

To Seal or not to seal, that is the question ?

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Kwong Wah Hospital,

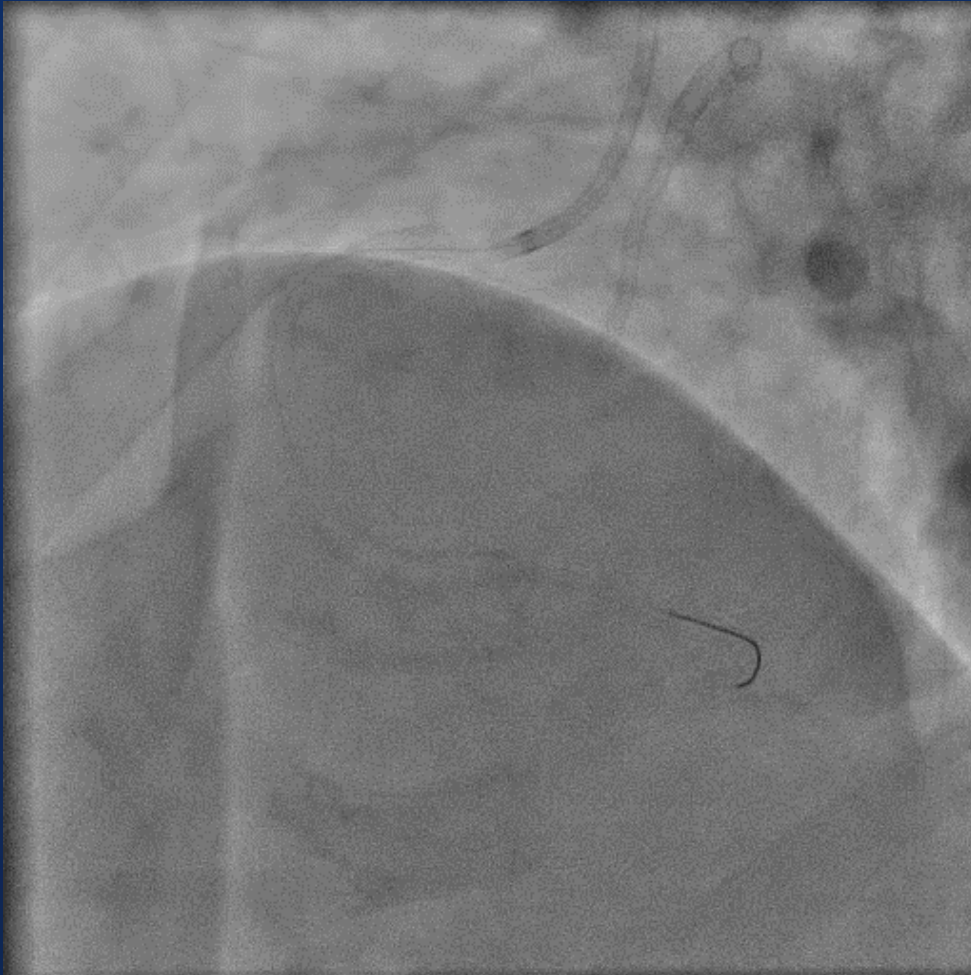
Hong Kong.



Disclosure

- I , Tam Li-wah has nothing to Disclose for potential conflicts of interest regarding this presentation

To seal or not to seal ?
This One is easy !



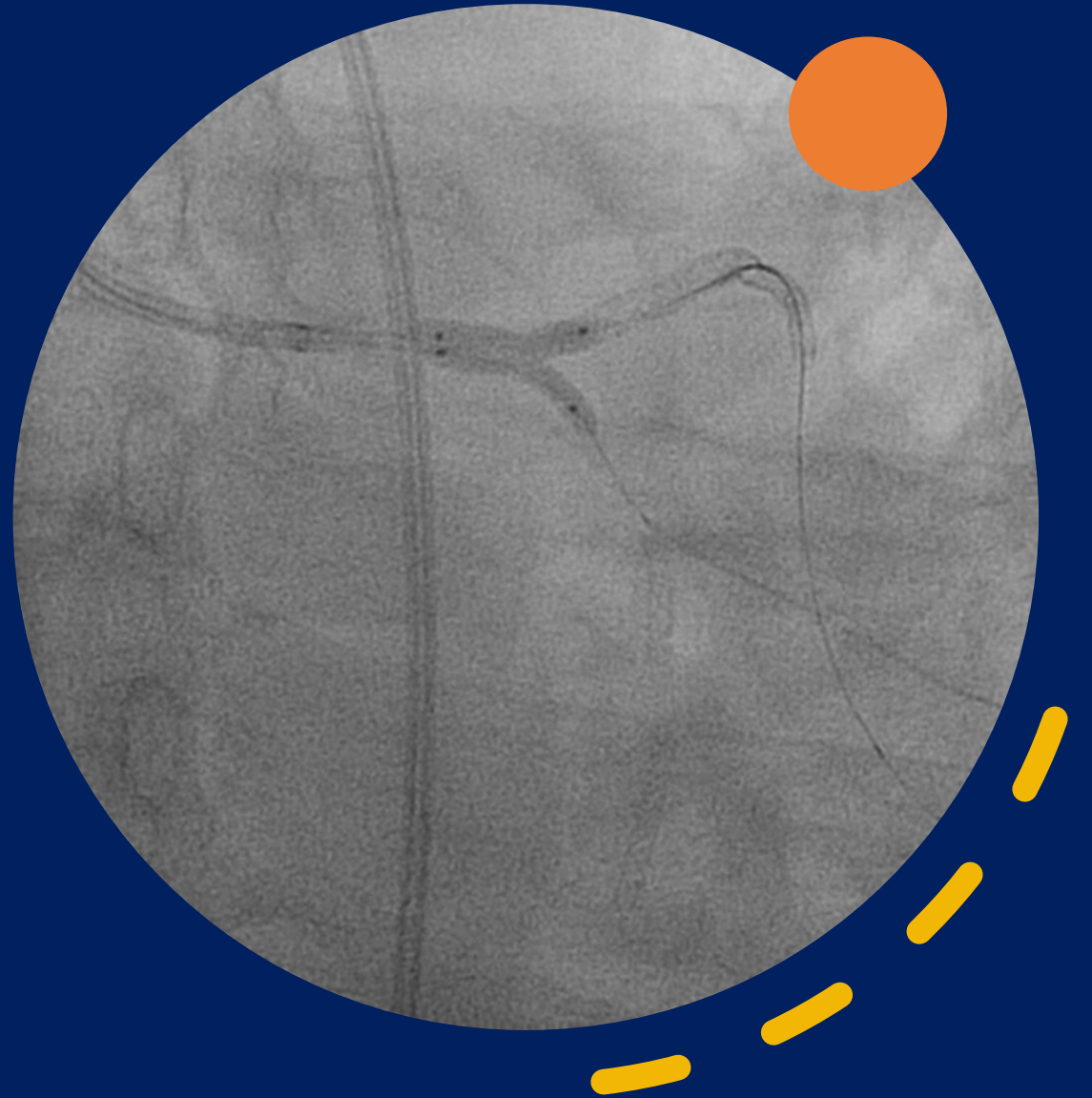
Post- PCI ACS

M/70

IHD s/p PCI to RCA , Lcx , LAD



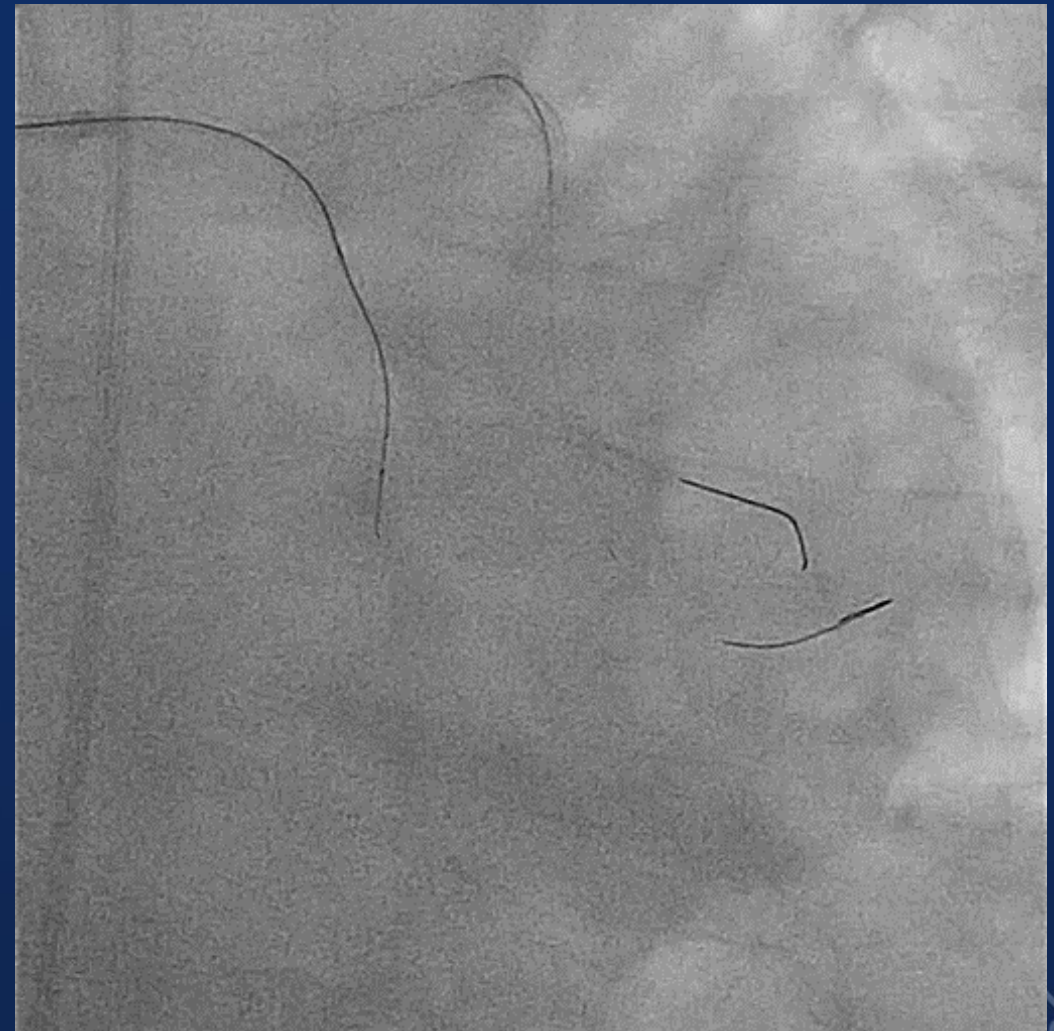
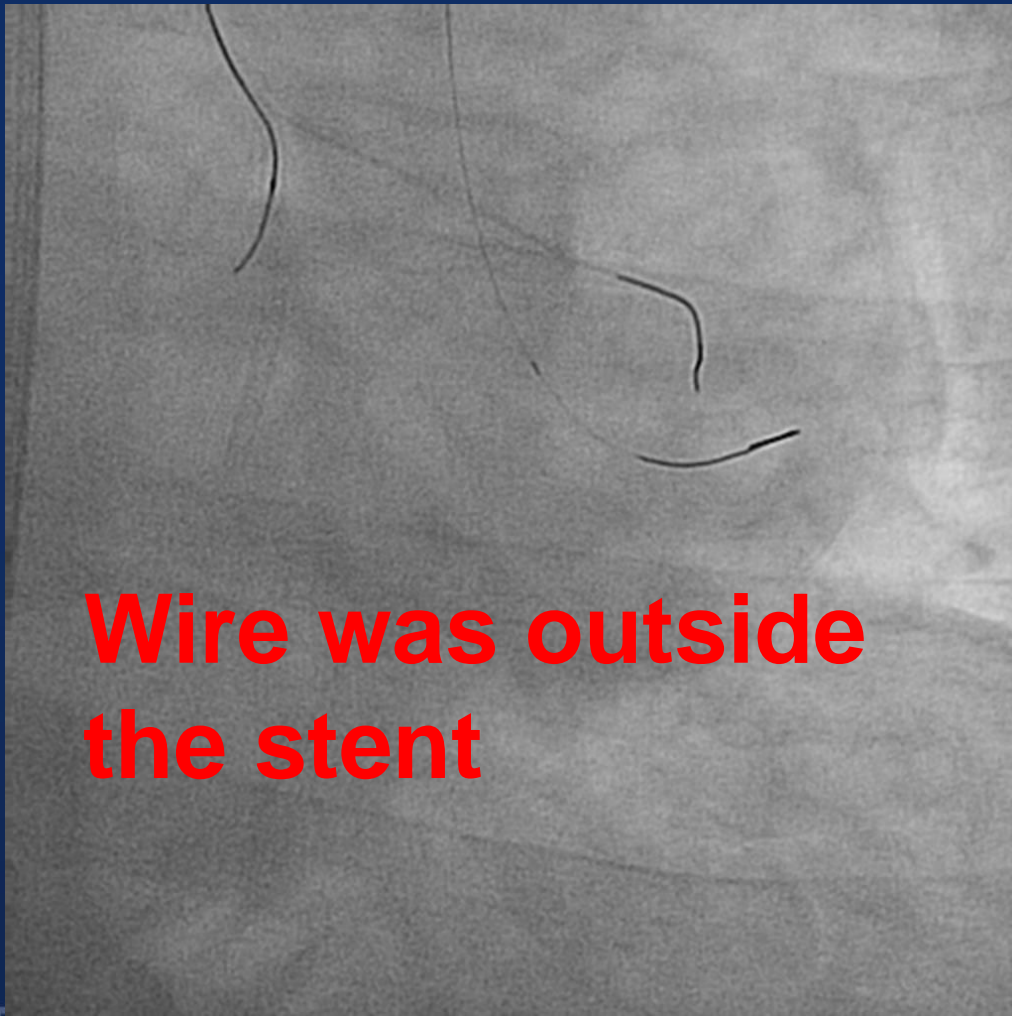
**Quickly wire LAD & OM,
--> balloon LM**

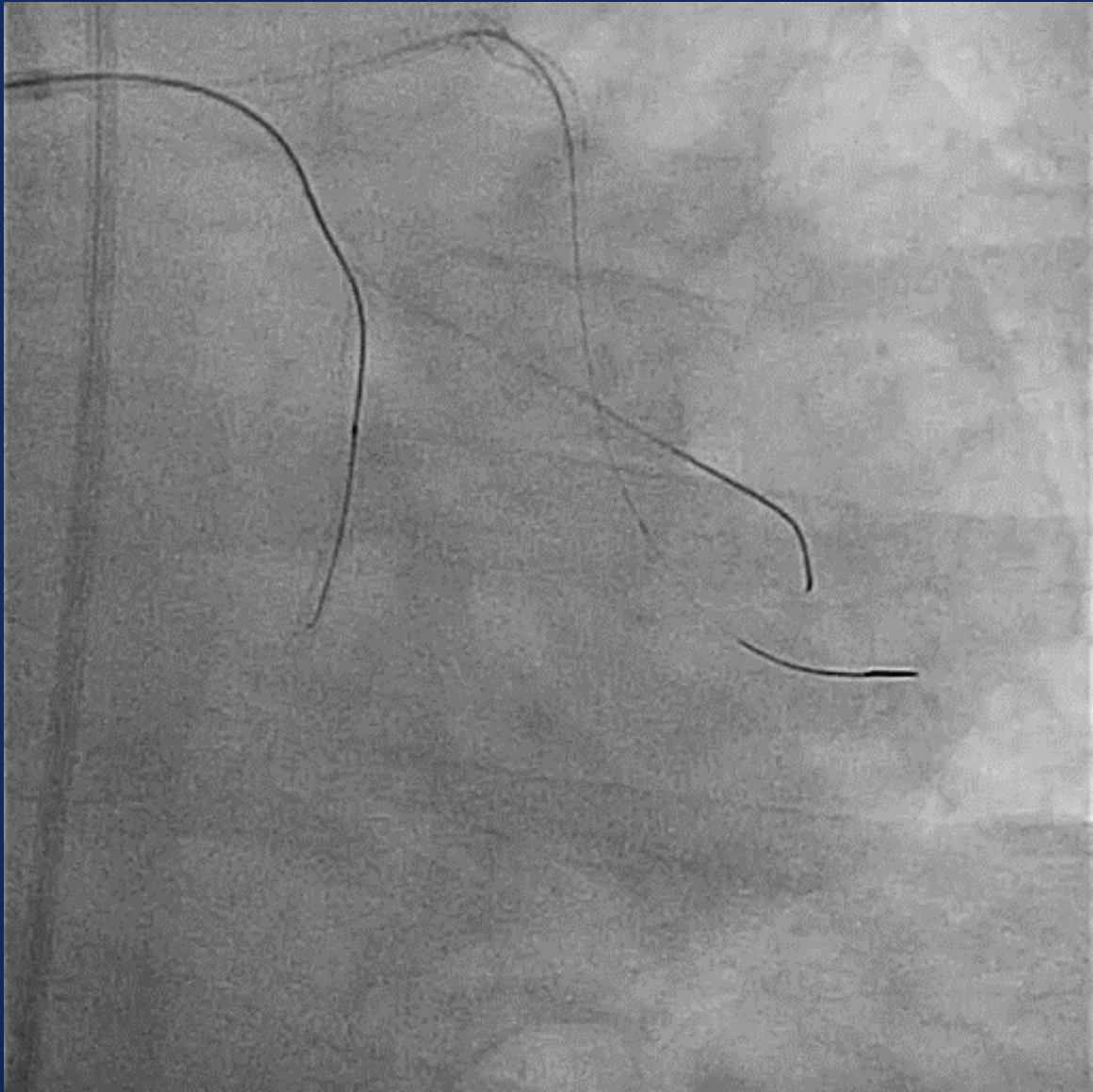


PCI to LCX

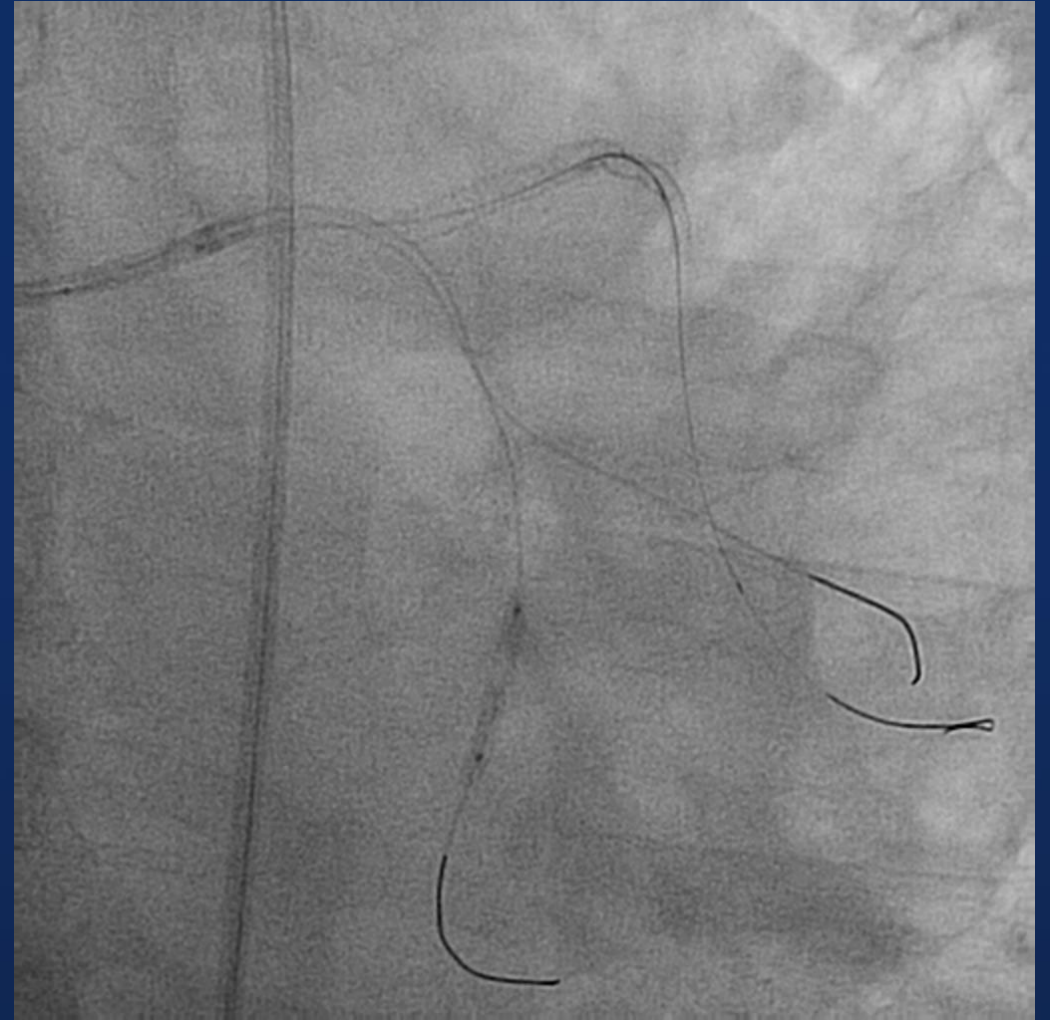
FineCross Micro-catheter loaded
with SION GW---> Gaia Next 1

