

# **Retrograde Recanalization of In-stent Restenosis(ISR) CTO**

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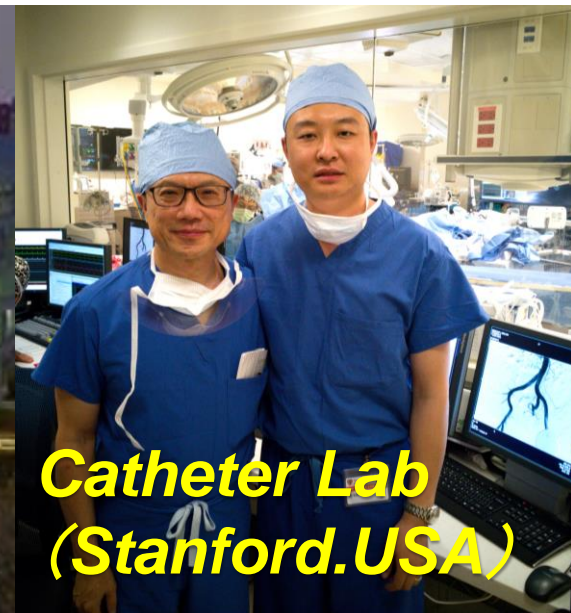
***Fourth Hospital of Harbin Medical University***



***4th Hospital of  
Harbin Medical  
University***



***Whitehead Building  
(Emory.USA)***



***Catheter Lab  
(Stanford.USA)***

## **Disclosure Statement of Financial Interest**

**I, (Bing-Chen Liu) DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.**

# Background

- *Occlusive ISR is an uncommon cause of CTOs(<5%)*
- *Most are symptomatic(stable angina)*
- *Presence of stent(s) within CTO*
  - *“ Roadmap ”*
  - *Protect against perforation*
- ***Reported predictors of failure***
  - *Longer duration occlusion*
  - *Large side branch at proximal cap*
  - *Smaller diameter of initial stent ( very challenging )*
- ***Retrograde more difficulty than De Novo***
- ***CTO ISR usually excluded from CTO trials***

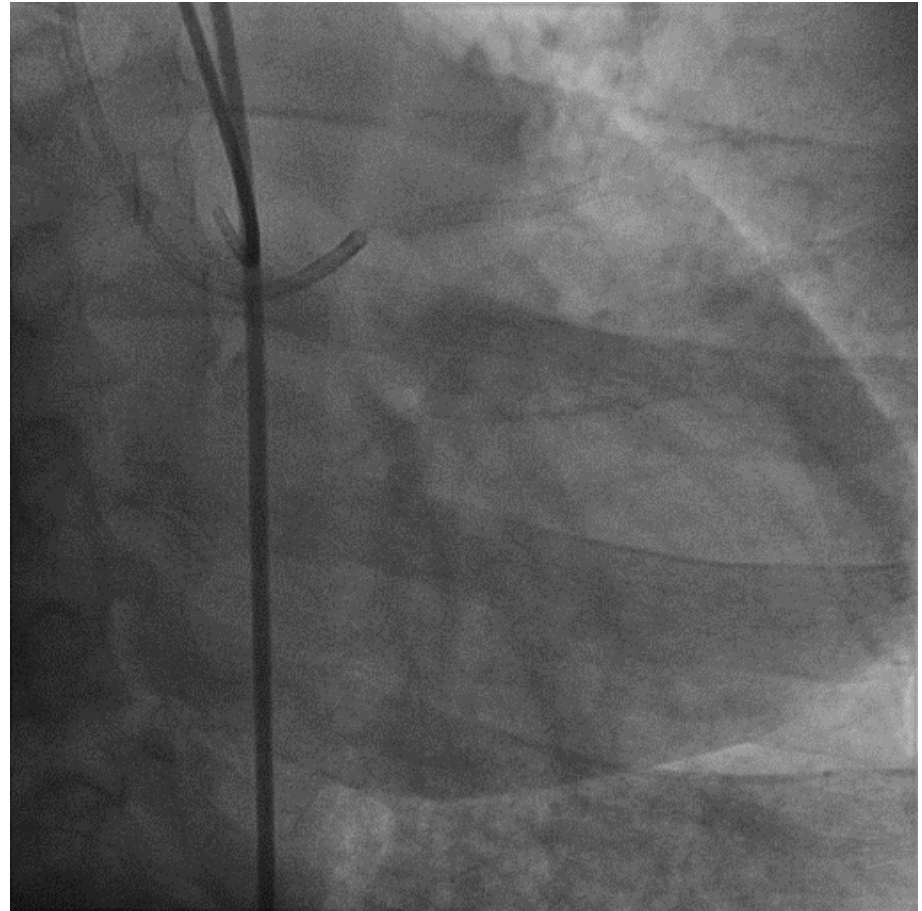
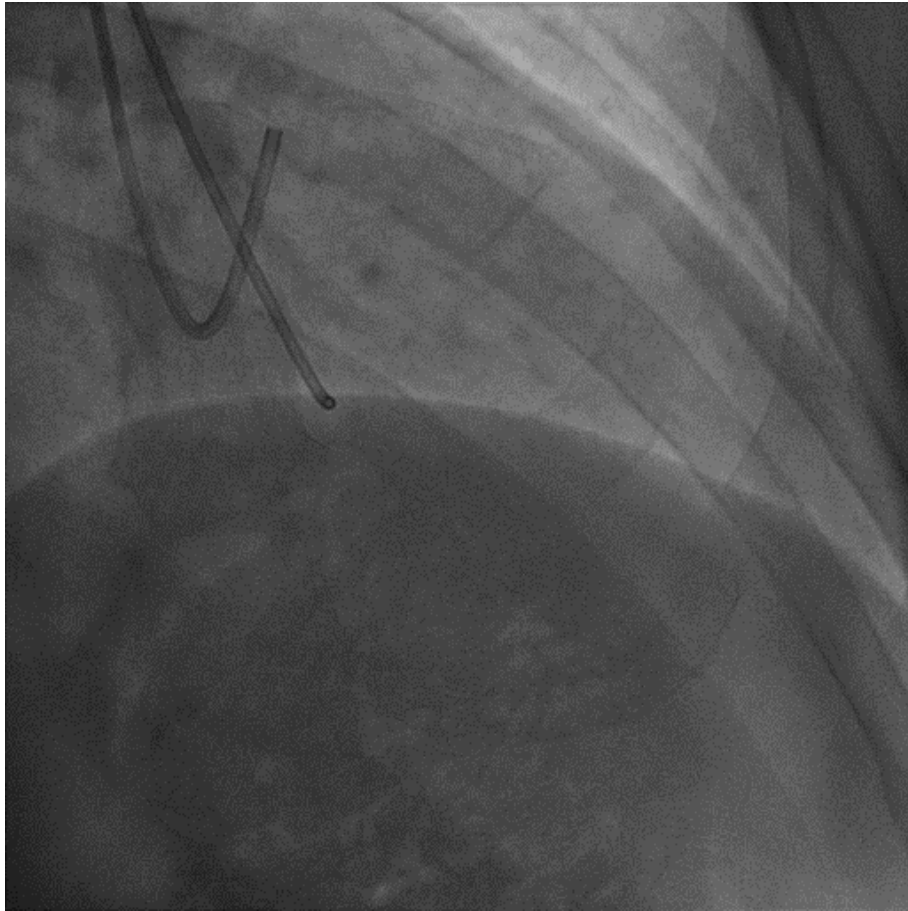
# Preparation

- Quality imaging and reading
- Guiding selection(Strong support,7F, femoral)
- Characteristics of lesion(J-CTO score)
- The type of the restenosis stent

