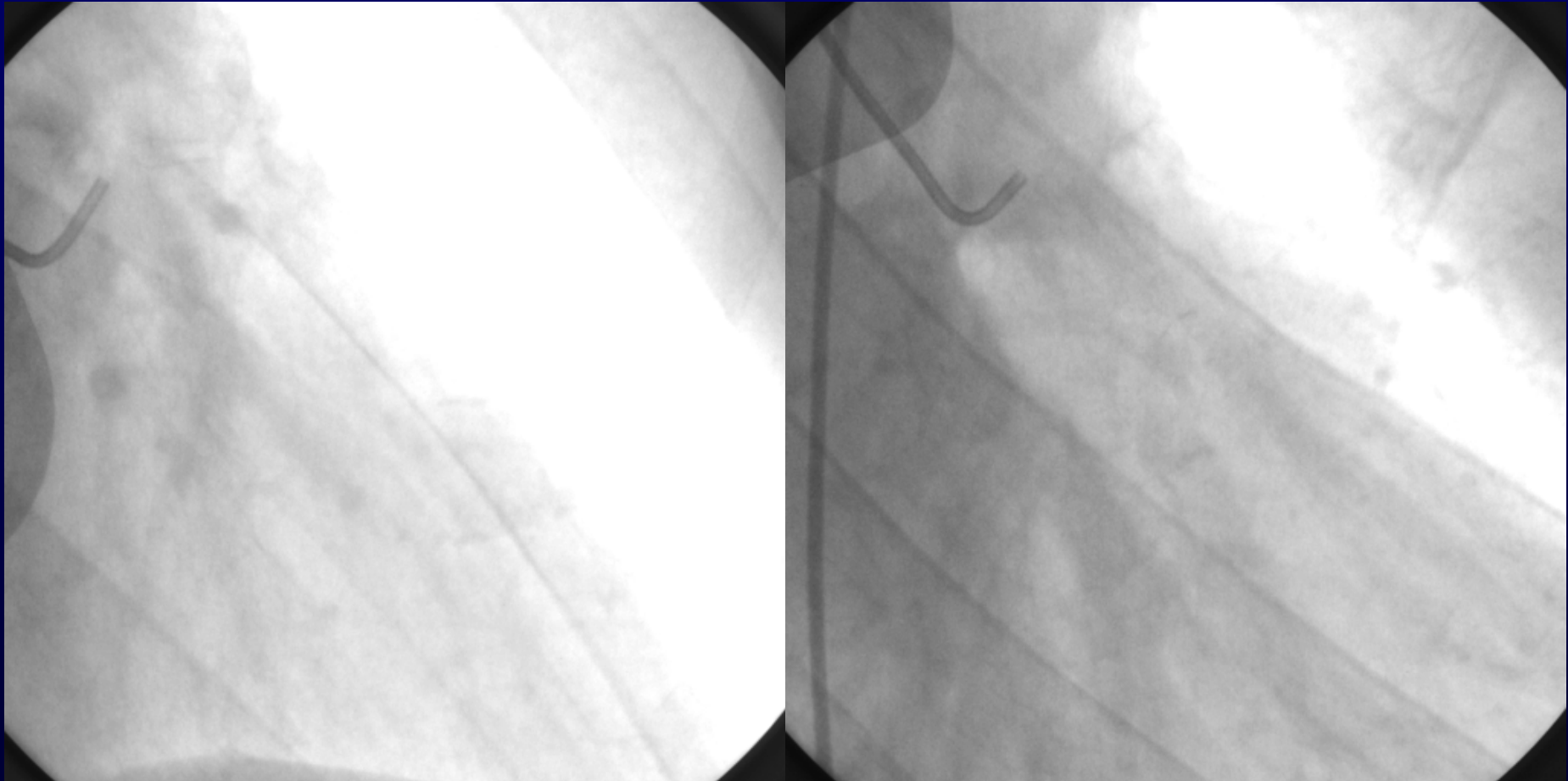
Lipid profile

T-cholesterol 196 mg/dl
HDL-cholesterol 57 mg/dl
LDL-cholesterol 109 mg/dl
Triglyceride 119 mg/dl

Cardiac enzyme

Tn-I 0.58 ng/mL
CK 1537 U/L
CK-MB 36.6 U/L

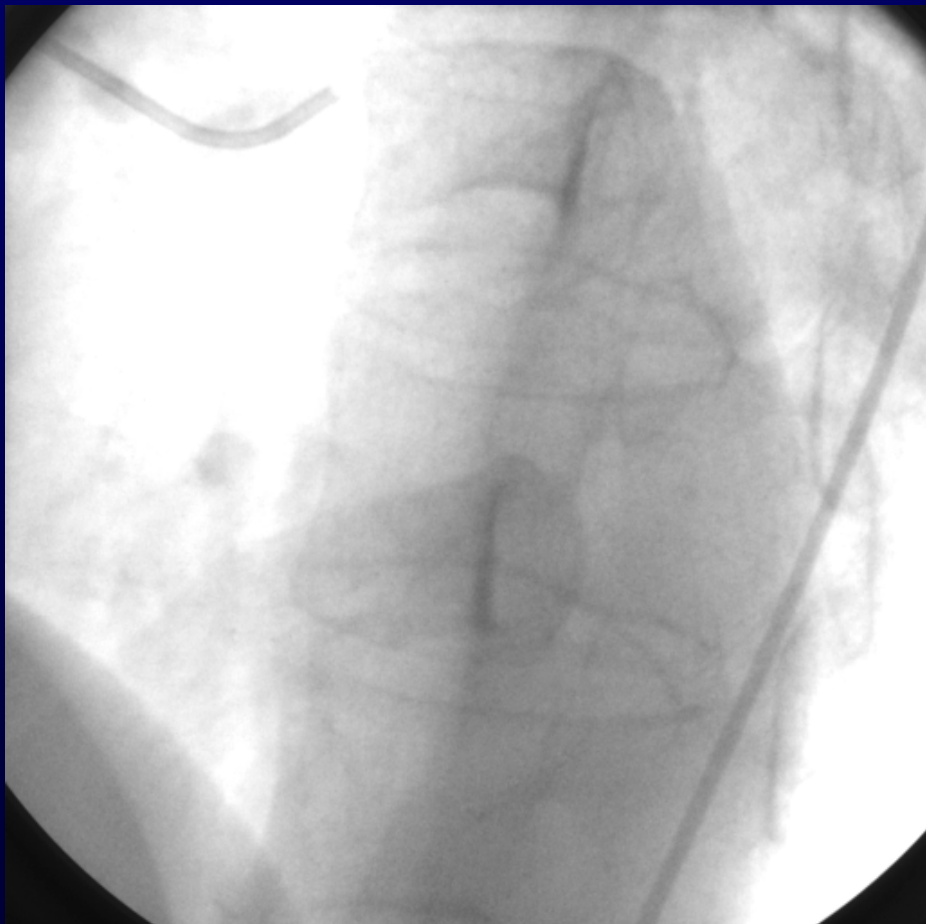
Coronary Angiography (Aug 27, 2008)



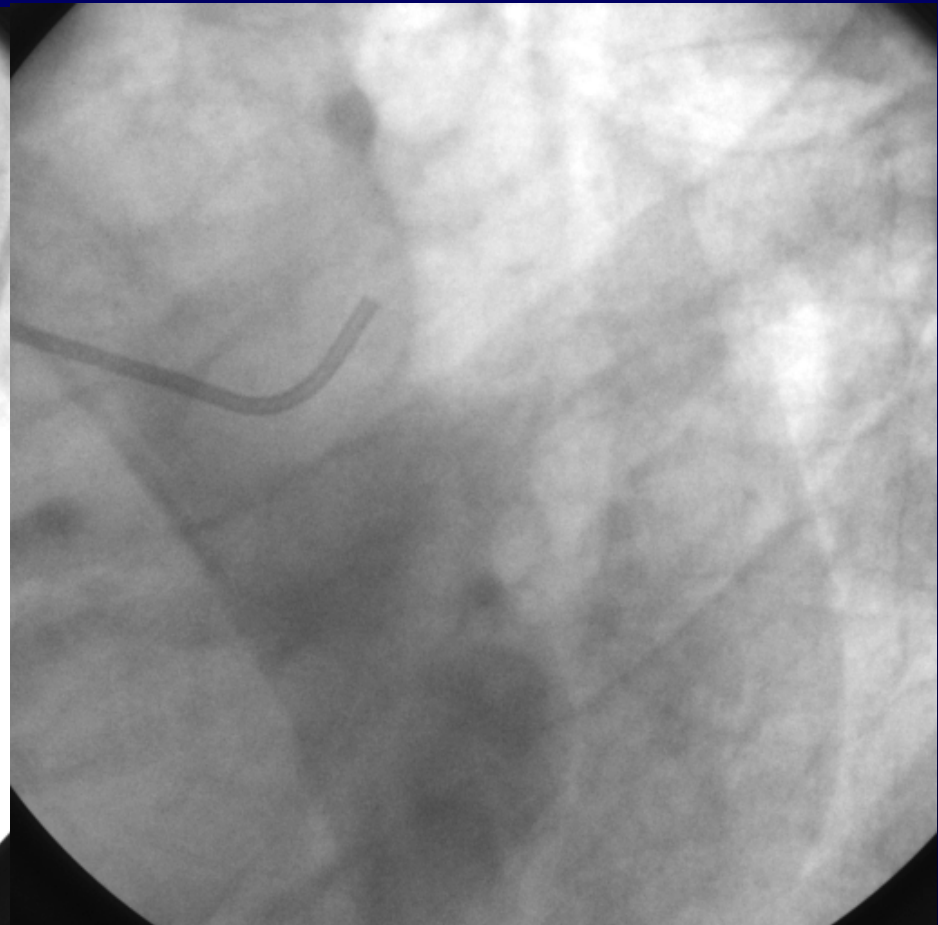
RAO cranial

RAO caudal

Coronary Angiography (Aug 27, 2008)

