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# Acuet Stent Thrombosis and Cardiac Tamponade after Long DES implantation in AMI patient

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# Mrs. Park (74/F) #18760865

**C/C** Chest pain (onset : 3 hours ago)

Onset: 3 hours ago

Duration: 30 minutes

Nature: squeezing

Site: ant. chest

Radiation : Lt. shoulder

Associated Sx.: (-)

NTG response : None

Aggravating factor : exercise

Relieved factor : rest

**P/H** No known Hx of HTN, Pul. TBc, Hepatitis

**DM Hx(+)** : On medication for 20 yrs

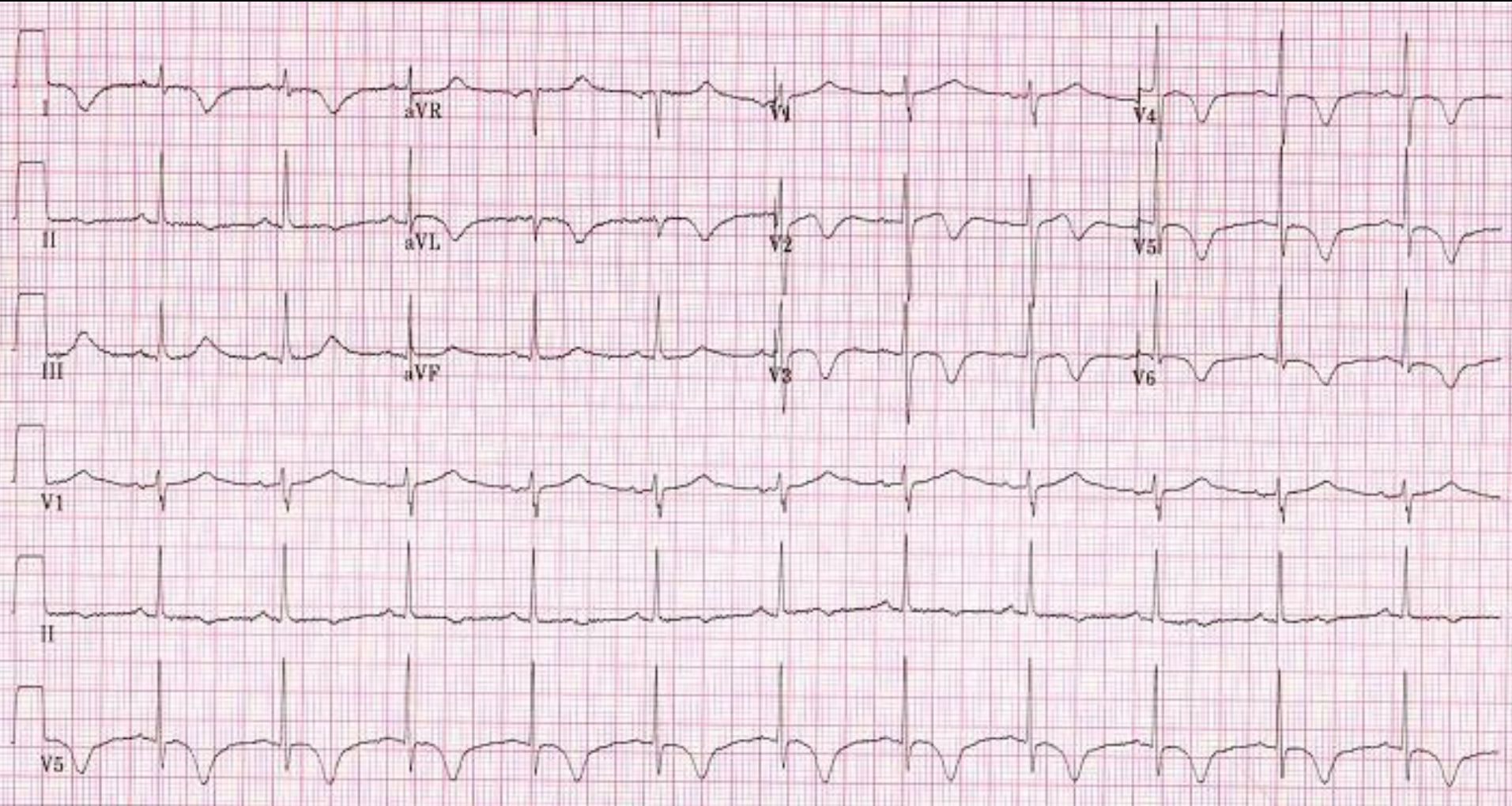
**CAD, Dyslipidemia** : On medication for 20 days

**S/H** Smoking: none

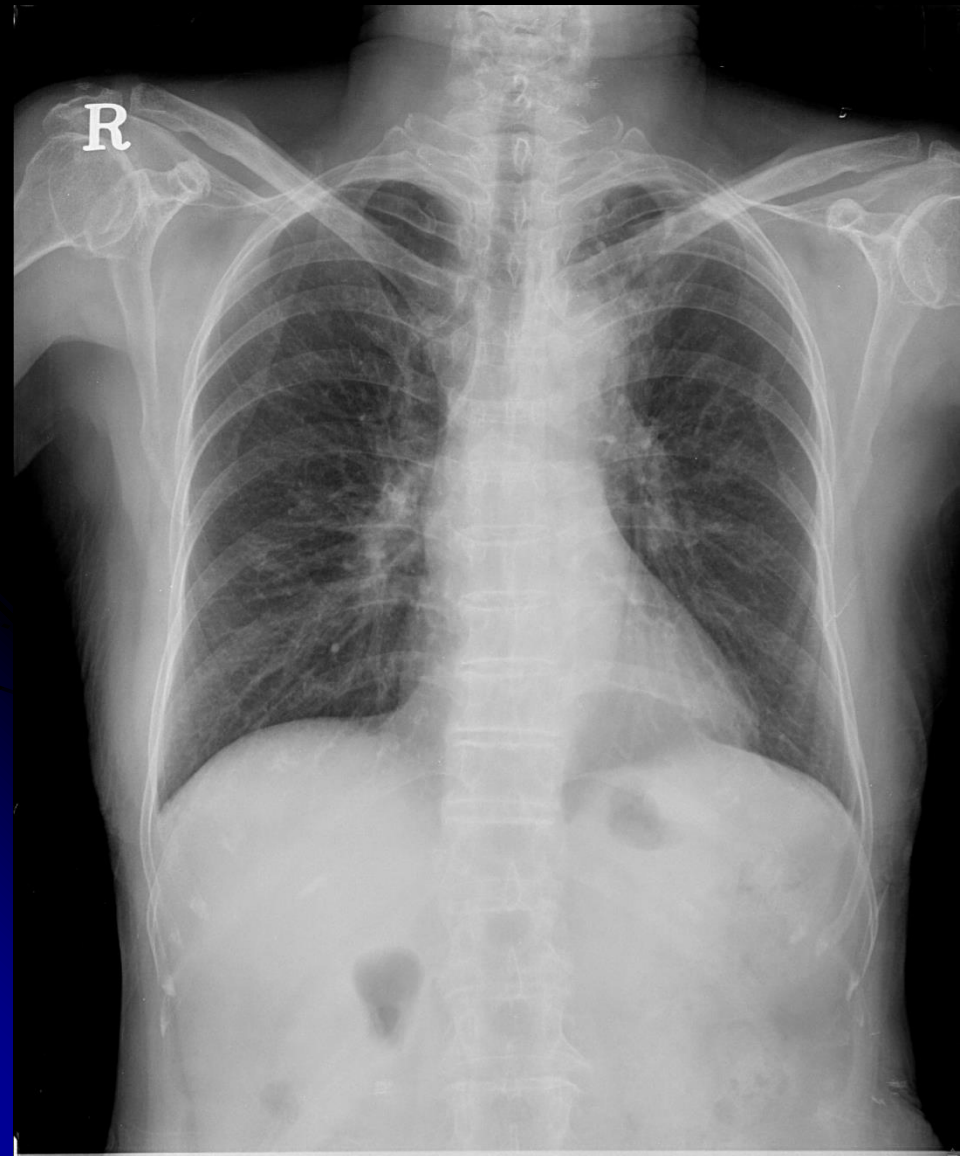
Alcohol: none

**F/H** N-S

# 12-lead EKG on admission



# Chest PA and Lt. Lat.



# Laboratory findings

## CBC

WBC	6400	/mm <sup>3</sup>
	(N :49% L:40.8%)	
Hgb	13.1	g/dL
PLT	346x10 <sup>3</sup>	/mm <sup>3</sup>

## LFT

AST	37	U/L
ALT	27	U/L
LDH	548	U/L

## RFS and electrolyte

BUN	20.3	mg/dL
Cr	0.7	mg/dL
Na/K/Cl	140/4.6/104	mEq/L

## Coagulation profiles

aPTT	31.2	sec
PT	10.2/113/0.984	(sec/%/INR)

## Cardiac enzyme

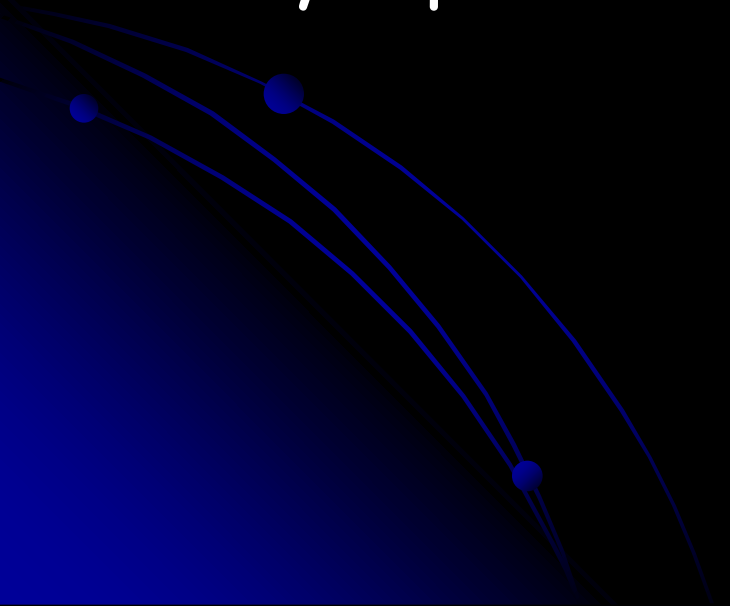
CK	108	U/L
CK-MB	7.2	U/L
Tn-I	1.09	ng/mL

