




How will you treat this lesion?

Dr Lam ho

How will you treat ?

STEMI with Delay Presentation

- Type A – late presenter
  - A. early late >6-12 hrs
  - B. > 12 -24 hours
  - C. > 24 hours
  - D. Late on late presenter STEMI
- Type B – missed diagnosis

M/60s ex-smoker DM

Triage Category: I II III IV V — Trol. W.C. Amb. Carr.
Upgrade: I II III IV
GCS E V M
BP 158/116 mm Hg
Pulse 100/min (R Ir)
T°C 36.2 (O / R / E / A)
RR 16 /min
SpO2 97 % on RA / O2
Continue O2 fr Amb __L/min
O2 by Triage Nurse __L/min
Consciousness A V P U
RC 148/92
RR
EC 30
AC
CRT sec
Limbs: warm / cold
O2: Venturi-mask __%/ NC/ Simple mask/ Non-rebreather mask
Pupils Size Rt Lt
R / NR R / NR
Informant: Self / Son / Daughter
Incident Date:
Location:
ATT: 1st
Dressing / Sling
Helicopter
PE: Critical

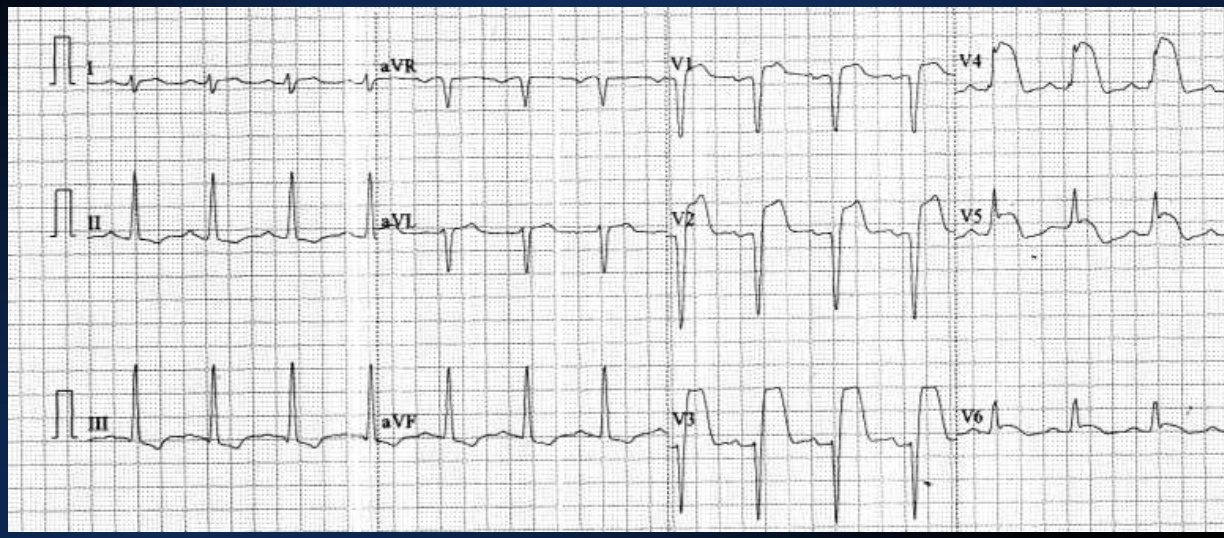
Triage Note
- Fever
- Travel
- Occup
- Contact
- Cluster
- Rash
- Referral
- Amb Record

Chest pain x 4/7
↑ pain today
SOB?
Allergy Hx: NKDA/allergy
PH: NHD

Hx:
- Chest pain x 4/7
- ↑ pain since 9 am today
- radiation shoulder +
- SOB?

Job:

- Chest Pain **4 days**
- 9 AM → A&E @ 13:30am (4.5hrs)



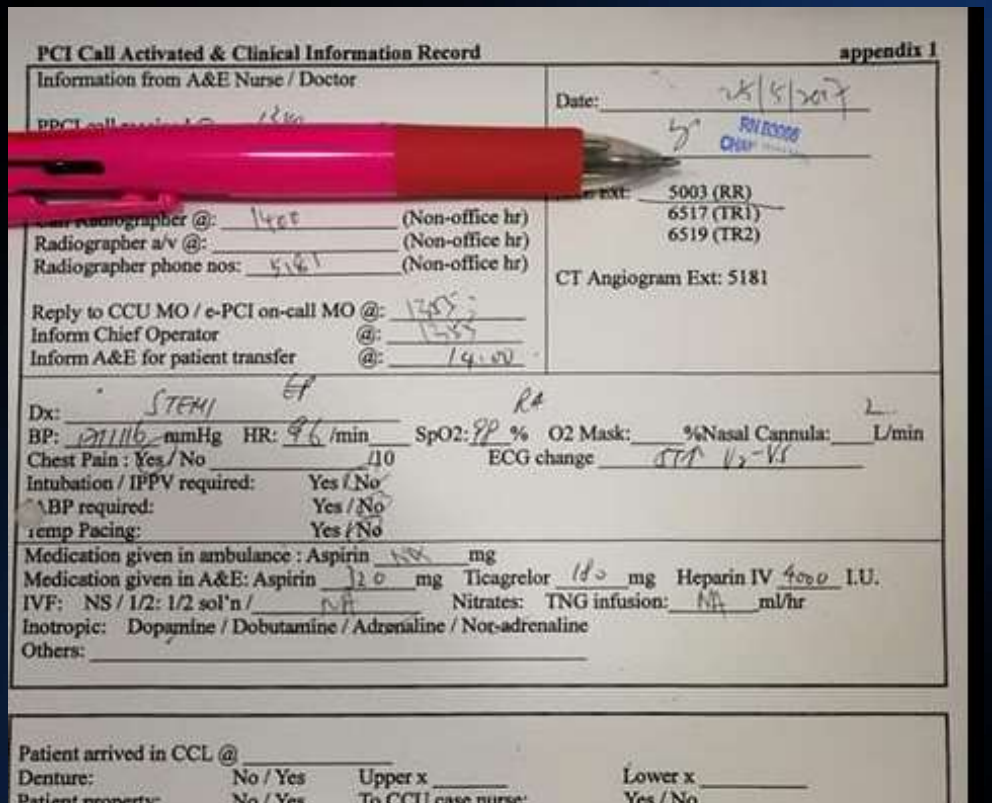
Door to Balloon Time = 70 mins (5.5hrs)

OT Start on: 25/05/2017 at 14:17 OT End on: 25/05/2017 at 15:26 Duration:
Pat. Spec.: CCU OT Suite: CCL2 Ward: D1CC
User Spec.: MED Div./Team: Disease Group:
Type: Emergency Magnitude: Ultra Major

System

Complications mx start before patient arrive Cath lab

Delay present Case:
Prepare adenosine and inotrope
(high risk for no reflow and reperfusion shock)



PCI Call Activated & Clinical Information Record — appendix 1

Information from A&E Nurse / Doctor

Date: 24/5/2017

5003 (RR)
6517 (TR1)
6519 (TR2)

Radiographer @: ____ (Non-office hr)
Radiographer a/v @: ____ (Non-office hr)
Radiographer phone nos: 5181 (Non-office hr)

CT Angiogram Ext: 5181

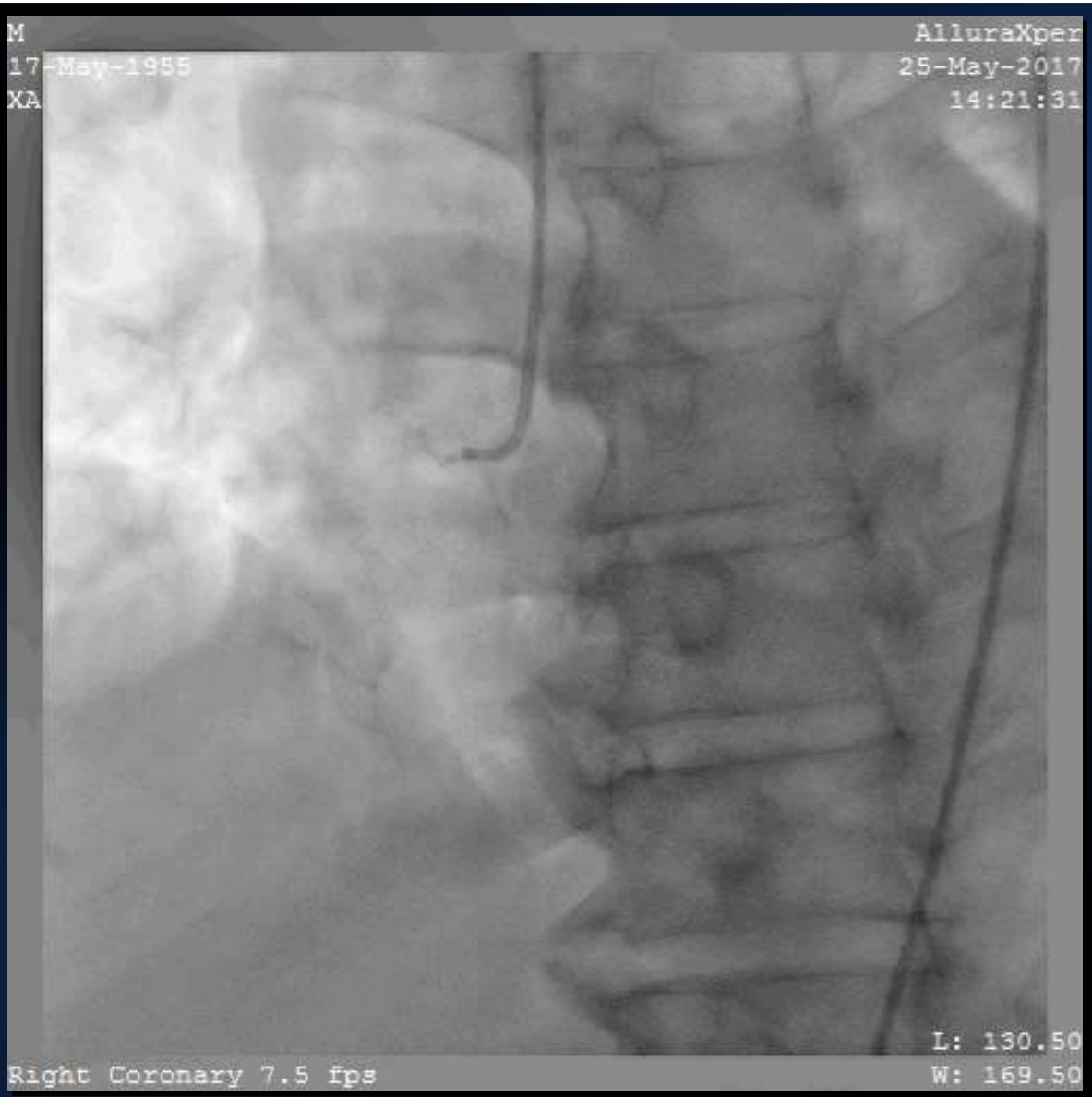
Reply to CCU MO / e-PCI on-call MO @: 1745
Inform Chief Operator @: 1745
Inform A&E for patient transfer @: 1900

Dx: STEMI
BP: 121/76 mmHg HR: 96 /min SpO2: 99 % O2 Mask: ____ %Nasal Cannula: 2 L/min
Chest Pain : Yes / No 10 ECG change STE II, V5-V6
Intubation / IPPV required: Yes / No
IABP required: Yes / No
Temp Pacing: Yes / No

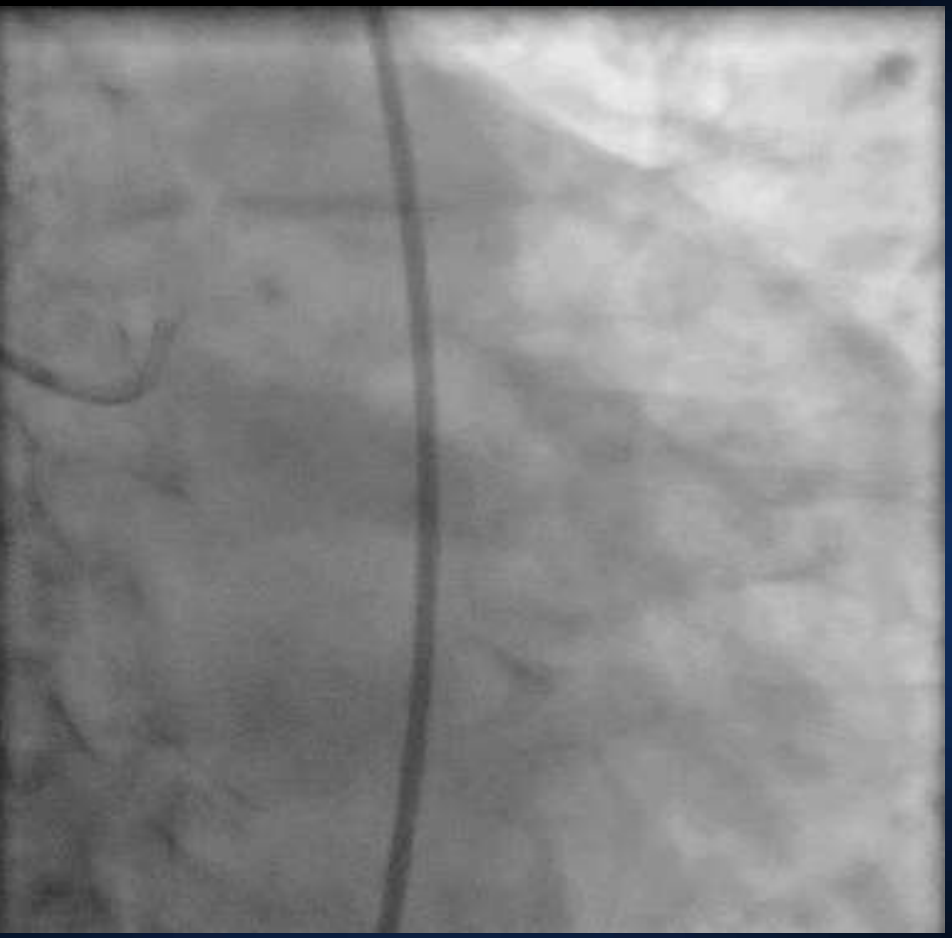
Medication given in ambulance : Aspirin 300 mg
Medication given in A&E: Aspirin 320 mg Ticagrelor 180 mg Heparin IV 4000 I.U.
IVF: NS / 1/2: 1/2 sol'n / NR Nitrates: TNG infusion: NA ml/hr
Inotropic: Dopamine / Dobutamine / Adrenaline / Nor-adrenaline
Others: ____