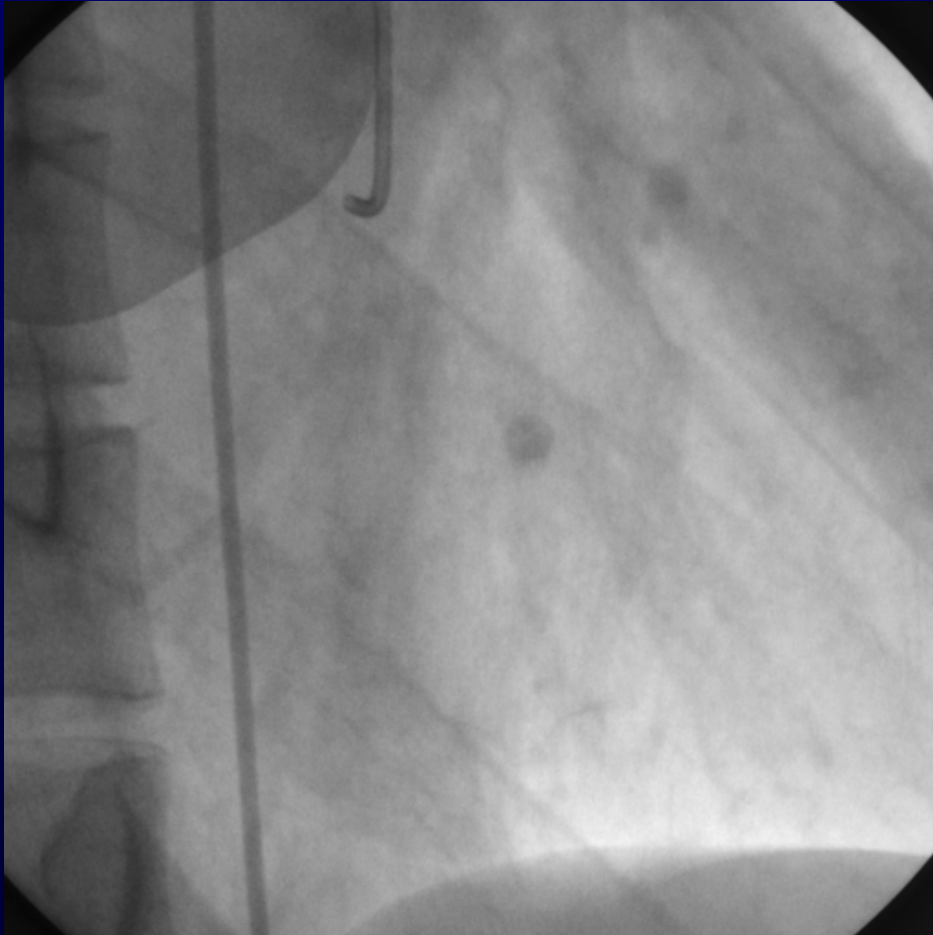


LAO cranial

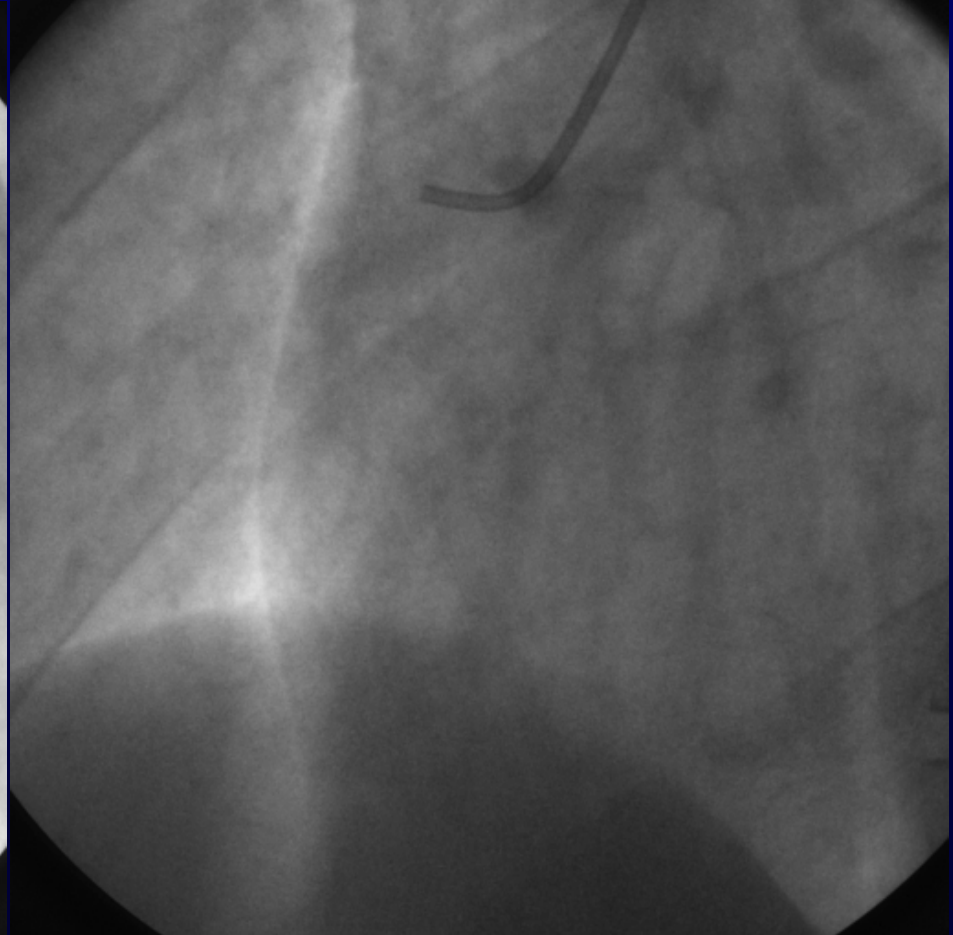


LAO caudal

Coronary Angiography (Apr 27, 2008)

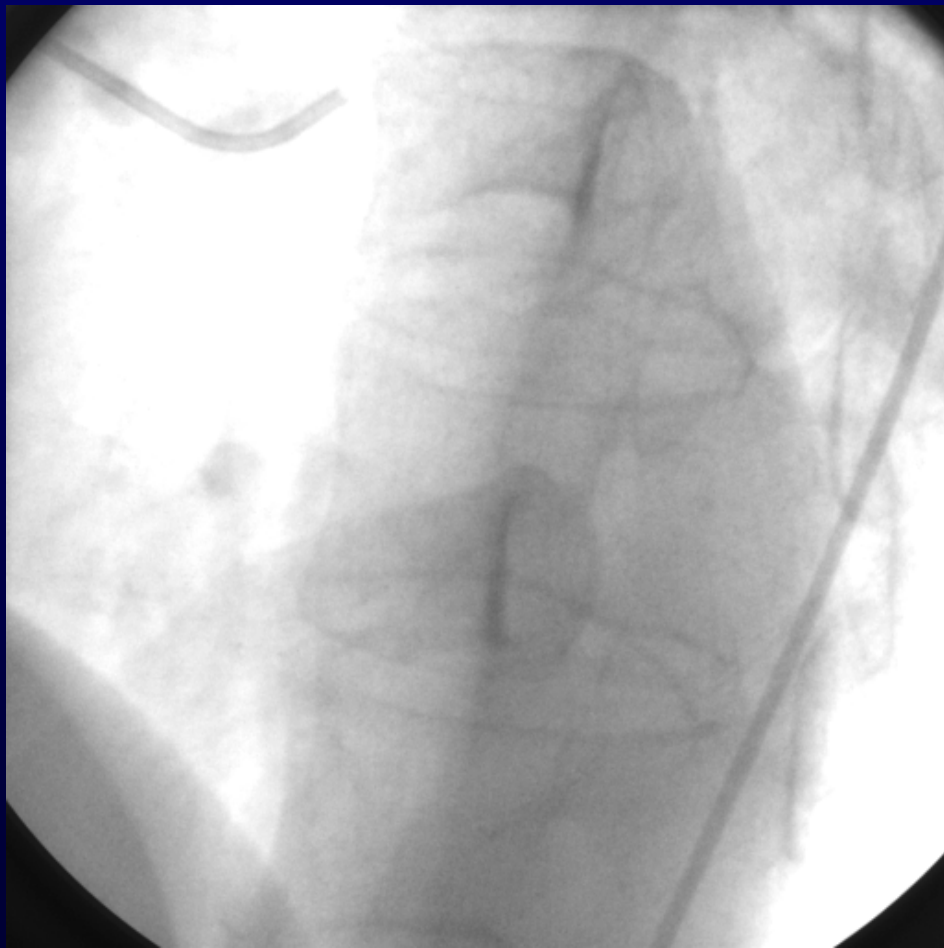


RAO caudal

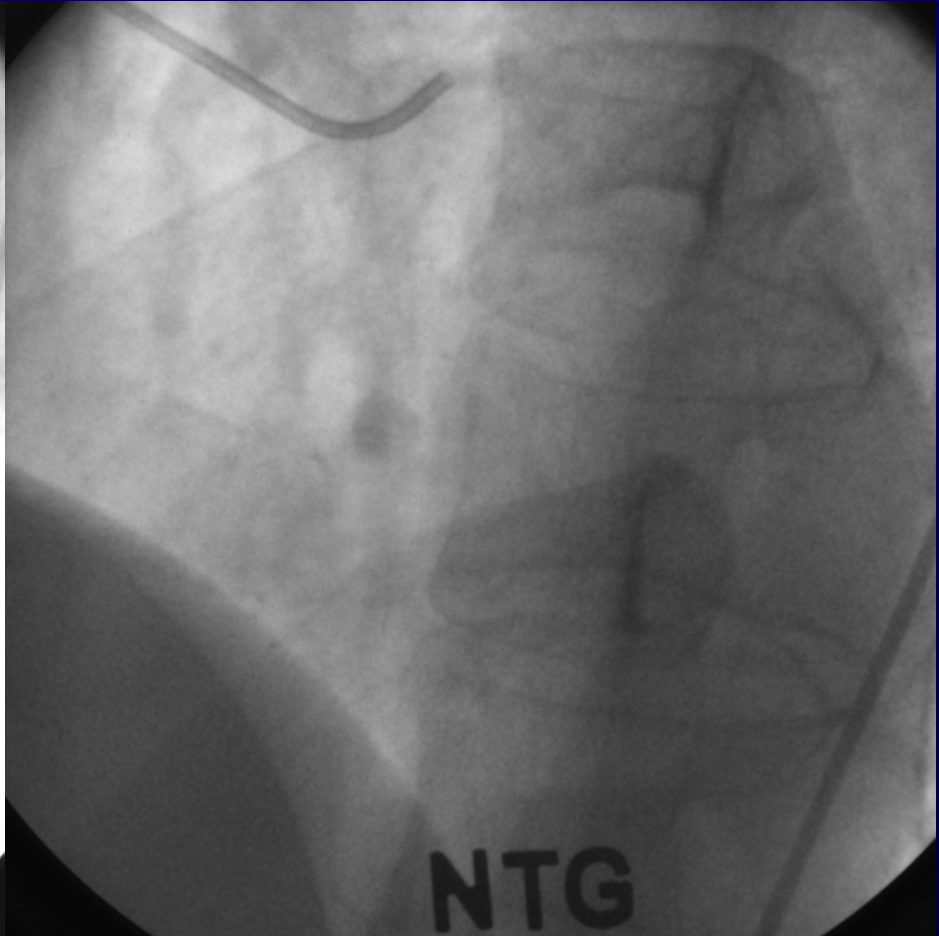


LAO caudal

Coronary Angiography (Apr 27, 2008)

