



TTT Session @ TCTAP 2014

Home Made Loop Snare in RCA-CTO intervention

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Patient Characteristics

- 45 y/o Female
 - HTN
 - Type 2 DM with DM nephropathy in ESRD under regular H.D.
- C.C:
 - Intermittent angina during H.D.



Echocardiogram

- Degenerative change of aortic valve with focal calcification, mild CLVH, hypokinesia of left ventricular (LV) basal-to-middle inferior wall with mild LV systolic dysfunction, estimated LVEF: 51%
- Mild MR, AR and TR

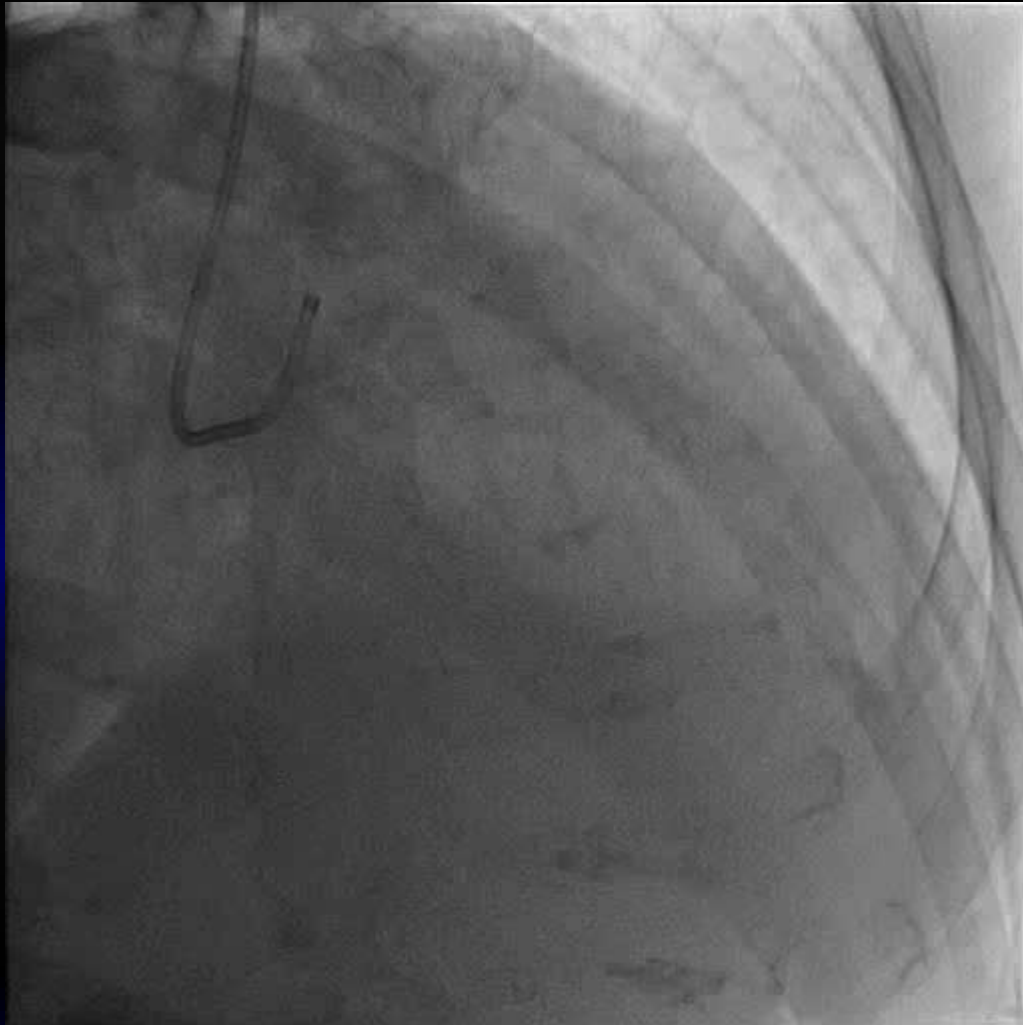


Cardiac SPECT

- Partial reversible perfusion defect in inferior and inferolateral wall (50% decrease to 30% decrease and smaller area) and near persistent defect in mid-to-basal anterior wall (20-30% decrease).