Patient arrived in CCL @ ____
Denture: No / Yes Upper x ____ Lower x ____

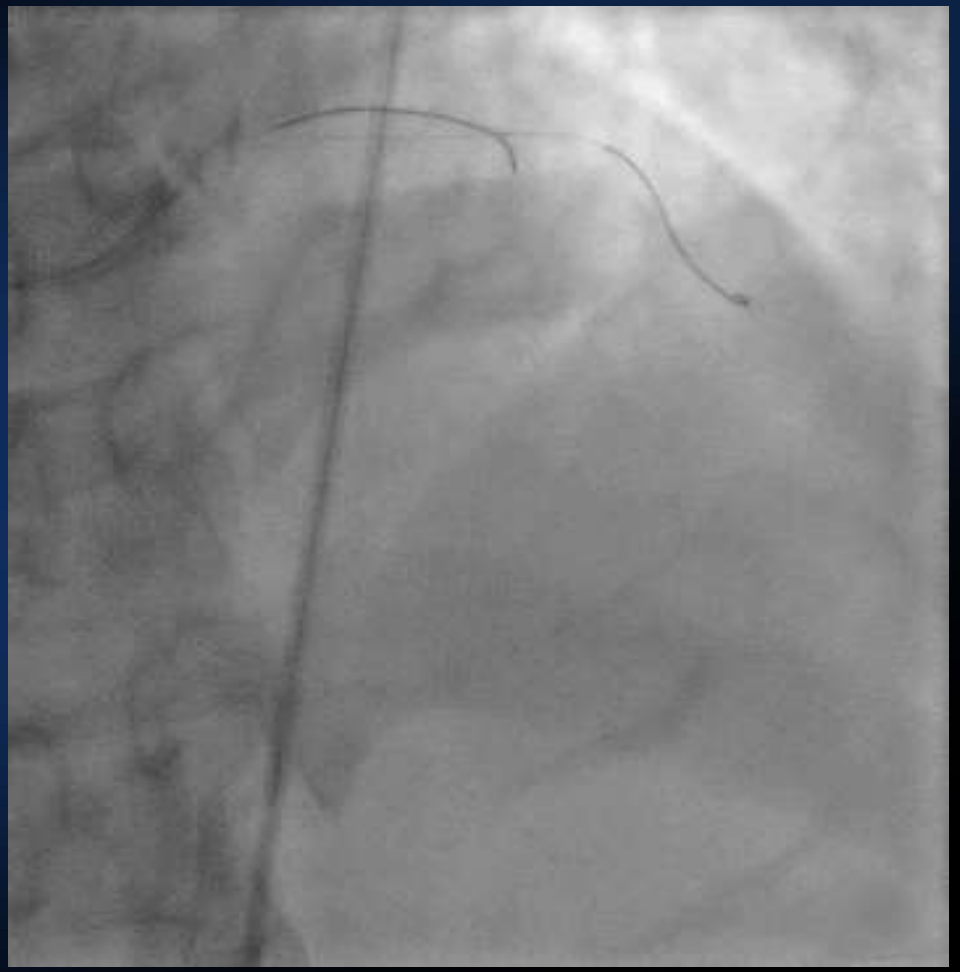
Coro: RCA CTO


M
17-May-1955
XA
AlluraXper
25-May-2017
14:21:31
L: 130.50
W: 169.50
Right Coronary 7.5 fps

Coro: LAD occluded

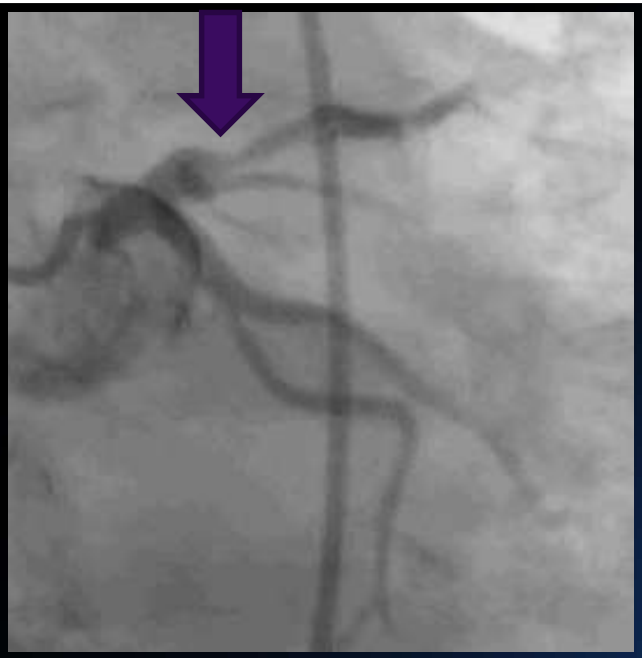


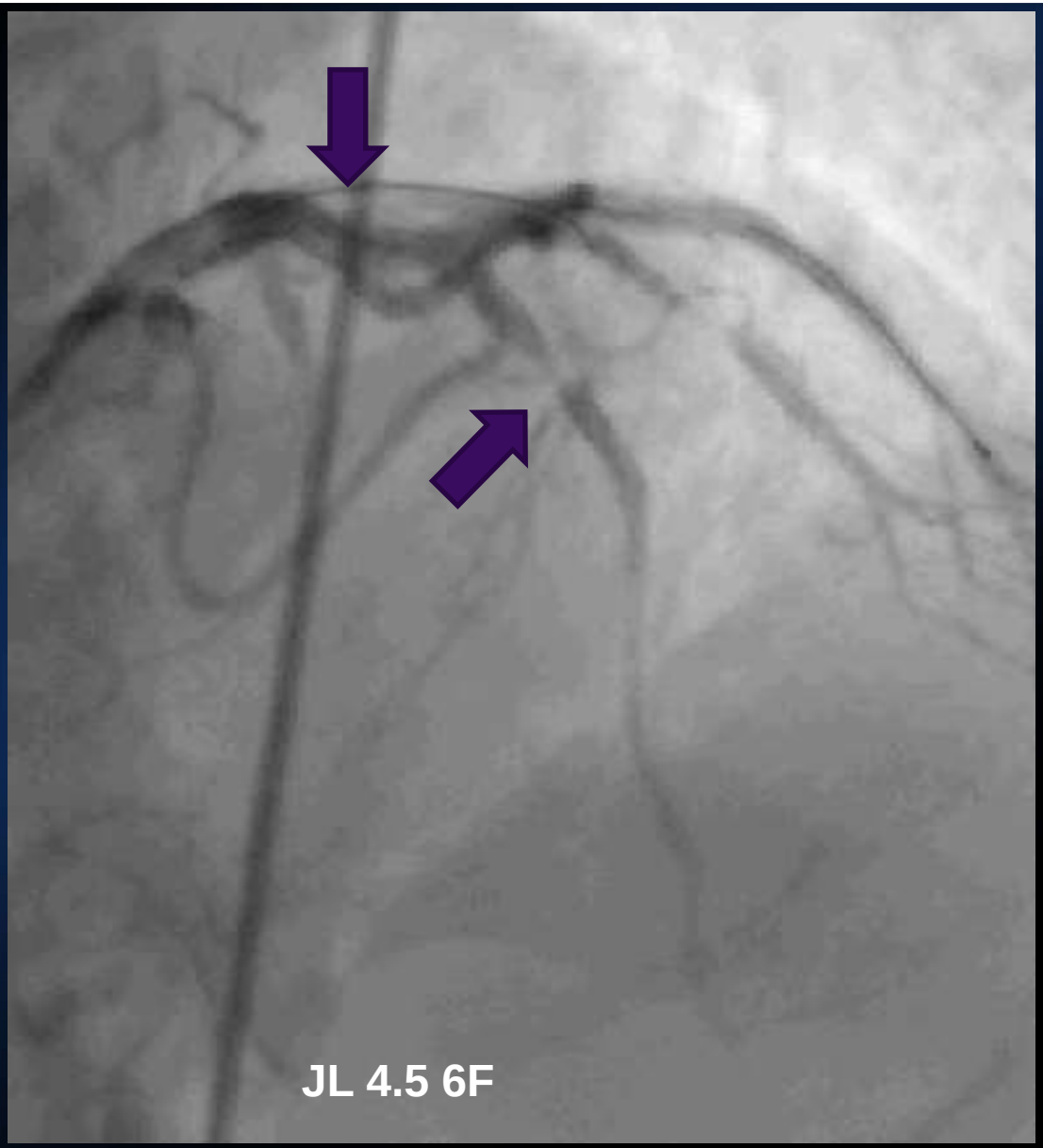
pLAD 80% lesion



mLAD 95% lesion TIMI I-II flow

What would u do to minimize no reflow?





How did I treat ?

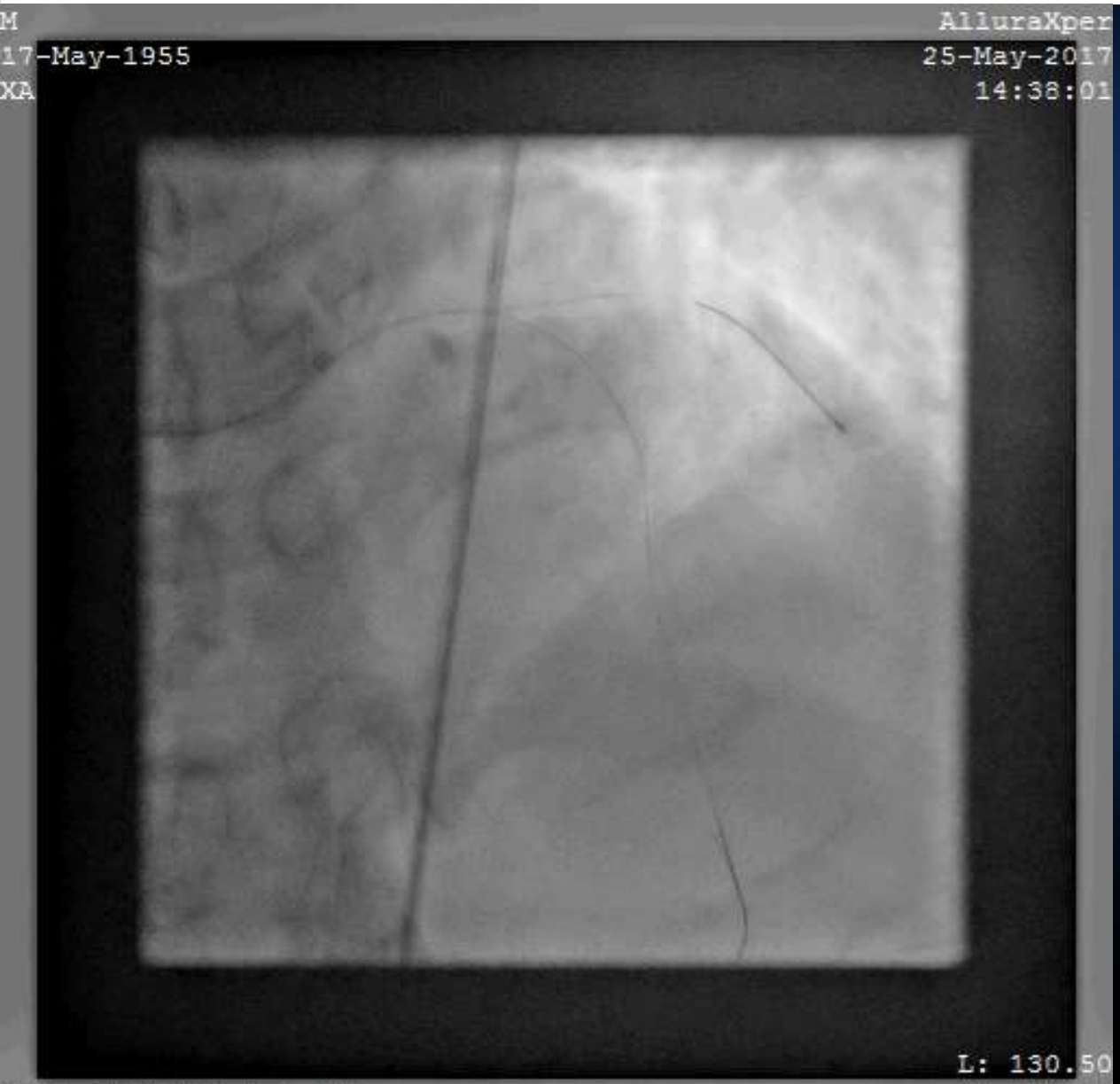
1. **Stent Separately**

2. **Avoid Post Stent High Pressure**

What is the size of LAD ?

