Anomalous circumflex from RSOV with Medina 1,1,1 bifurcation

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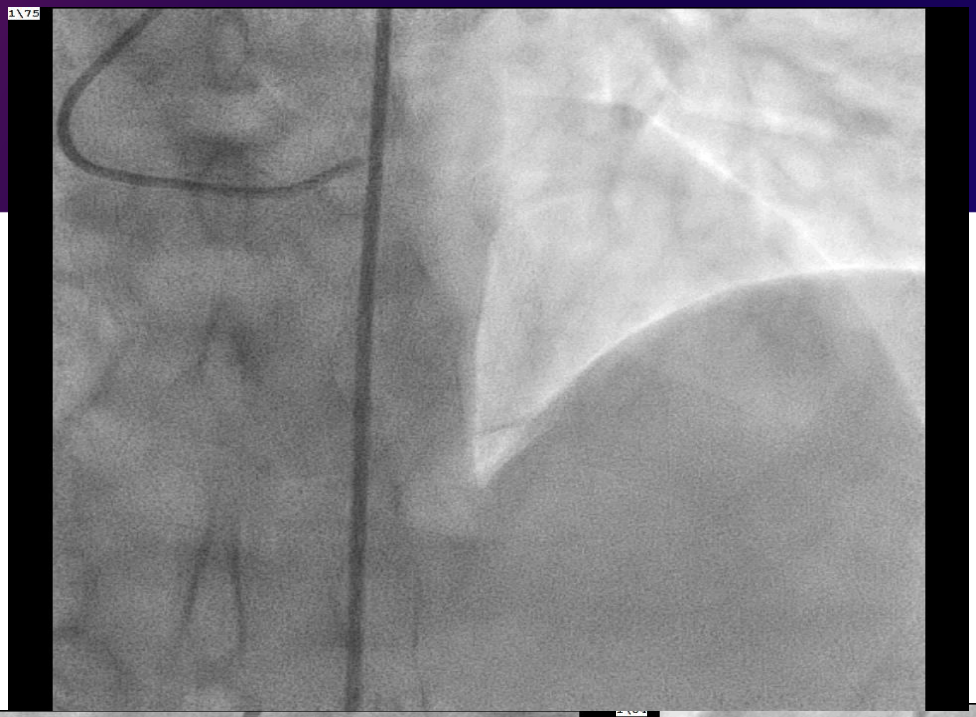
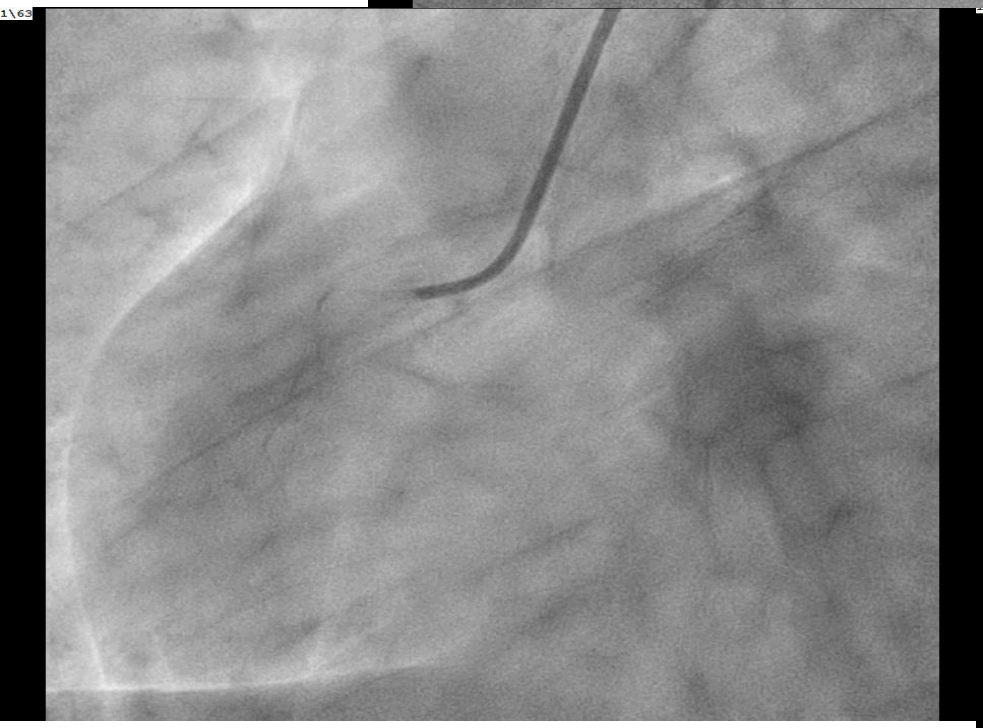
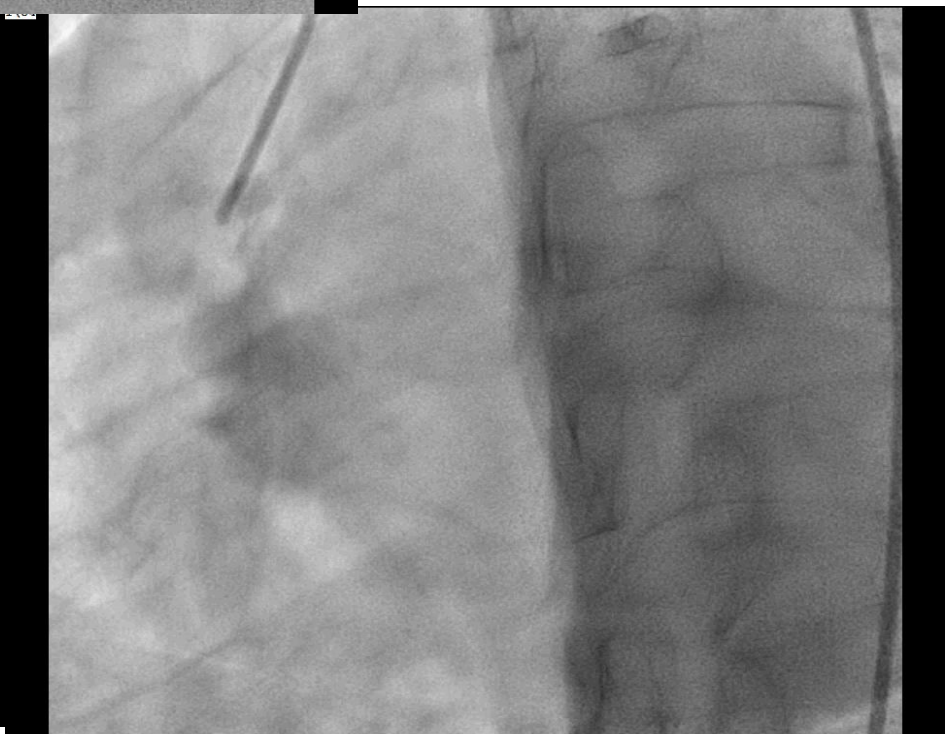
Case history