More promising wiring ,
wire inside stent

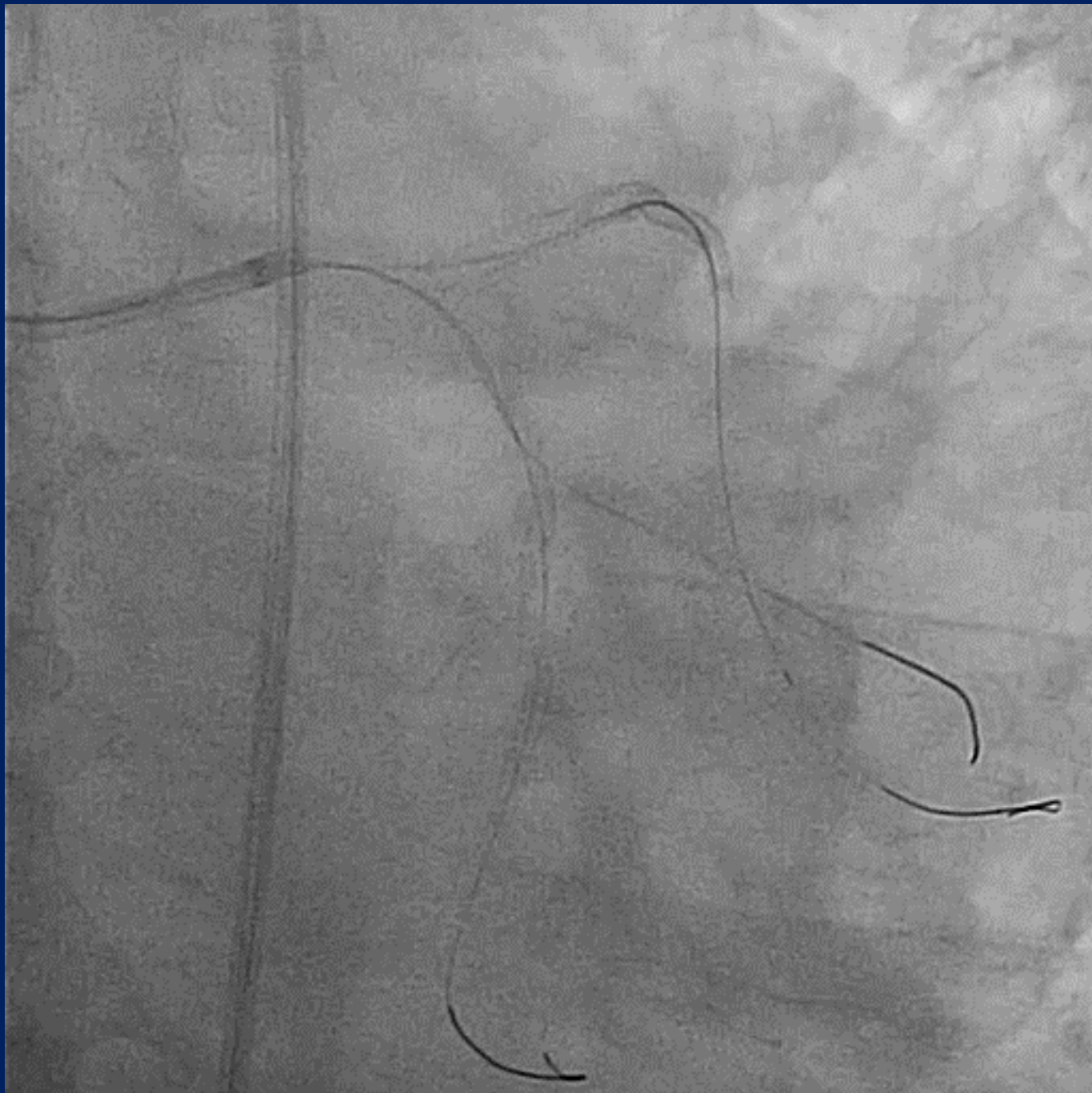




2.25 mm balloon @8-12 ATM

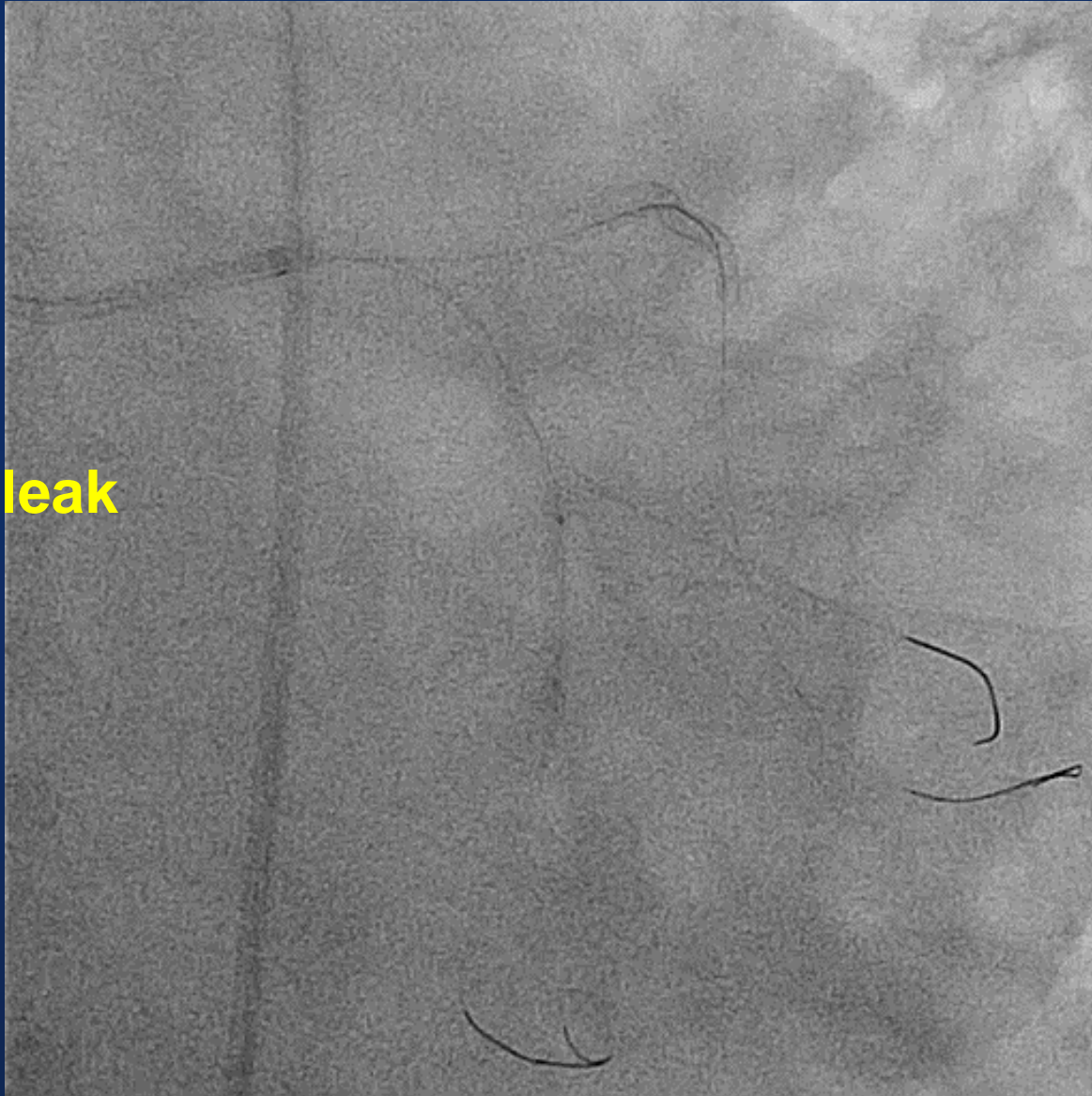


**This is the
result**



Quickly sealed with the balloon

NO more leak

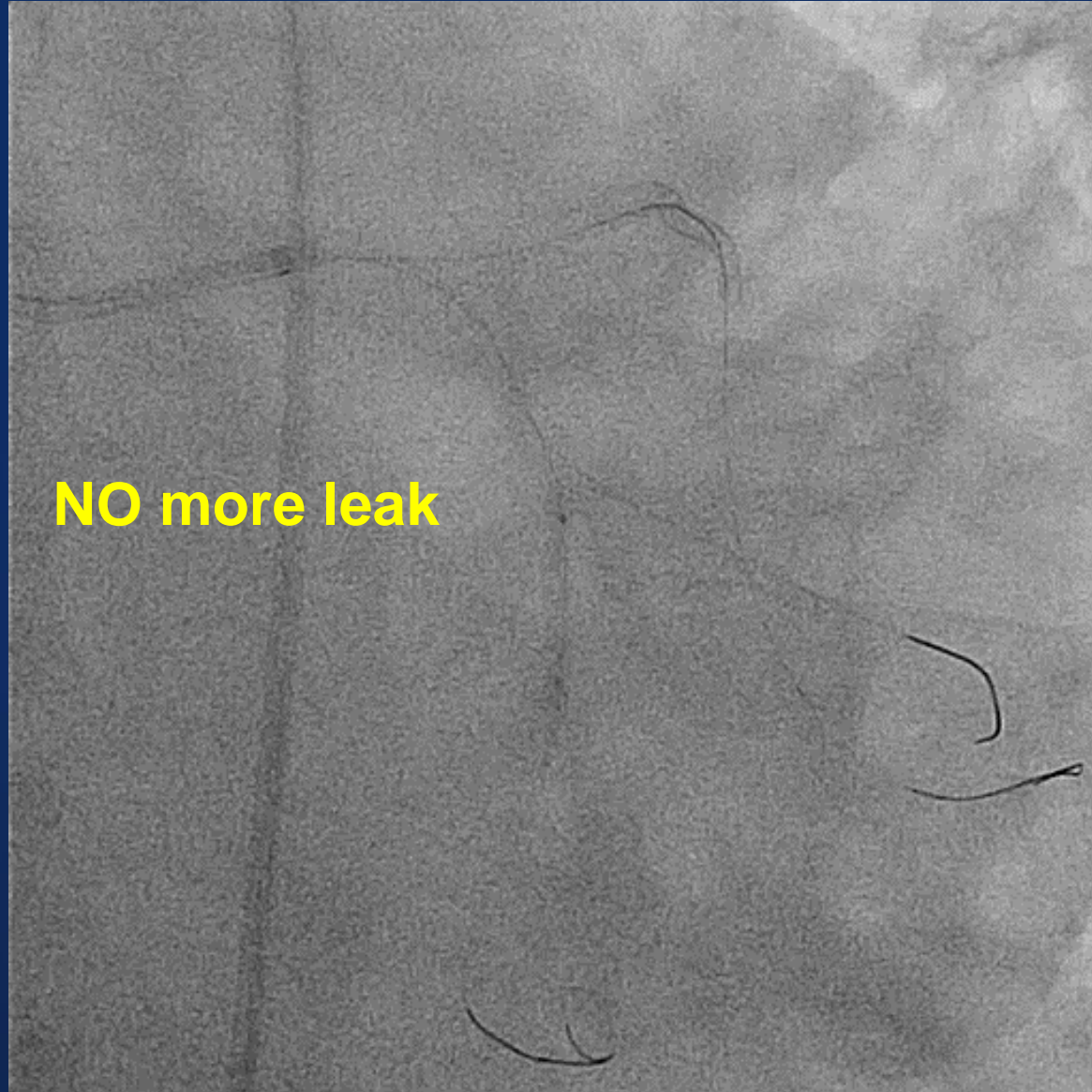


Echo : pericardial effusion , but no tamponade

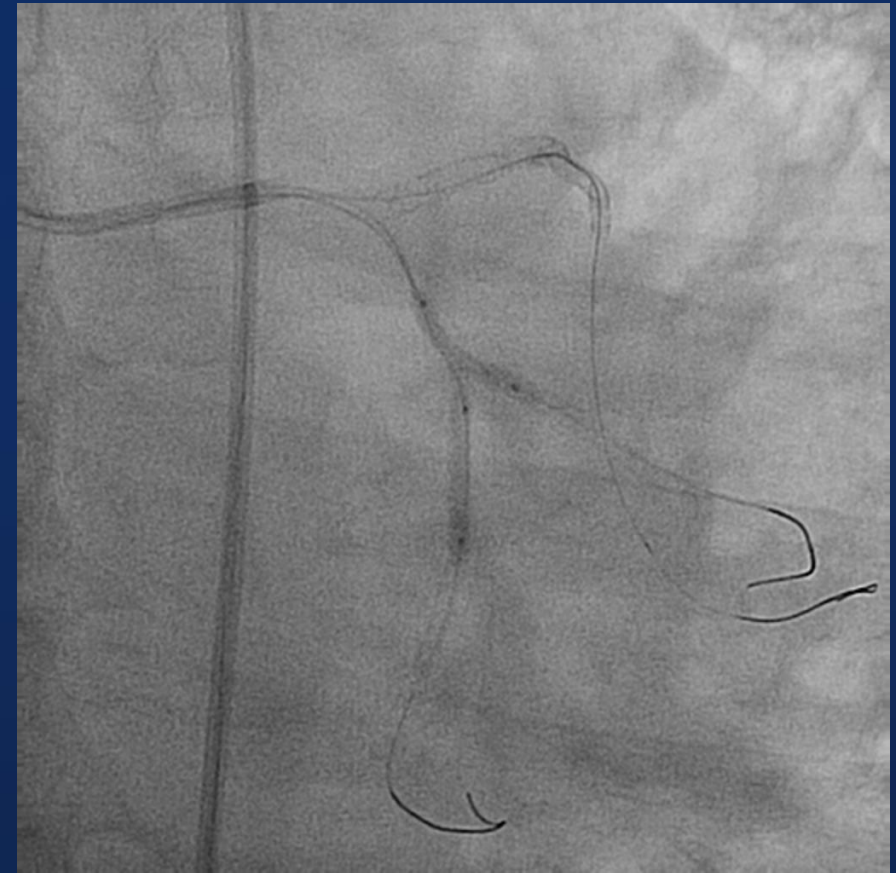
Patient was stable



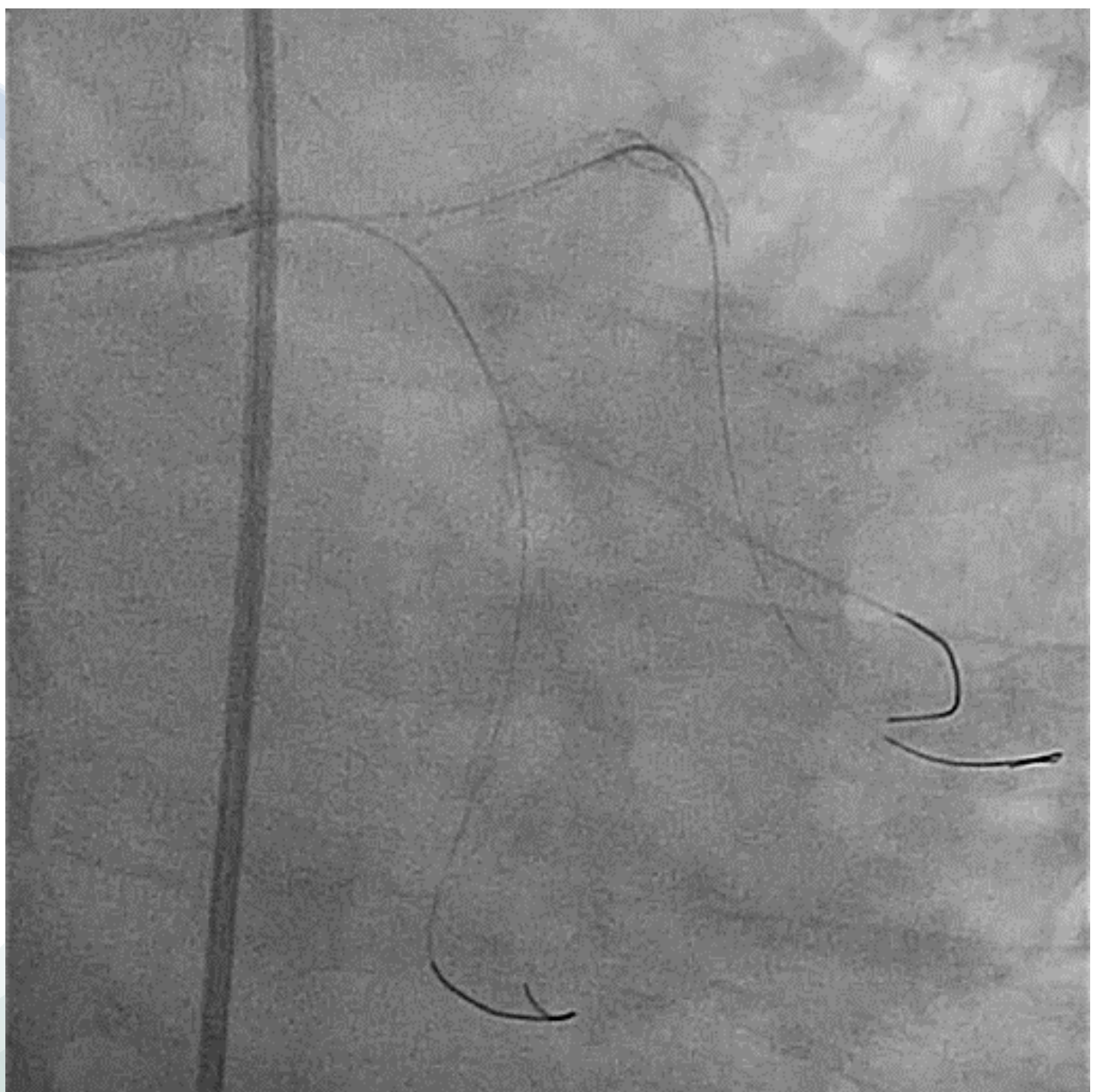
Quickly sealed with the balloon

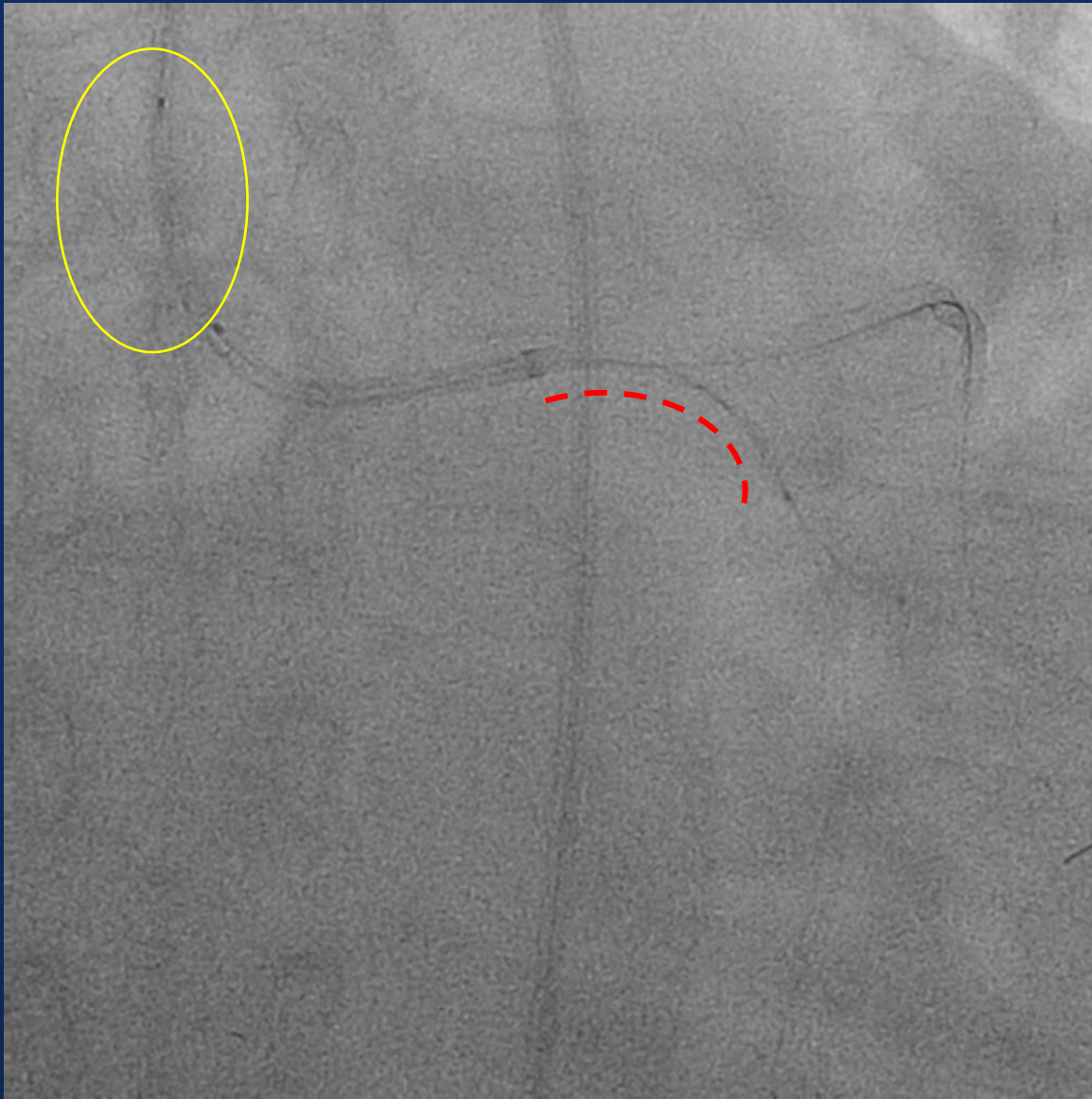


Prolonged balloon tamponade
Pt stable , ACT = 350 sec
Continue PCI to OM



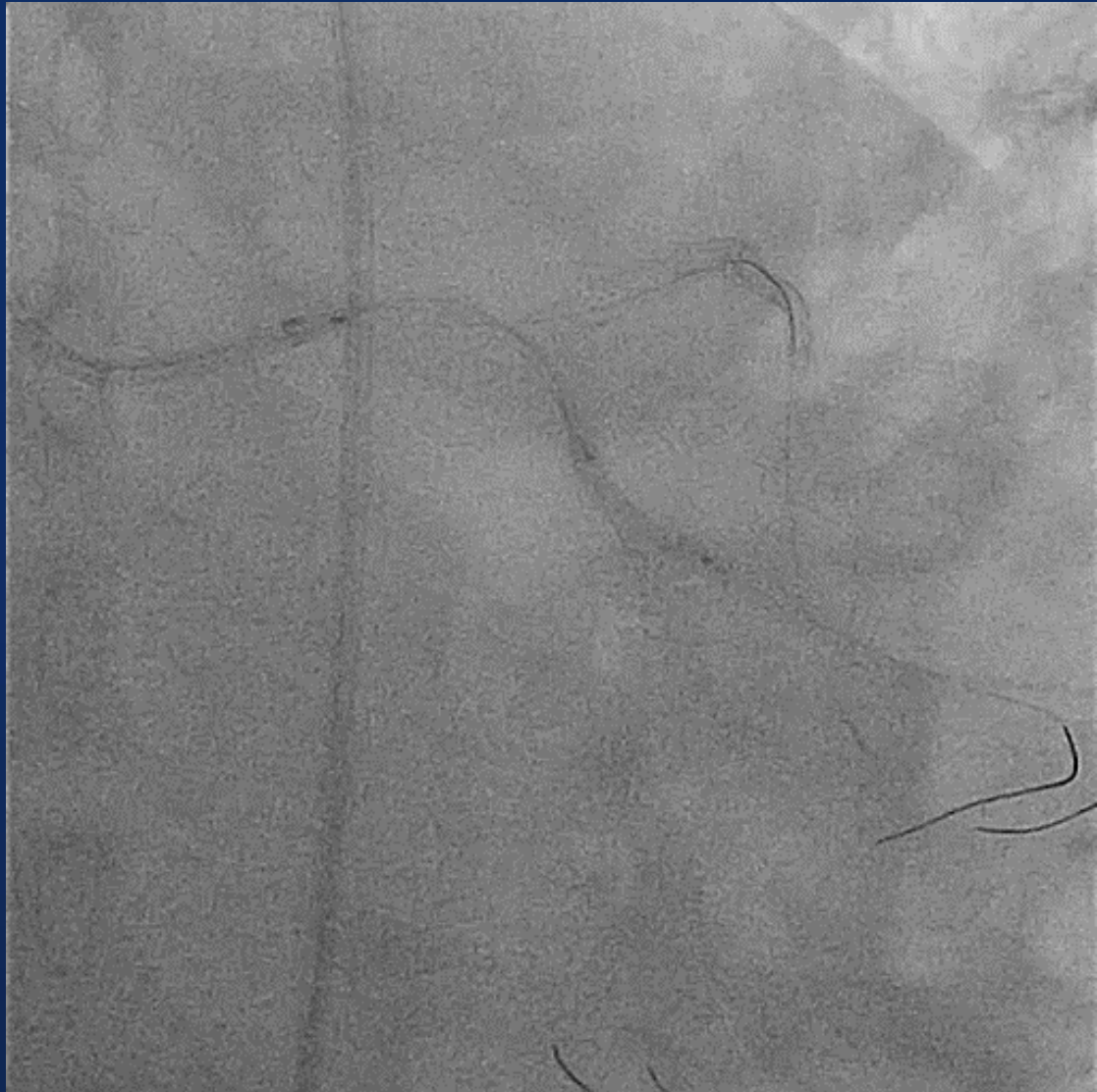
Still leak !





- Attempt delivery a PK Papyrus 2.5-20mm to seal the perforation
- But failed to cross mid Lcx
- On withdrawal , balloon striped off
- stent dislodged in distal LM & ostial Lcx

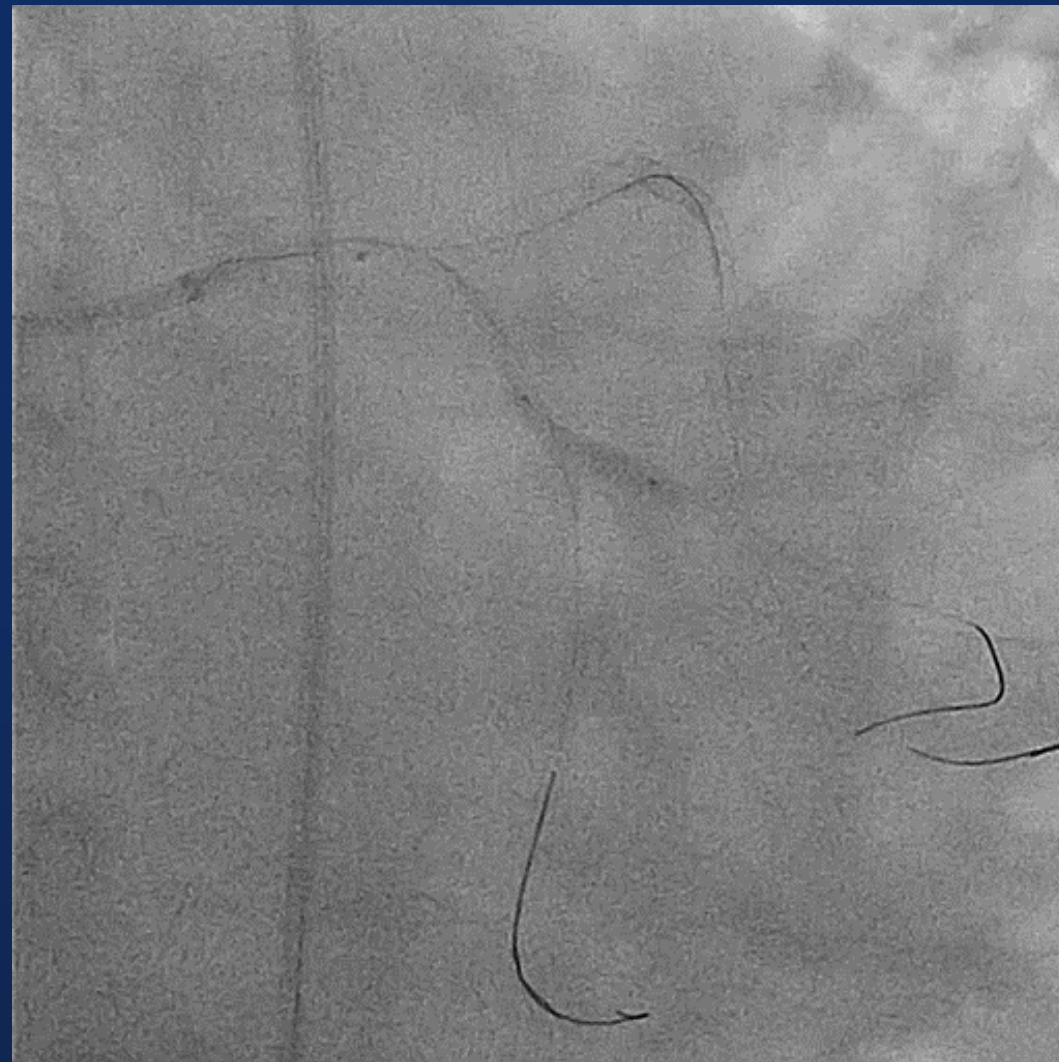
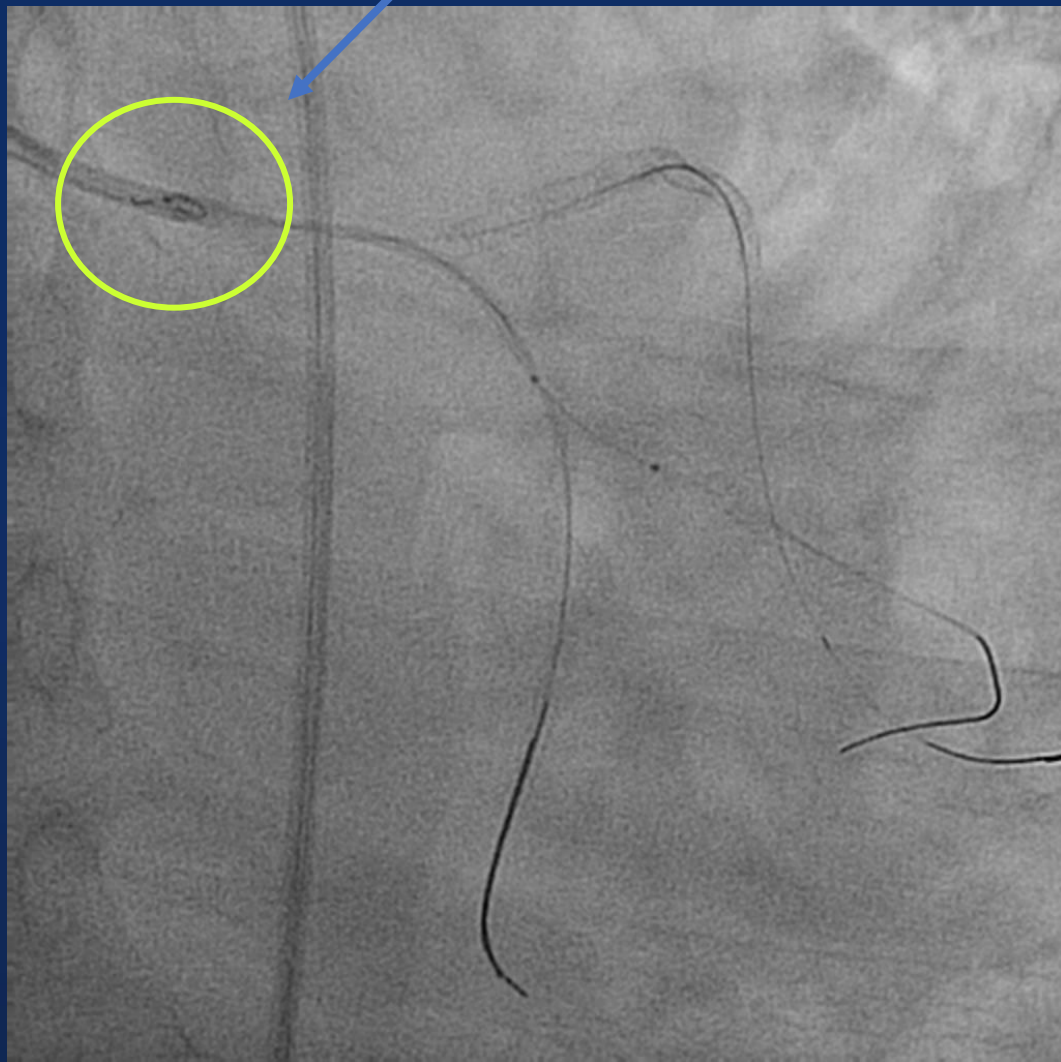
stent balloon can't push in



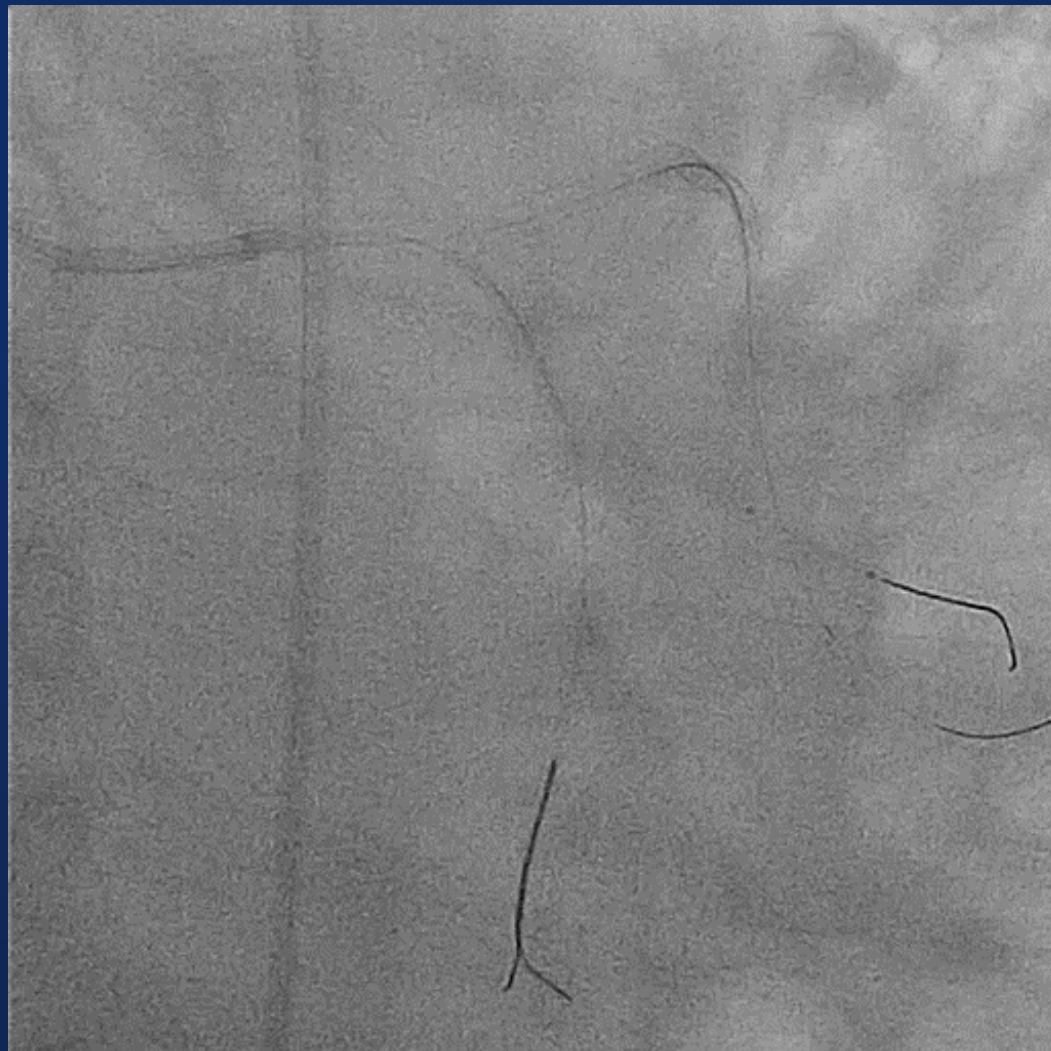
1.0mm balloon failed to enter the stent



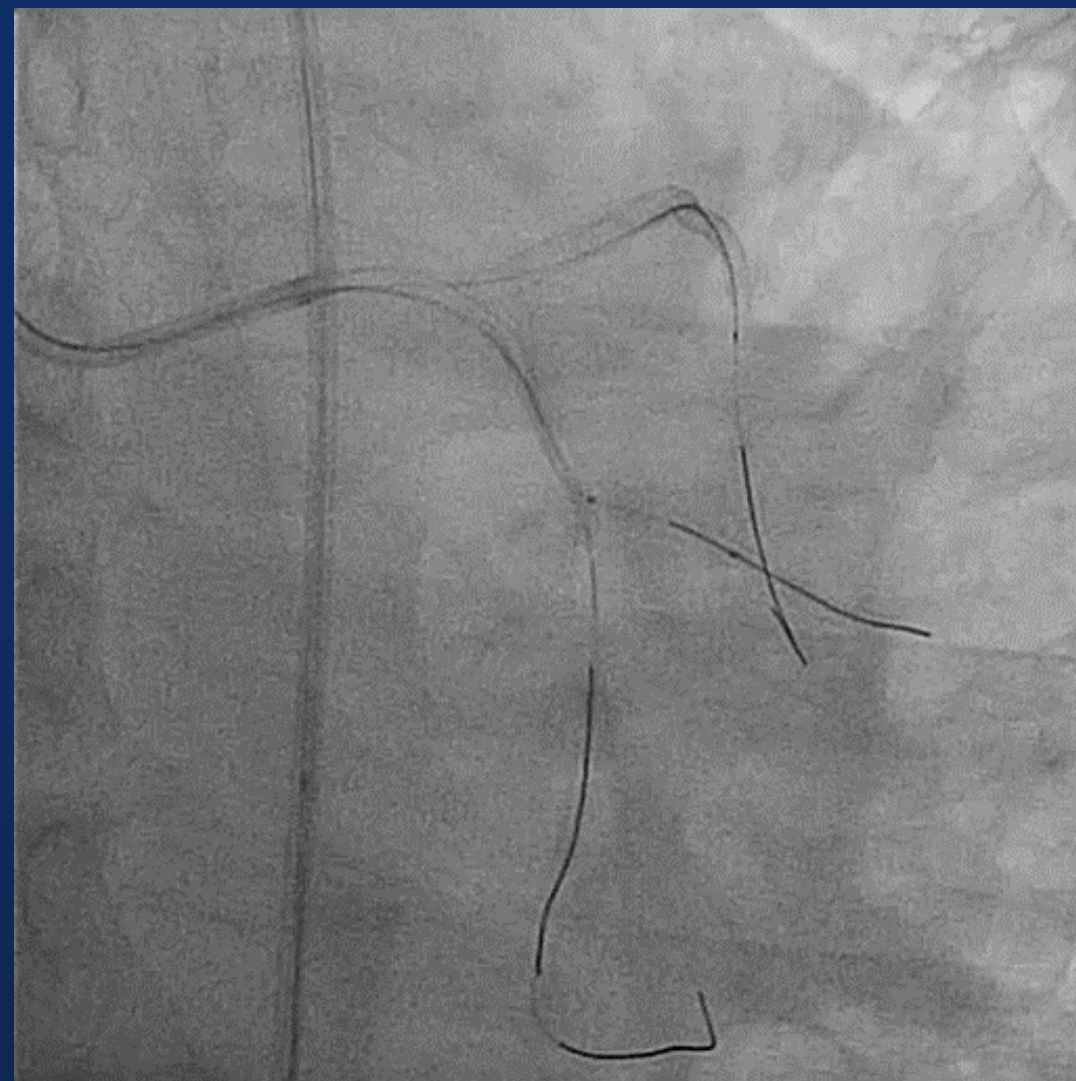
Snare can't go in



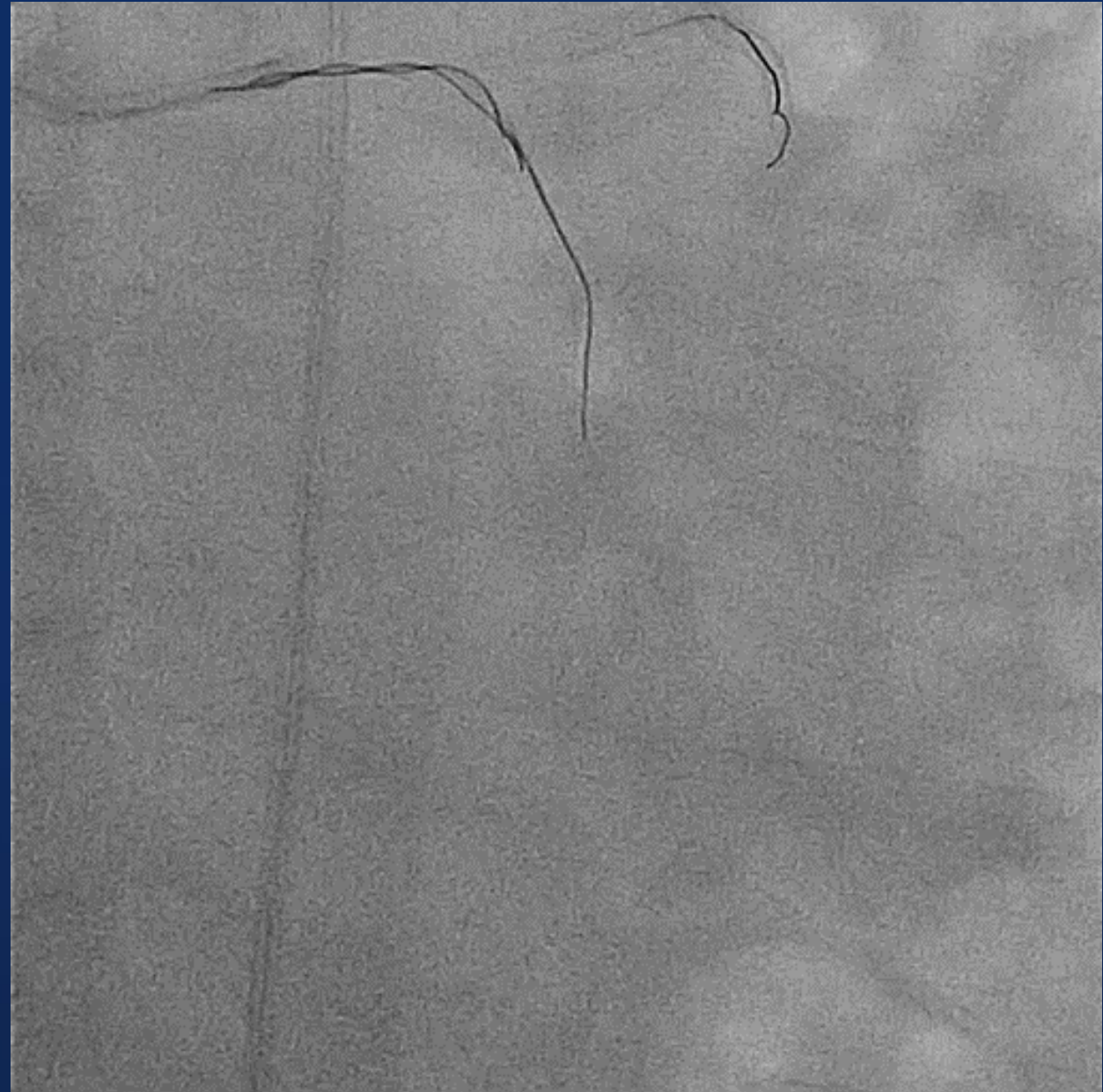
**1.0mm balloon can push stent
into proximal /mid Lcx**



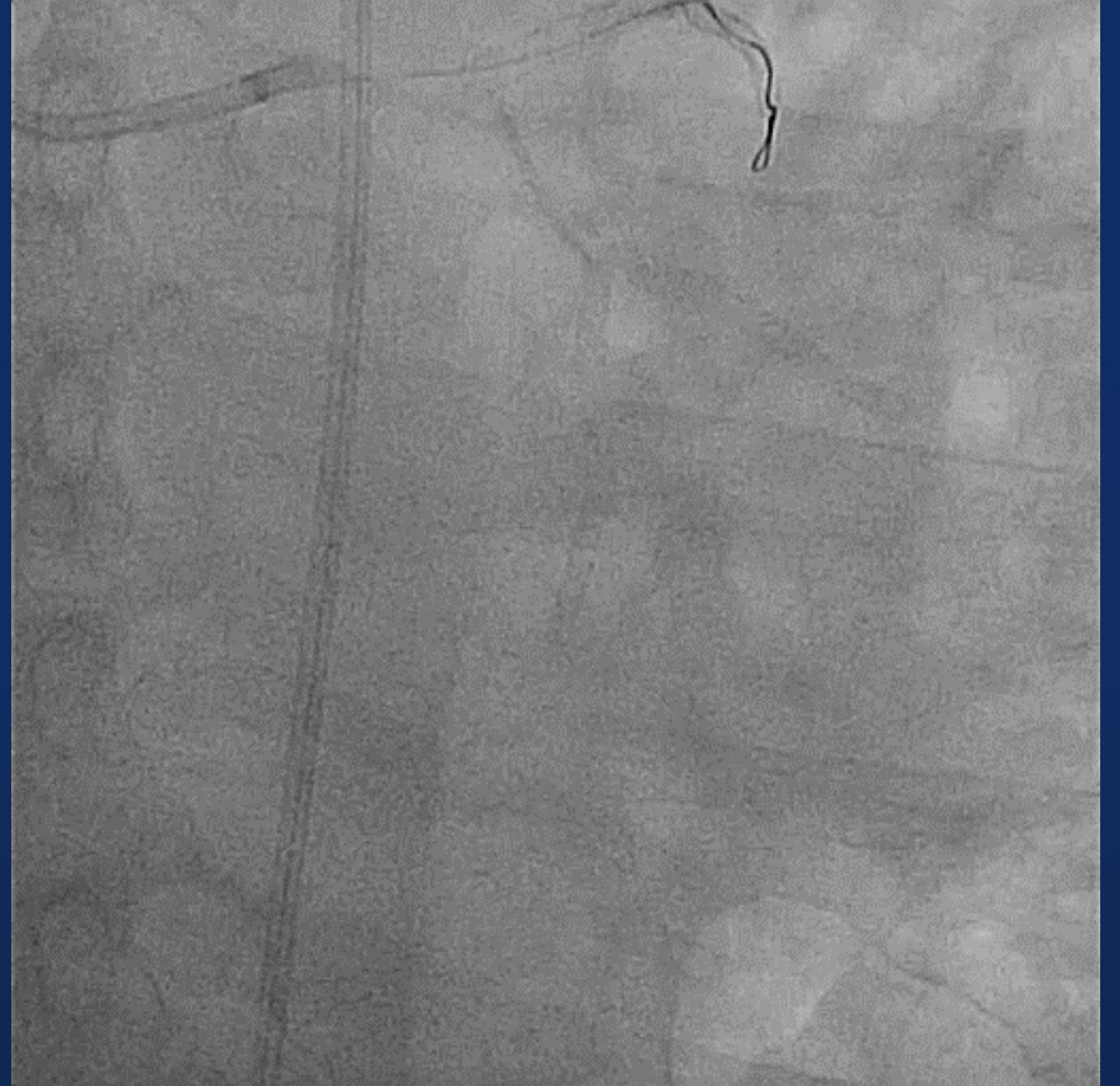
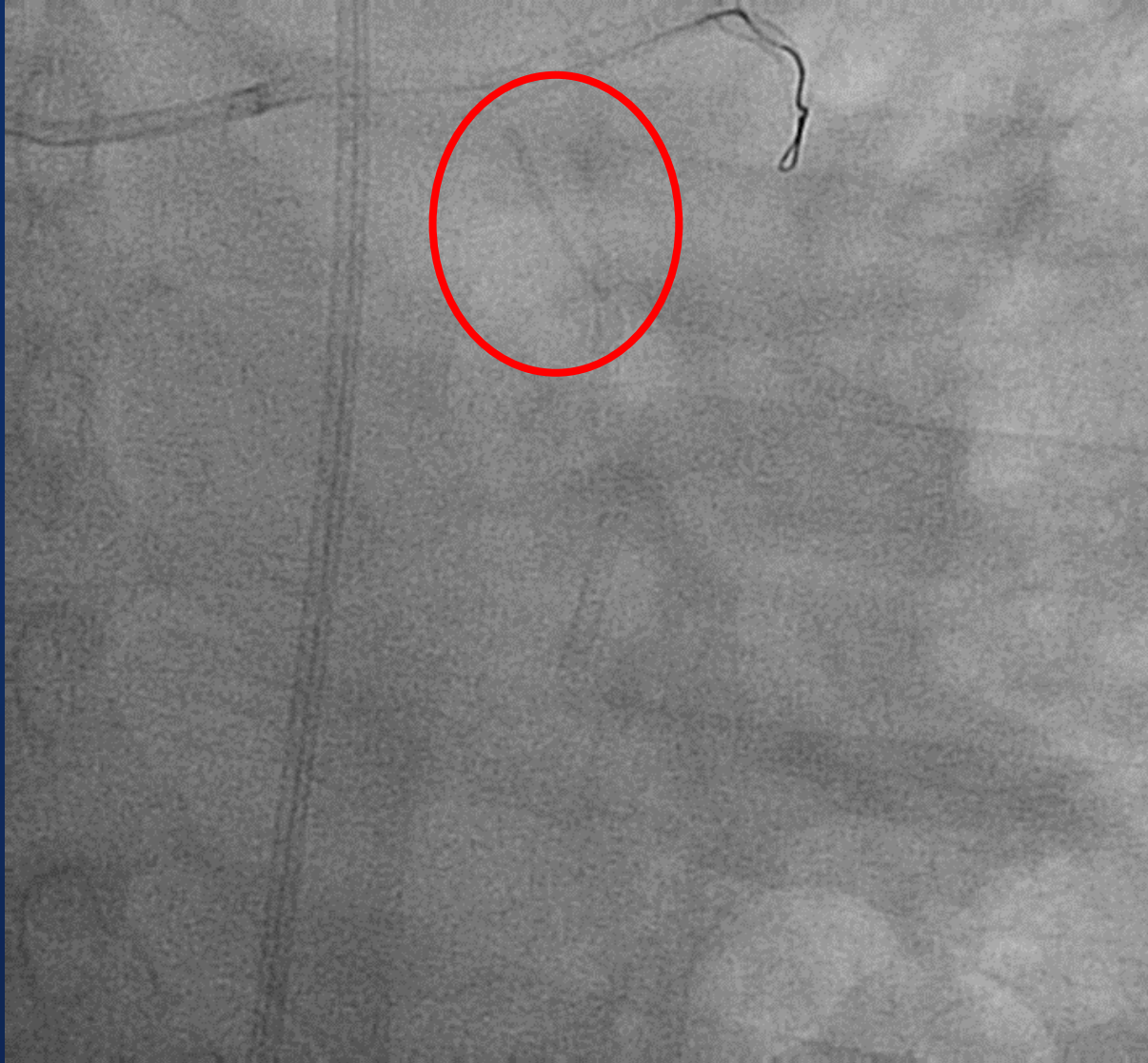
Flow still ok !



