

Retrograde Sub-algorithm

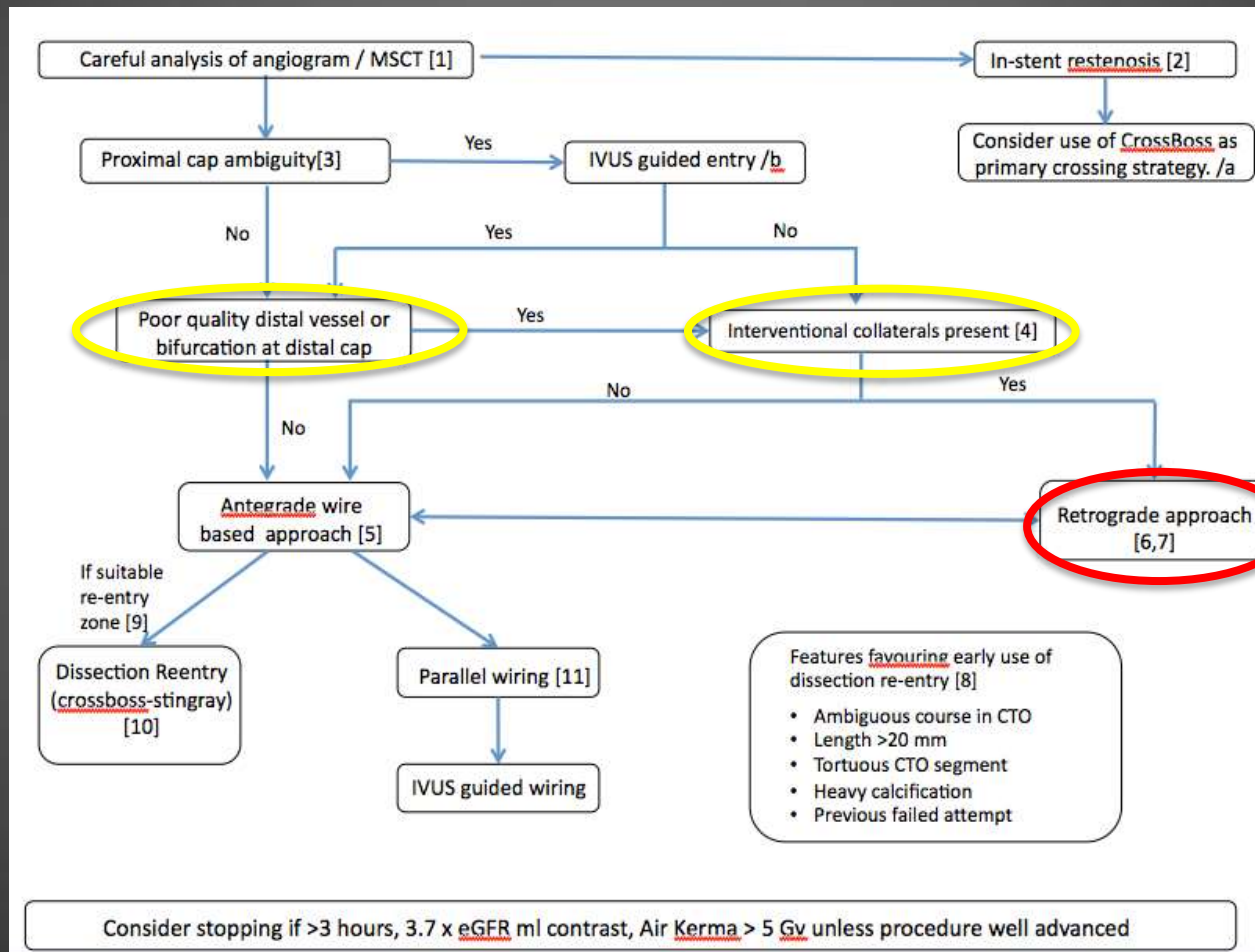
-- APCTO Club Style --

Paul Hsien-Li Kao, MD

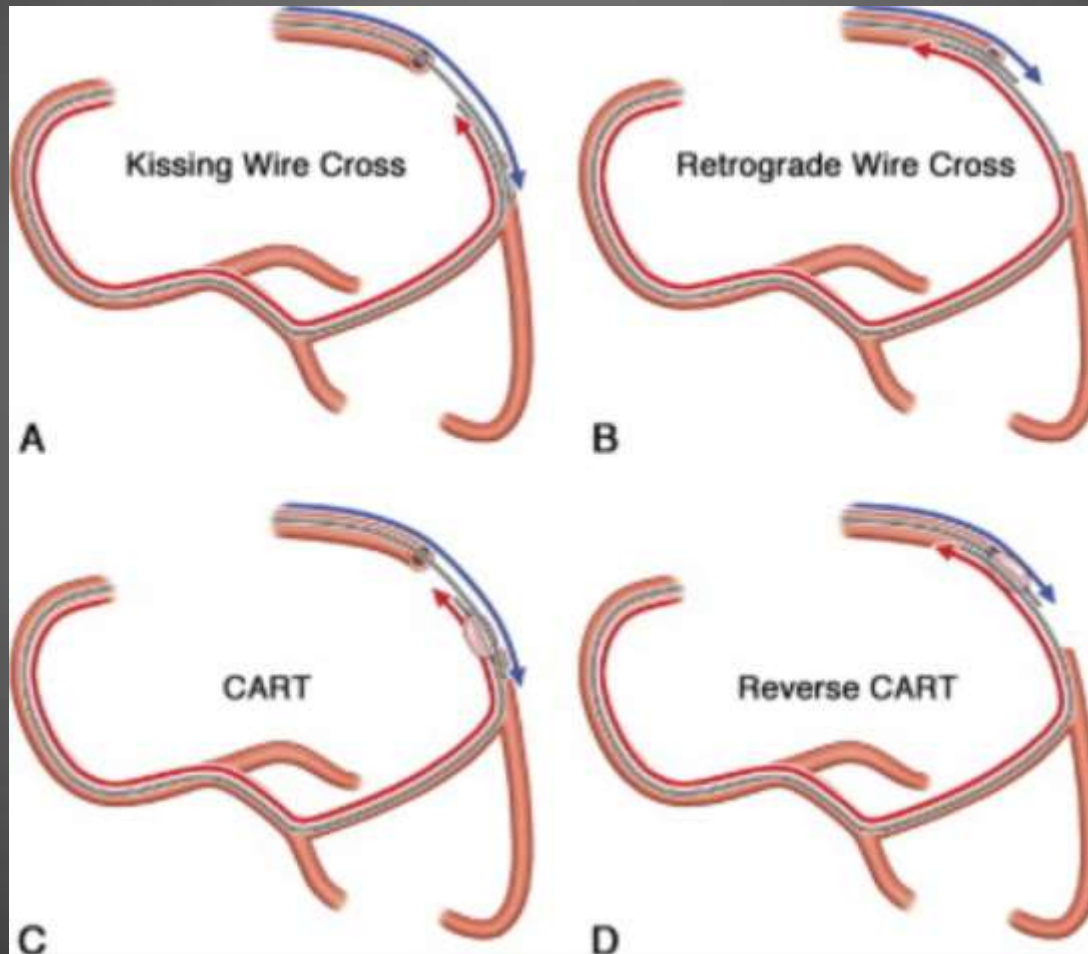
Associate Professor of Medicine

National Taiwan University Hospital

APCTO Club main algorithm



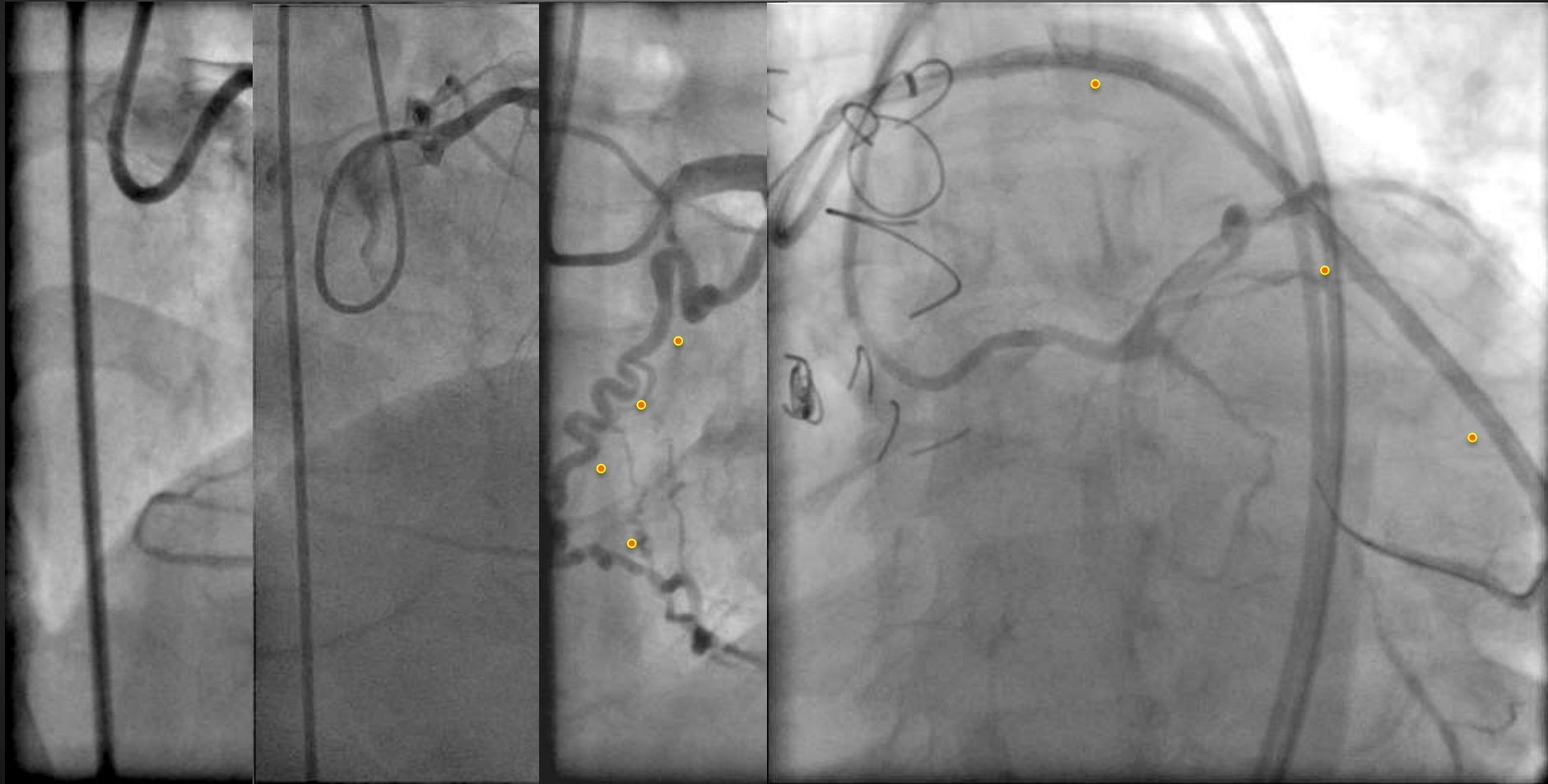
Crossing mode in retro approach