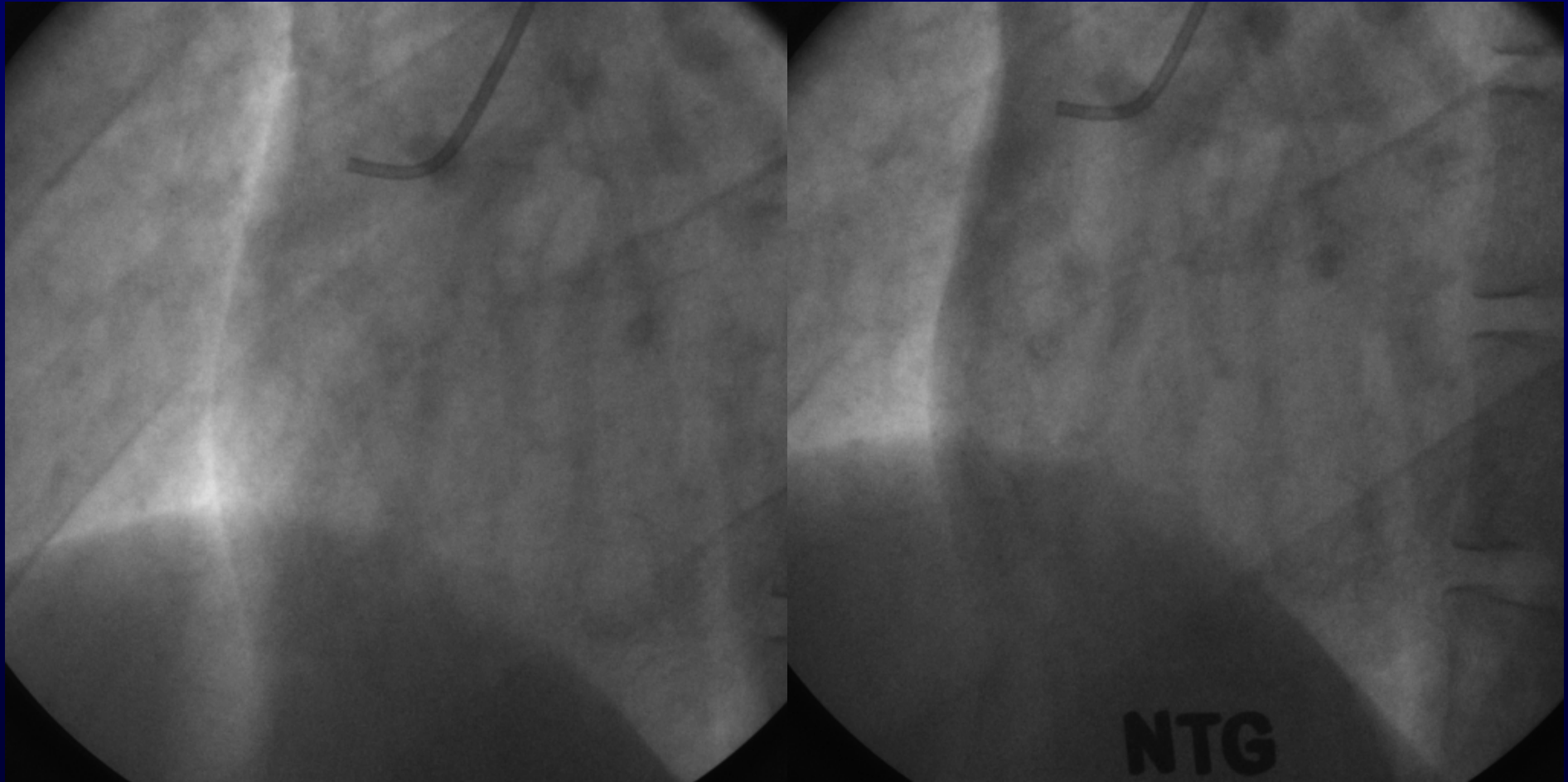


Baseline



After NTG

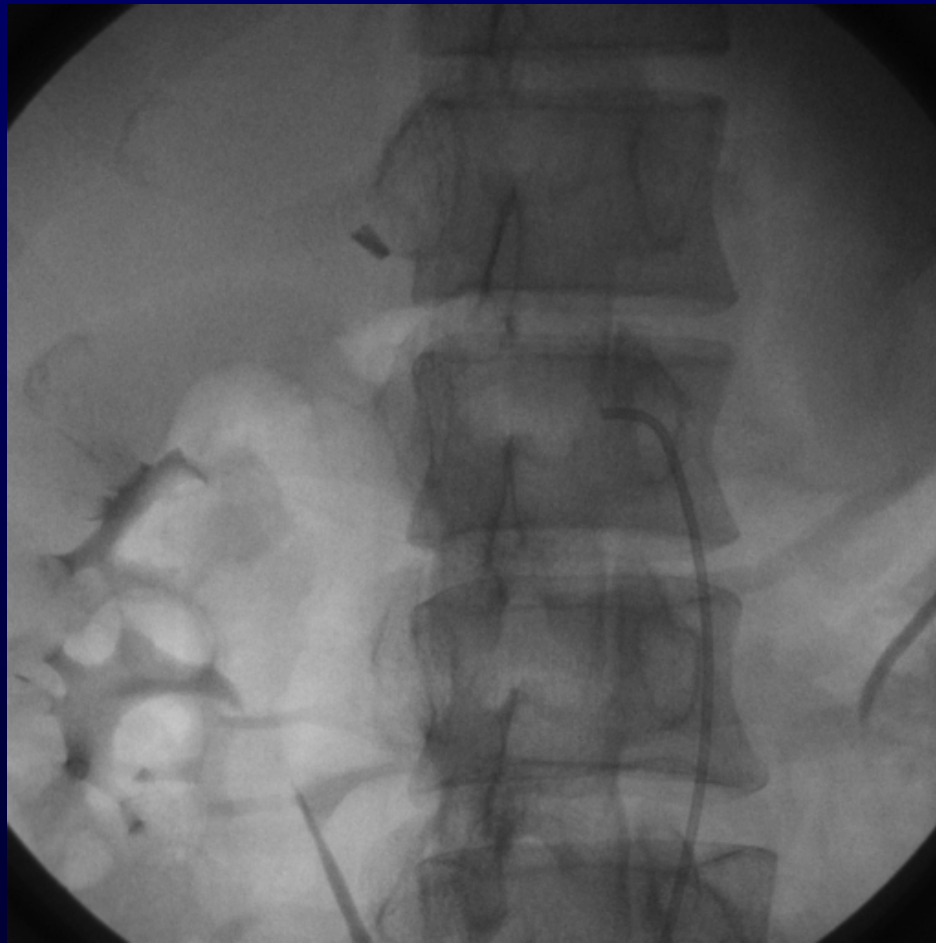
Coronary Angiography (Apr 27, 2008)



Baseline

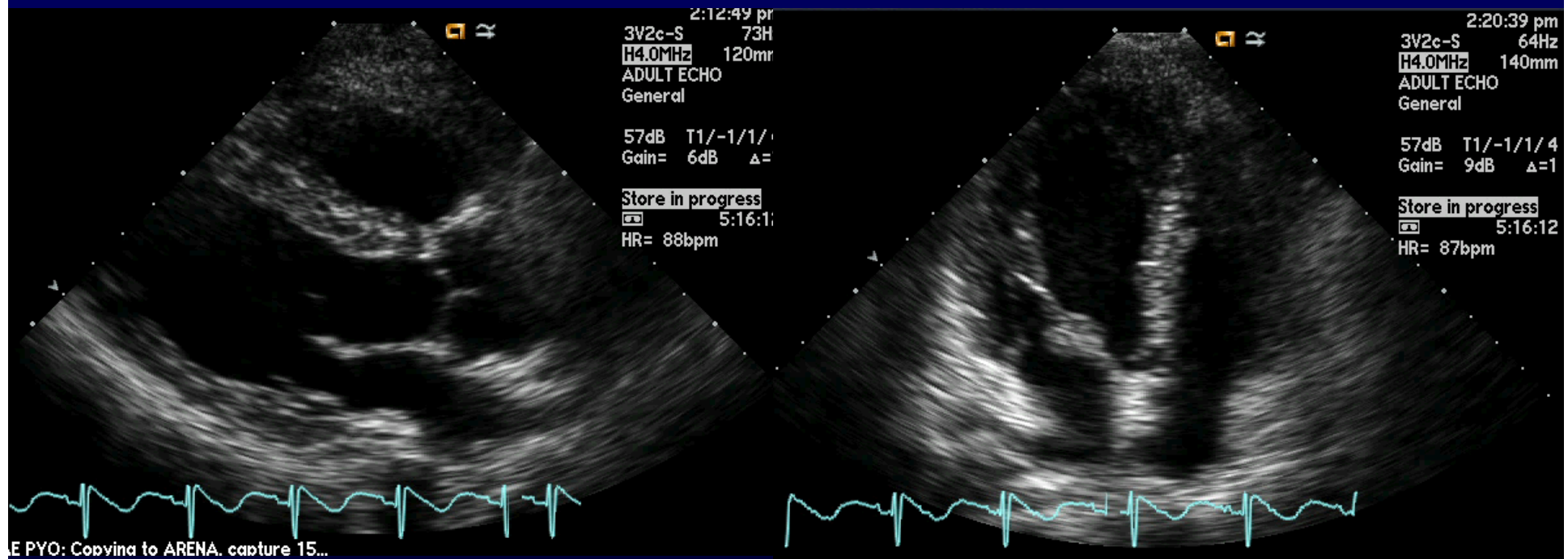
After NTG

Coronary Angiography (Apr 27, 2008)



Renal angiogram (Rt)

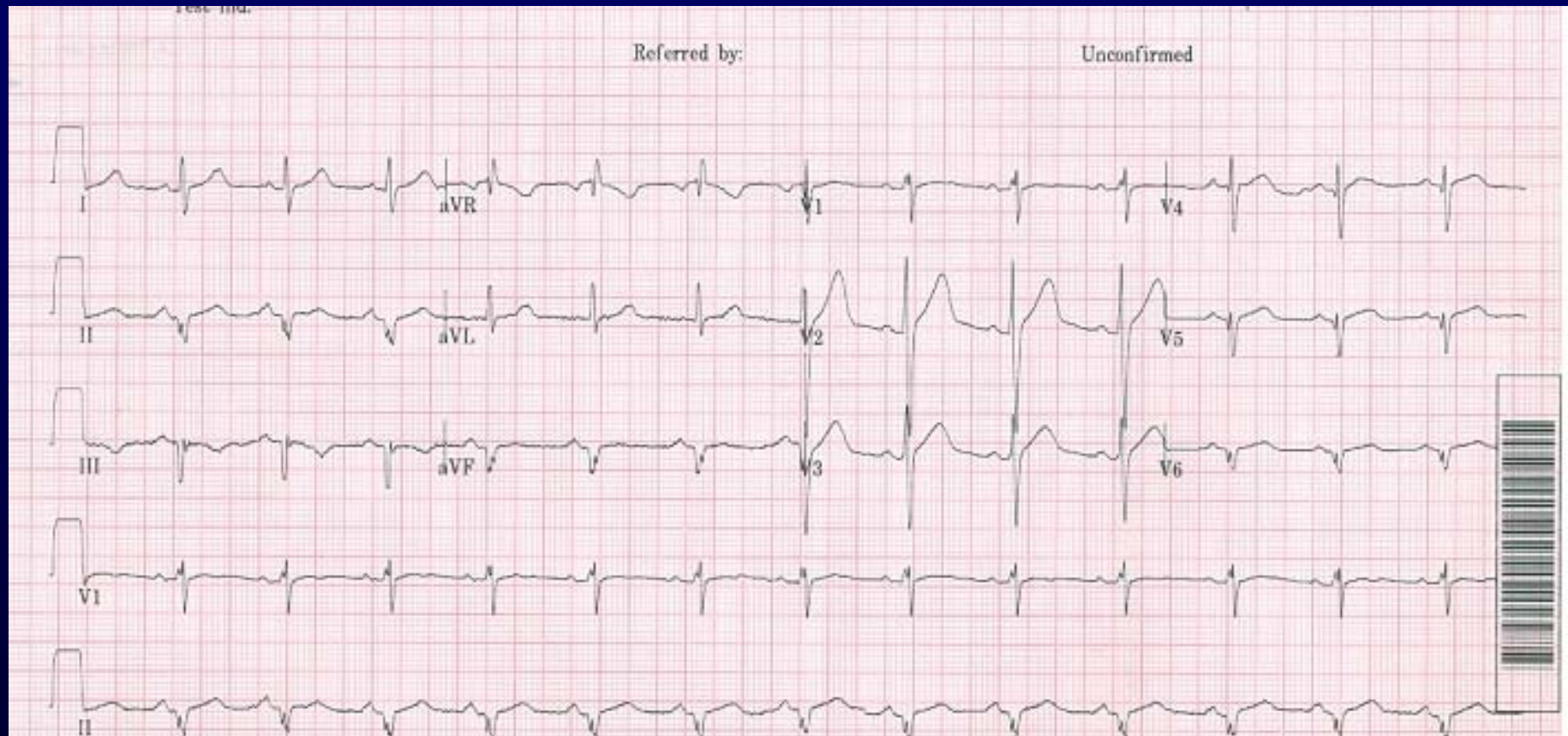
Echocardiography (Aug 27, 2008)