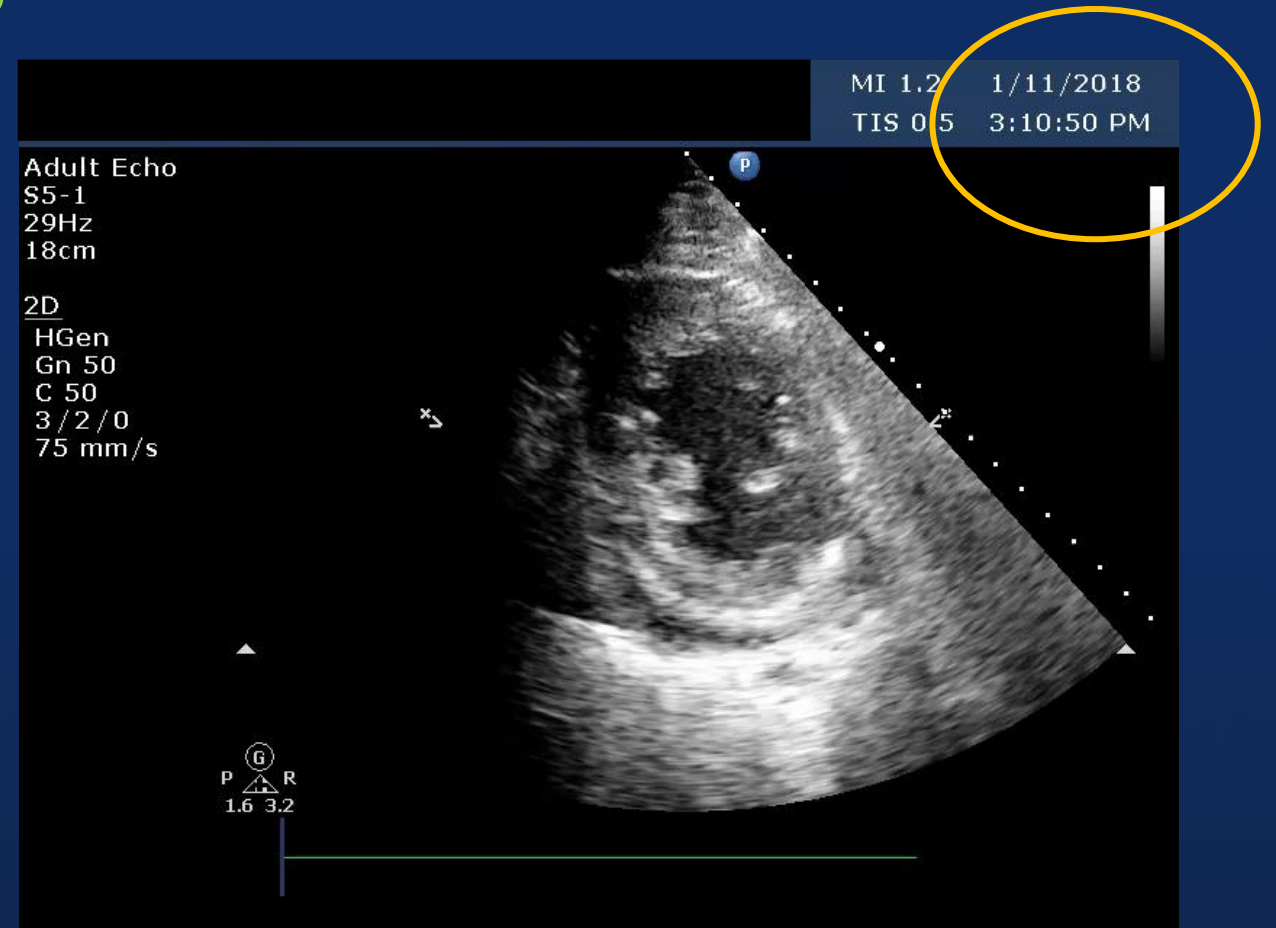
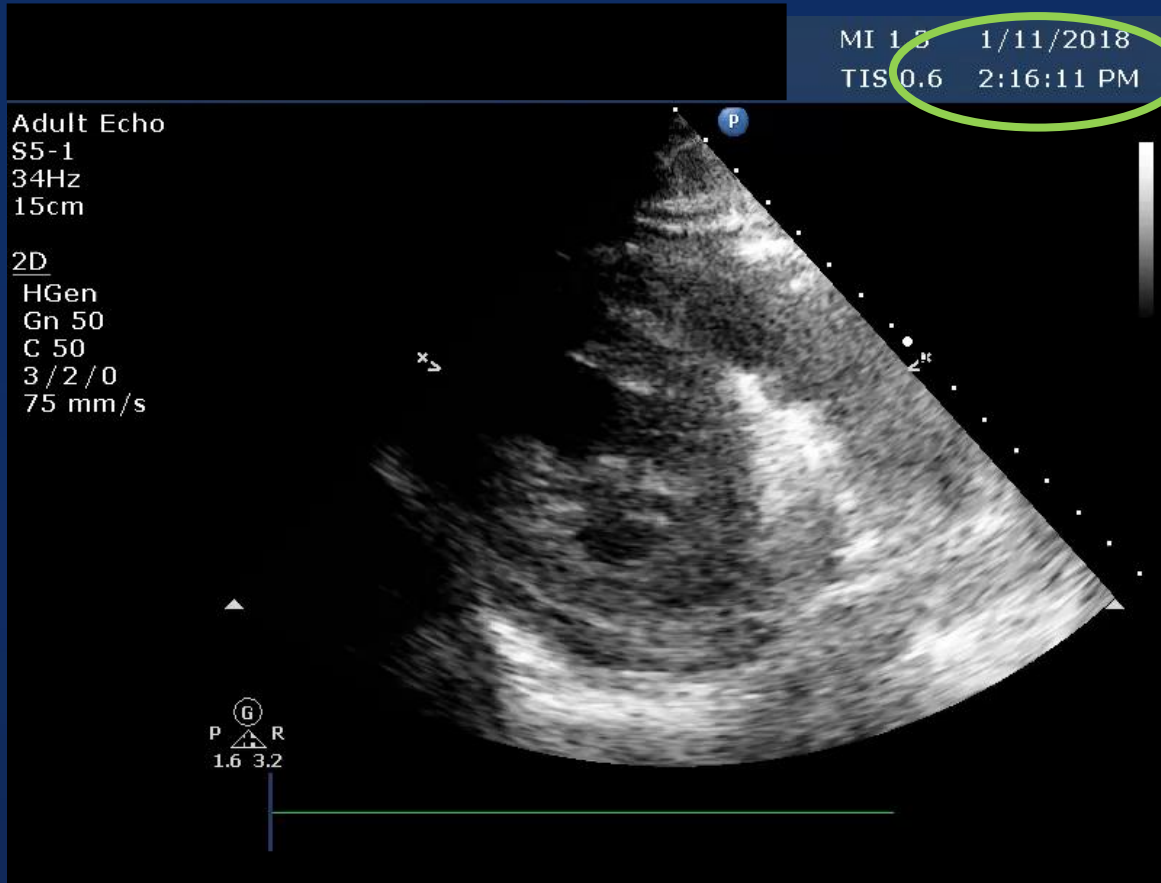
- Try twisted wires technique
- But failed !



Covered stent in proximal Lcx

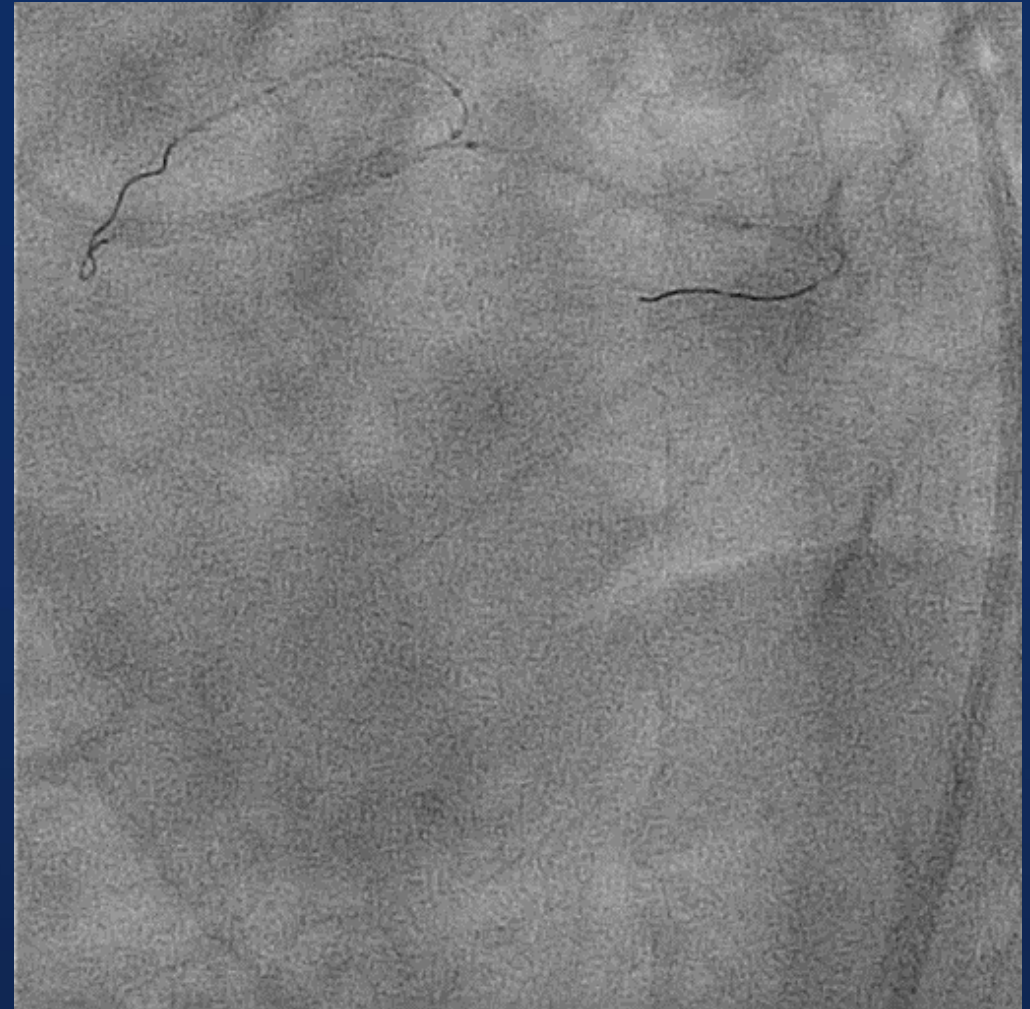


1 hour passed , repeated echo

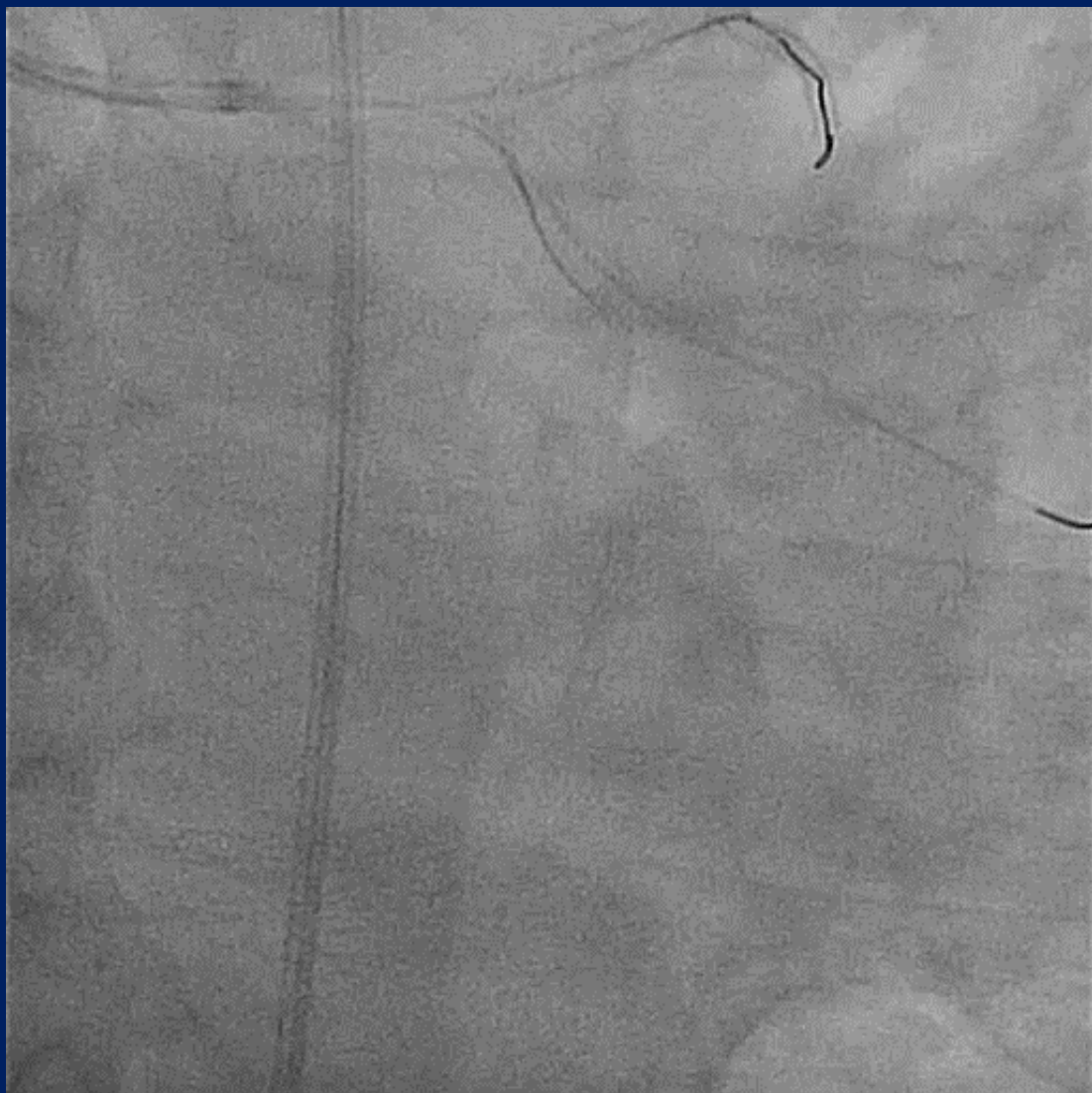


NO increased in pericardial effusion 

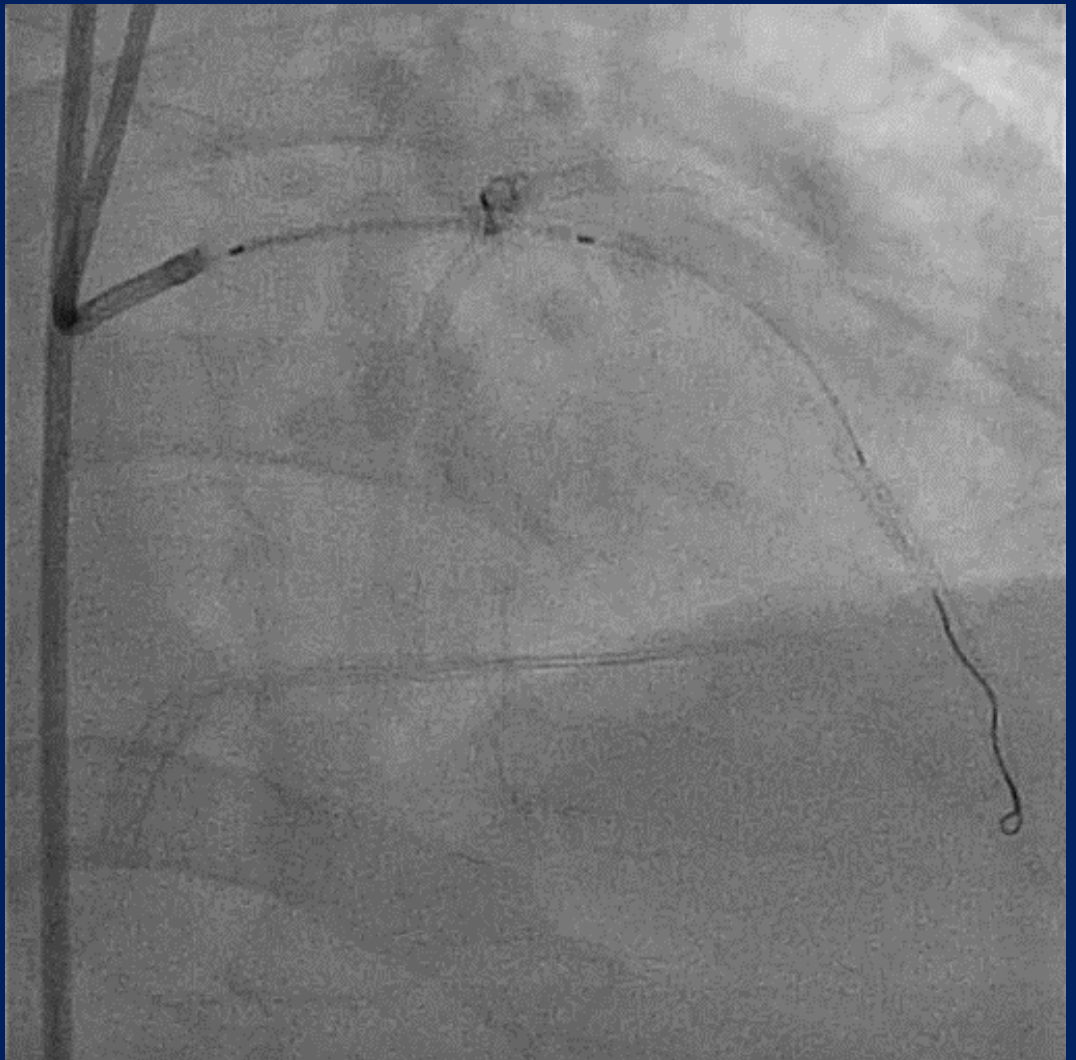
Decided Crush the covered stent with DES at ostial to mid Lcx ,T stenting



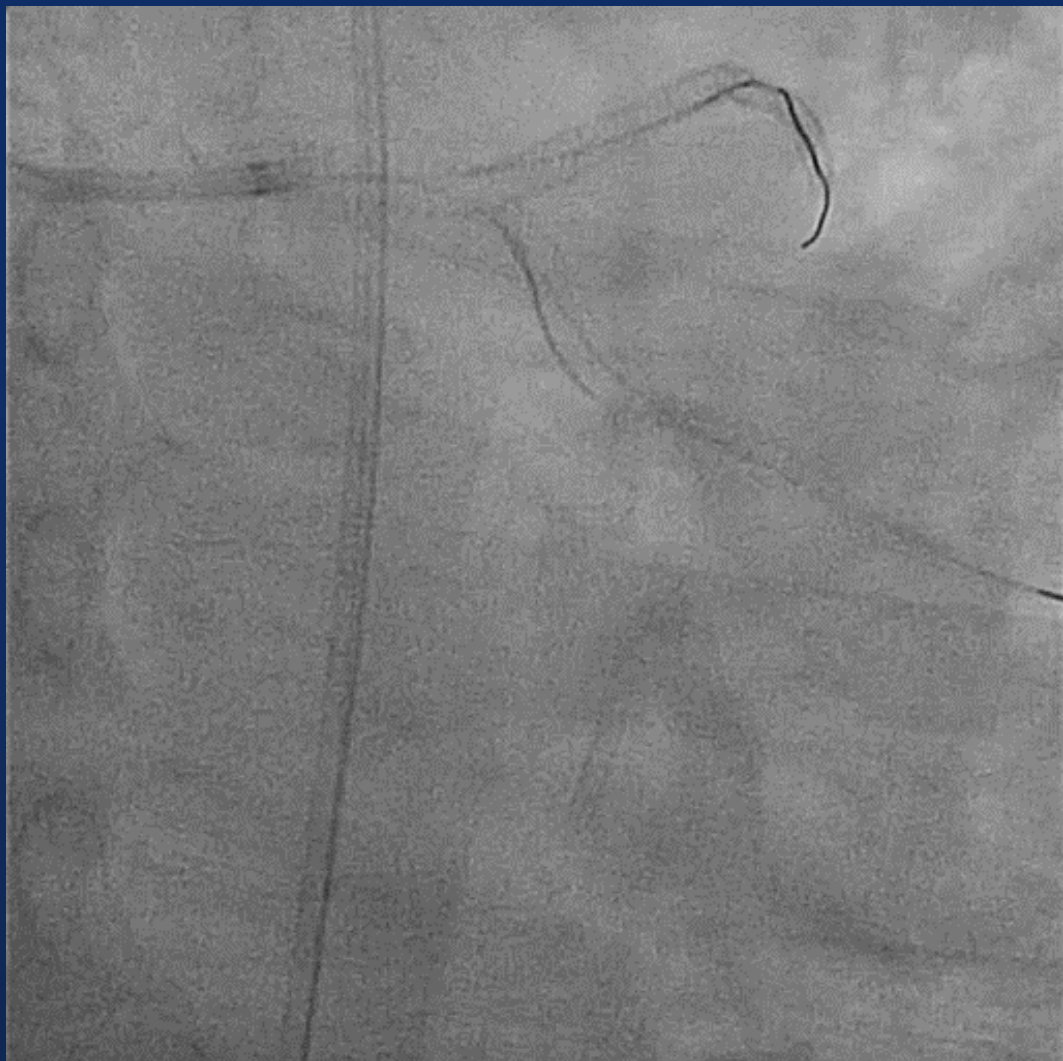
Good result



Stent left main

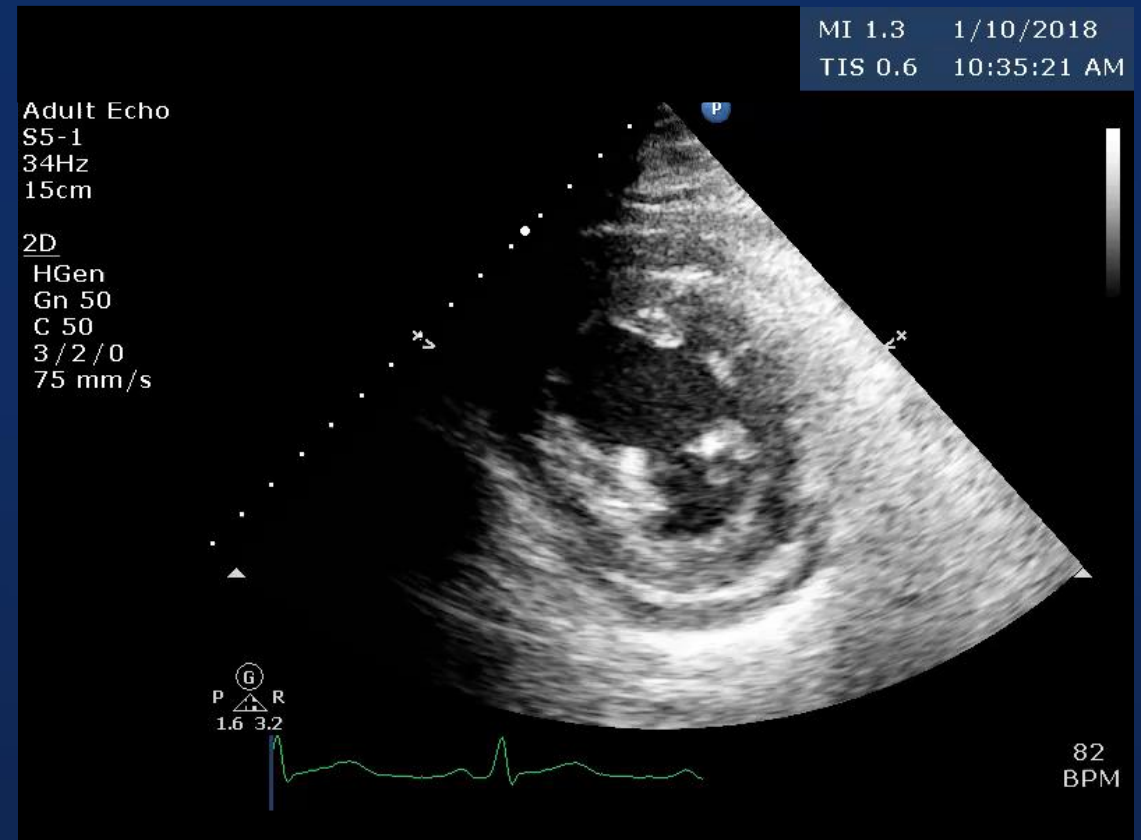
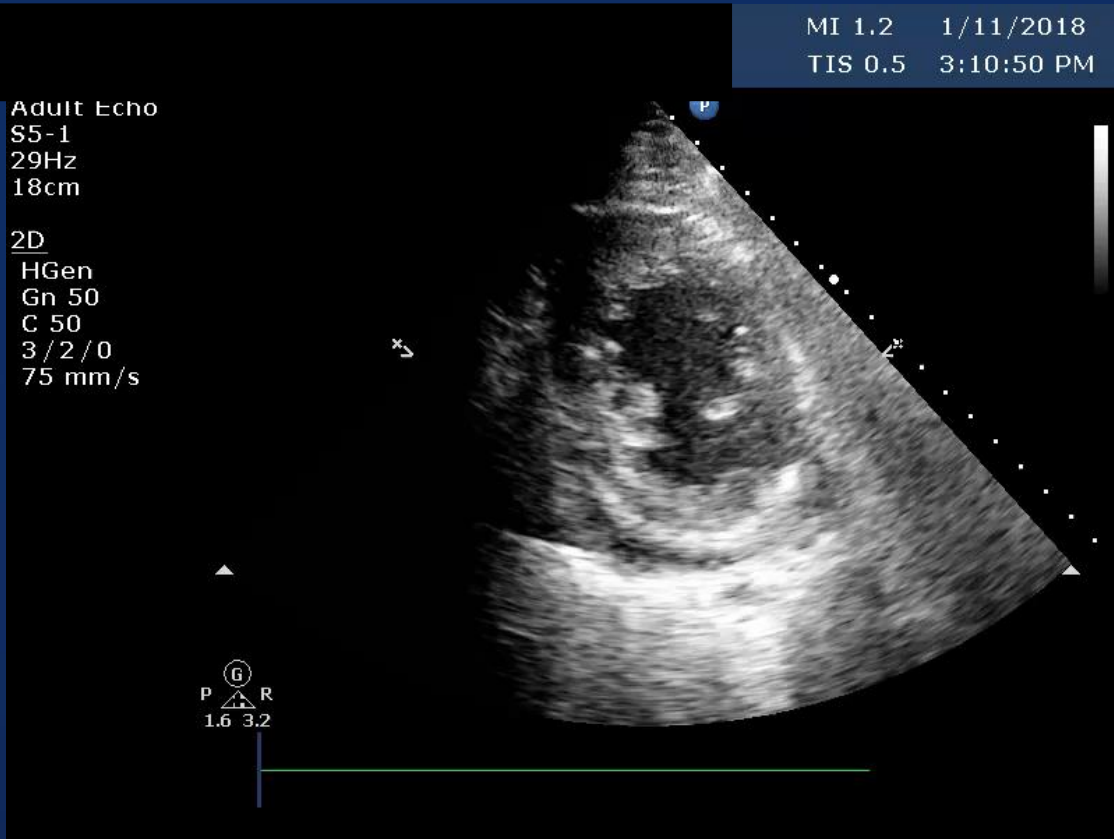


Final Result

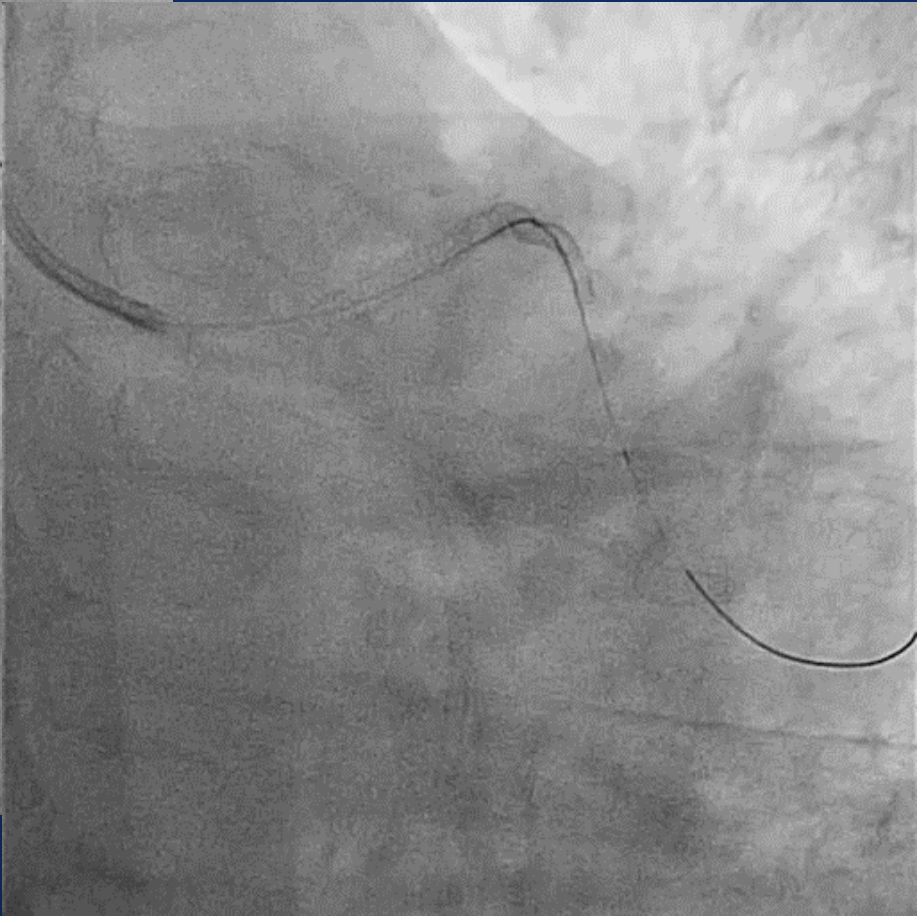
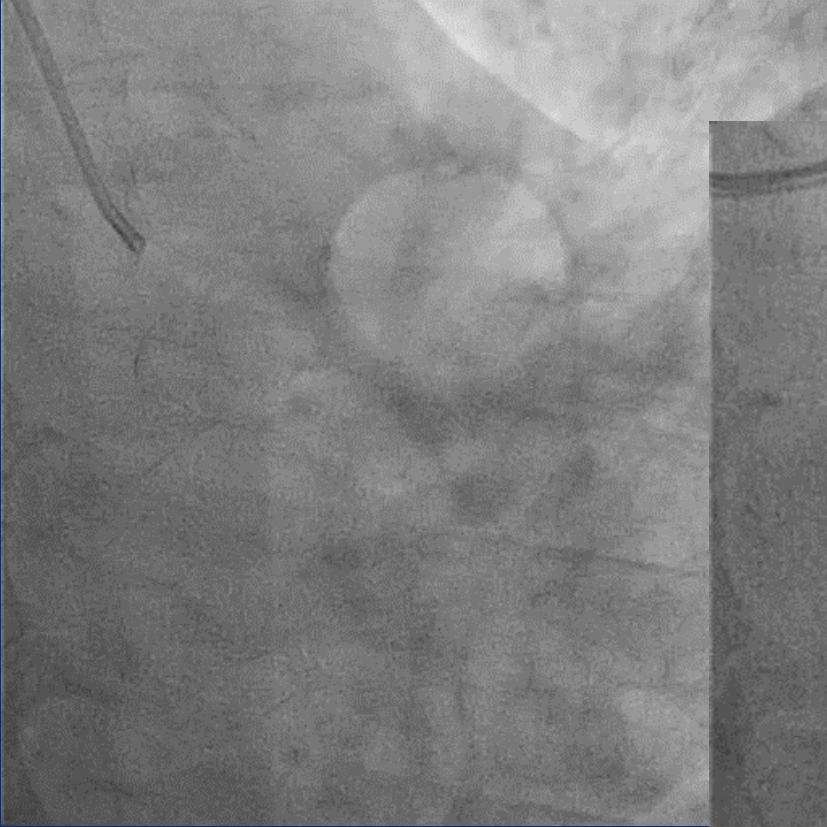


Everybody relax !