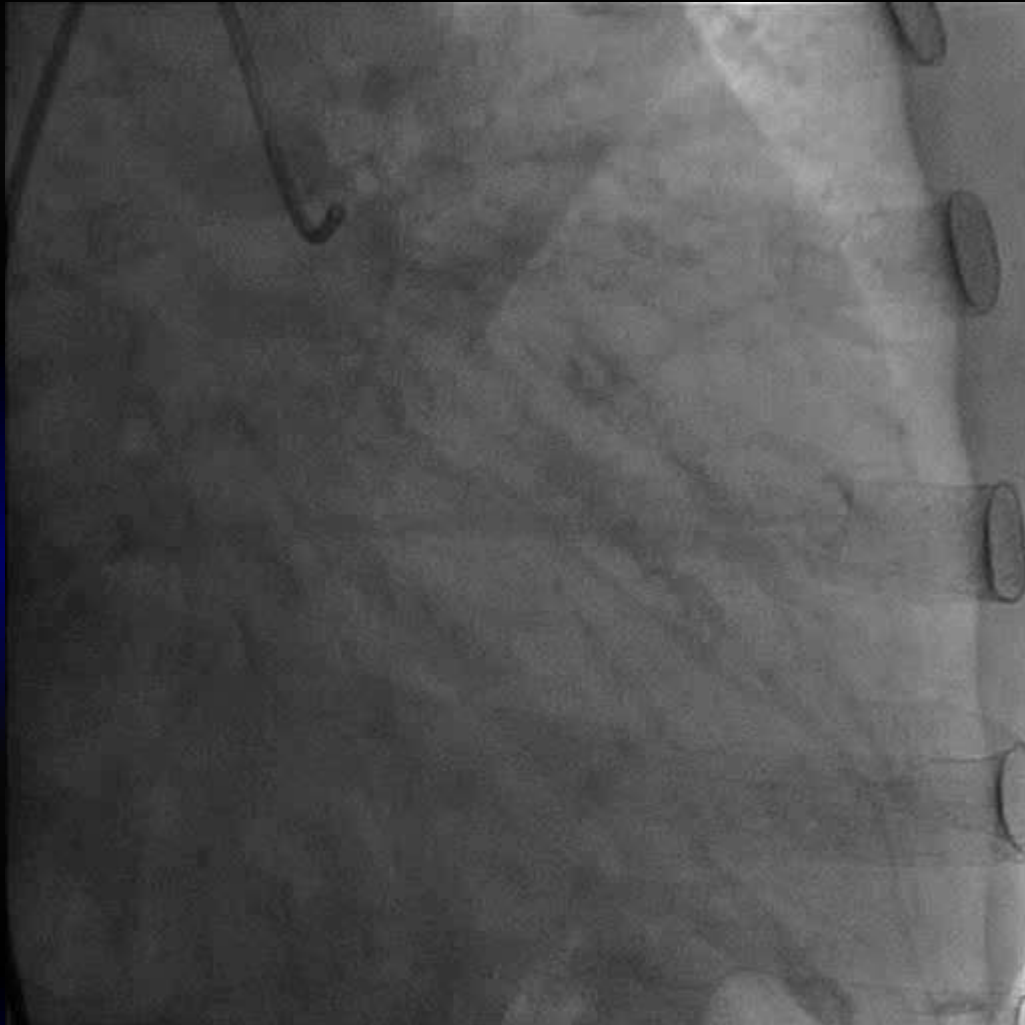
LAD



LAD: no significant stenosis giving
collateral to RCA-PDA



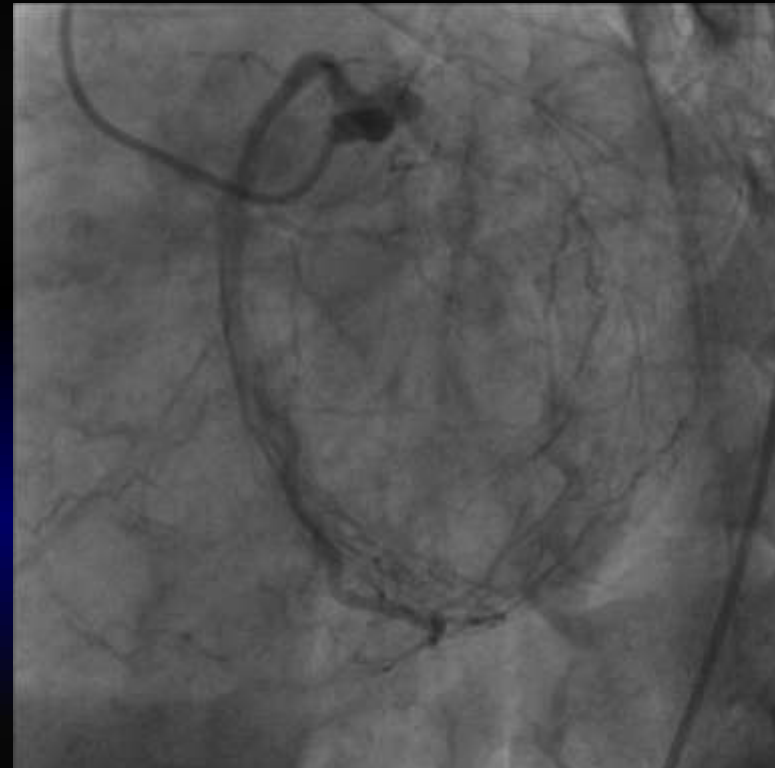
Lcx



Lcx: hypoplasia and total occlusion



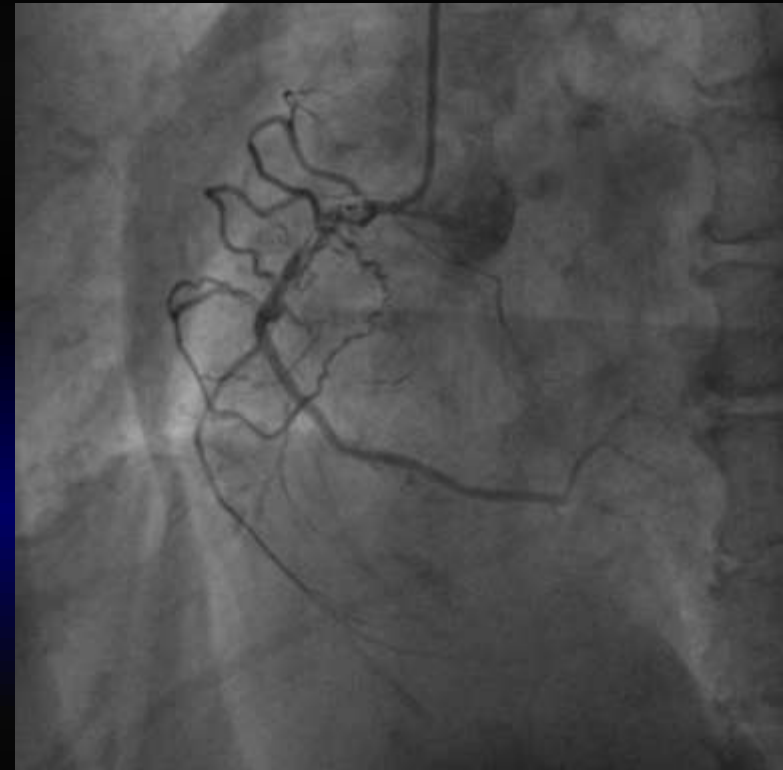
Spider View



Lcx: hypoplasia and total occlusion



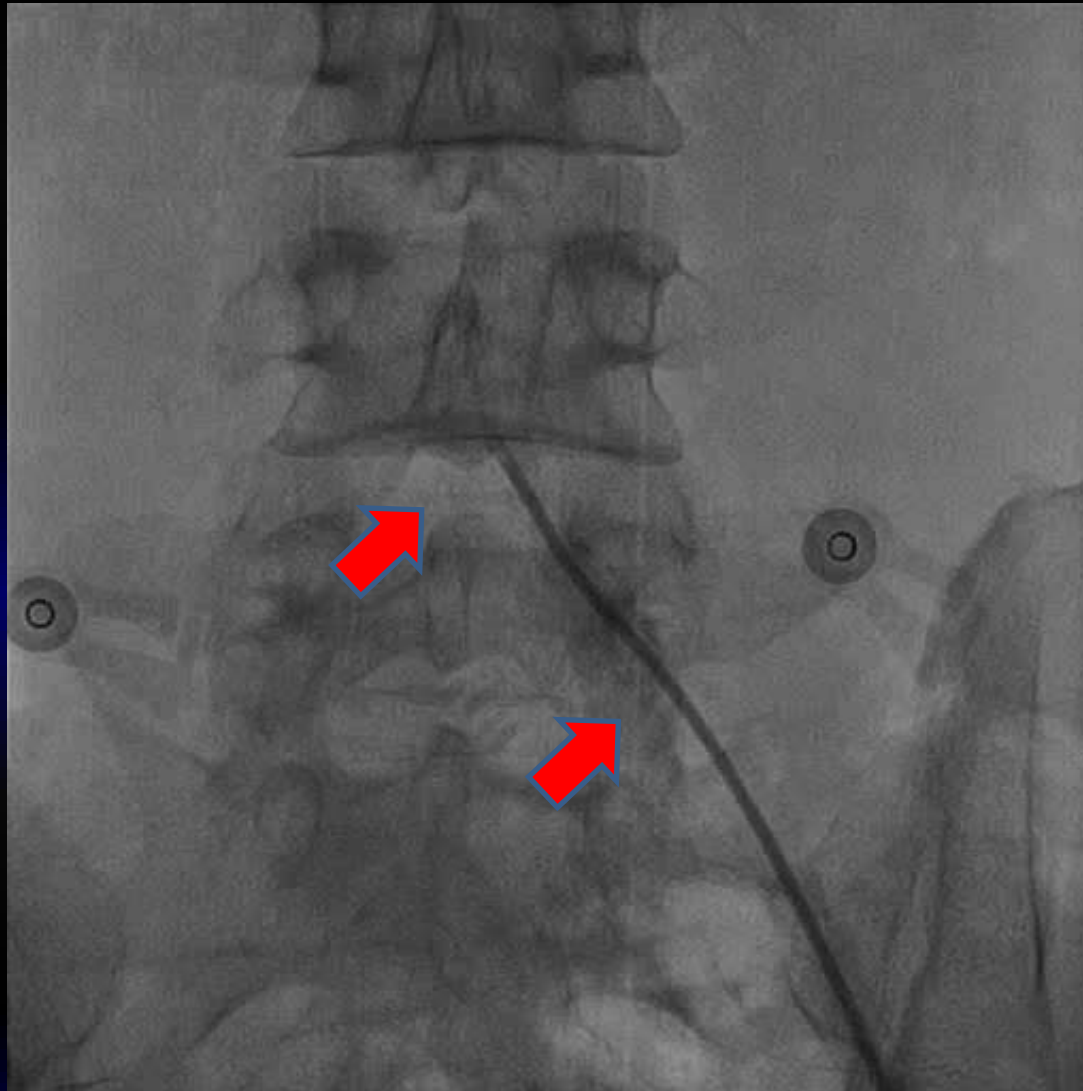
RCA



RCA-P: total occlusion with rich bridging collateral to RCA-M



PAOD bilateral





Impression

- CAD with DVD (RCA-P: total occlusion, Lcx-P: total occlusion) with stable angina
- PAOD, bilateral iliac a. (R't iliac a: total occlusion)
- Logistic EuroScore: 4.38 %
- Syntax Score: 21.5
- PCI ??? CABG???
- PCI preferred by patient



1st PCI over RCA-CTO



PCI over RCA-P CTO: Filder Fc with
finecross





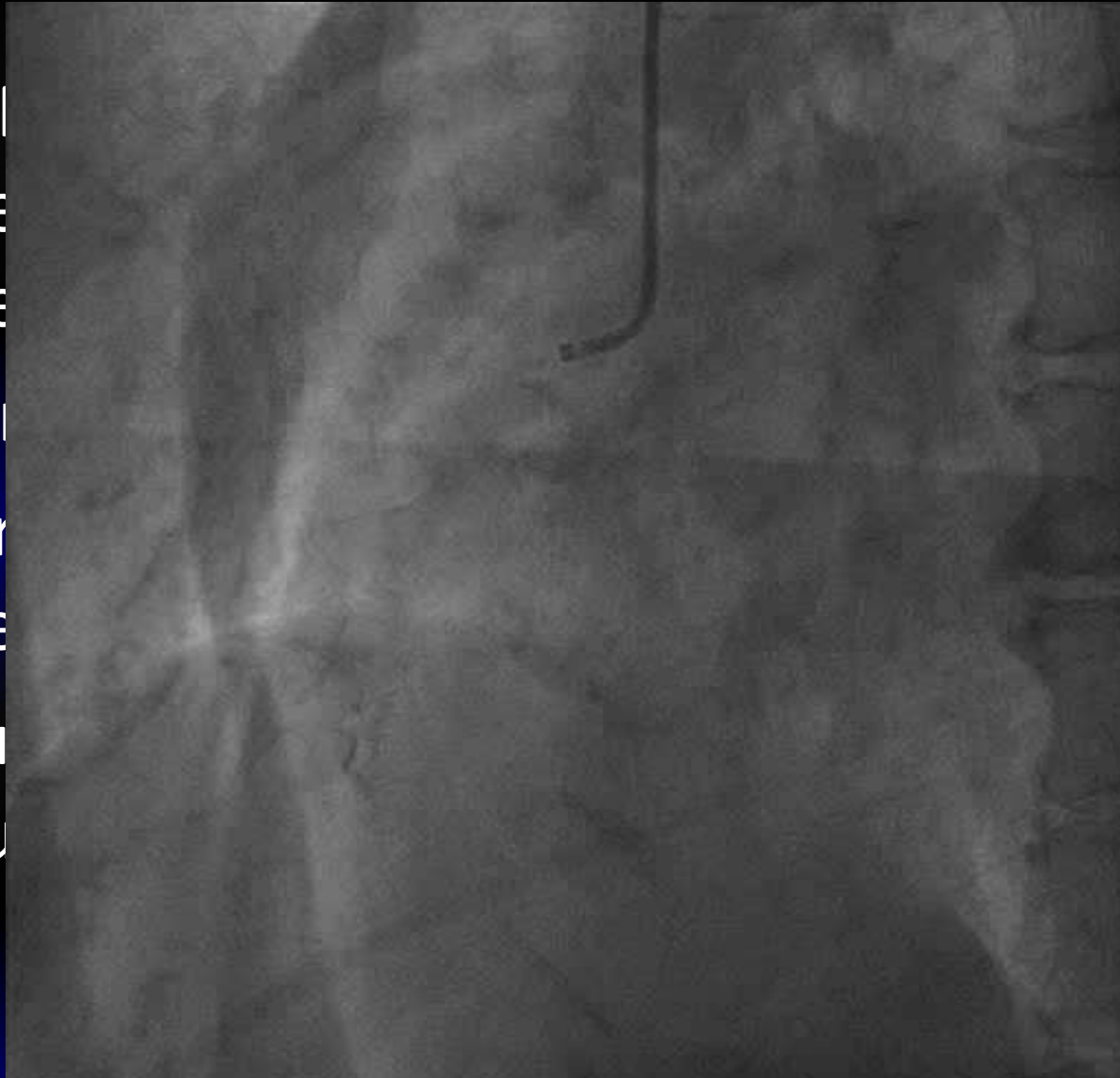
Clinical Course

- 1st PCI failed, by antegrade approach
- OPD follow up with ASA, Nitrate and Nicorandil



Our Considerations:

- RCA –
collate
collate
- Antegrade
- Bilateral
before
- Step up
Conqu



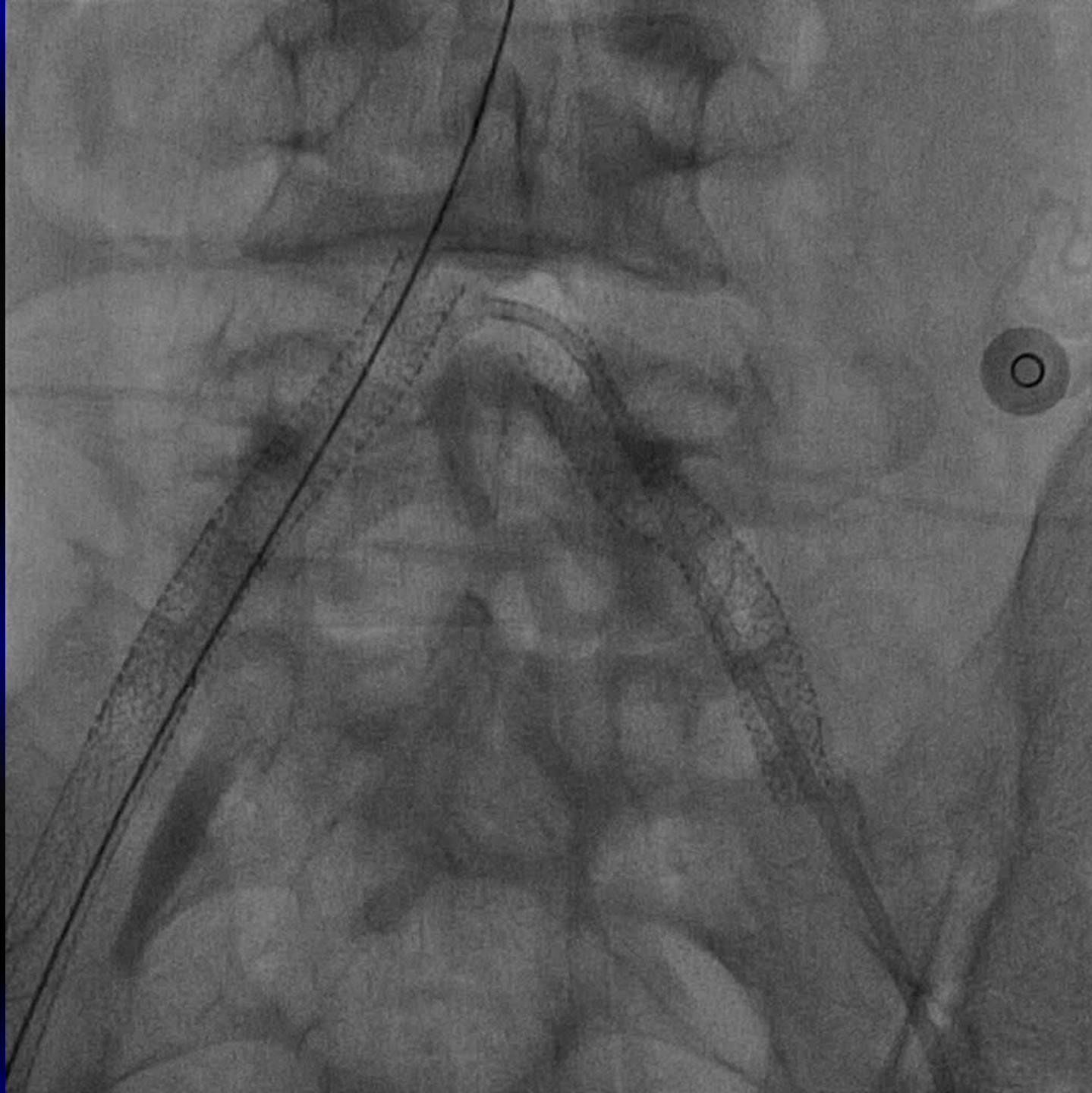
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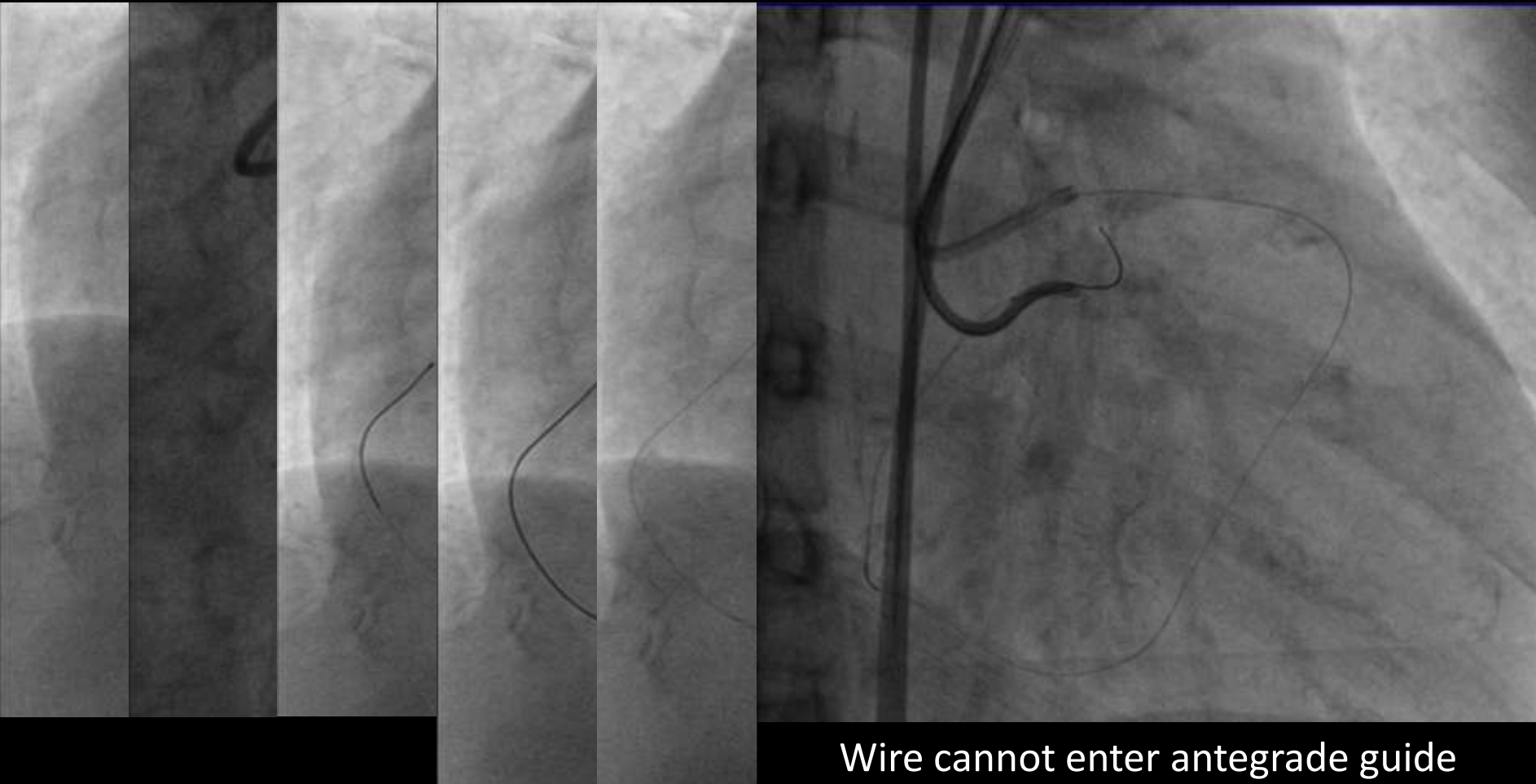
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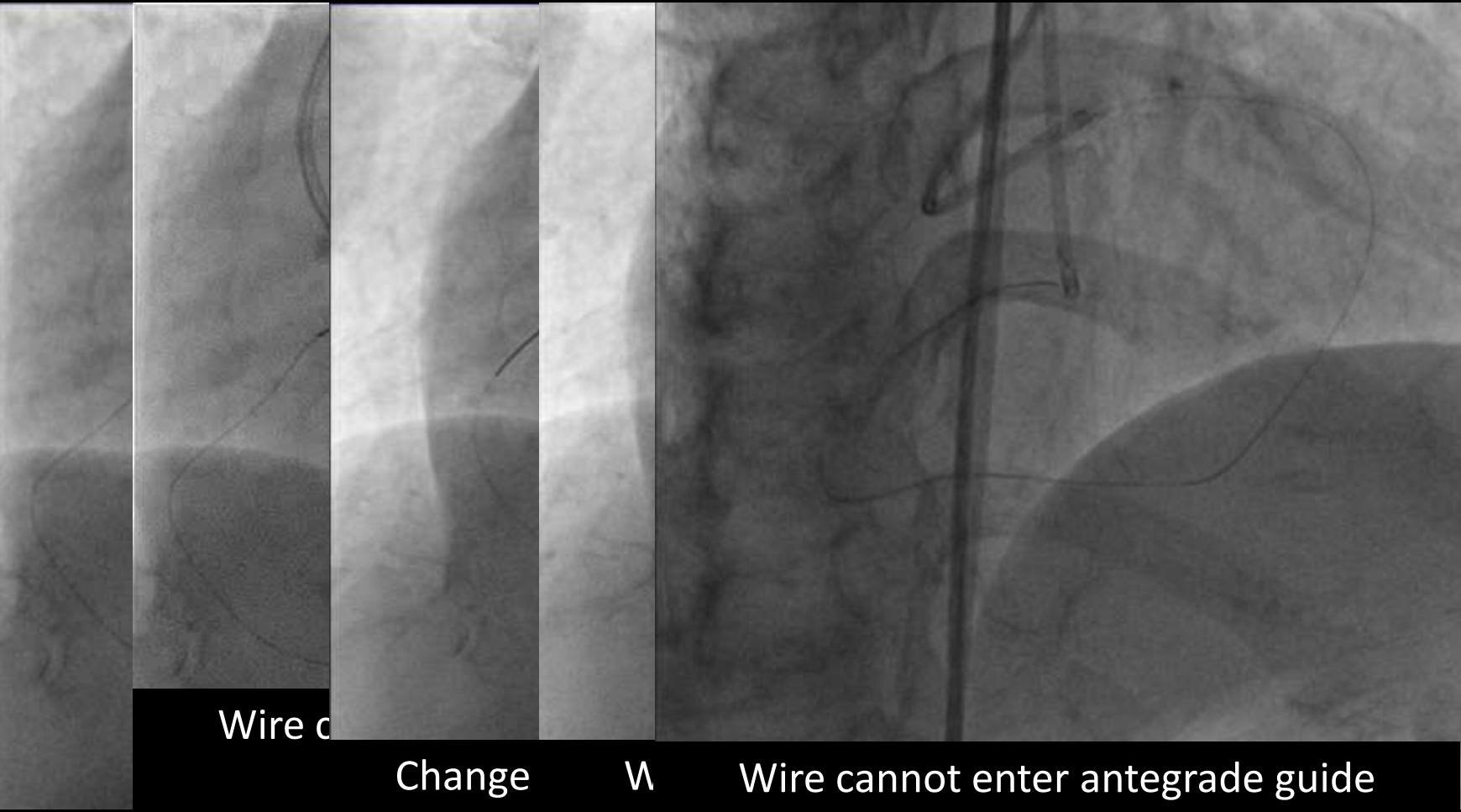
or