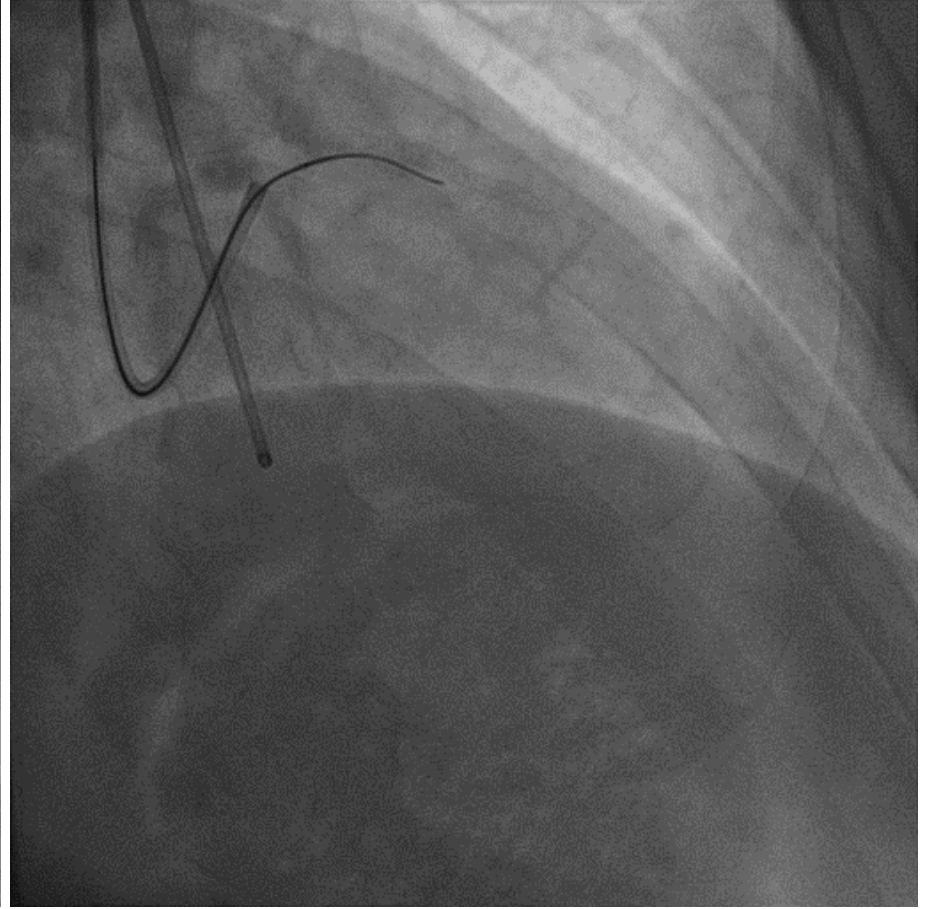
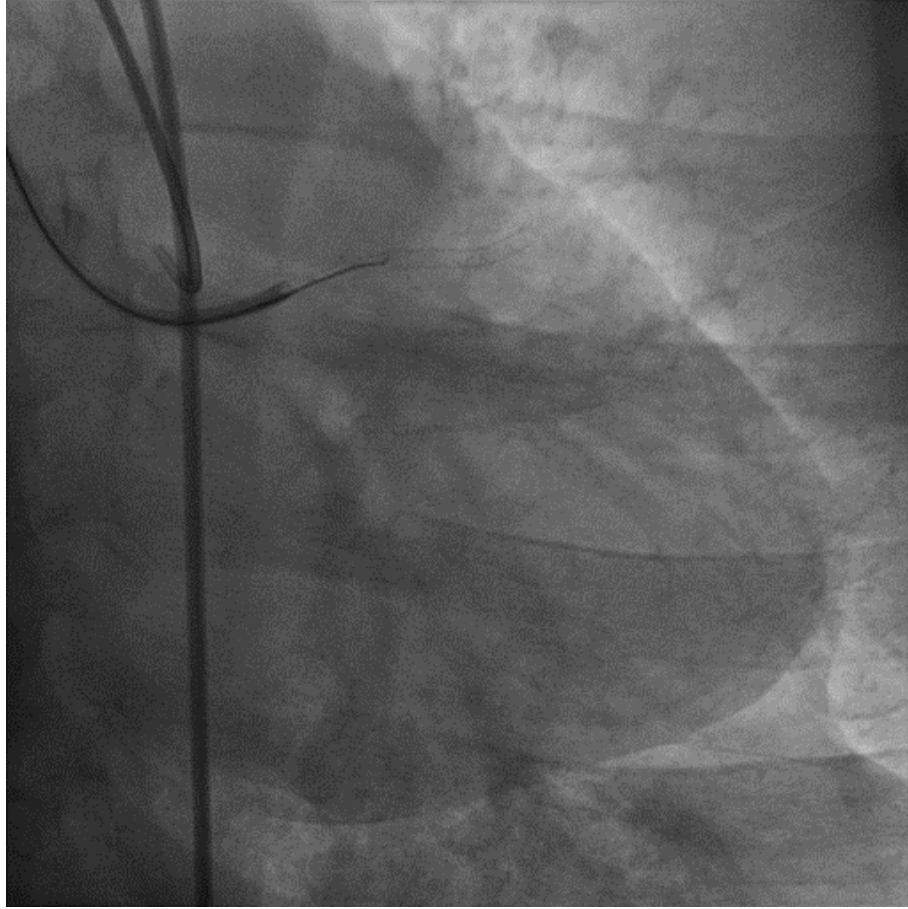
# Procedure

- Wire selection
  - stiff wires: Miracle (UB3) , Conquest, **Gaia III**
  - AWE : Fielder XTA/**XTR** → Gaia → Confianza Pro
  - **Downgrade wire at end edge of stent**
- Microcatheter(Corsair **pro**)
- Multi-position verification(  $>90^\circ$  )  
make sure wire stay within struts
- Good collateral should perform retrograde angio ASAP

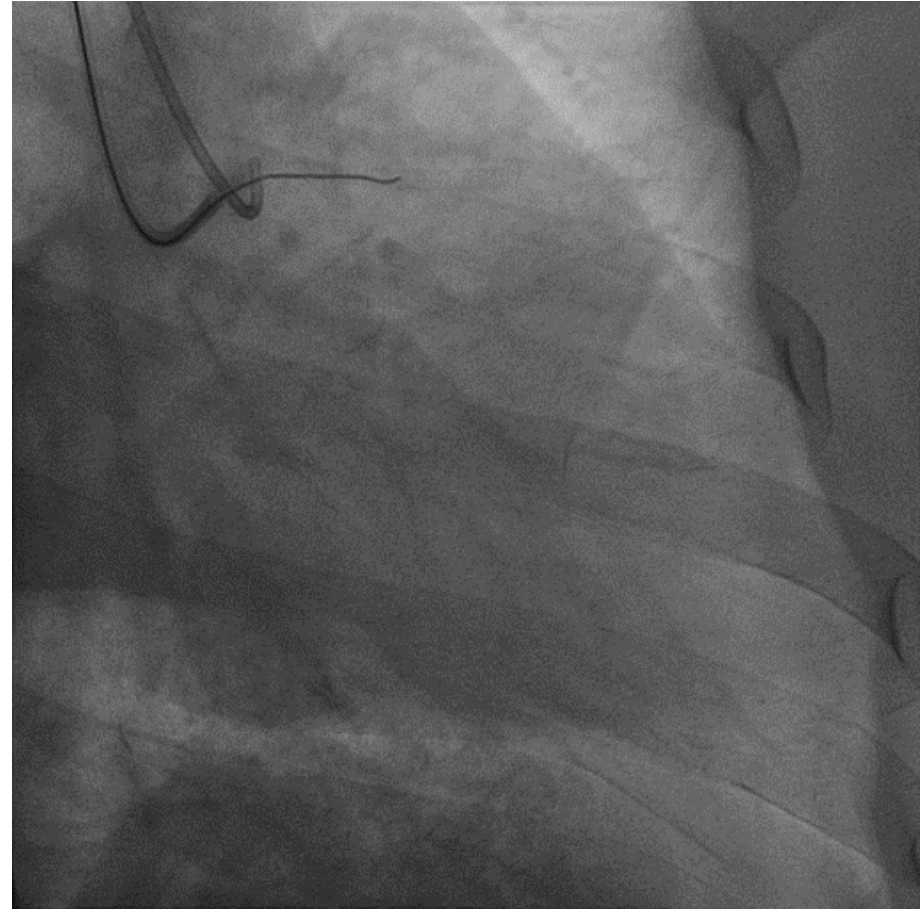
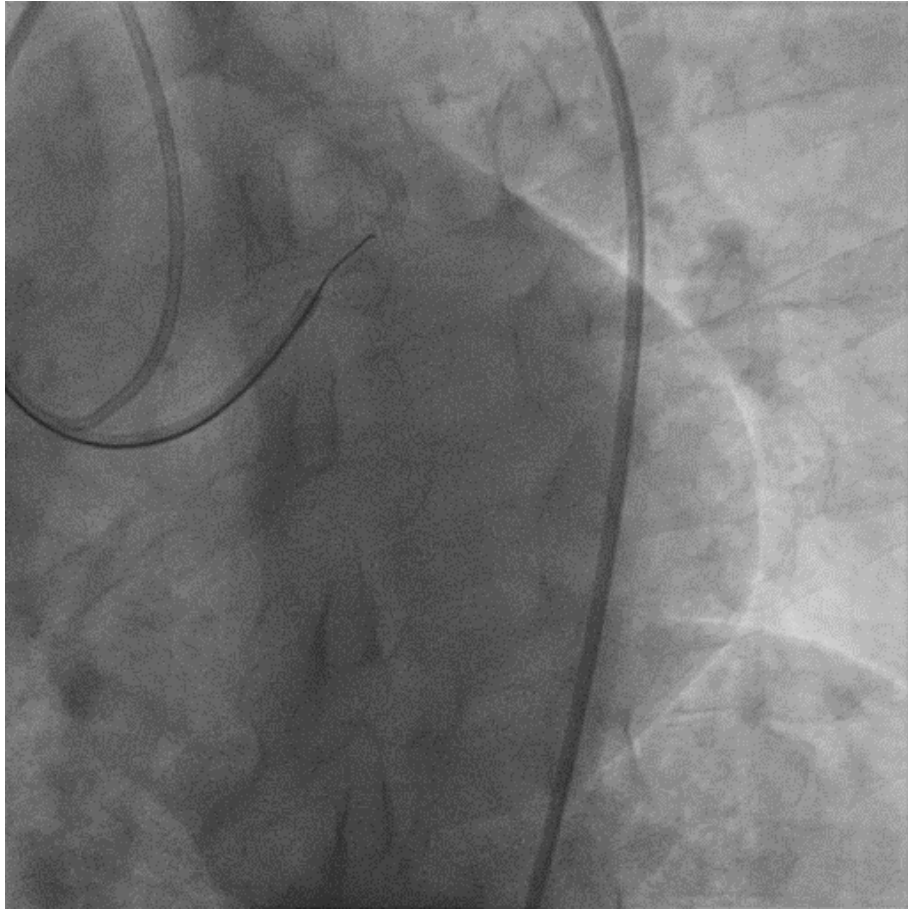
# My Case pLAD stent (II DES) 3 years ago