- There was done Echo 1 day before PCI



Old PCI cine



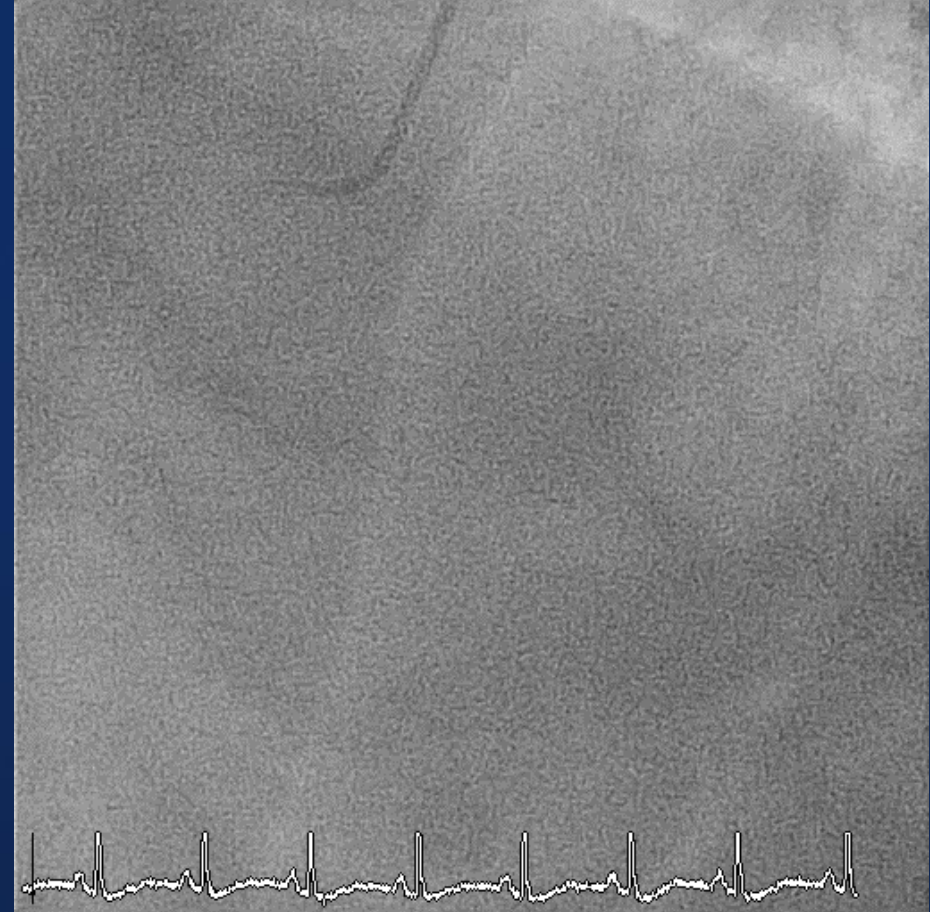
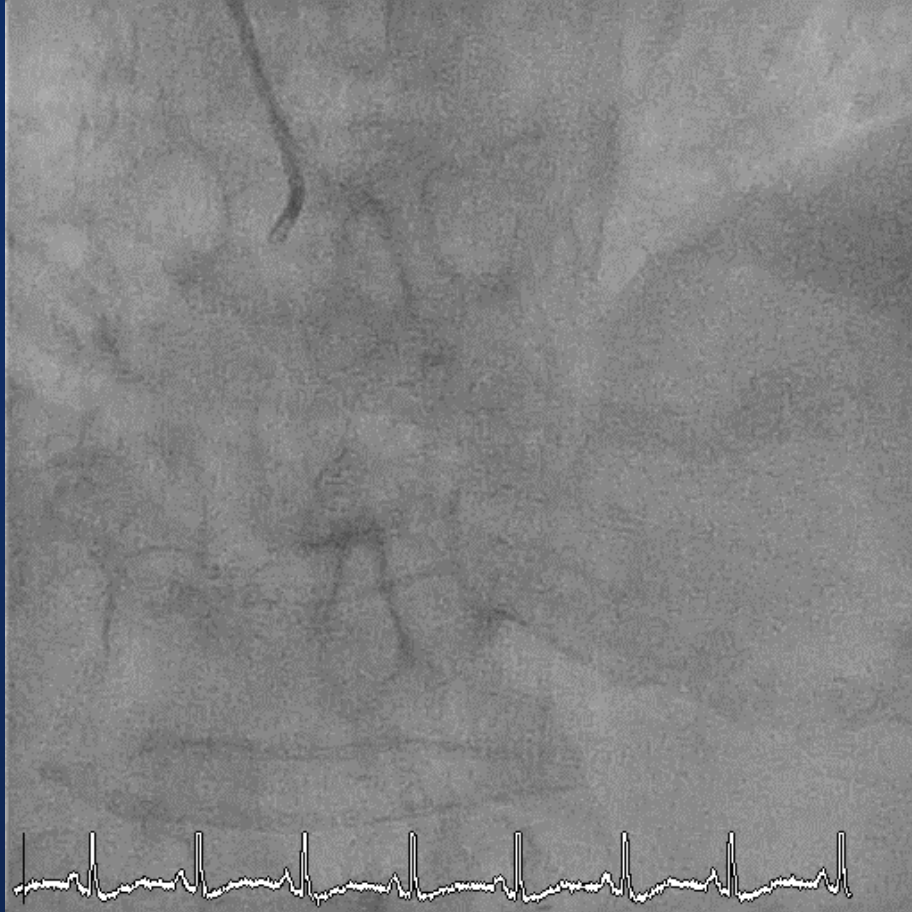
Restudy



2nd case with LAD & RCA disease.

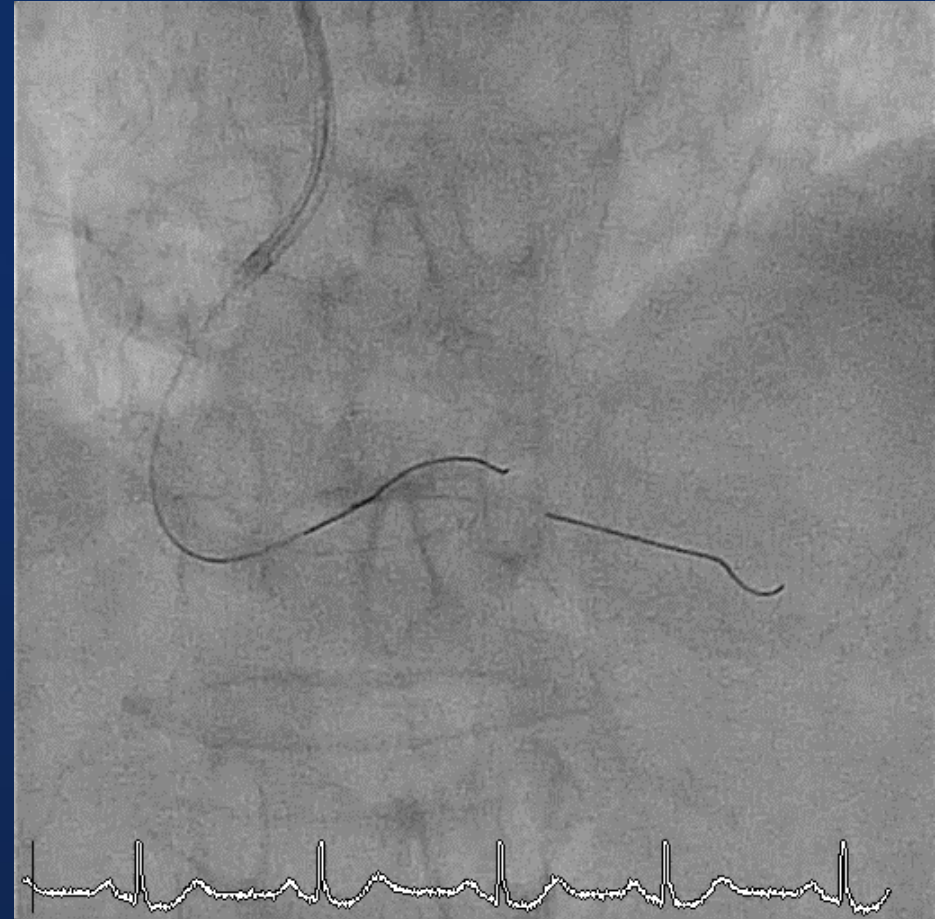
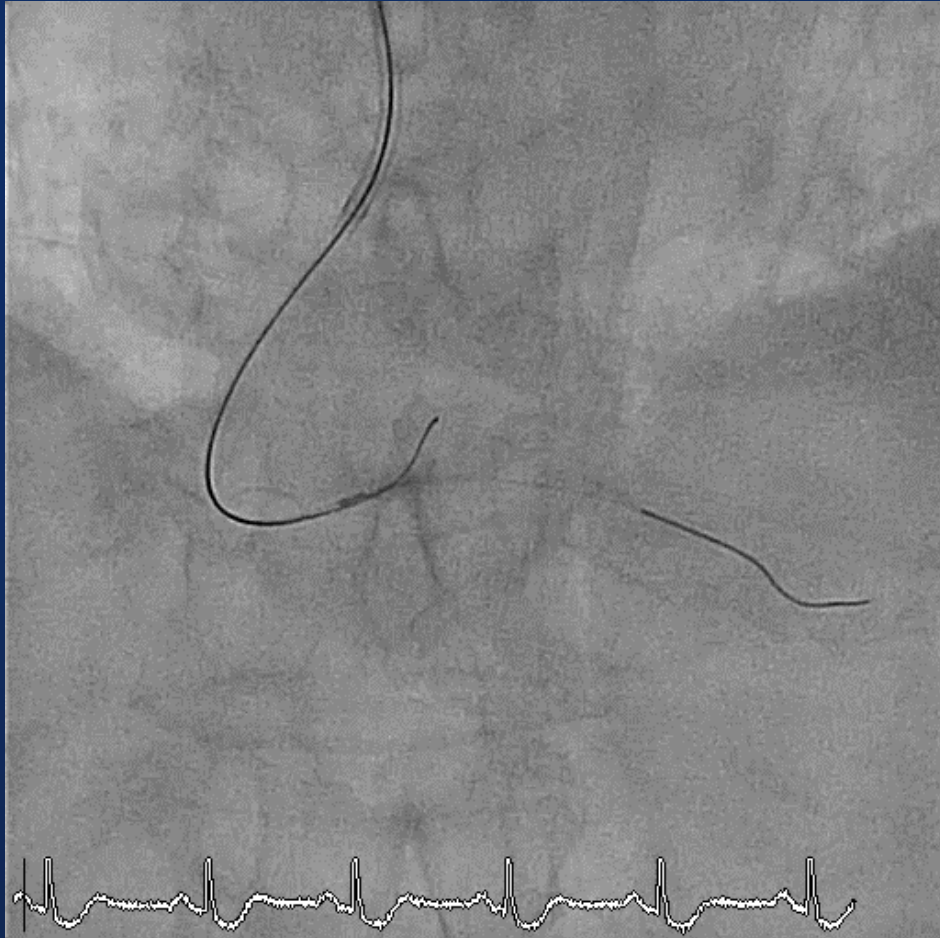


RCA diagnostic



PCI to RCA wiring with SION GW

False track



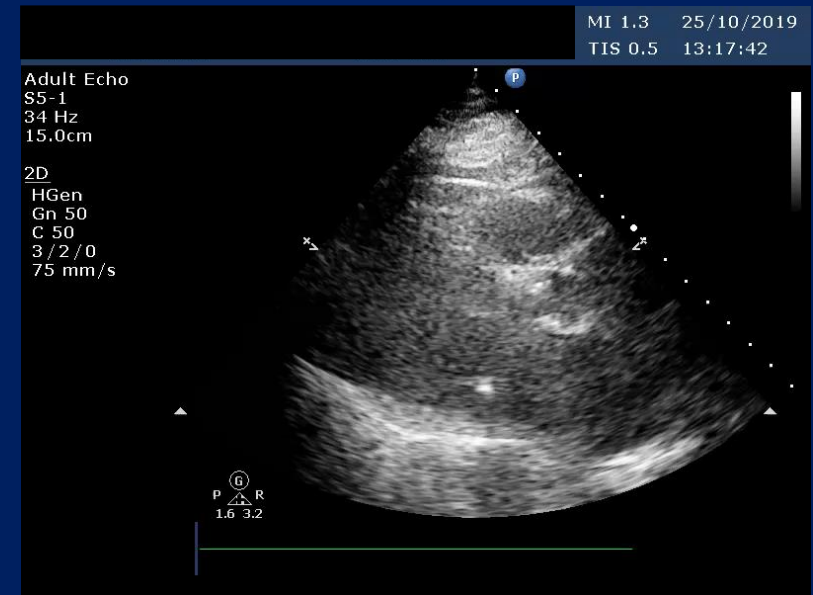
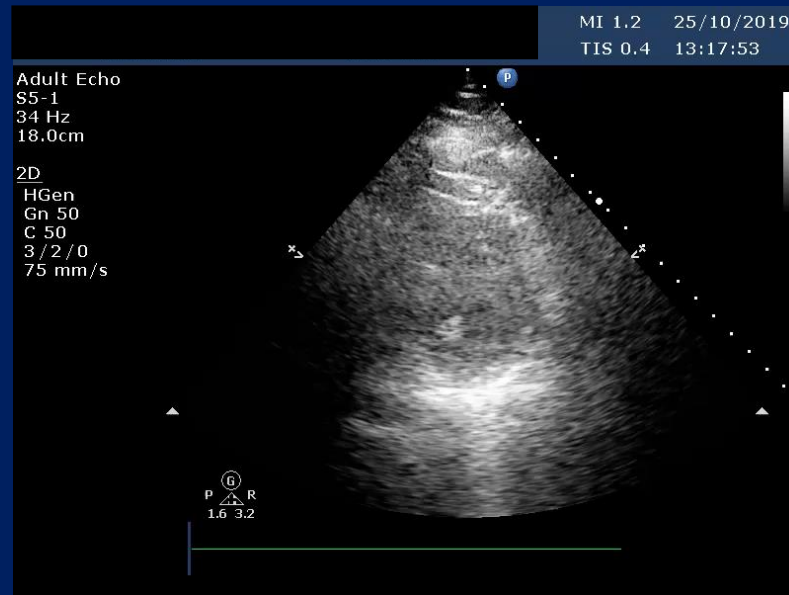
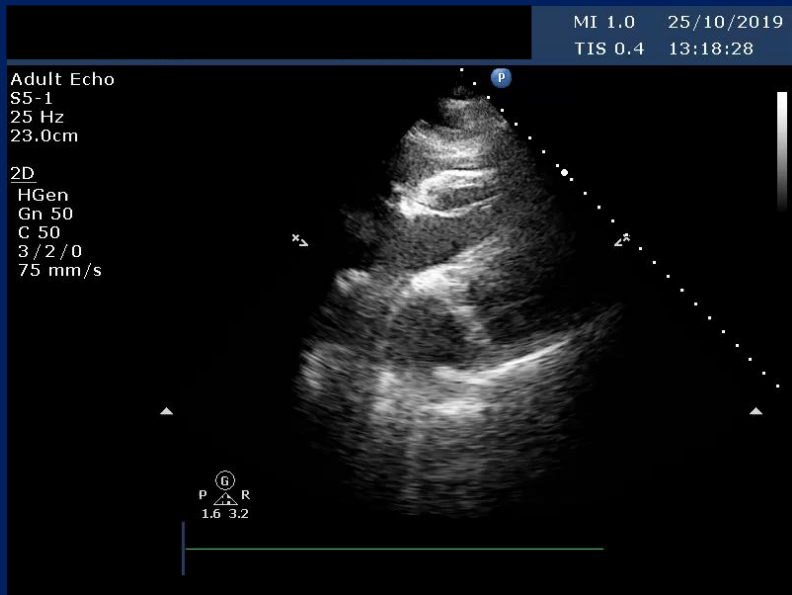
Still false track



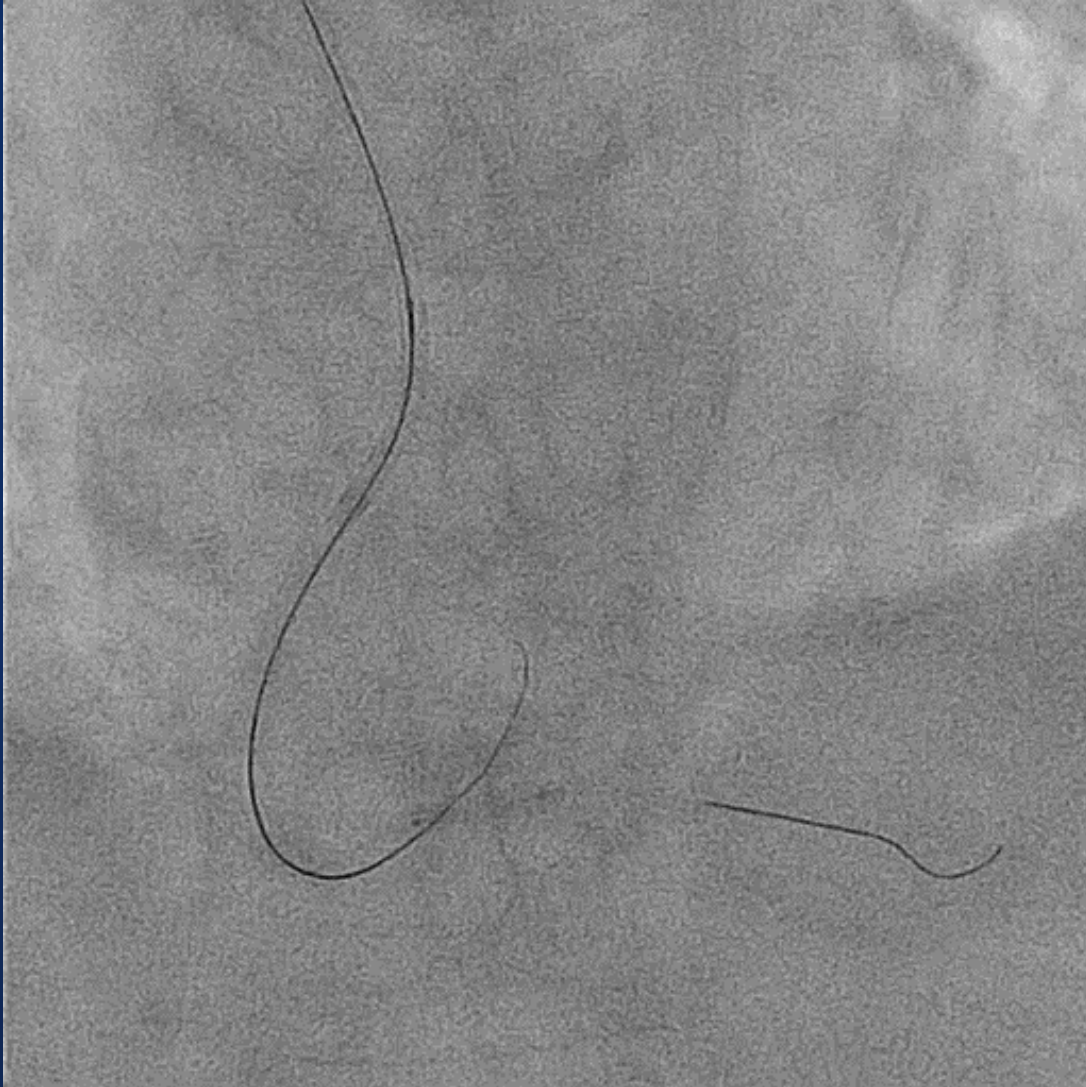
**Wire seemed in true rPAV,
but perforated !**



Patient stable, bedside Echo



Sealed with balloon tamponade



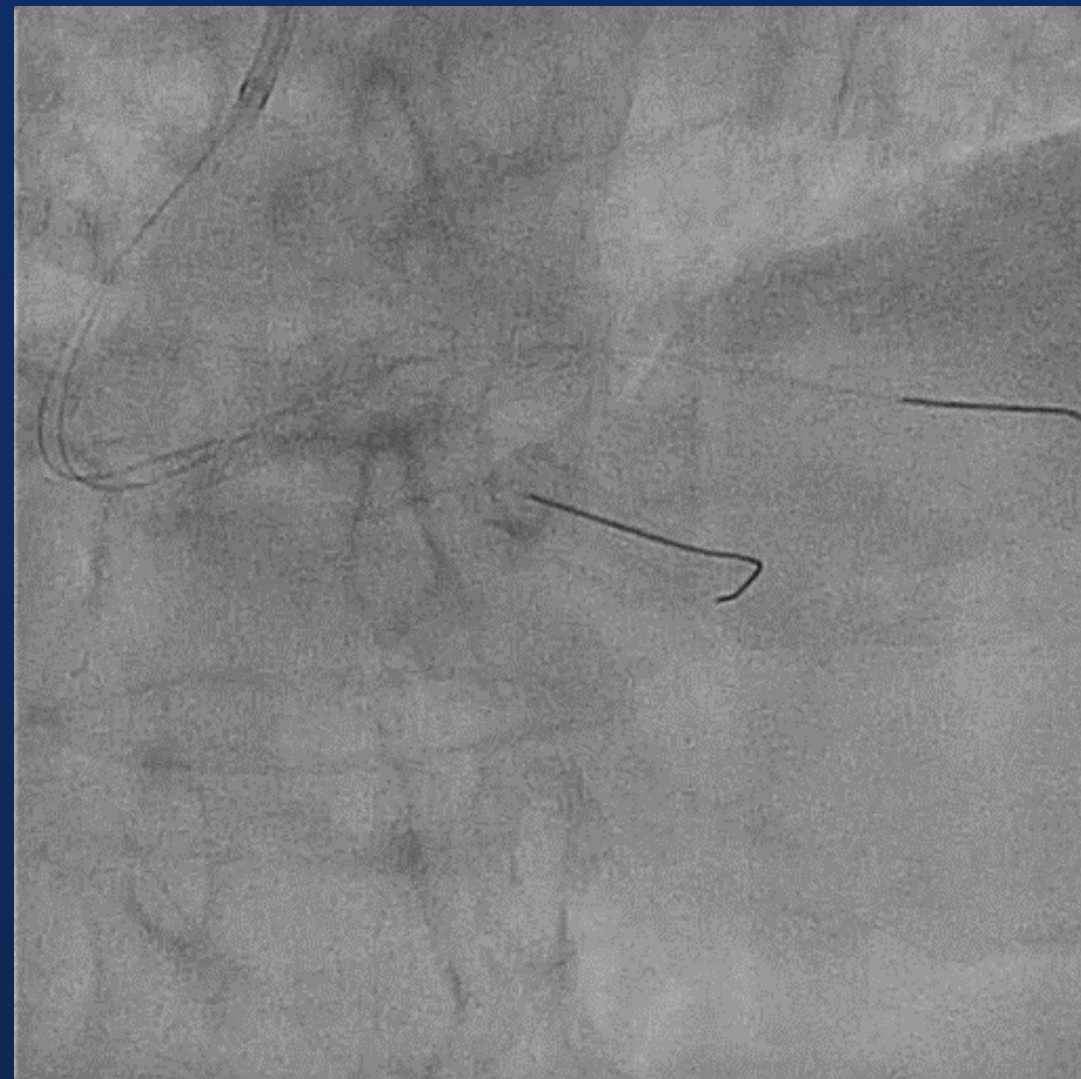
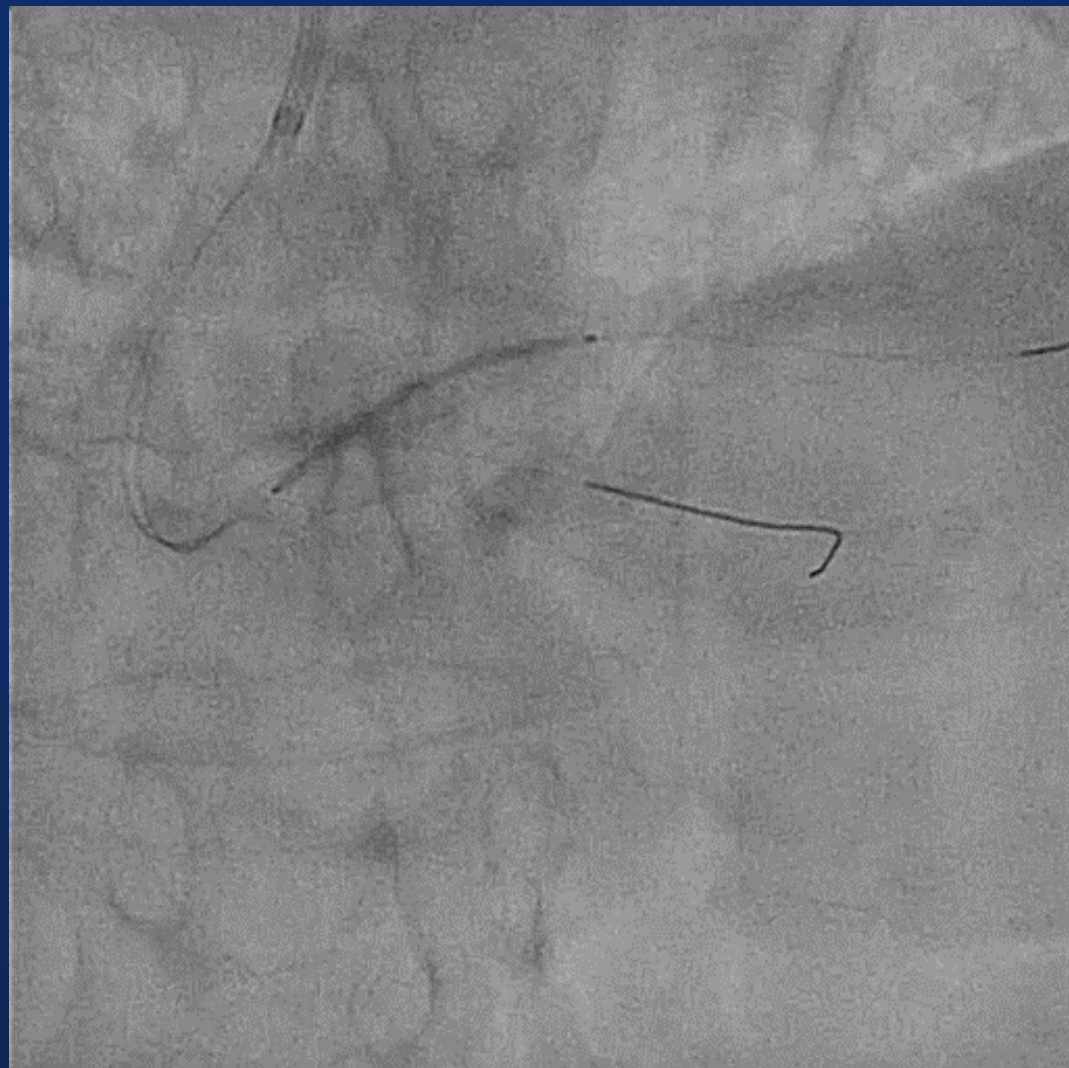
- Transient deflated balloon ,
- MC cross to rPAV
- Inflated tamponade balloon
- Continue wiring



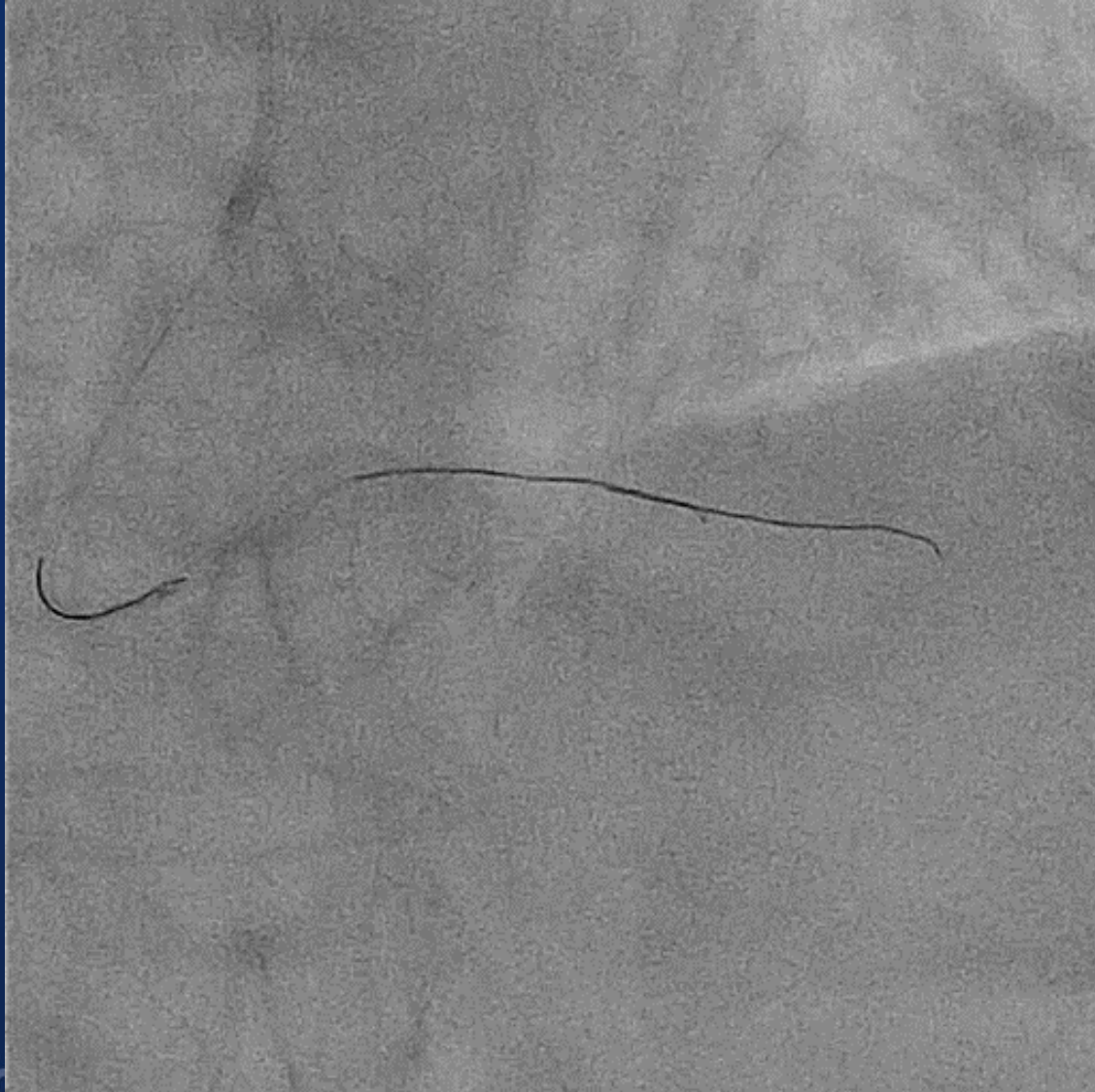
Leakage sealed !