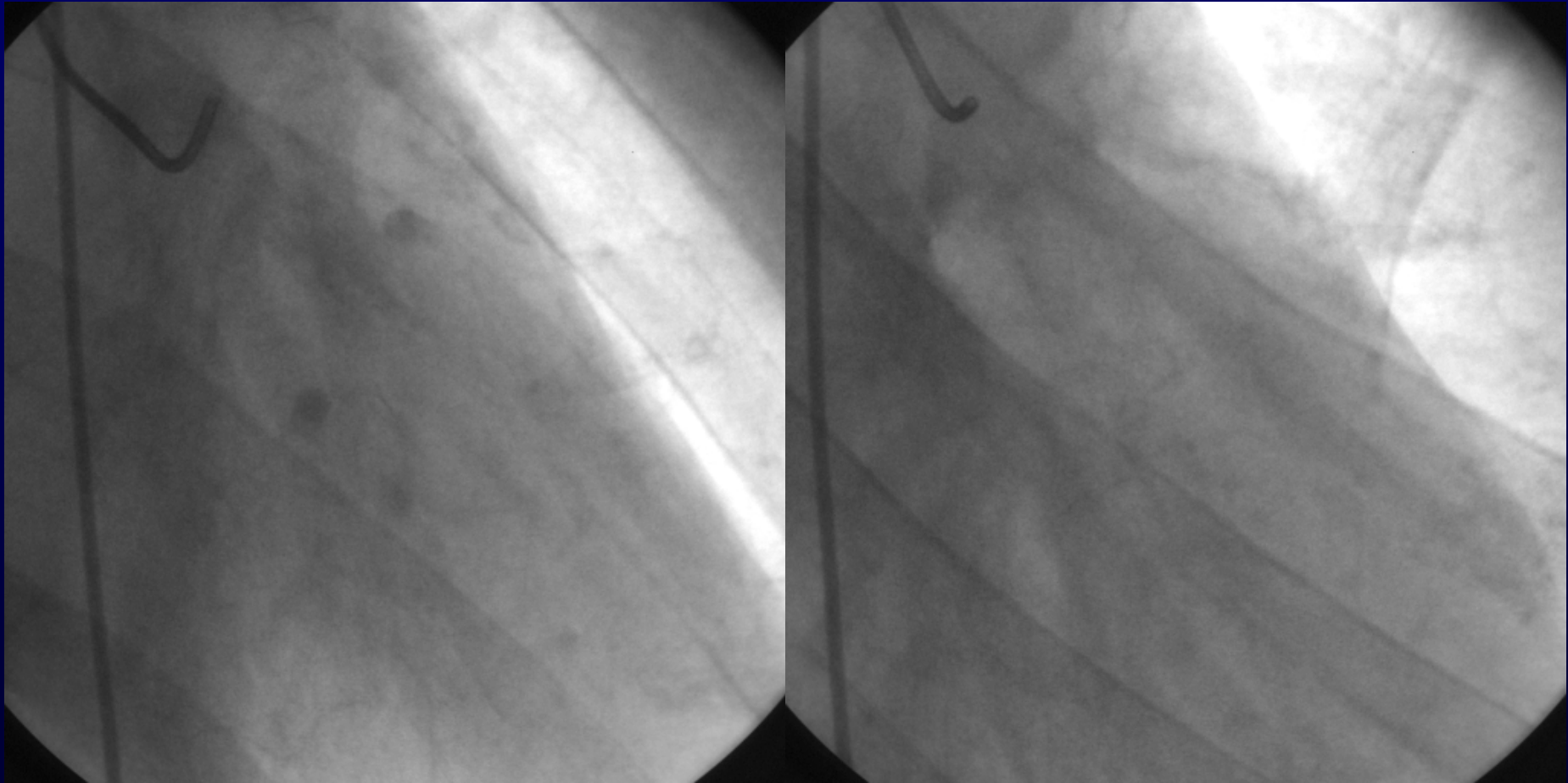
EF = 69.8%

EKG (08.9.5)

9 days after 1st CAG



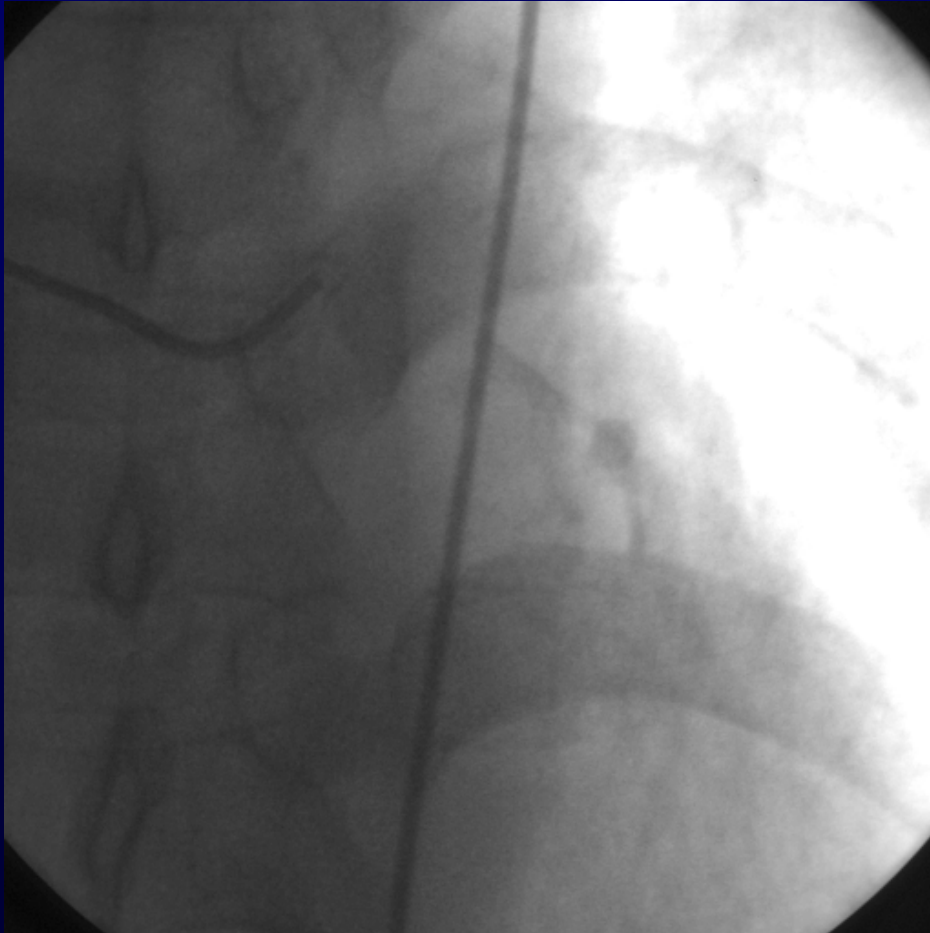
Coronary Angiography (9 days after 1st CAG)



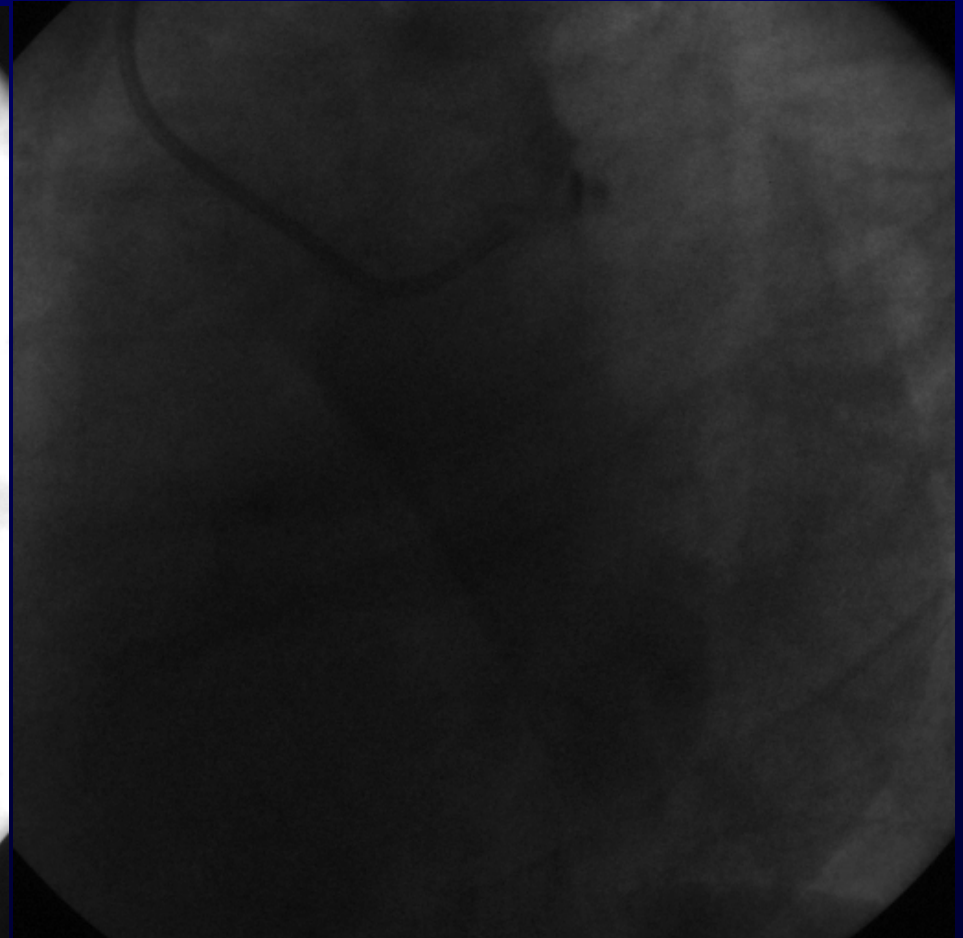
RAO cranial

RAO caudal

Coronary Angiography (9 days after 1st CAG)