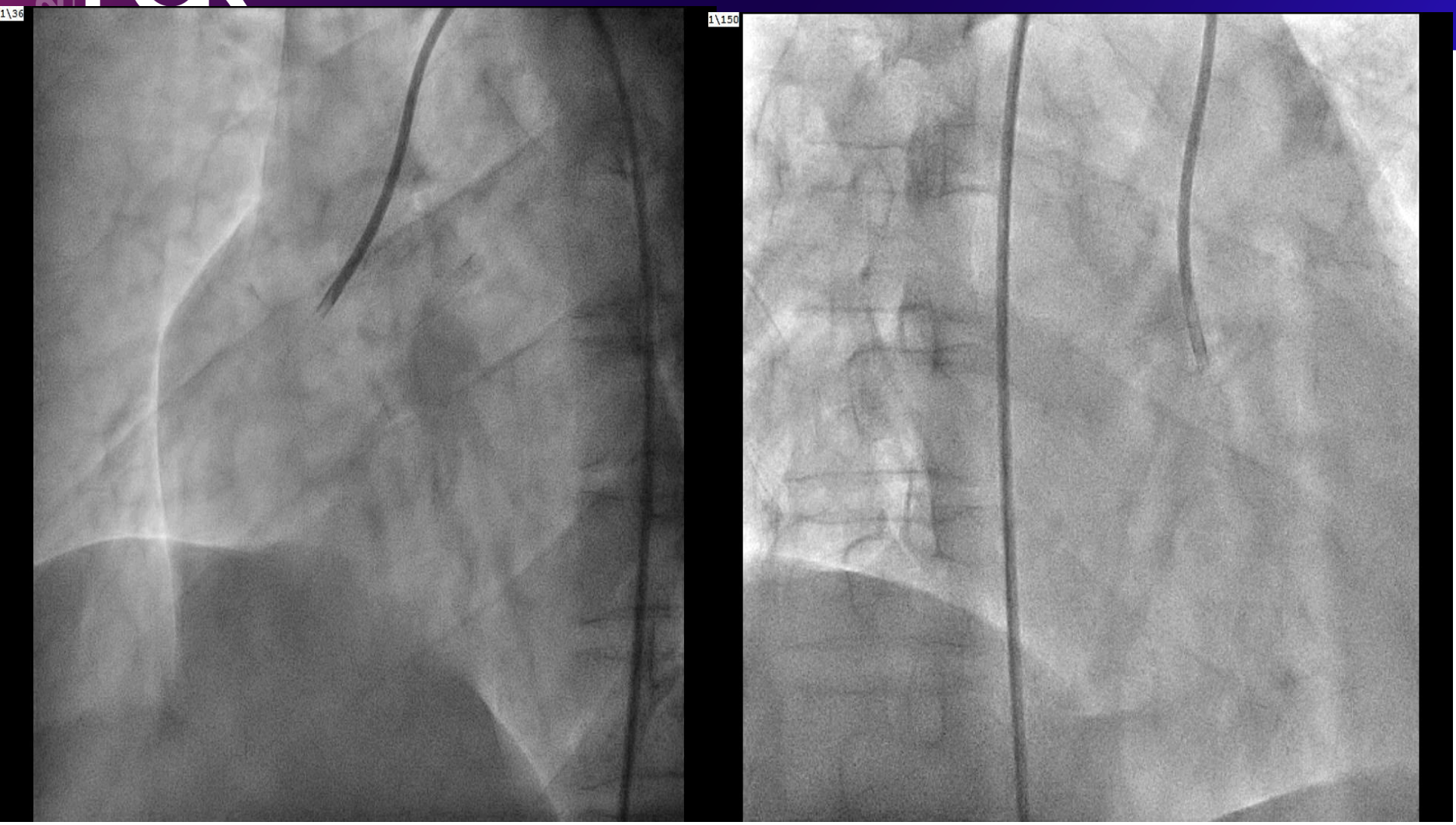
- 54 / M
- Angina on minimal exertion 3 days
- AWMI with cardiogenic shock 5 years back, rescue PCI LAD
- F/H premature IHD (father SCD 35 years), hypertension 5 yrs
- ECG – old AWMI
- Echo – thinned, dyskinetic LAD territory, LVEF 30 %
- Hemodynamically stable, no LVF
- Right radial pulse – absent (previous procedure)



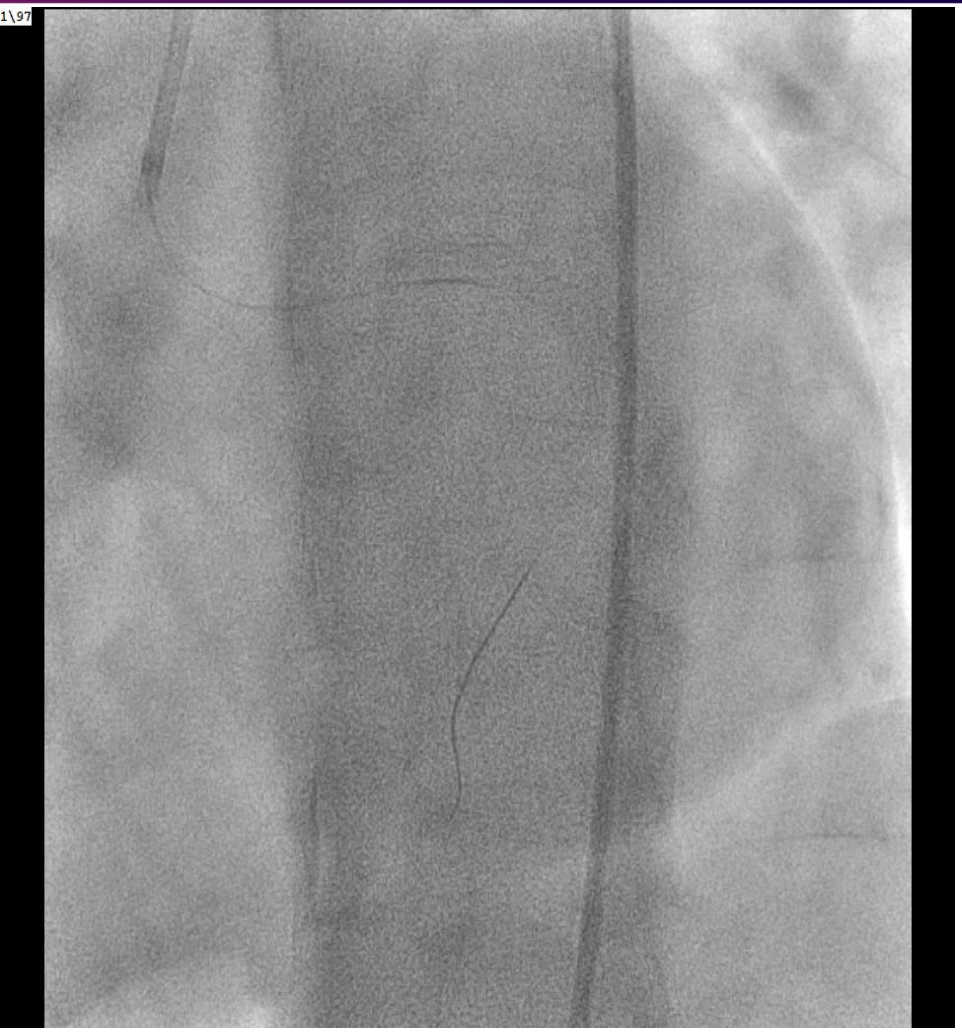
Large anomalous LCX from RSOV – inferior and posterior to RCA origin
Retro-aortic area – normal - Distal Medina 1,1,1 lesion