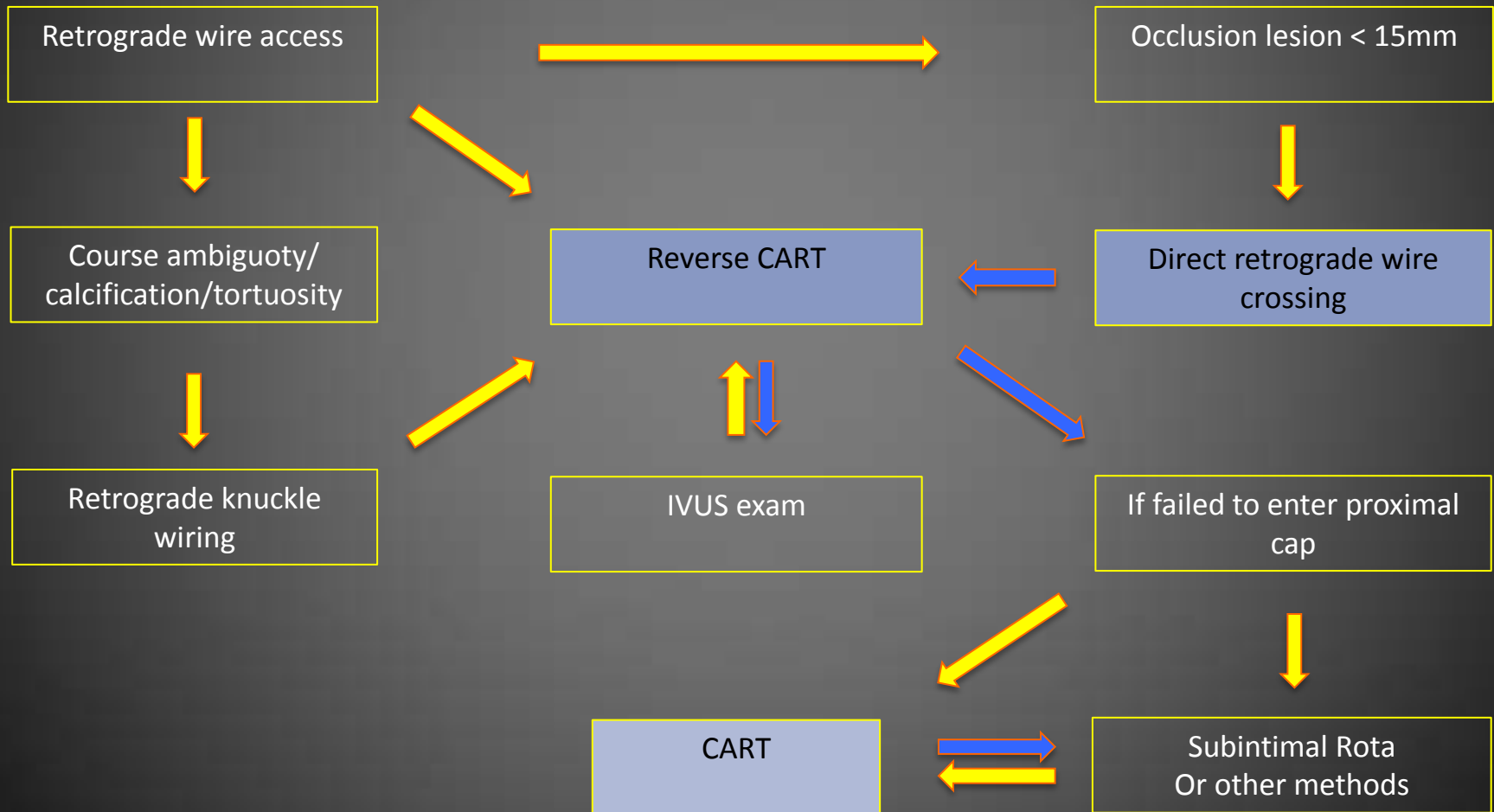
Interventional channel

- Existence of “interventional channel” is dependent on operator experience and device availability
- Low-magnification contralateral injection with delayed exposure is mandatory to appreciate all possible channels
- Tip injection to confirm connection and route