Wire cannot enter antegrade guide



Wire c

Change

W

Wire cannot enter antegrade guide

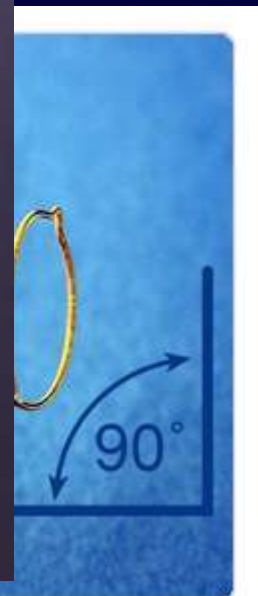
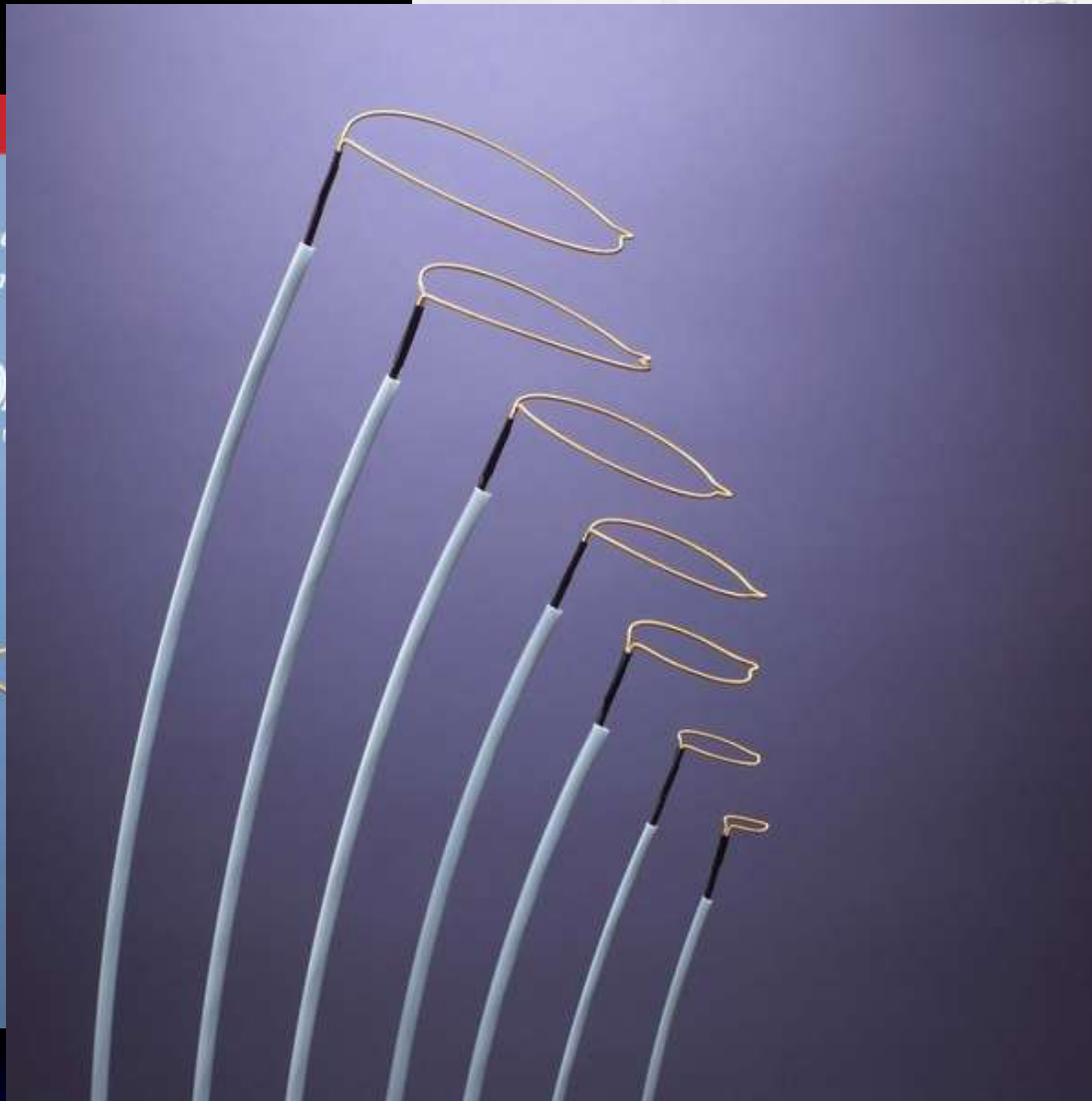


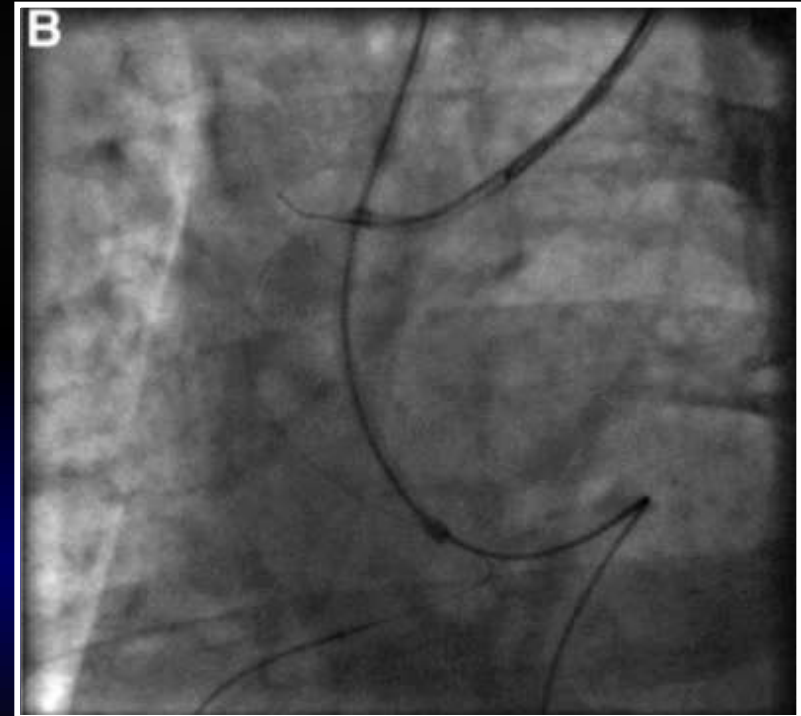
Clinical Course

- After serial attempts, retrograde wire cannot enter antegrade guide.
- What to do ??



EN Snare® Endovascular Snare System

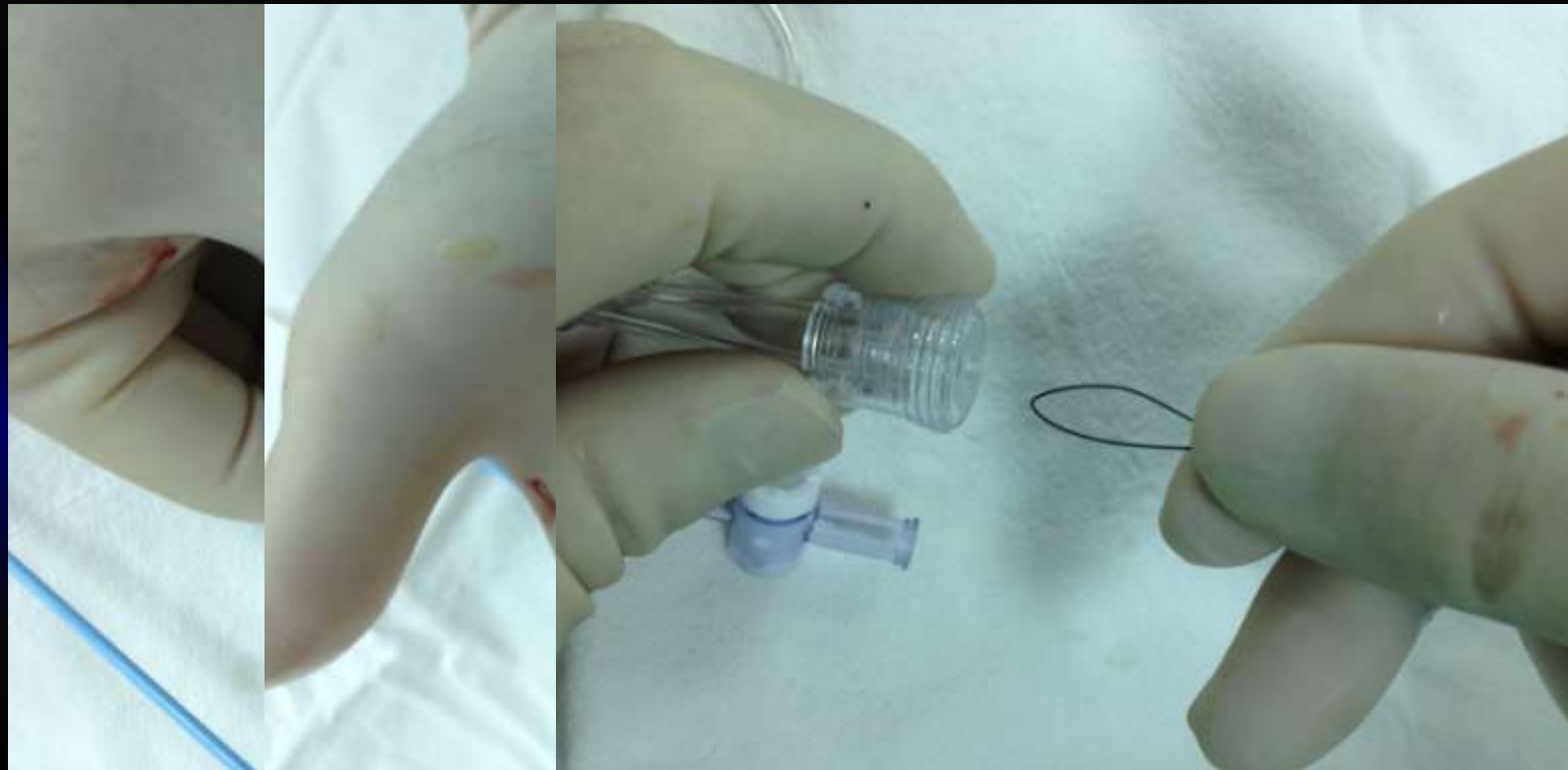




Snaring a Retrograde 300-cm Pilot 200 Wire With a Triple-Loop System
(A) Wire enters one loop. (B) The snare is pulled to engage the guidewire into the antegrade guide catheter.