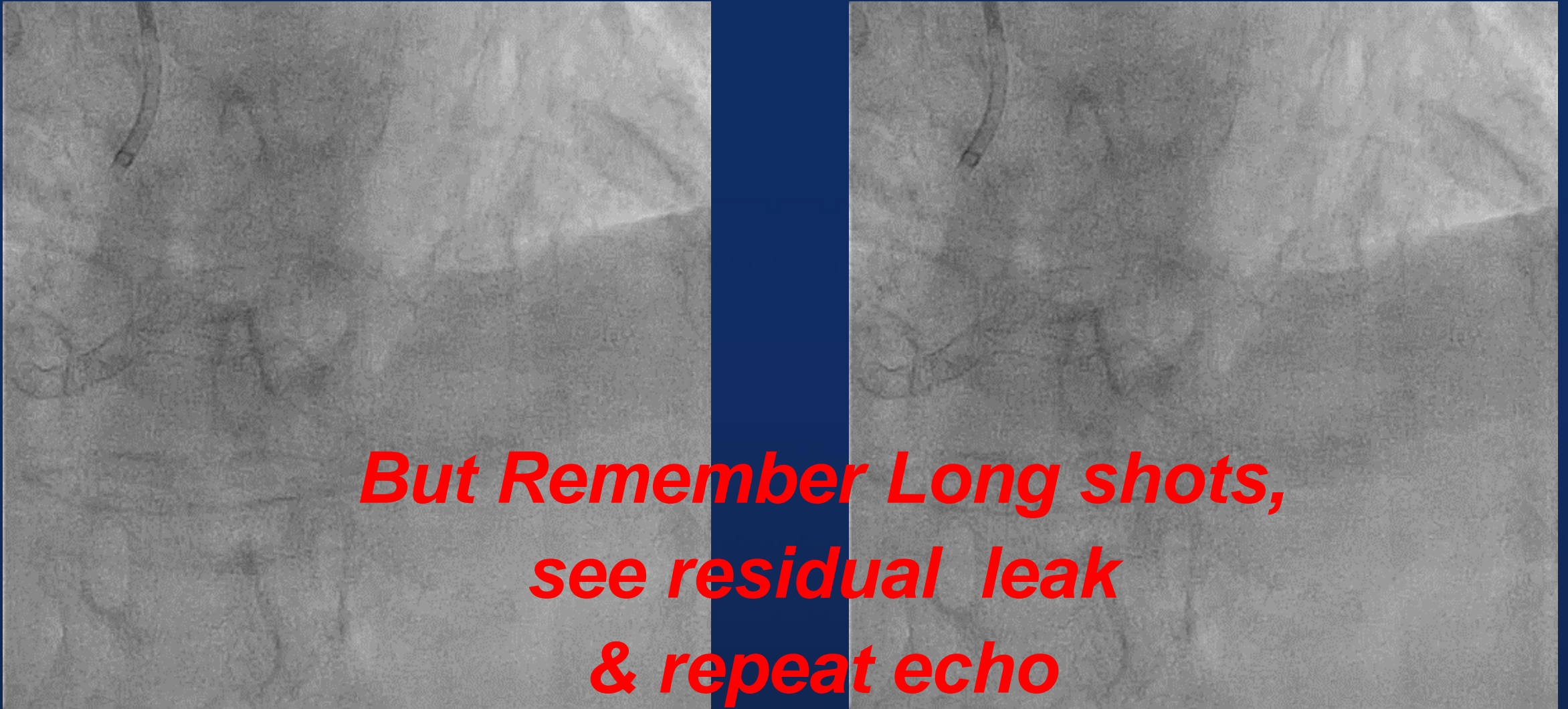
Stenting rPAV



Rewire PDA & TAP stenting



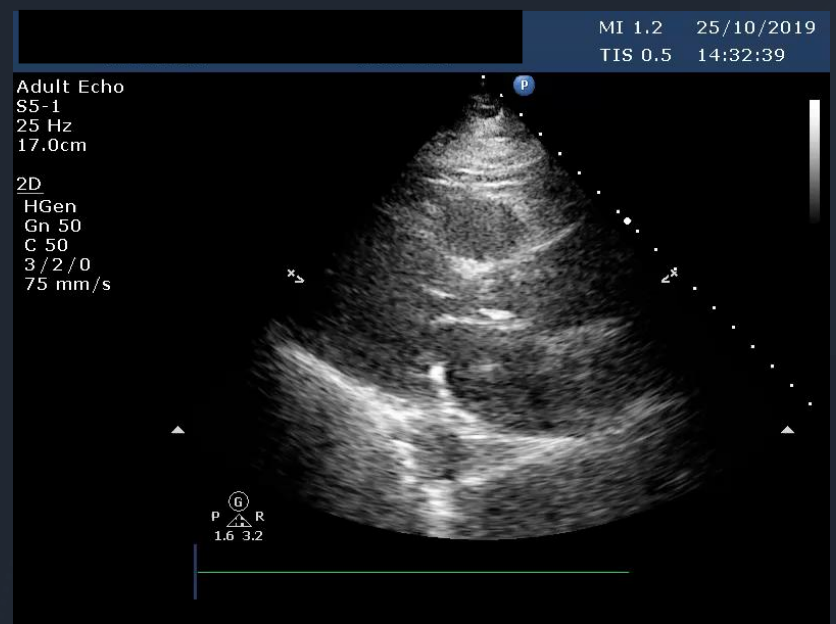
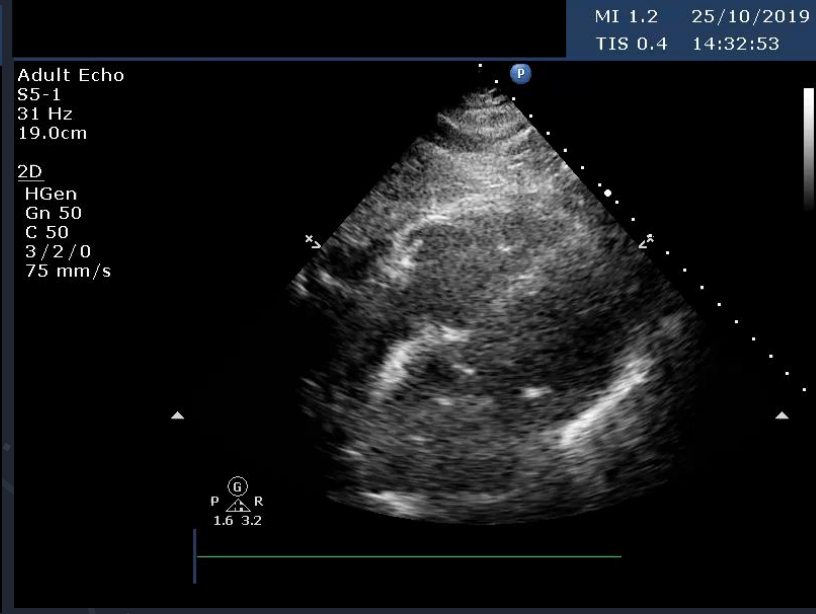
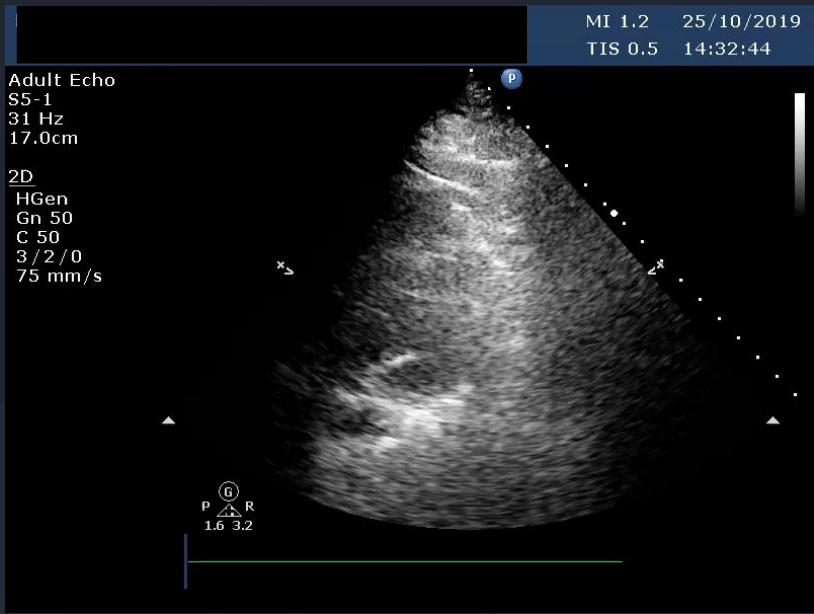
Final result , no leak



***But Remember Long shots,
see residual leak
& repeat echo***

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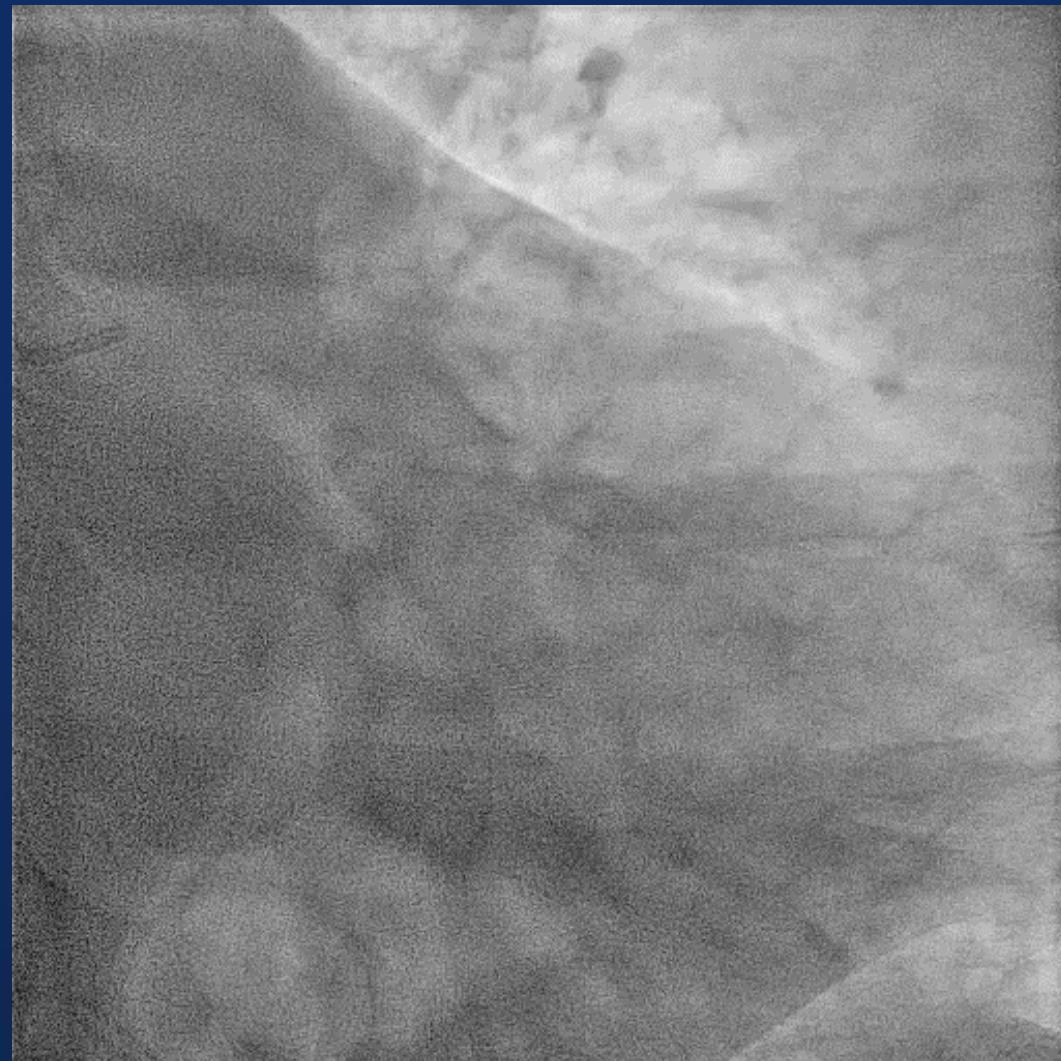
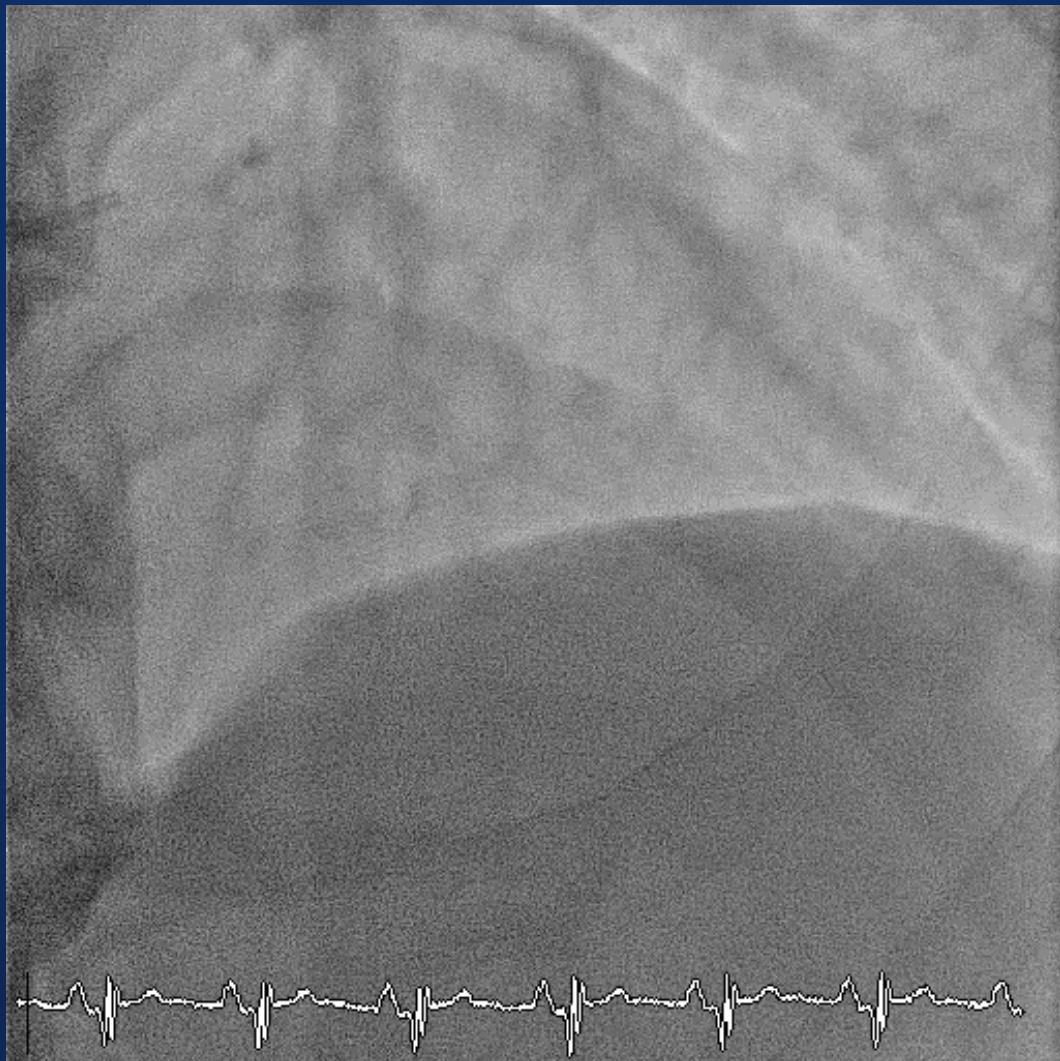


Before leaving the cath Lab

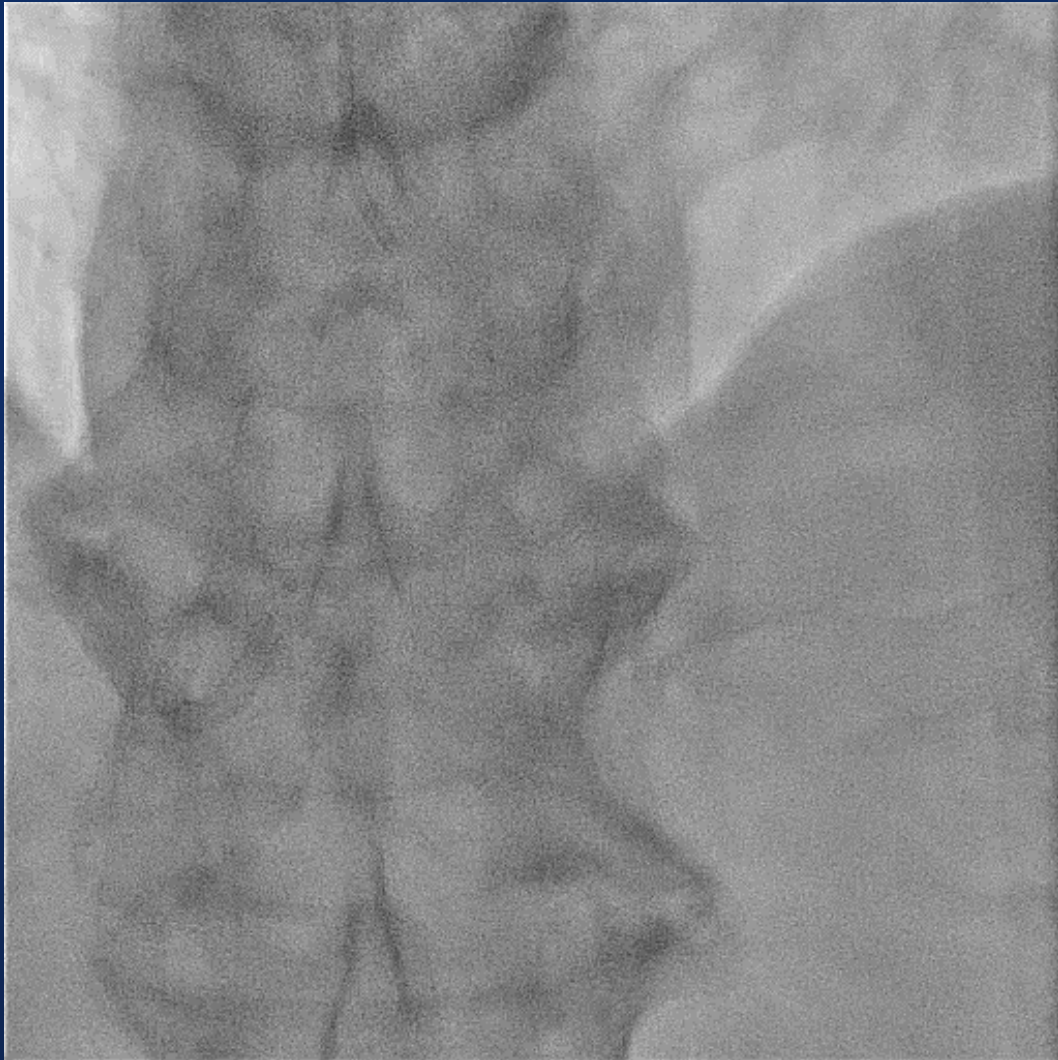
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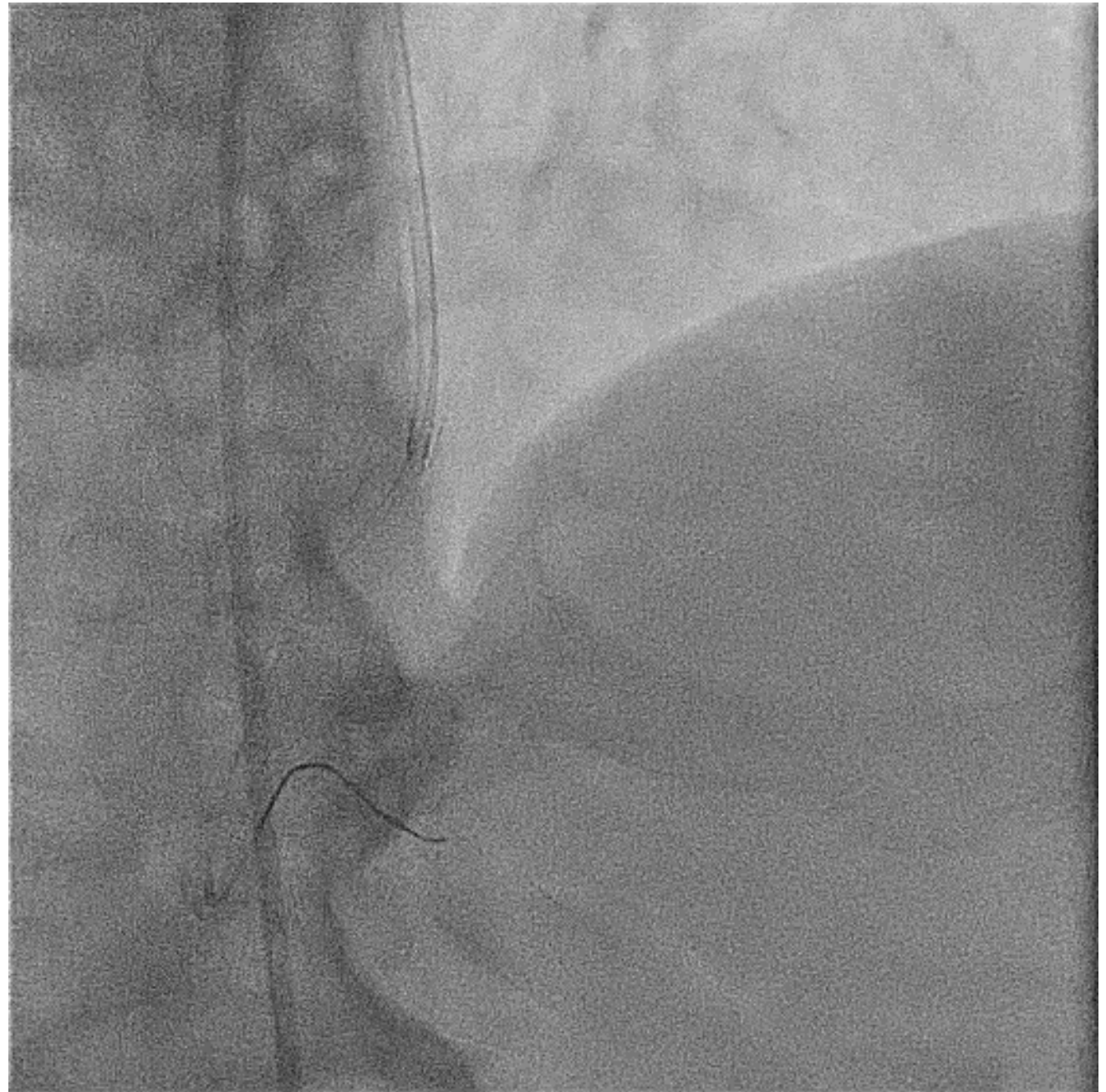
3rd case: Triple vessel disease



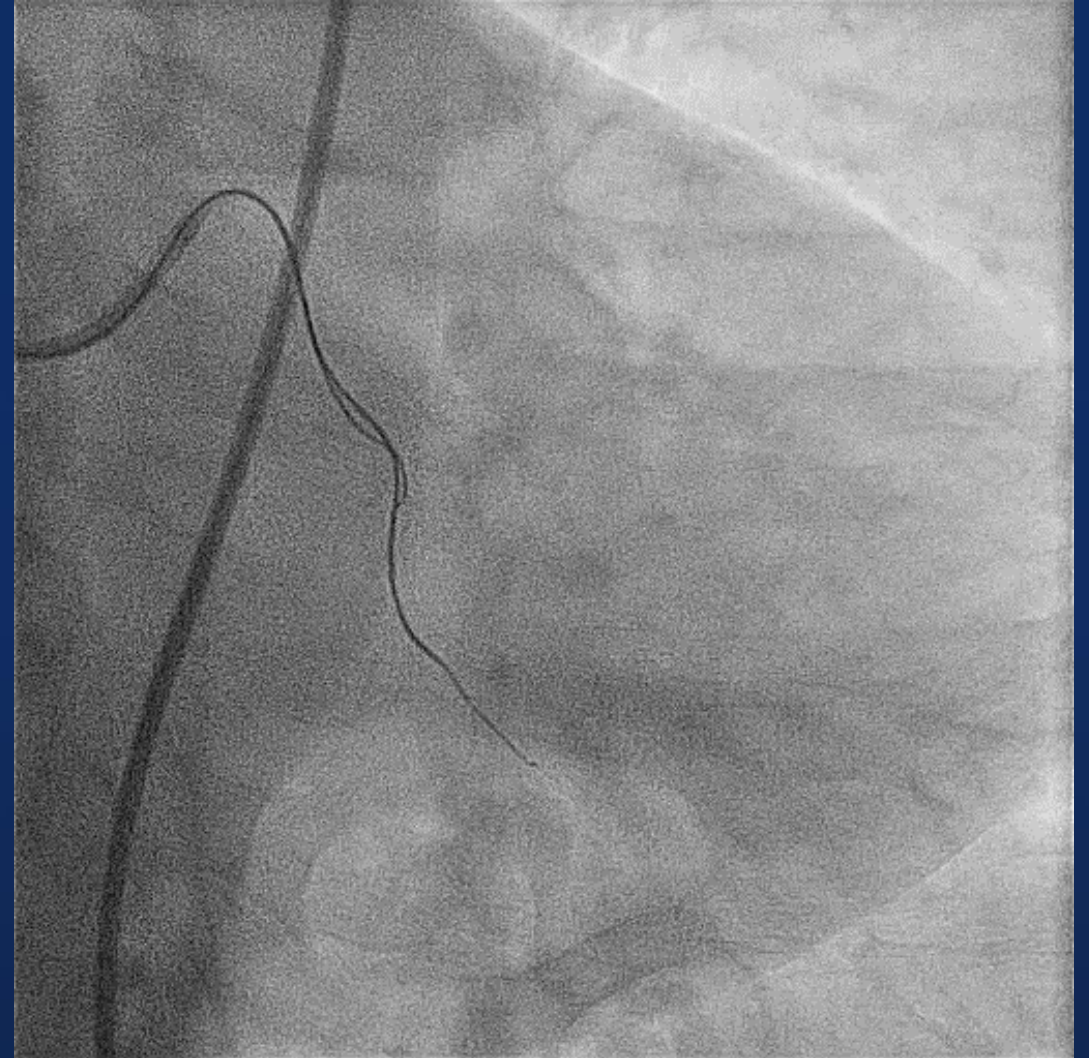
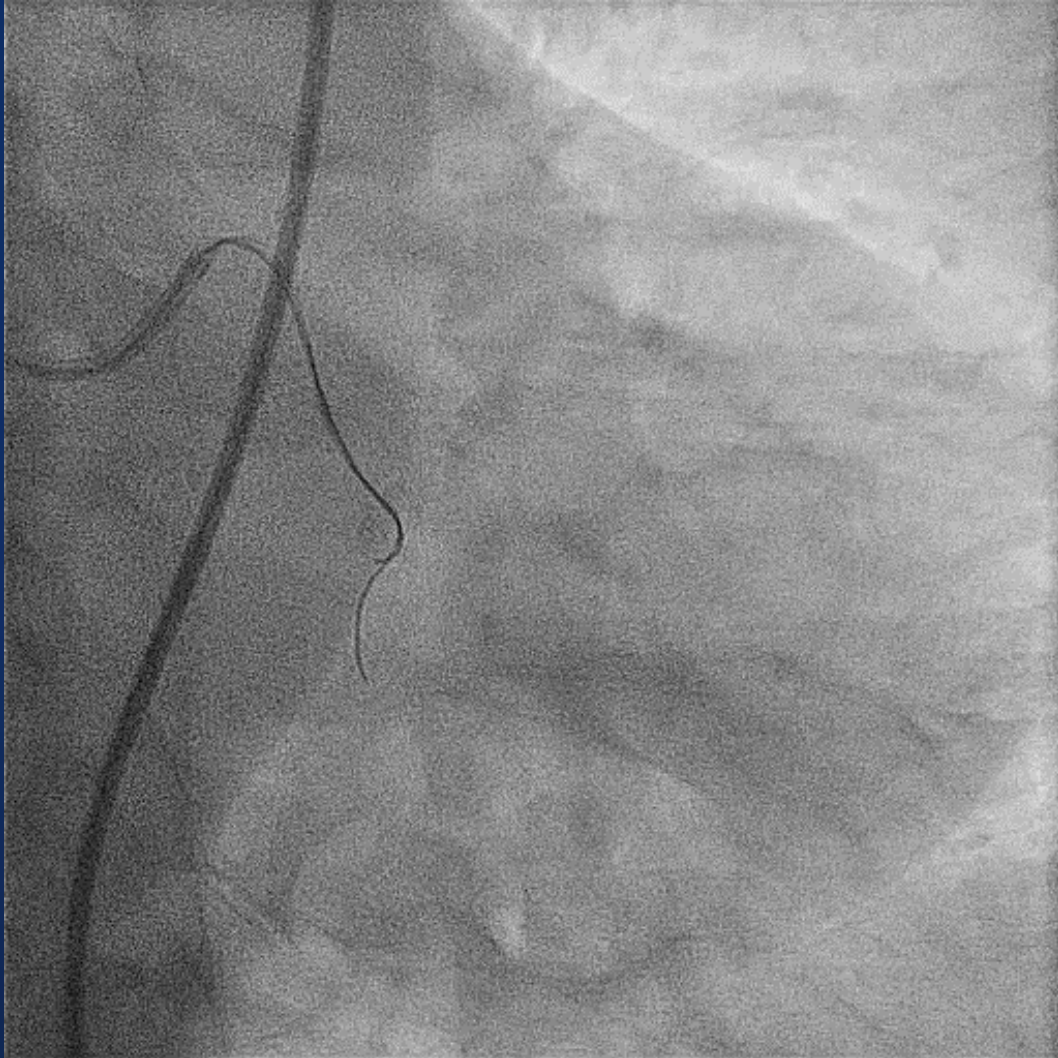
Ostial RCA disease , stenting ostial RCA



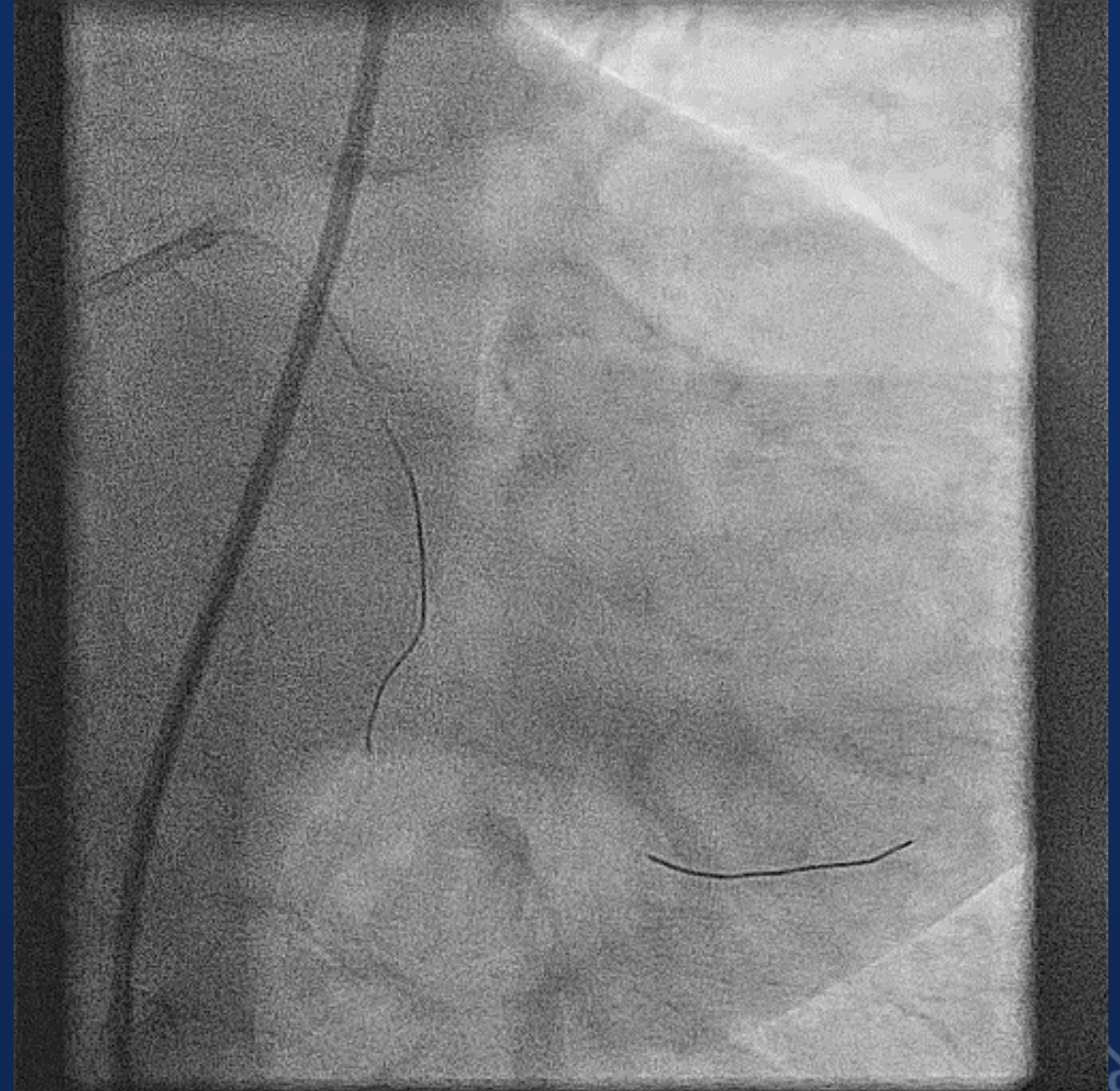
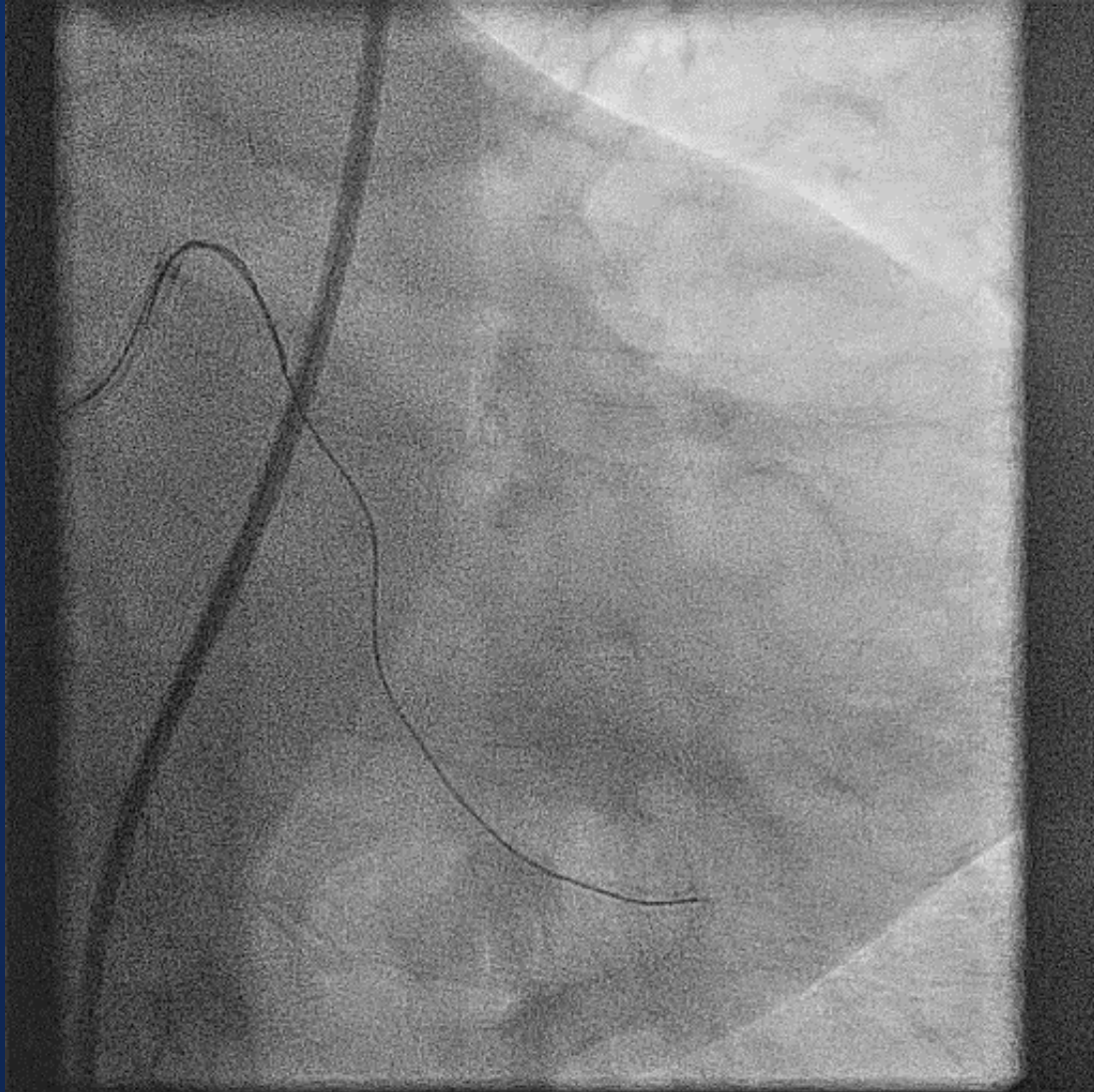
Post stenting RCA