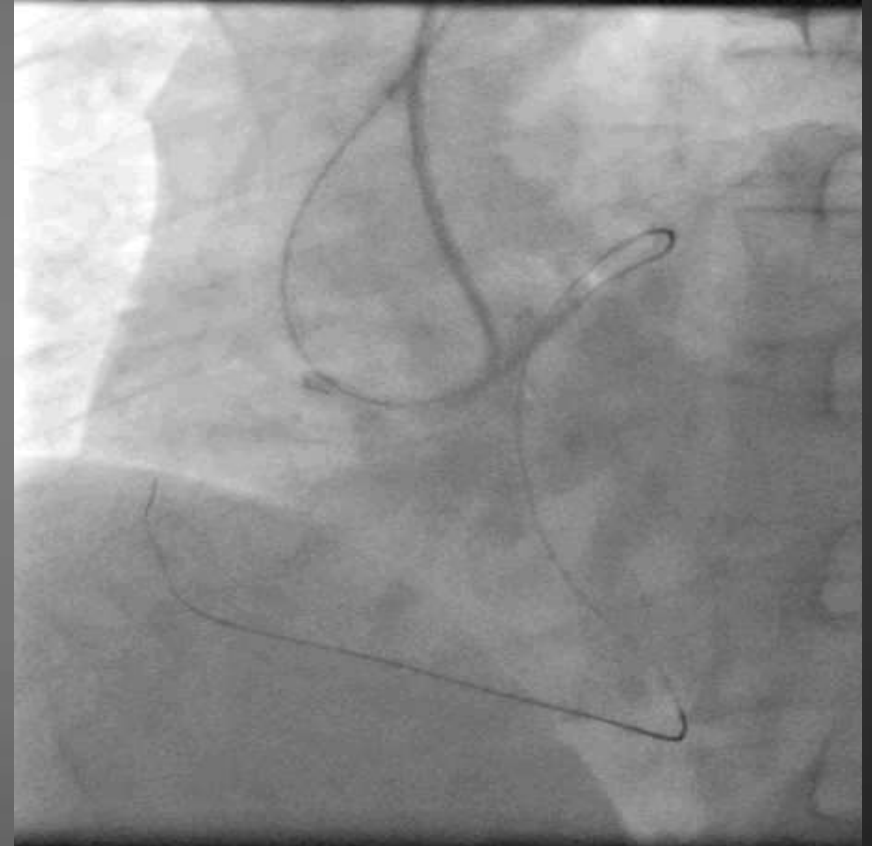
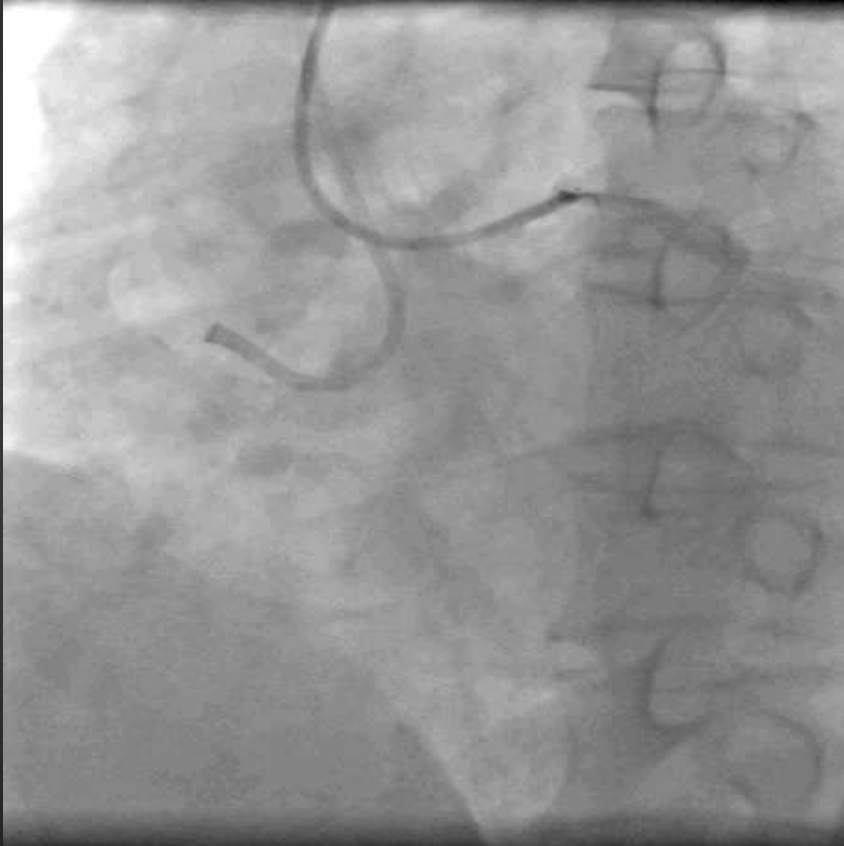
Channel groups



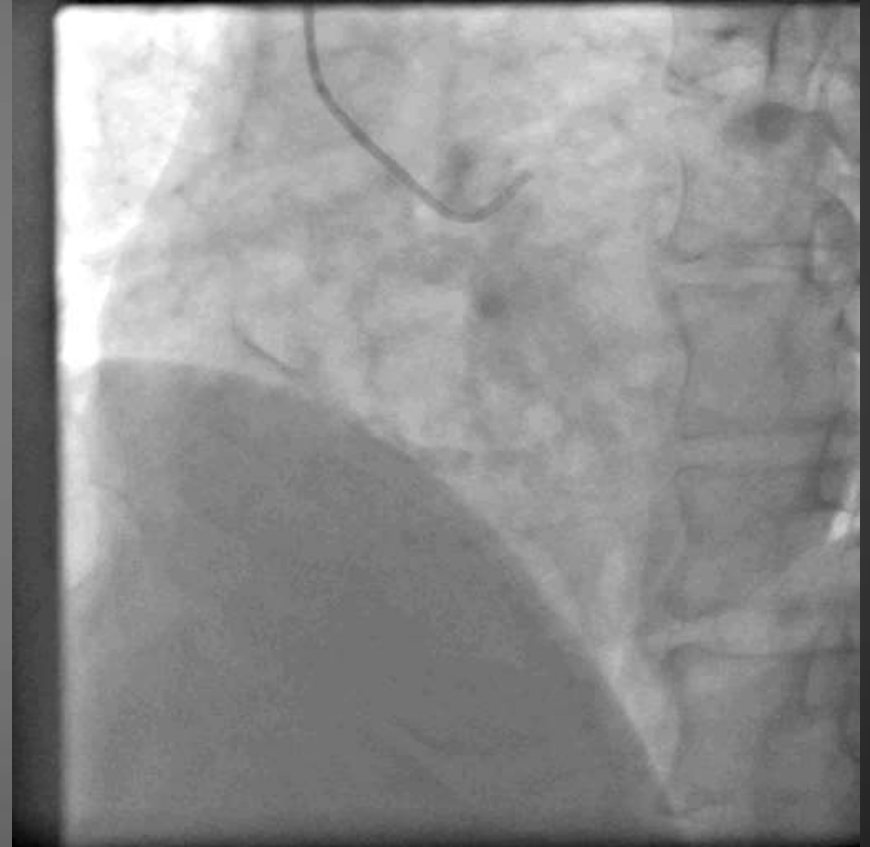
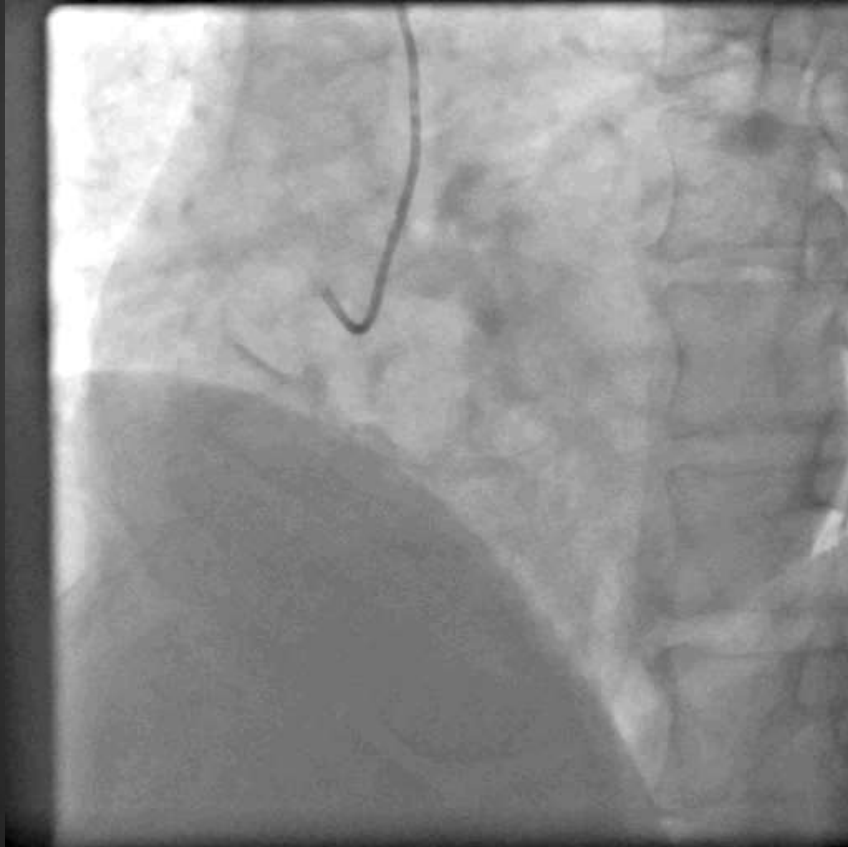
AP Club retro algorithm