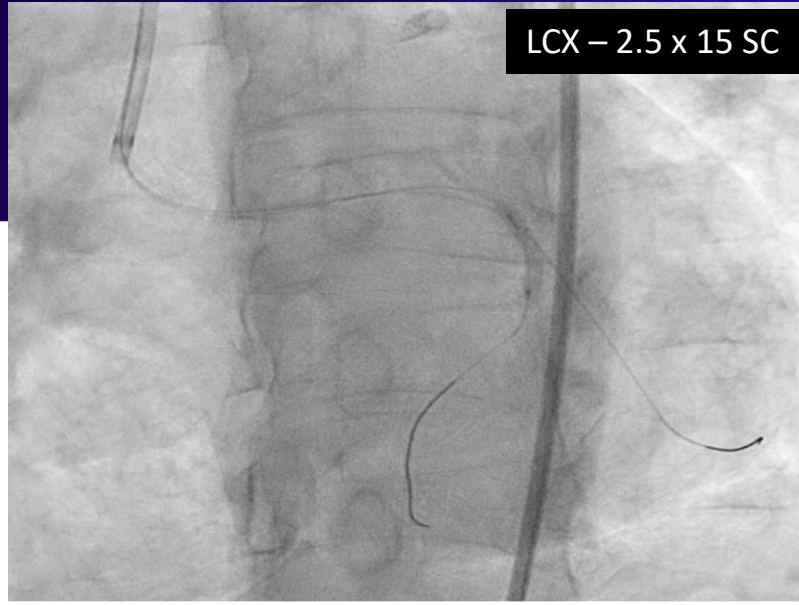


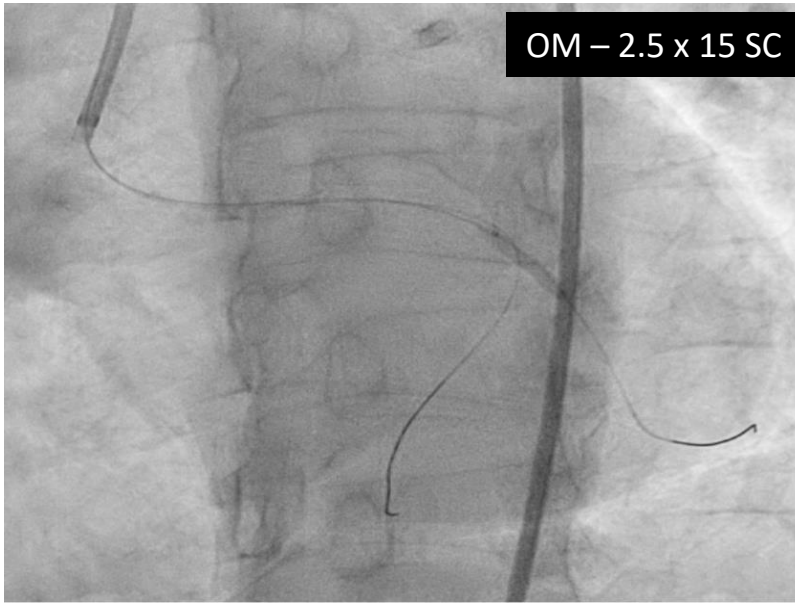




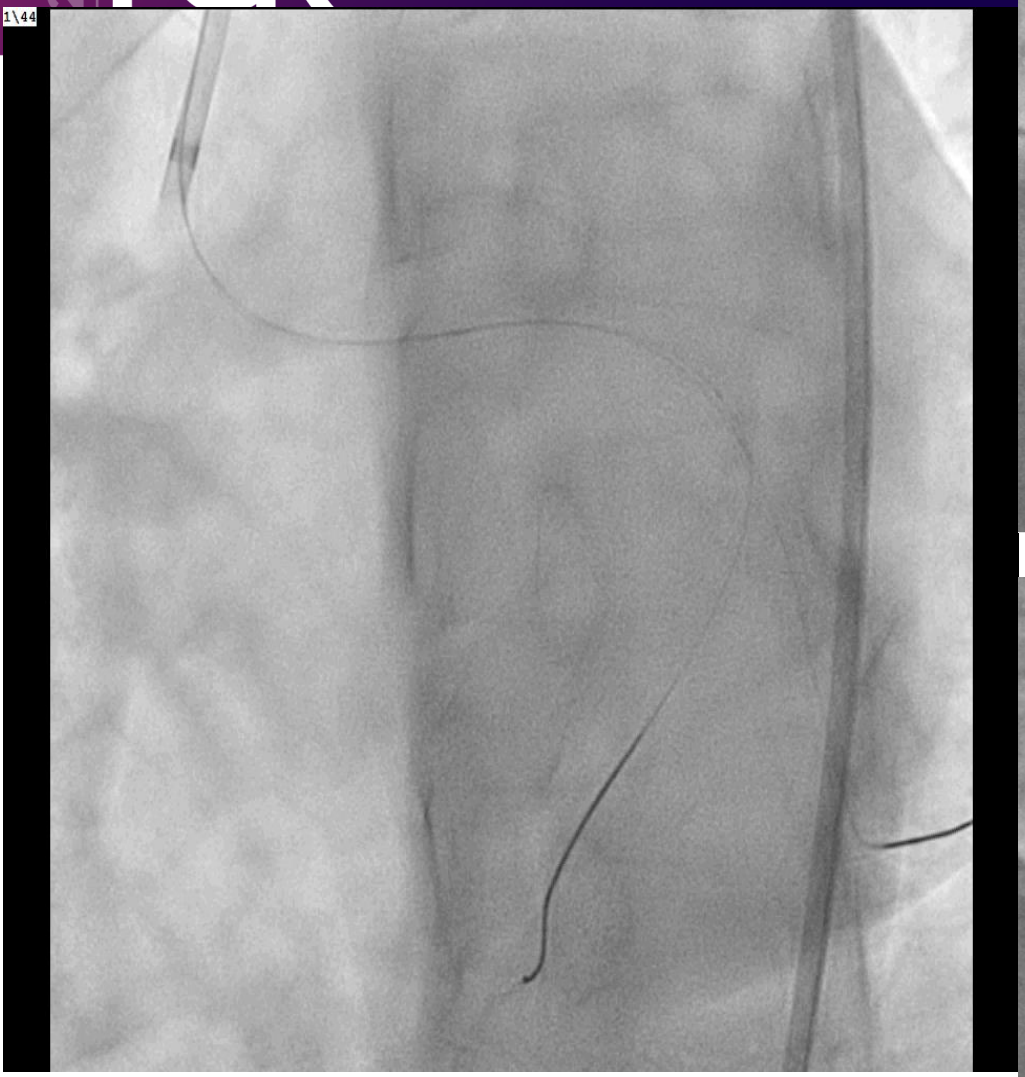
Left femoral 5 F sheath – hemodynamic support – poor LV
Right femoral 7 F MP 1, difficulty engaging
Clockwise in RAO to turn posteriorly