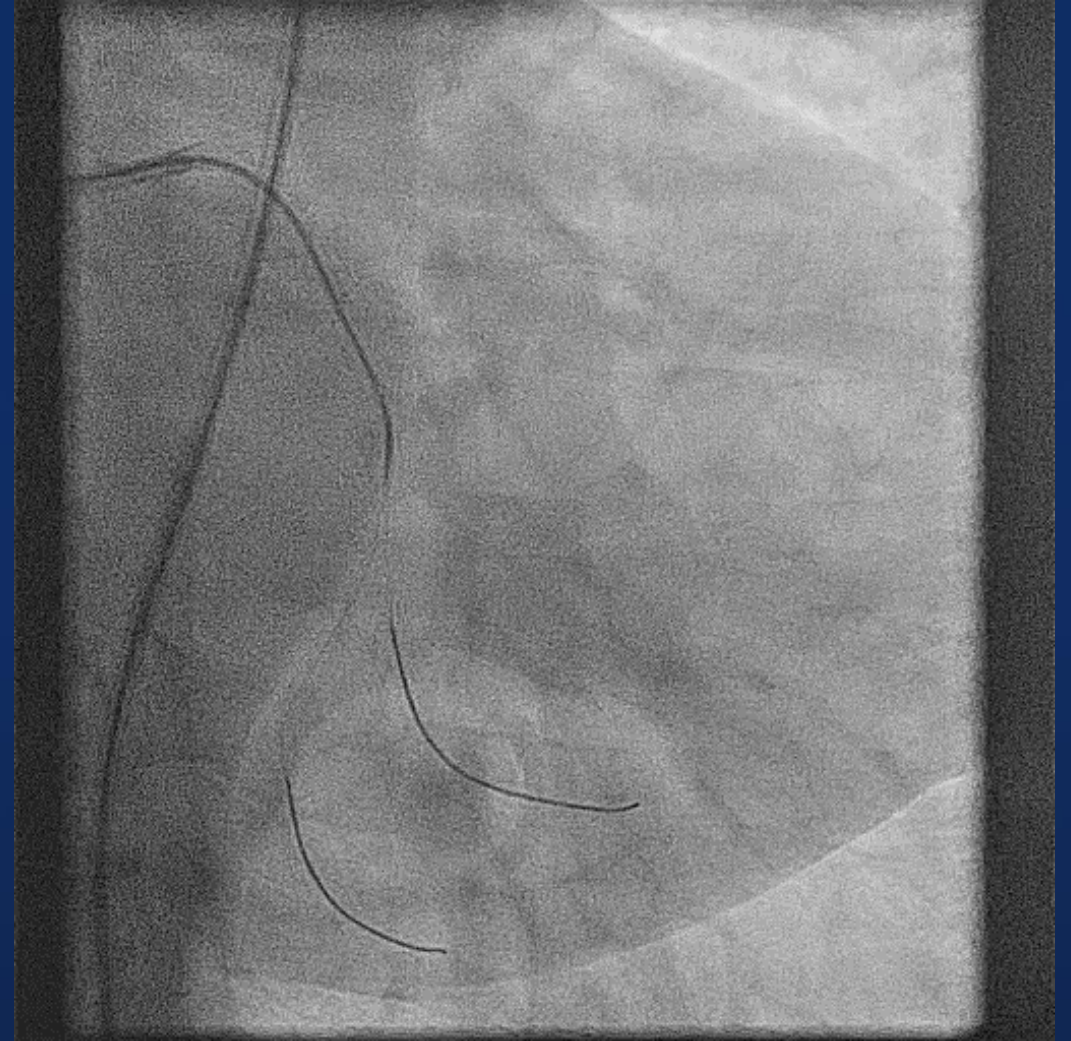
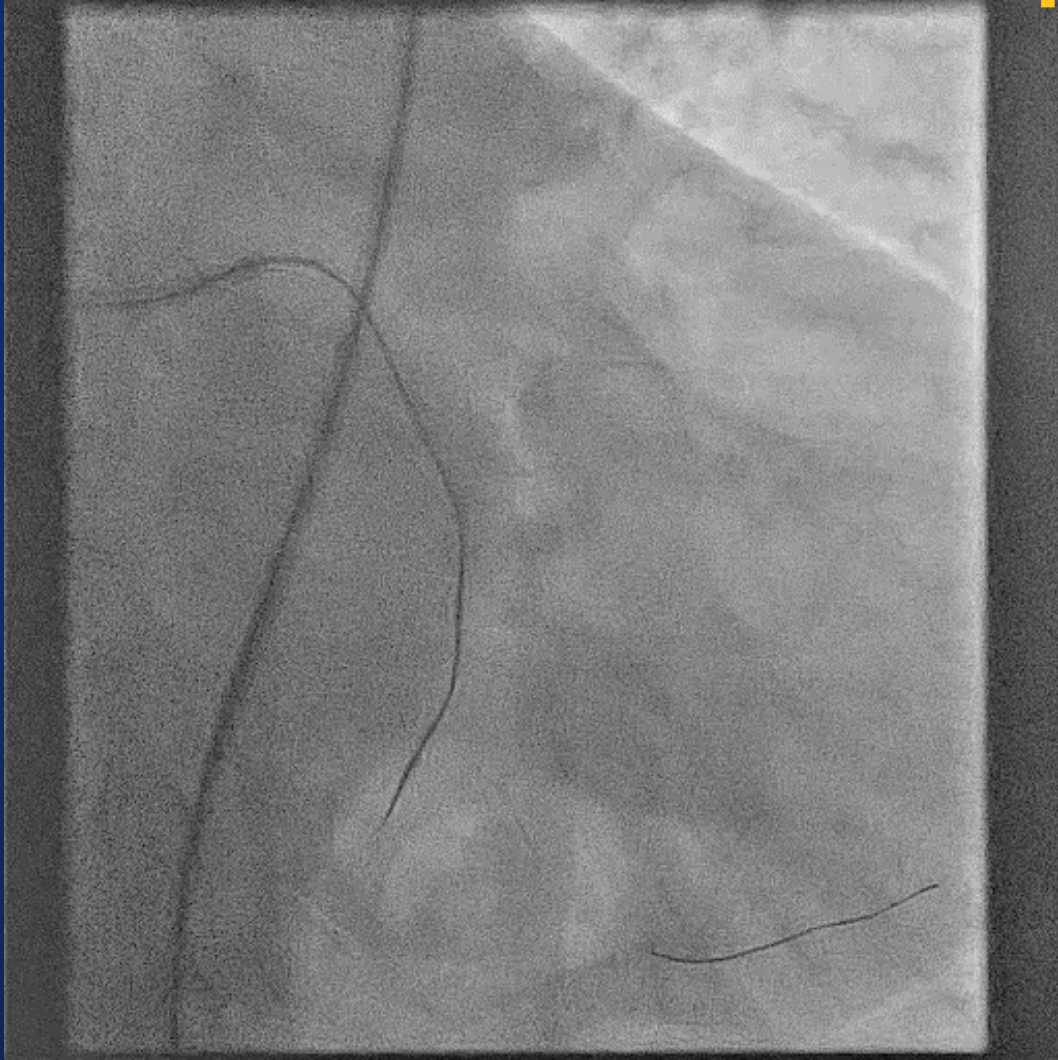
PCI to Lcx



So far , so good

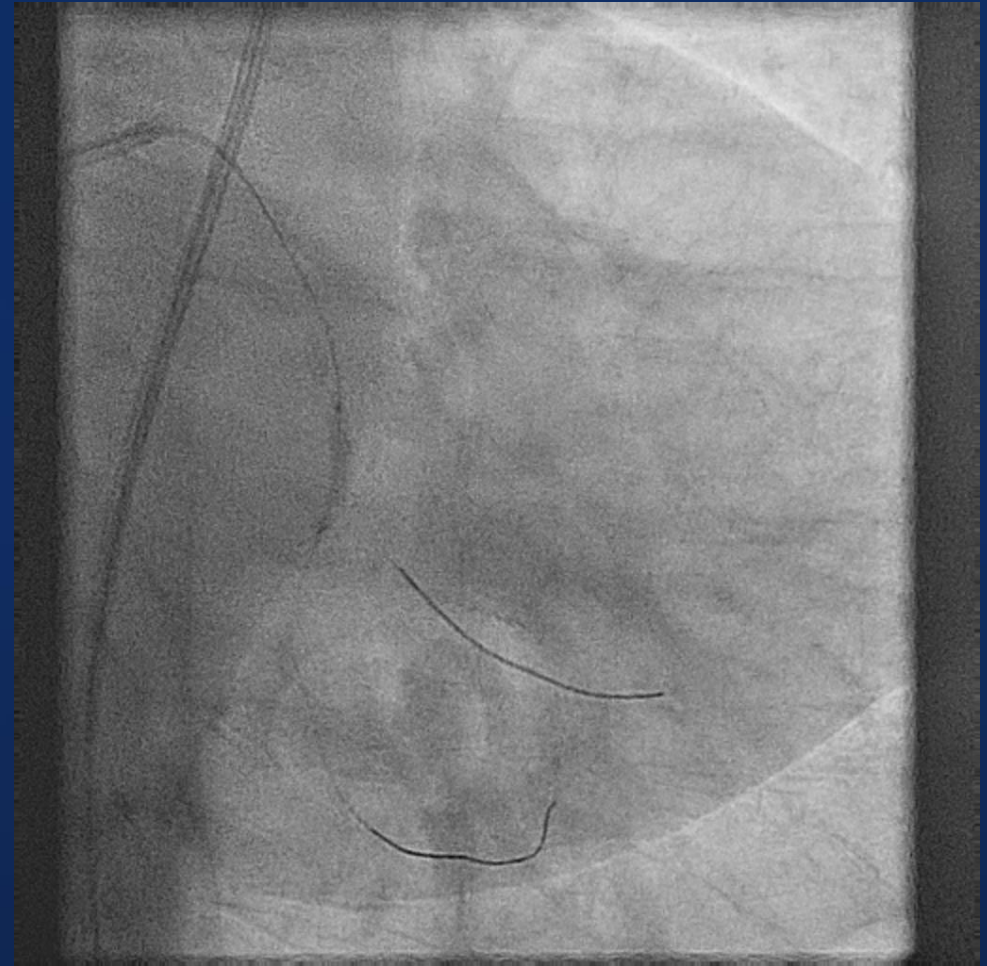
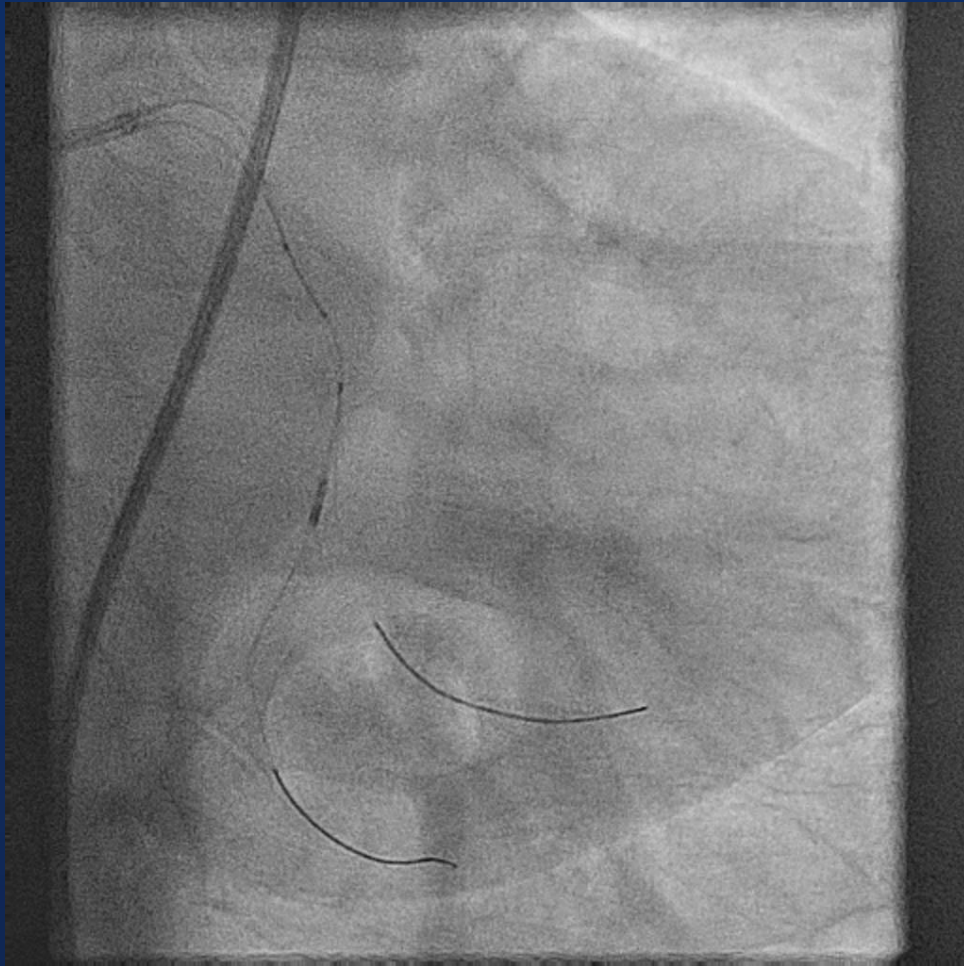


Still promising

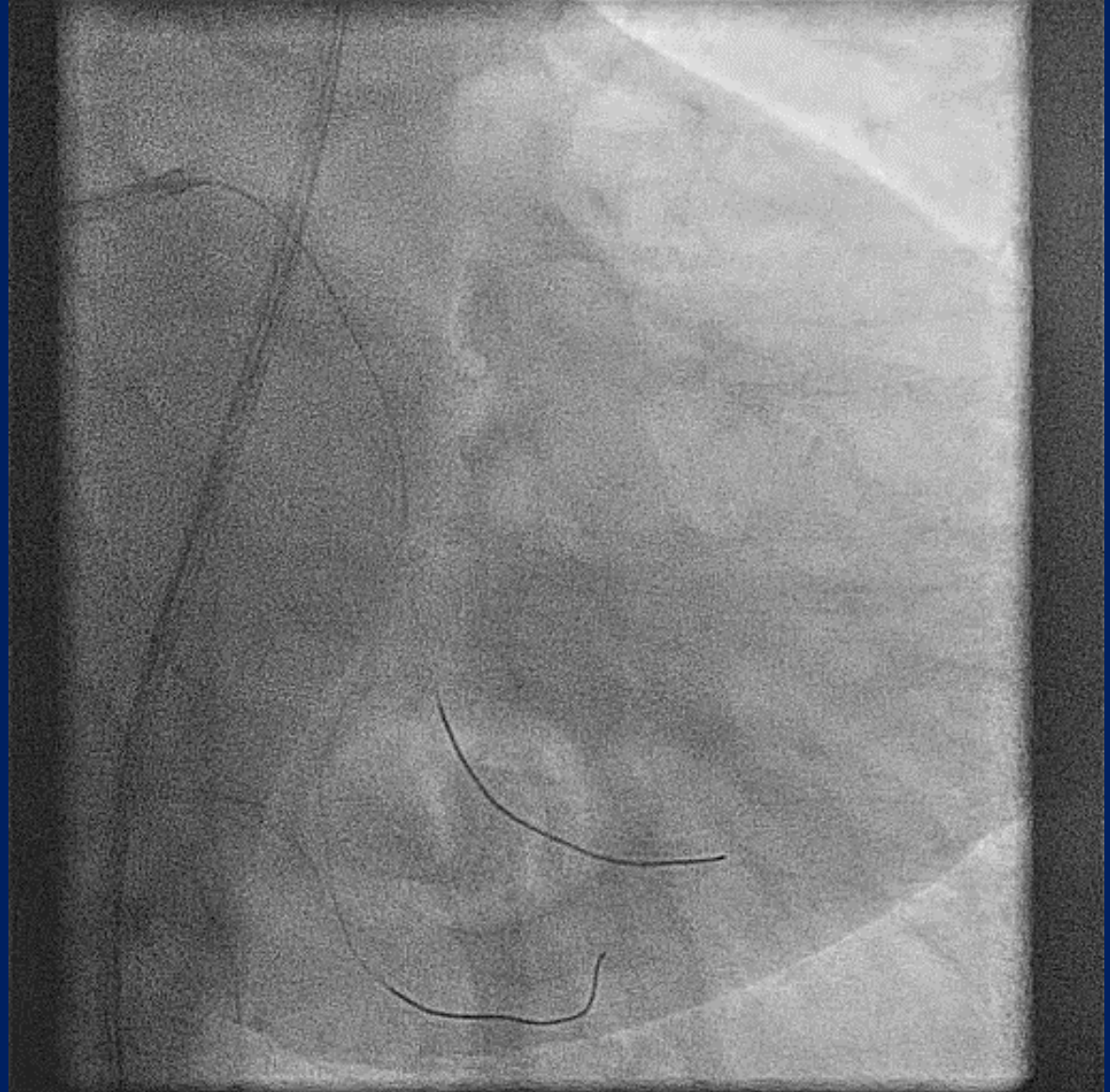


IVUS confirmed true at the proximal , but failed to cross distal

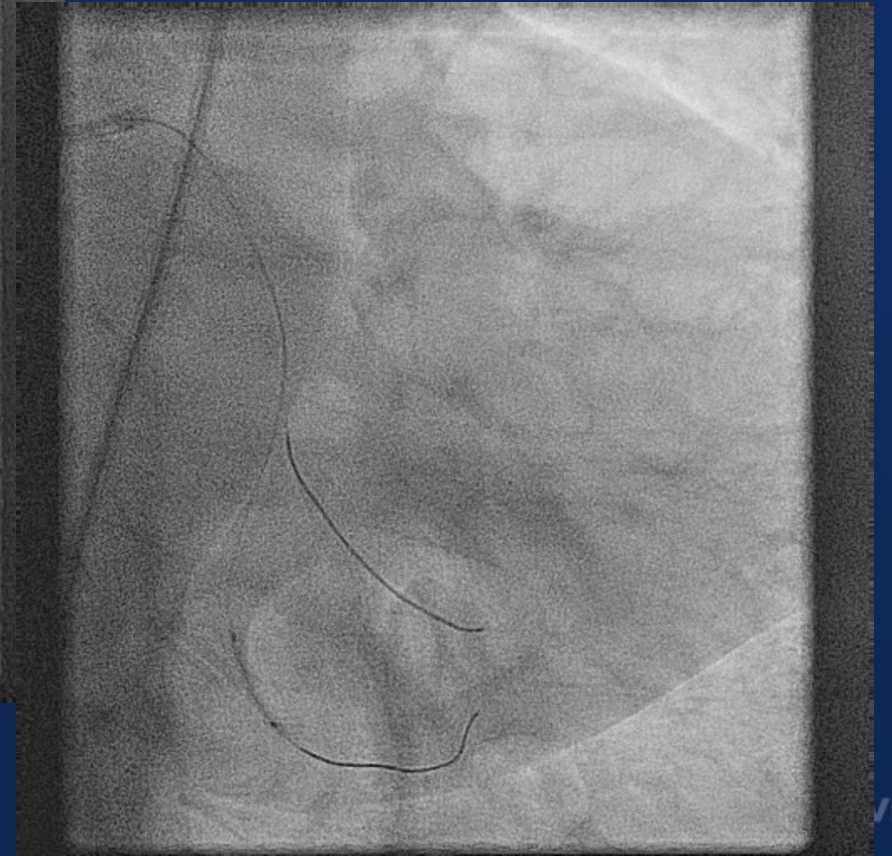
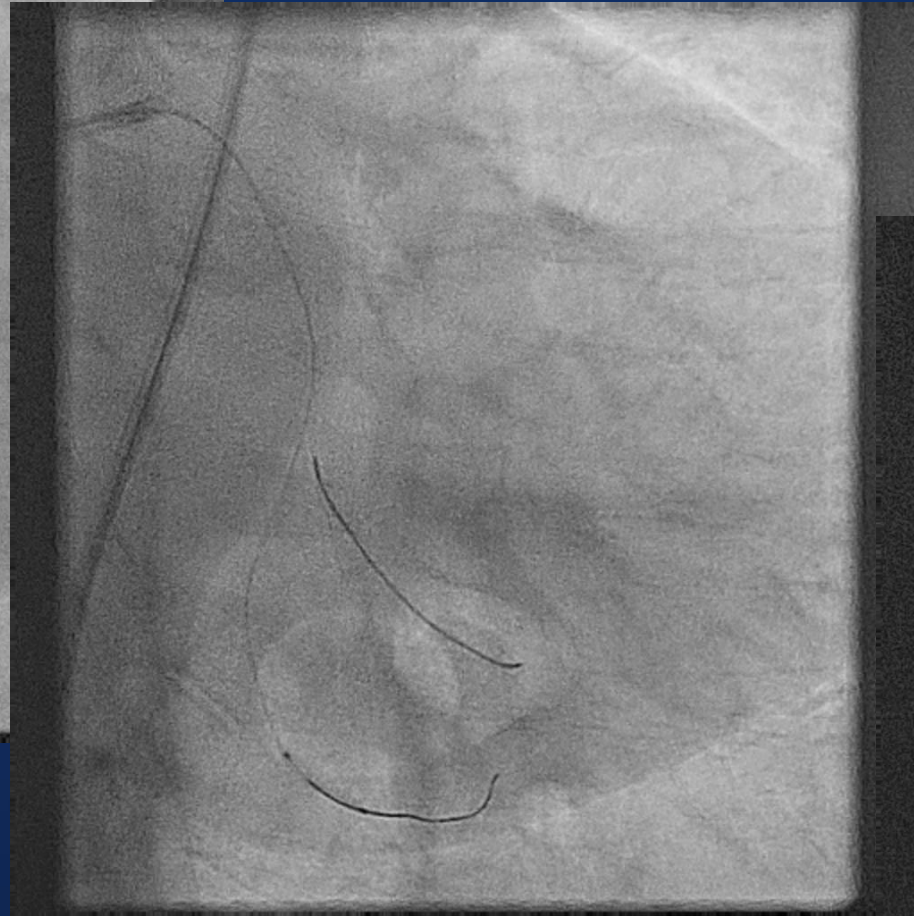
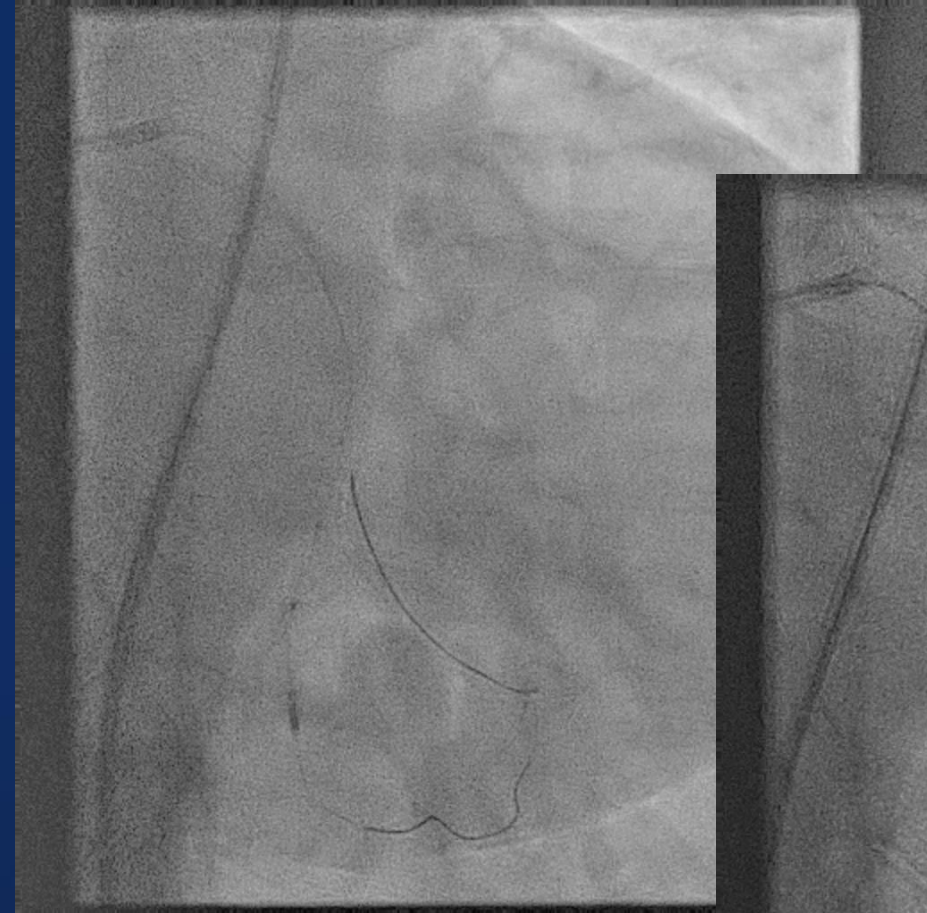
Balloon the proximal



Looks OK

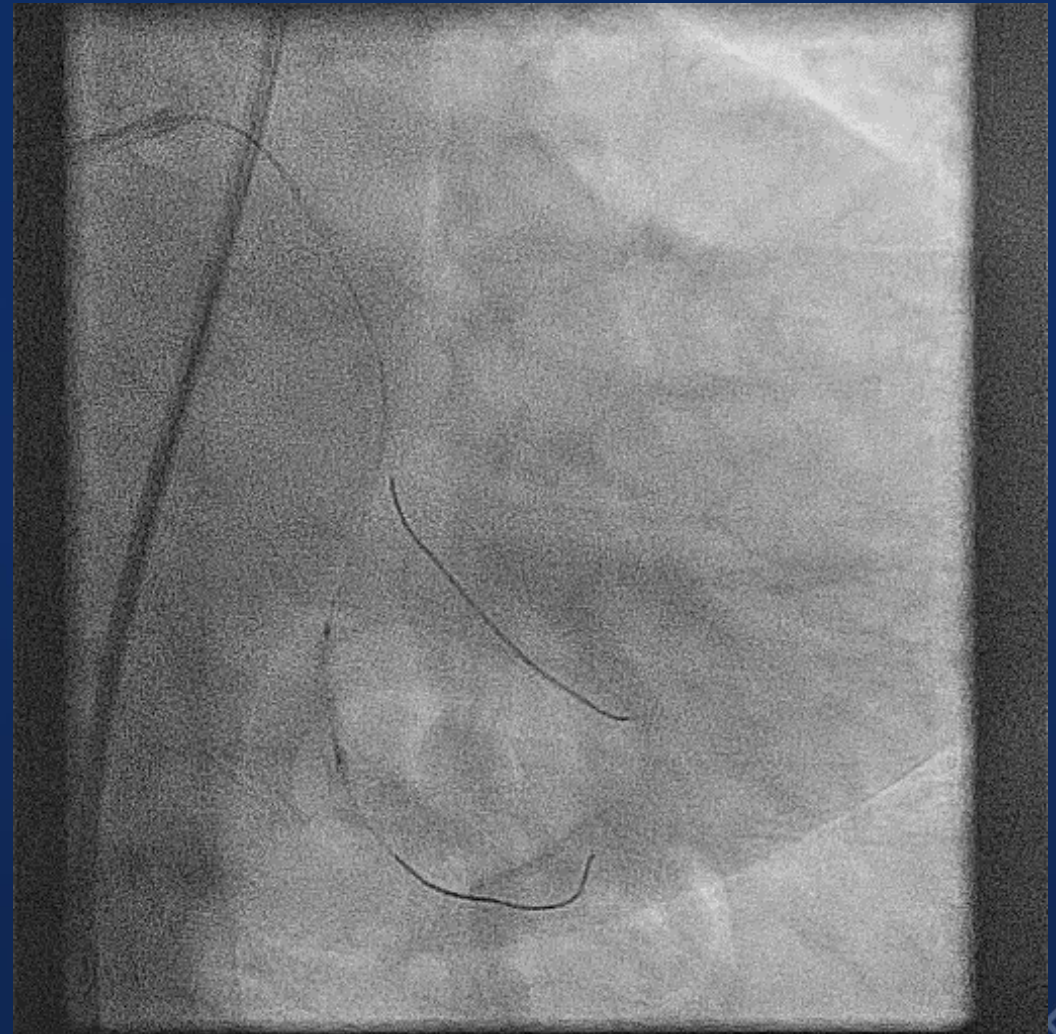
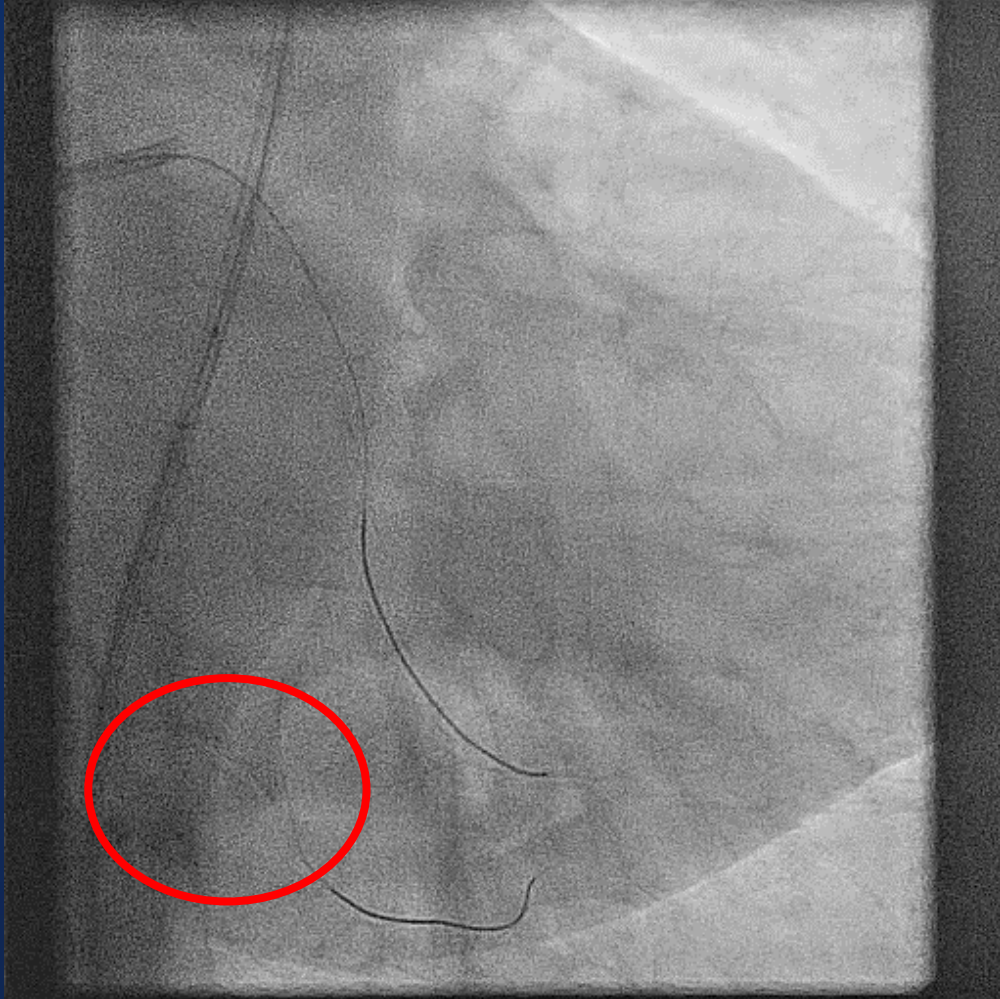


IVUS passed , true , continue ballooning

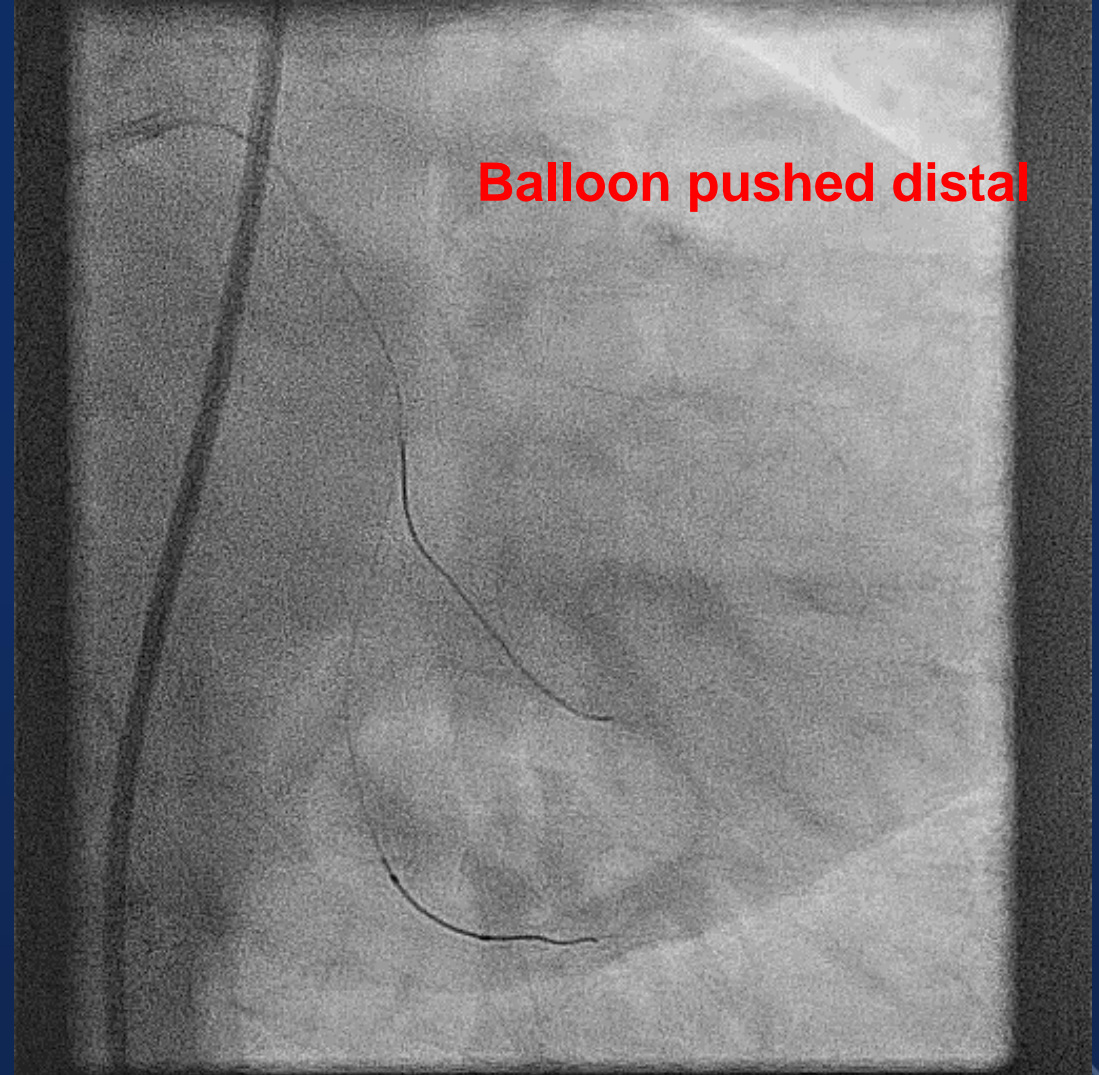


That's what happening

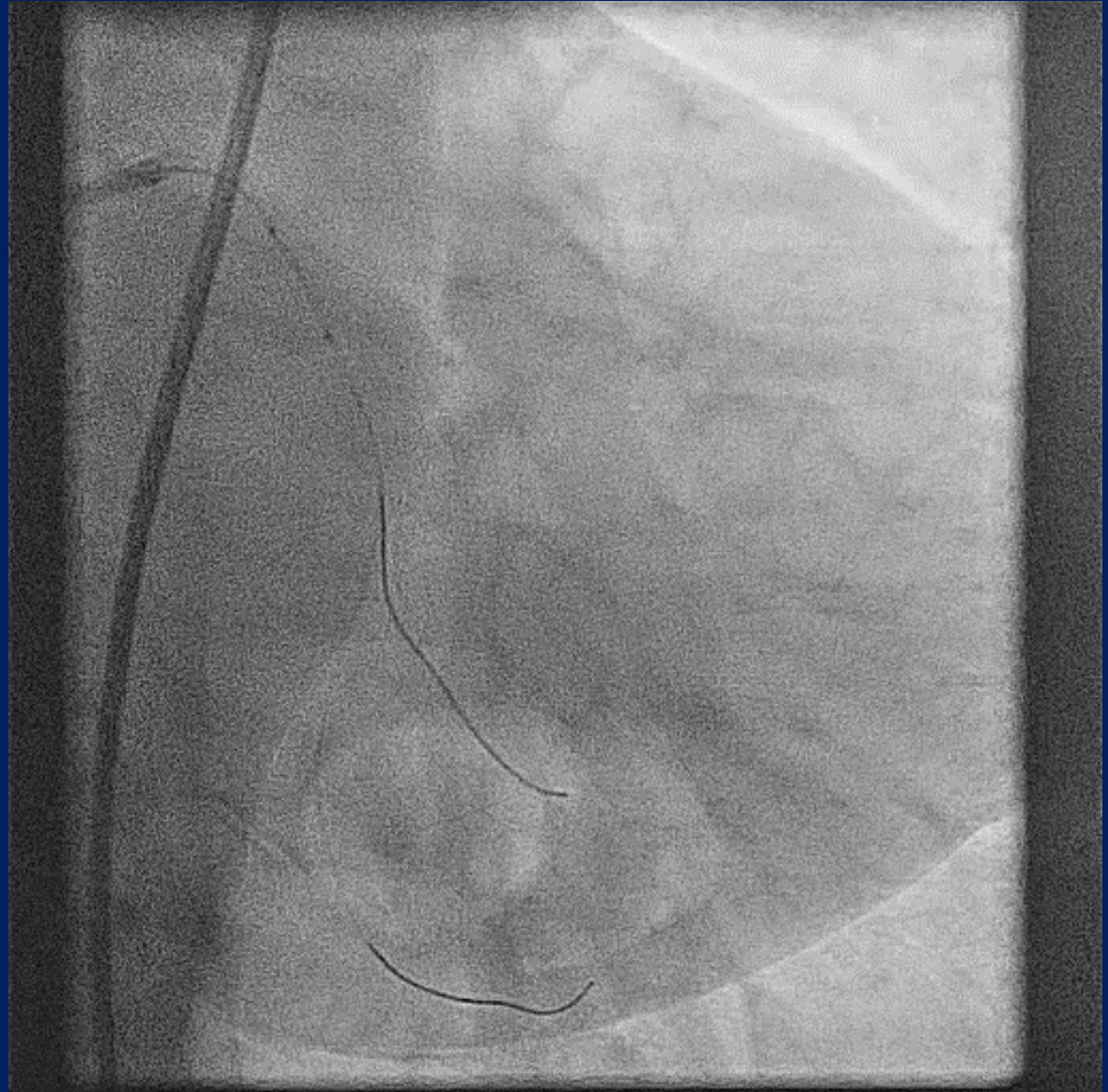
Sealed with balloon tamponade



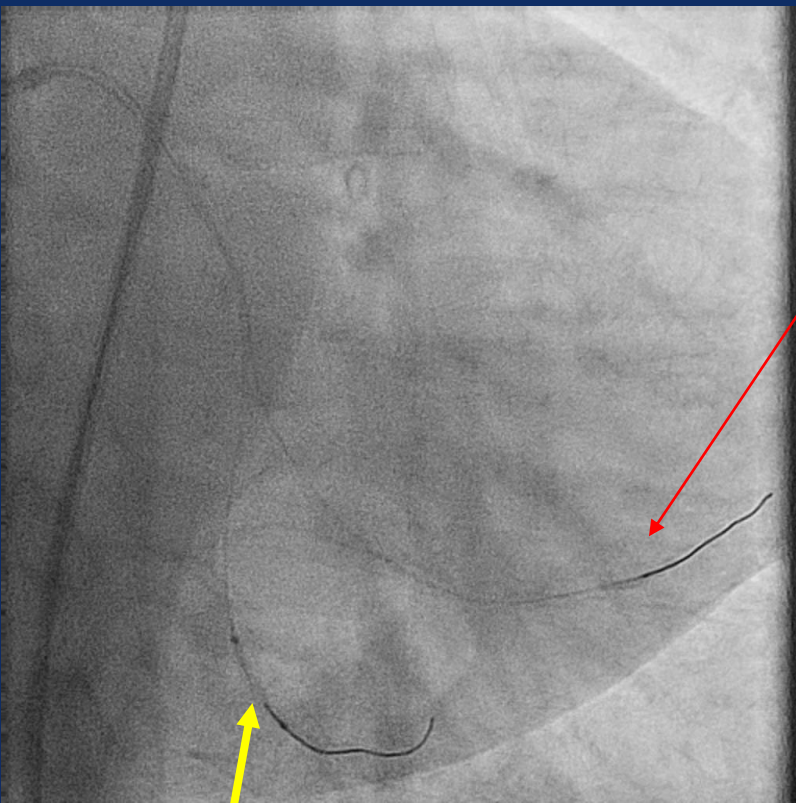
But where is the leak ?