## Lipid profiles

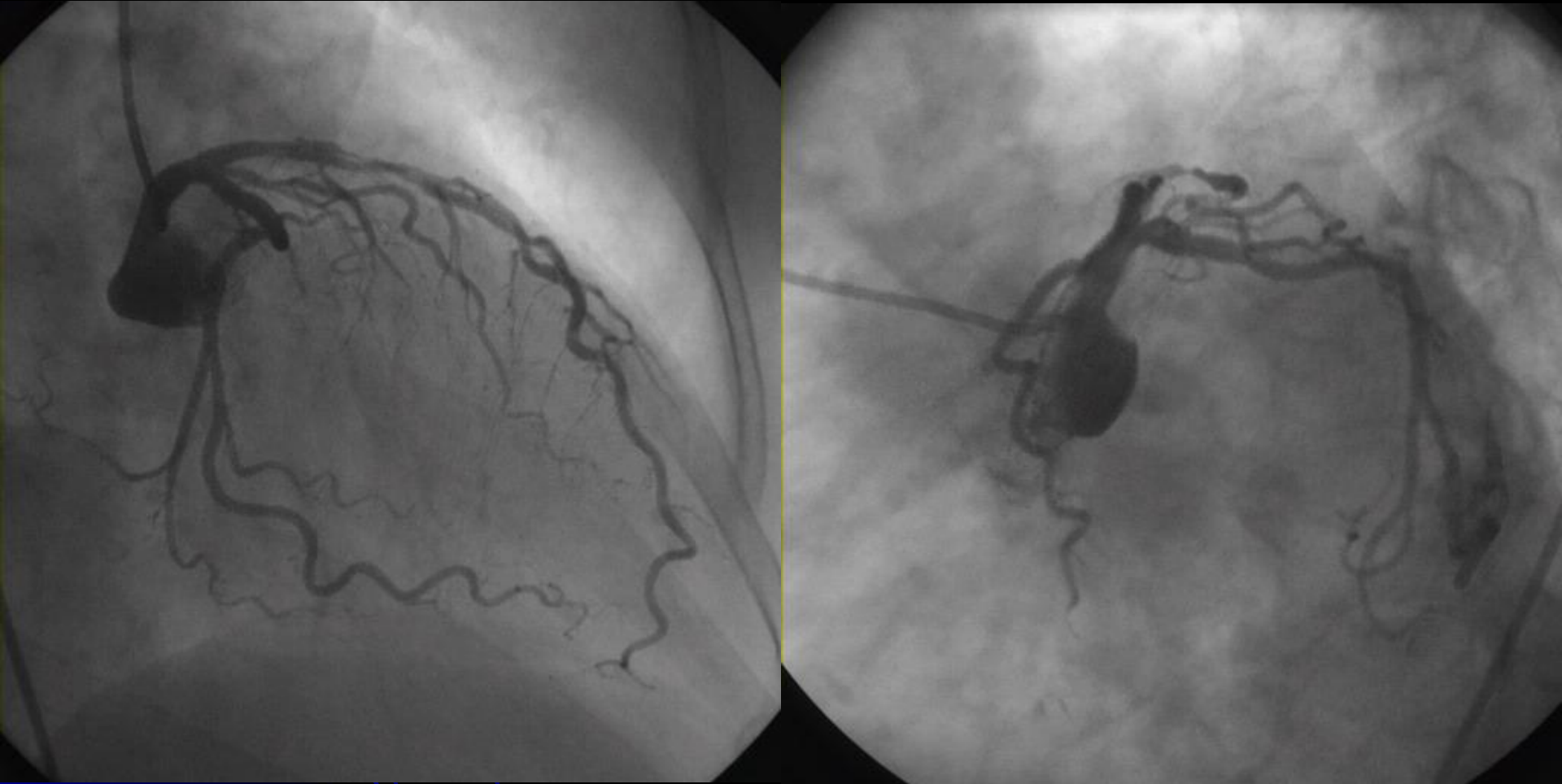
Total cholesterol	127	mg/dL
TG	431	mg/dL
HDL cholesterol	42	mg/dL
LDL cholesterol	37	mg/dL
hs CRP	0.05	mg/dL

Pro-BNP	1366	pg/dL
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# Tentative Diagnosis