# Antegrade

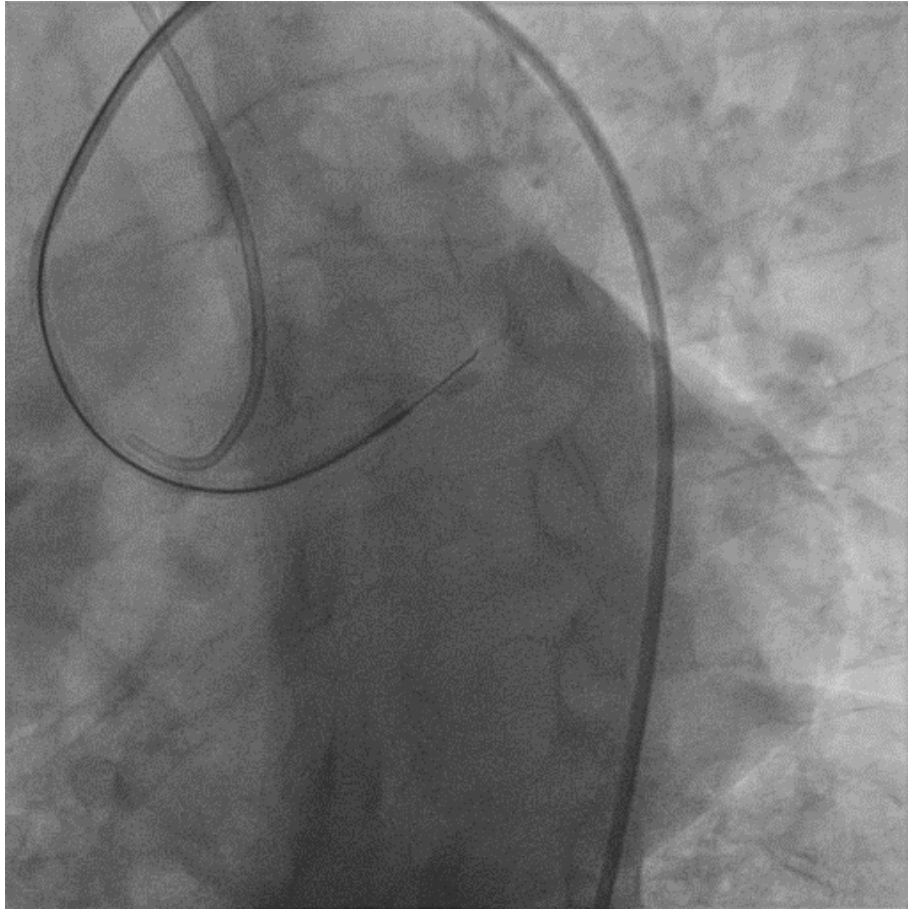


**Miracle 6**

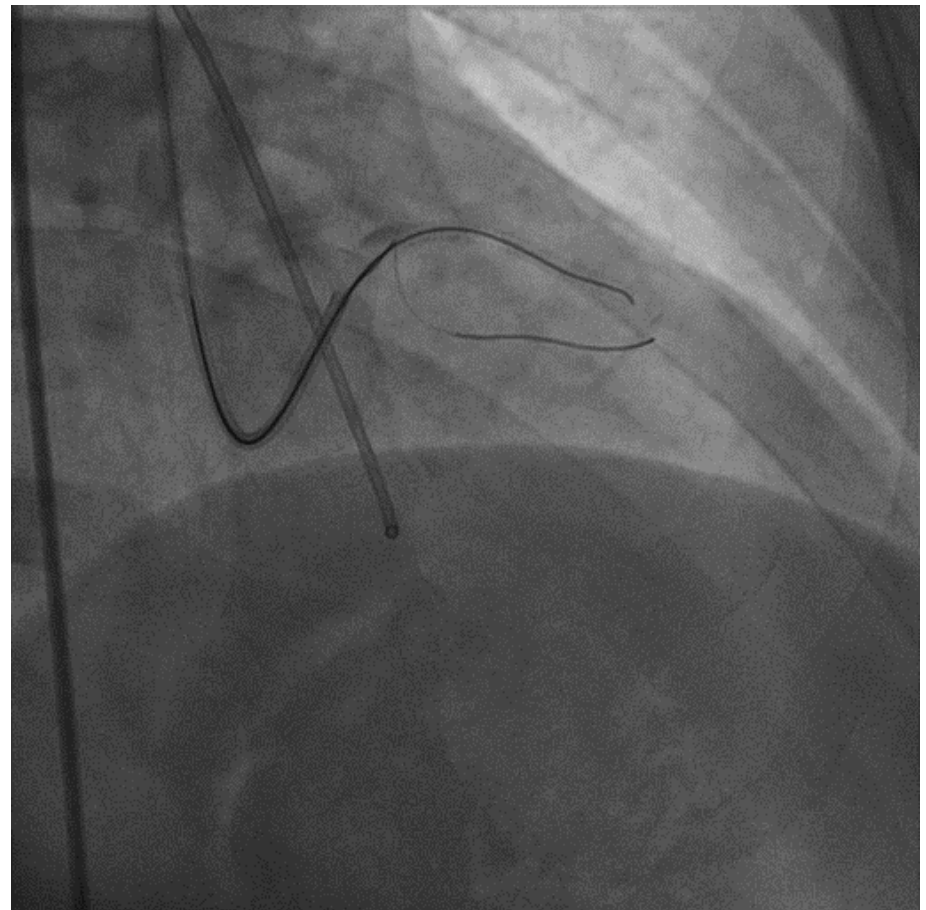


**Gaia III**

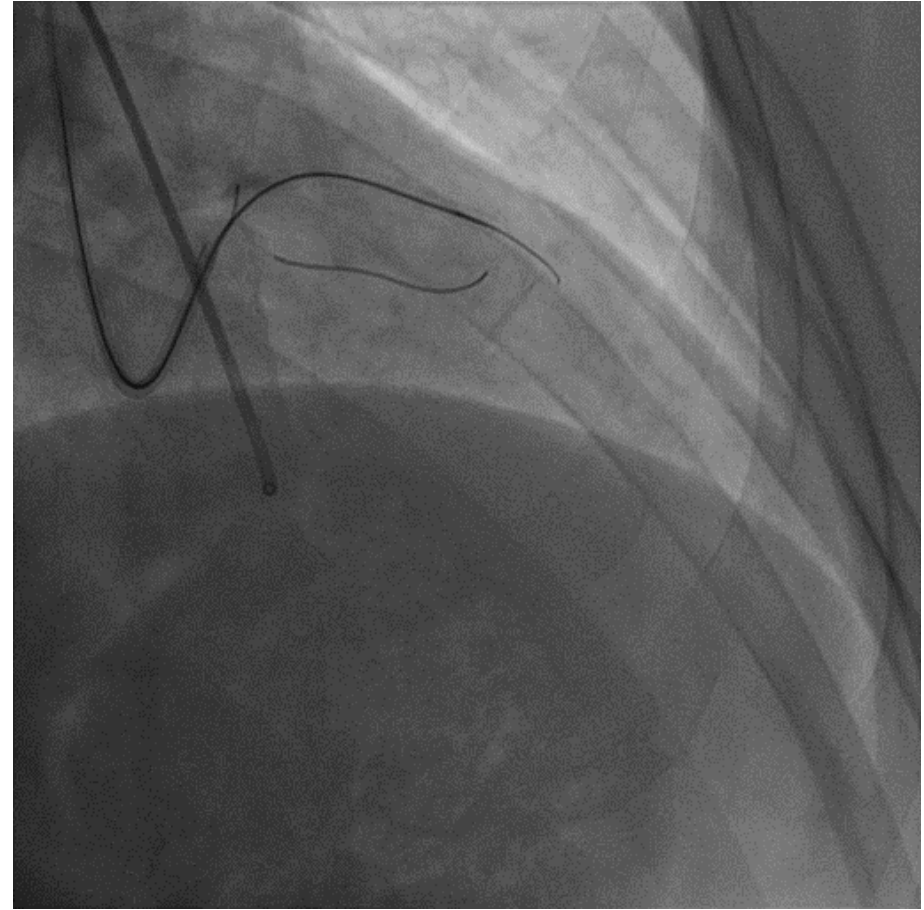