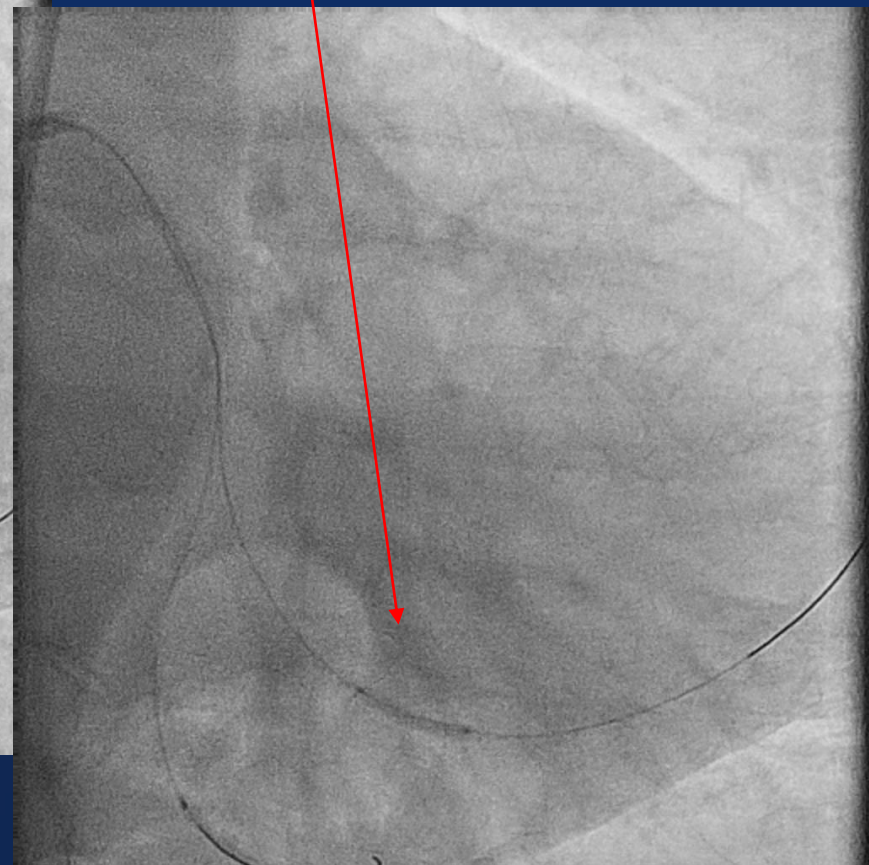
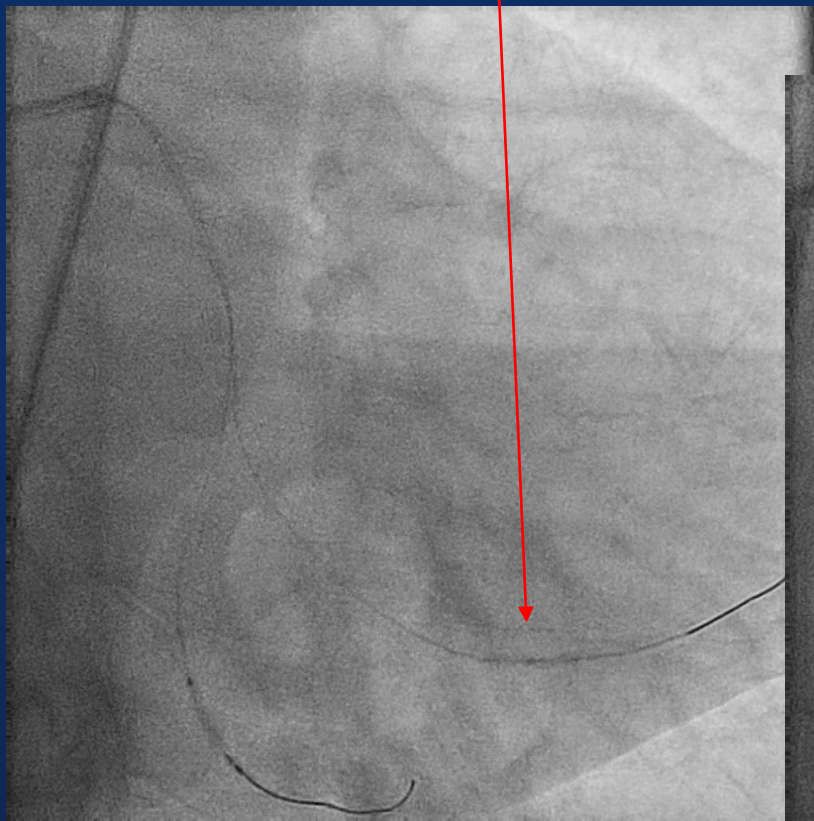
**Remove
the
balloon**



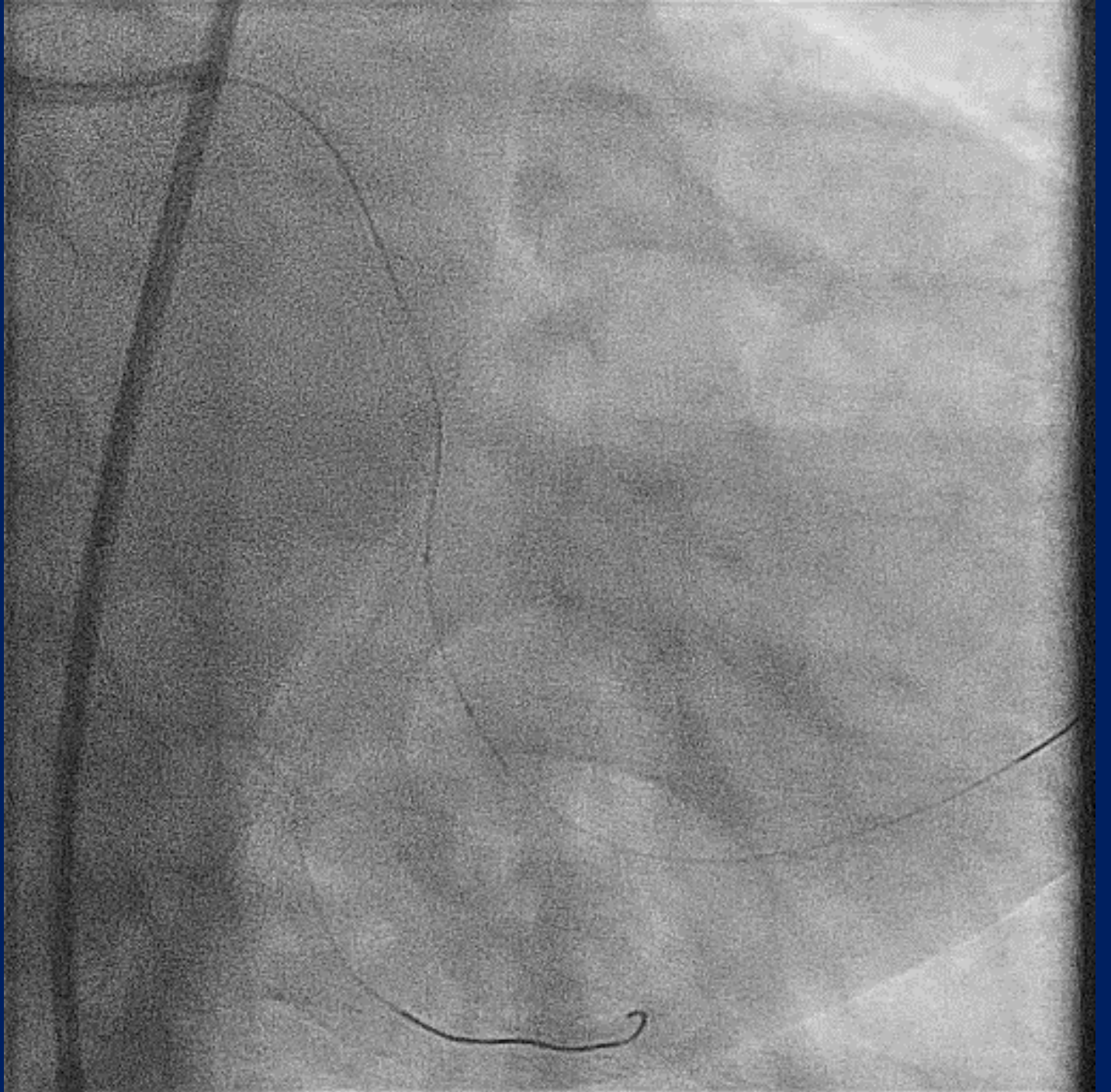
Proceed to PCI to OM (stable , started with occluded distal Lcx)



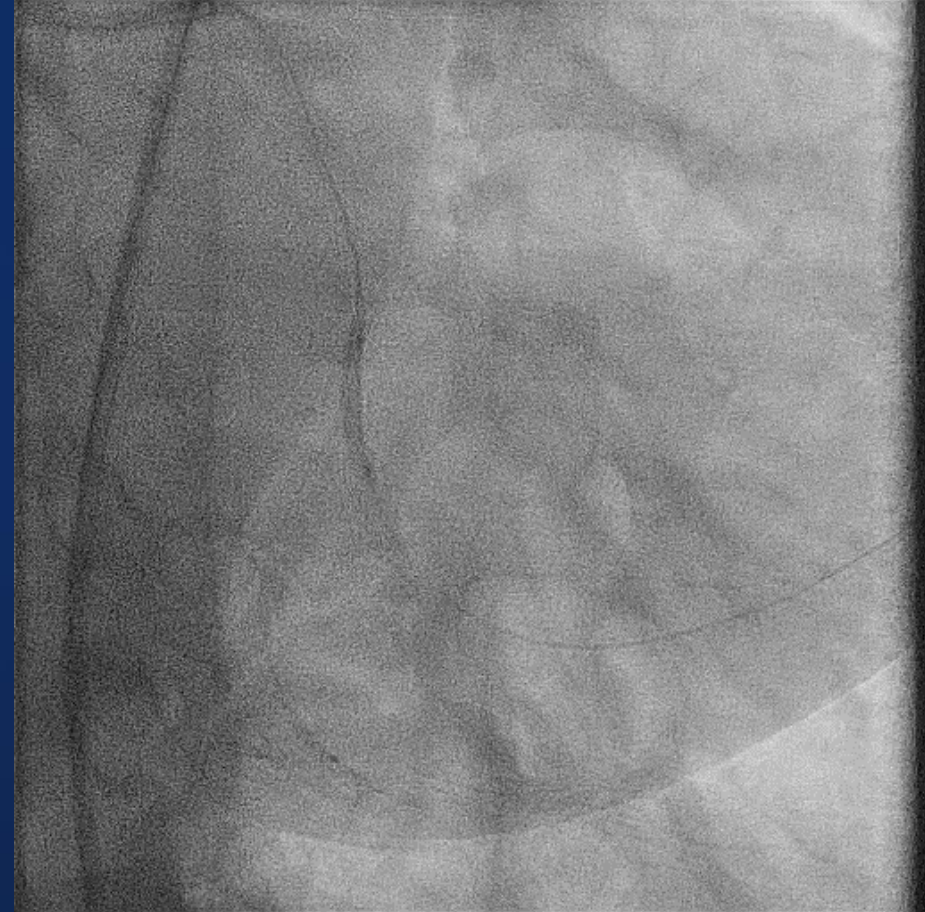
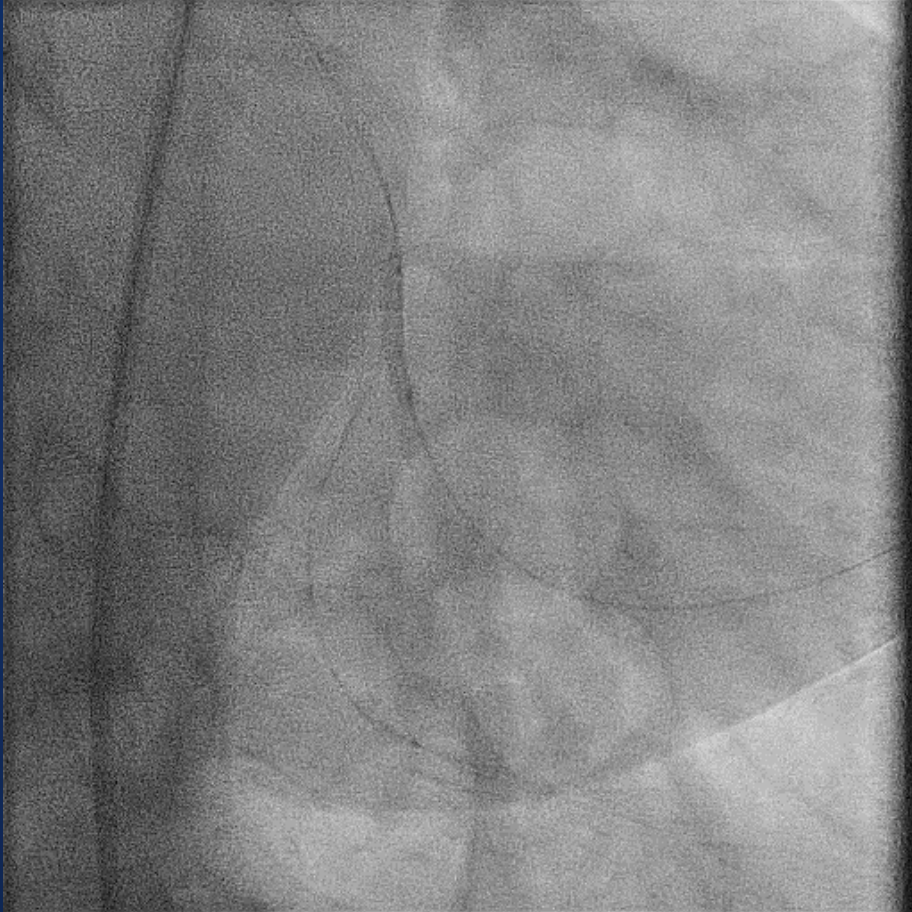
**Continue
balloon tamponade**



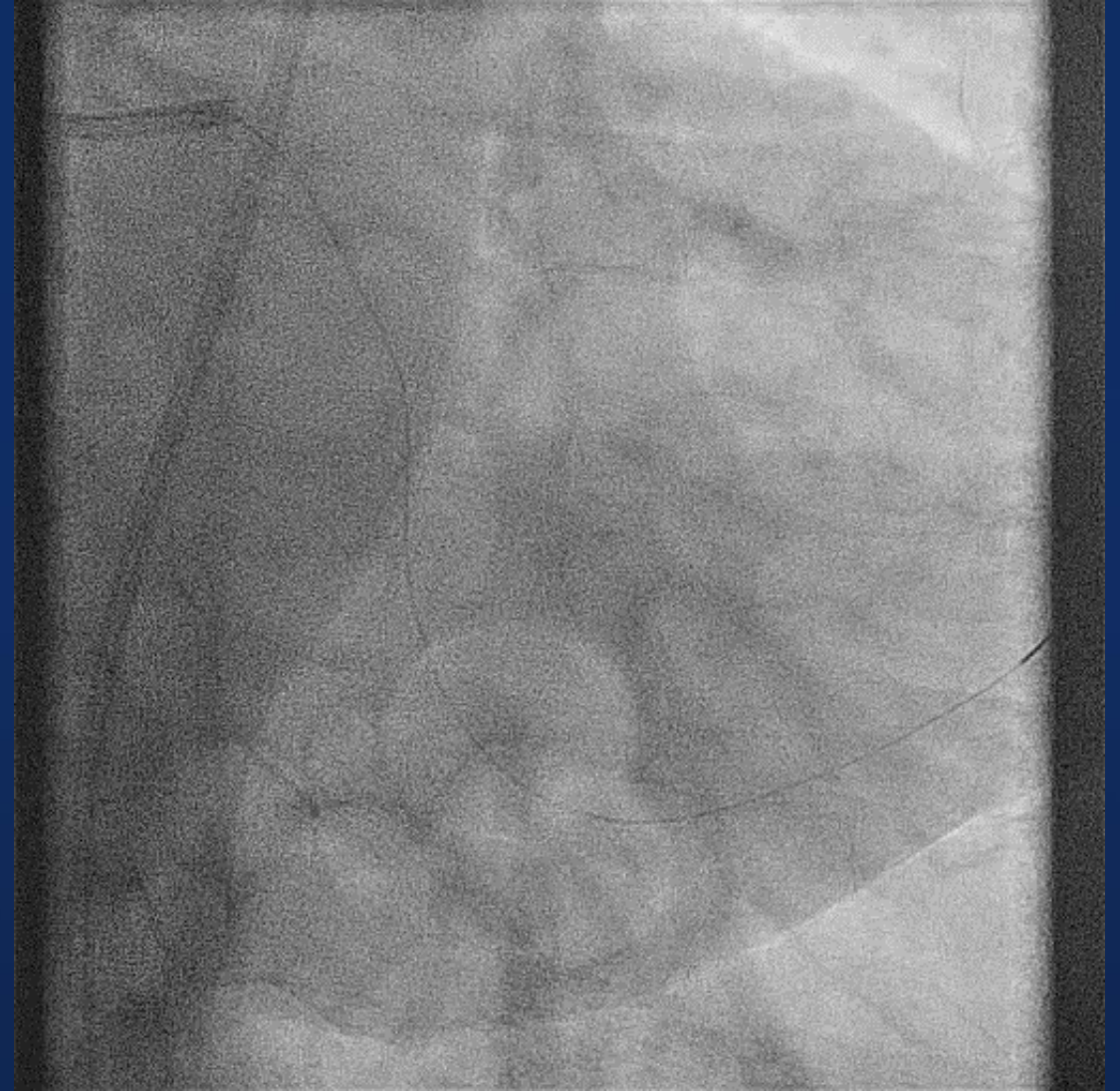
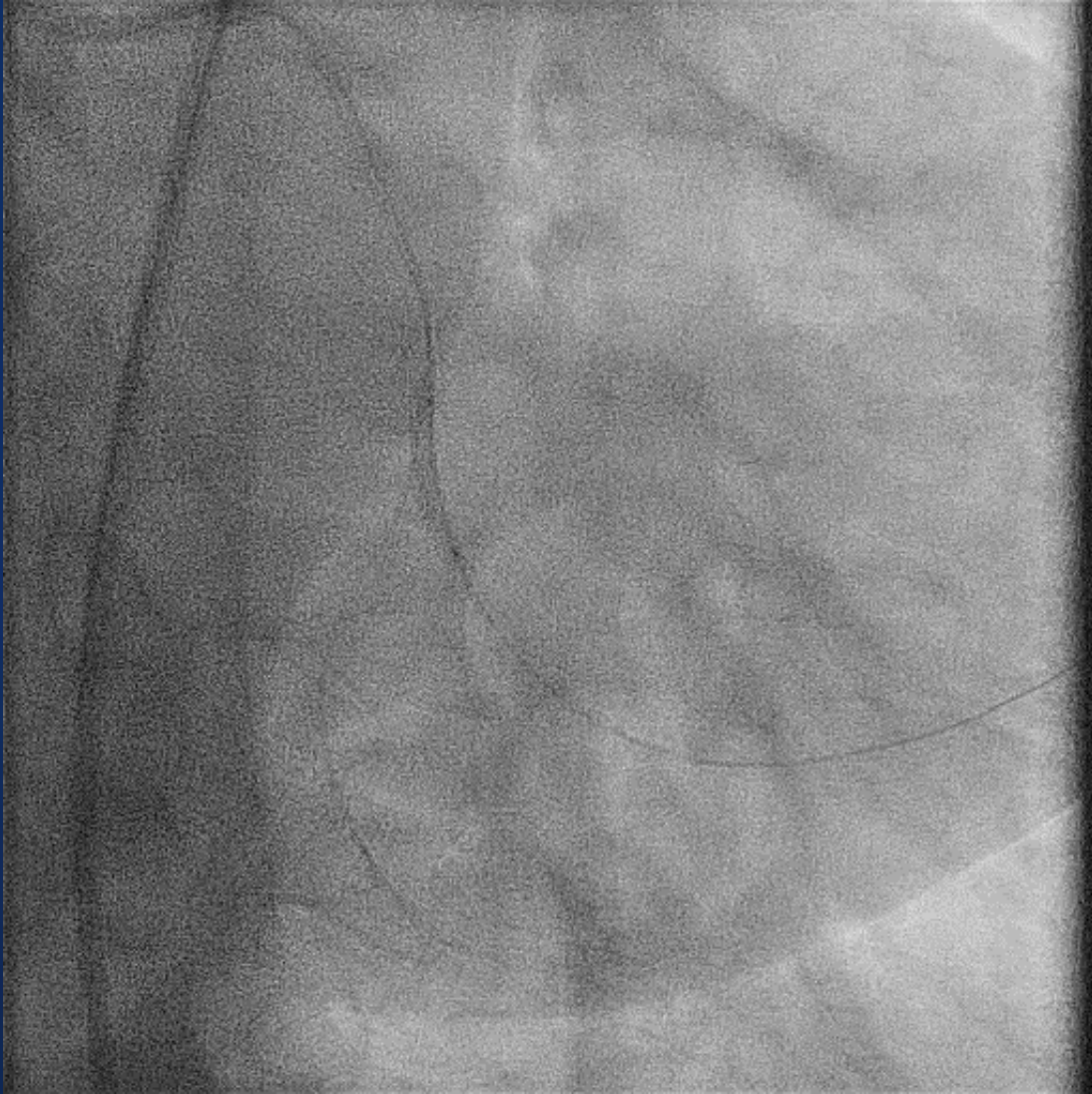
Still leak



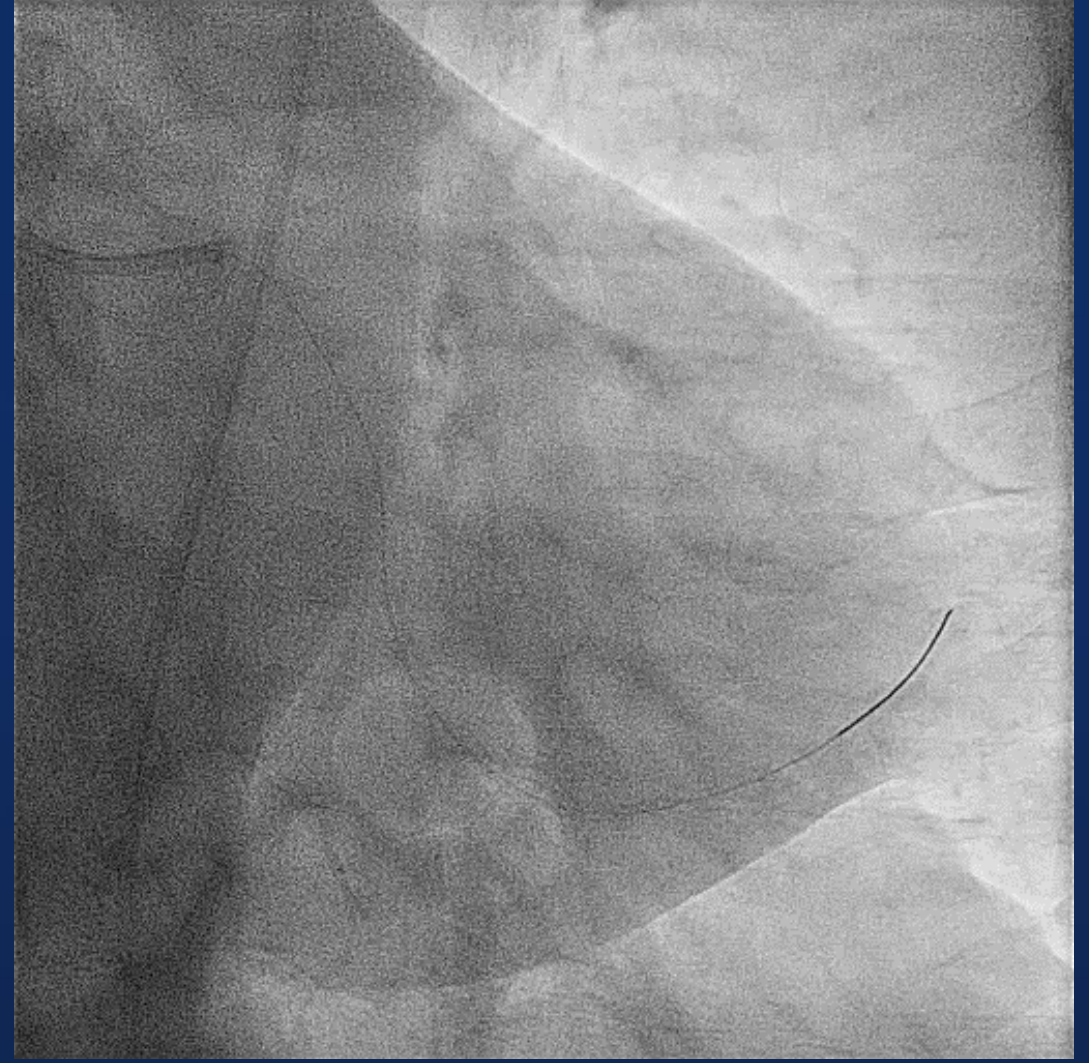
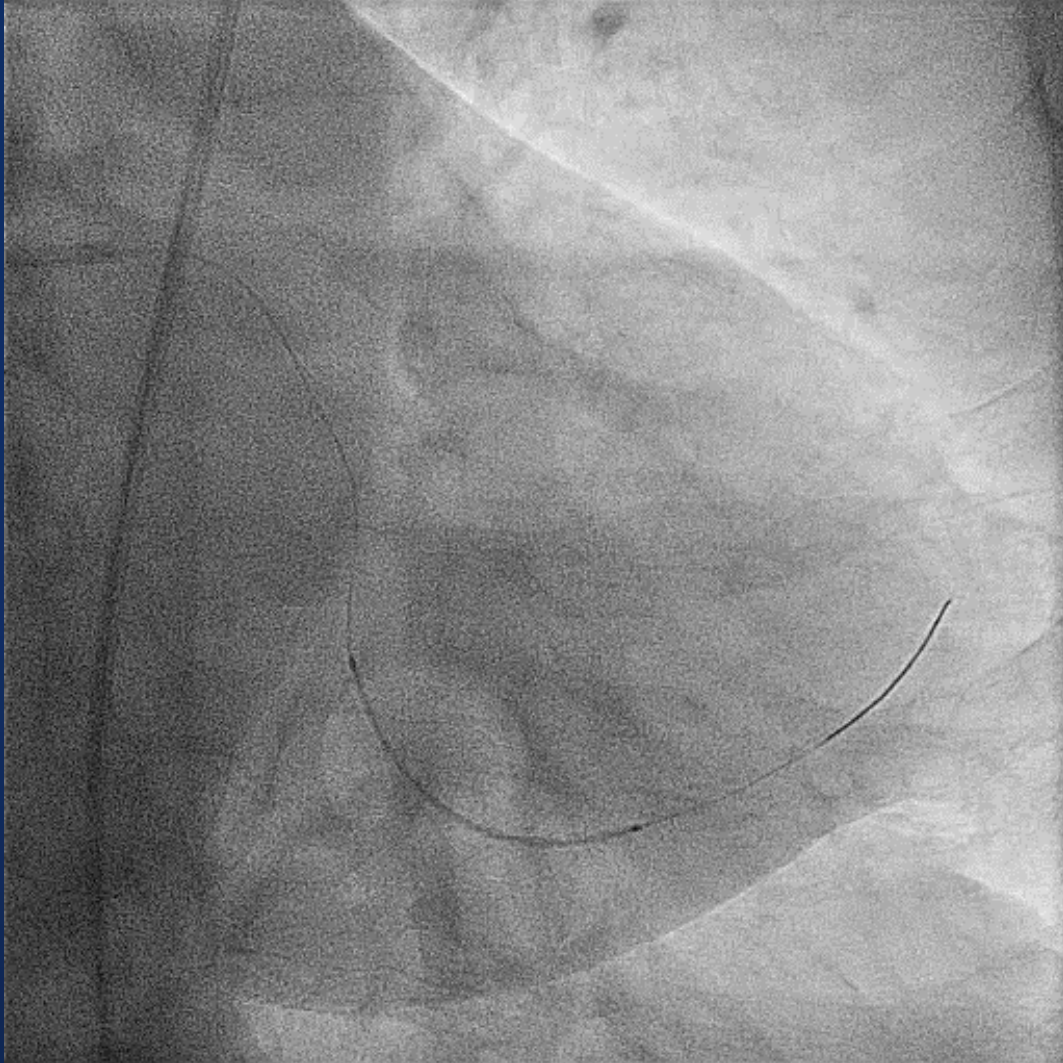
Selective injection through OTW balloon



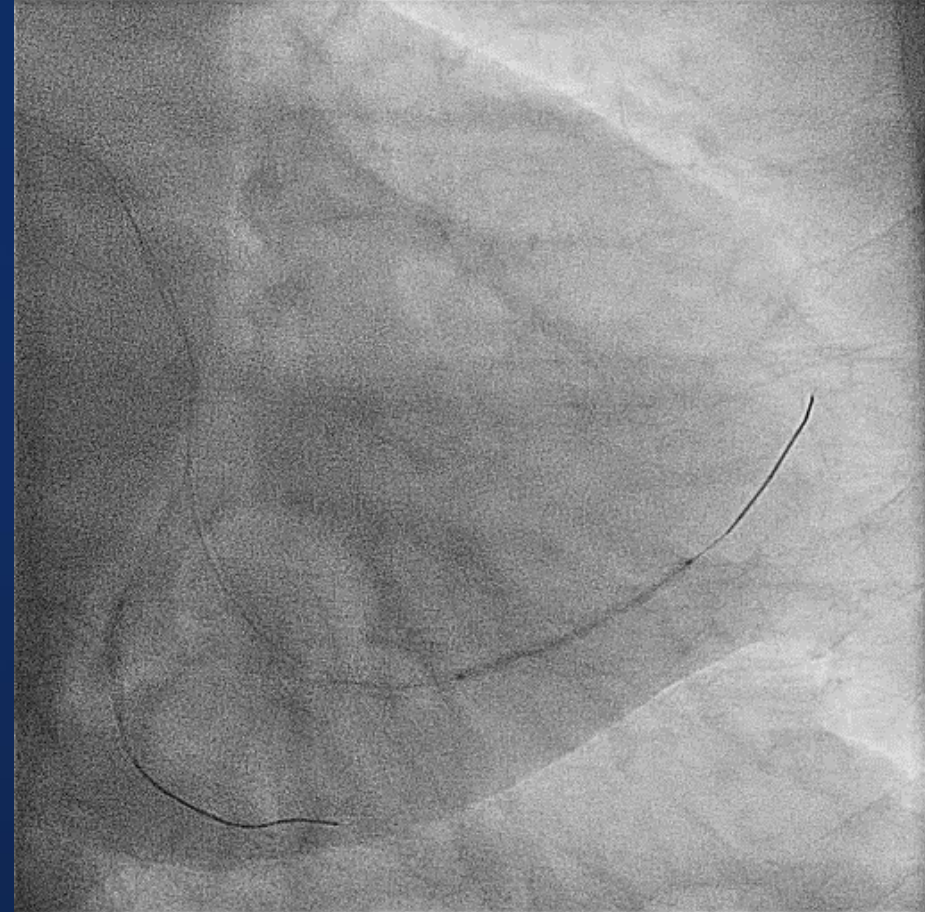
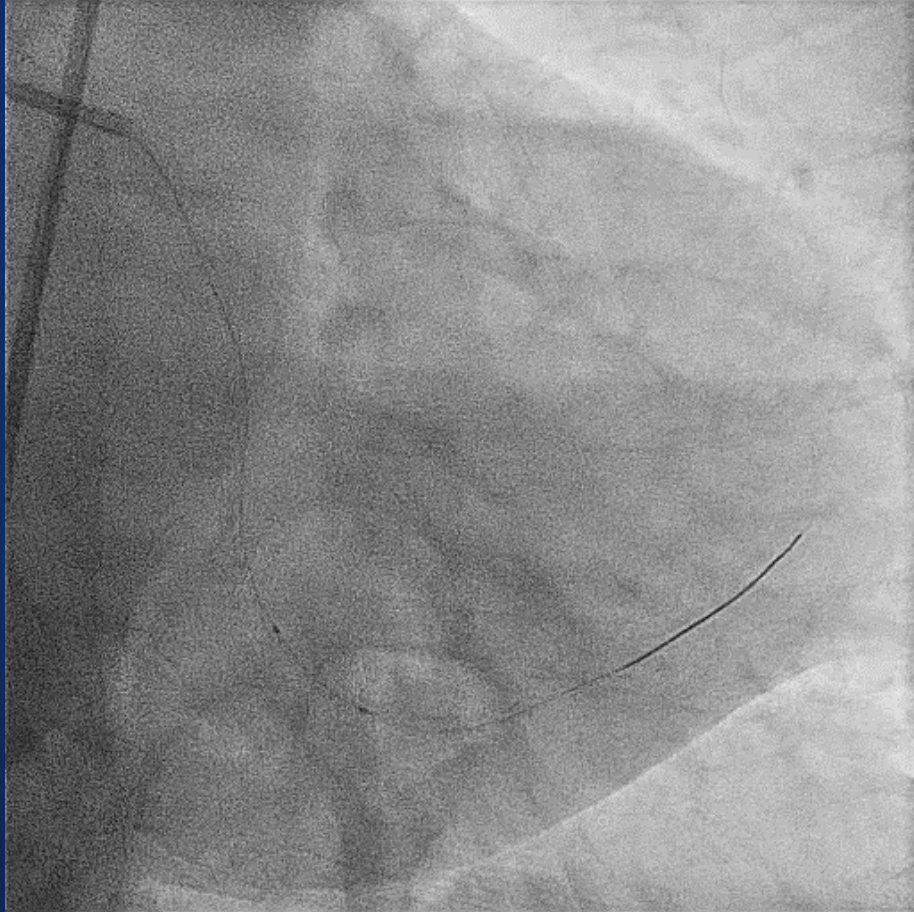
Still Not clear where is the leak ?