JL 4.5 6F

Coro after 2.0 balloon at 6 ATM

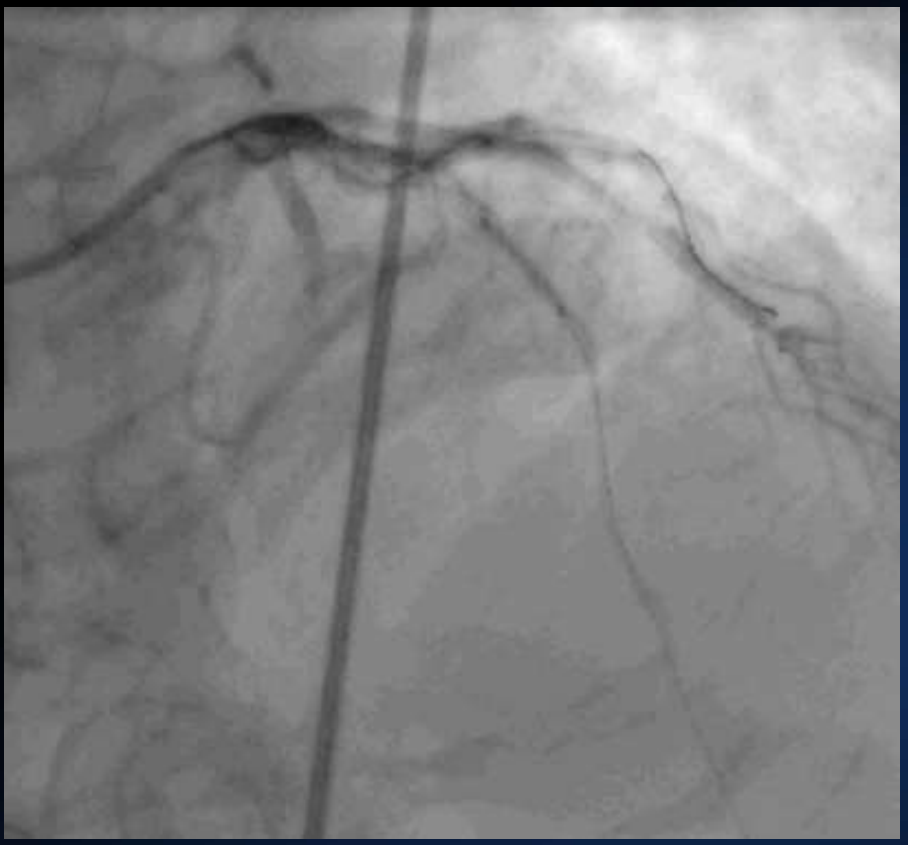


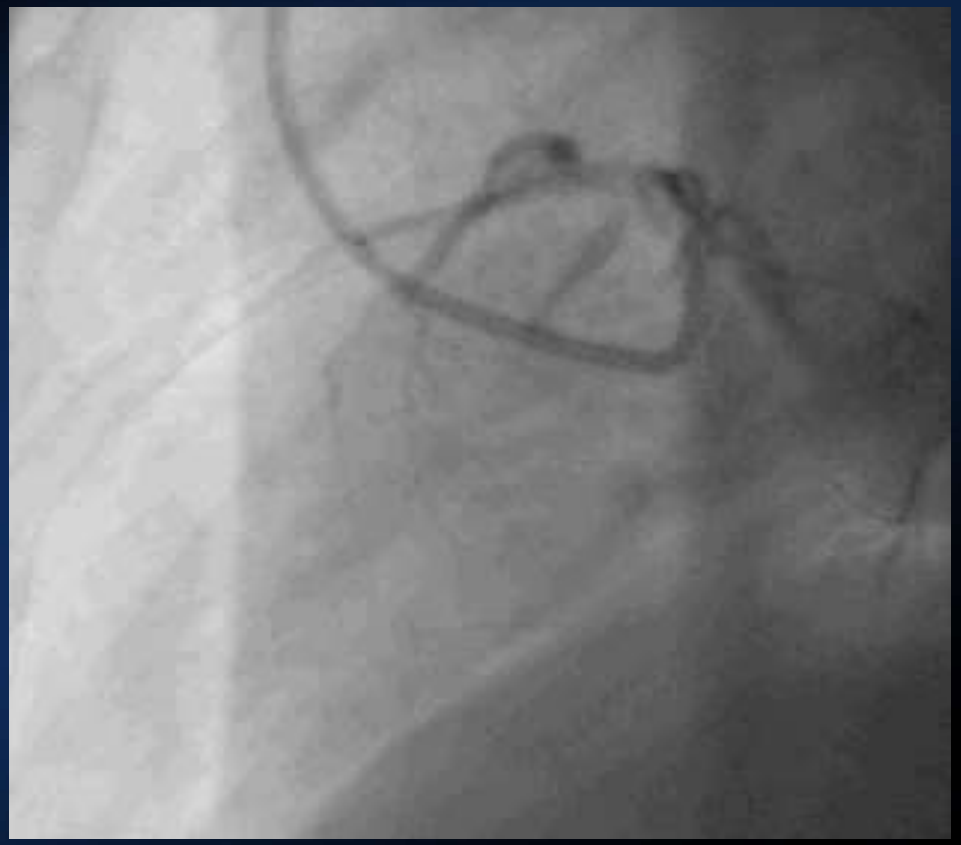
A. 2.75mm stent

B. 3.00mm stent

C. 3.5 mm stent

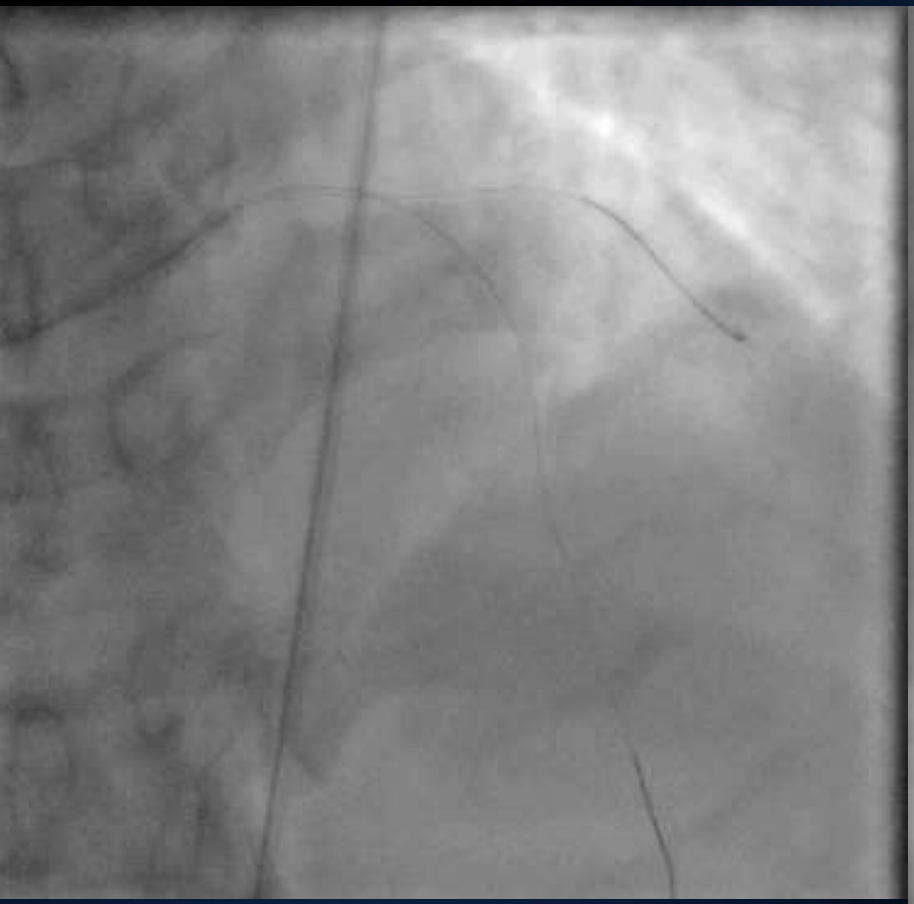
Stenting : Xience 3.5 x 15 at 10 ATM

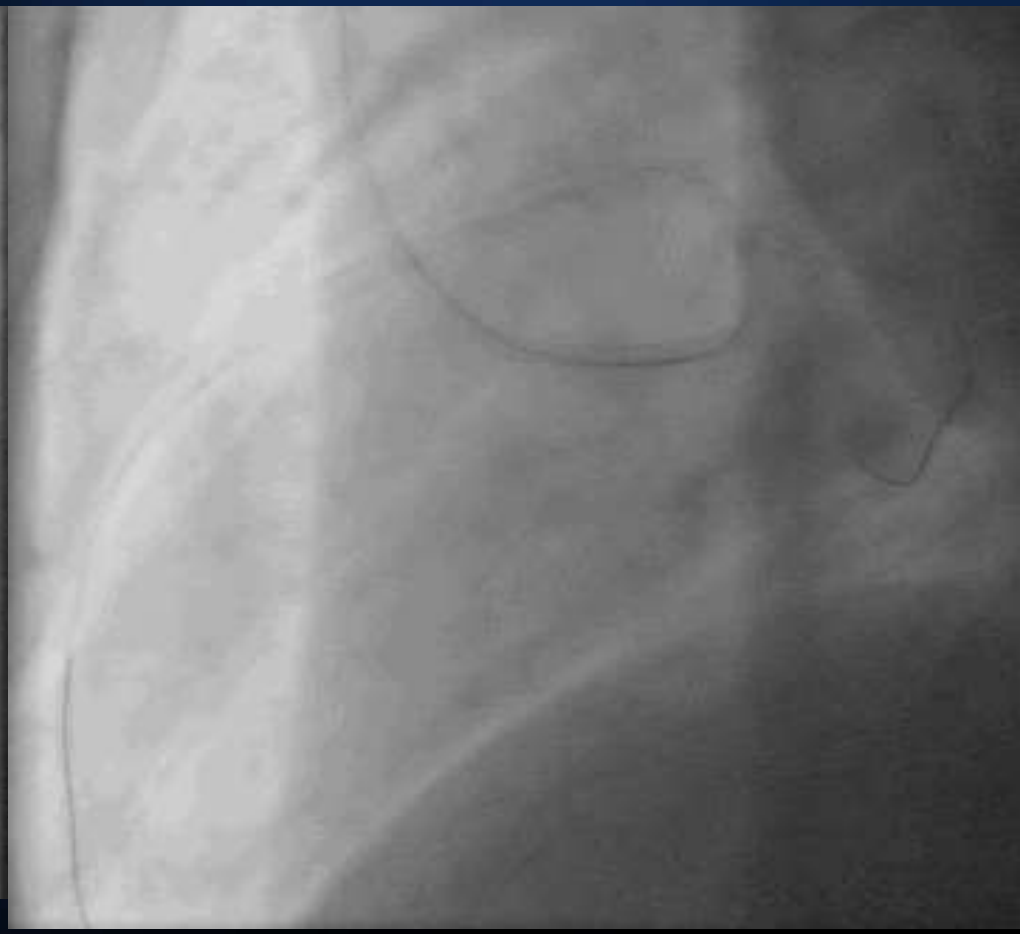




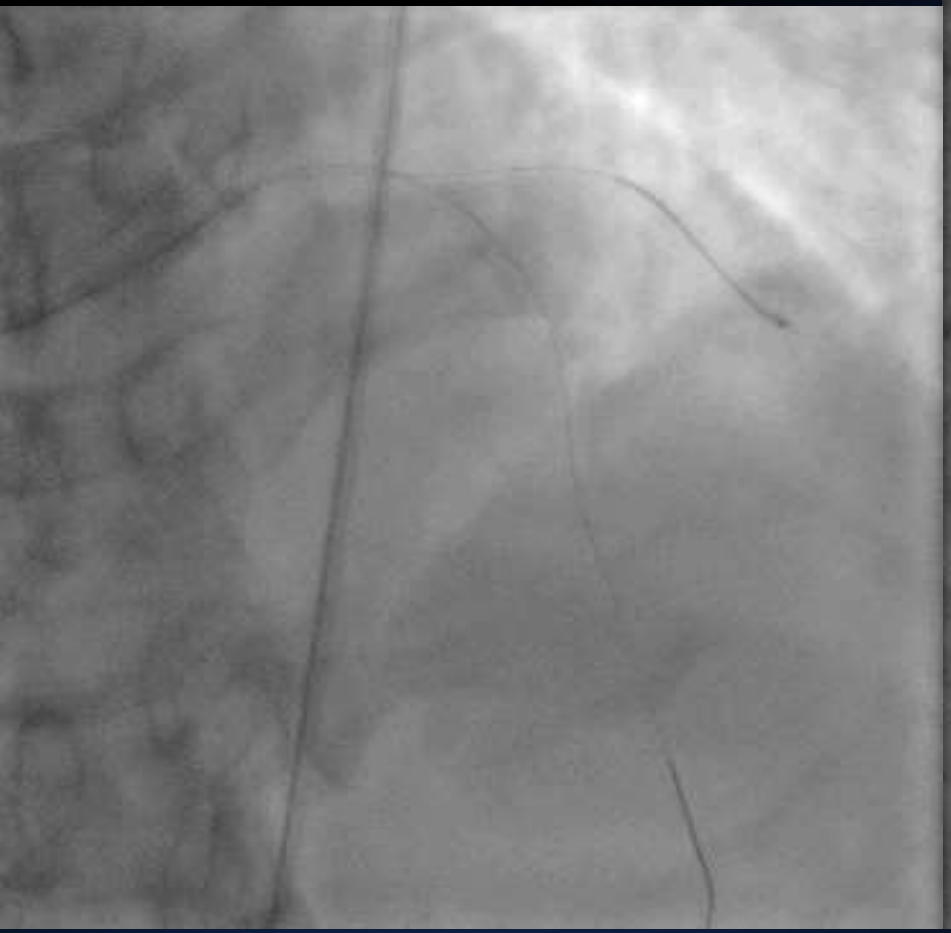
NO Reflow and BP drop !!!!!