1. Non-ST elevation MI
  2. Type 2 Diabetes mellitus
  3. Dyslipidemia
- 

**CAG (2010.11.27)**



**Significant stenosis in LAD and D1**



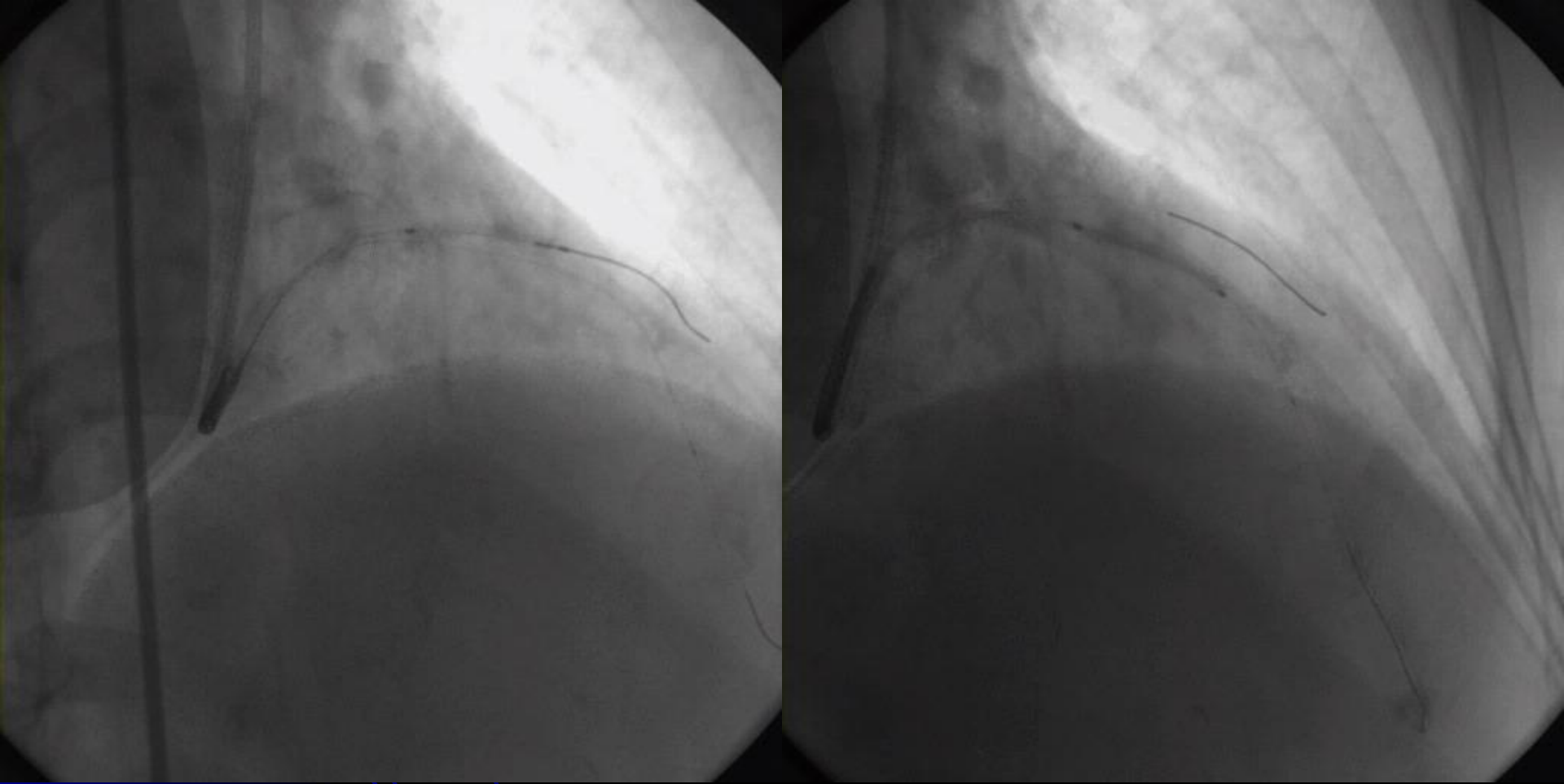
**Significant stenosis in LAD and D1**





**No significant stenosis in RCA**

# Balloon Angioplasty for LAD and D1



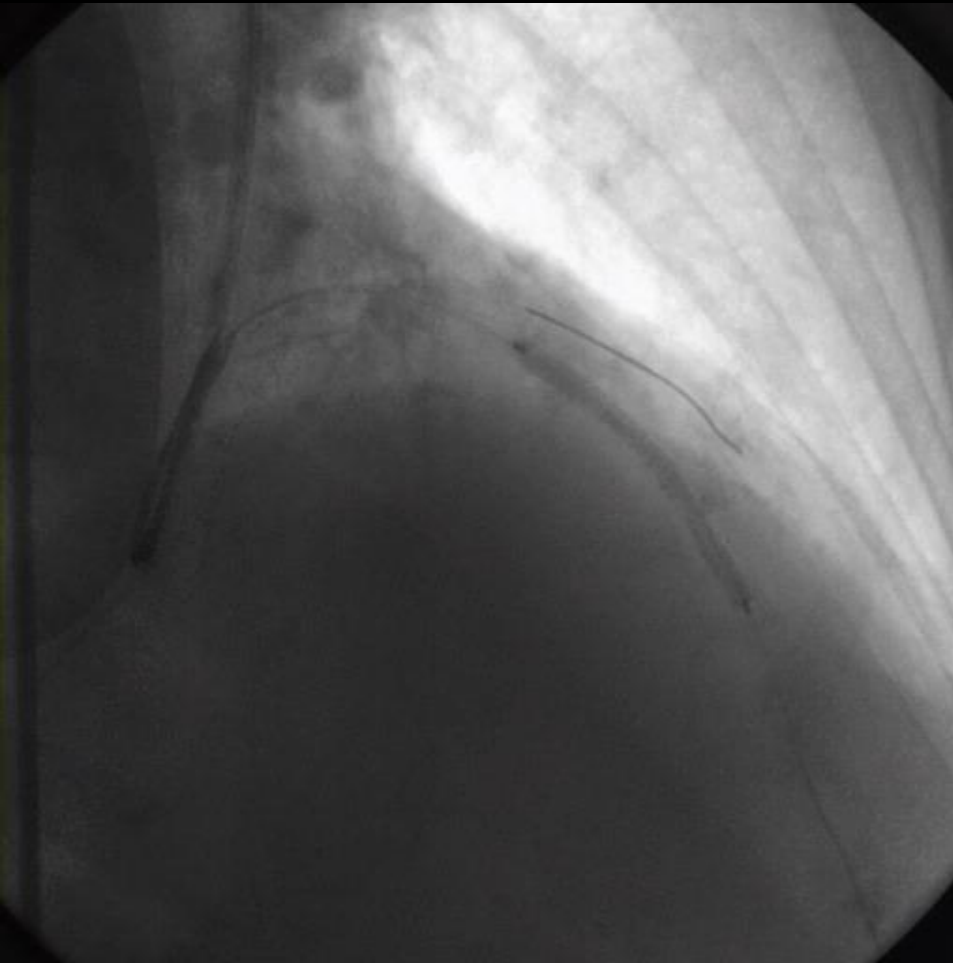
2.0mm balloon

## After balloon for LAD

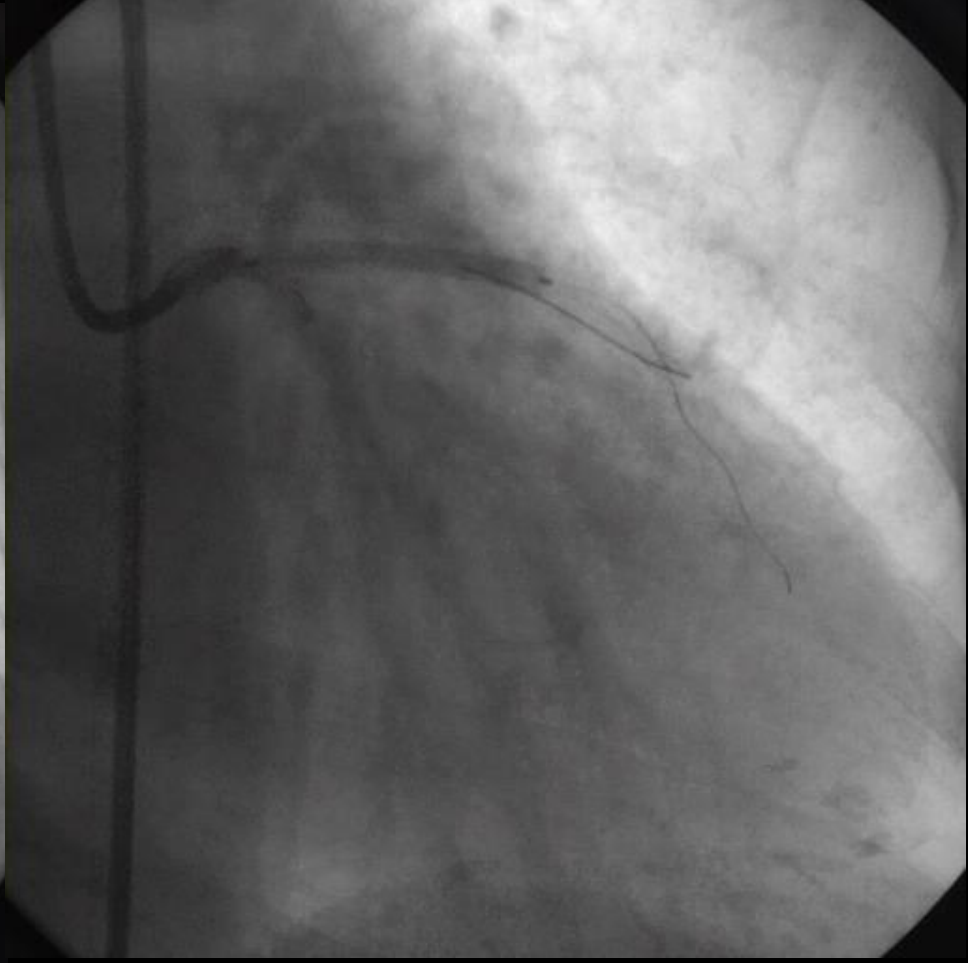


Residual stenosis were remained in p to mLAD

## Stenting for LAD

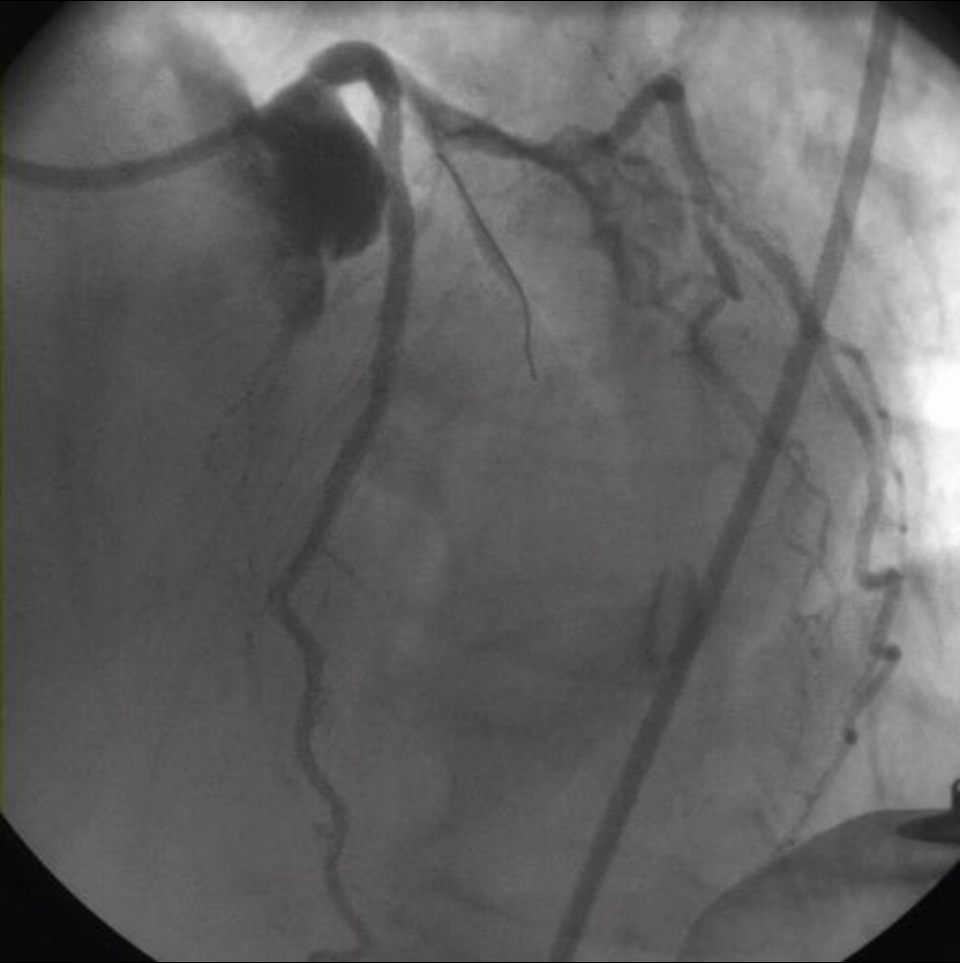
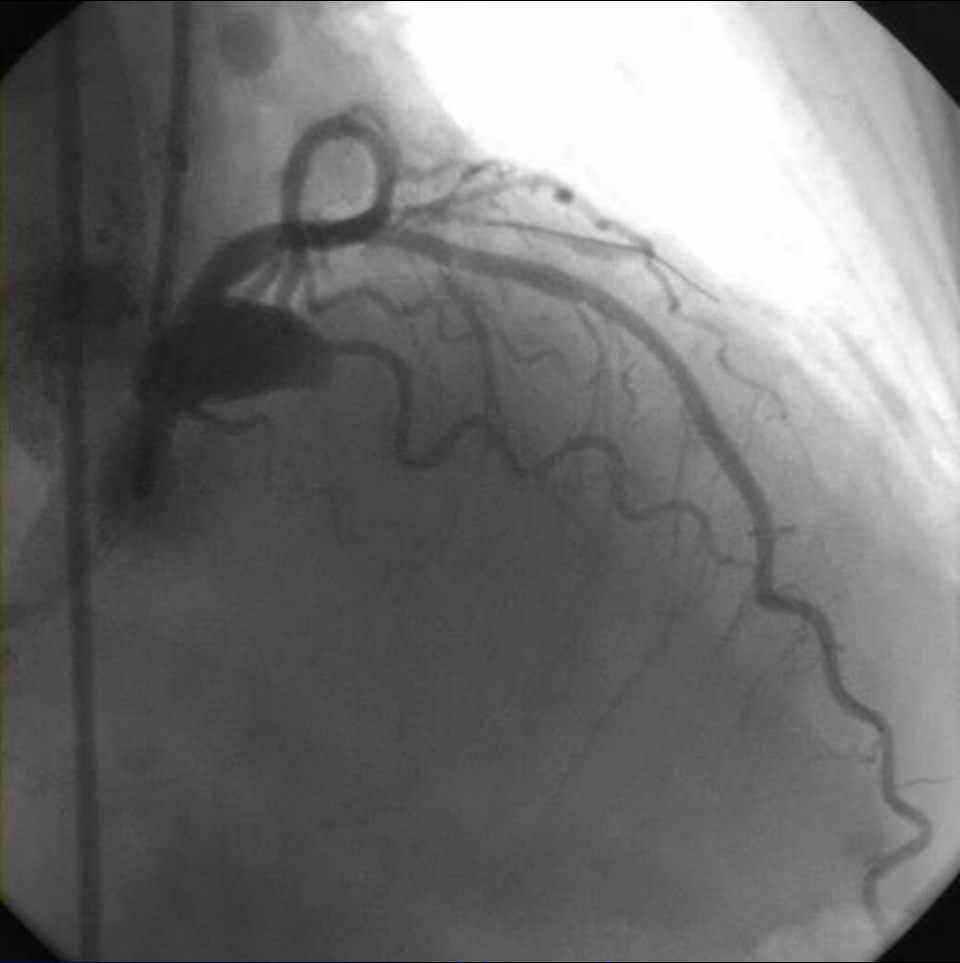


