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LESION OF INTERMEDIATE SEVERITY- HOW TO PROCEED!



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S.H. 37 yrs male

- Asymptomatic software professional
 - Smoker
- Developed severe chest pain in night at 2 pm with sweating, congestion, & uneasiness, lasted for 4 hrs. Became normal the next day
- Ekg done 2 days after event - Nonspecific T wave changes in lateral leads
- Referred for further evaluation
- In view of his symptoms
 - Troponin I (0.15)
 - 2 D ECHO- Normal study LV EF 60%



WHAT TO DO NEXT

ANGIOGRAM

MEDICAL FOLLOW-UP

STRESS TEST

?

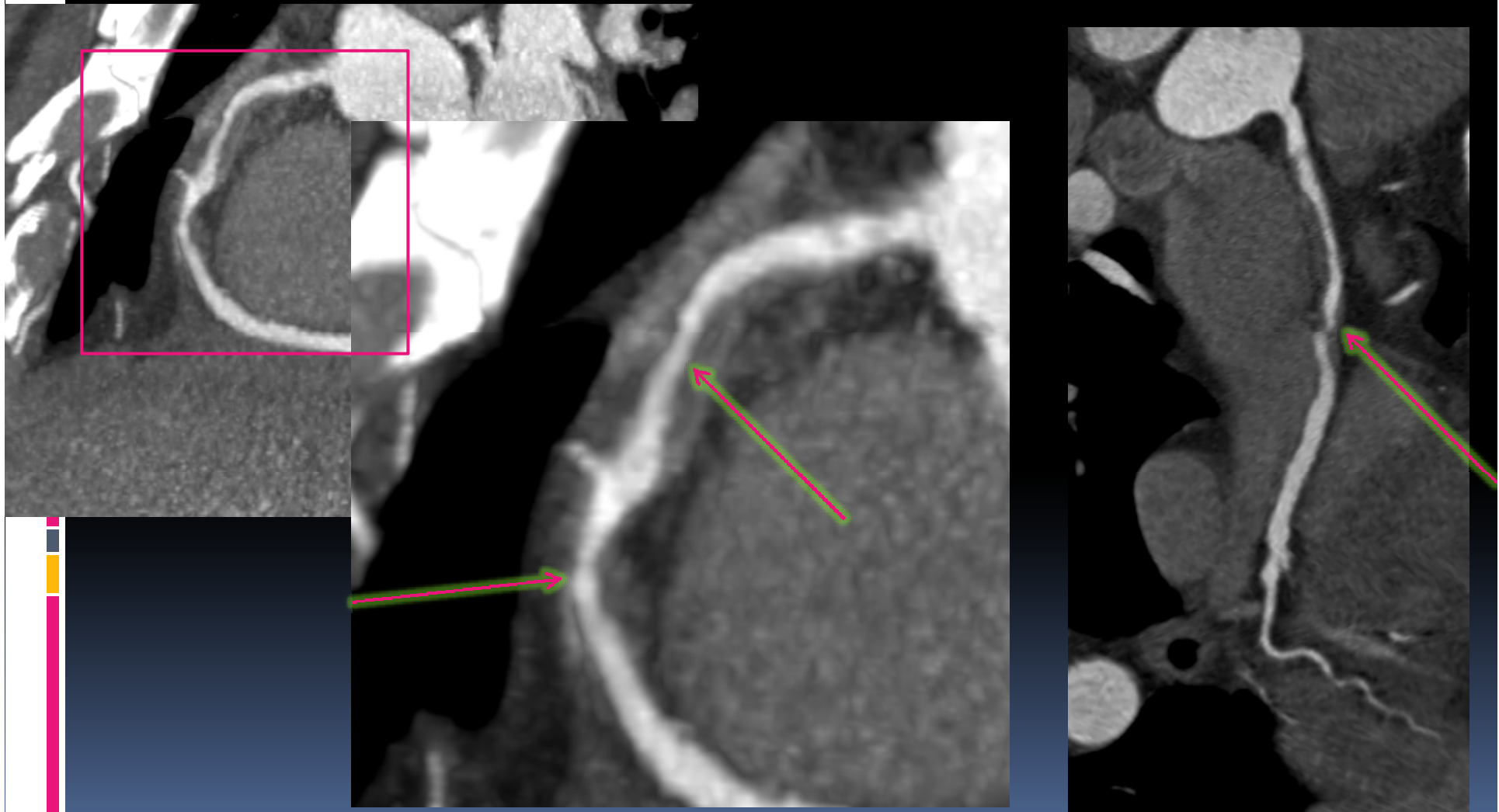


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256 slice CT angiogram

Significant stenosis of mid RCA

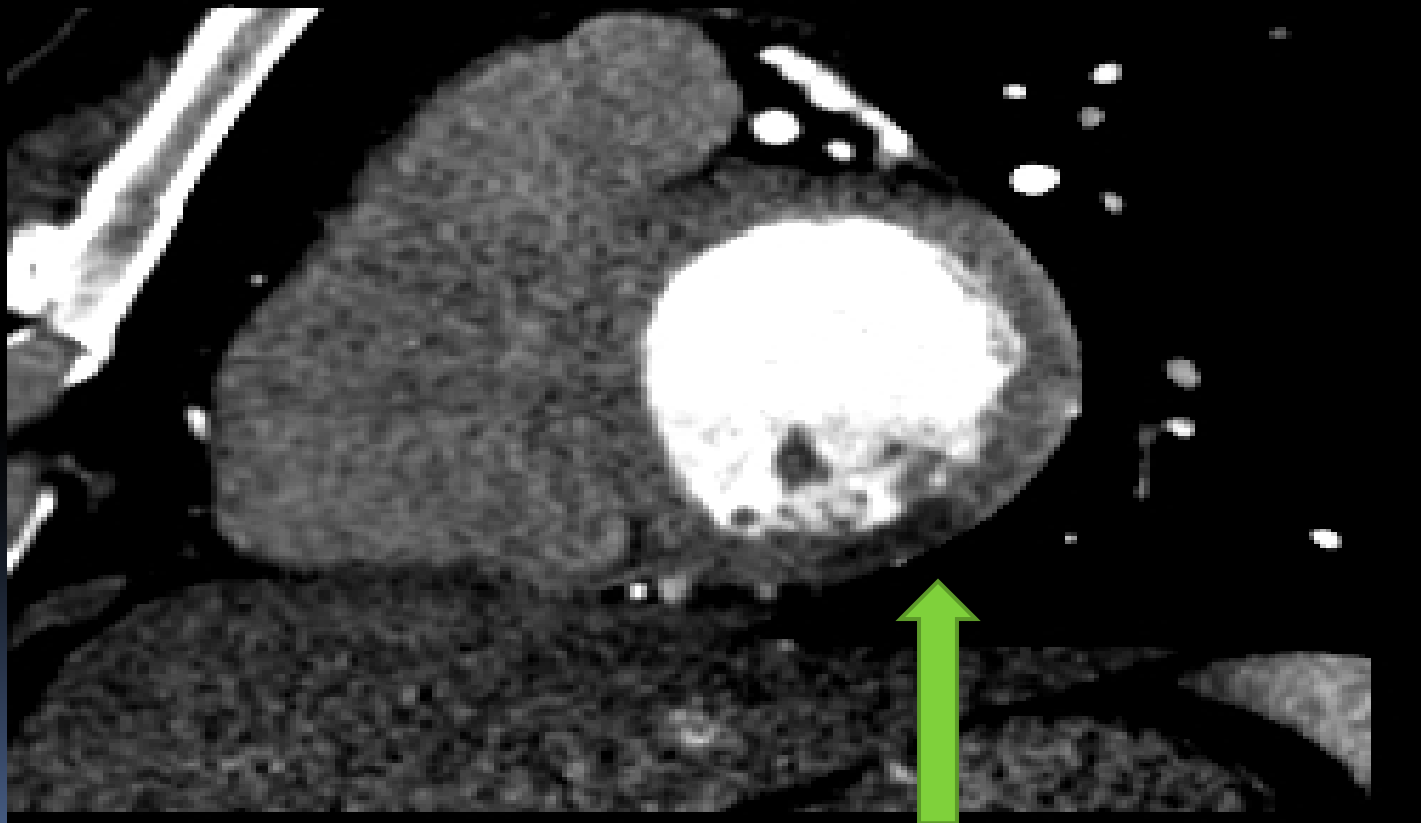
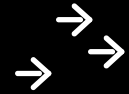