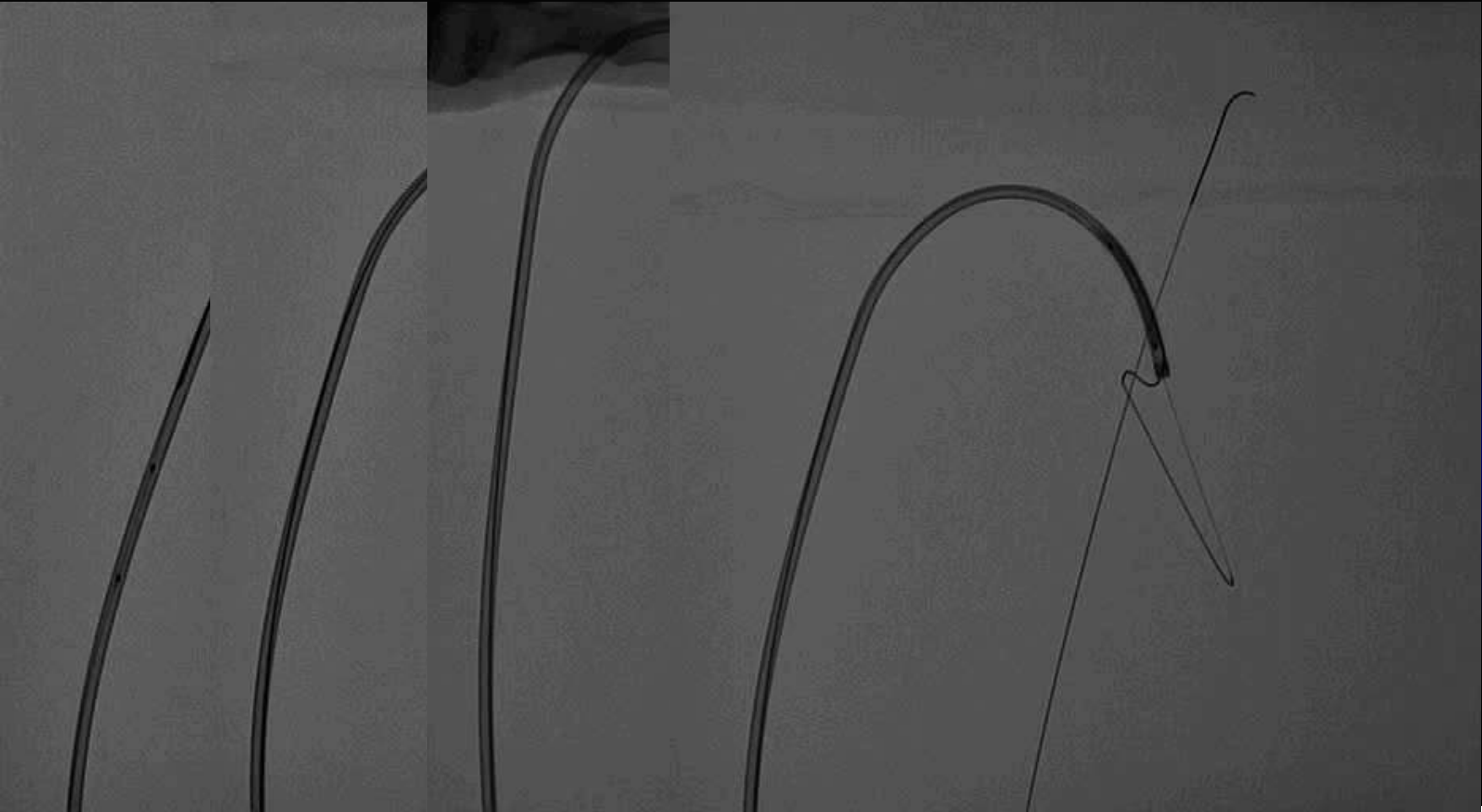


Home made loop snare



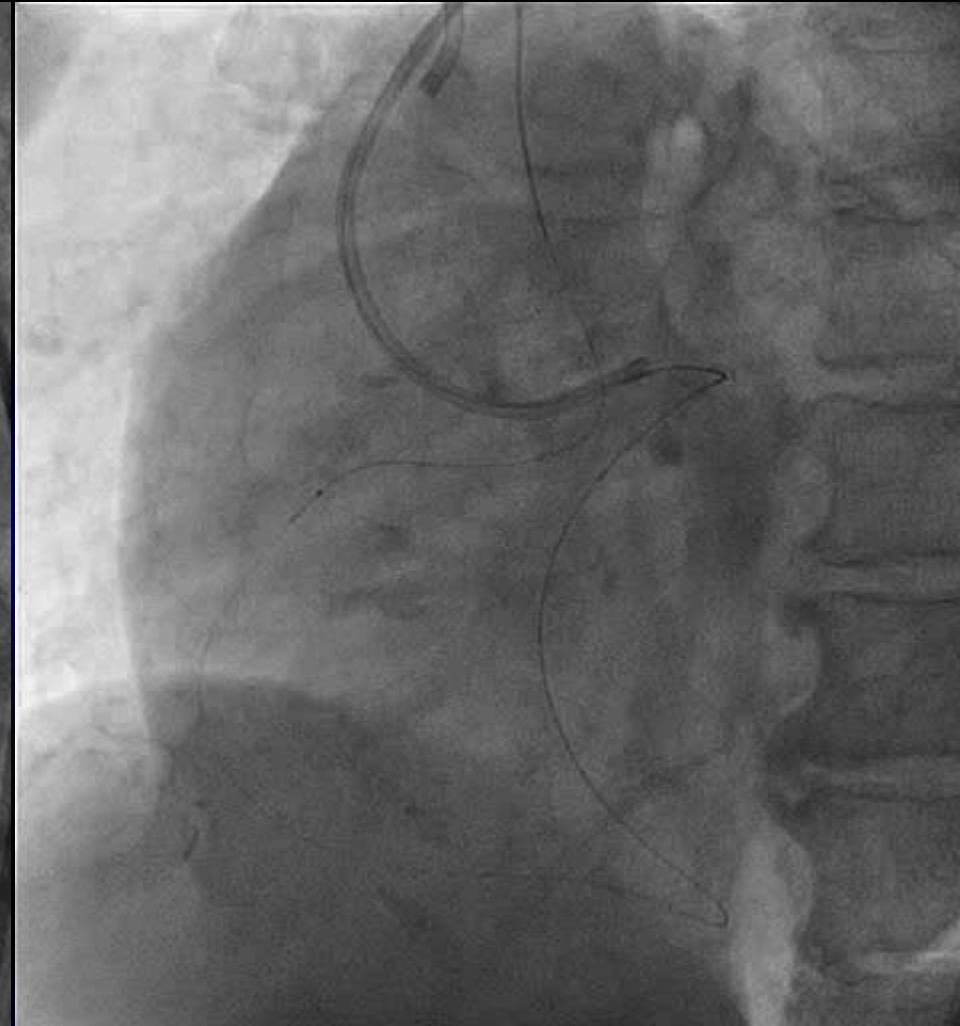
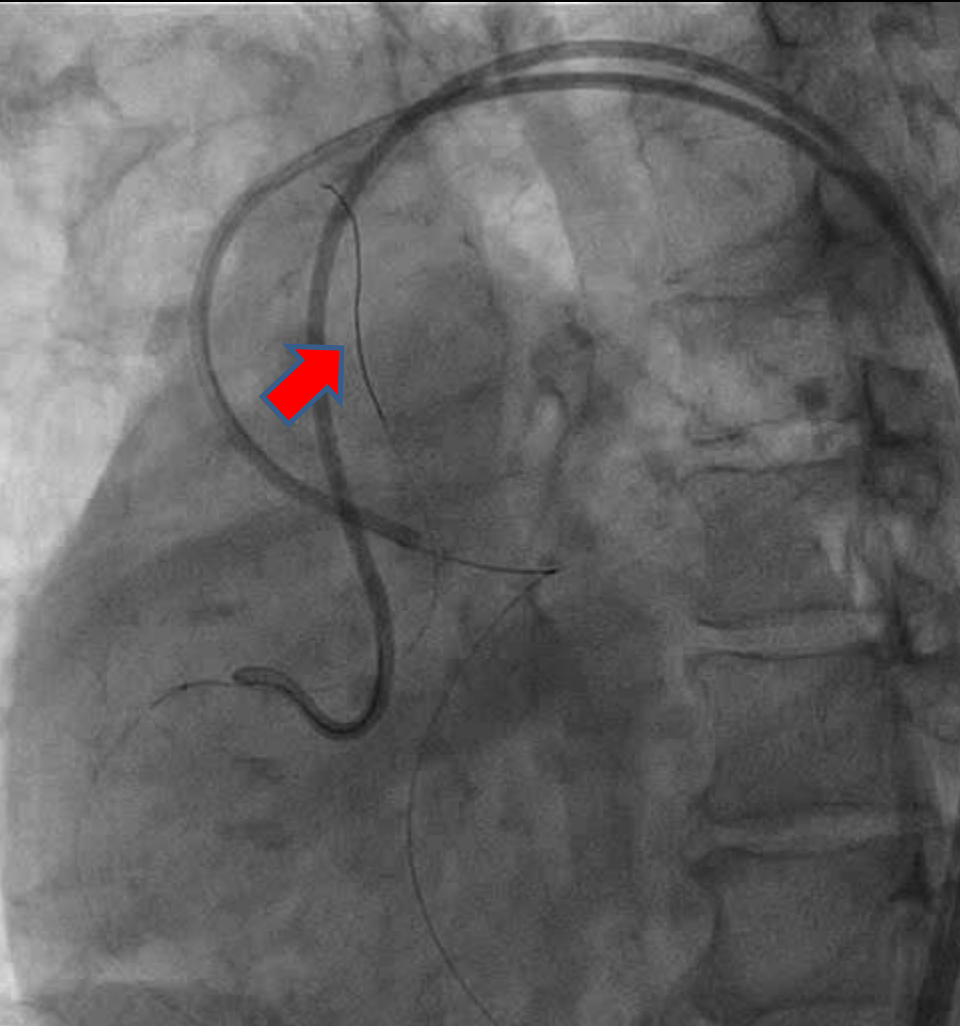