2.75x38mm 8 atm xience prime stent  
**RAO cranial**



3.0x33mm 12atm xience prime stent  
**RAO caudal**

## After Stent for LAD



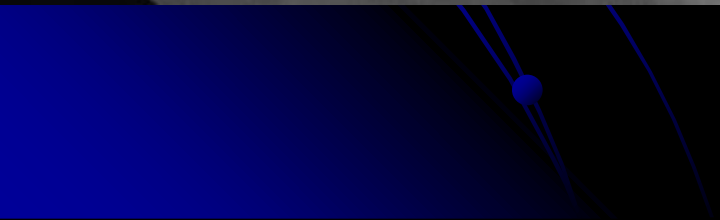
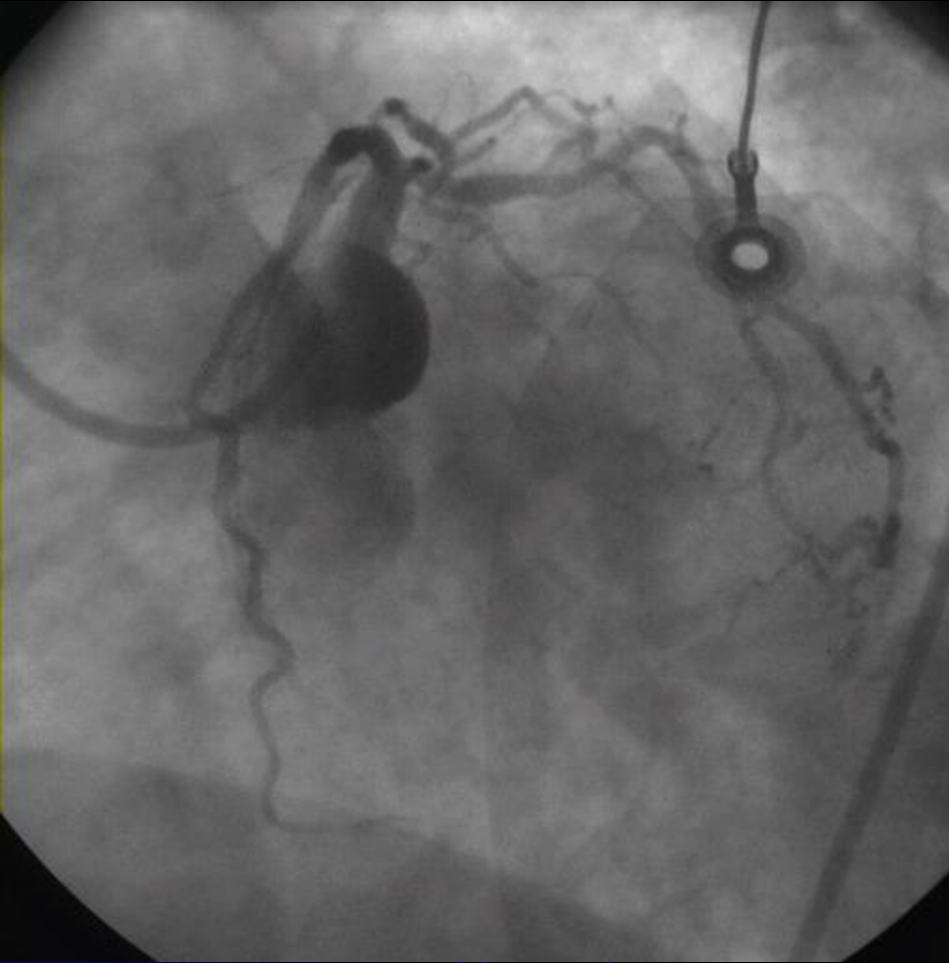
Jailed D1 after stenting

## Adjunctive Ballooning for LAD and D1



Kissing ballooning using 3.0mm balloon for LAD and 2.0mm balloon for D1

## Final angiography



HD 1 10:00 PM

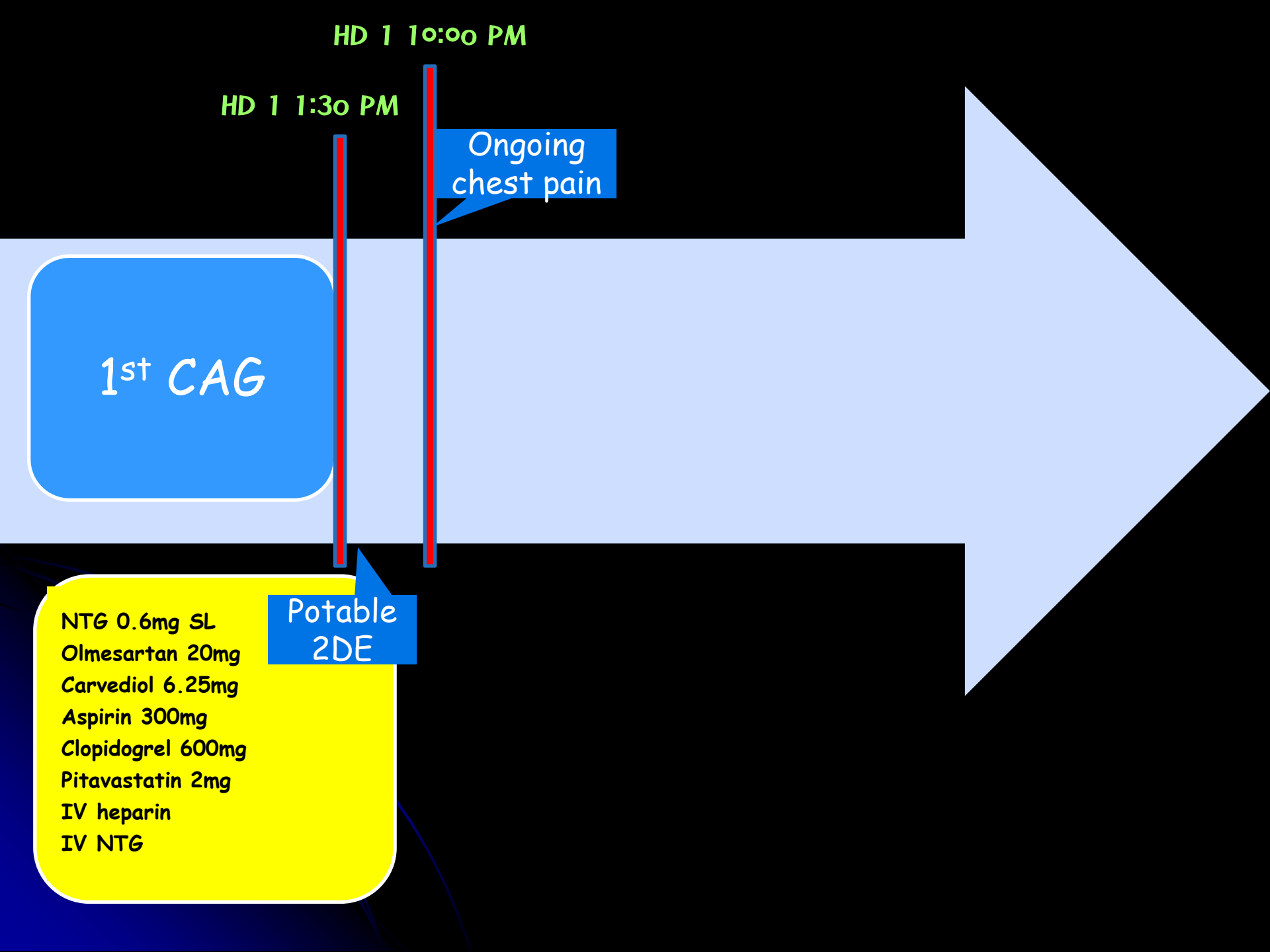
HD 1 1:30 PM

Ongoing chest pain

1<sup>st</sup> CAG

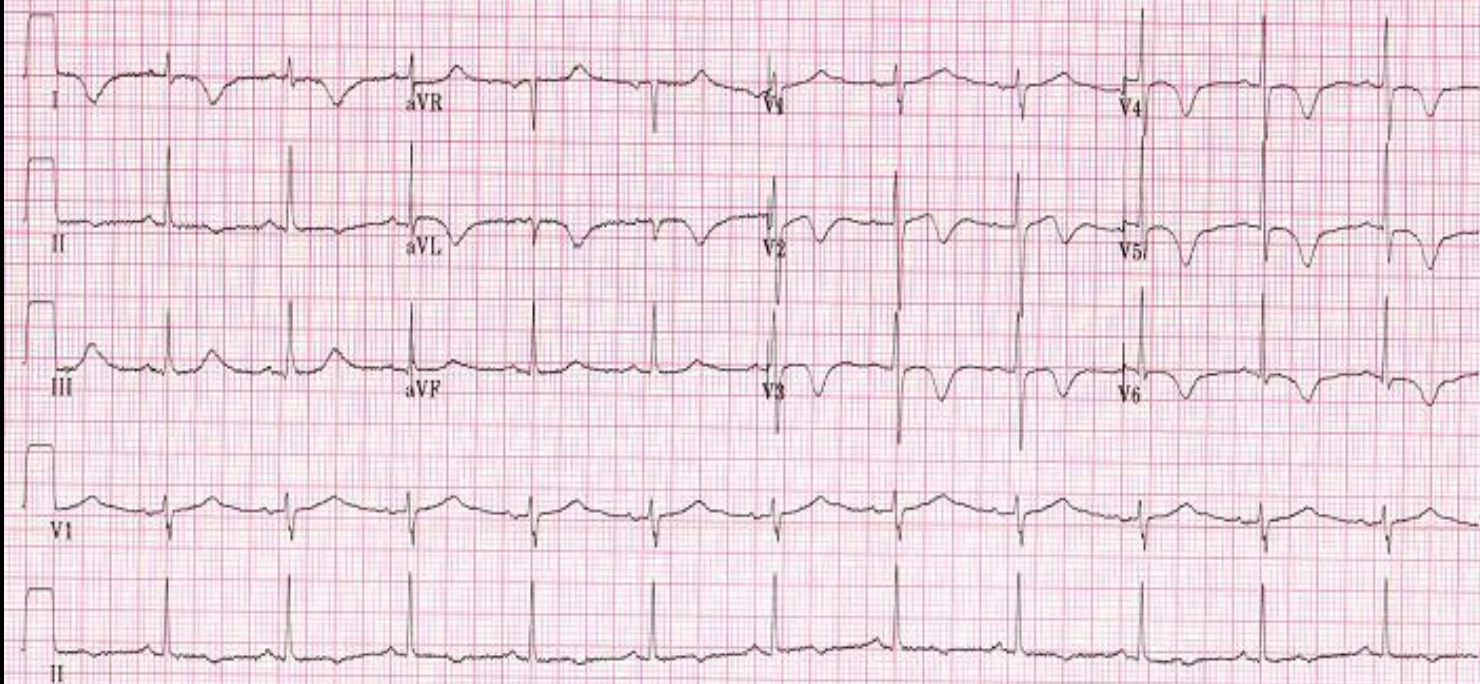
NTG 0.6mg SL  
Olmesartan 20mg  
Carvediol 6.25mg  
Aspirin 300mg  
Clopidogrel 600mg  
Pitavastatin 2mg  
IV heparin  
IV NTG