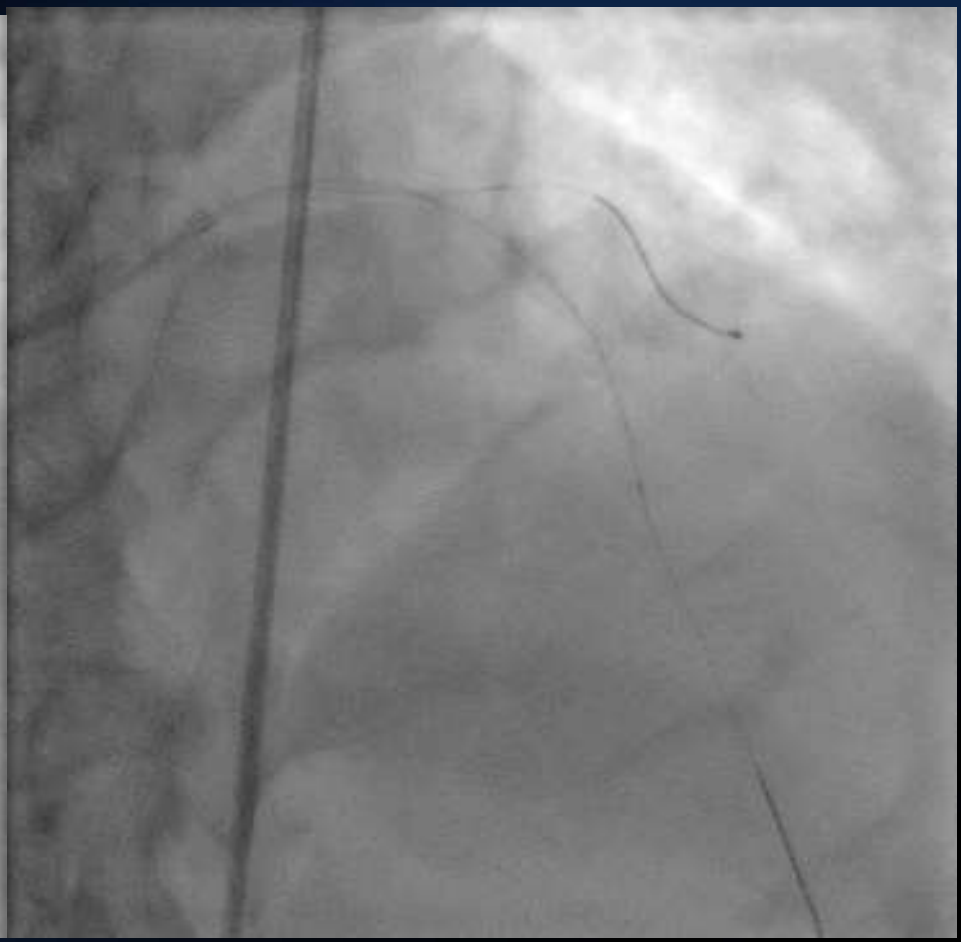
- Remember RCA is CTO, supplied by LAD !





Adenosine is a/v before no reflow





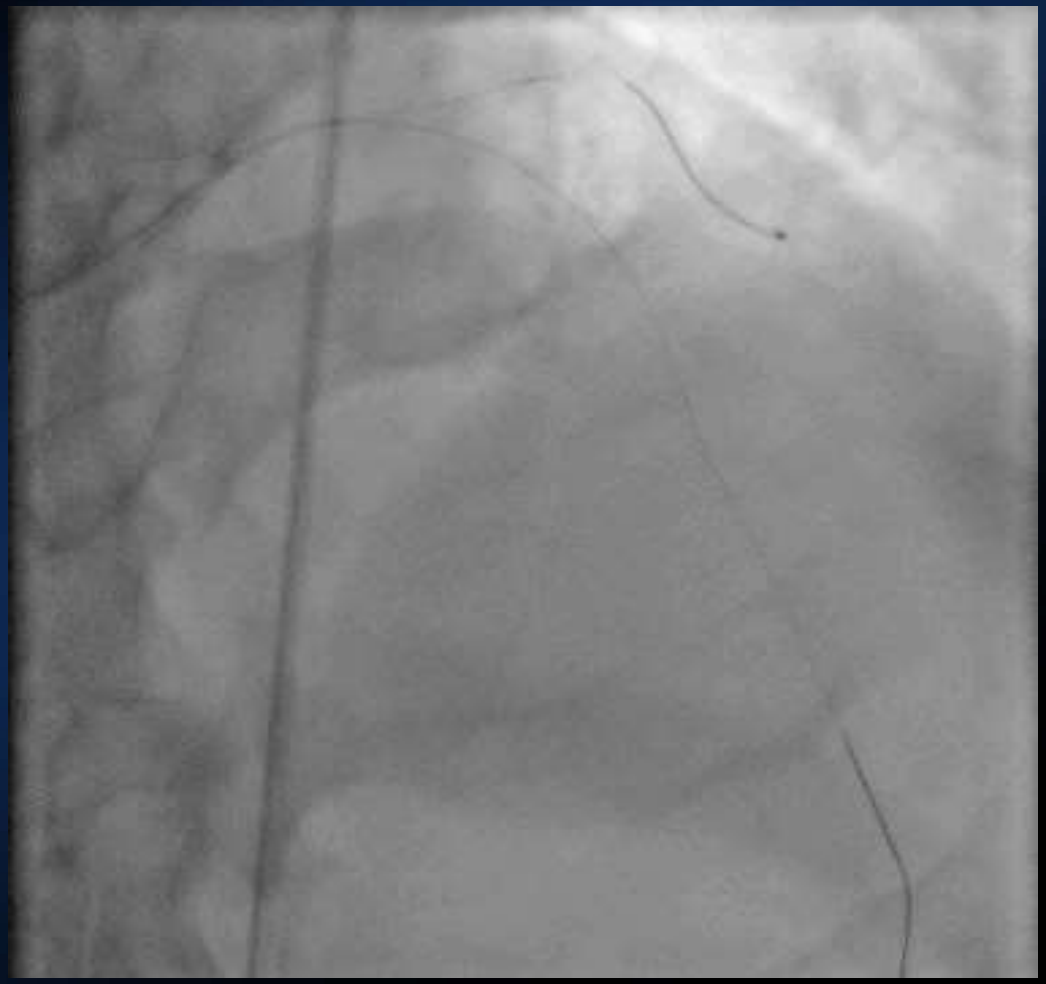
Usual IC Adenosine : **No USE**

Crusade for distal injection

Flow recover quickly

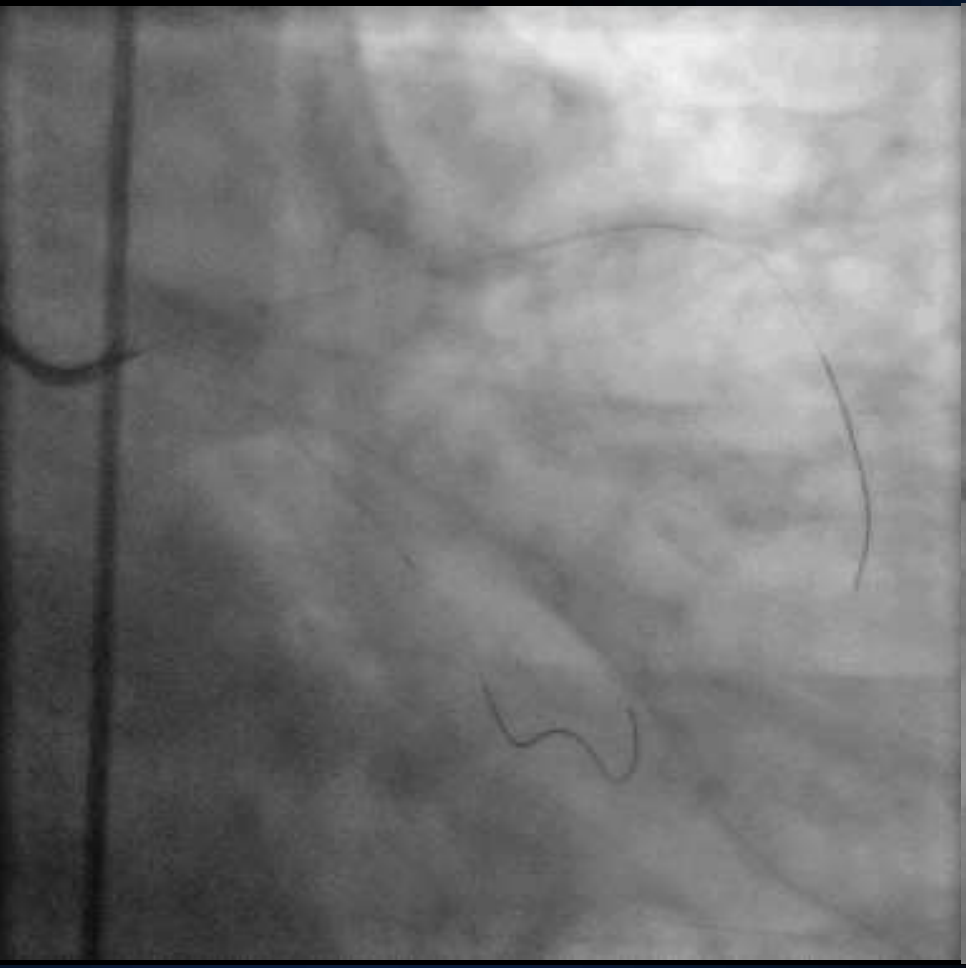
- What if we need 3 mins to prepare Adenosine?

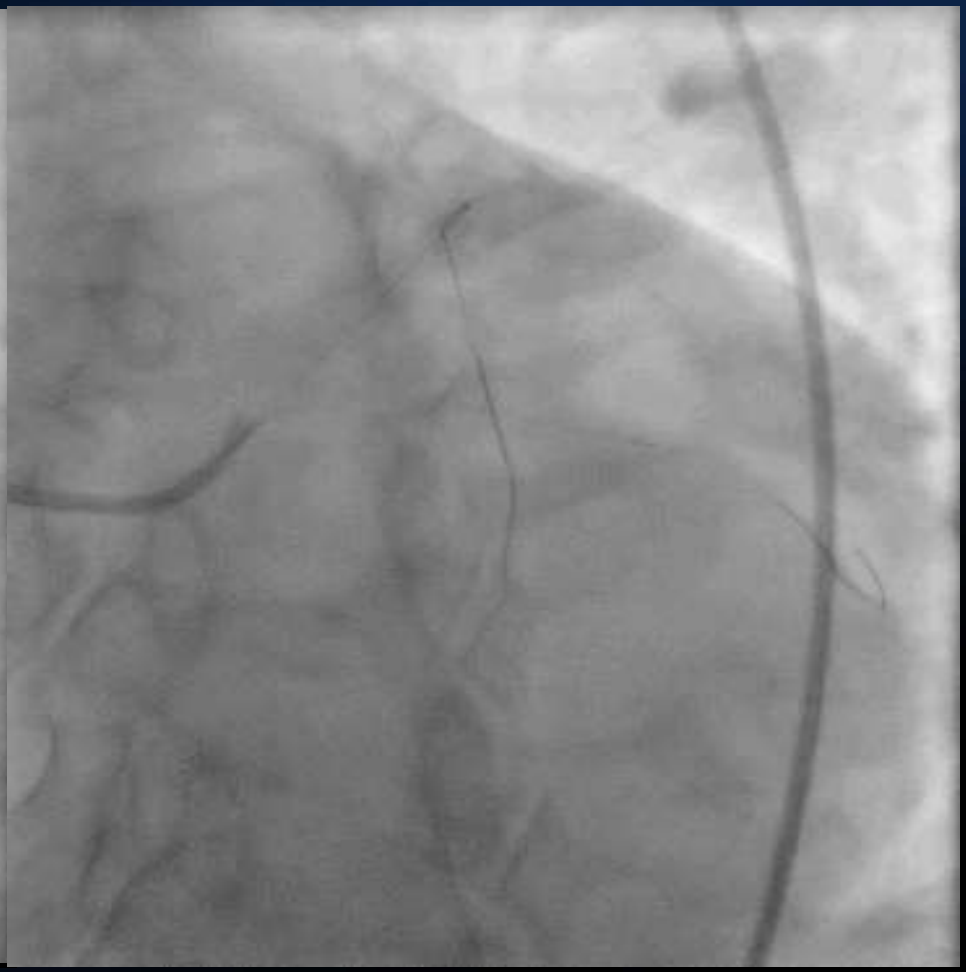
  (RCA CTO)



Remark: nipride is not good for low BP case

Defer or Treat ?