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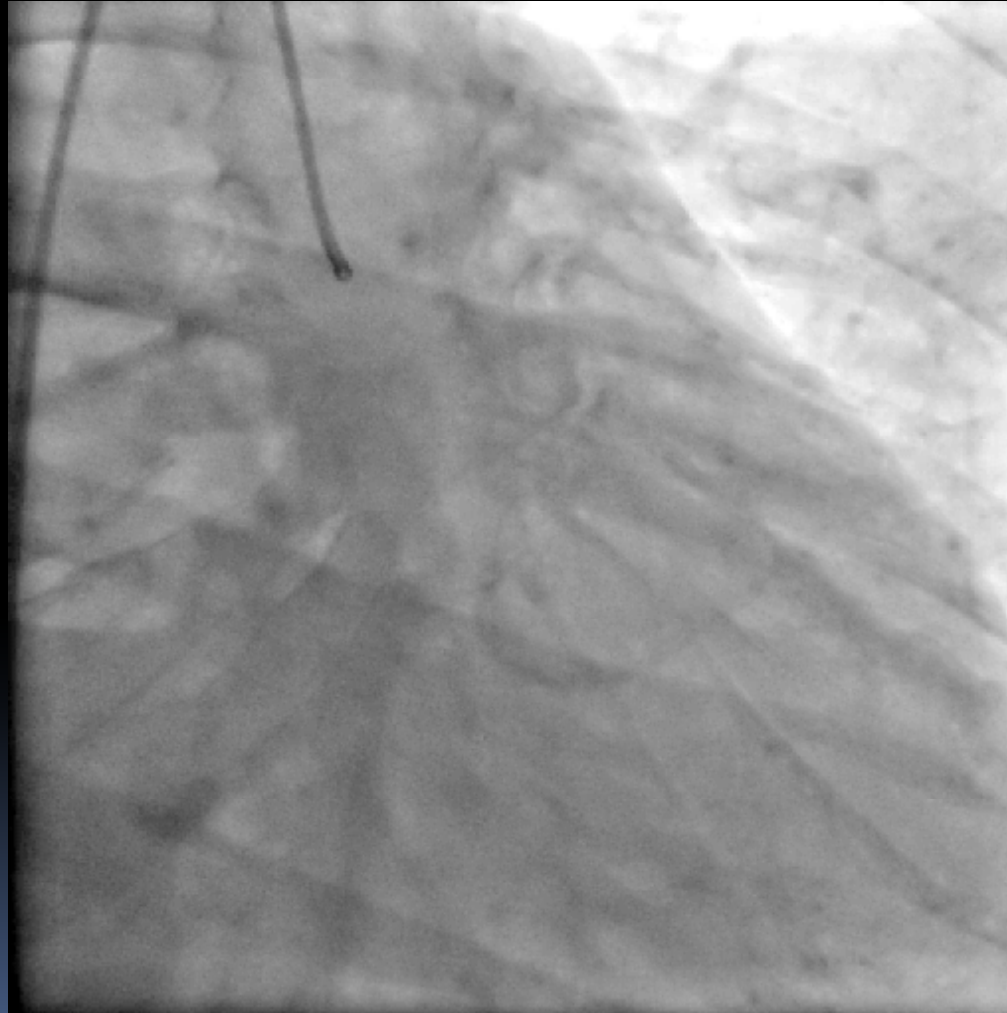
256 slice CT :- Hypoperfusion



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Coronary Angiogram



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RCA - lesions with Intermediate severity