Potable  
2DE

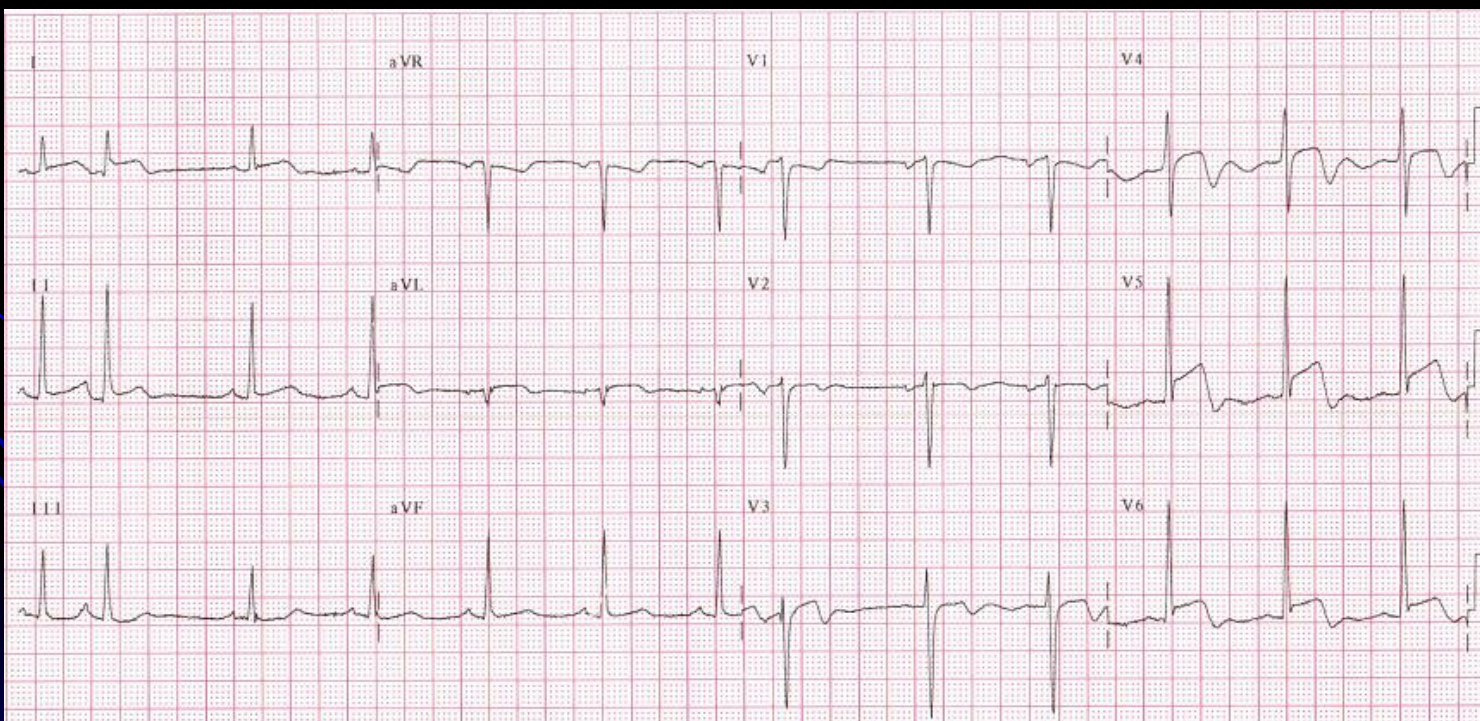




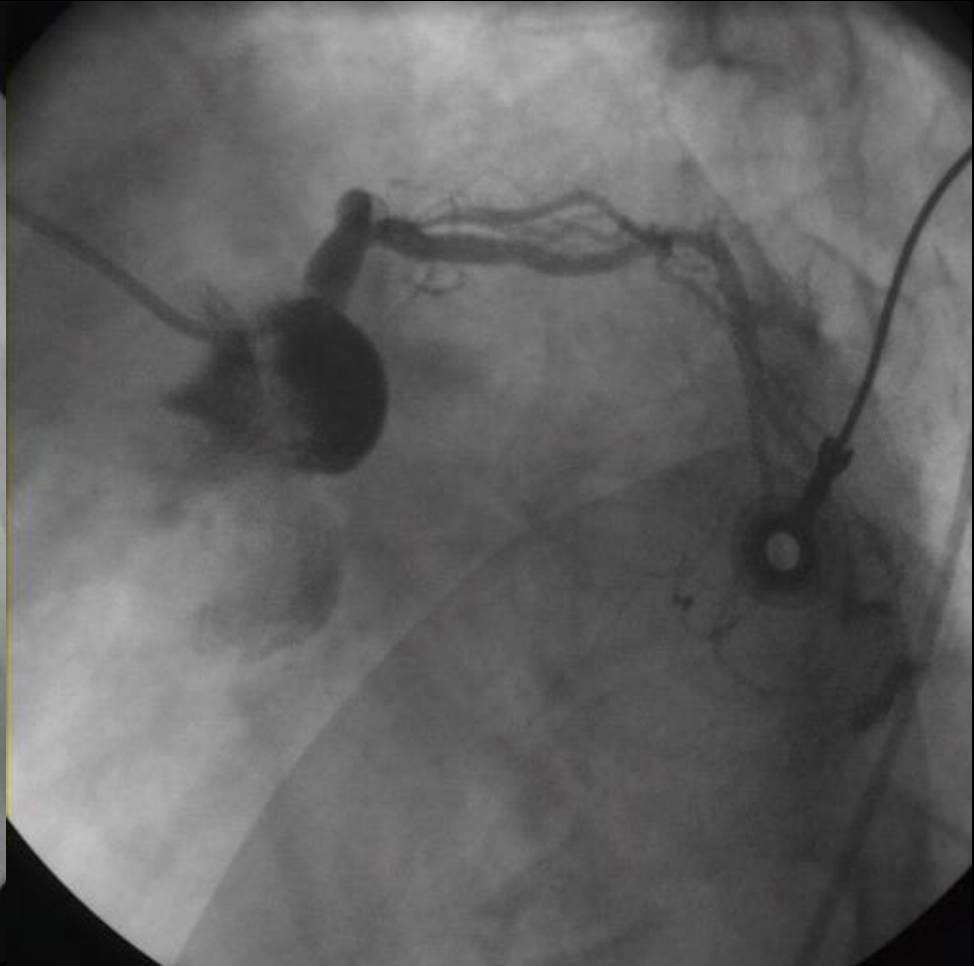
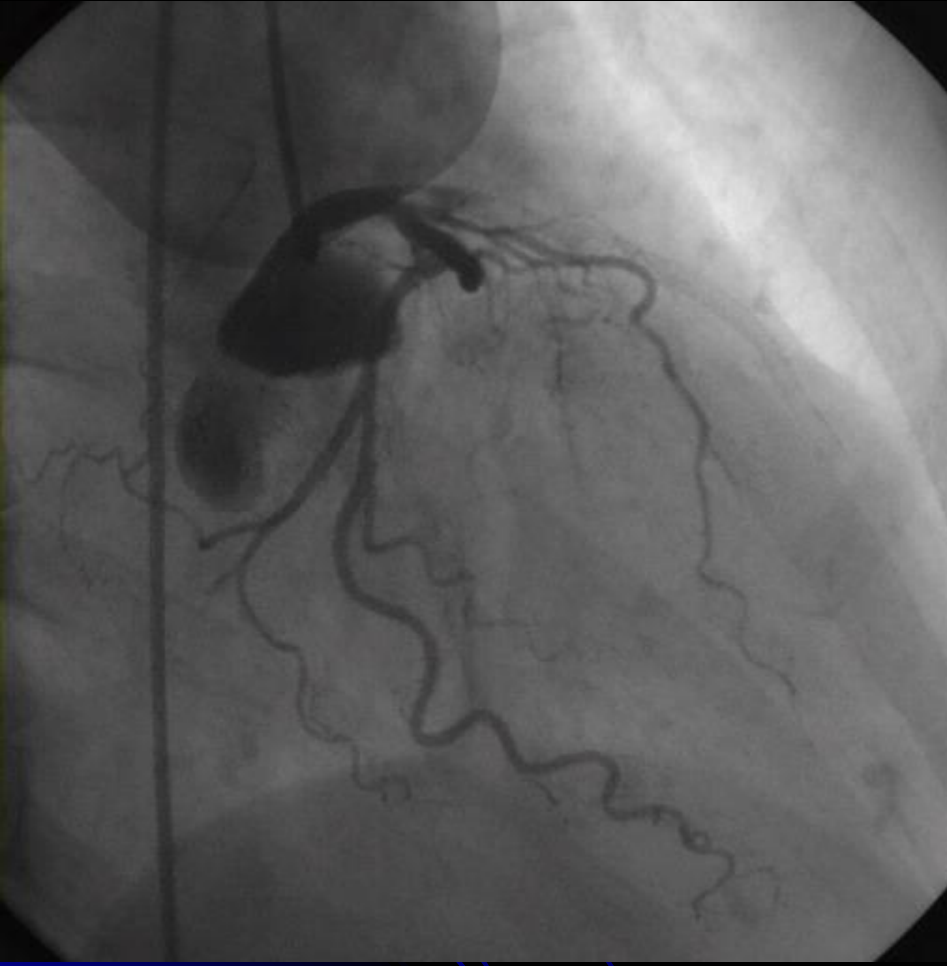
**(12:19 PM)  
Just after  
PCI**