Home made loop snare



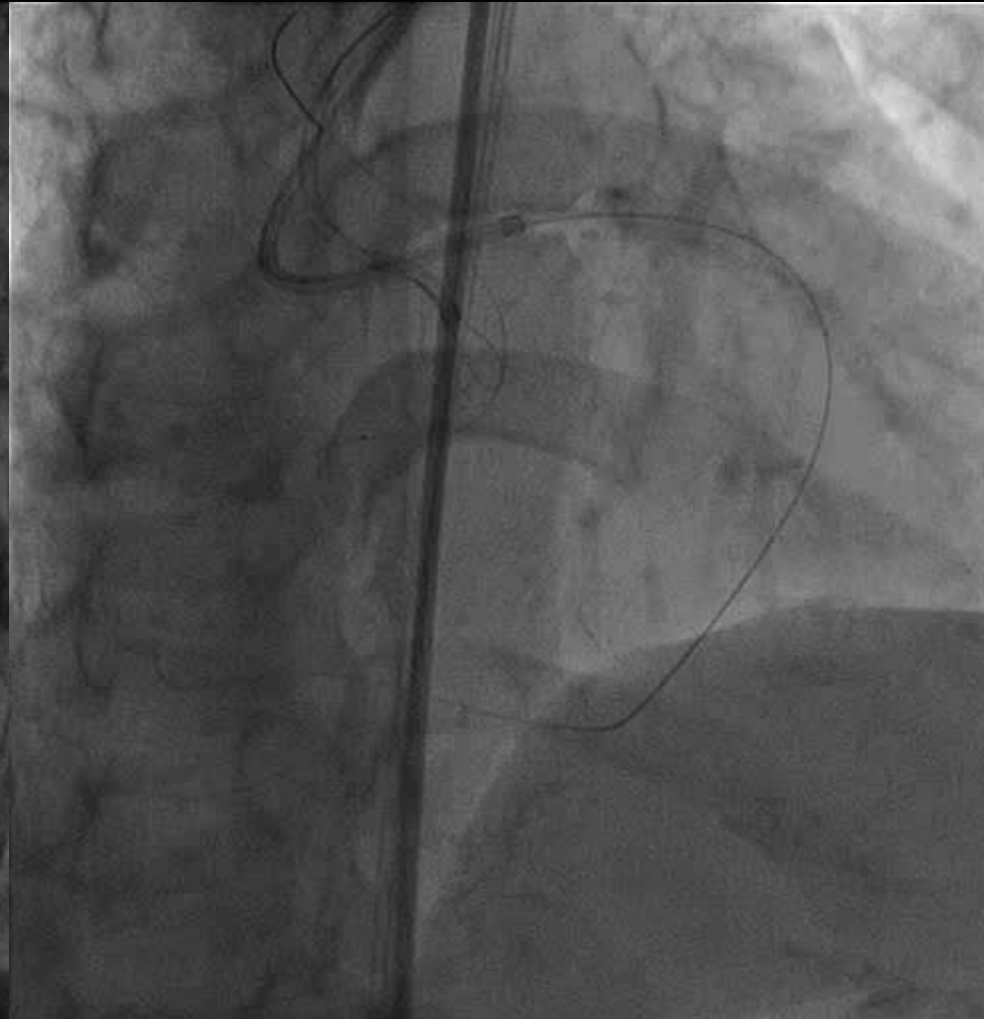
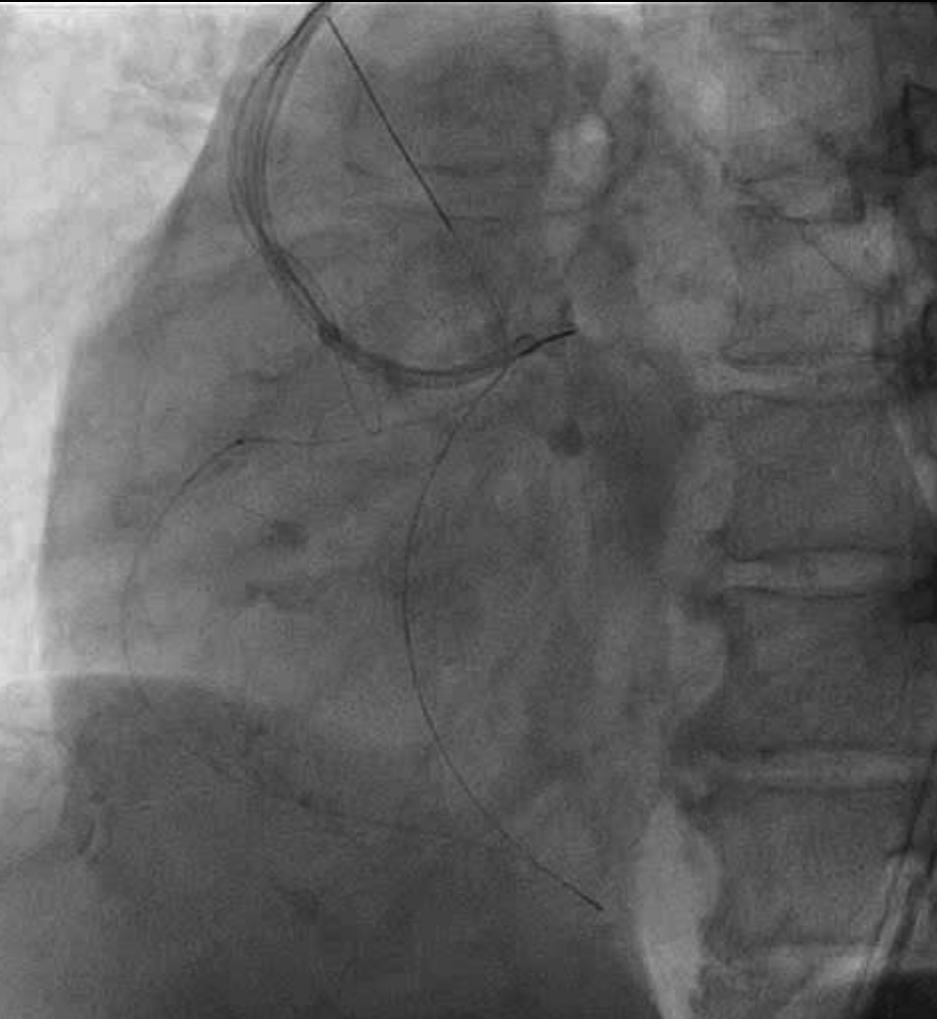


Retrograde wire floating in aorta

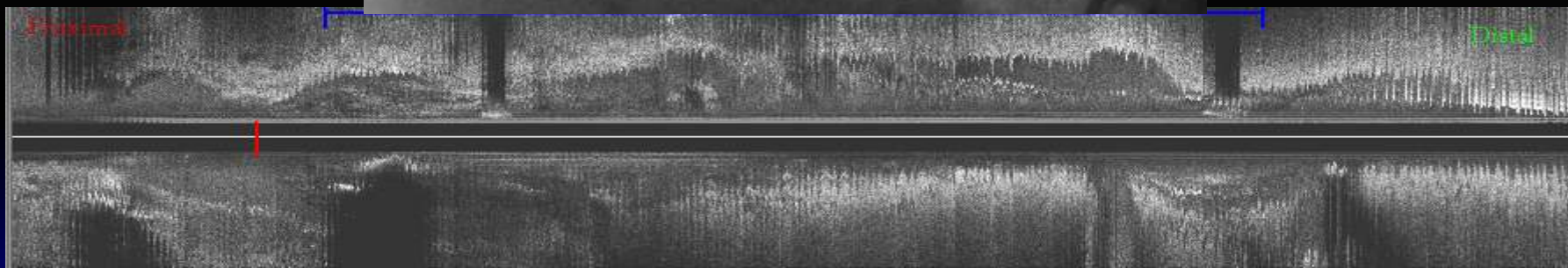
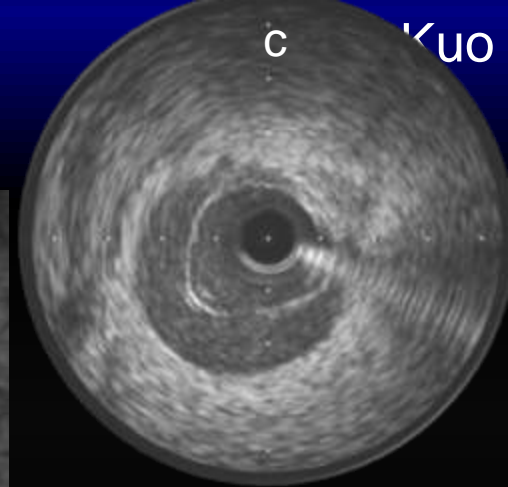
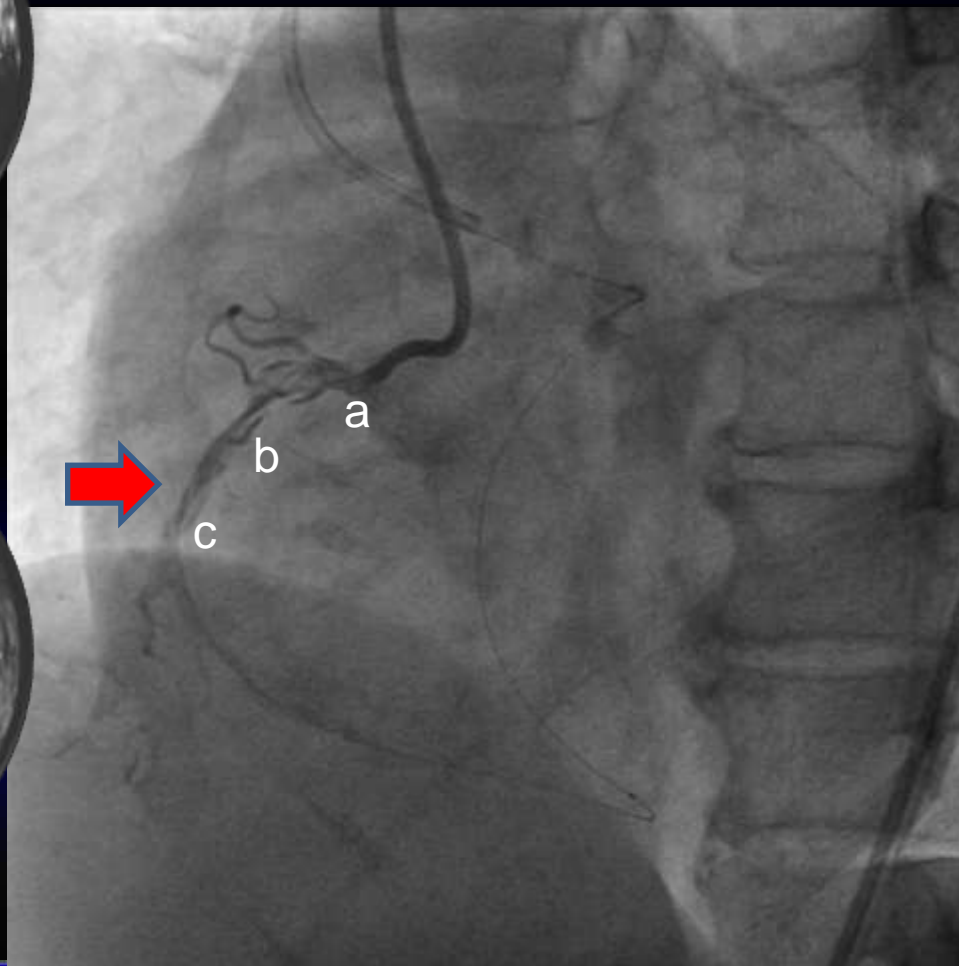
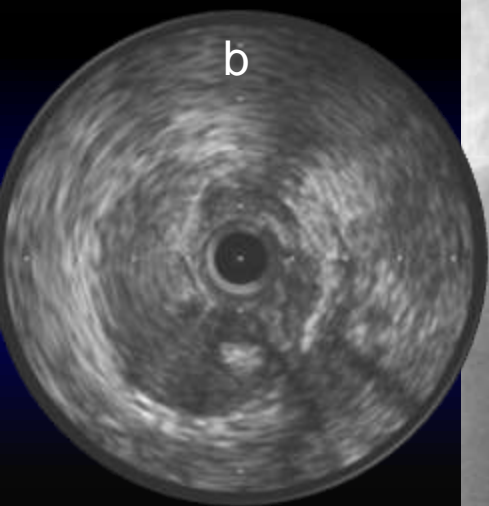
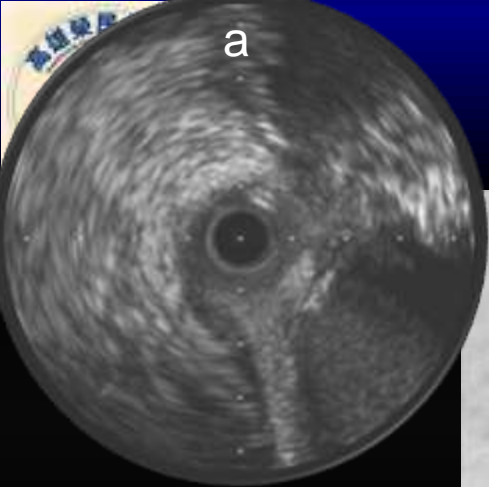