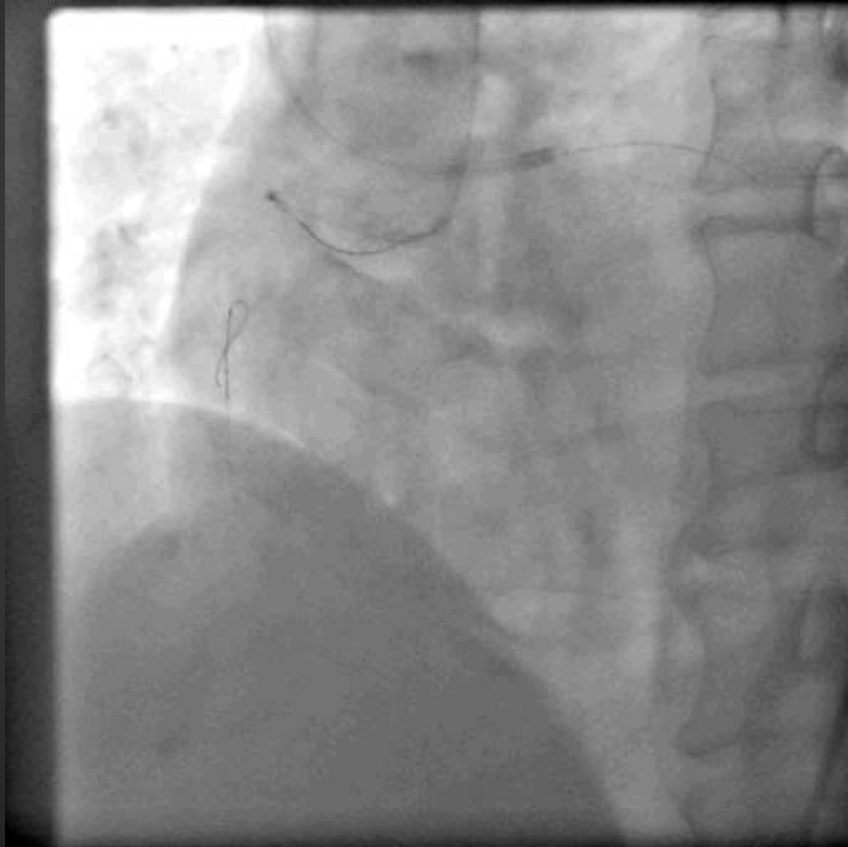
Ub3 retro crossing



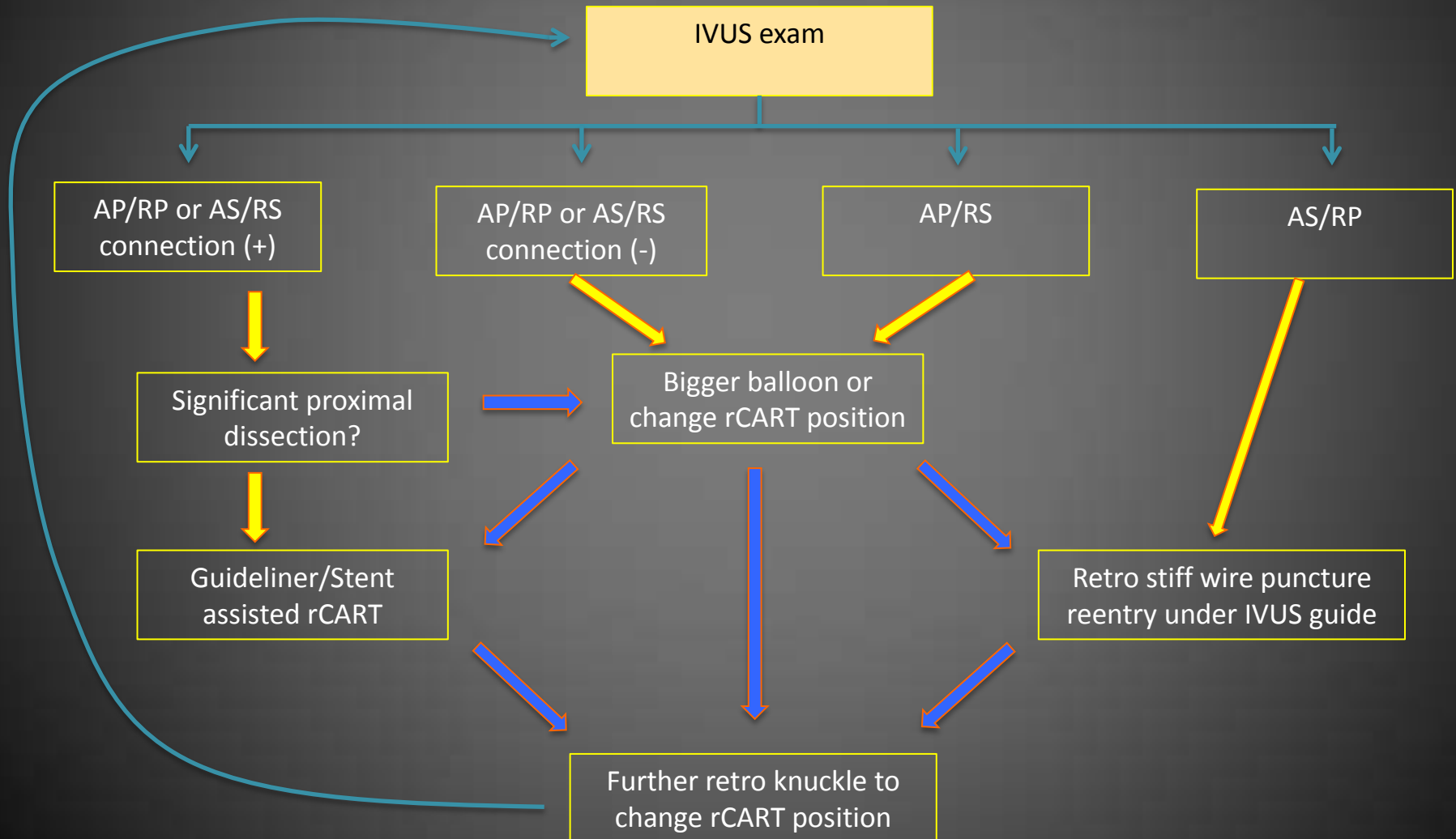
Ambiguous CTO course



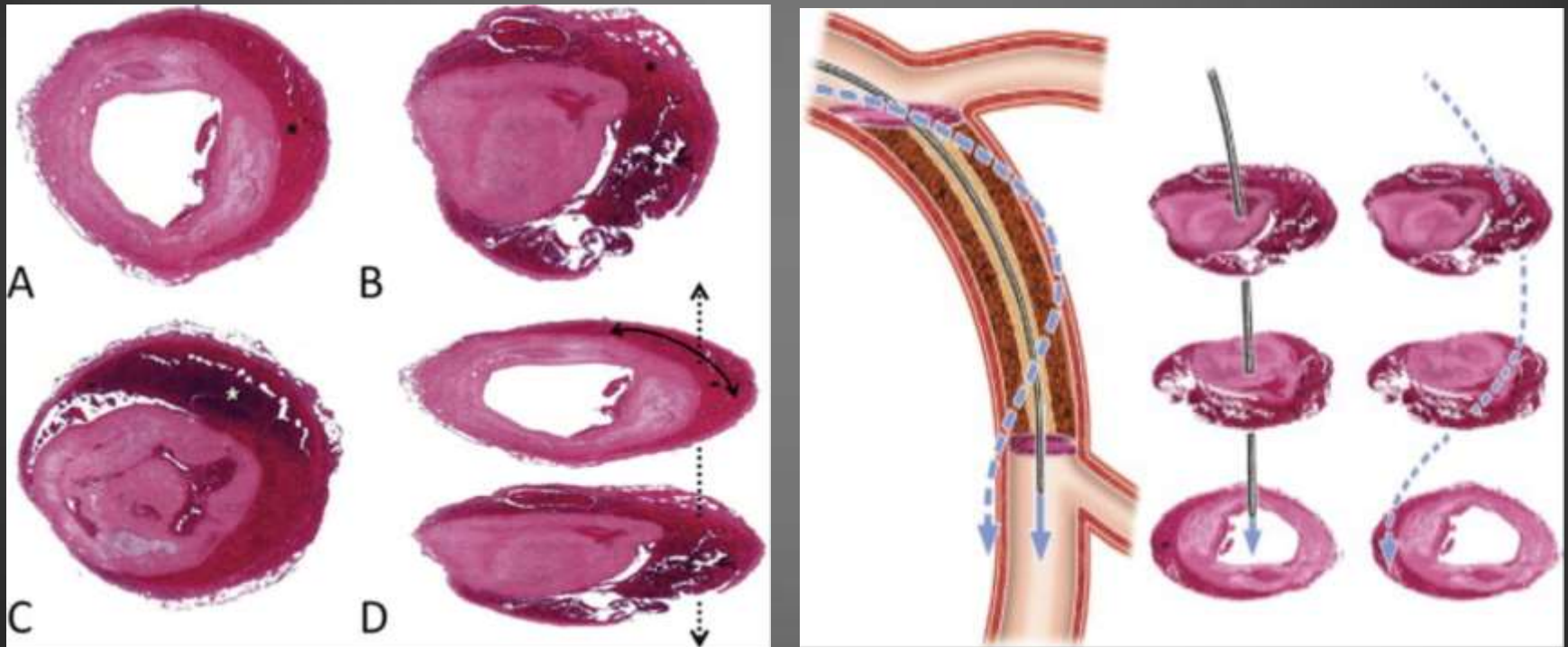