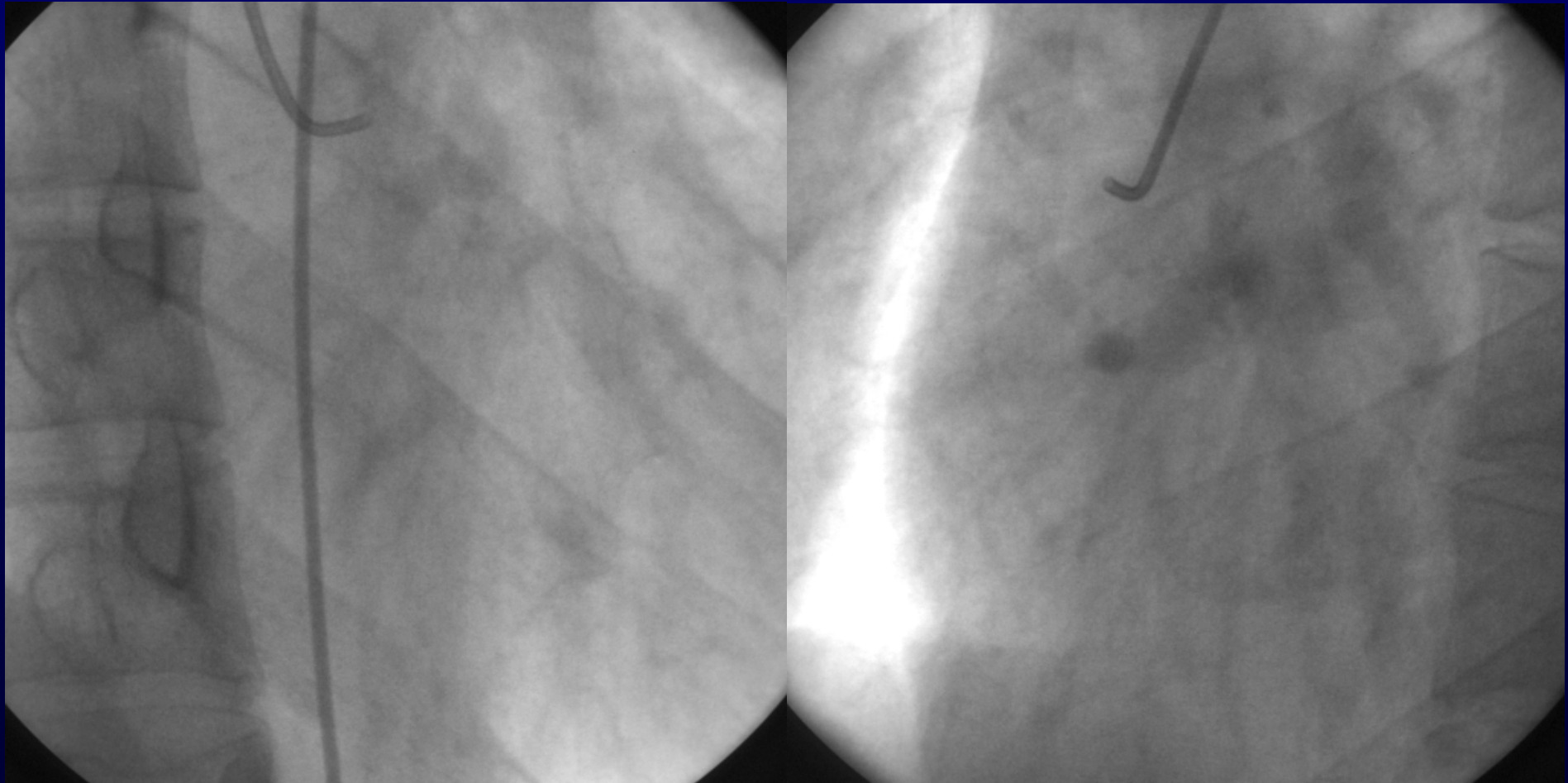


LAO cranial



LAO caudal

Coronary Angiography (9 days after 1st CAG)



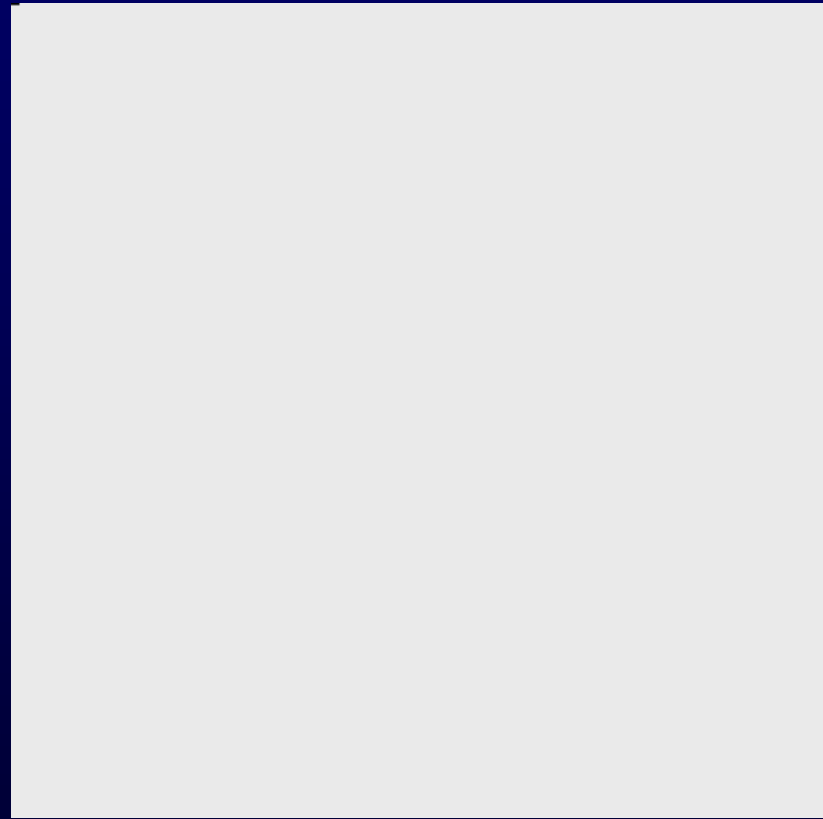
RAO caudal

LAO caudal

IVUS (9 days after 1st CAG)

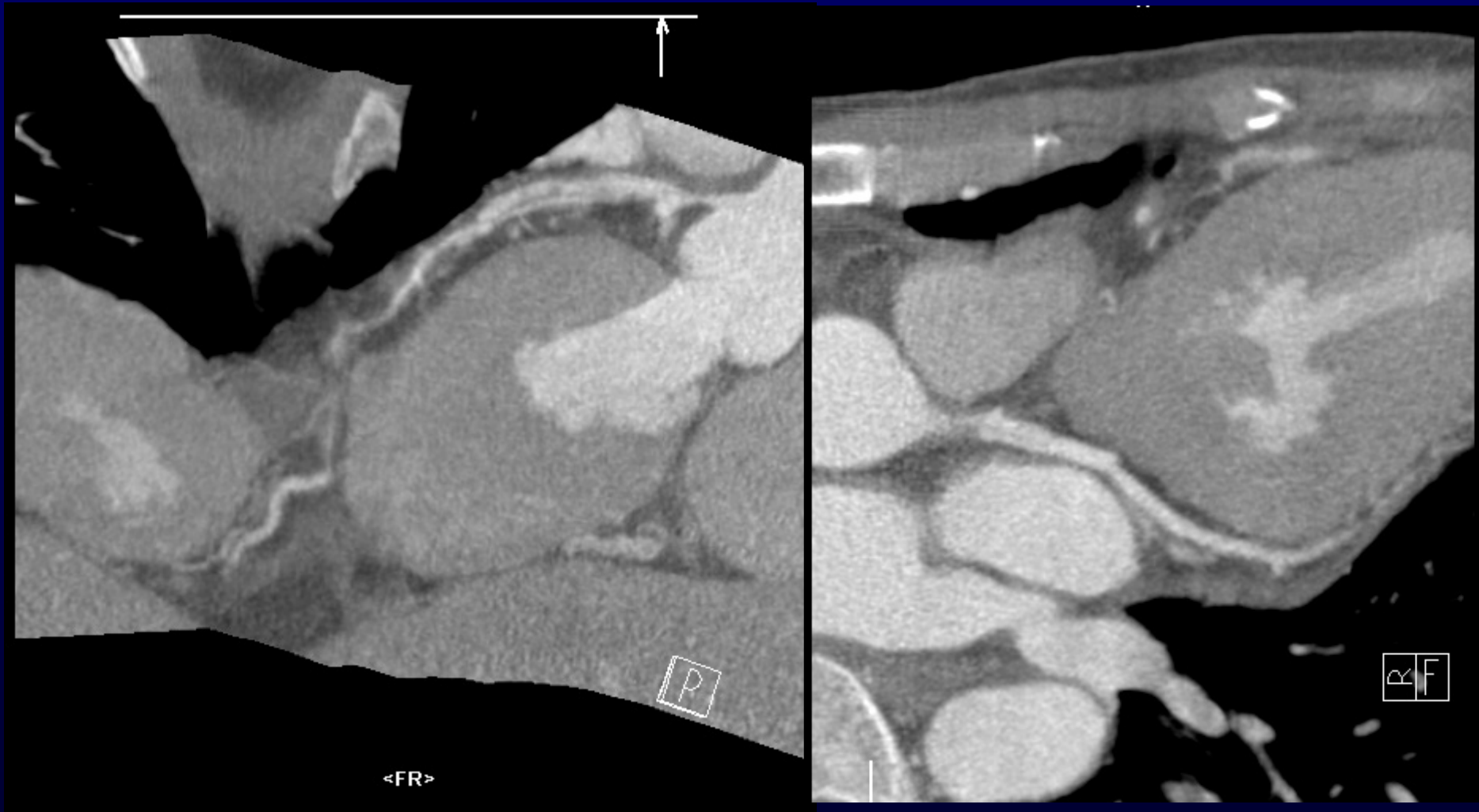


LAD



LCx

Cardiac CTA (9 days after 1st CAG)