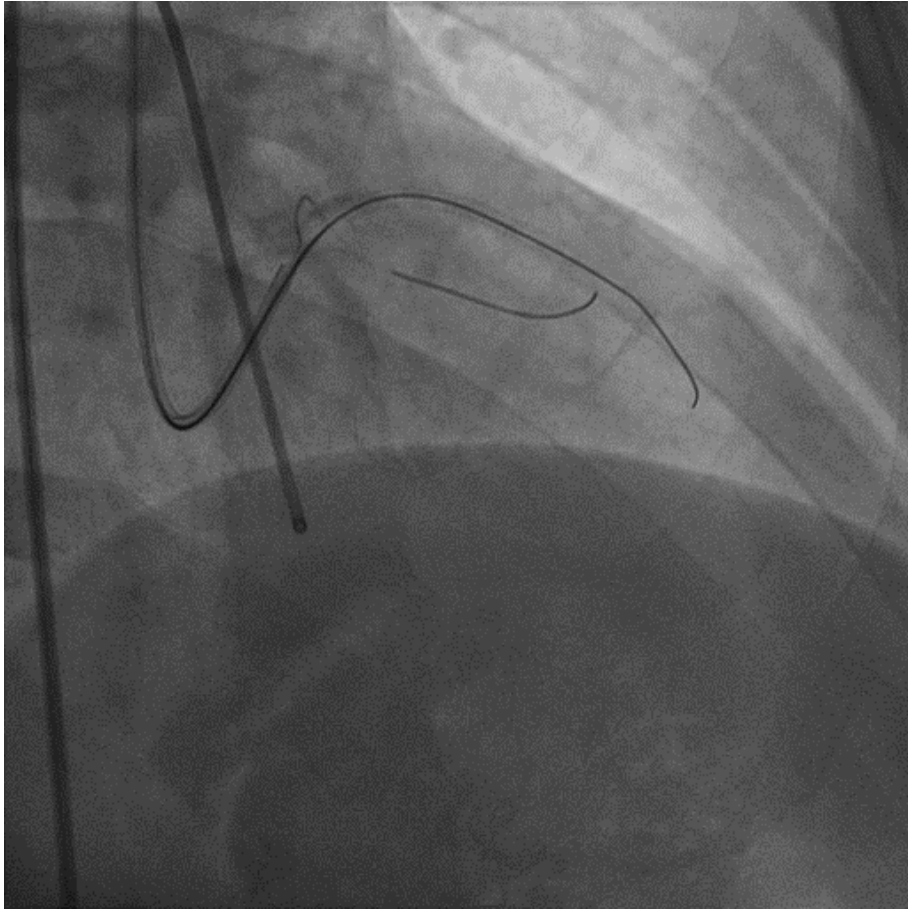




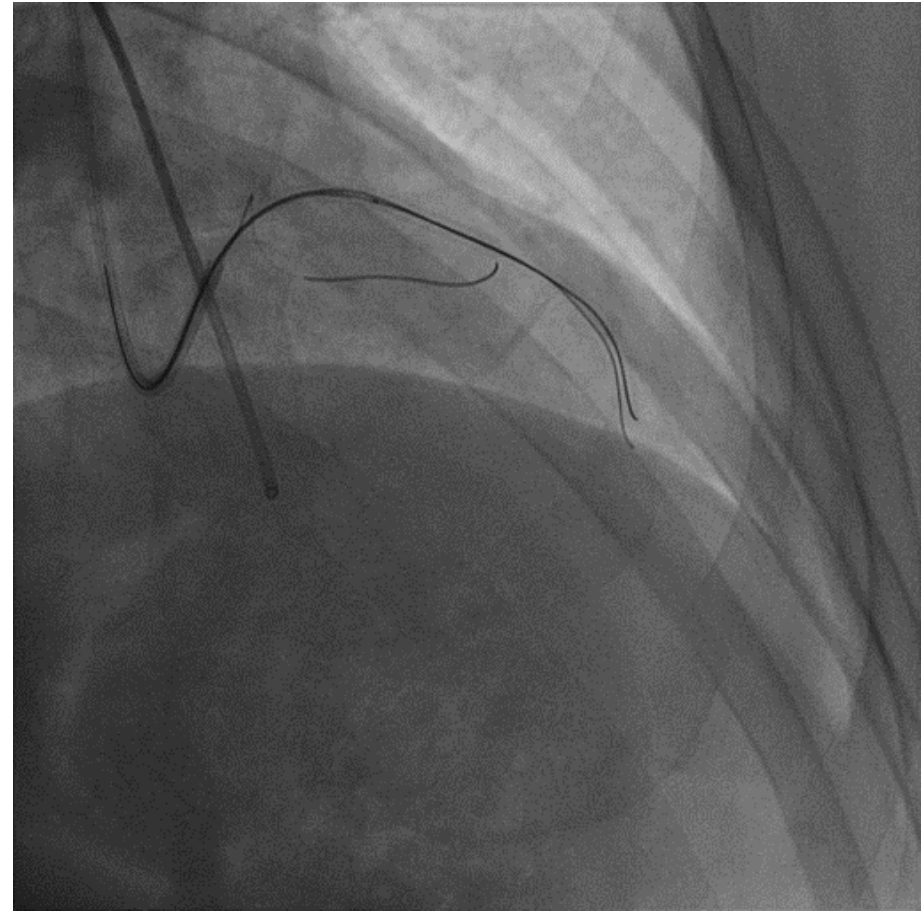
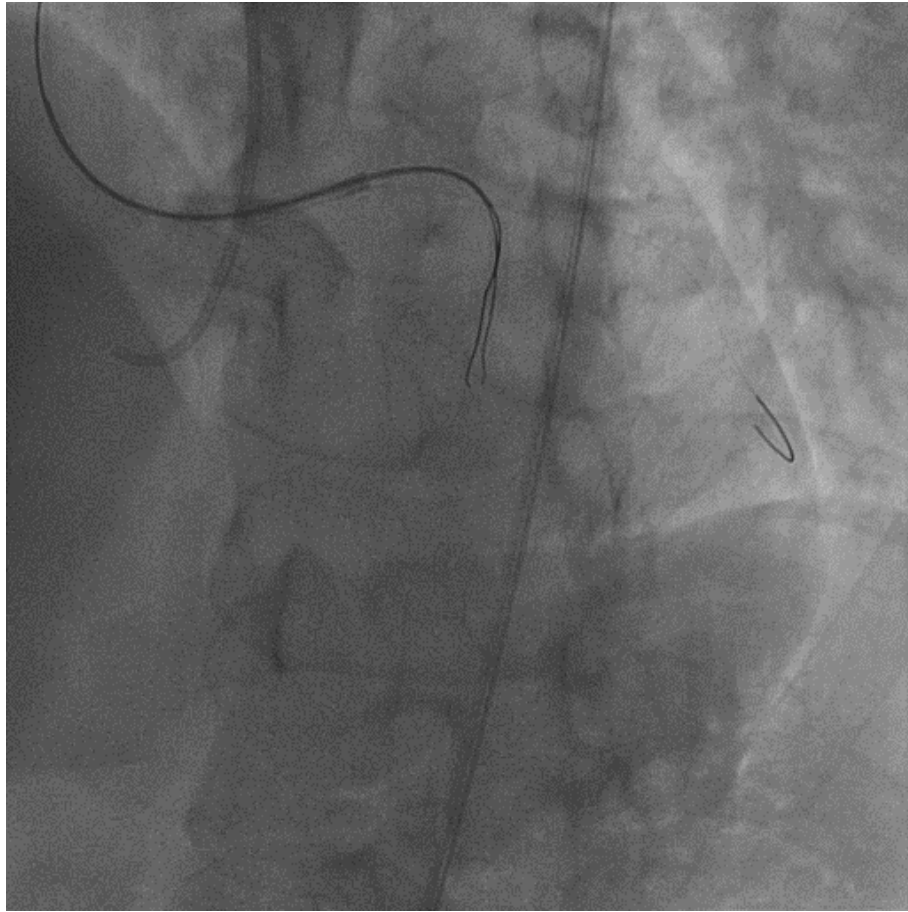
**Conquest pro**