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WHAT TO DO NEXT

ANGIOPLASTY

LONG ? OVERLAPPING STENTS
ECTATIC 6MM VESSEL -?STENT
HE IS SO YOUNG

MEDICAL FOLLOW-UP

HE HAS UNSTABLE PLAQUE
HE HAS A LONG LIFE AHEAD

IVUS

WILL IT DECIDE THE PLAN

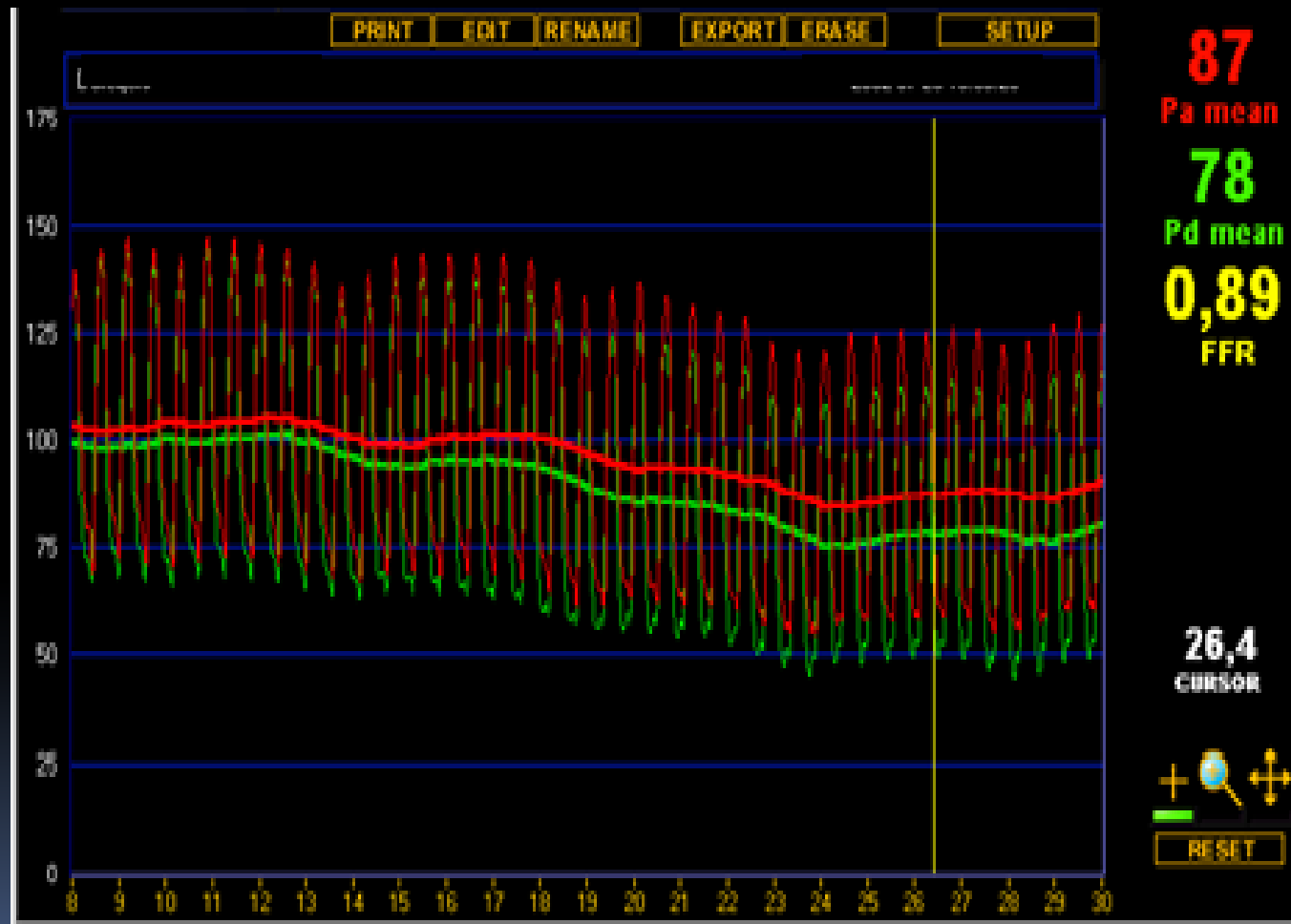