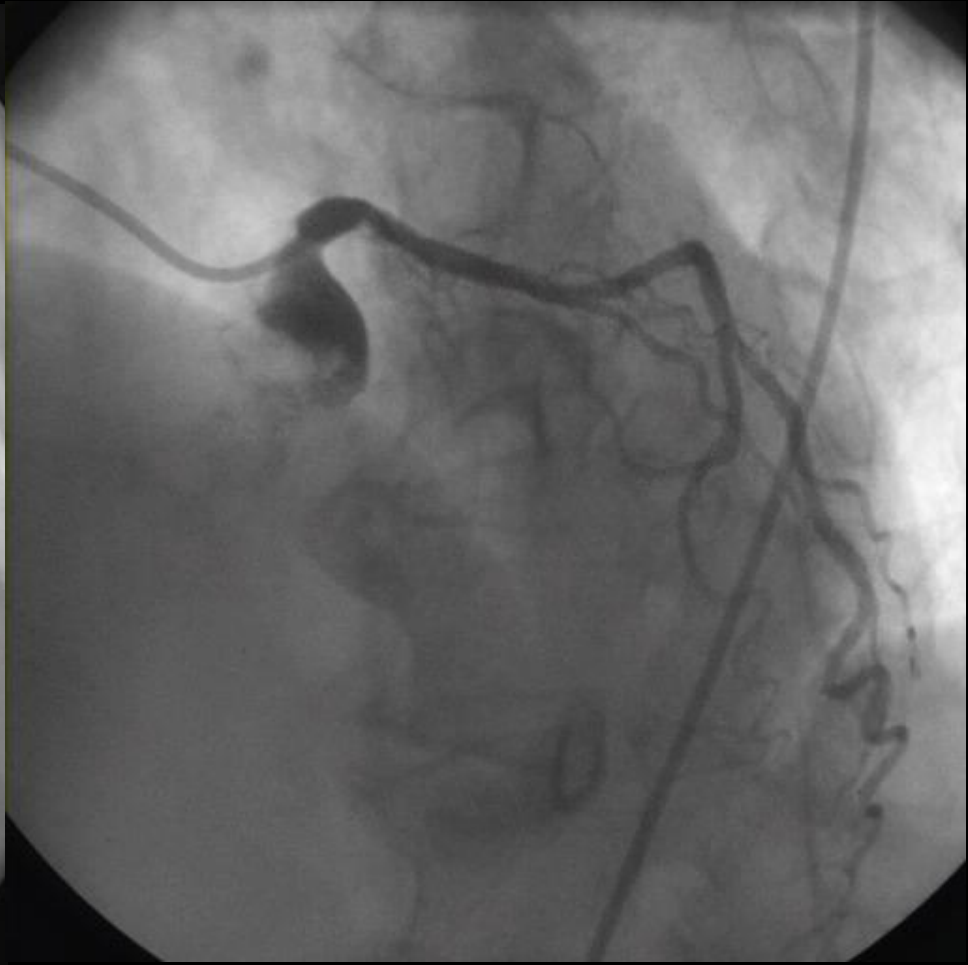
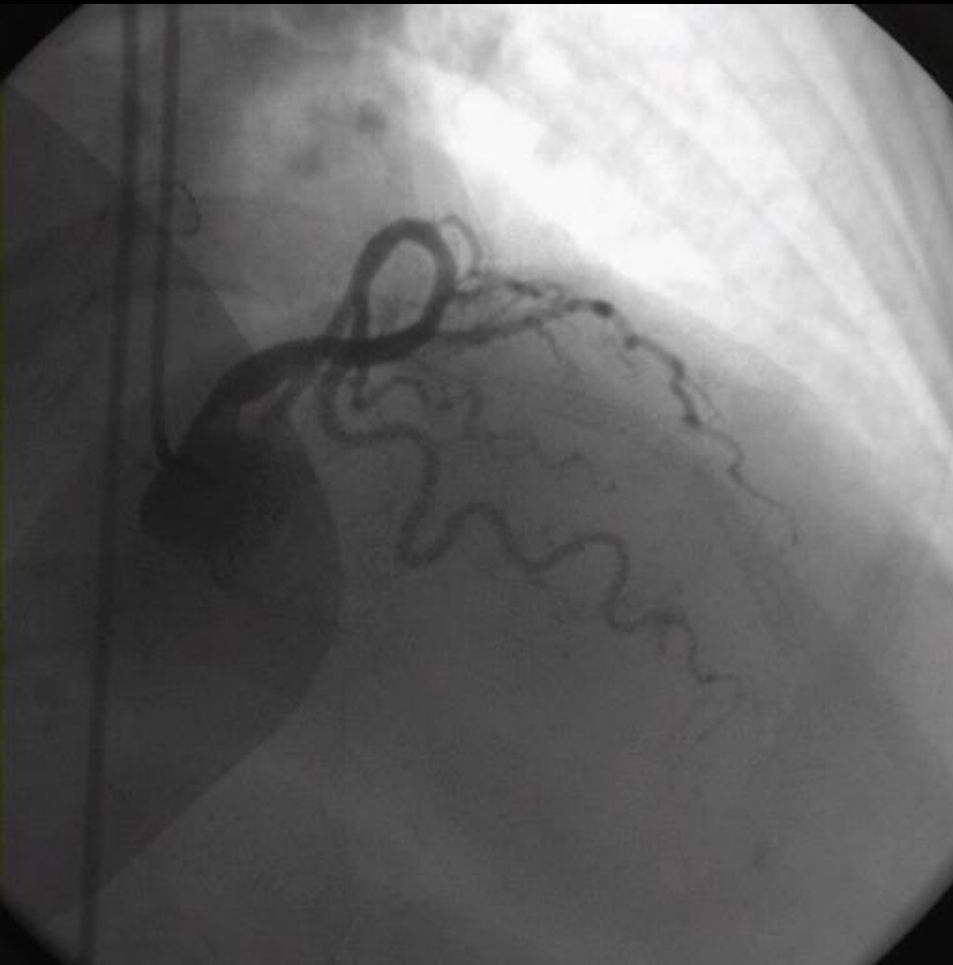
**(10:17 PM)  
At chest pain  
developed**