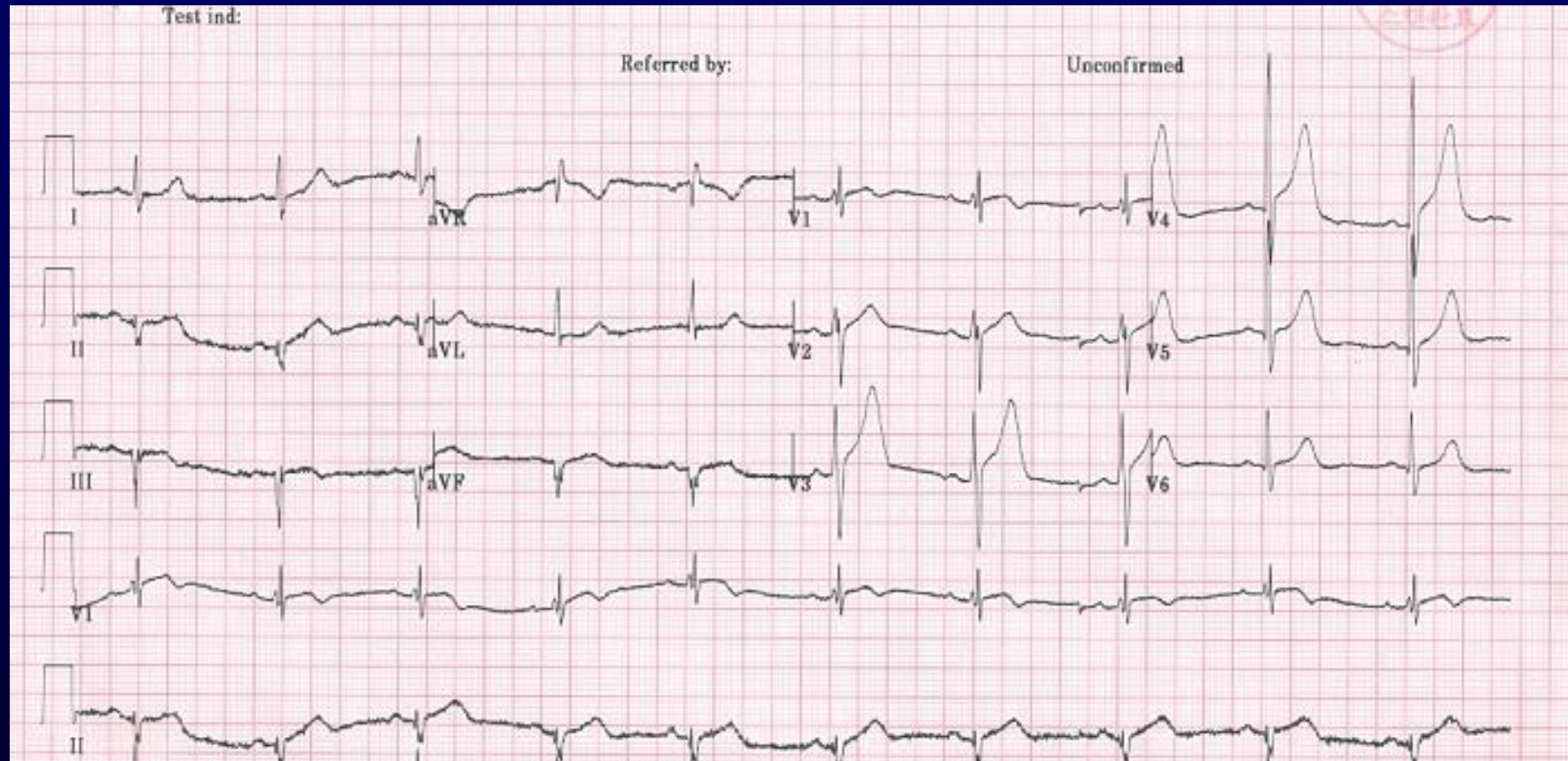


After CAG & cardiac CTA

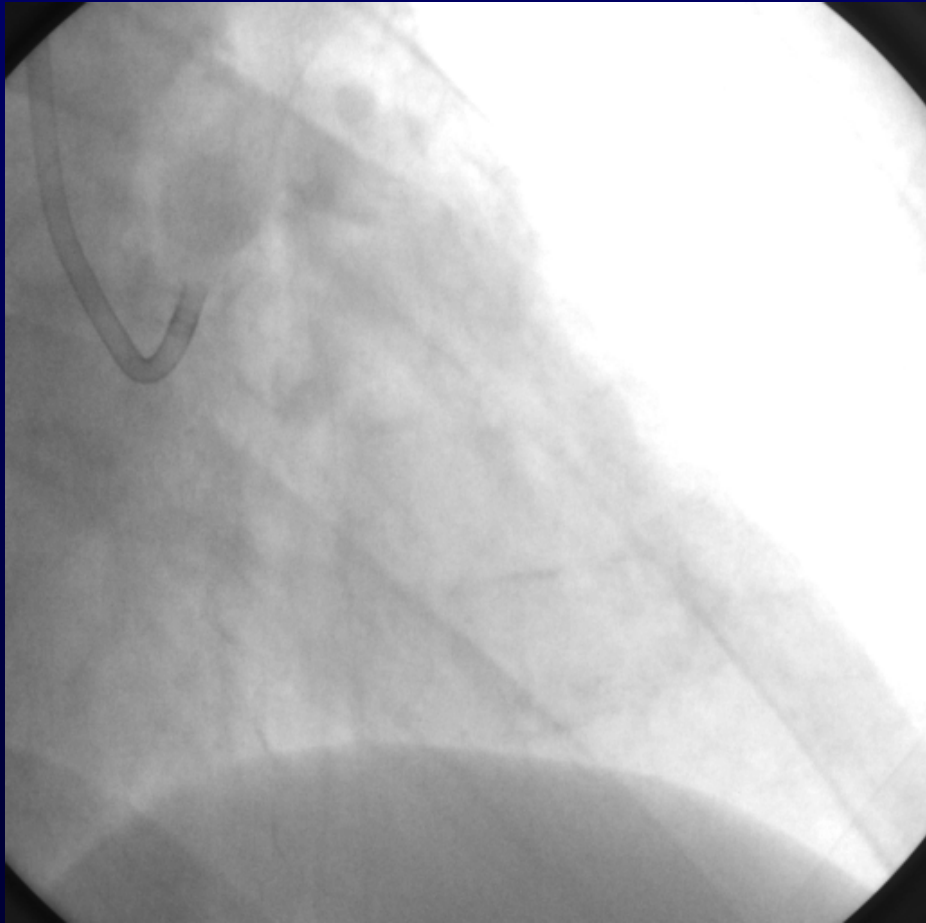
- No chest pain → observation
- Three days later, **severe chest pain** occurred
(Sep 8 0:00 ~ 2:00)
- Decided to perform PCI

EKG (08.9.8 - chest pain)

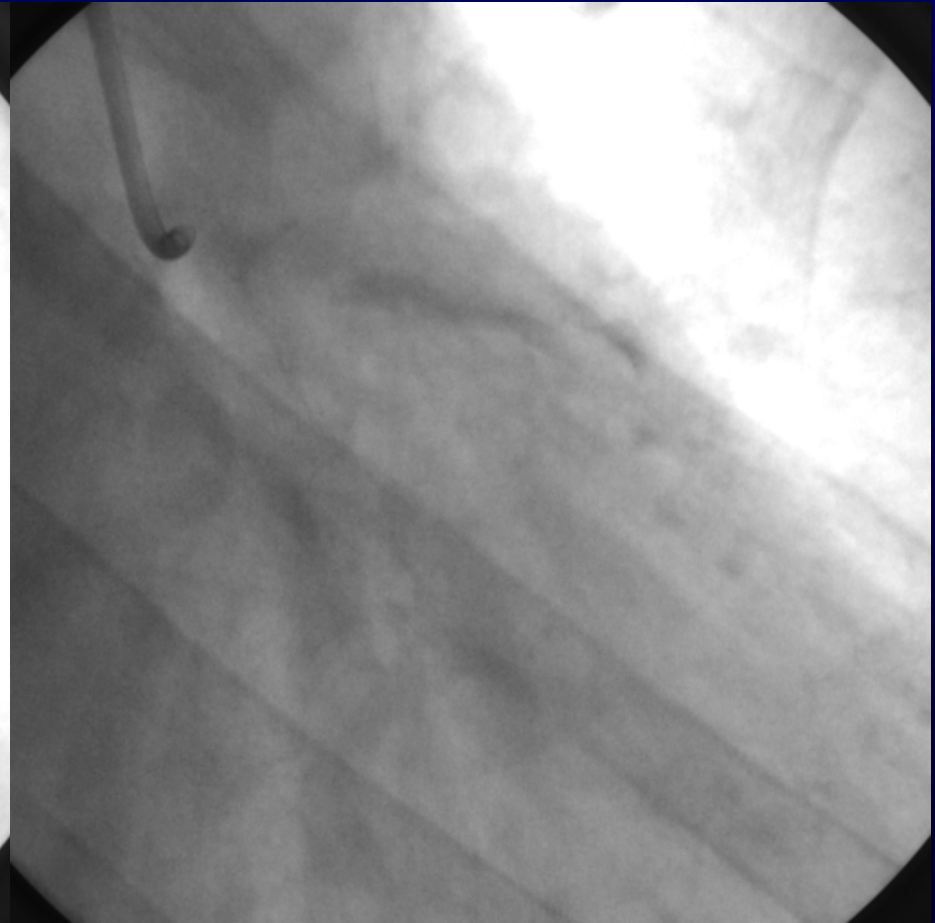
3 days after 2nd CAG



Coronary Angiography (3 days after 2nd CAG)