STRESS TESTING

WILL IT DECIDE ½ STENT FFR

RECENT ACS

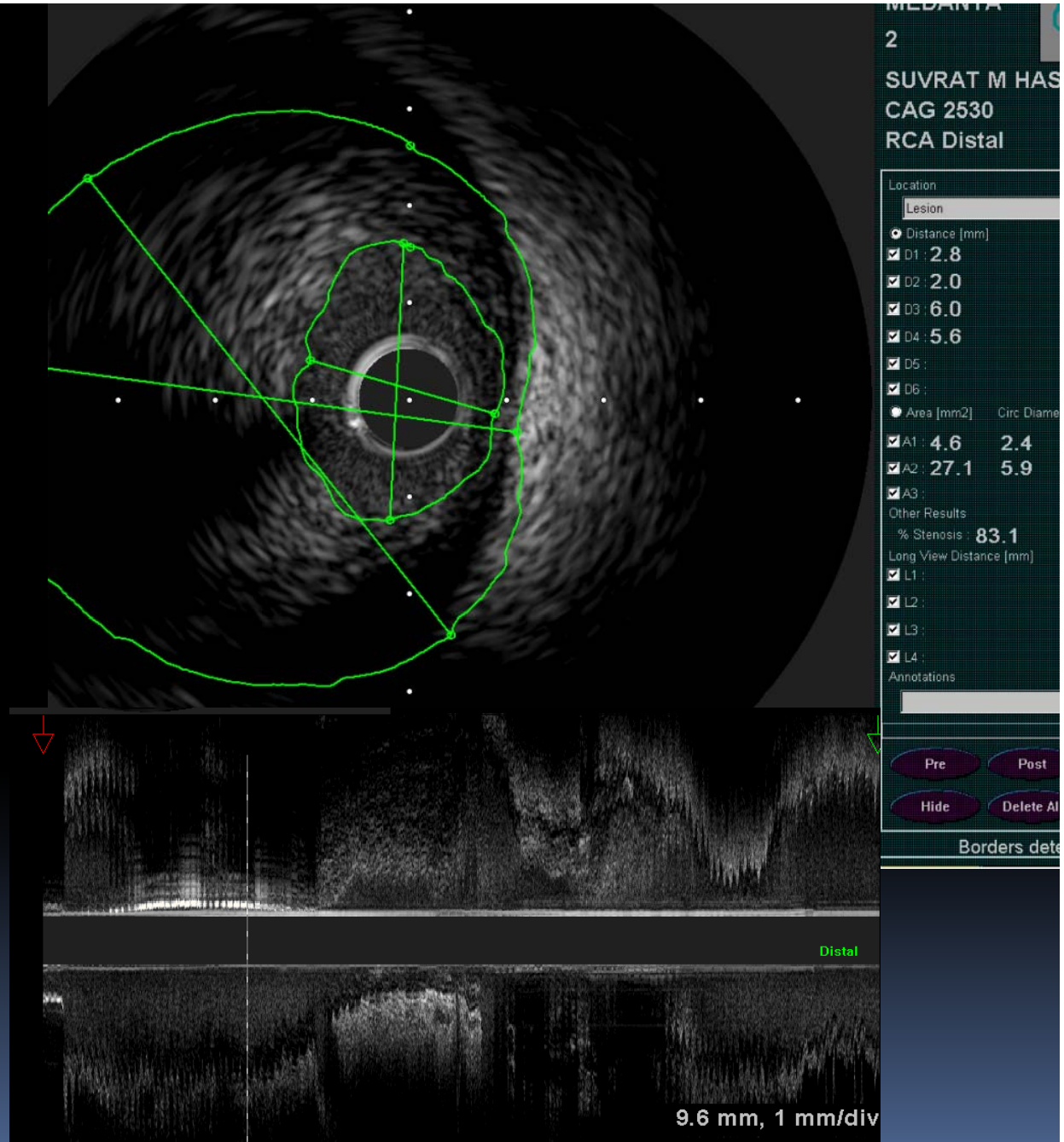


FFR (60-80-100 mcg adenosine bolus)



IVUS

- MLD = 2.2mm
- **MLA- 4.6 mm²**
- RVD- 5.9mm
- RVA- 27.1mm²
- Stenosis = **83.1%**
- Lesion Length = 40 mm