150 cm Caravel microcatheter –Sion blue changed to Sion blue extra-support in distal CX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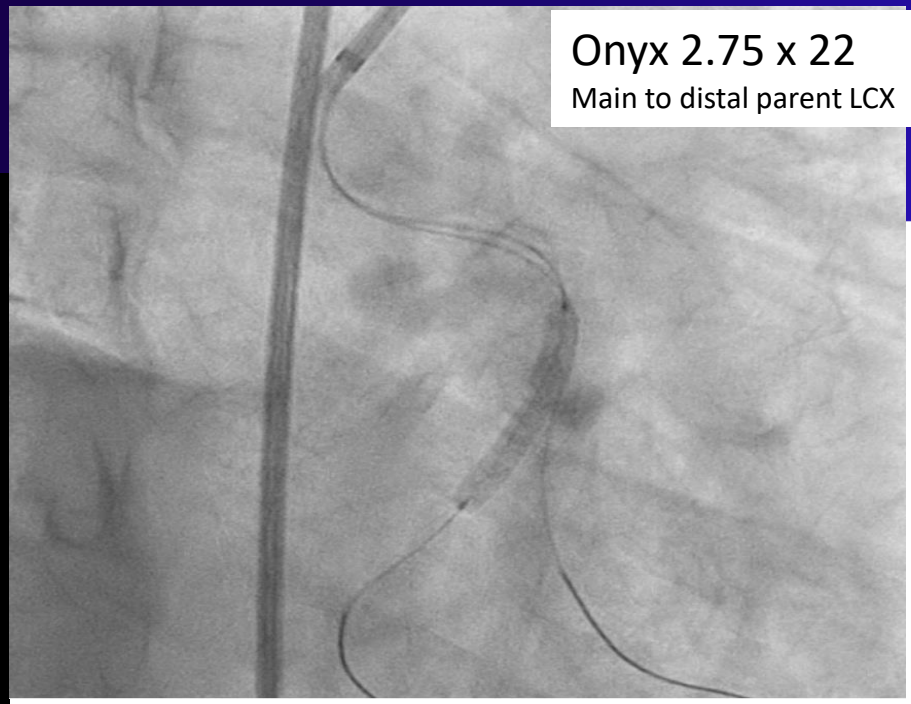
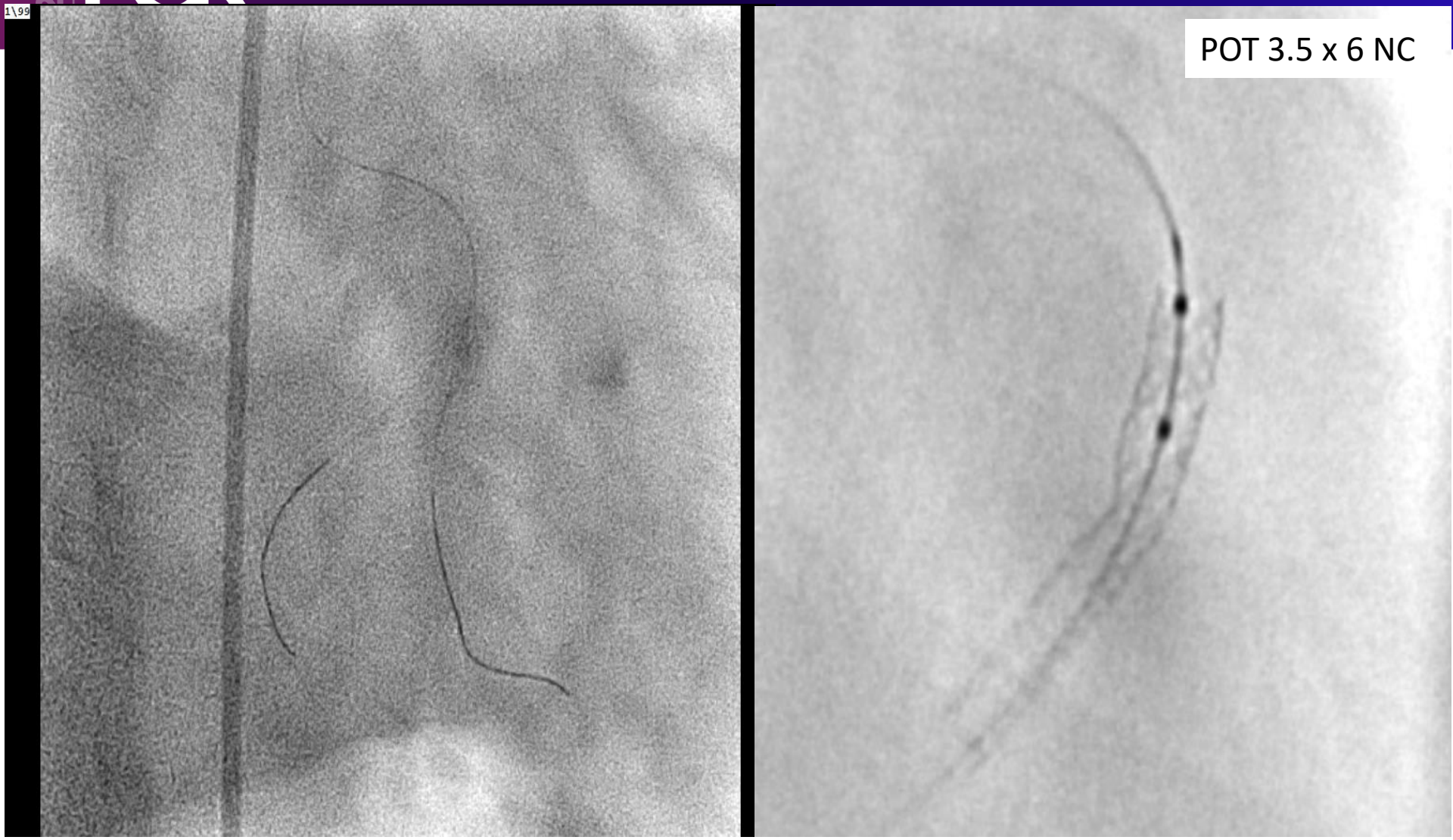
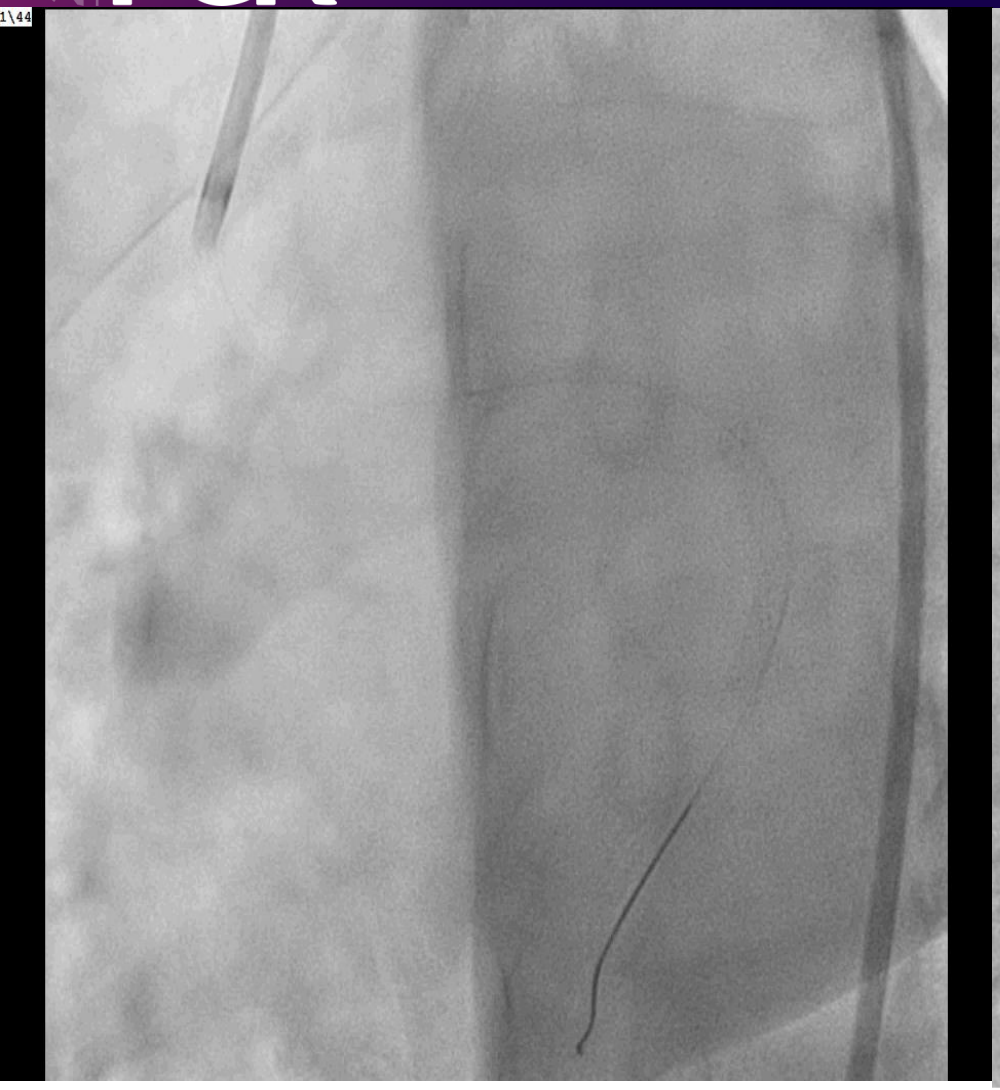