**CAG (2010.11.27)**

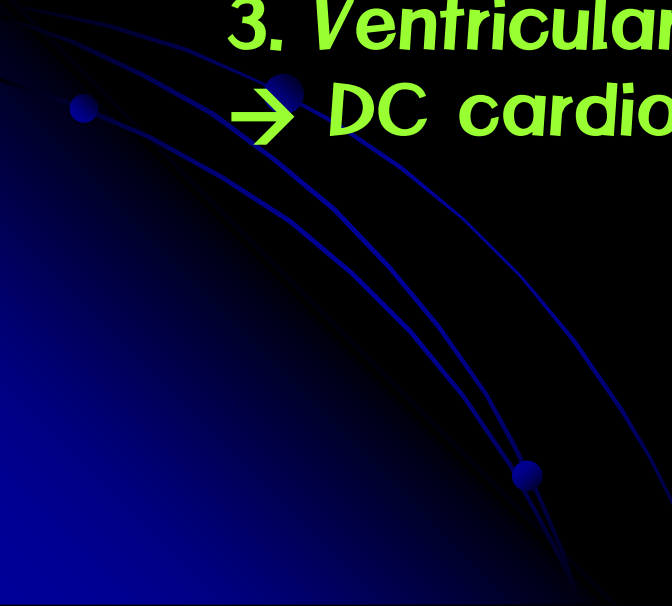


**Thrombotic total occlusion in pLAD**

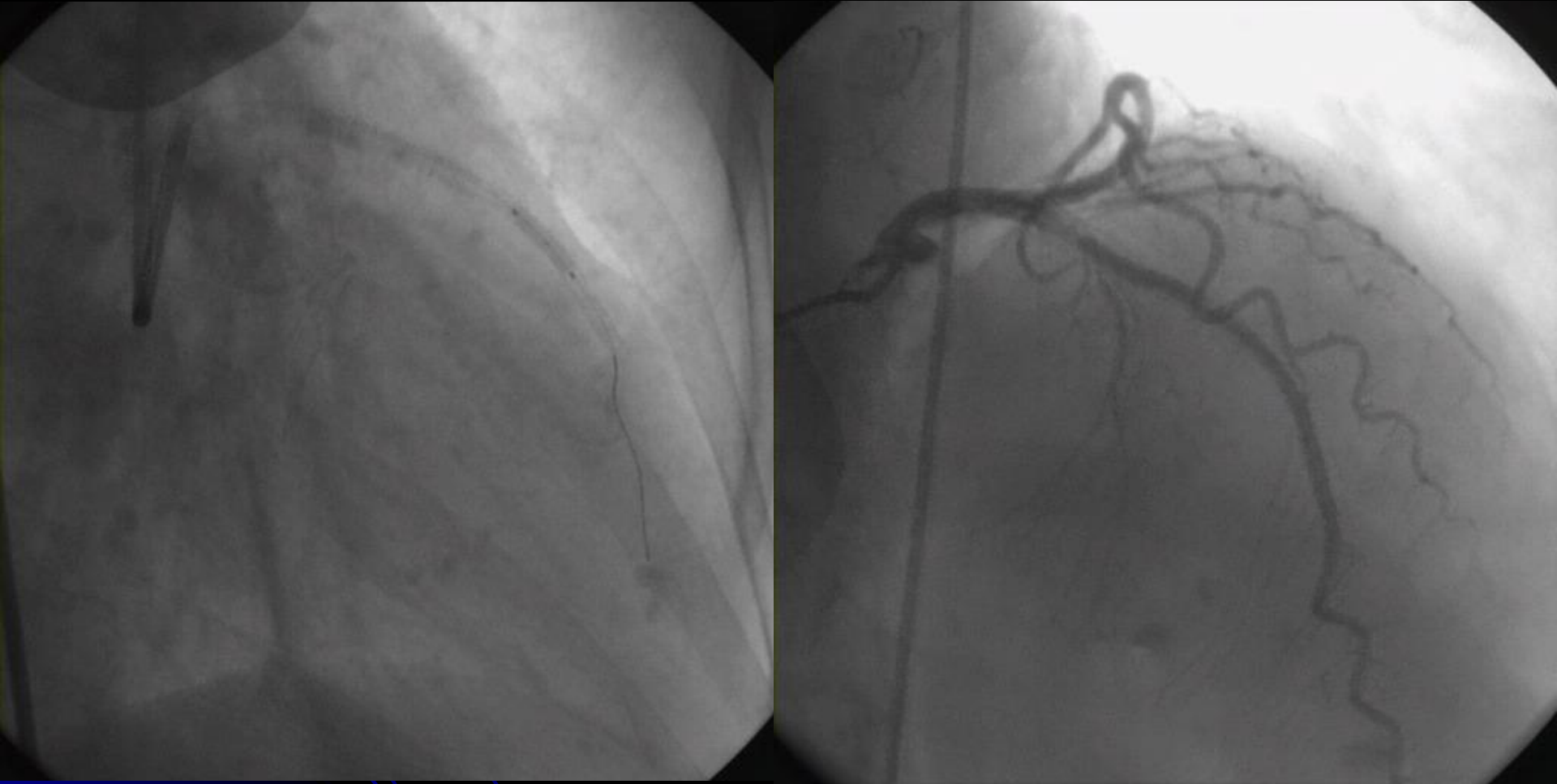


**Thrombotic total occlusion in pLAD**

# Procedure

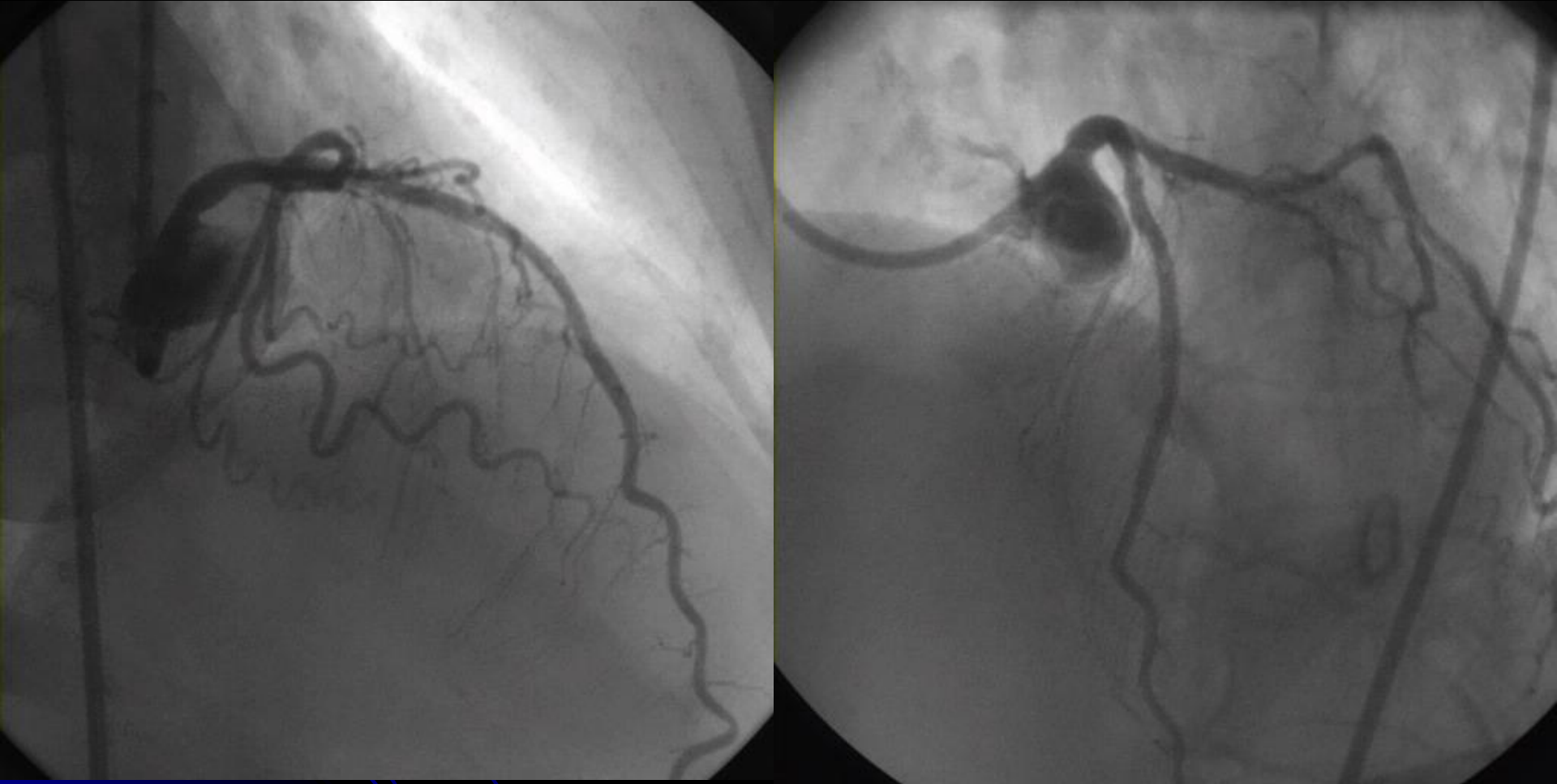
1. Thrombi aspiration several times  
→ Large amount of thrombi aspiration
  2. Infusion of clotinab IC
  3. Ventricular fibrillation was developed  
→ DC cardioversion
- 

## Balloon Angioplasty for p to mLAD



3.5 mm ballooning for p to mLAD

## Final CAG



Some thrombi were remained in mLAD with total occlusion of D1.

HD 1 10:00 PM

HD4 06:00 AM

HD 1 1:30 PM

HD2 00:30 AM

Ongoing chest pain

Hypotension SBP 60mmHg

1st CAG

2nd CAG

Portable 2DE

Potable 2DE

NTG 0.6mg SL  
 Olmesartan 20mg  
 Carvediol 6.25mg  
 Aspirin 300mg  
 Clopidogrel 600mg  
 Pitavastatin 2mg  
 IV heparin  
 IV NTG

Olmesartan 20mg DB  
 Carvediol 3.125mg Bid  
 Aspirin 300mg DB  
 Clopidogrel 75mg DB  
 Pitavastatin 2mg DB  
 IV heparin  
 IV NTG  
 Cilastazol 100mg Bid

Platelet drug response  
 Aspirin :556 ARU  
 P2Y12 :366 PRU

Pericardial effusion (+)  
 RV compression (+)  
 : Cardiac Tamponade

# Pericardiocentesis (2010.11.30)

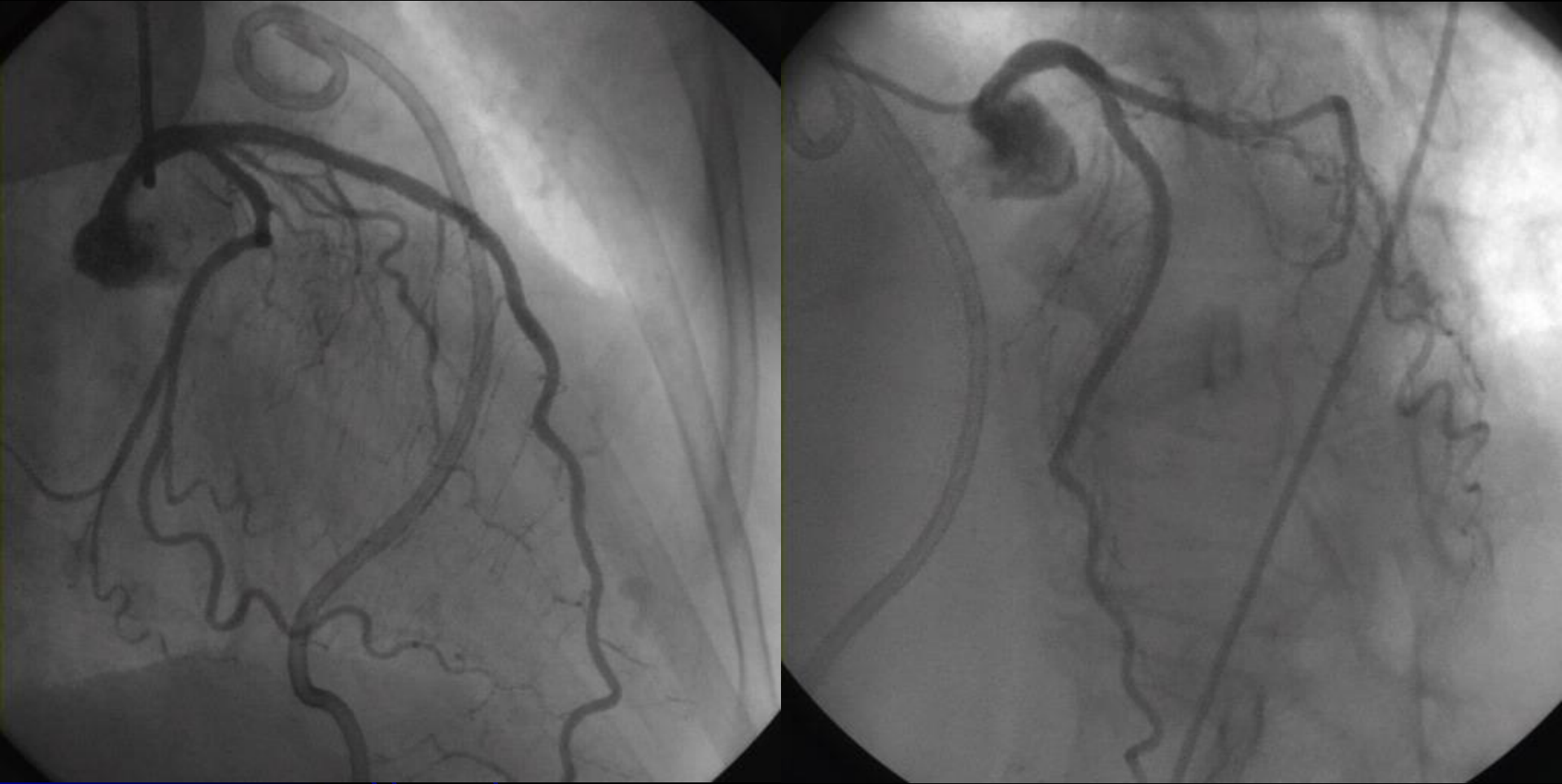
Emergent pericardiocentesis was done successfully via subxyphoid area and **bloody effusion** was drained (about 180 mL). Portable 2DE showed adequate position of the catheter tip.