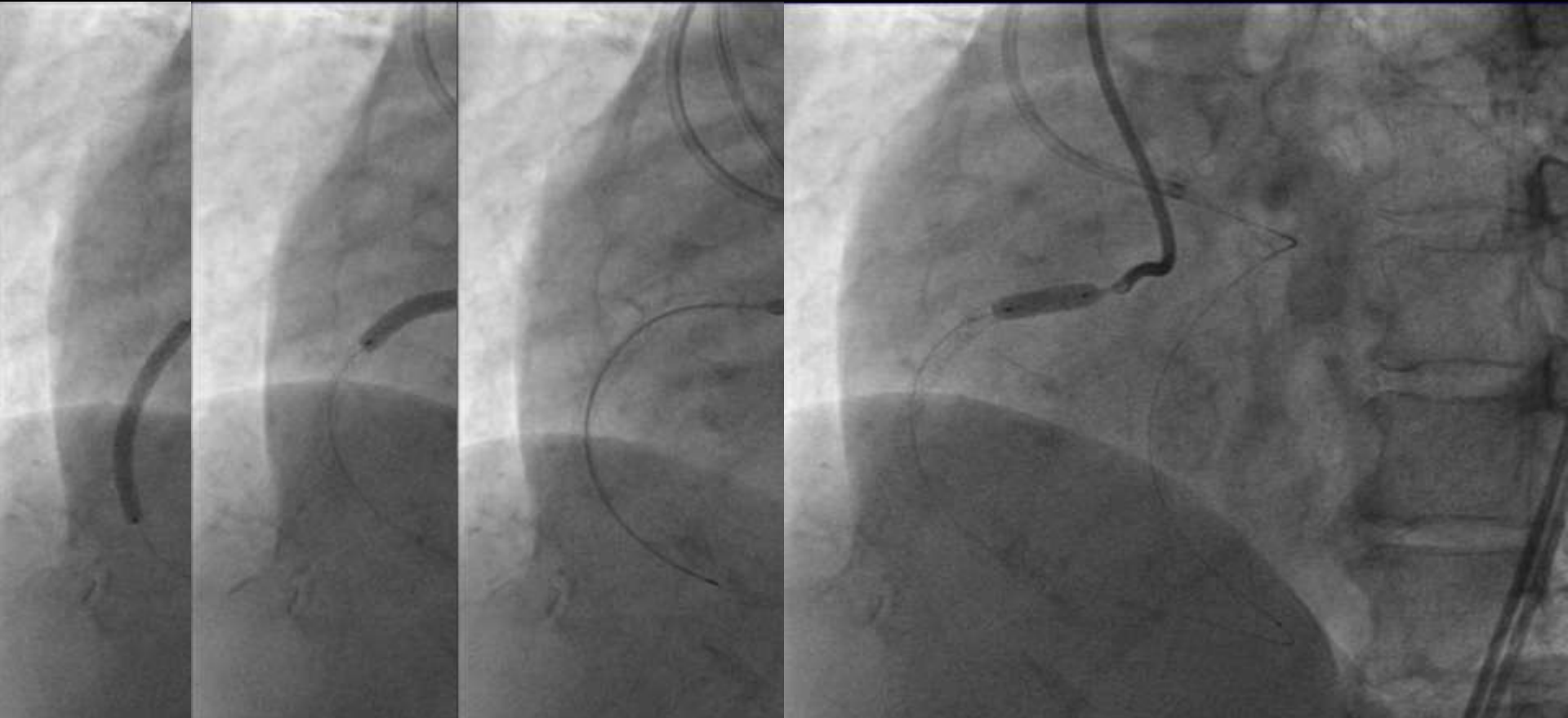


Antegrade Home-Made loop snare for Retrograde wire



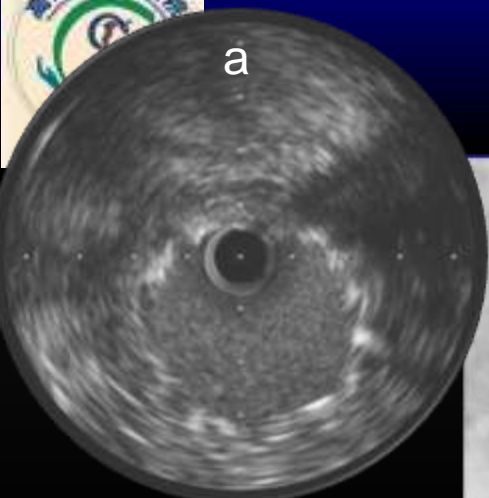






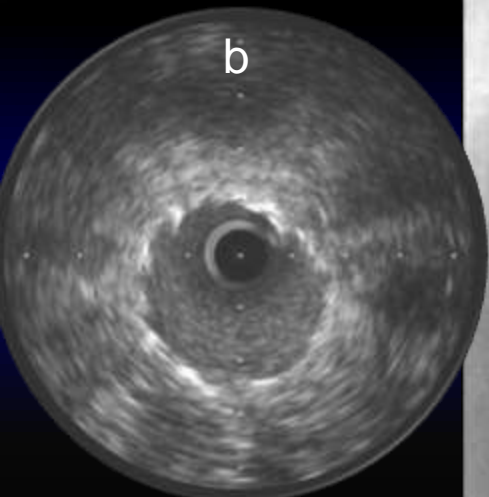
Post

4.0/20 high pressure to 24 atm



a

CSA=10.81 mm²

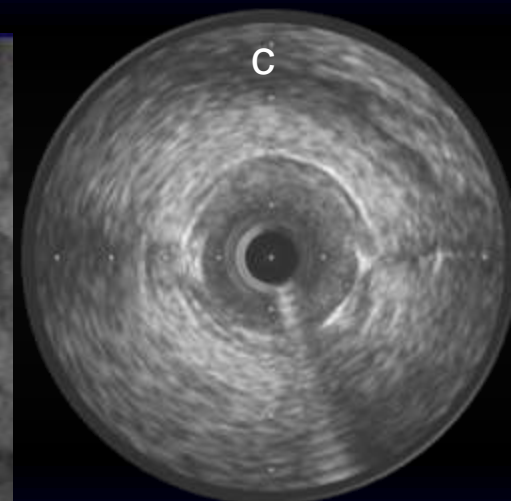


b

CSA=8.34 mm²

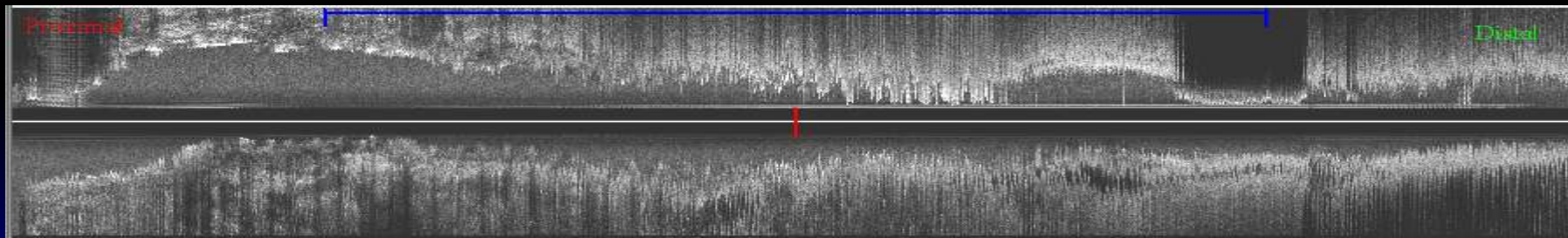


a
b
c



c

CSA=7.63 mm²





RCA Final





Check collateral channel





Clinical Course

- She was quite well thereafter, no chest pain during H.D.
- 3 months ago (10 months after index procedure) , occasional chest pain during H.D.
- She kept on DAPT after 10 months (scheduled for 12 months)



Li Jui Lan

ID: 11465193

Sex: F

Study Date: 11/29/2013

Height: 1.61 meters I.V.

Myocardial Perfusion-Persantin

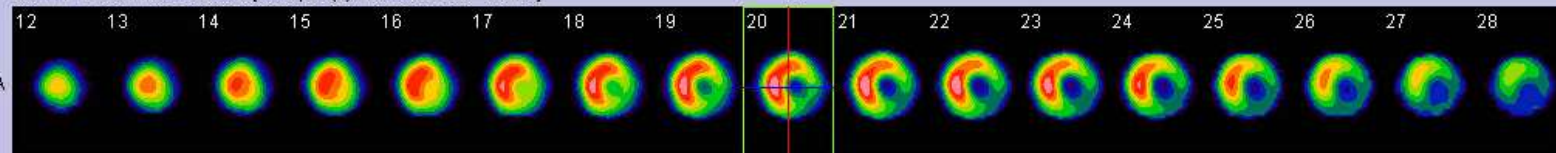
201Thallium

: 74.0 MBq (2.00 mCi) Chloride

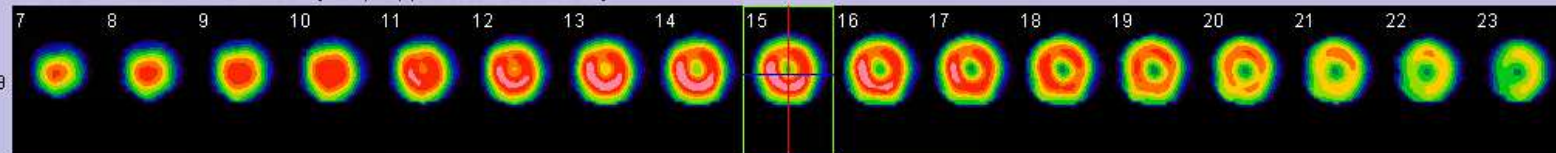
Weight: 50.00 kg NM53

Row A - TL201 Heart Stress [Isotope (A) - Autocardiac - NoAC]

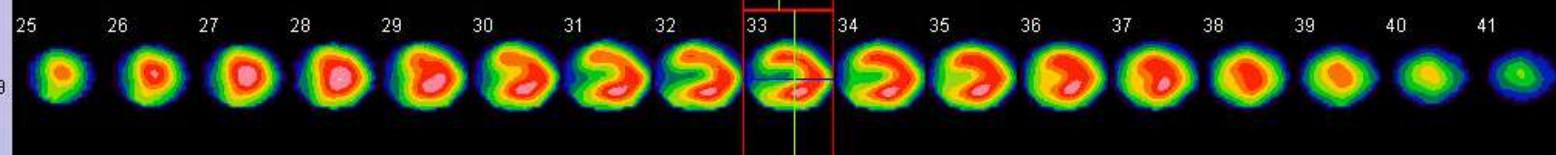
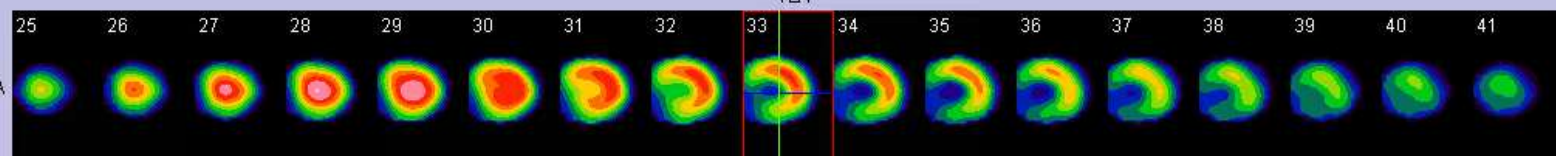
SA



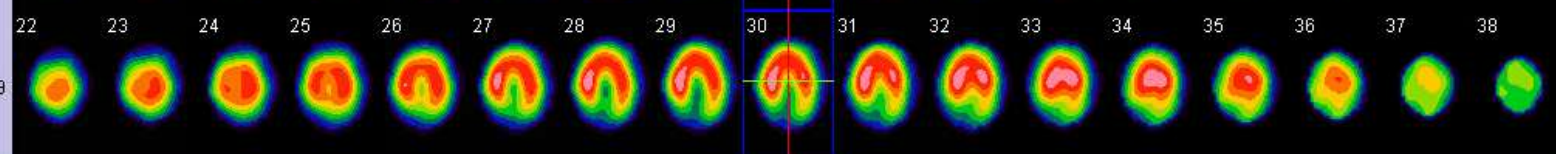
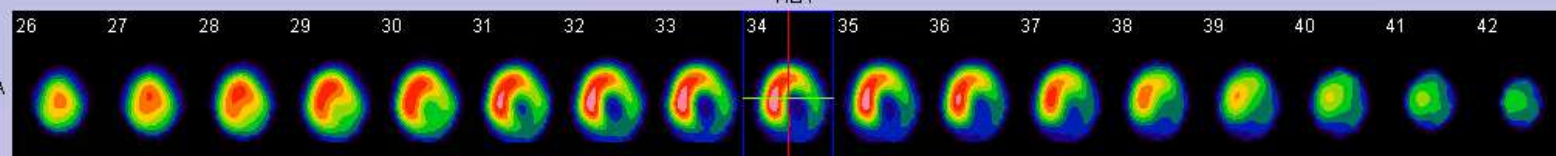
Row B - TL201 Heart Redistribution [Isotope (A) - Autocardiac - NoAC]



VLA



HLA



A: (B:0%,T:100%) B: (B:0%,T:100%)