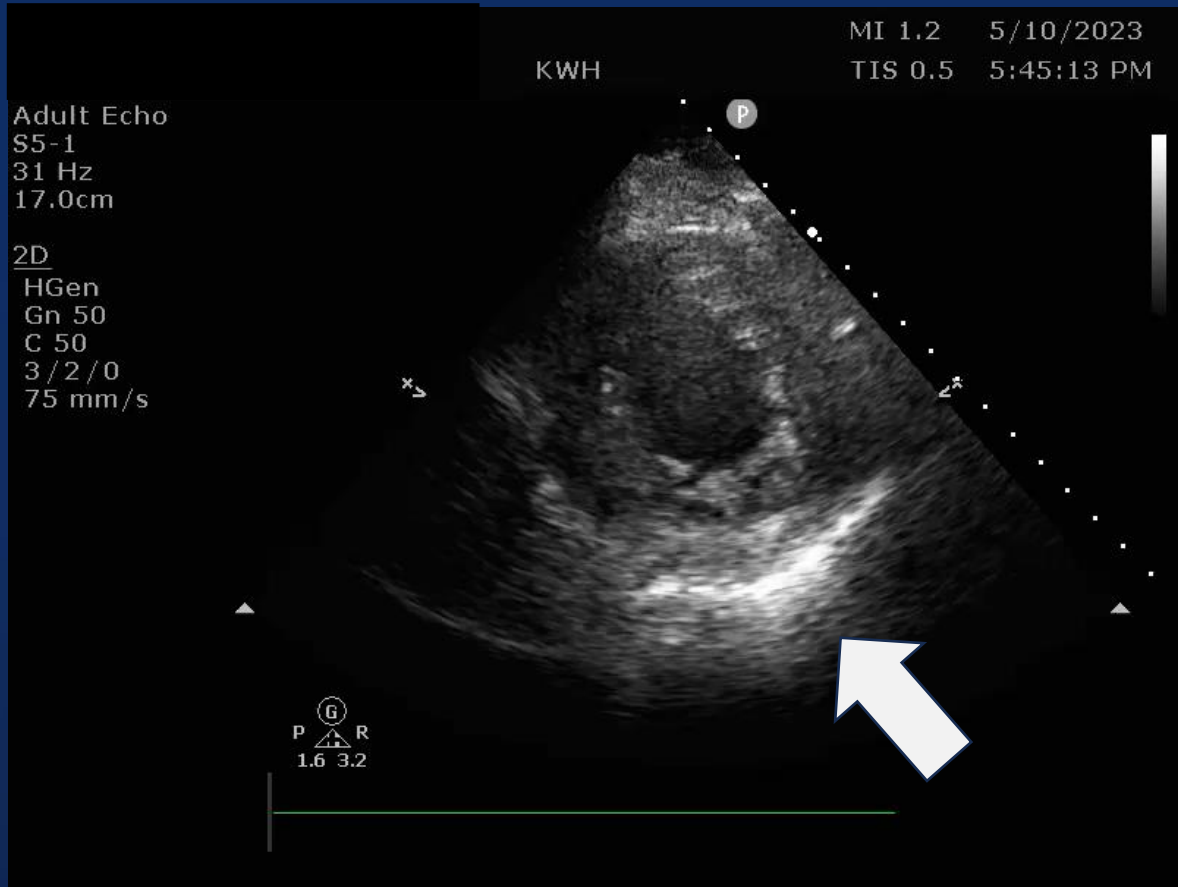


Continue Balloon tamponade, Stenting OM

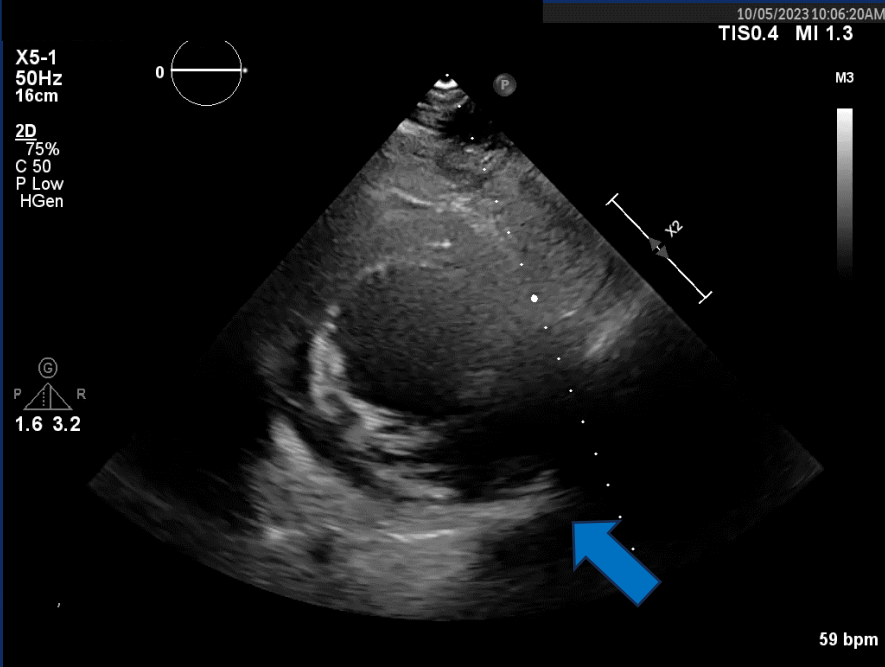


Still leak

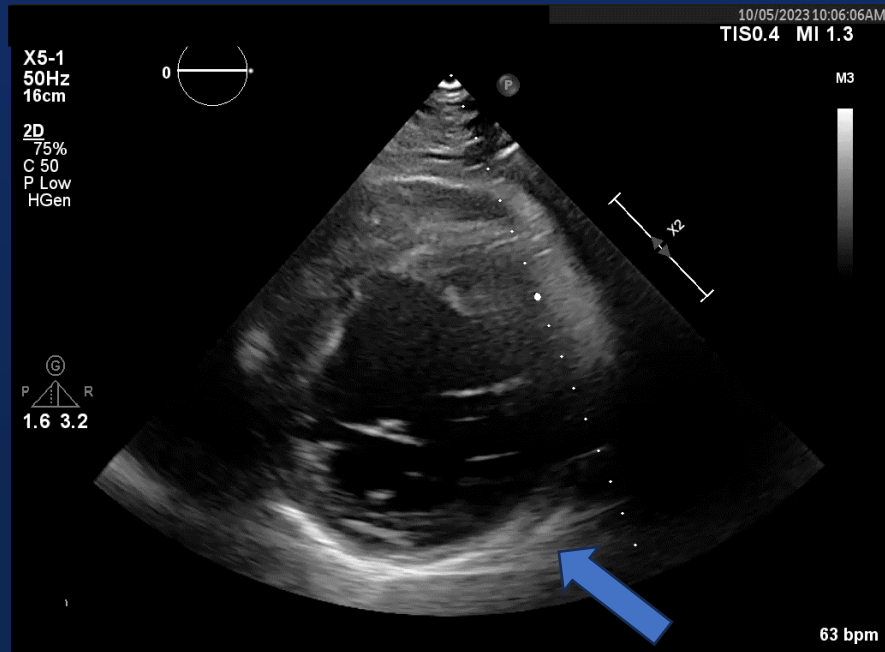


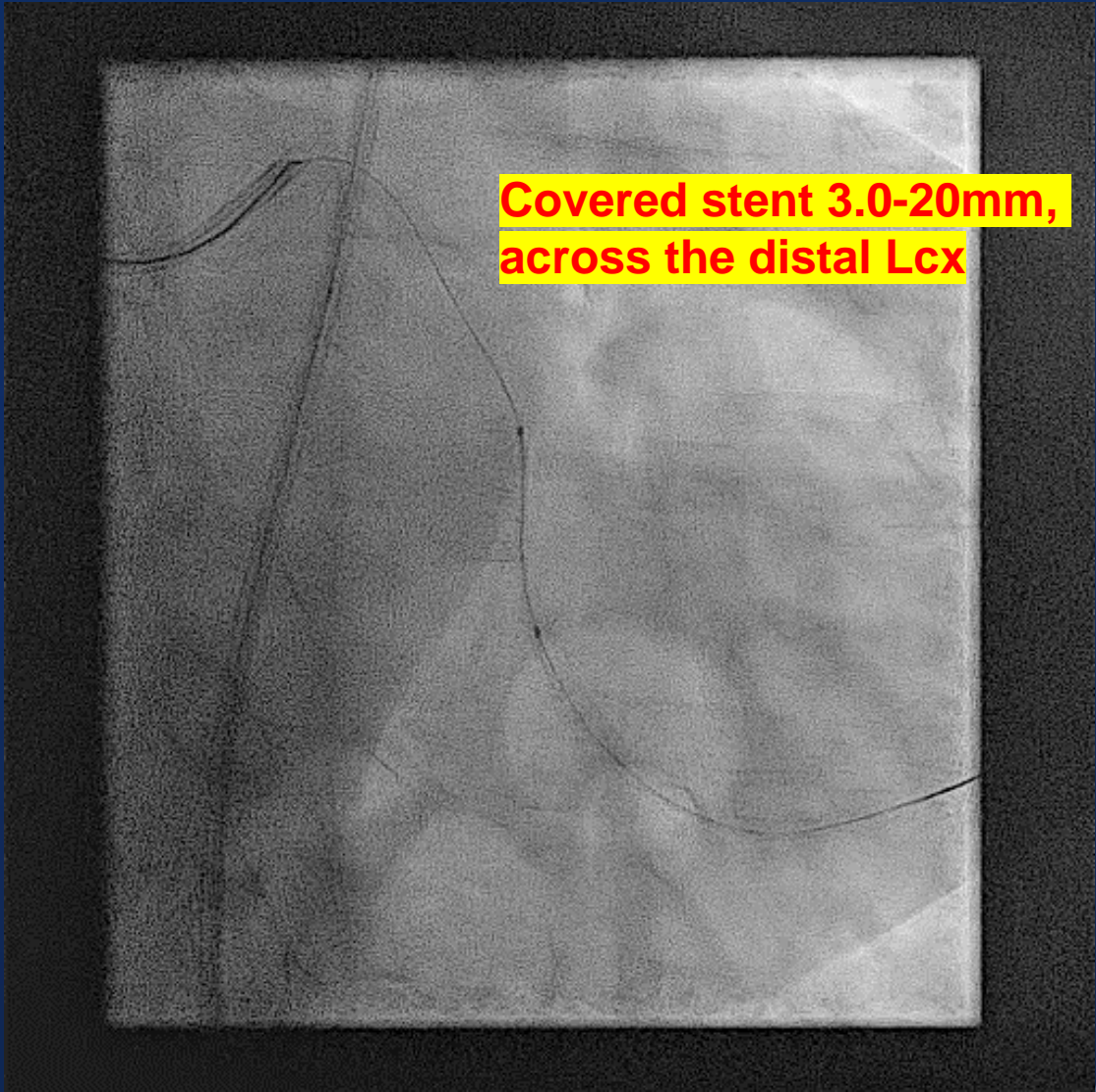
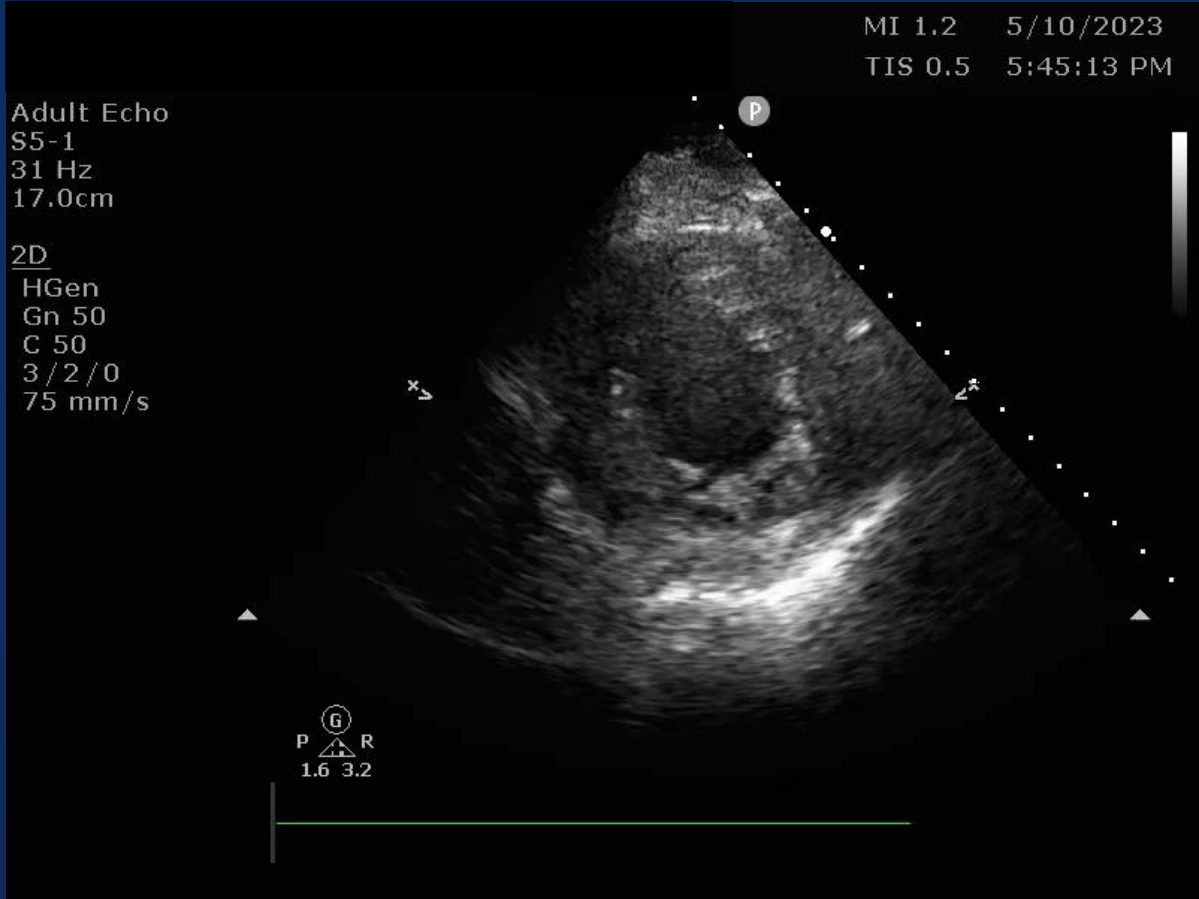


Echo dense at posterlateral wall

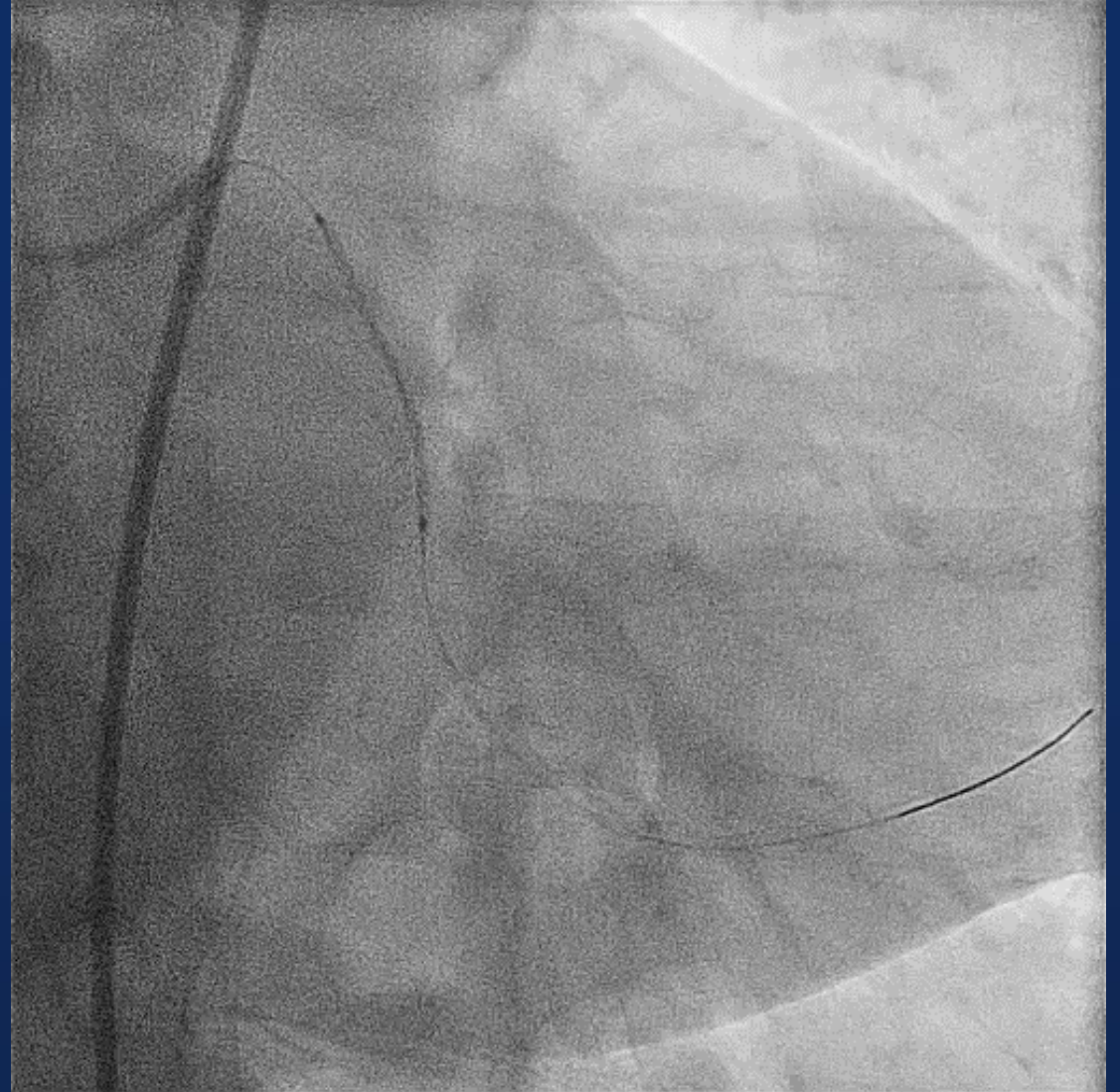
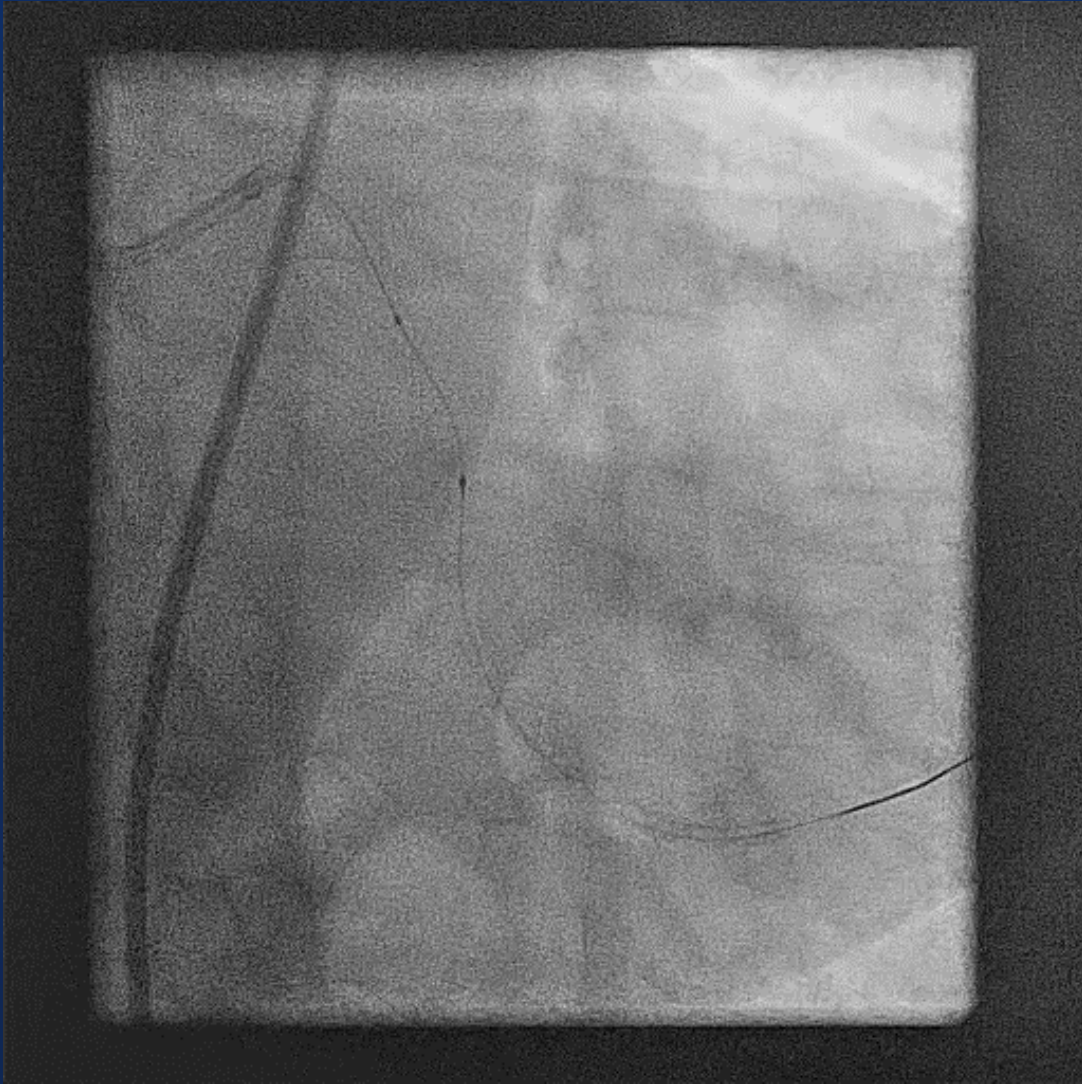


Echo 1/2 year ago

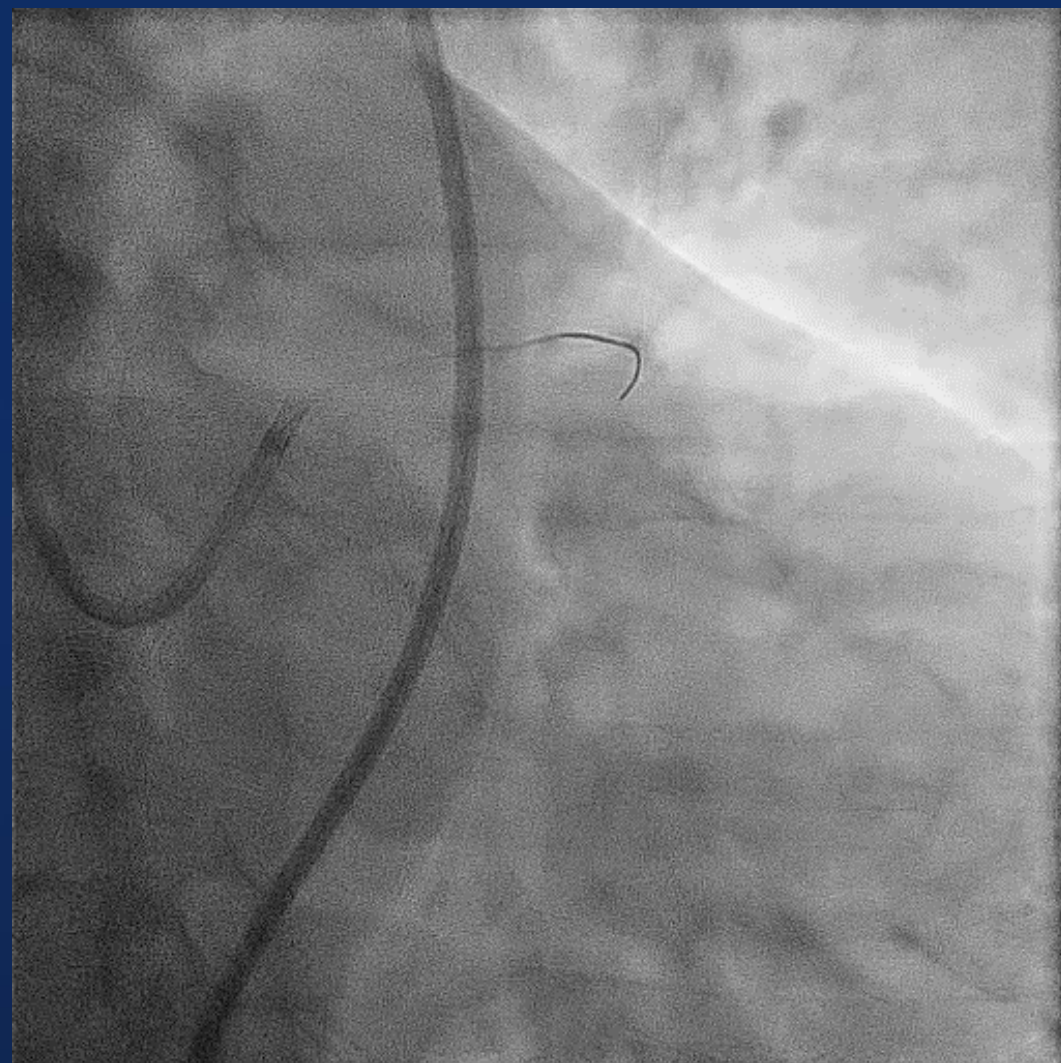
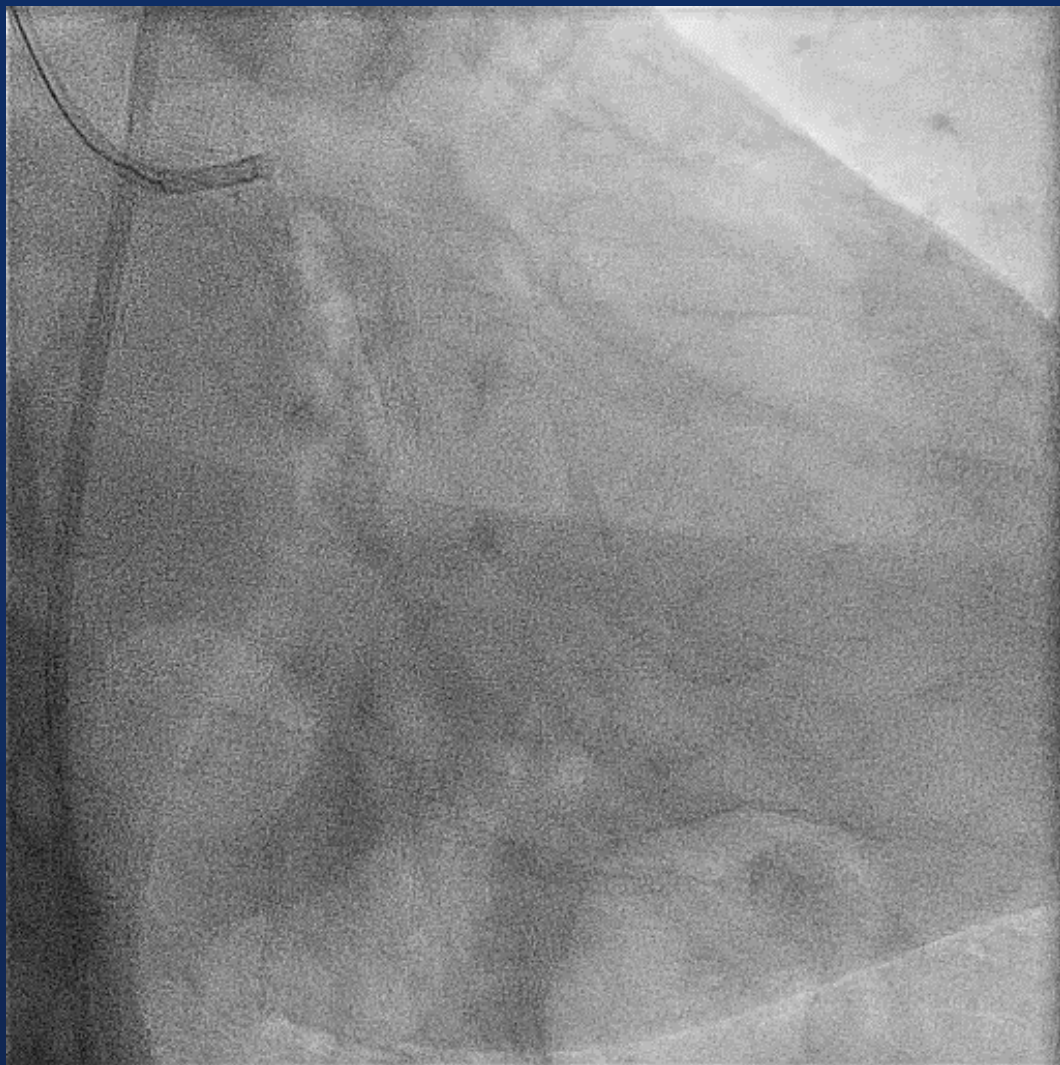


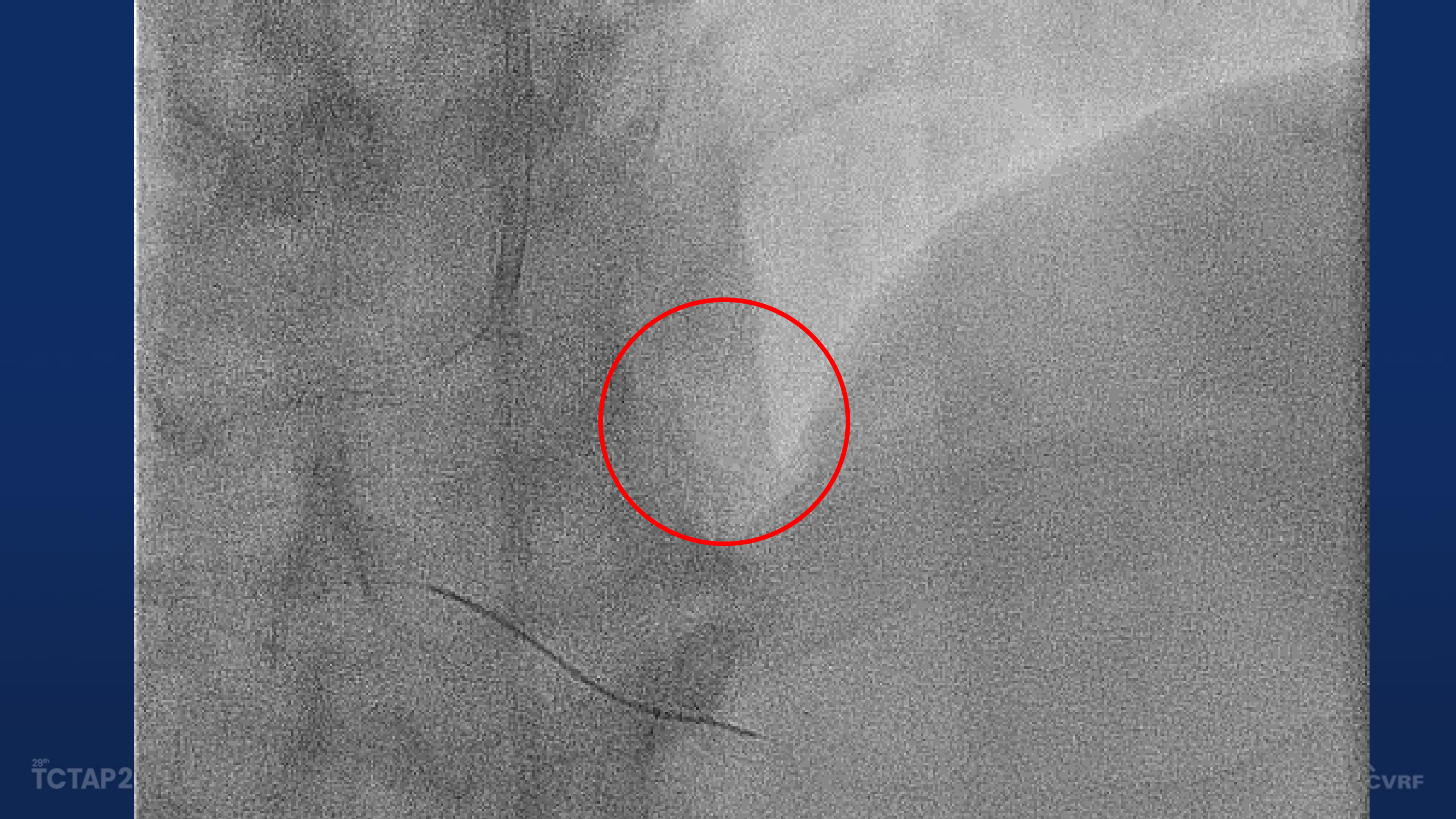


Post Covered stent : No more leak !



Final Results





Conclusion: In Coronary Perforation

To seal or not to seal ?

- Ellis Type III , esp with tamponade : Almost all need to be sealed
- Ellis type I / II
 - Depend on the clinical & patient status
- Read the diagnostic angiogram carefully , identify pre-existing AV fistula
- Serial echo more important, better to have baseline echo before any PCI
- No effusion: Is it safe/OK ?
 - Not yet developed (may not ok)
 - Leak to RV/LV (probably ok)
 - Intramural haematoma (beware of dry tamponade) (usually **NOT** OK)
- Use of Micro-catheter, facilitate wiring with tamponade balloon in-situ (limited increasing effusion)