Retro knuckle followed by rCART



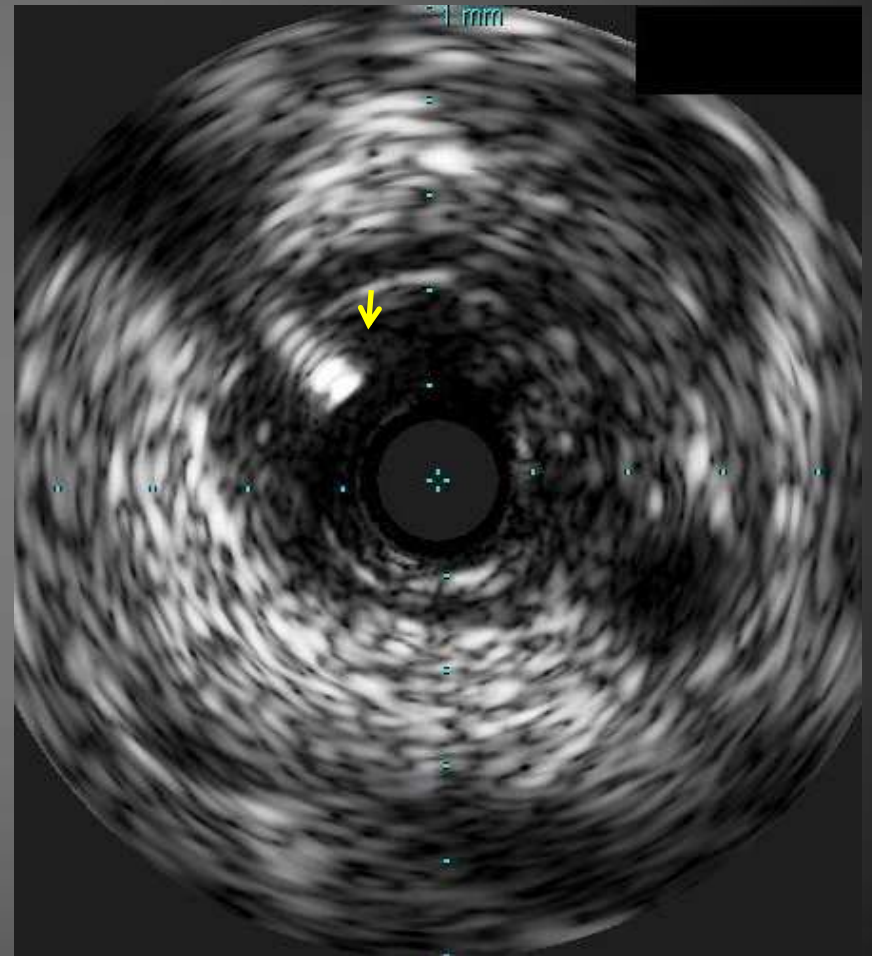
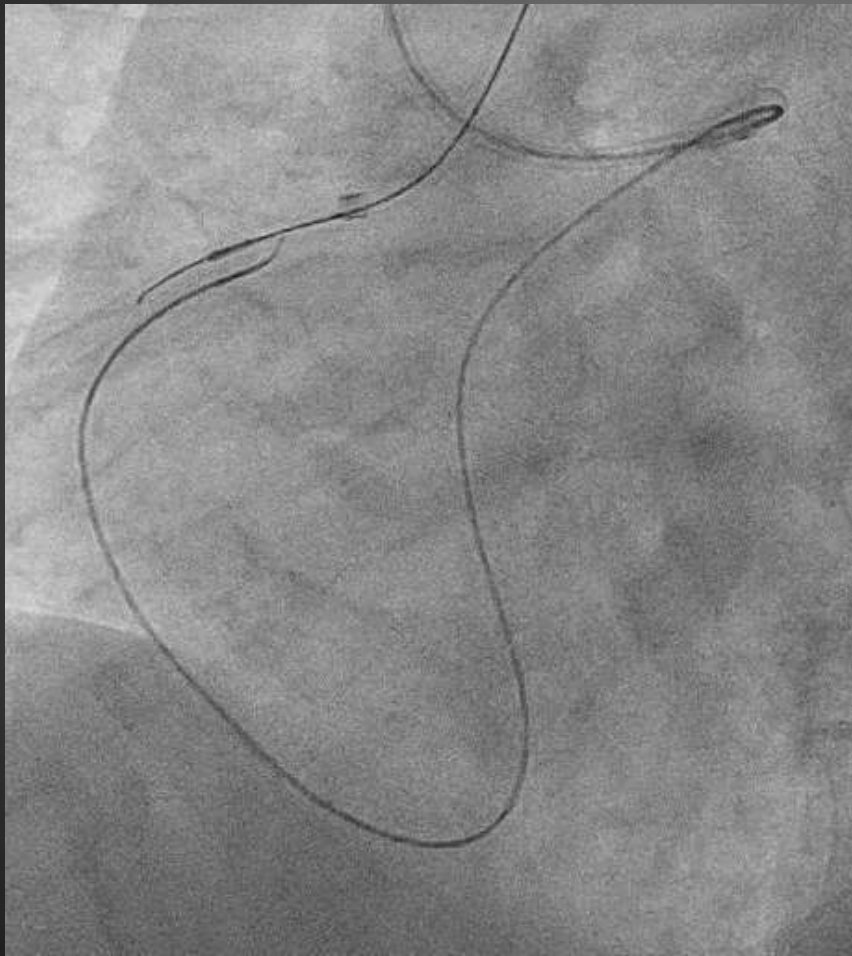
Algorithm when rCART failed