Onyx 2.75 x 22
Main to distal parent LCX

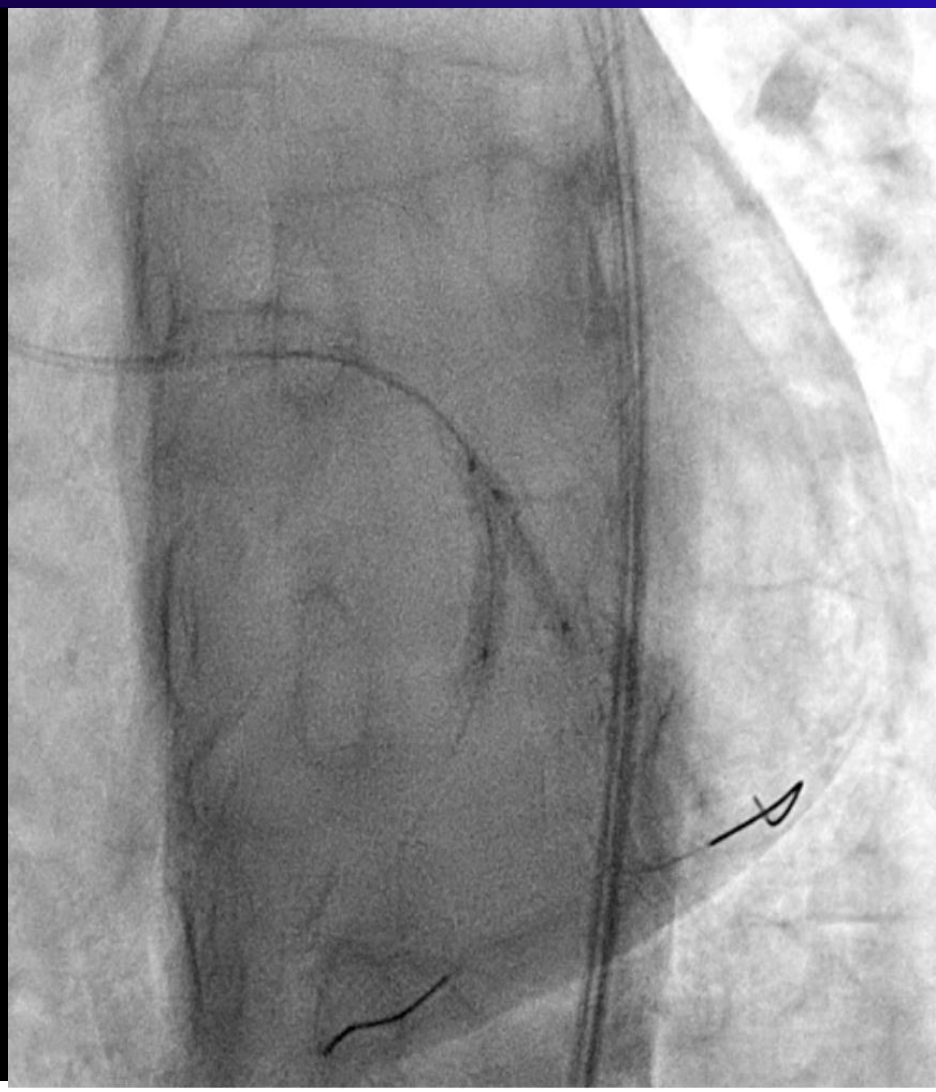


Difficulty in tracking 3.5 x 6 NC balloon on bend, OM wire removed

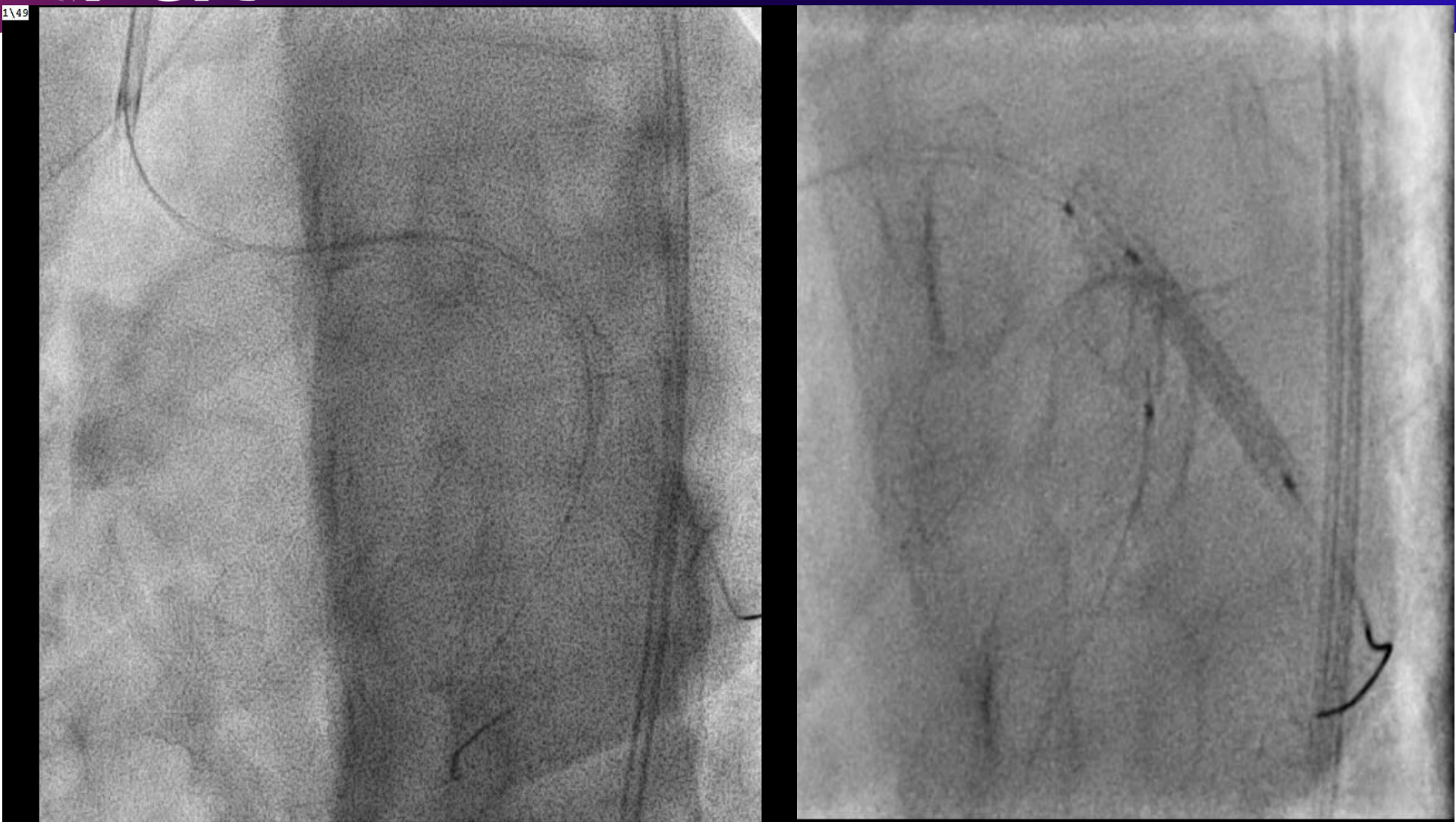
Kissing balloon dilatation – 2.75 x 15/ 2.75 x 12 NC 20 atm consecutively, 12 atm simultaneously