PATIENT LEFT ON MEDICAL THERAPY

PLAN

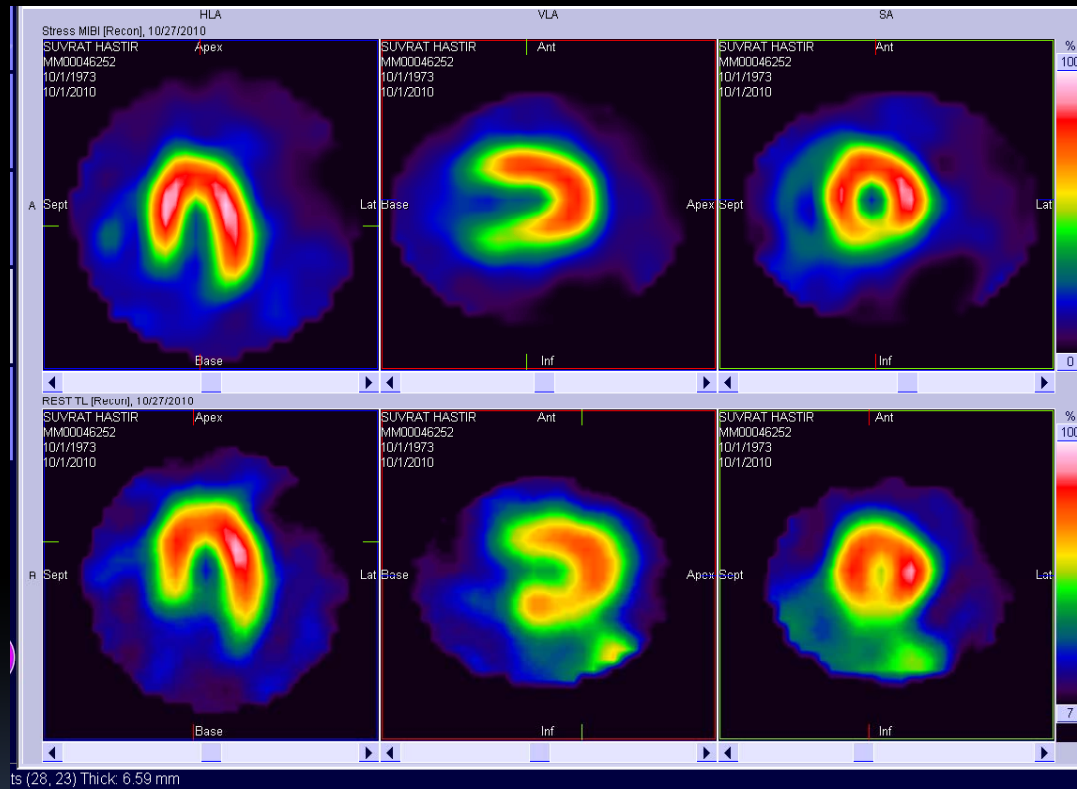
2 MONTH FOLLOW-UP



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Stress SPECT – 2 month



Reversible ischemia in RCA territory

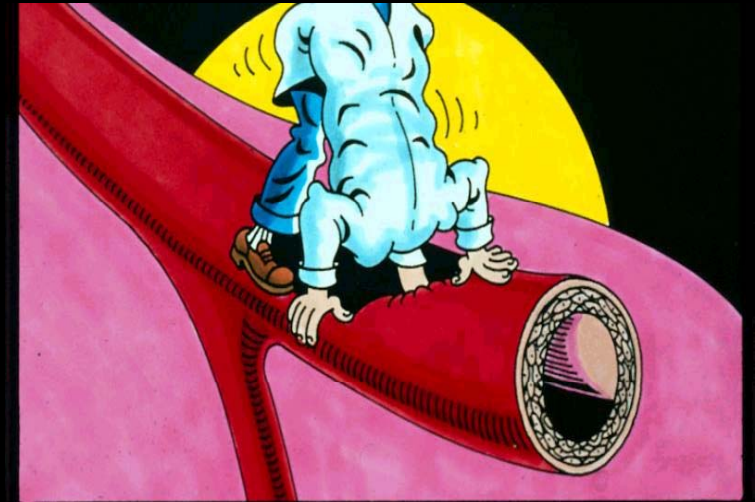


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WHAT TO DO NEXT?