**Gaia III**

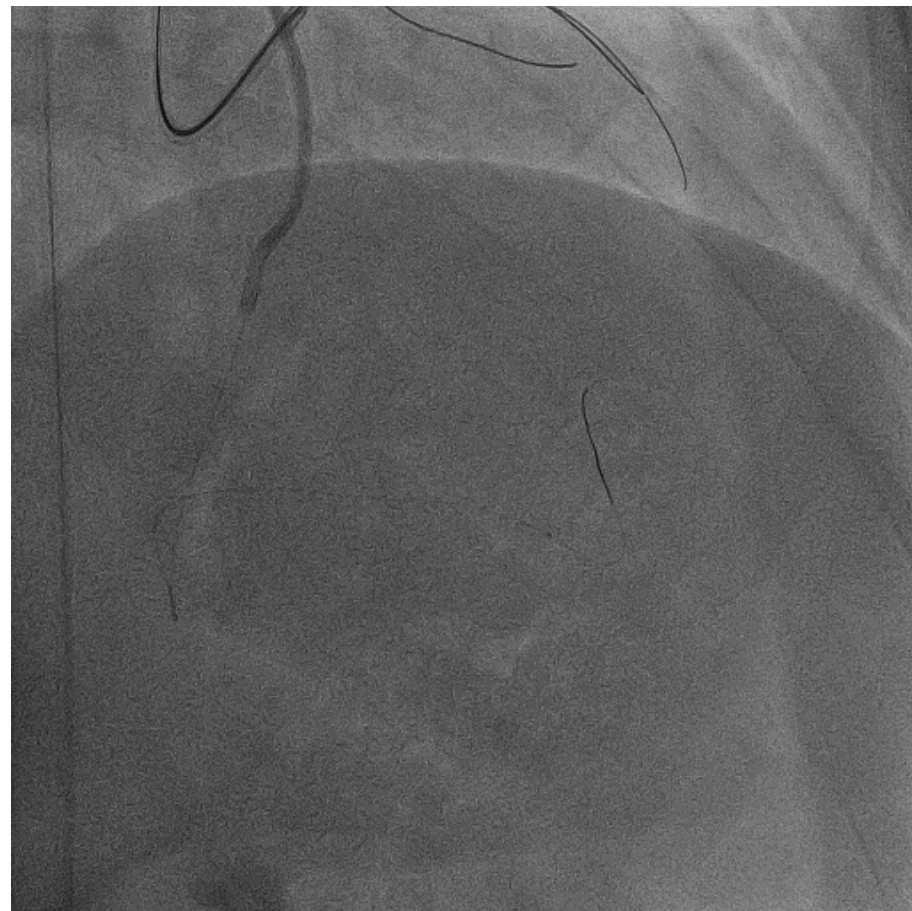
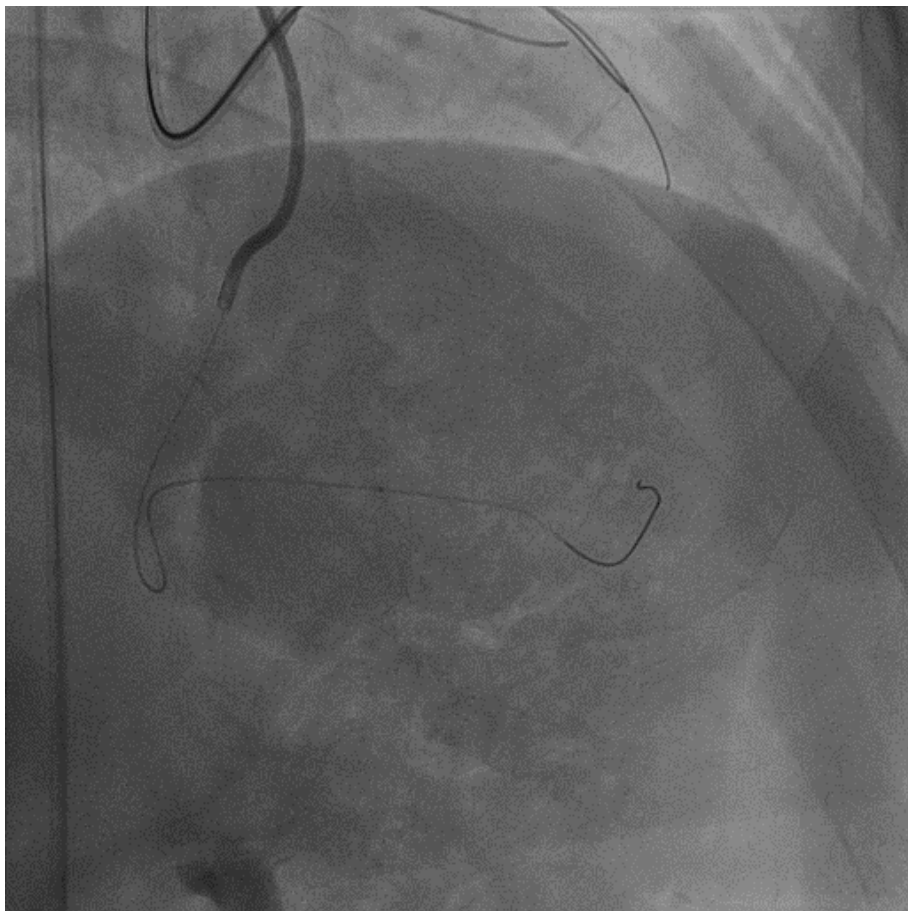