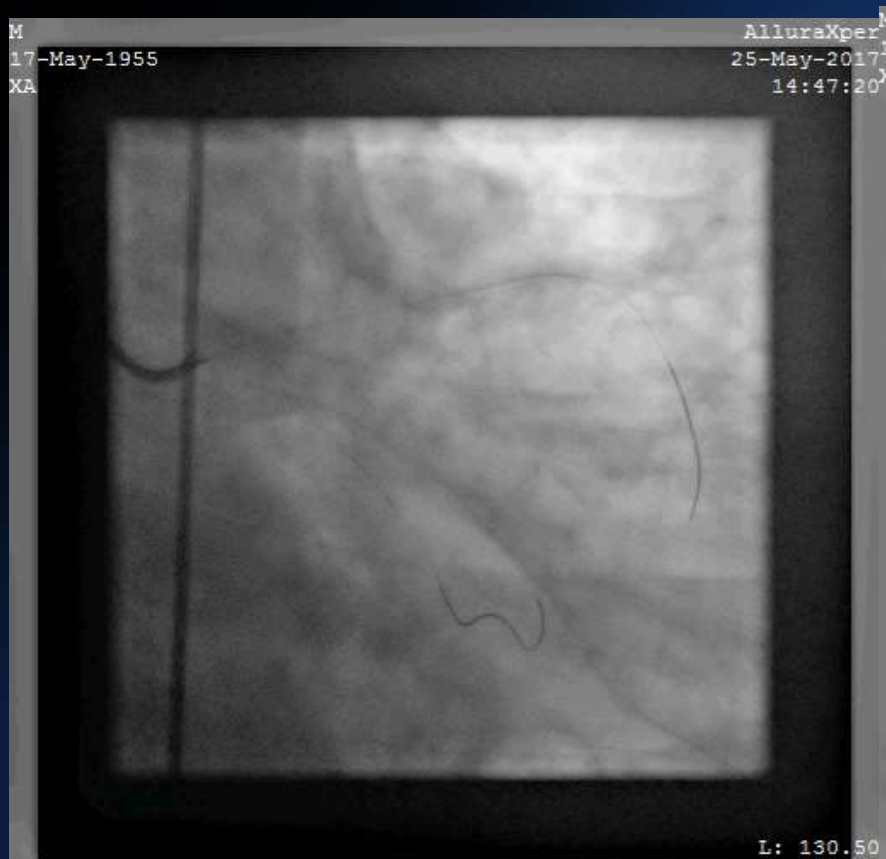


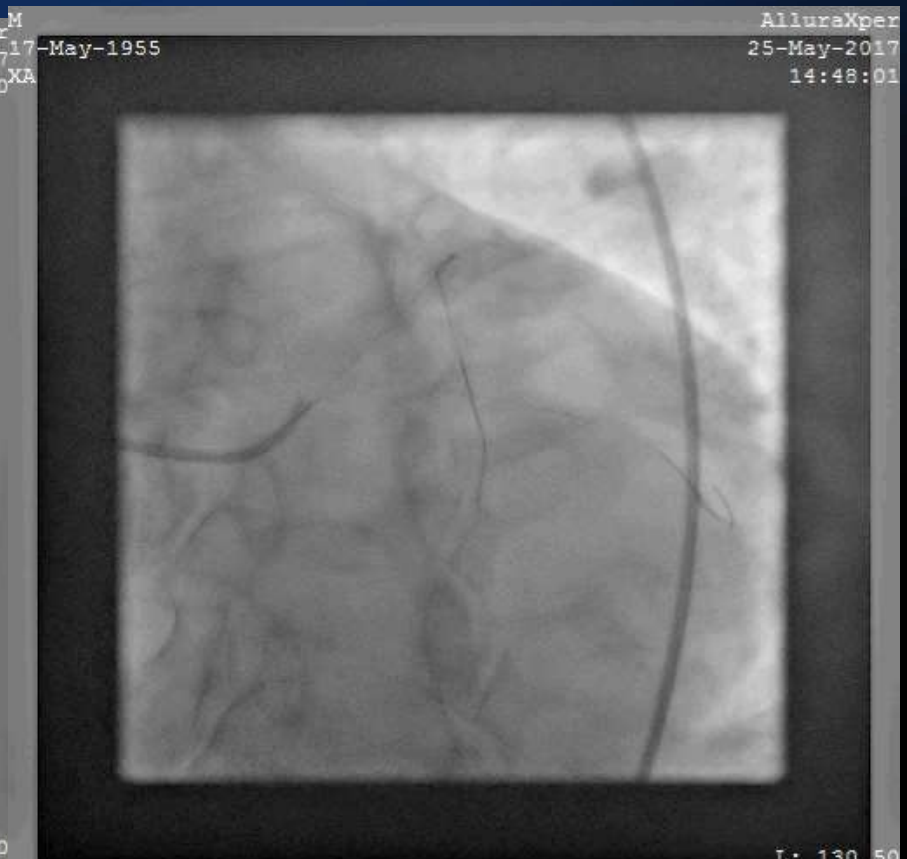


Think patient a whole from history to lesion

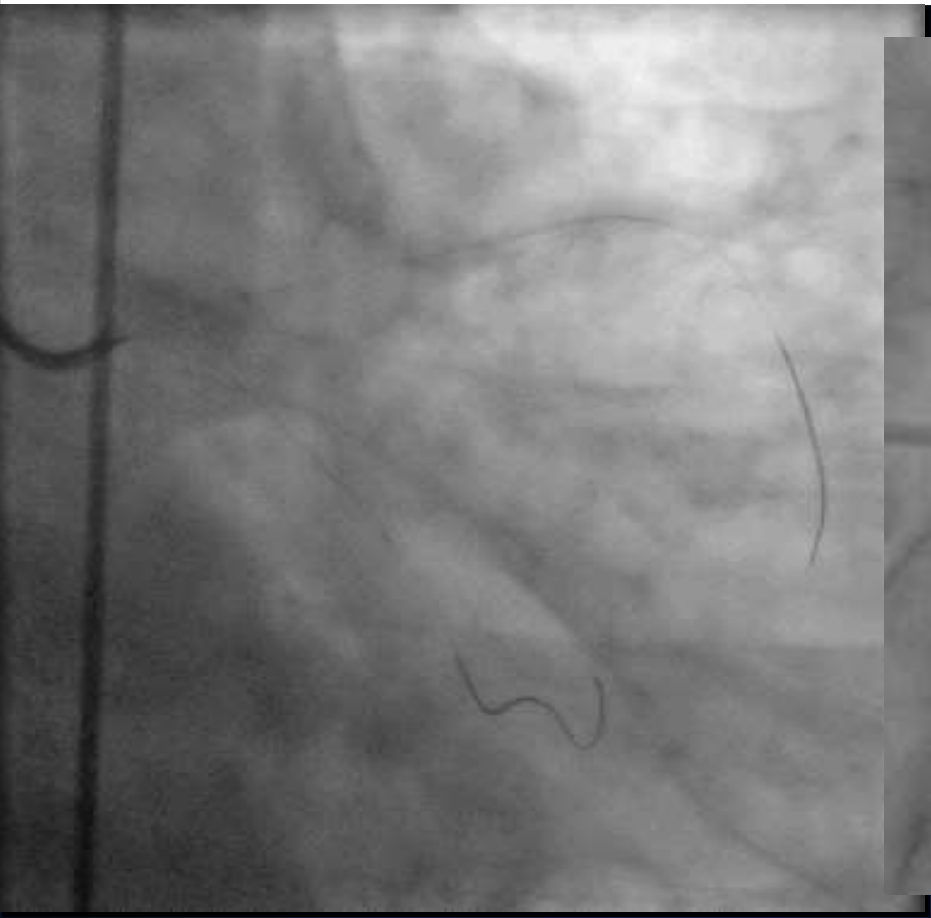
- Recurrent chest pain for 4 days, max 9am
- Coro: 1. hot lesion - clot, 2. RCA CTO

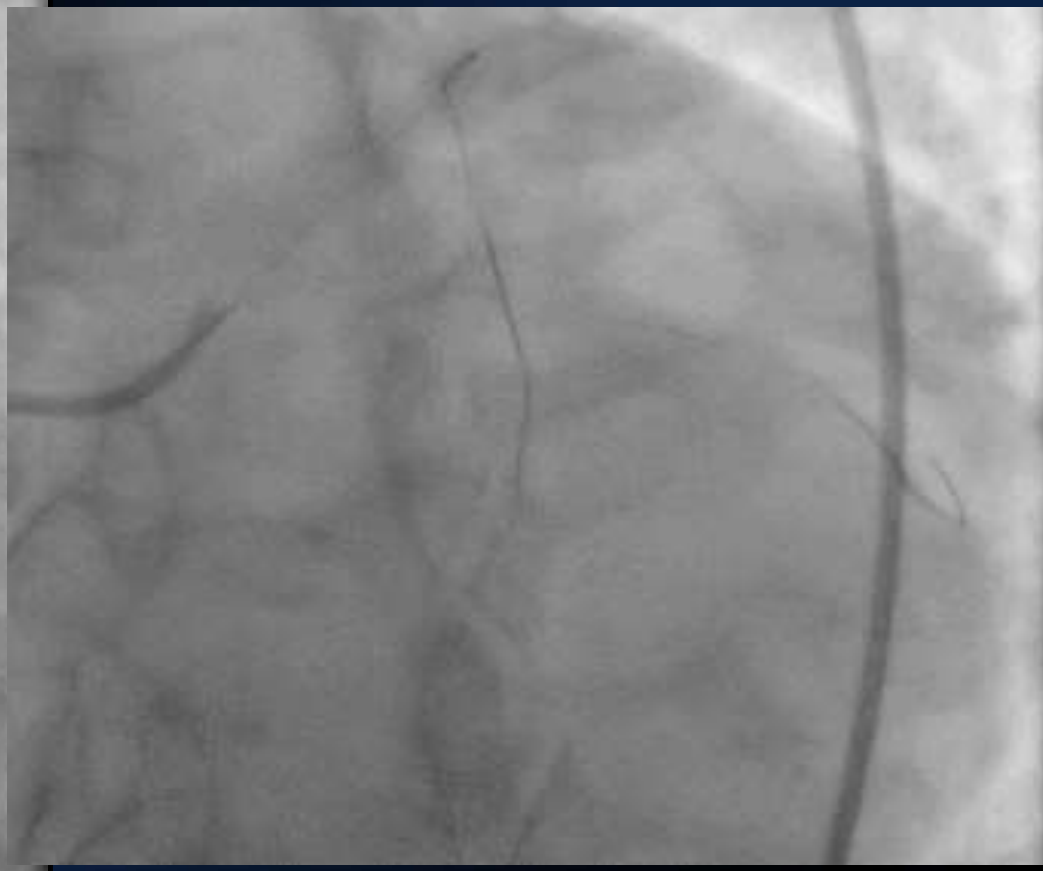
Imp: Double culprit in LAD





What is the size of LAD ?

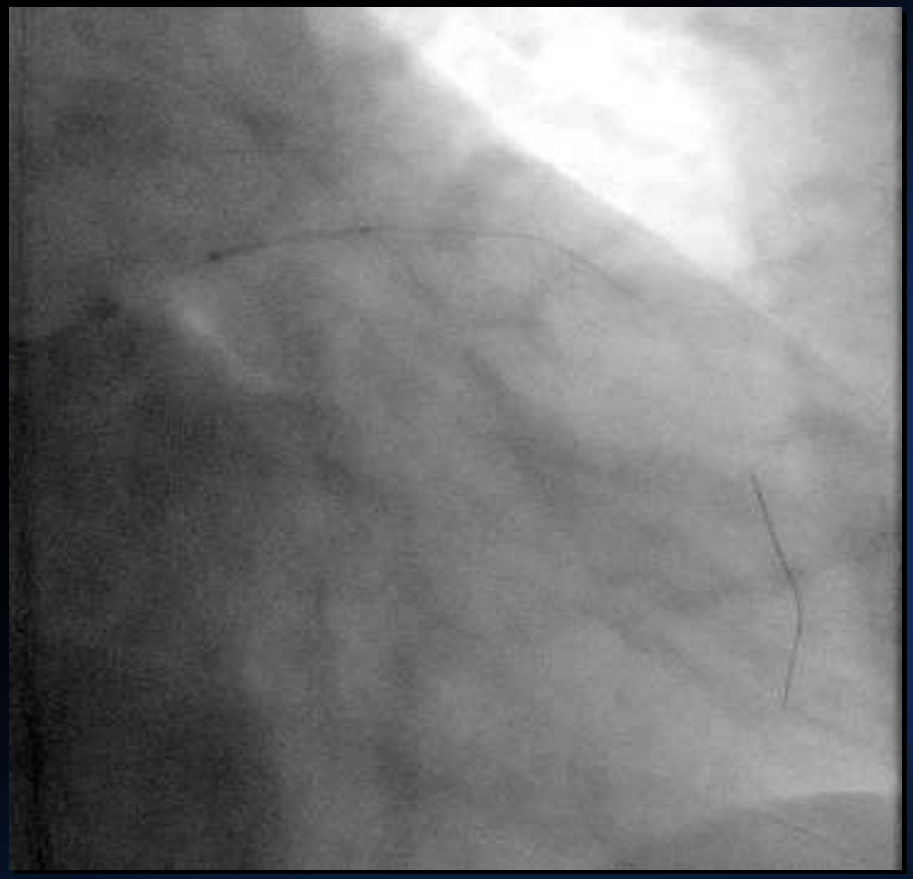


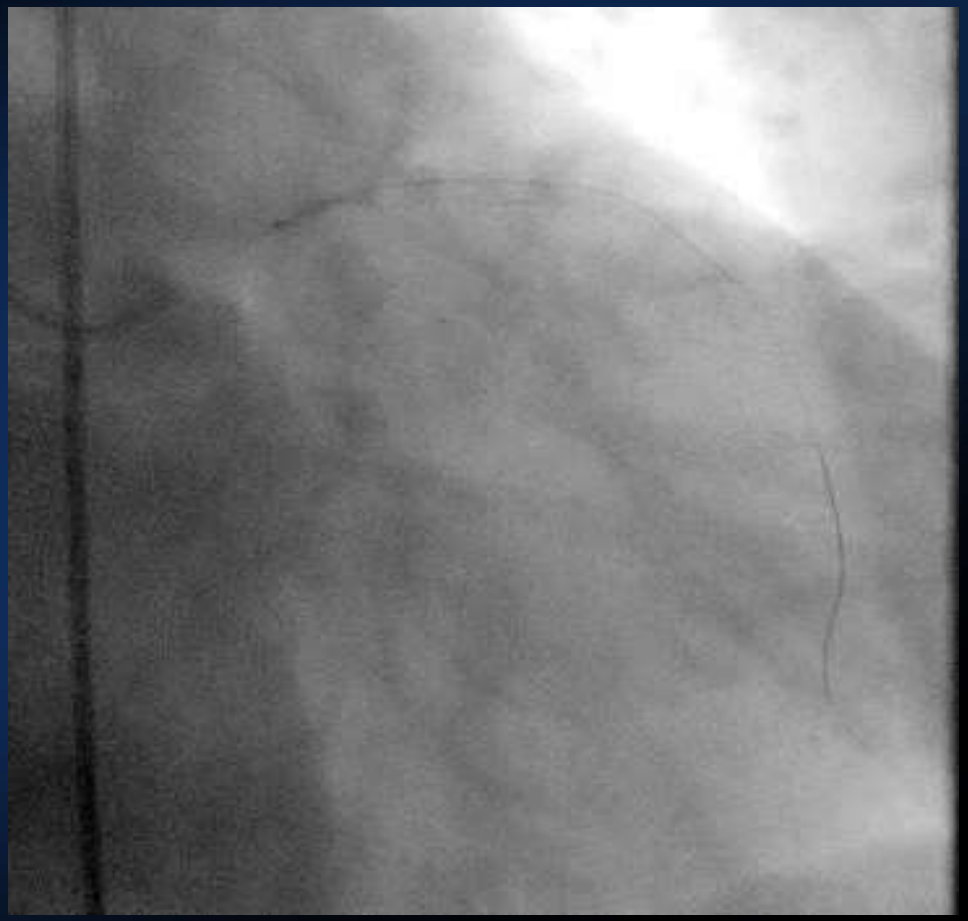


pLAD is 6mm

How can you avoid post stent high pressure?