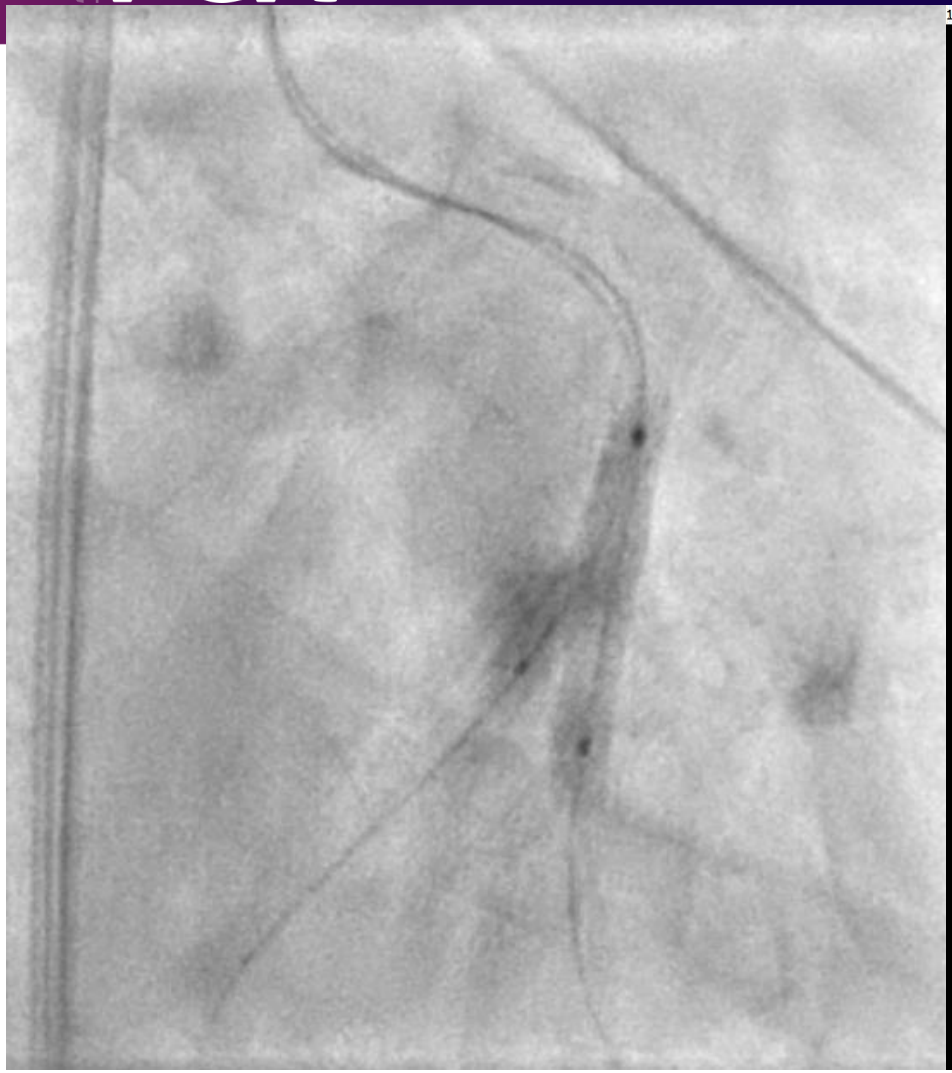
Post POT 3.5 x 6 NC

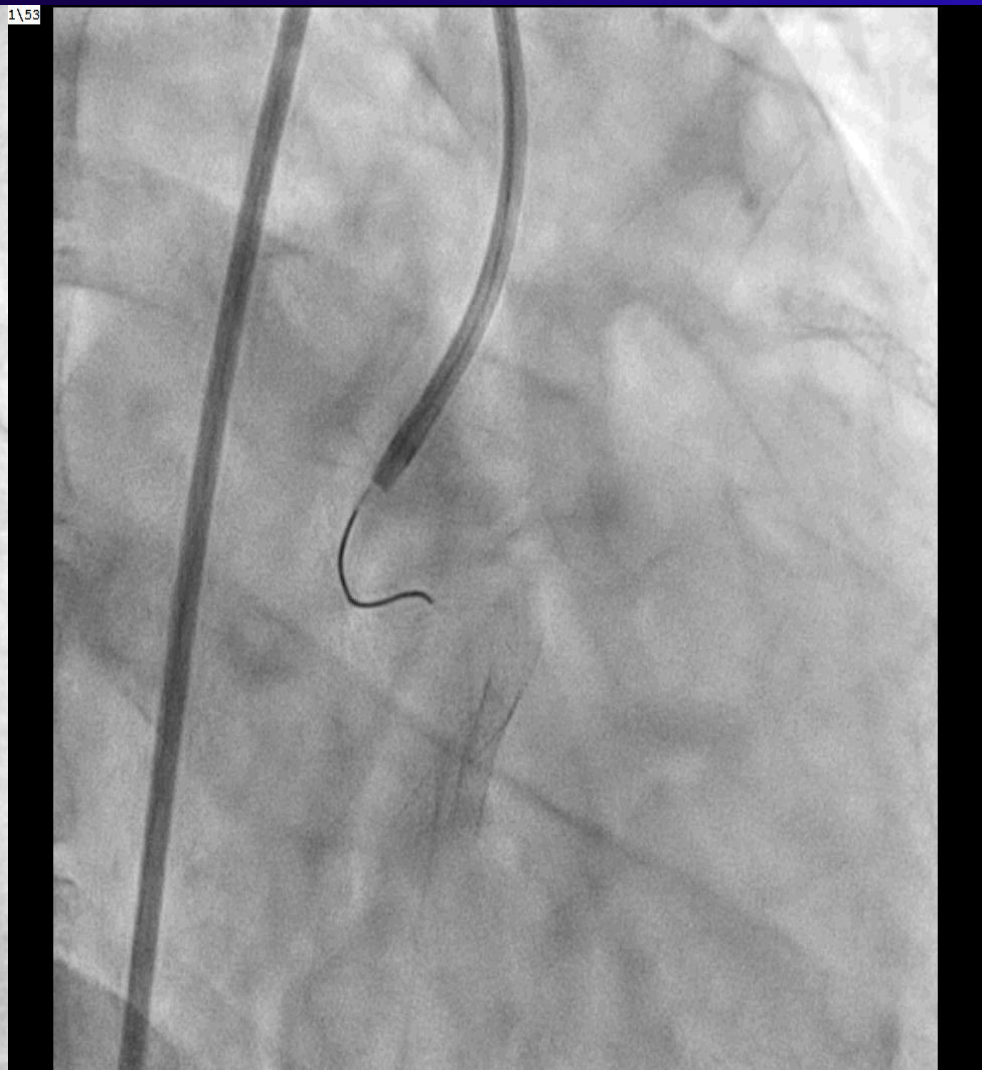


KBD – 2.75 x 15 NC and 2.75 x 12 NC