**Conquest pro**

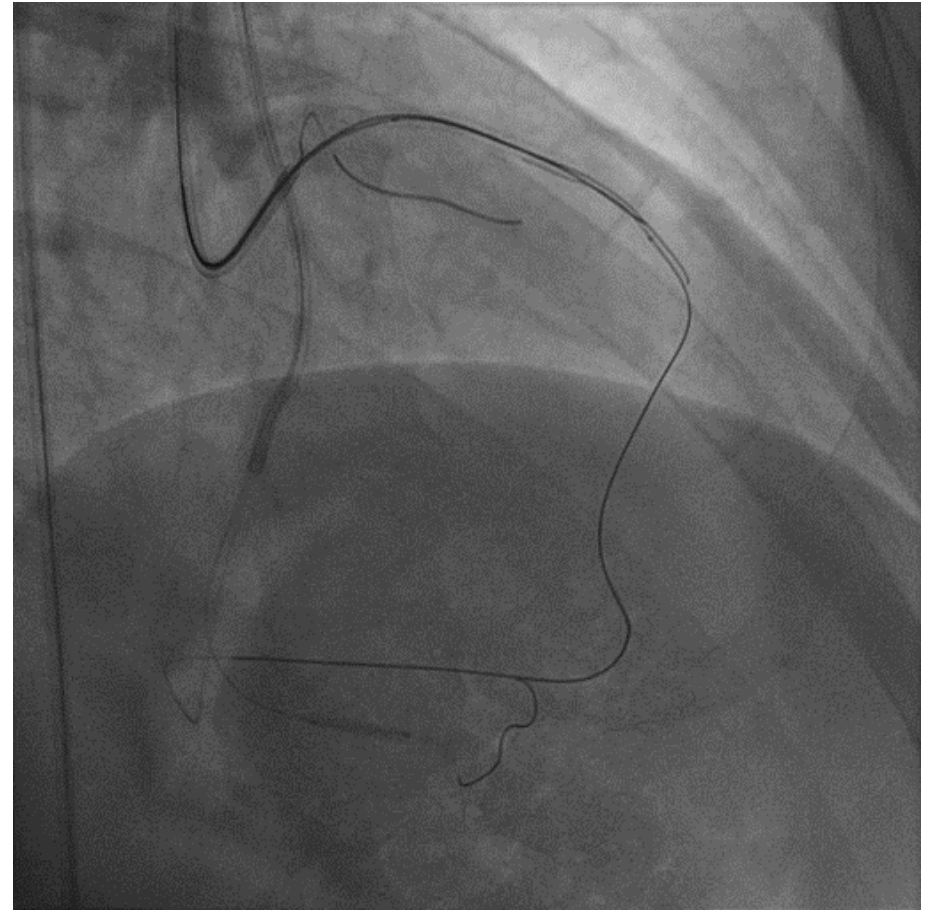
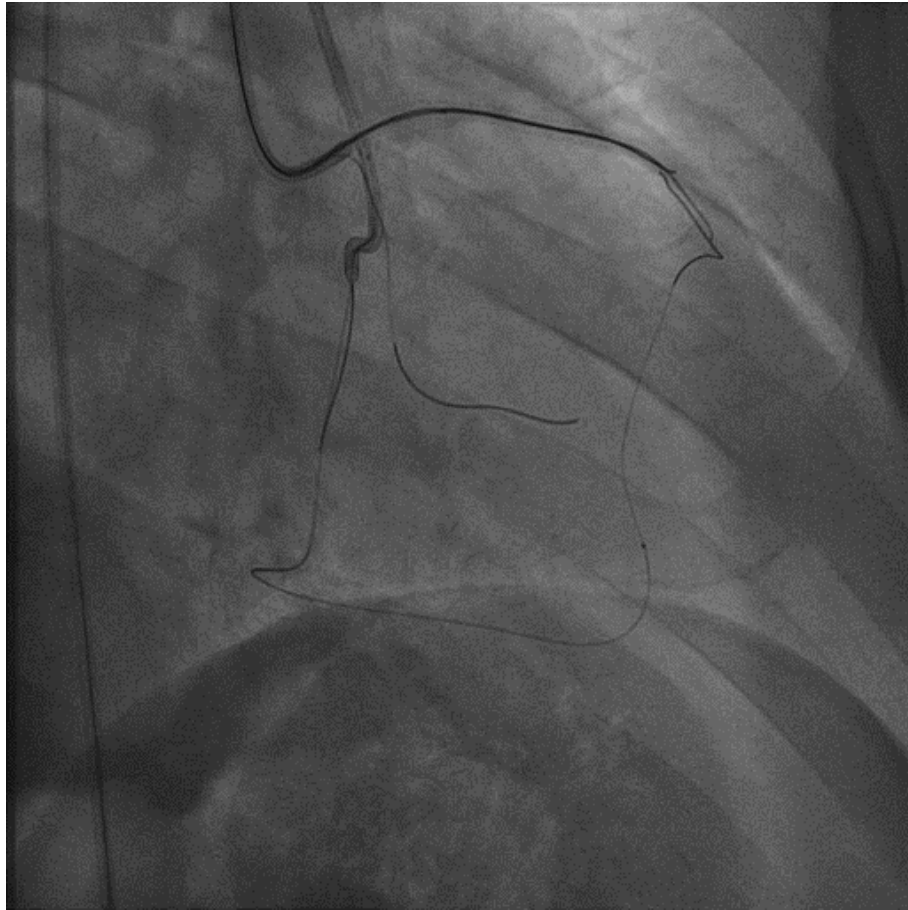


**Paralled wire technique with KDL**

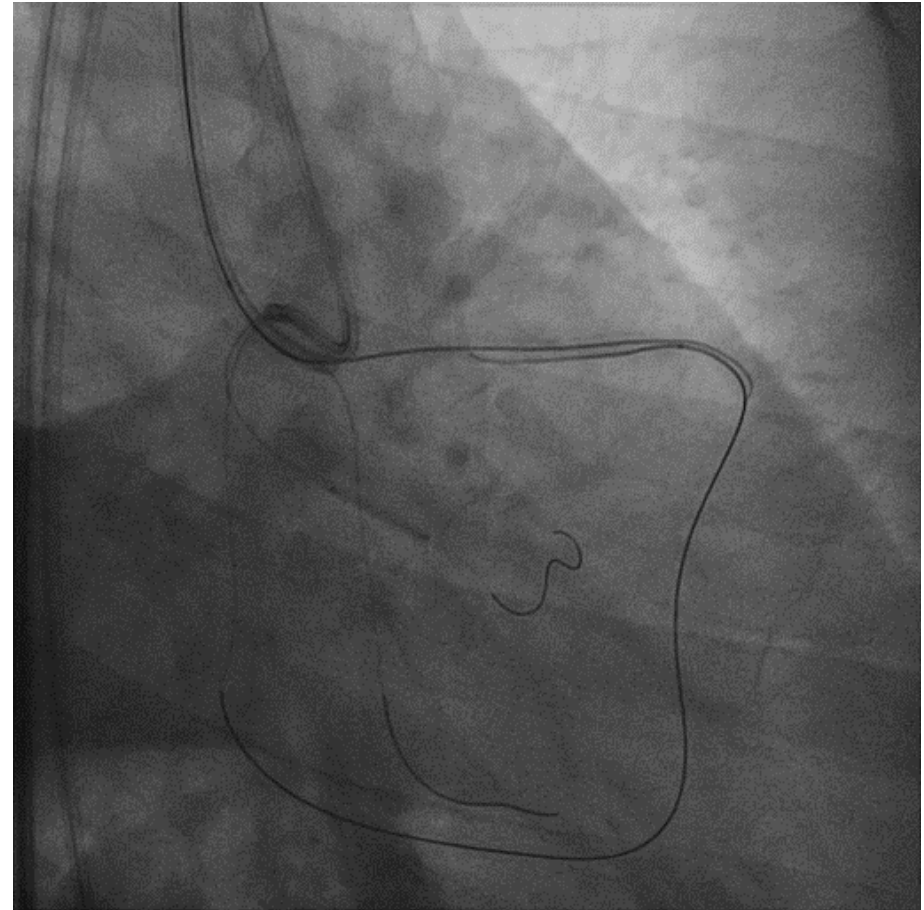
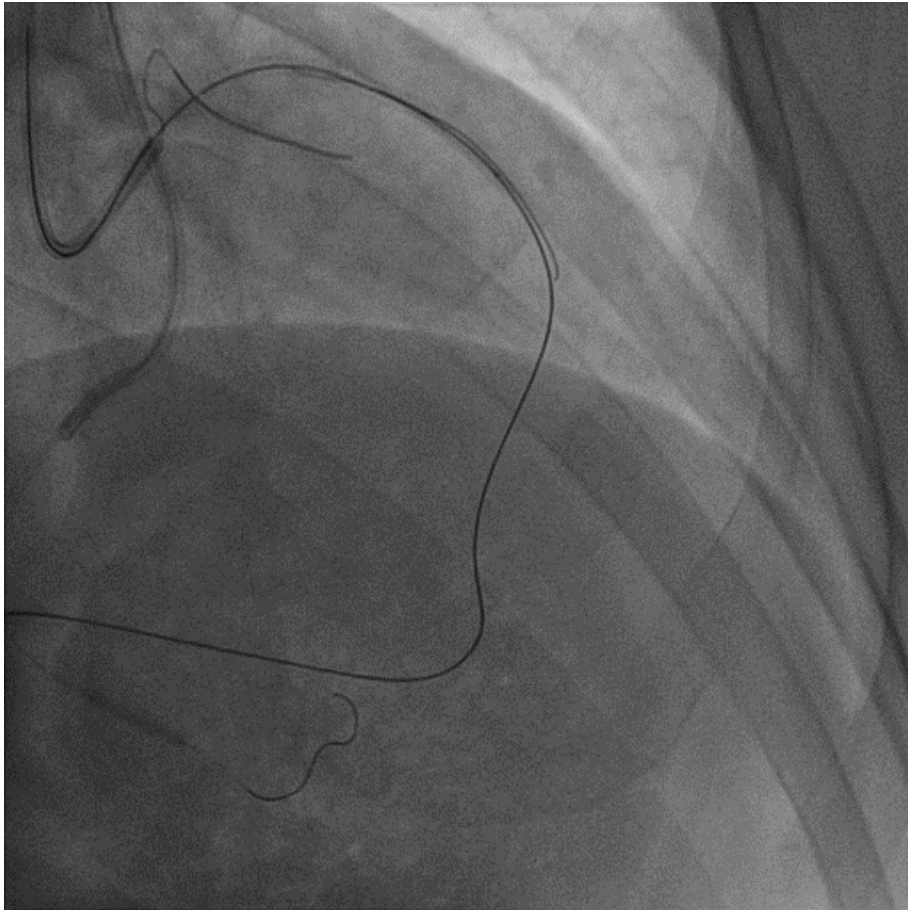
# Retrograde