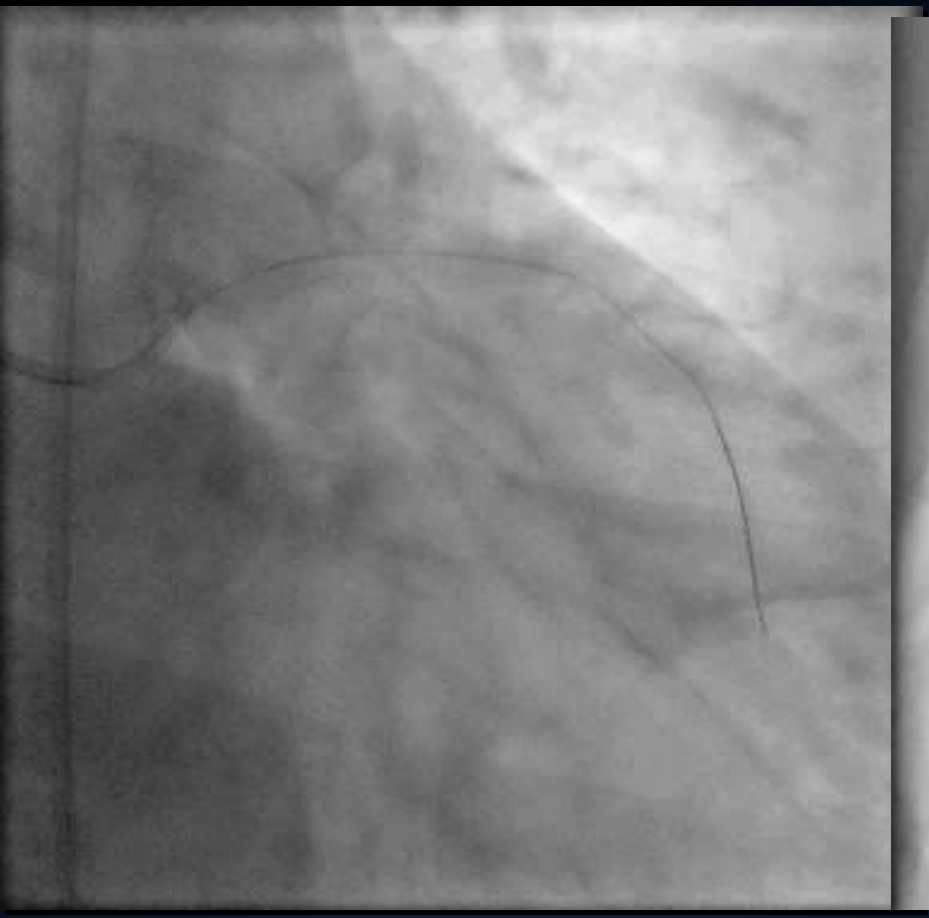
Stentys self apposing stent 3.5 x 17

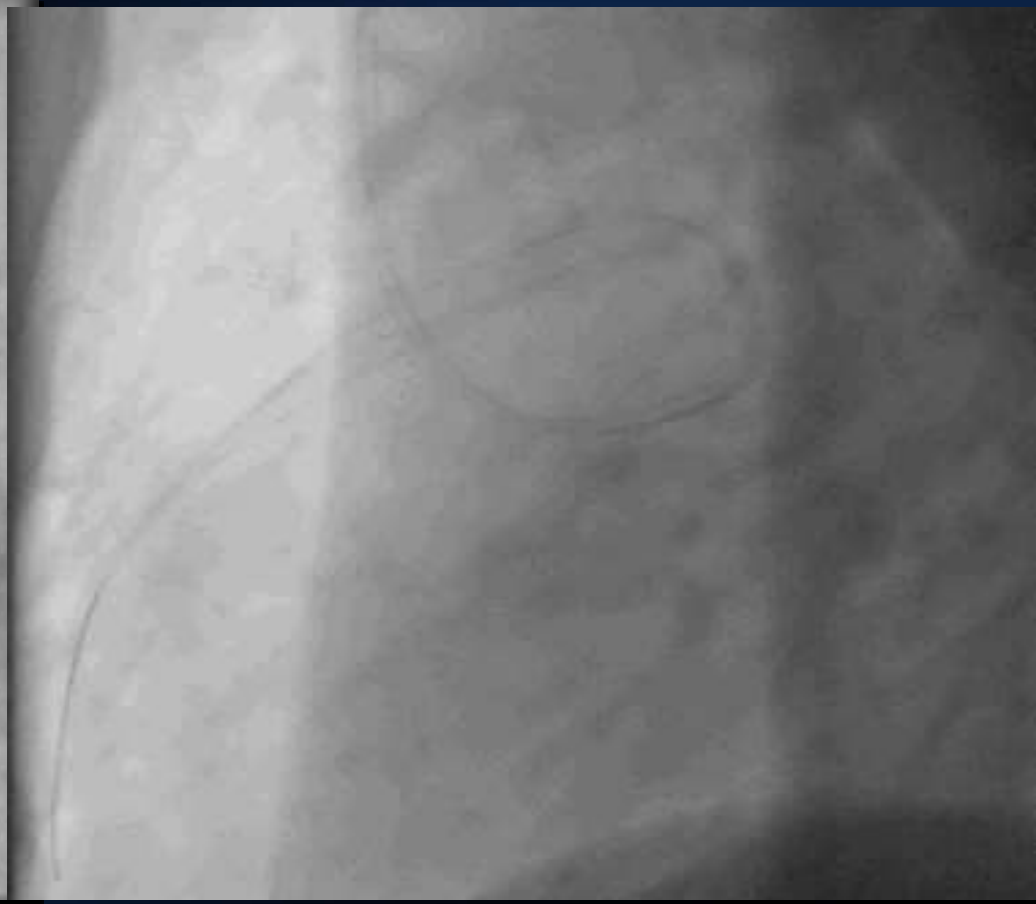




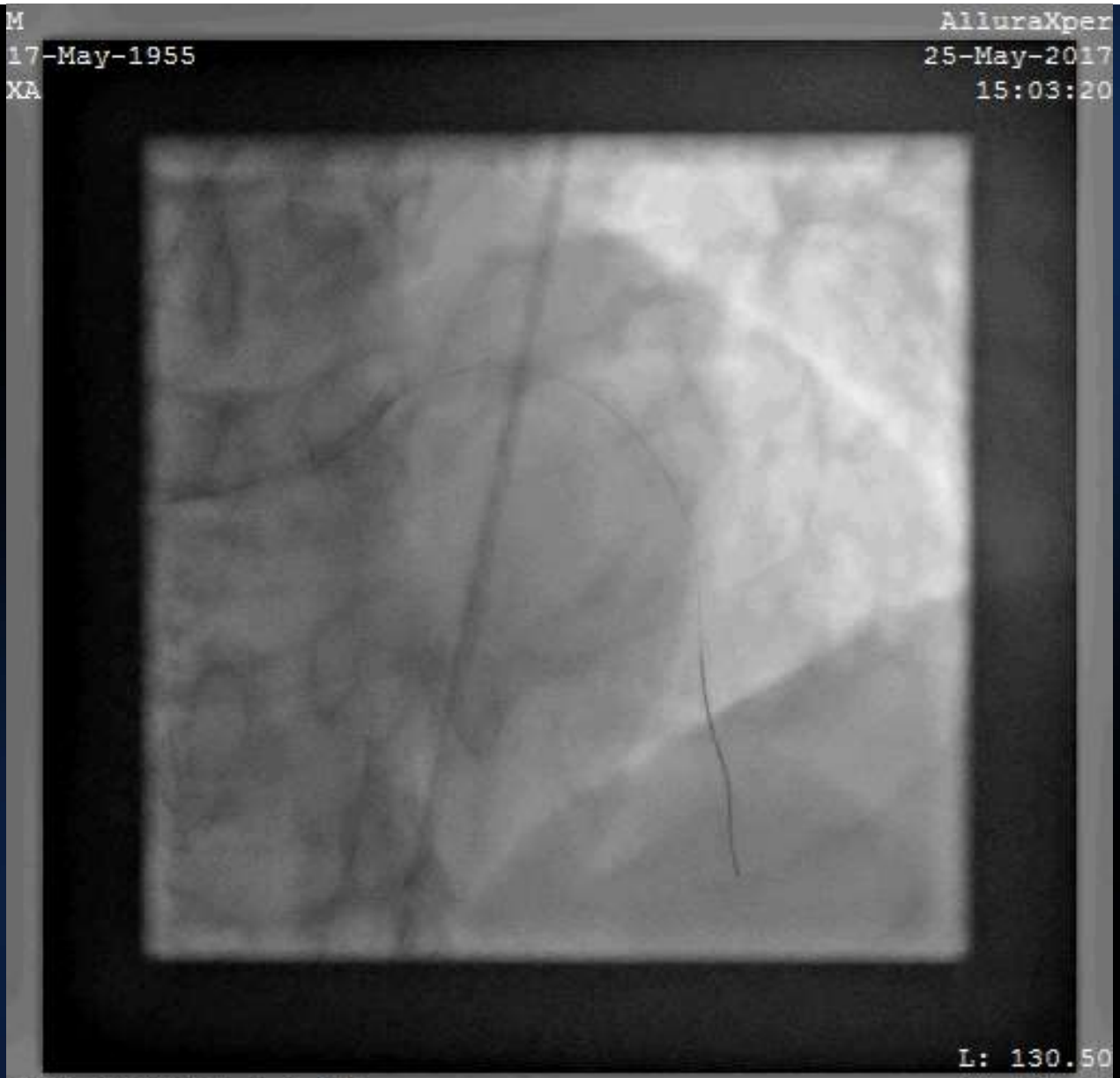
3.5mm in size at 10 ATM but can grow to 6mm as clot dissolve