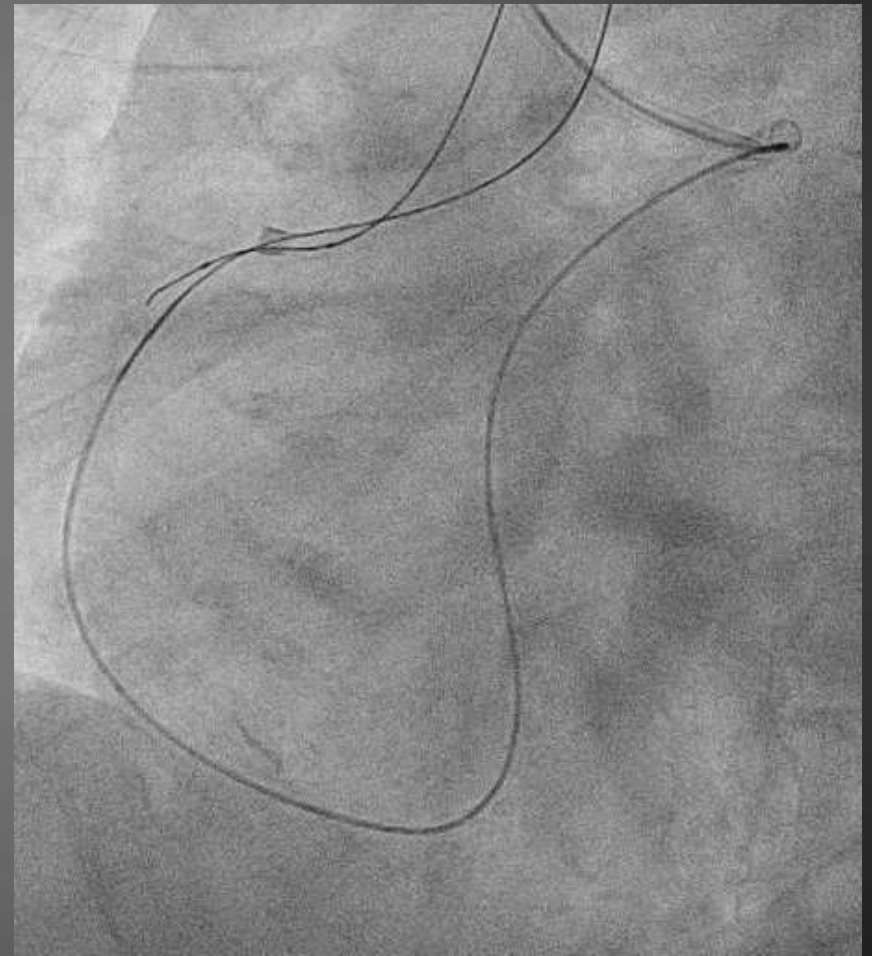
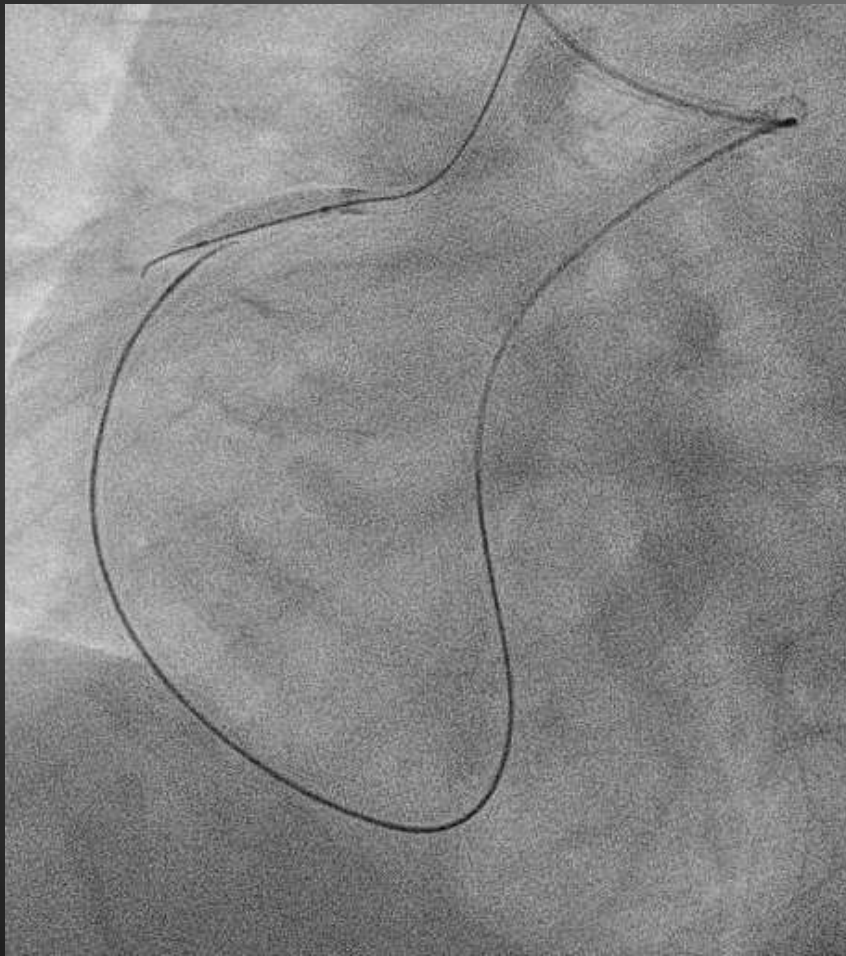
Retro and ante wire positions



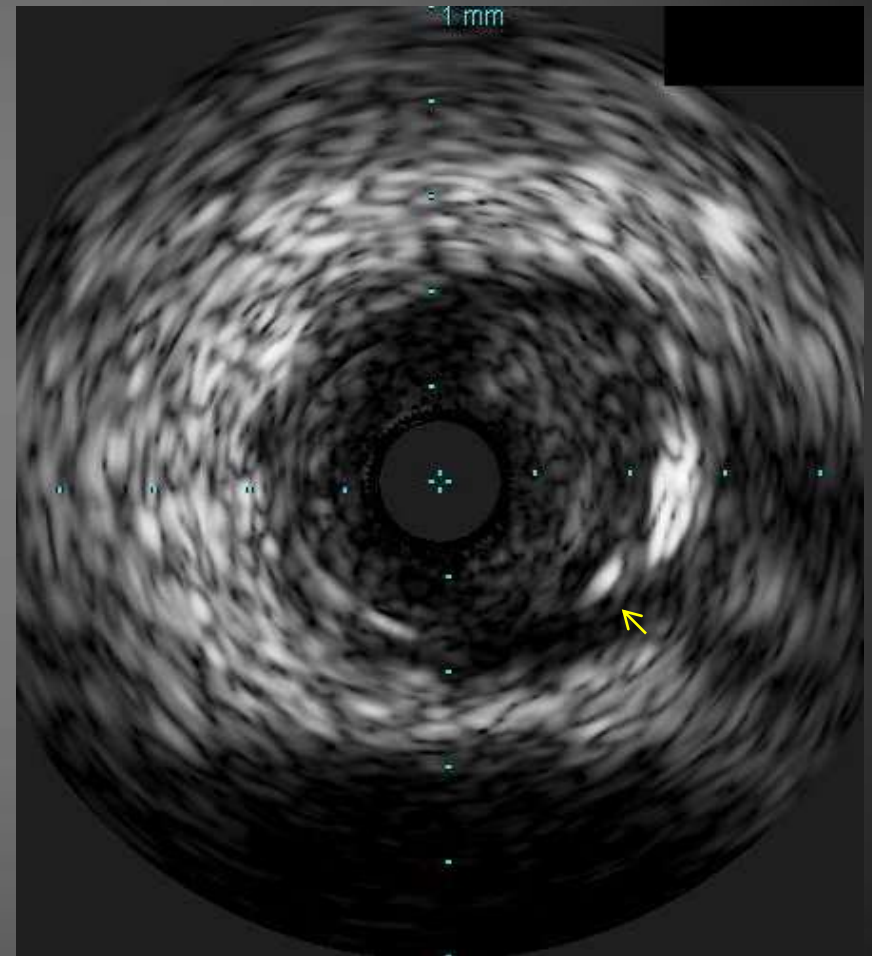
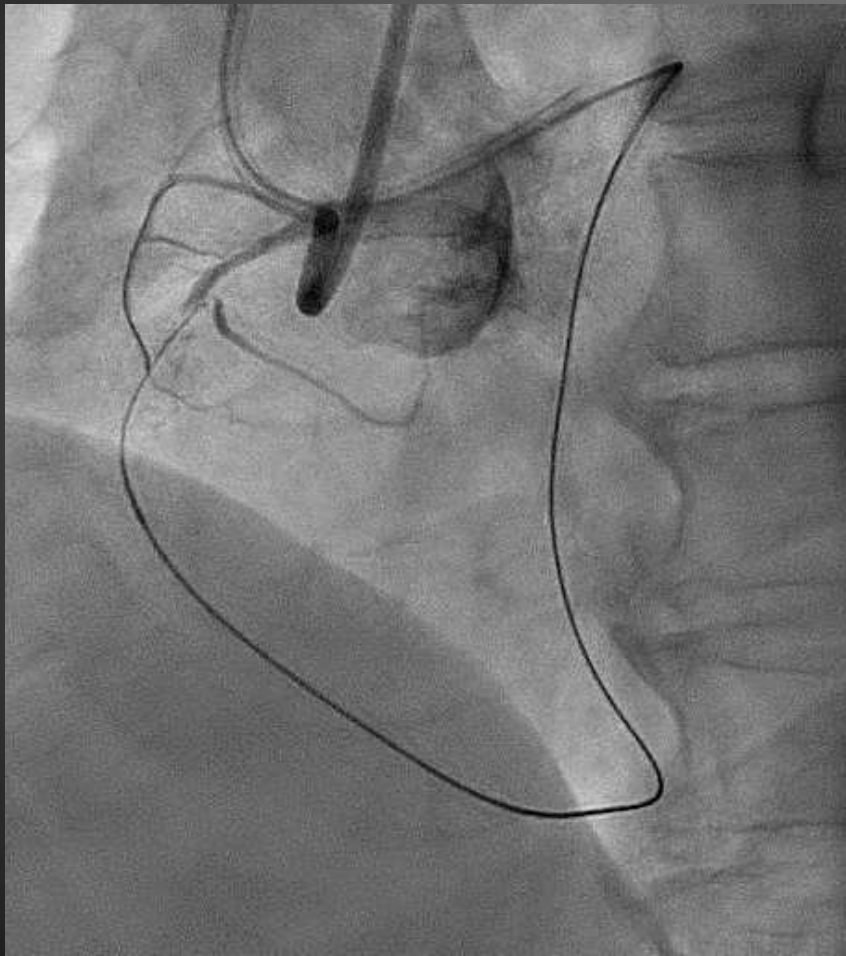
AP/RP in prox. RCA