RCA ANGIOPLASTY



**DOES THIS MUCH INFORMATION
SUFFICIENT ?**

**ARE WE TREATING PATIENT OR
INVESTIGATION !**



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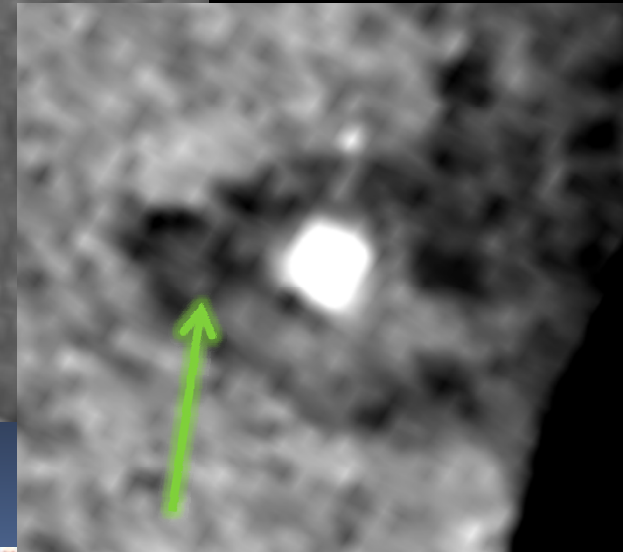
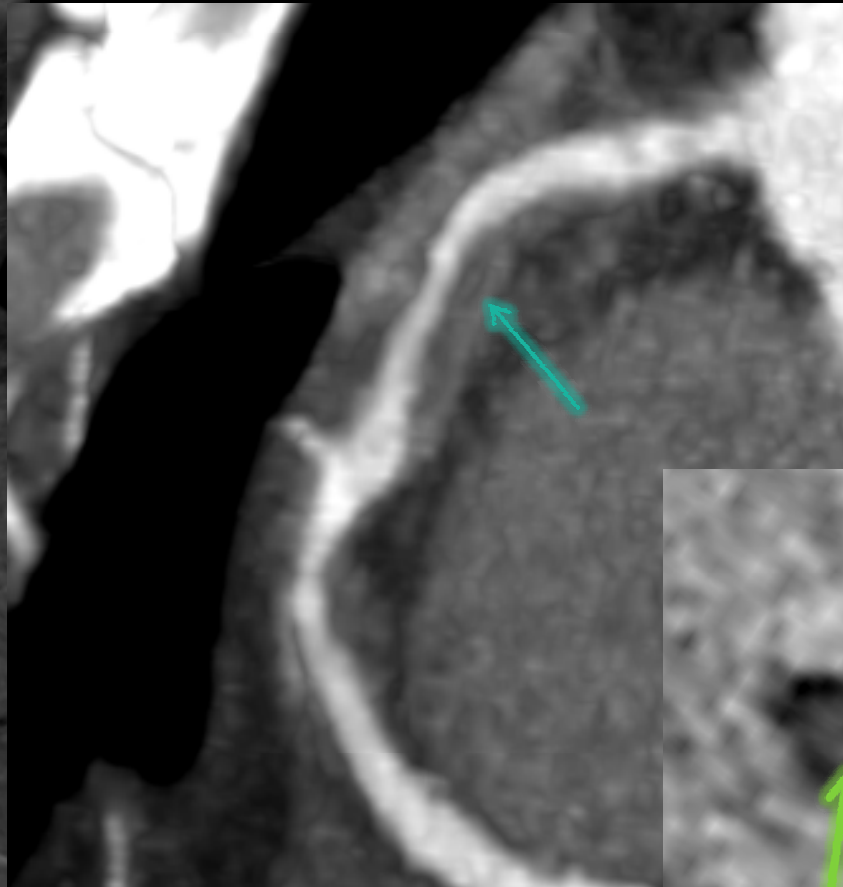
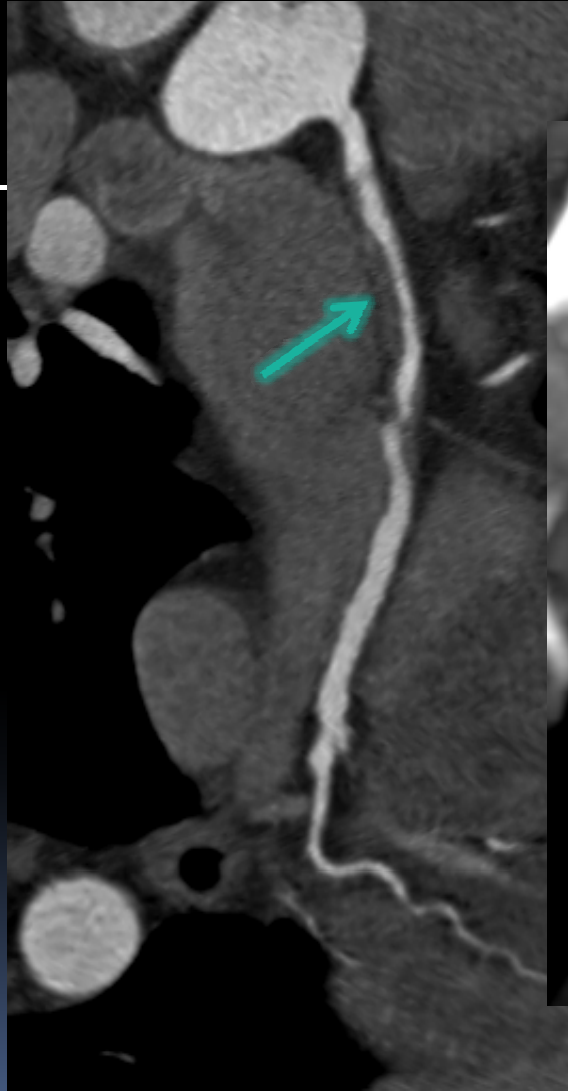
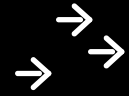