Angular Step: 5.63°

Start Angle: 222.12°

Rotation Direction: CW

Scan Arc: 90.00°

Detector Motion: CONTINUOUS

Frame Duration: 29624 msec

Views/Rotation: 16

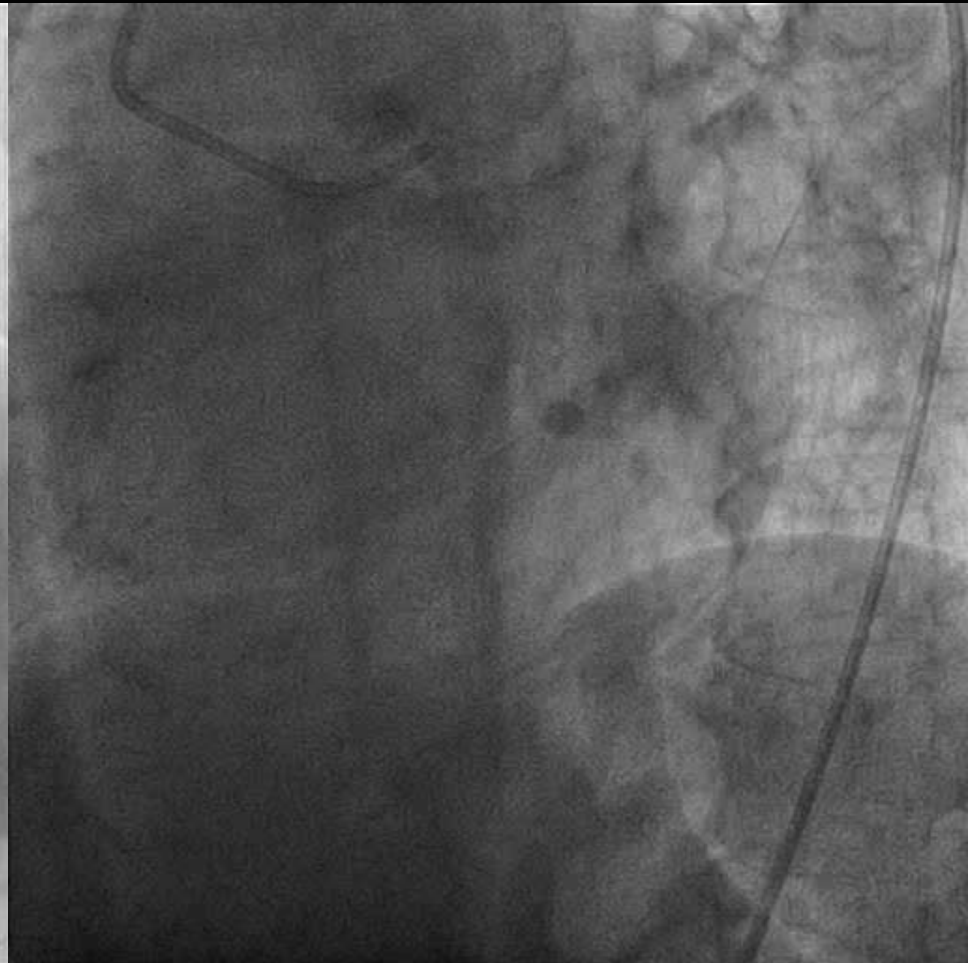


Anterior to Inferior, Apex to Base, Septal to Lateral, Anterior to Inferior

Supine

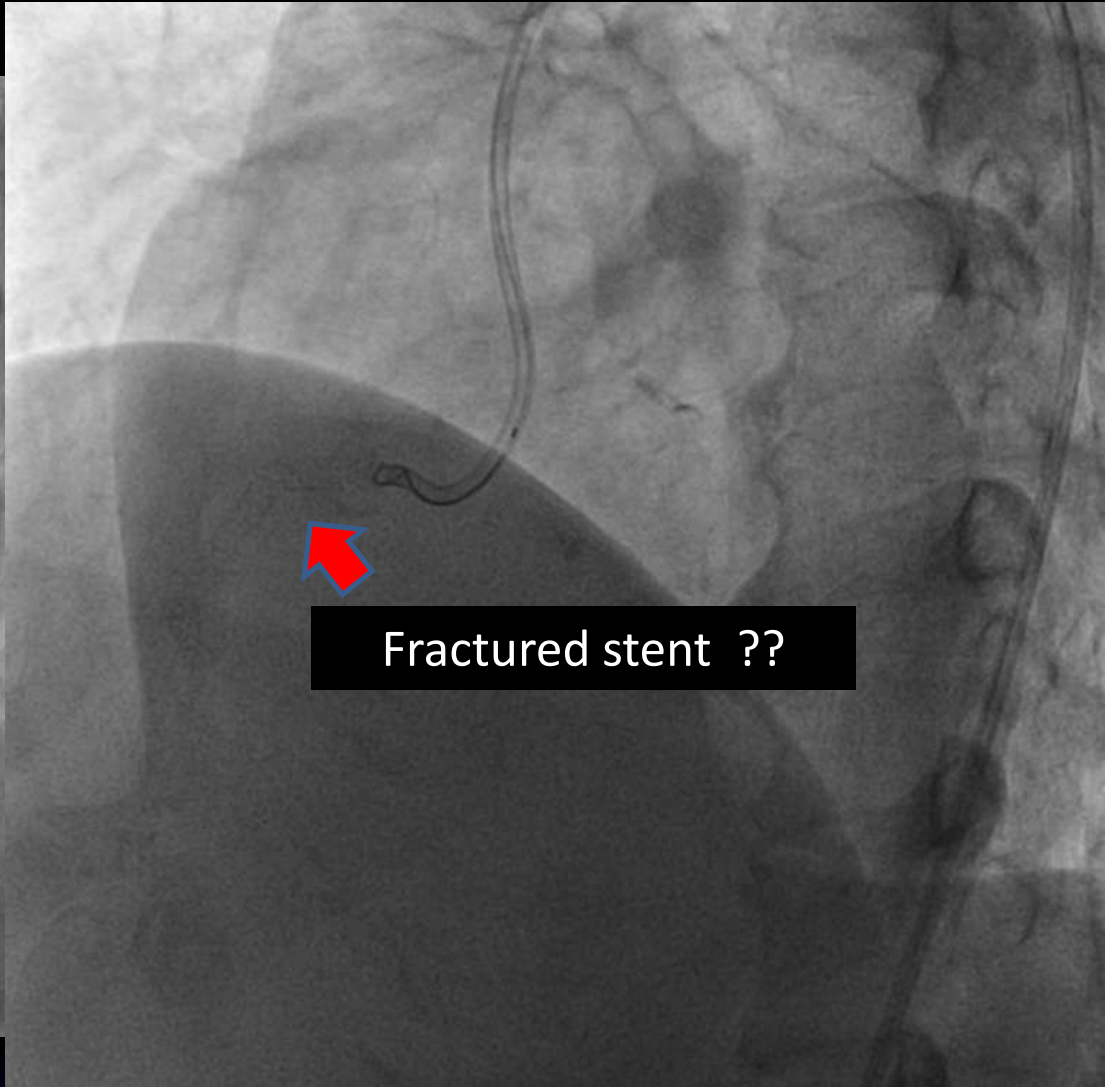


3rd PCI





RCA os : in-stent total occlusion





PCI Strategy

- RCA ostium in-stent total occlusion.
(Angiography done 10 months after index procedure)
- Cause ???
- She never stopped DAPT !!
- Stent fracture ???
- Resistant to Clopidogrel ???

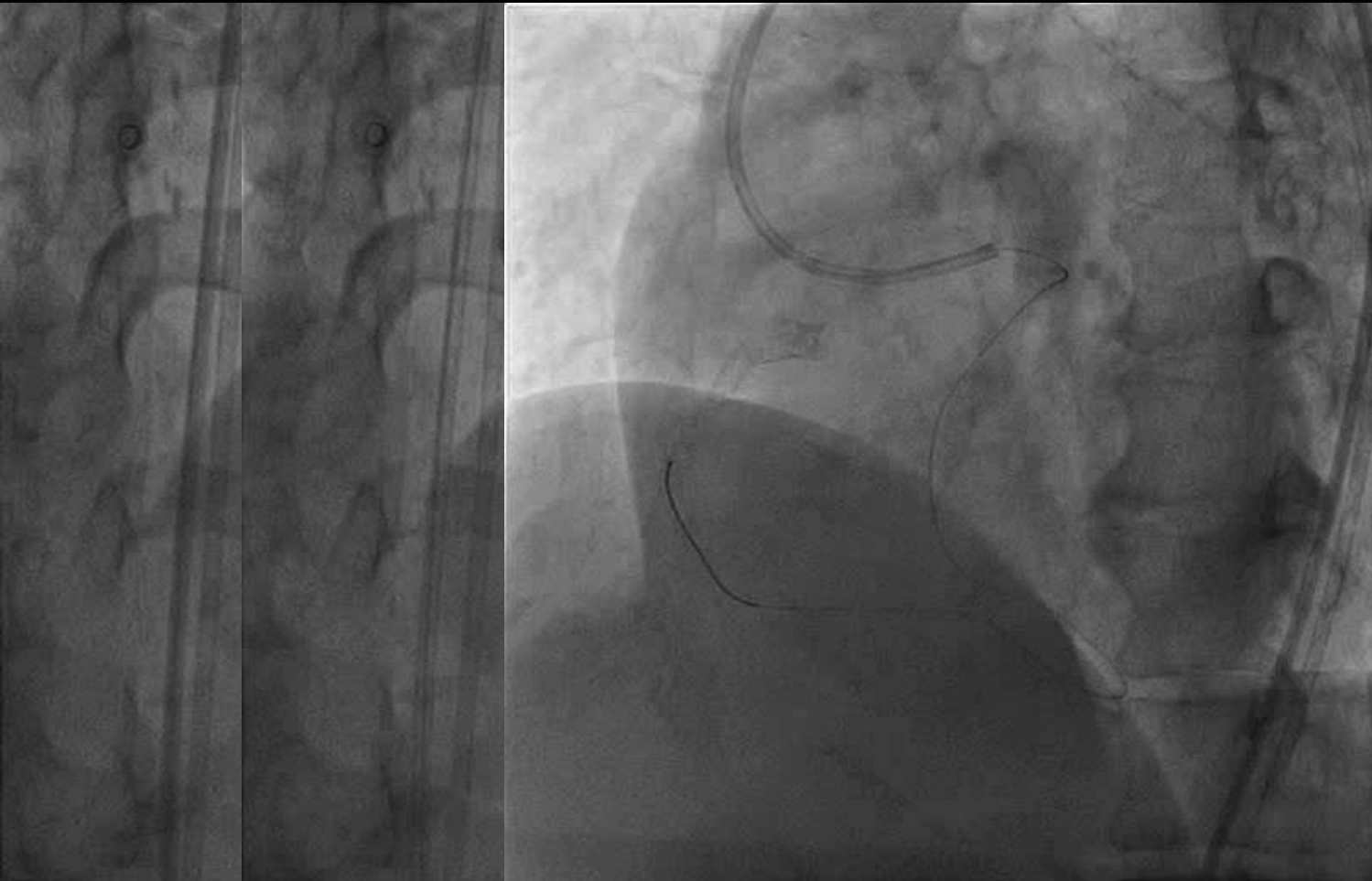


PCI Strategy

- We could only do retrograde approach again
- After successful wiring, follow up IVUS was mandatory



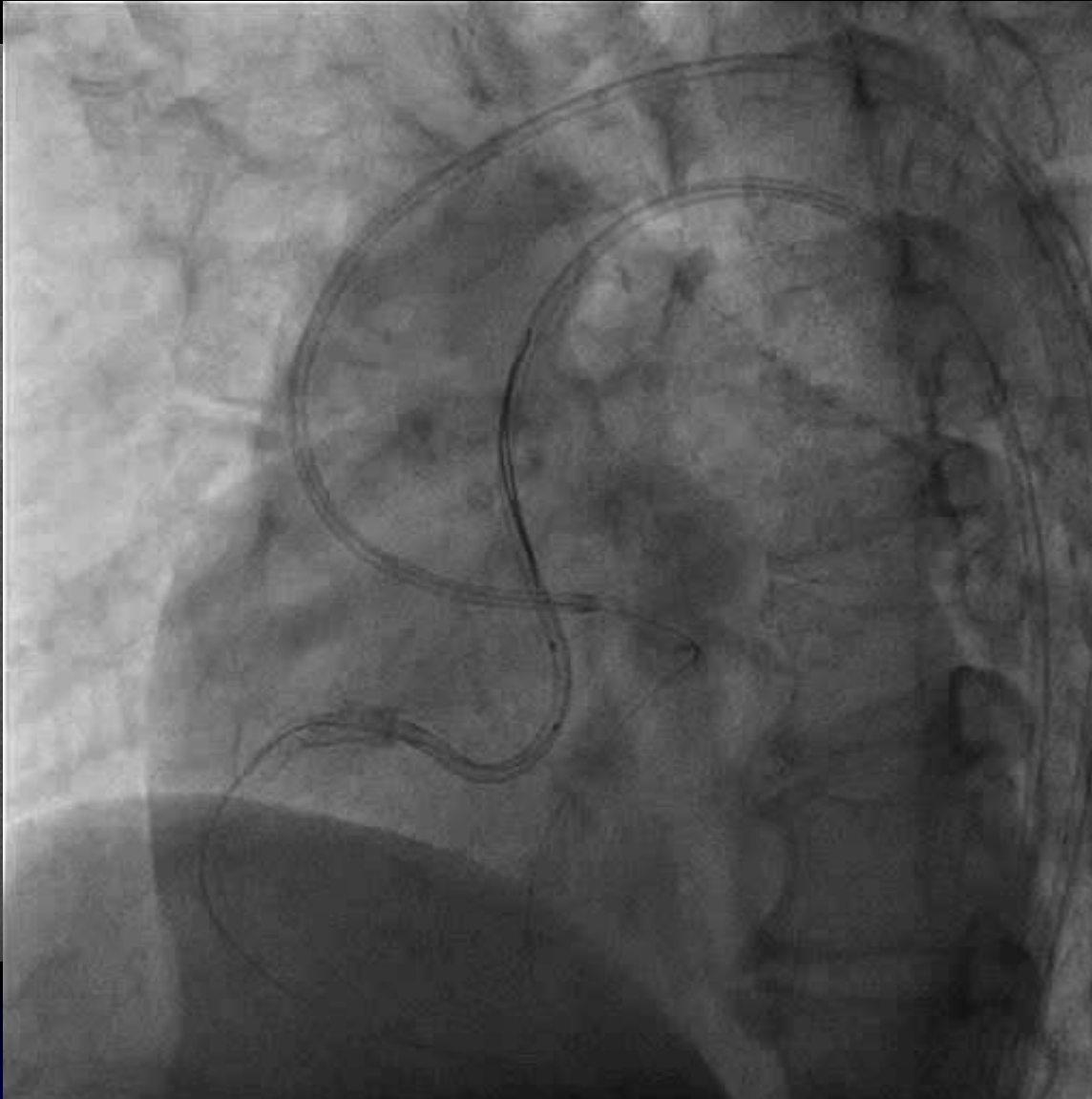
Retrograde approach



Device used: Fineceoss 150 cm, Sion wire

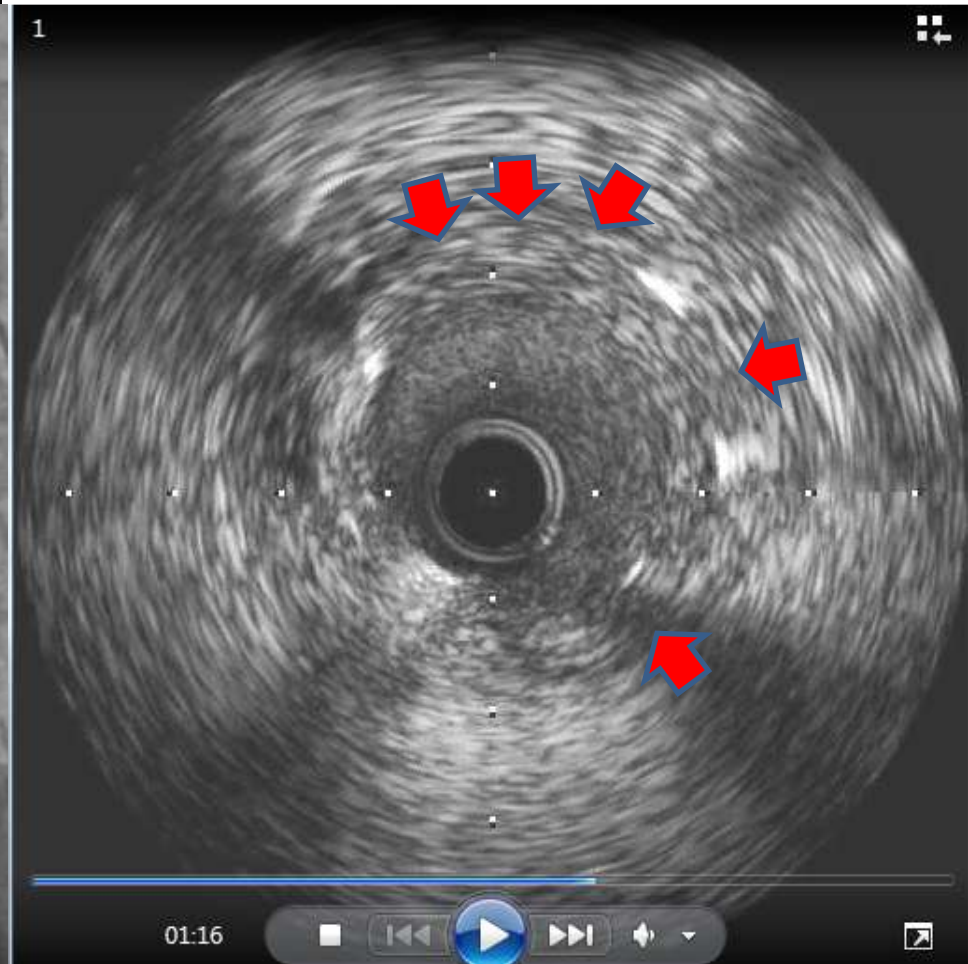


Retrolental Fibroplasia





Stent fracture at bending portion??