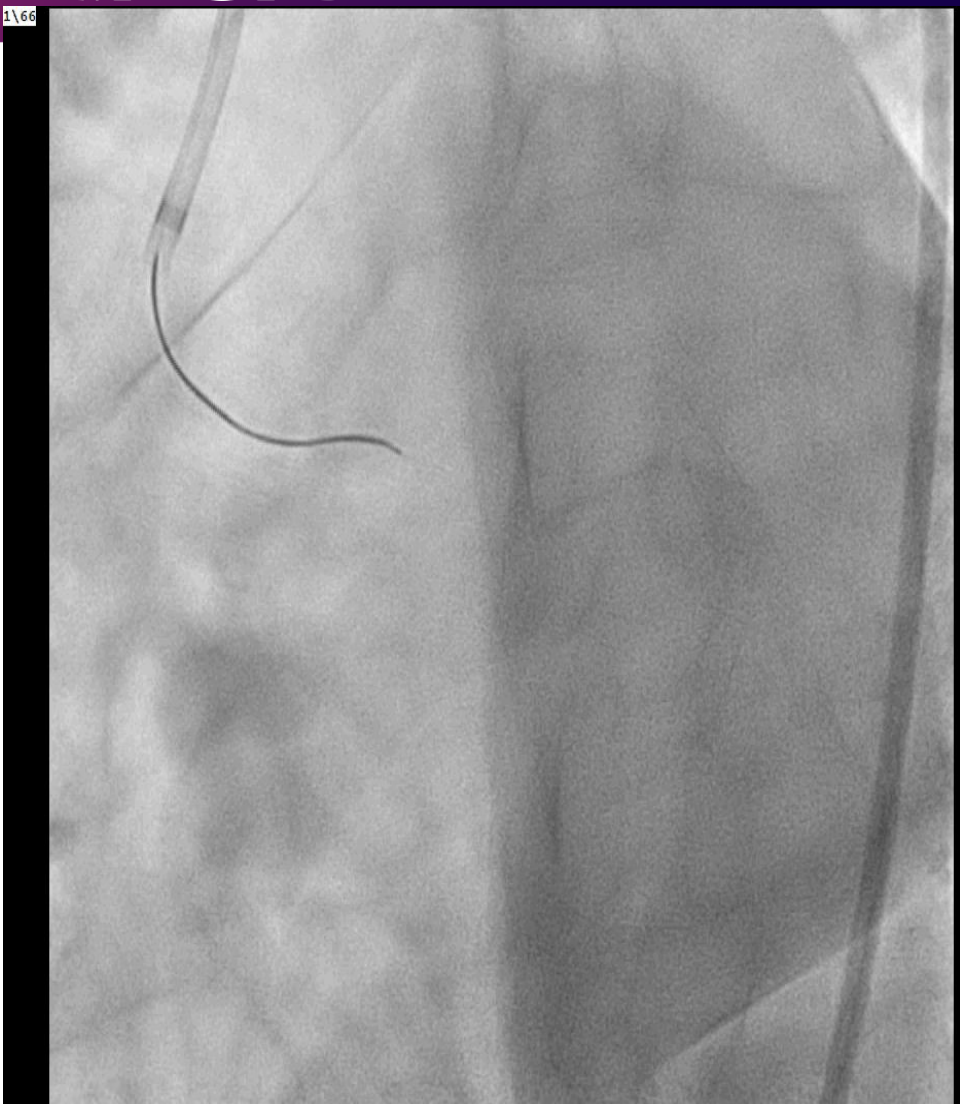


Even though post KBD result was good, TAP was done with 2.75 x 15 Onyx, in view of difficult anatomy