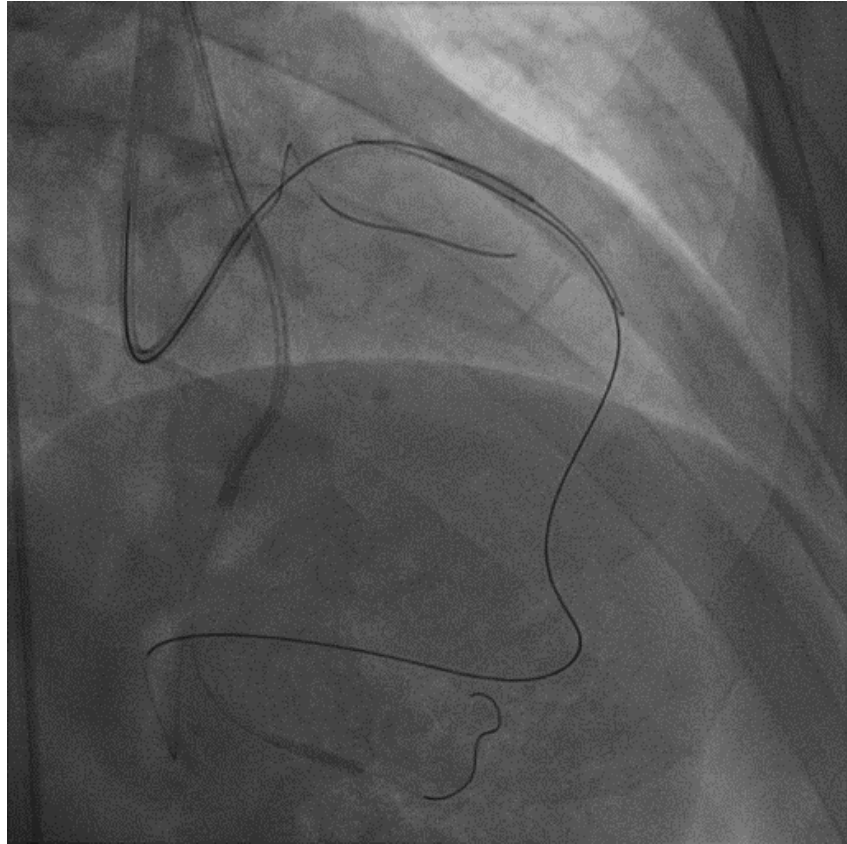
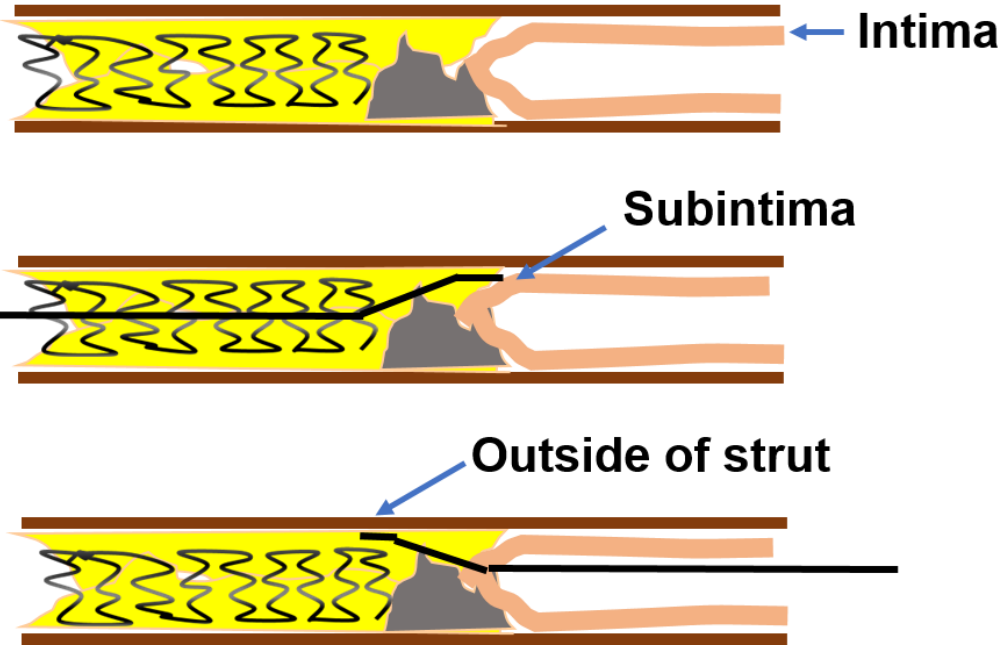
**Sion with 150 Finecross**