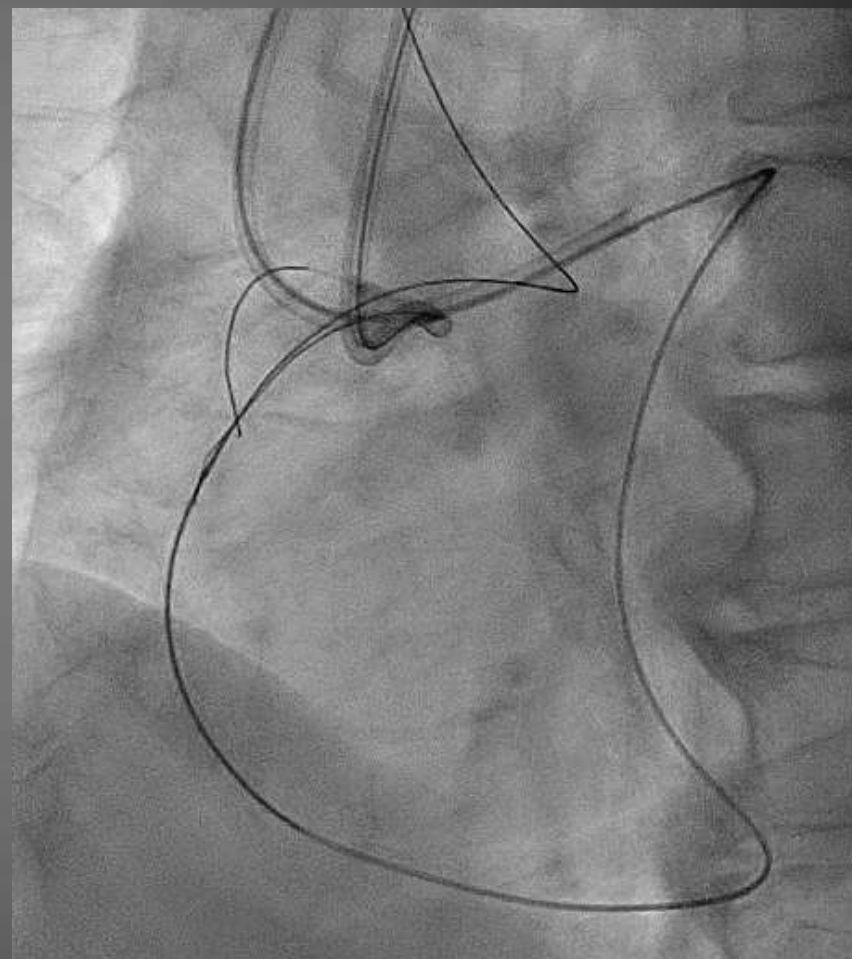
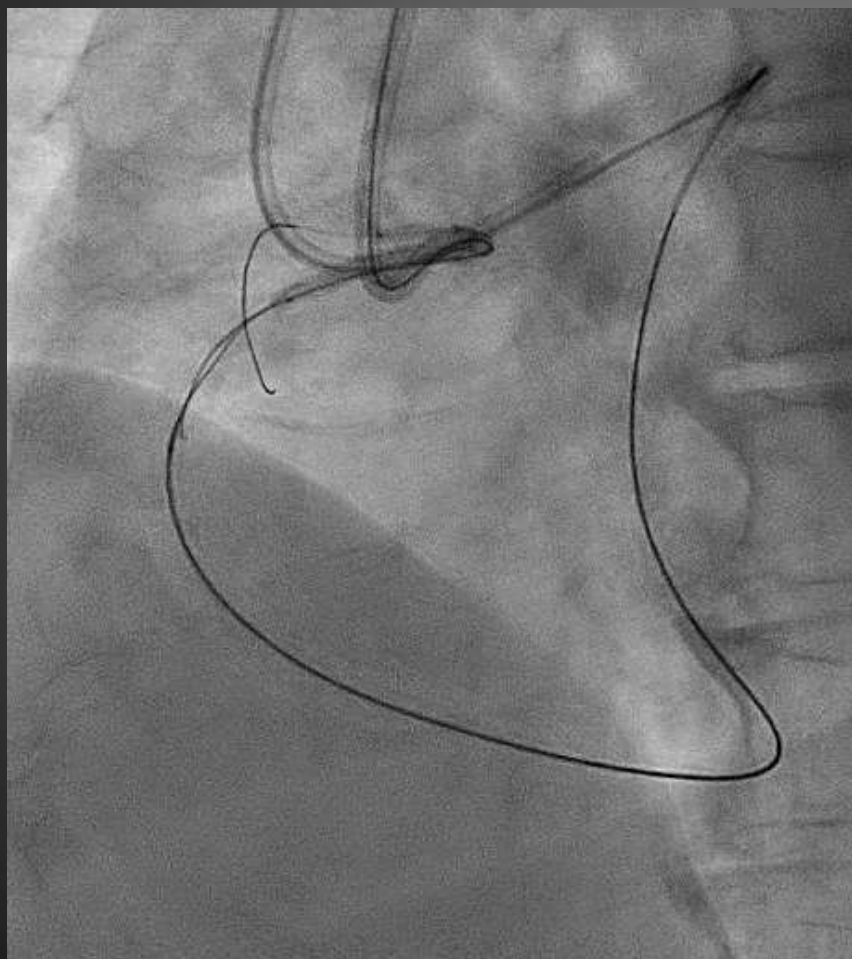
Success after larger balloon rCART



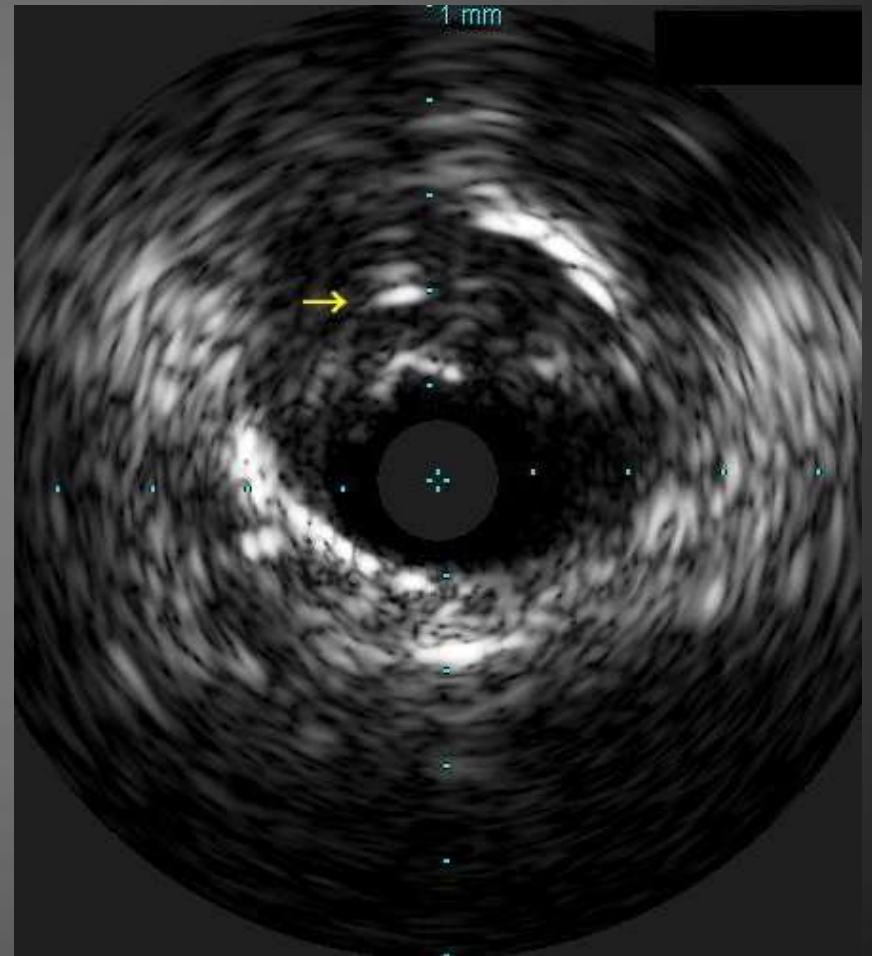
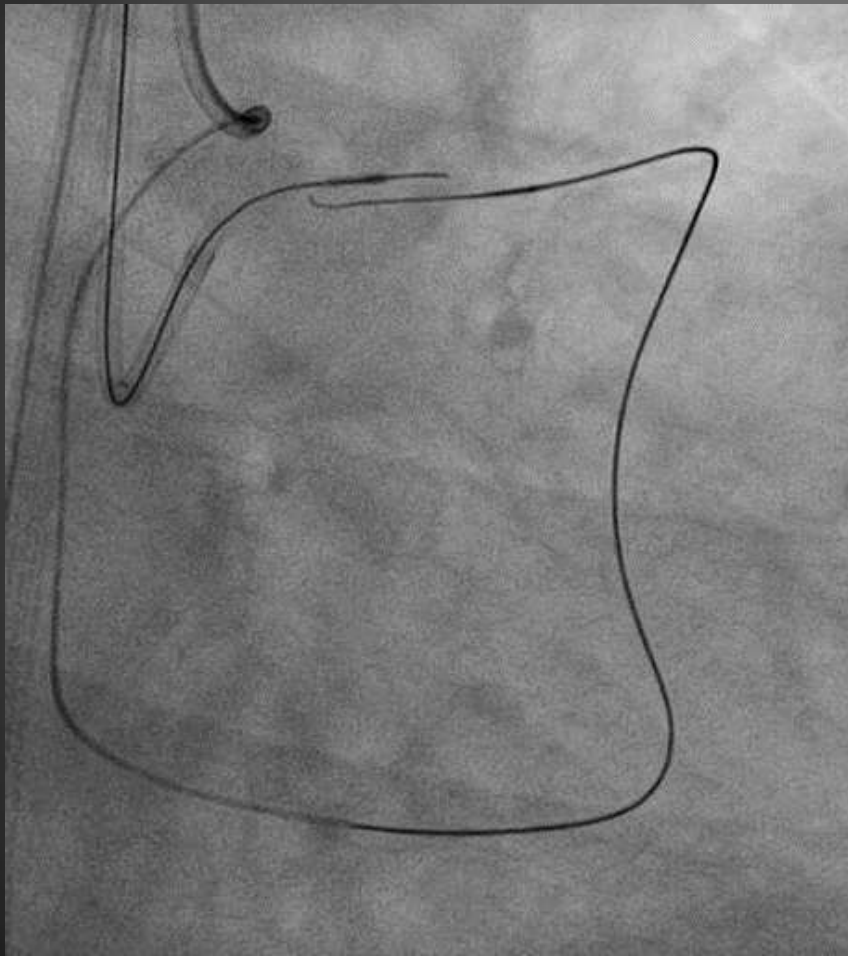
AP/RS in prox. RCA