KBD – 2.75 x 15 NC LCX / 2.75 x 15 stent balloon OM – 14 atm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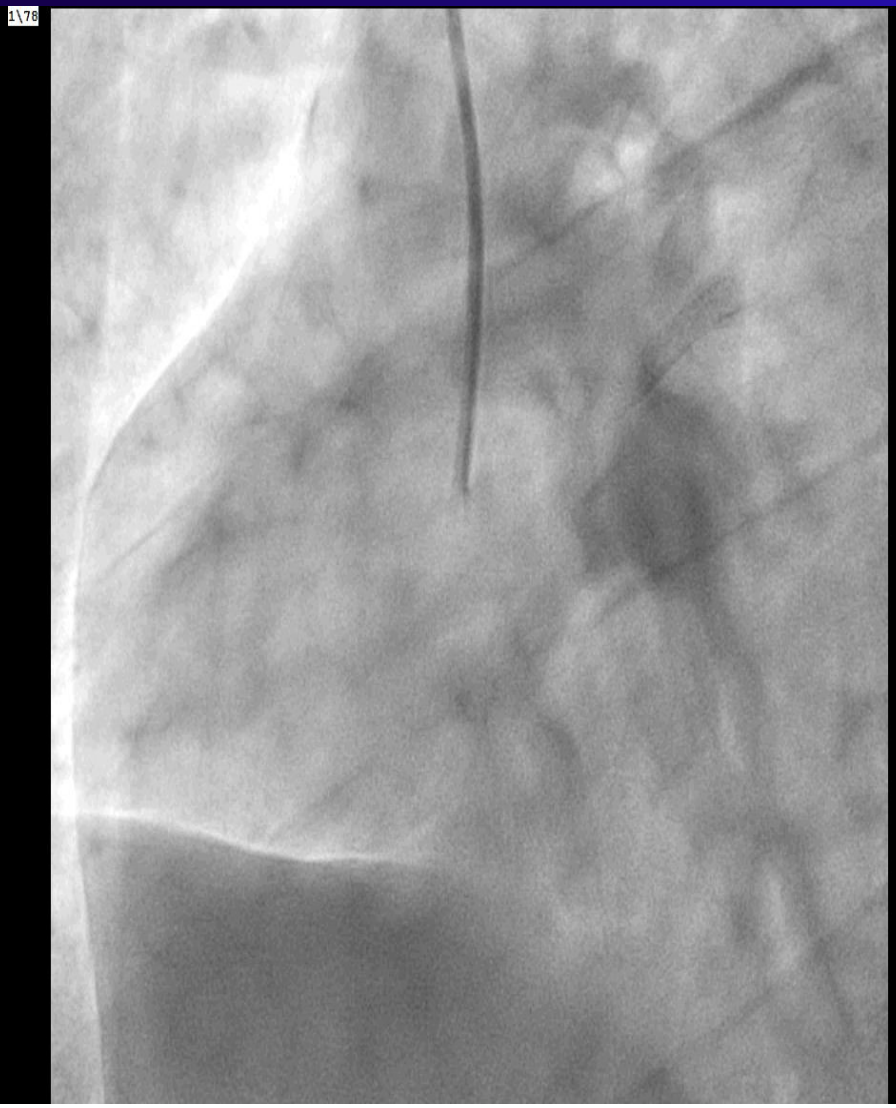
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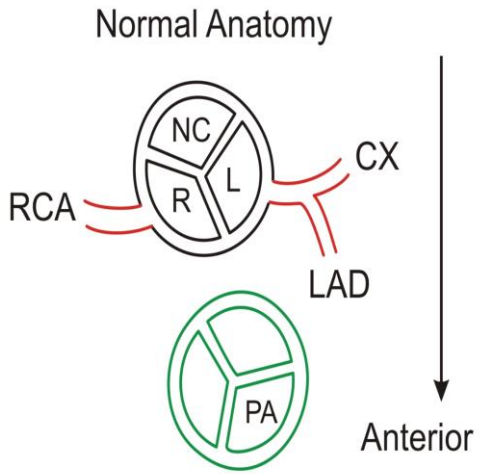
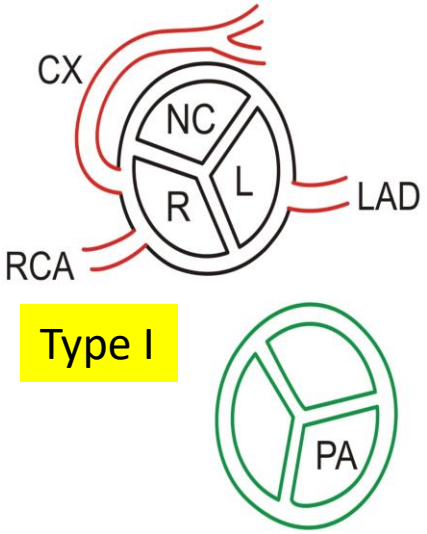
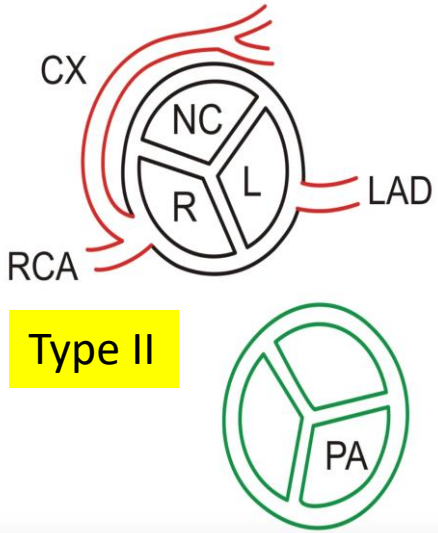
Types of anomalous LCX

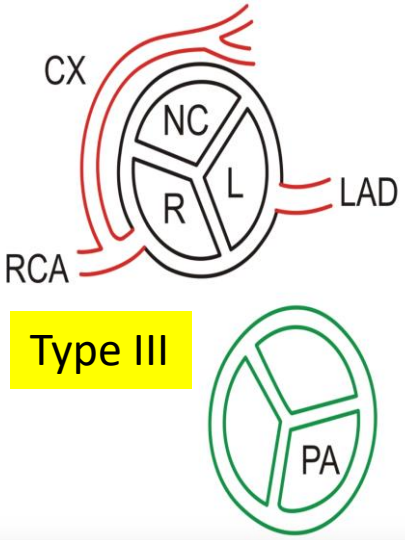




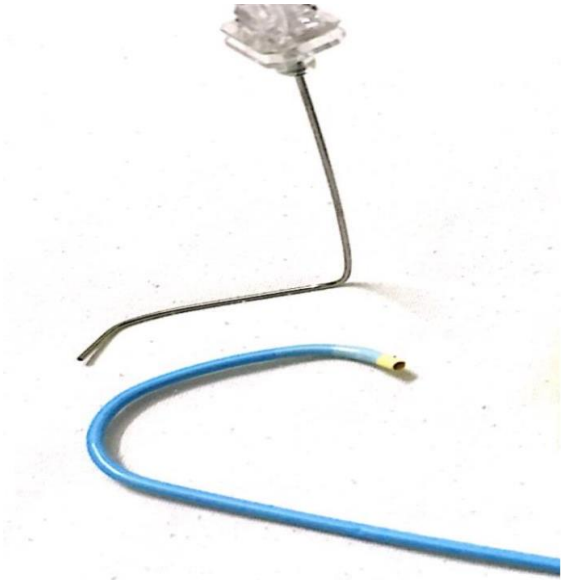
Type I

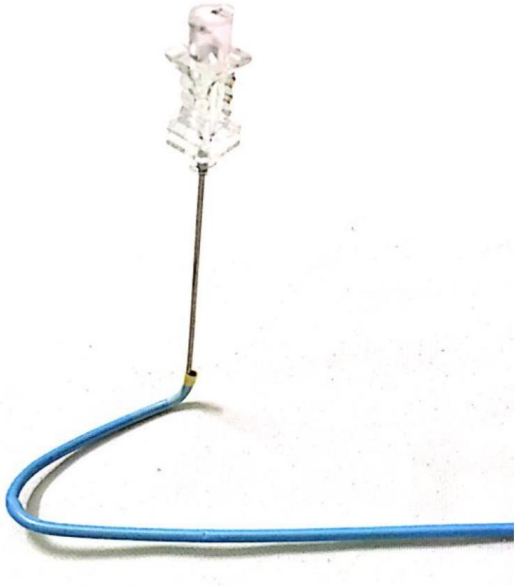


Type II



Type III





Conclusion

- Anomalous coronaries with true bifurcation is technically challenging subset.
- In type I (separate origin) anomalous LCX from RSOV, adequate and coaxial guide support is essential. Options include multipurpose (MP – A), JR and AR.
- As a last resort, catheters can be shaped with posterior bend with guidewire introducer needle and dipping alternately in hot and ice-cold saline.
- Guide catheter support was enhanced by extra-support wire in main vessel (which does not require re-crossing).
- TAP technique is useful in such difficult situation due to its simplicity among other techniques with least number of steps and re-crossings.