Think beyond stenosis

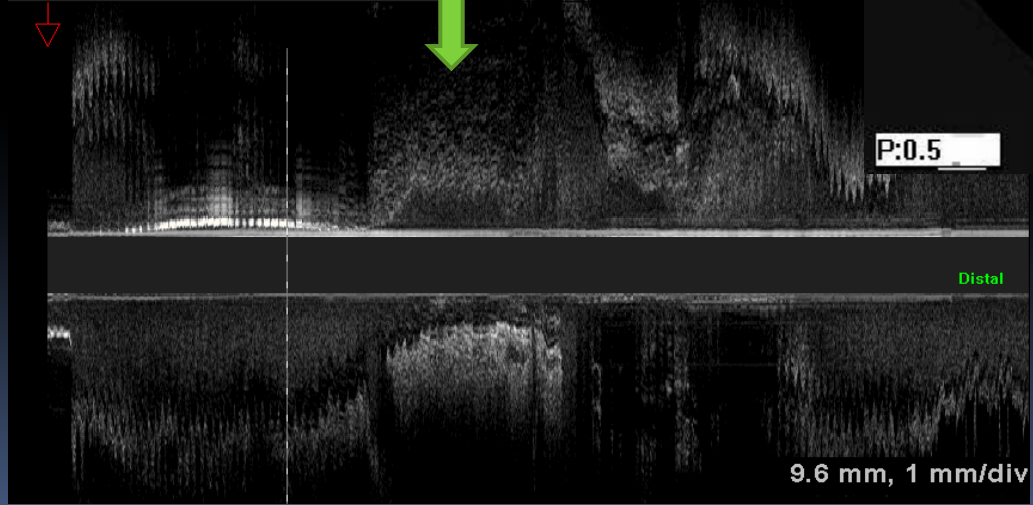
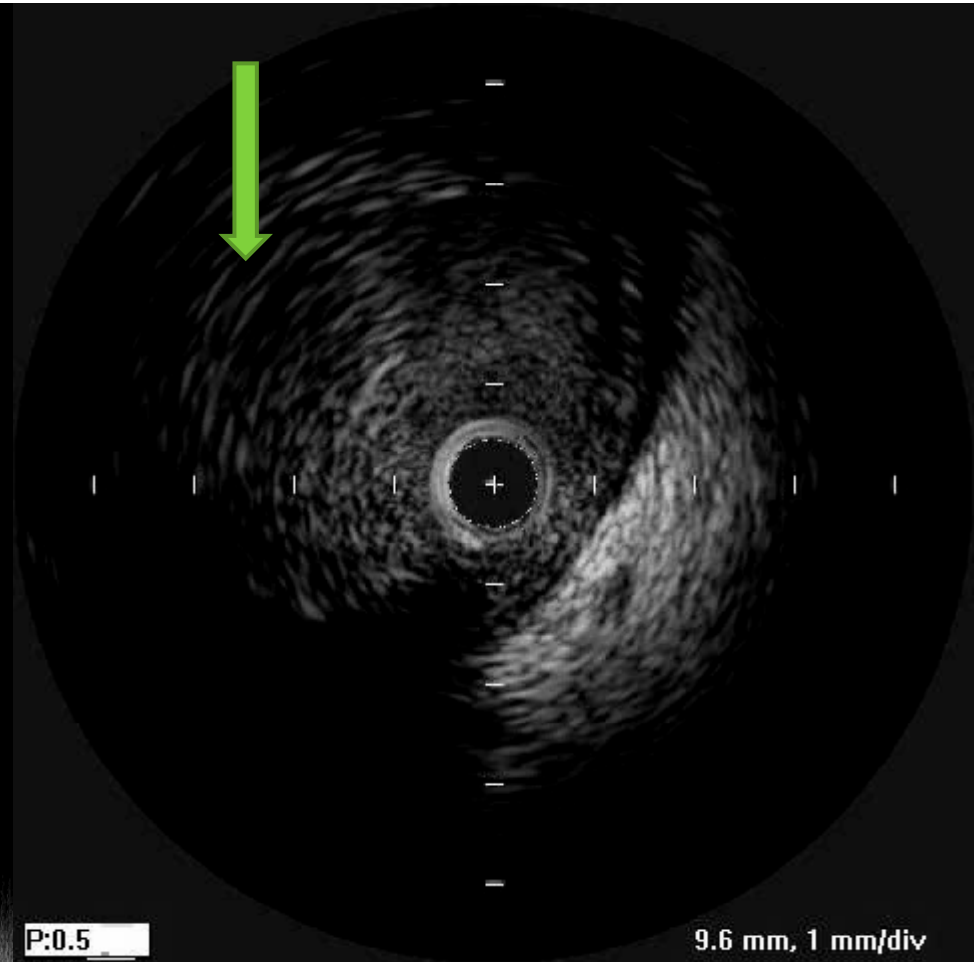
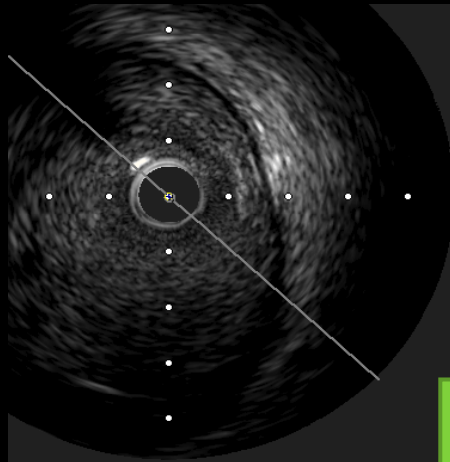
- History:-
 - Why he developed ACS ?
 - Took **sildenafil** for recreational purpose 15 min before symptoms
- Stress test
 - Completed 14 MET of exercise
 - Remain asymptomatic during exercise
 - Not an ACS any more (its 2 months)
- FFR an IVUS were negative 2 month back
- A long or may be 2 long overlapping stents are required



IVUS: INTRAMURAL HEMATOMA



IVUS



INTRA-MURAL
HEMATOMA



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Think beyond stenosis

- 256 slice CT Coronary Angiography –
 - Ectasia of proximal LAD and Lcx
 - Ectasia or RCA involving proximal mid and distal part, with diffuse stenosis in mid part
 - **INTRA MURAL HEMATOMA** was detected in mid RCA wall
- IVUS – large Intra mural hematoma with minimal plaquing in distal part of lesion
 - Stenosis – not significant



Think beyond stenosis

- Spontaneous coronary artery dissection with intra mural hematoma in ectatic vessel –
 - cause or effect?
 - Natural history ?
- May heal in few months with no residue ? – case reports with anticoagulation Rx
- Patient again left on medical therapy

Plan

again 3 -6 month follow-up
Symptom driven angioplasty



What about the future risk

- Has any thing changed for patient

- **YES**

- Left smoking
- Changed life style to healthier one
- On regular medical therapy
- Better educated about heart disease
- Lipids – LDL ↓, HDL ↑
- Possibly a more stable plaque ?



Learning from this case

- Treat the patient not the investigations
- Over investigation doesn't mean over treatment
- Investigations are to help you better understand pathophysiology and take a wise decision
- History taking is still equally important



Thank You