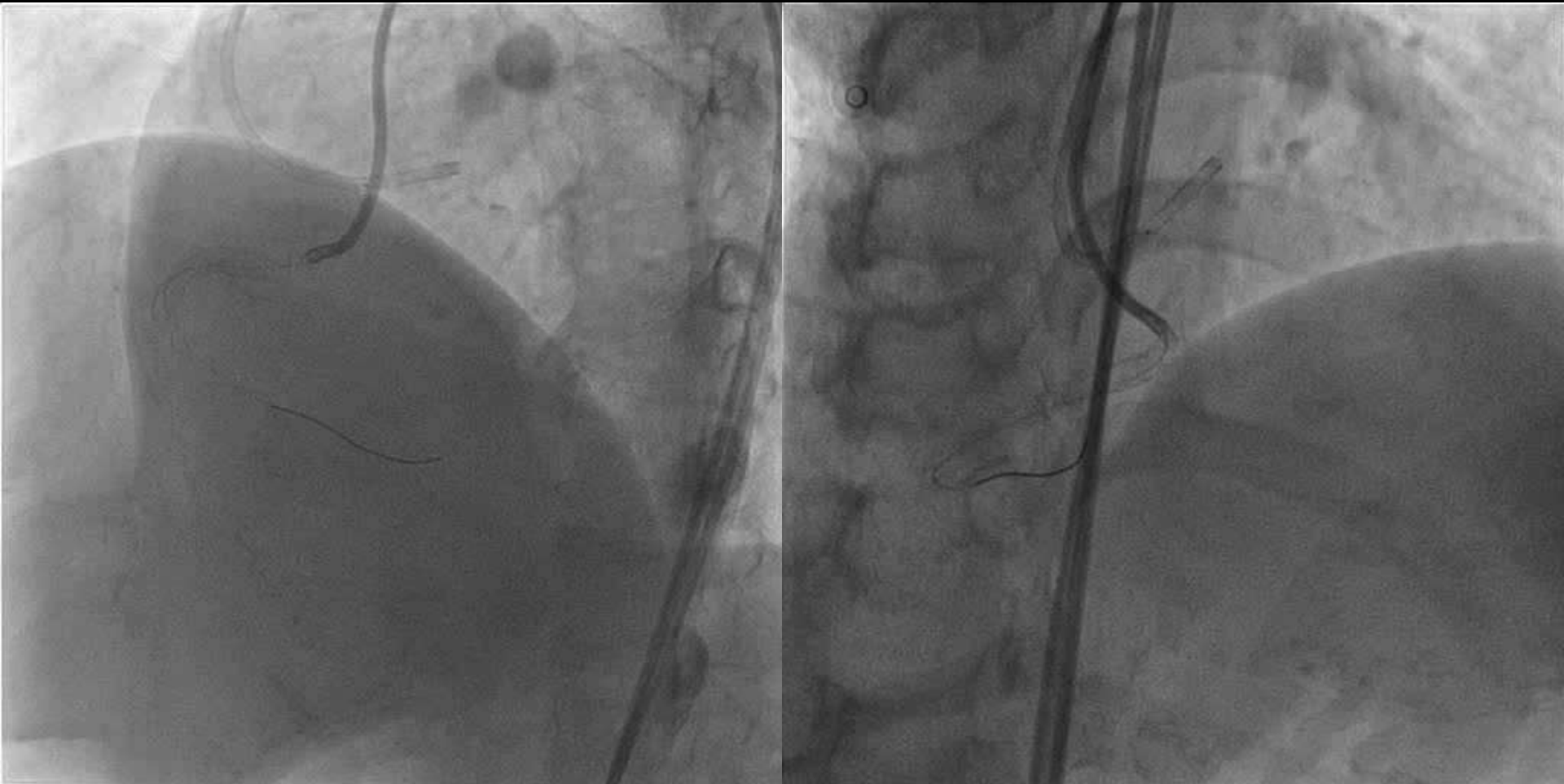
4.5/15 high pressure balloon

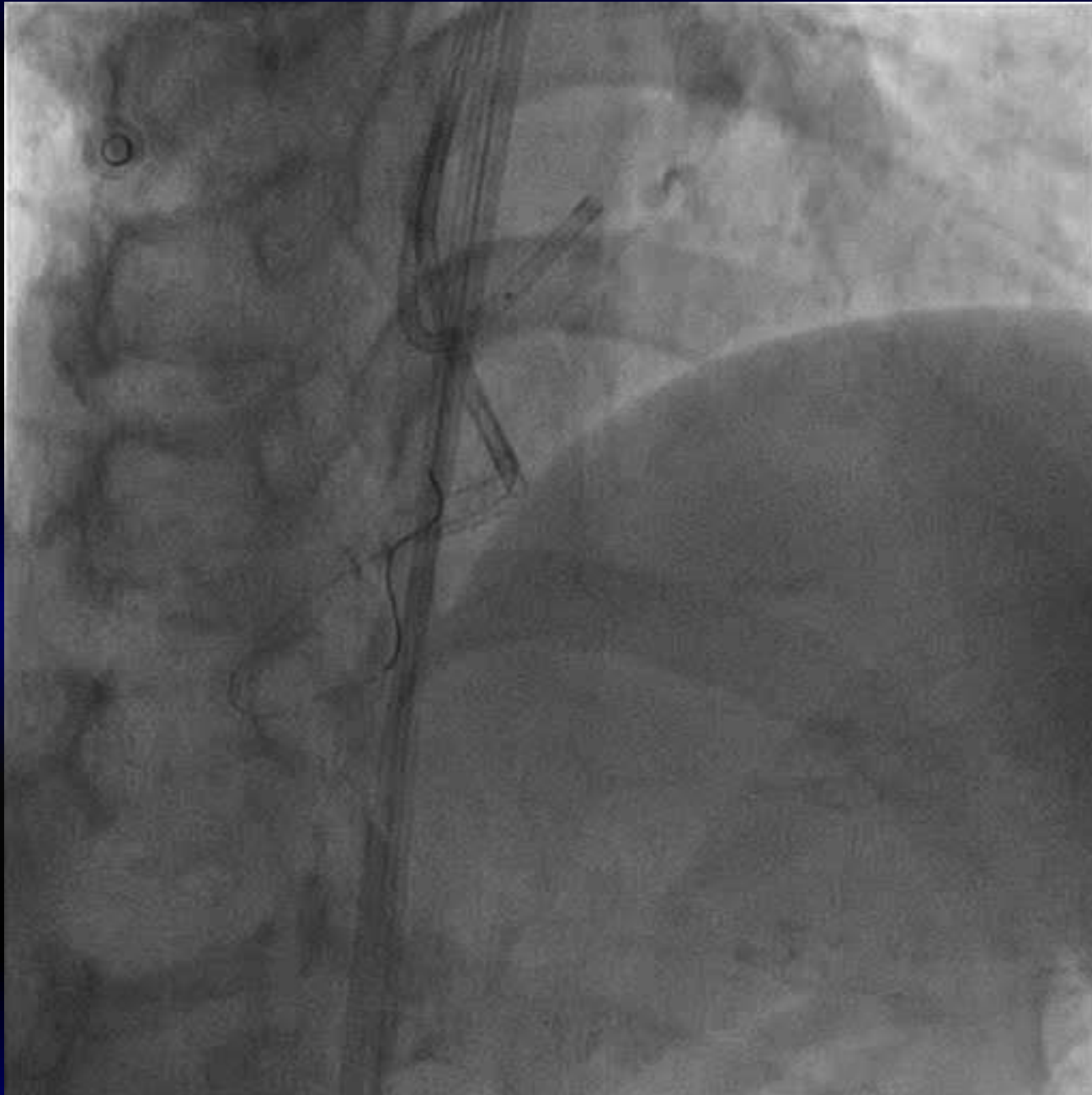


4.0/18 DES



RCA Final

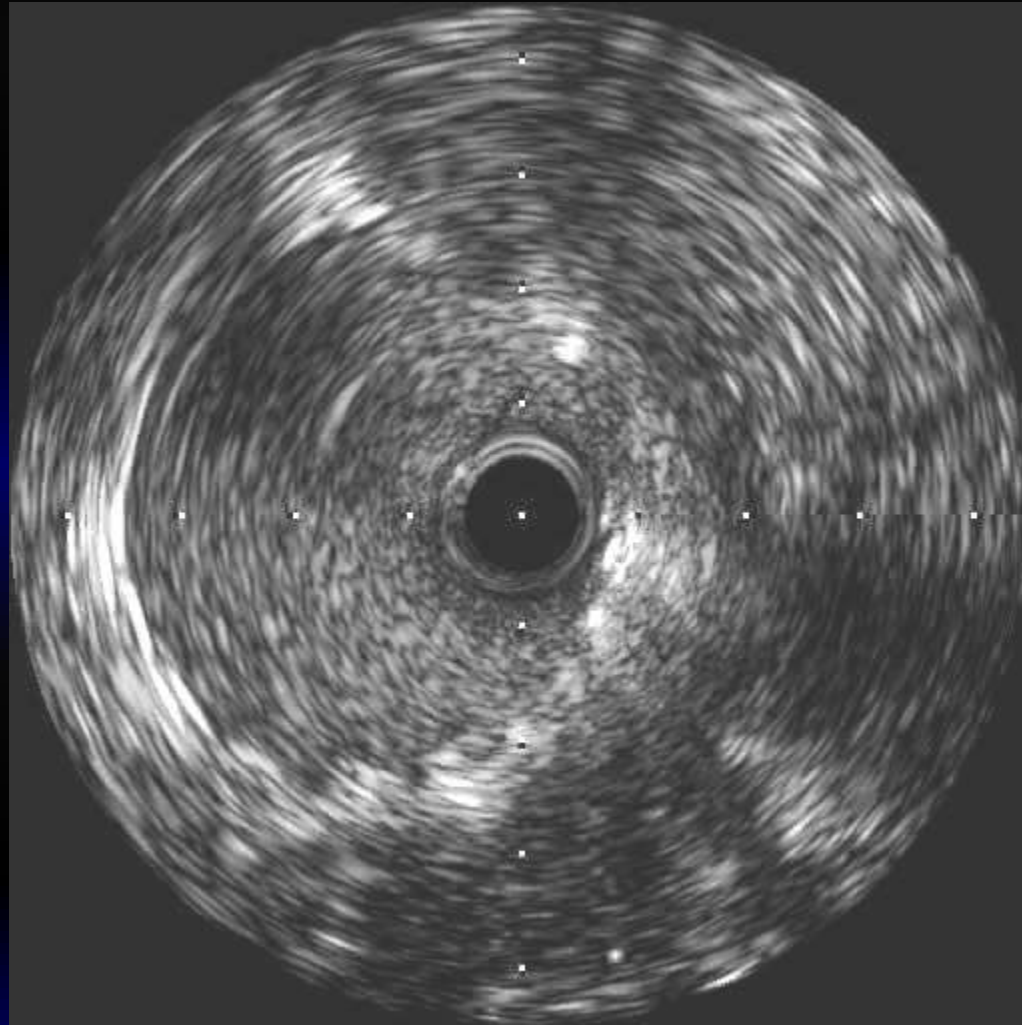






IVUS Exam After 2nd PCI

- IVUS after 4.5 high pressure balloon





Clinical Course

- Under ASA+Ticagrelor, no cardiac symptoms now (3 months after 2nd retrograde PCI)
- Scheduled follow up Cardiac SPECT in the future



Take Home Message

- Loop snare, especially home made loop snare, is an alternative choice for retrieve retrograde wire in CTO intervention
- Stent fracture, might be one of a possible cause for DES failure in this case.

Thanks for your attention