No reflow again as expected





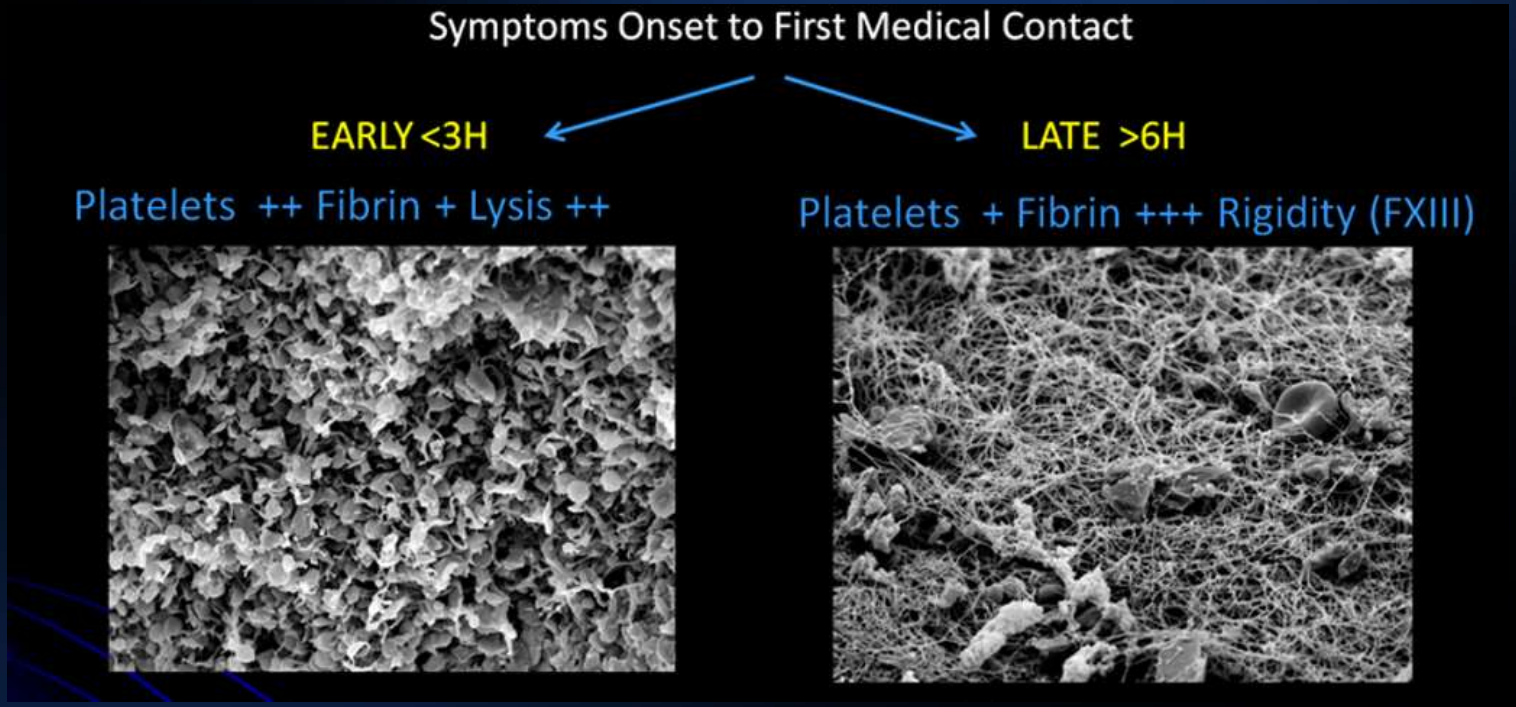
Crusade aided adenosine injection



Think patient as whole
from history to lesion

Chest pain to stent : ~6 hr

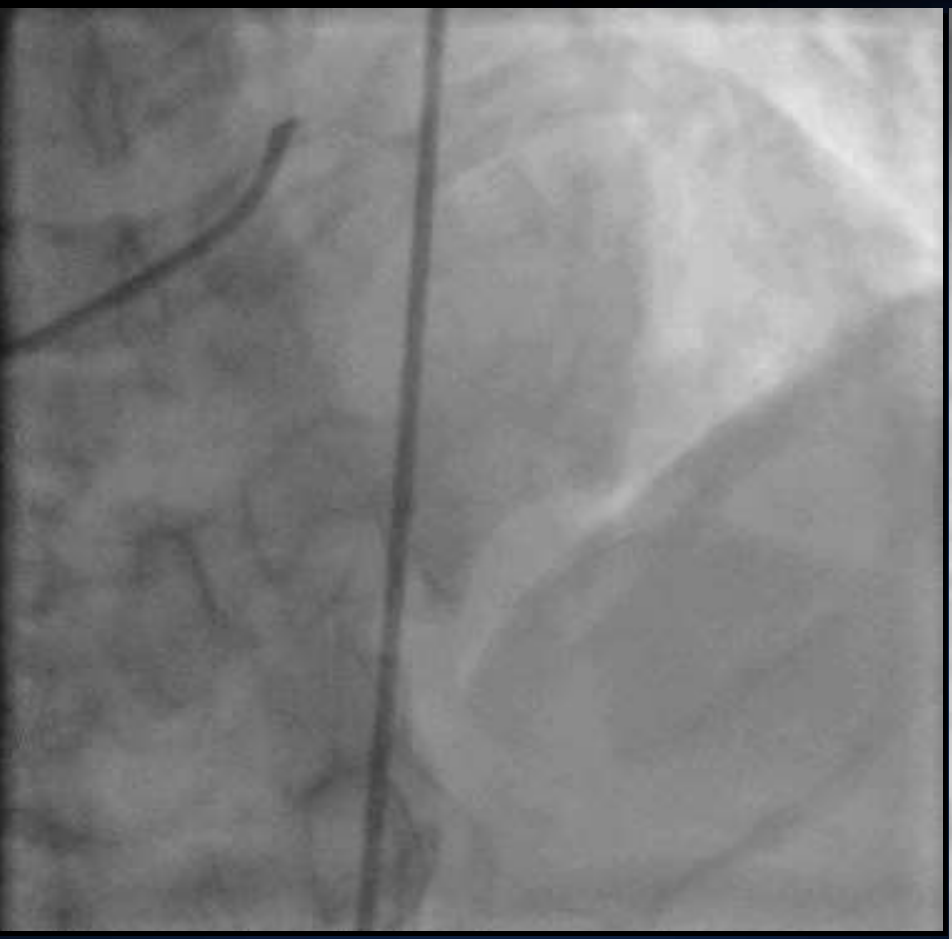
- **>6hrs thrombus response poor to IIb/IIIa and lytic**

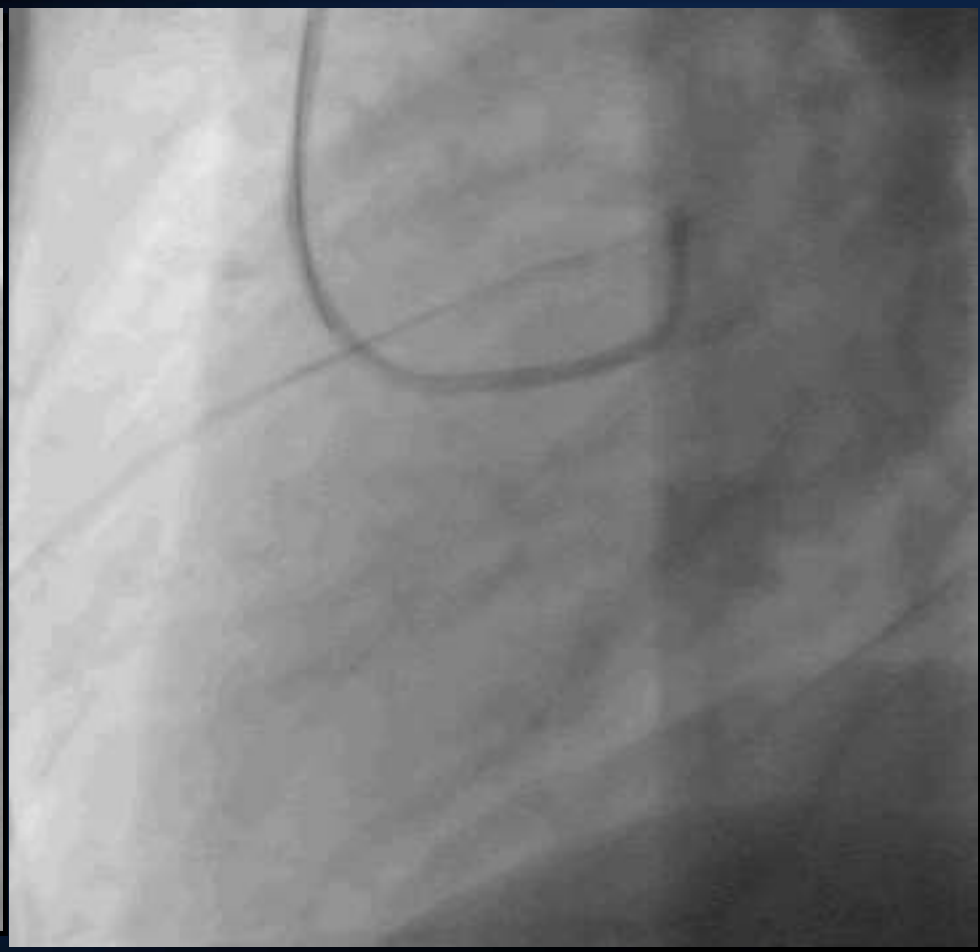


Lytic good
Glyco IIb/IIIa good

Lytic no use
Glyco IIb/IIIa ?? Use

Final coro

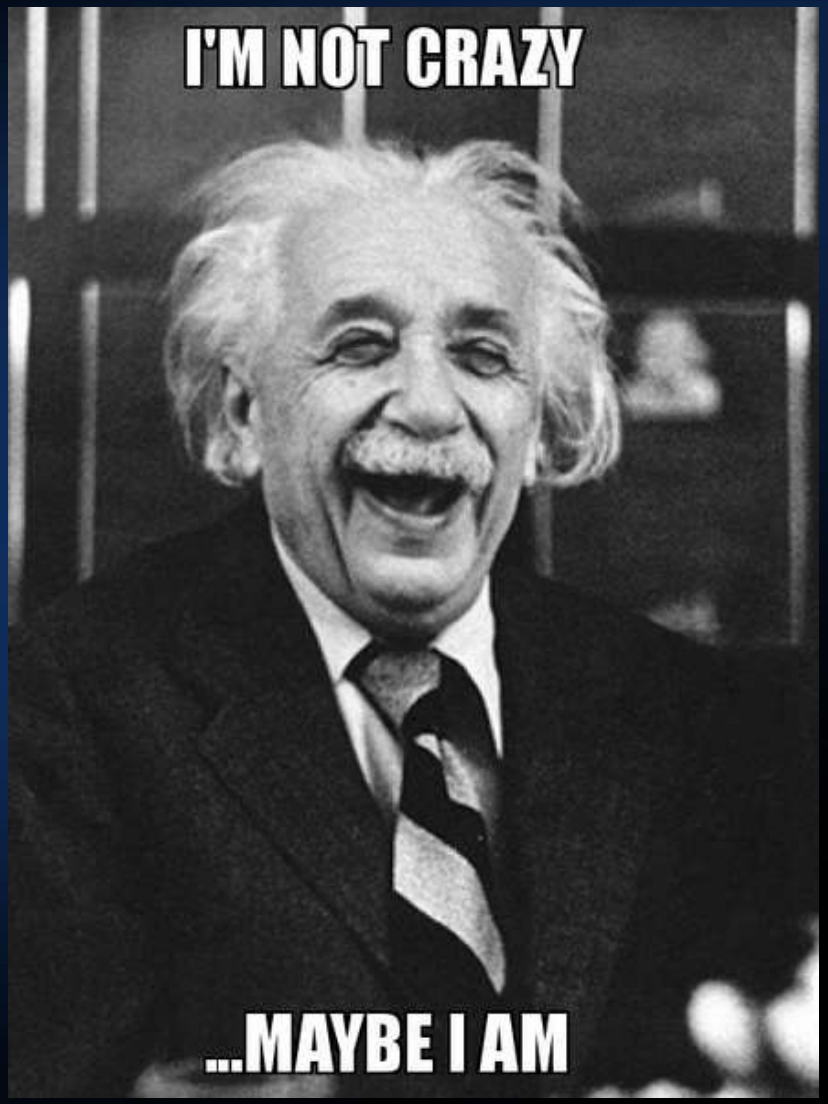




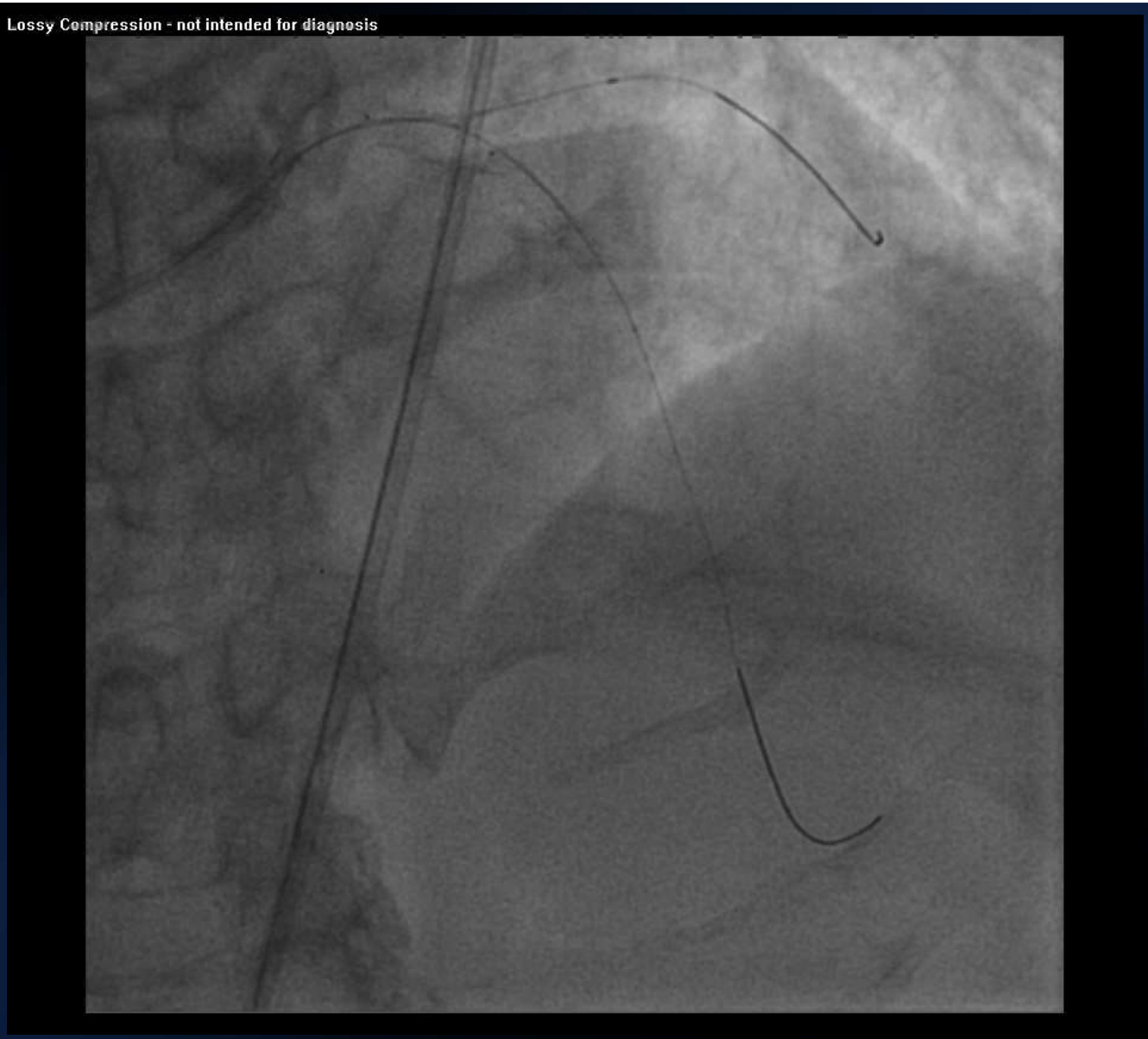
The presenter is crazy !!!