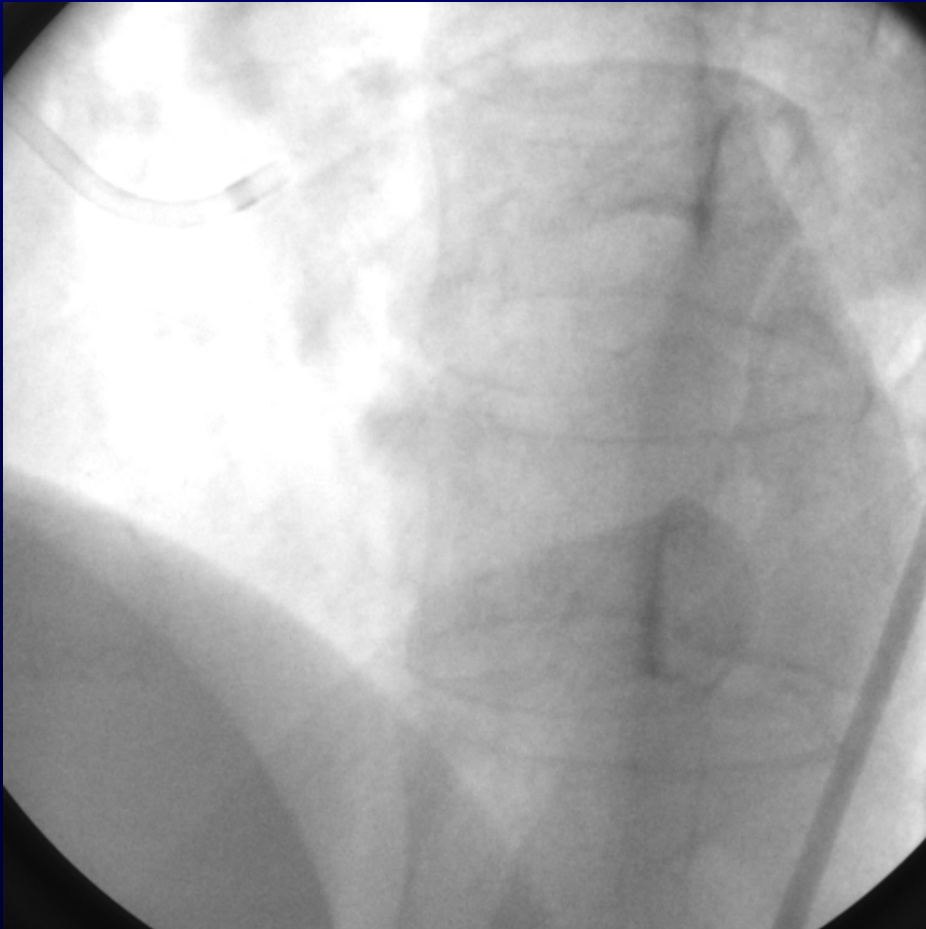


RAO cranial

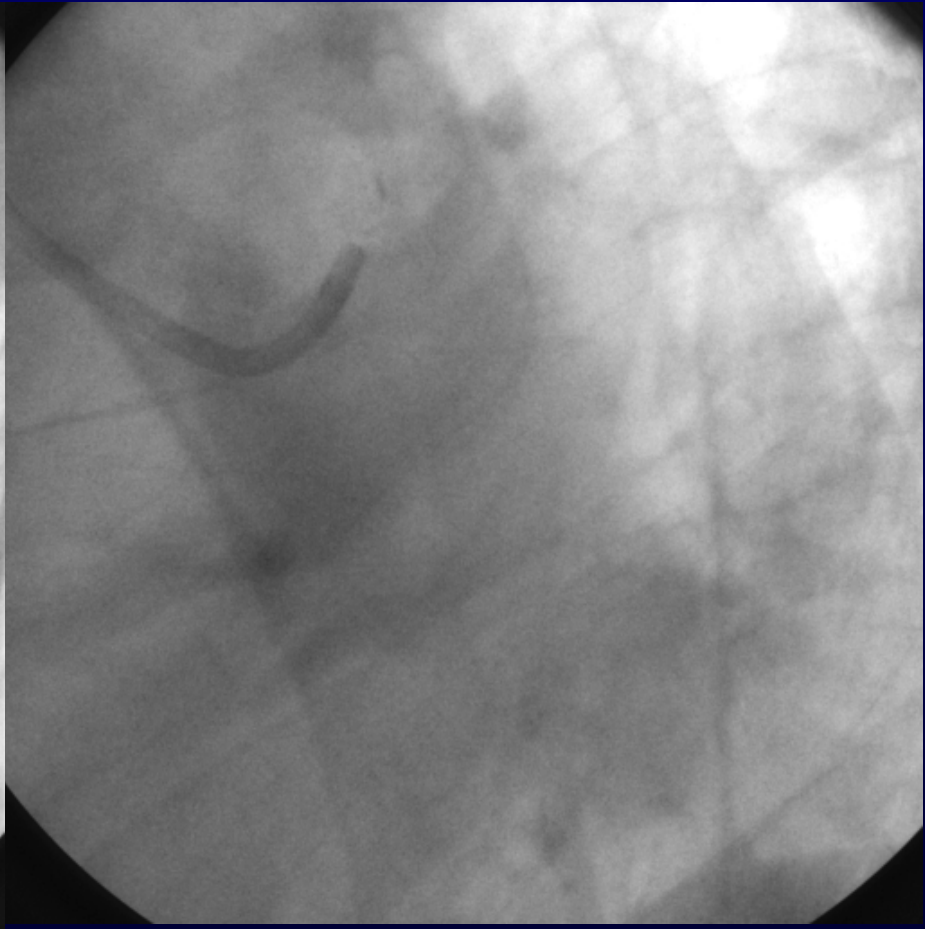


RAO caudal

Coronary Angiography (3 days after 2nd CAG)

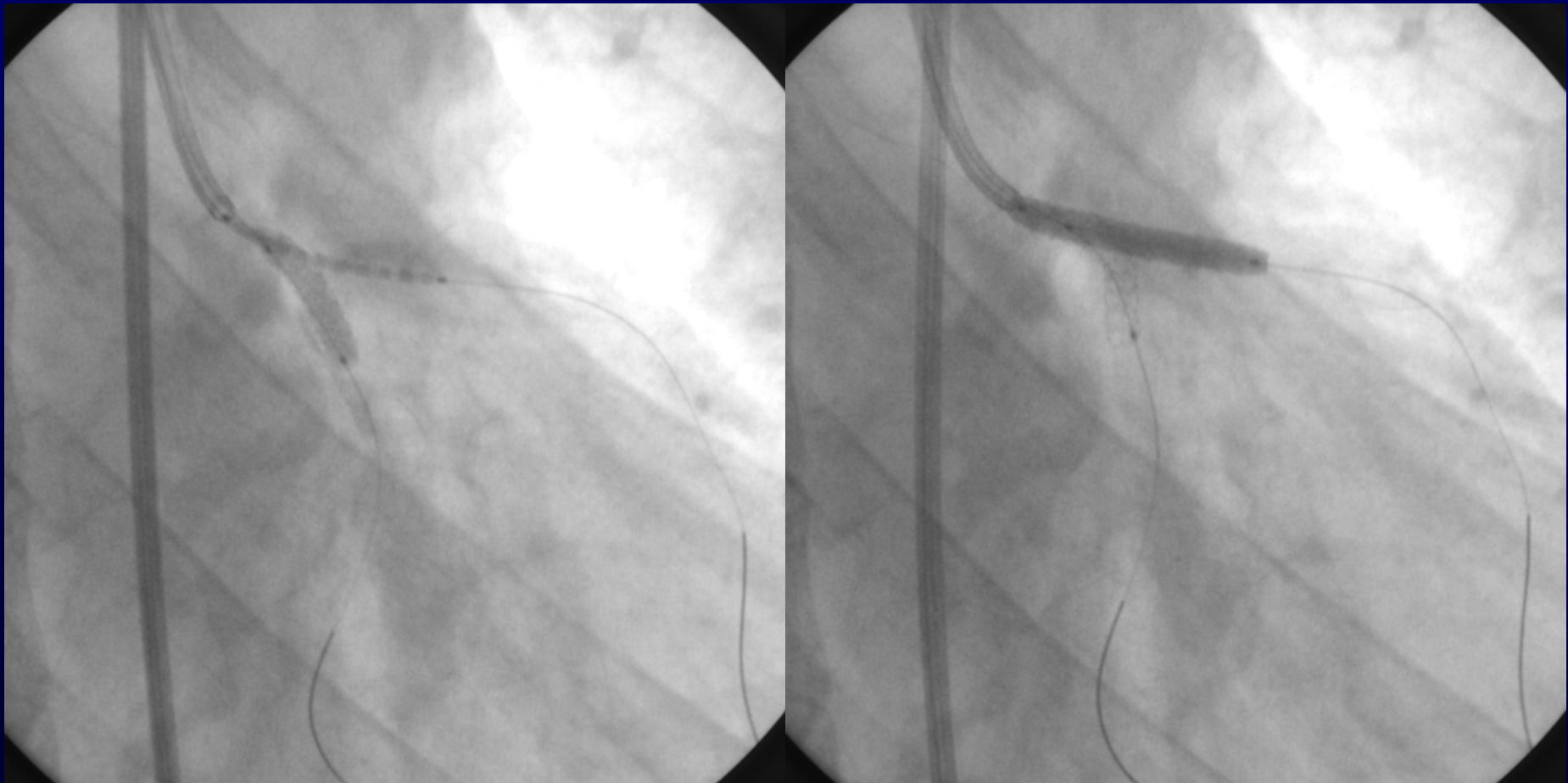


LAO cranial



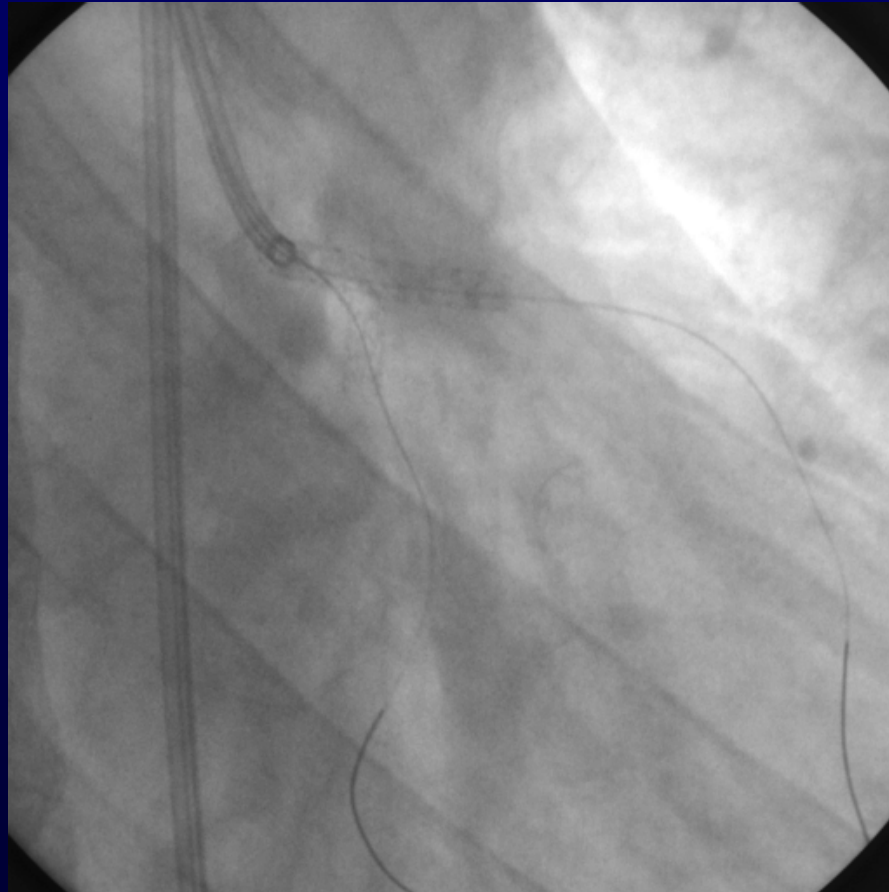
LAO caudal

Coronary Angiography (3 days after 2nd CAG)



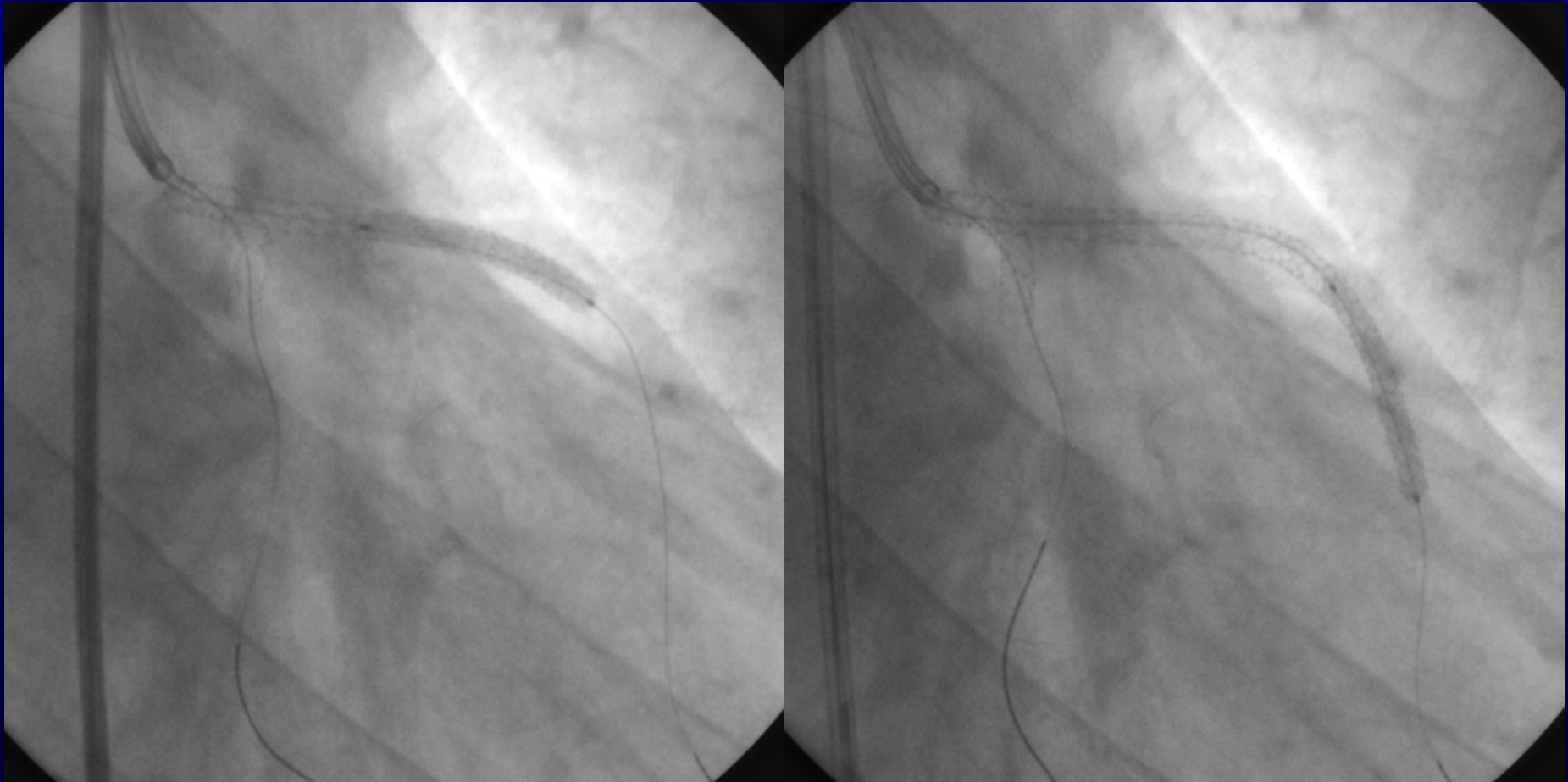
Cypher 3.5 * 18 mm for p-LCx (12atm)
Cypher 3.5 * 28 mm for LM to p-LAD (14atm)