Total nucleated cell	9560	
RBC	3360K	
WBC	9560	(N: 86%, L: 10%, M: 4%)
pH (Pericardial fluid)	7.135	
Glucose (Pleural fluid)	252	
Protein (Pleural fluid)	5.6	
LDH (Pleural fluid)	3006	
ADA (Pleural fluid)	14.5	
Albumin (Pleural fluid)	3.4	

Serum	LDH	548
	Total Protein	7.7

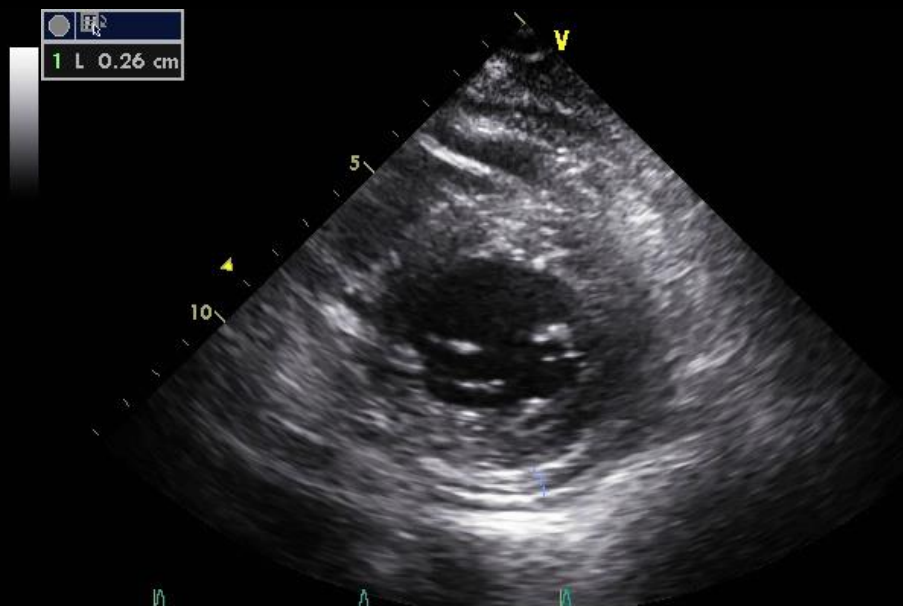
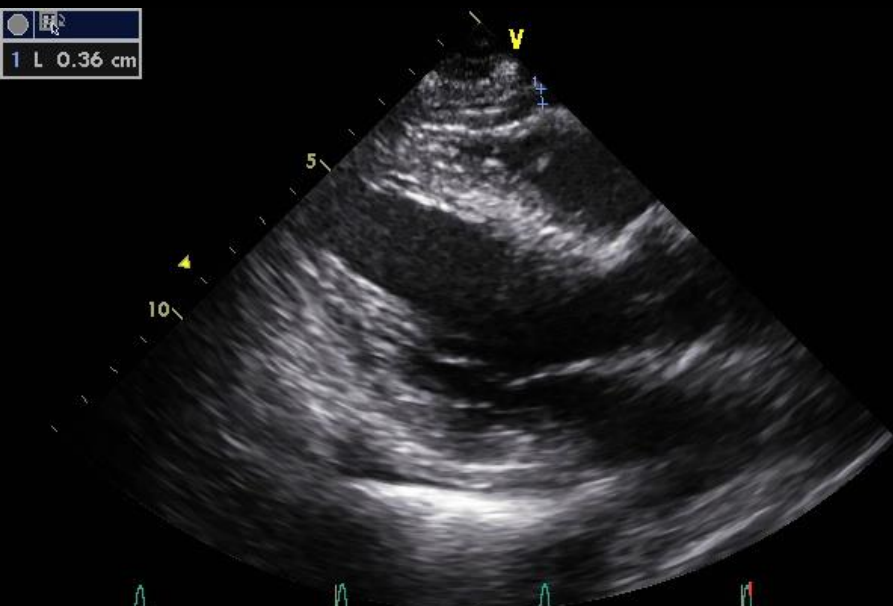


**CAG (2010.11.30)**

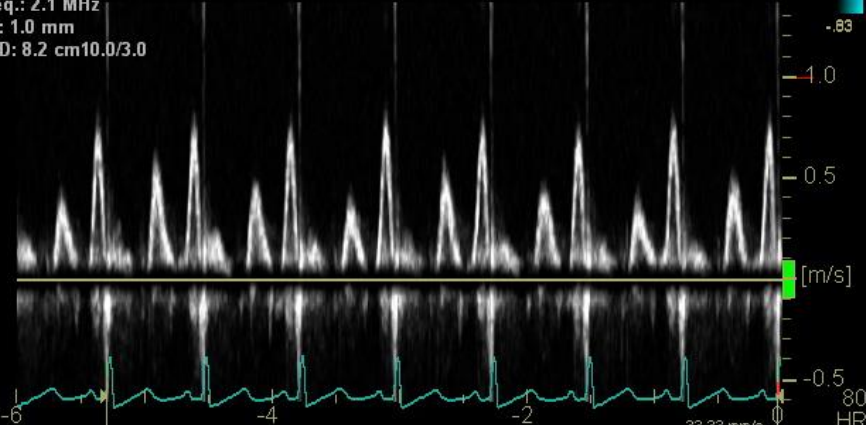


**Thrombi were completely resolved in LAD  
without any definitive perforation or dissection.**

# FU 2DE (2010.12.01)



01/12/2010 12:19:33  
Octave  
Freq.: 1.7 MHz/3.4 MHz  
Proc.: /14.0/5.0/7.0/0.7  
FPS: 20.7/41.4  
Depth: 15.0 cm  
Scale: 4.50 kHz  
Freq.: 2.1 MHz  
SV: 1.0 mm  
SVD: 8.2 cm10.0/3.0

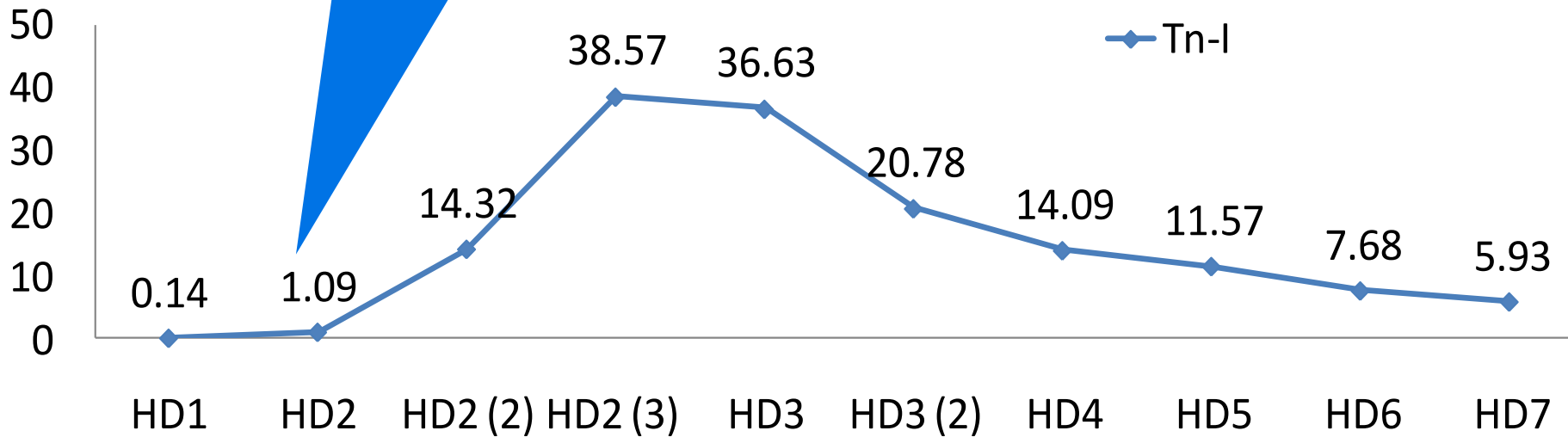


80 HR 81 HR

**EF = 49.1%**  
**AK in LAD territory**  
**Constrictive physiology.**  
**Minimal amount of pericardial effusion**

# Hospital course

2<sup>nd</sup> PCI for  
Stent thrombosis



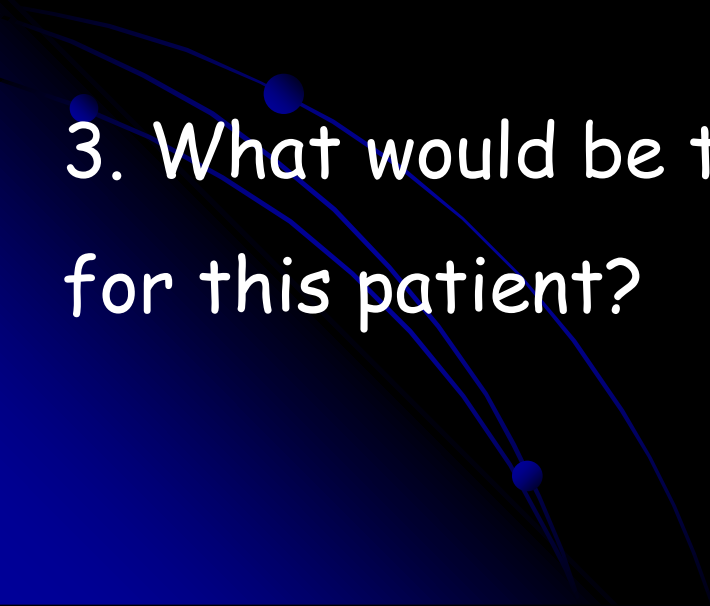
PCI for LAD

Pericardiocenteiss

CAG

Transfer to  
Ward

## Discussion point

1. What was the cause of acute stent thrombosis?
  2. What was the cause of cardiac tamponade?
  3. What would be the optimal antiplatelet therapy for this patient?
- 

Thank you for your attention!