?3.5 mm & 6mm

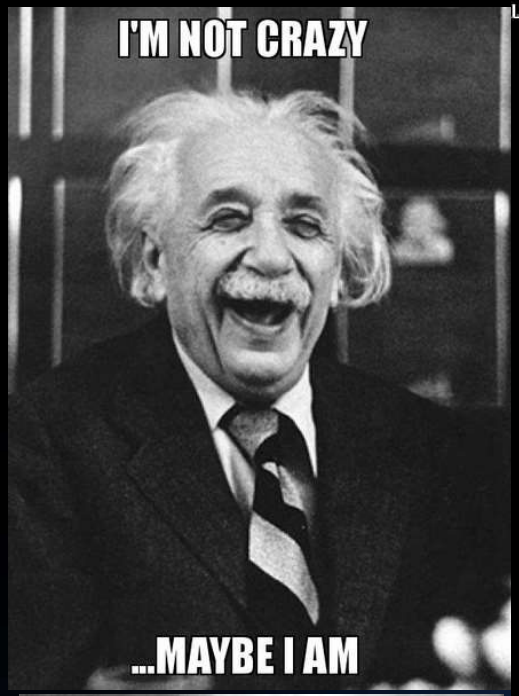
?Xience mixed with stentys

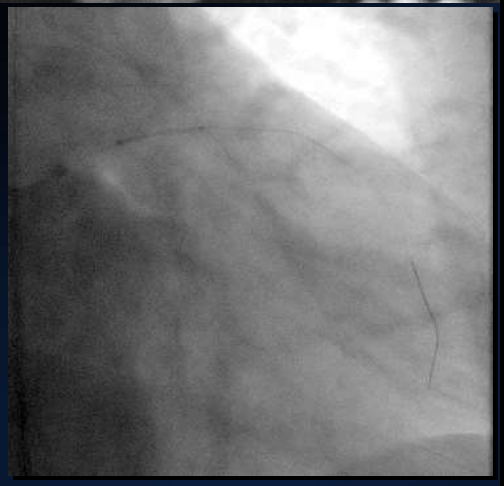


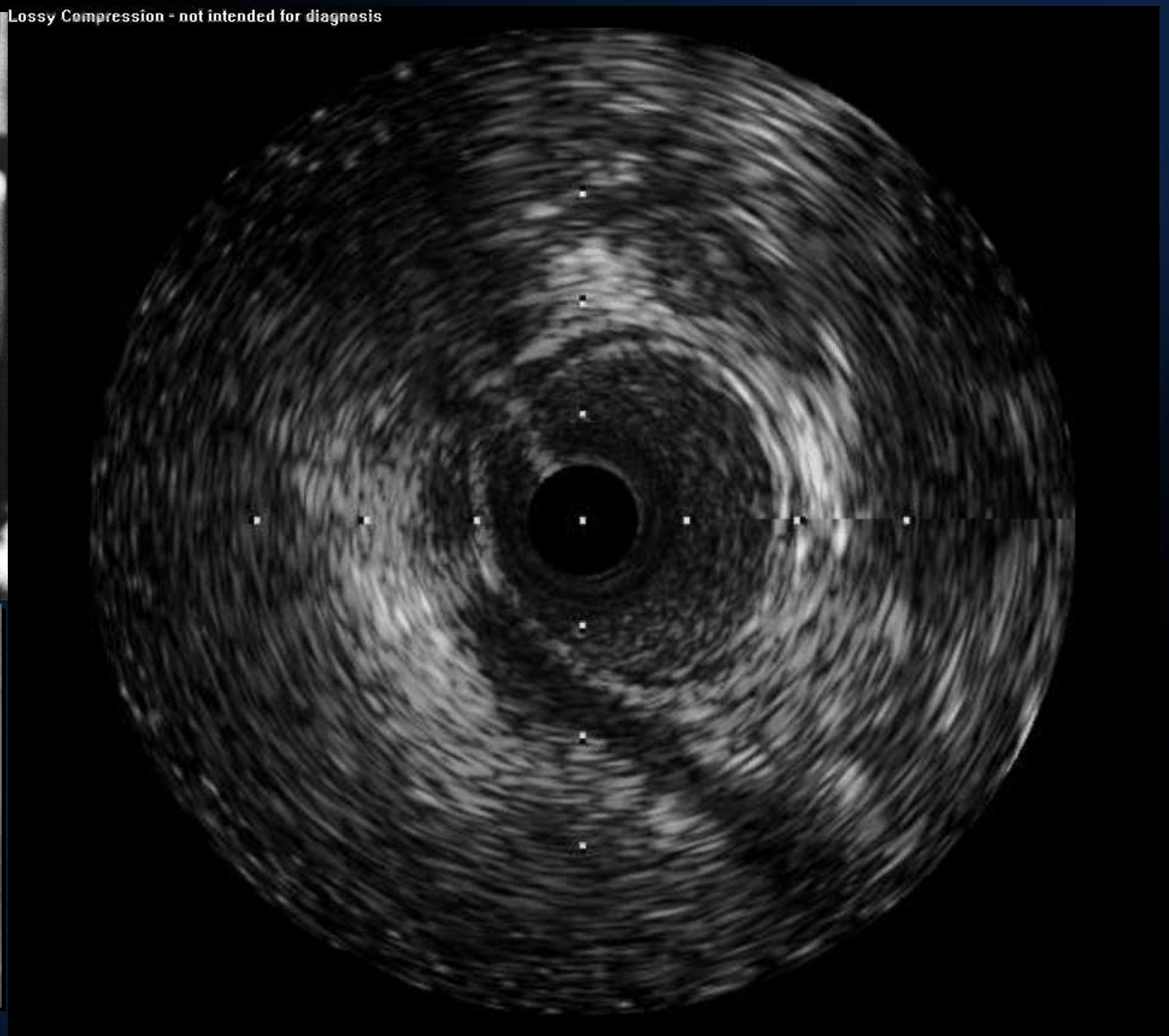
Stage PCI to LAD for optimization and RCA CTO 4 weeks later



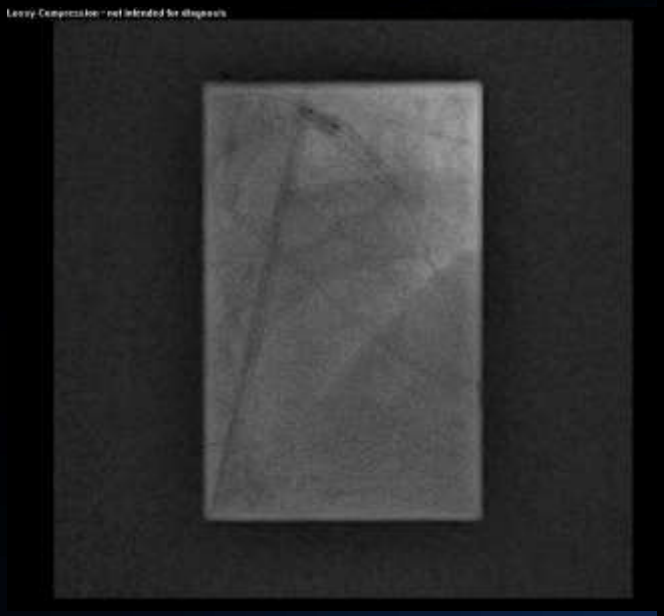
IVUS confirmed I am not Crazy

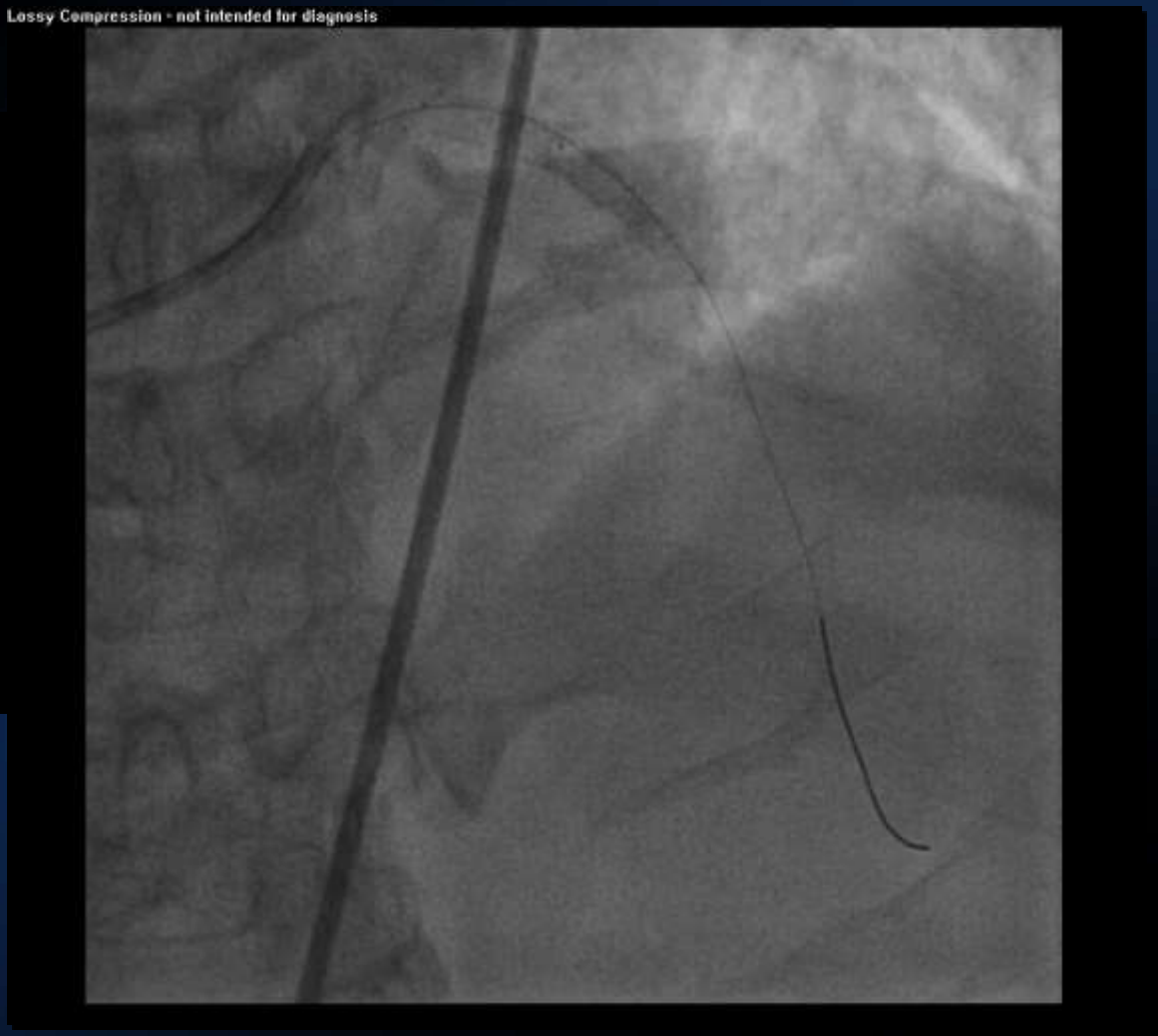




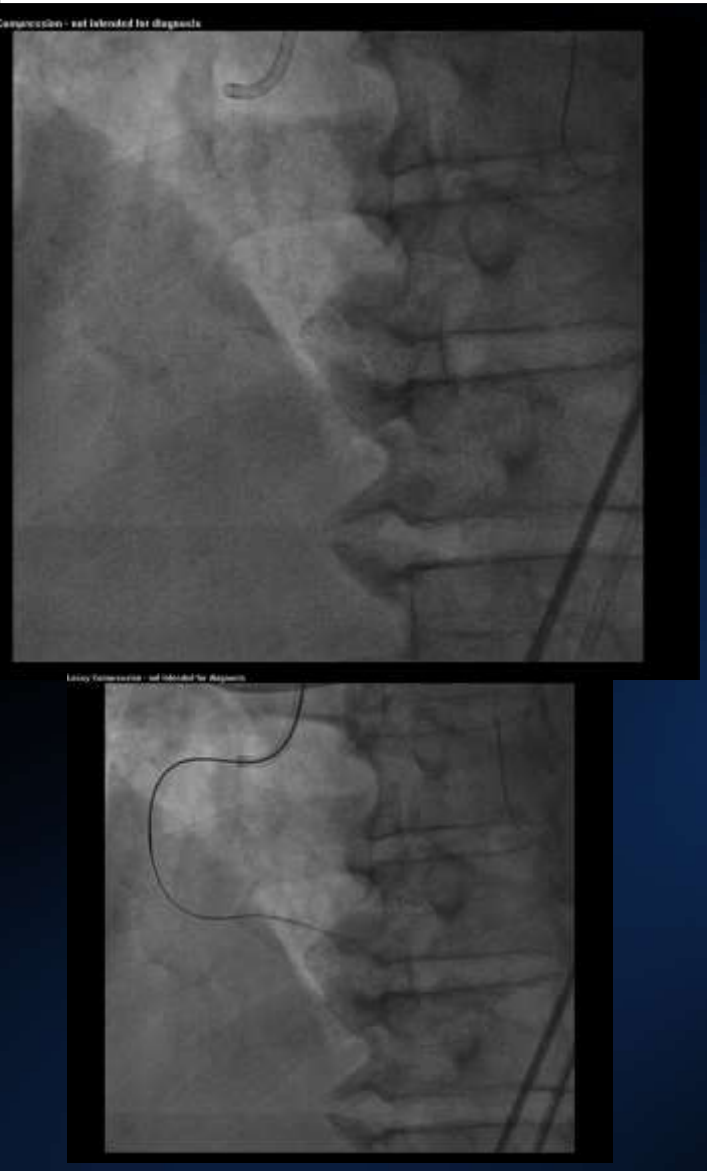


4.5 NC and one more stent in LAD





PCI to RCA CTO



Is it the end ? NO !!!!!!

- What if adenosine is not a/v in 3 mins?
  - System – continuously review
  - > 60% need adenosine
  - Now→ prepare adenosine routinely for all PPCI

	Procedure Data														
Date	No. of PCI vessel	Post stent high pressure	Intravascular imaging (IVUS/OCT)	Thrombus aspiration	Contrast (ml)	IABP	Ventilator/ BiPAP/ 100% O2	Temp pacing	Pericardial drain/ chest drain	Embolization/ Cover Stent	CPR	IIb/IIIa iv /	Adenosine	Nipride	Adrenaline
2016/08/03	1	Y			85		Ventilator								
2016/08/11	1	Y			110			Y				Y	Y		
2016/08/17	1	Y	IVUS		57								Y		
2016/08/22	1				75	Y	Ventilator				Y	Y			Y
2016/09/01	1	Y			330							Y	Y		
2016/09/19	1	Y	IVUS		125								Y	Y	
2016/09/22	1		IVUS		50		100% O2					Y			
2016/09/29	3	Y	IVUS	Y	85							Y	Y		
2016/10/12	2	Y			135		100% O2					Y	Y		
2016/10/19	1				70							Y	Y		
2016/10/19	1			Y	63	Y	Ventilator	Y (TCP)				Y	Y		
2016/10/31	1	Y			70								Y		
2016/11/16	1	Y			75										
2016/11/21	1	Y			85										
2016/12/09	1				80							Y	Y		Y
2016/12/12	1	Y			125							Y	Y		
2016/12/15	1	Y		Y	100							Y	Y		
2016/12/23	2	Y			180									Y	
2016/12/30	1	Y			90							Y			

How will you treat?

- **System is Science.**
  - Be objective
  - Precise data and act accordingly
- **Skill is Art.**
  - Think patient a whole from history to lesion
  - Individualize based on your patient

Why?

PPCI 30 days Mortality Worldwide