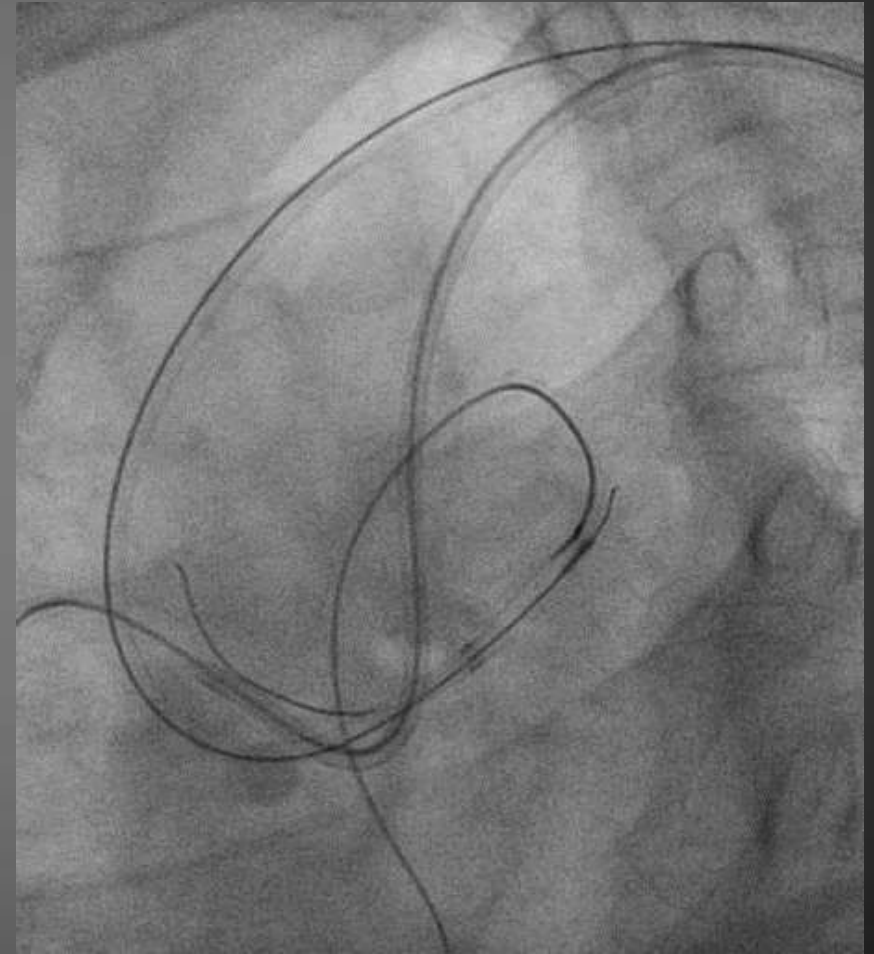
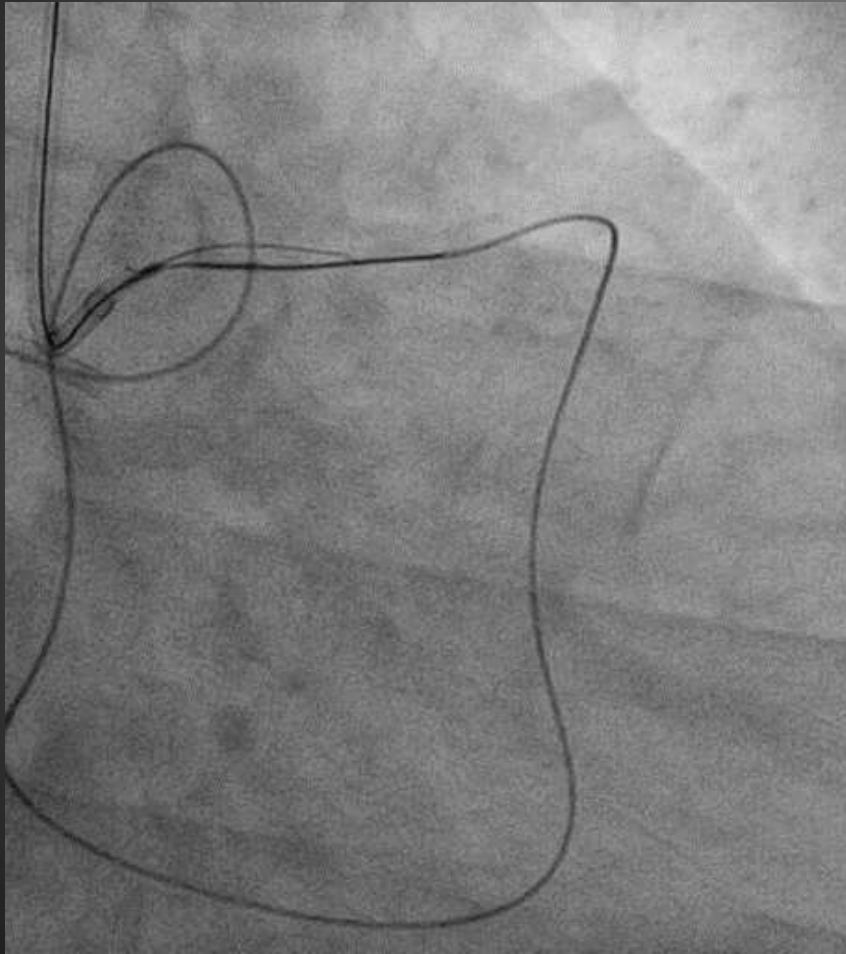
Success after rCART



AS/RP in prox. LAD



Retro puncture under IVUS



Conclusions

- In AP regions, CTO is dealt with in a structured way and liberal use of retrograde approach
- Contemporary rCART for the majority of cases, but consider direct retrograde wiring in short CTO
- Retrograde knuckle wire is used in CTO with long ambiguous course to facilitate rCART
- IVUS exam after initial rCART failure helps to clarify failure mode and choice of further action