Coronary Angiography (3 days after 2nd CAG)



F/U after stent implantation

Coronary Angiography (3 days after 2nd CAG)

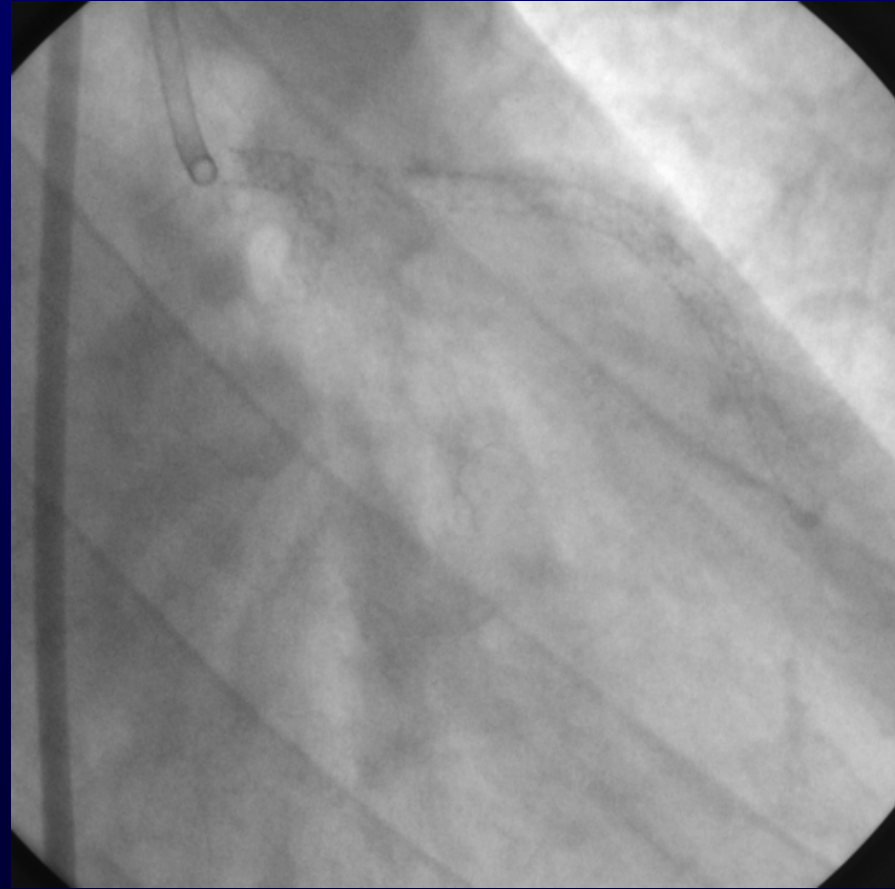


**Cypher 3.5 * 33 mm for p, m-LAD (14atm)
Cypher 3.0 * 33 mm for d-LAD (12atm)**

Coronary Angiography (3 days after 2nd CAG)

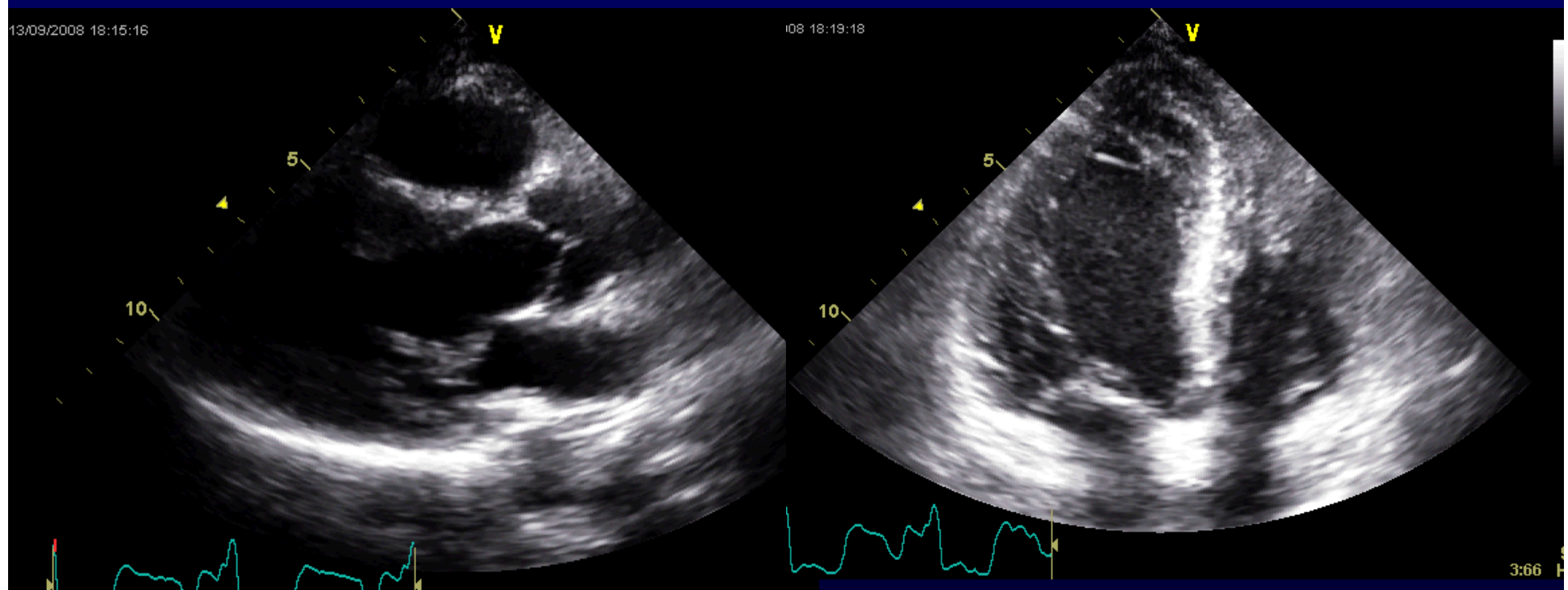


F/U after stent implantation



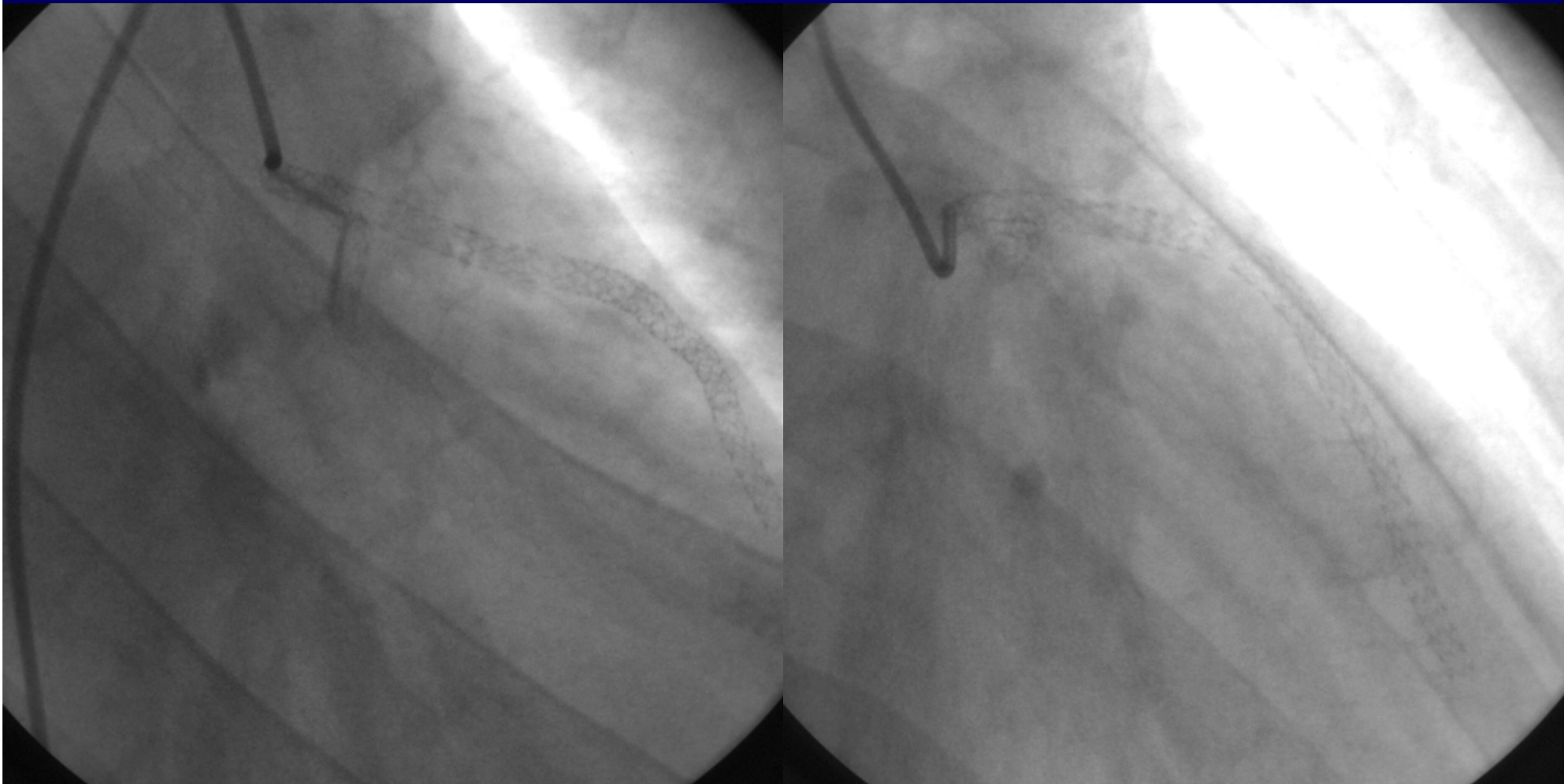
Final angiogram after stent

Echocardiography (5 days after Stenting)



EF = 60.7%

7M FU Coronary Angiography



RAO caudal

RAO cranial