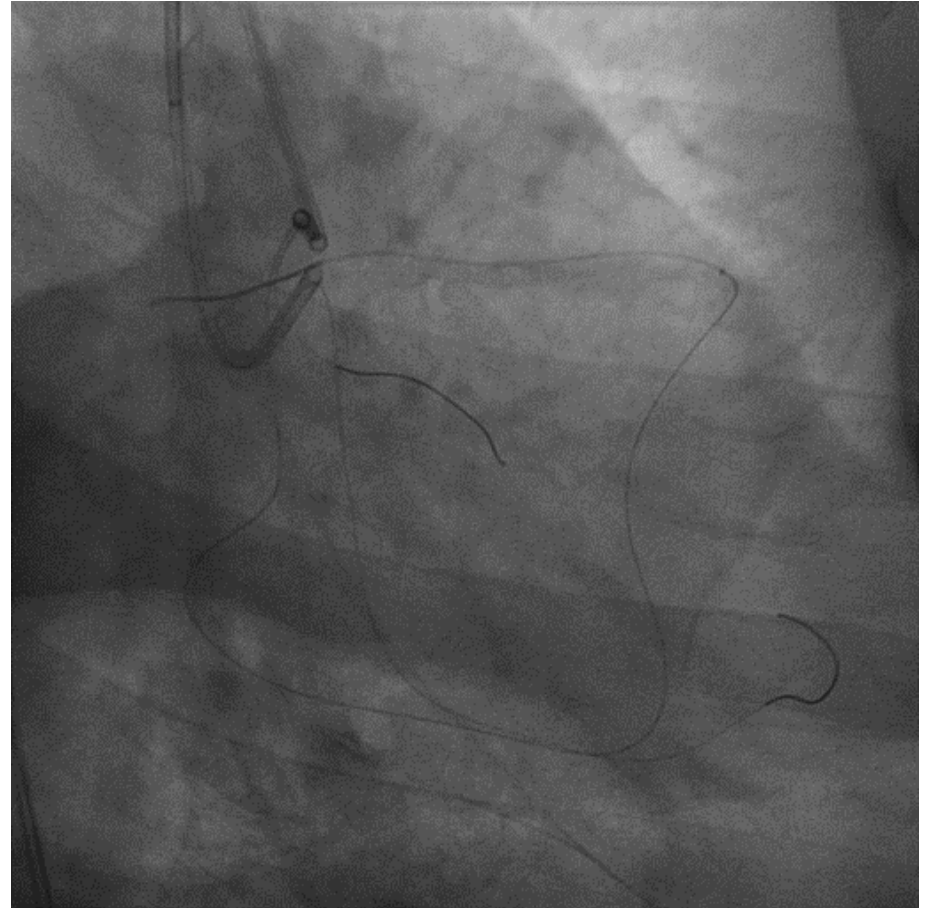
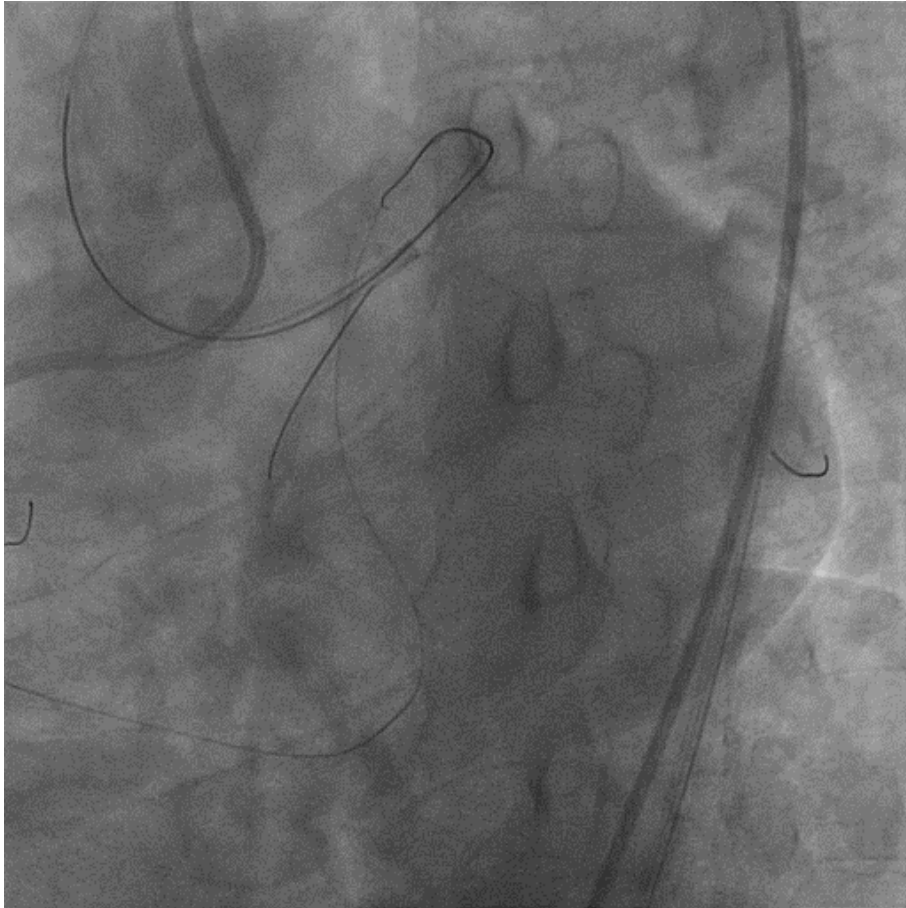
**Balloon anchored**



**Gaia III**

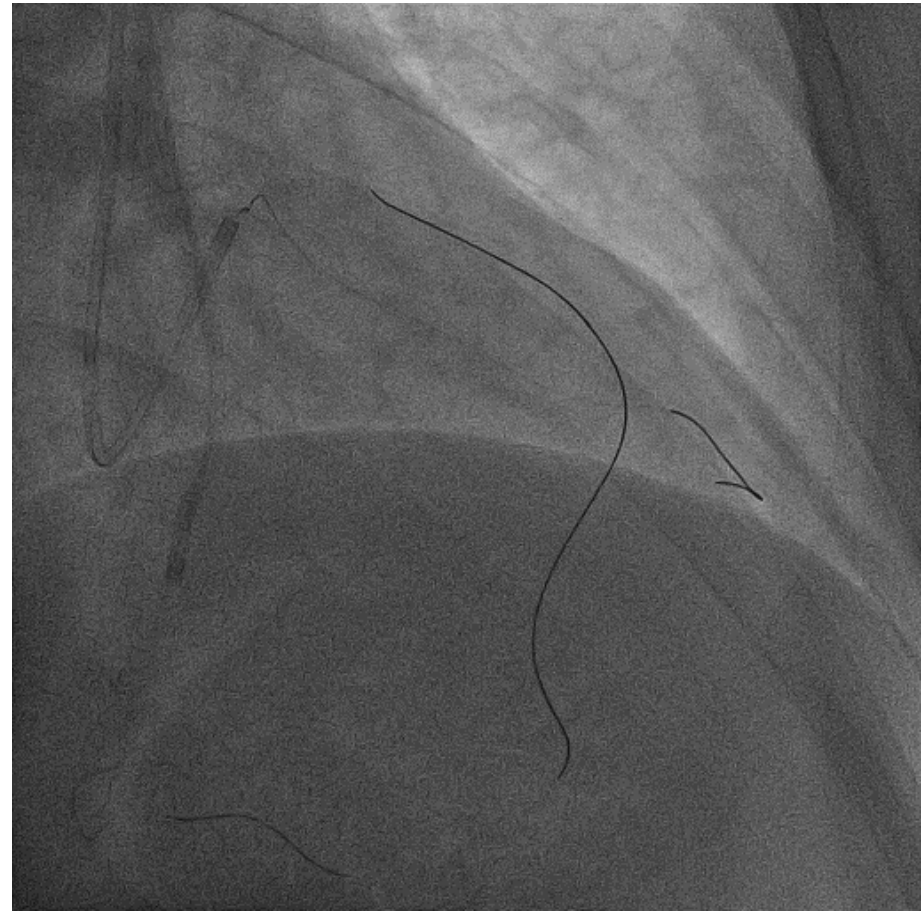
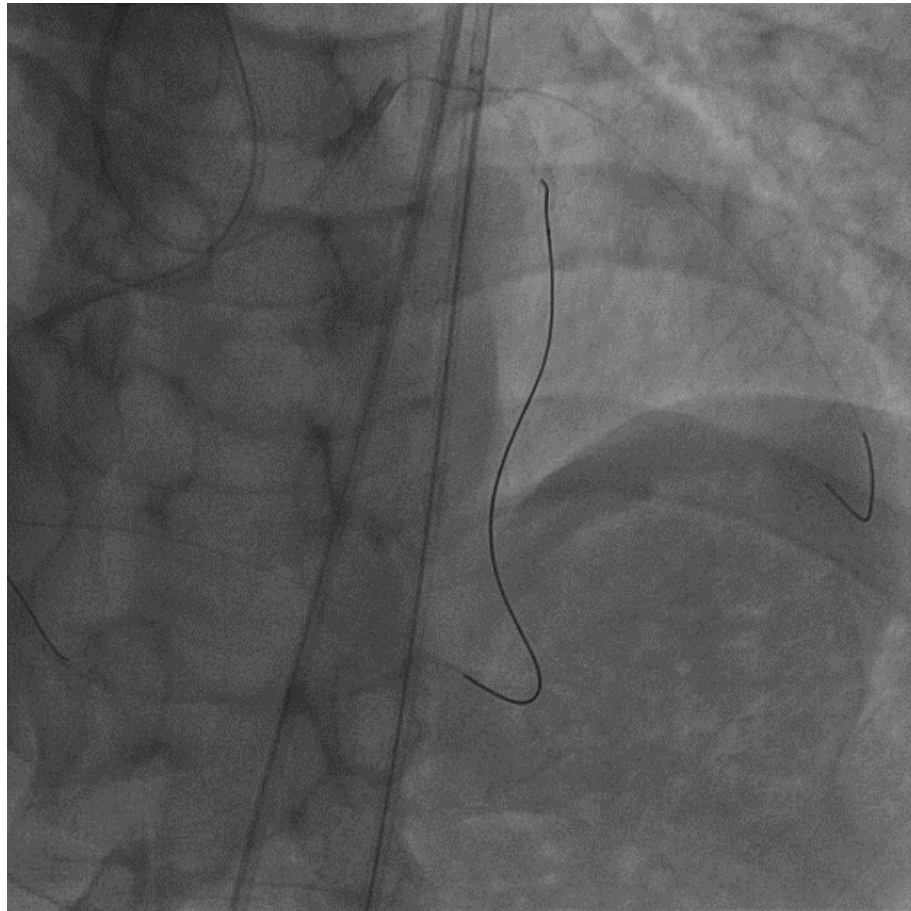


## Reverse CART

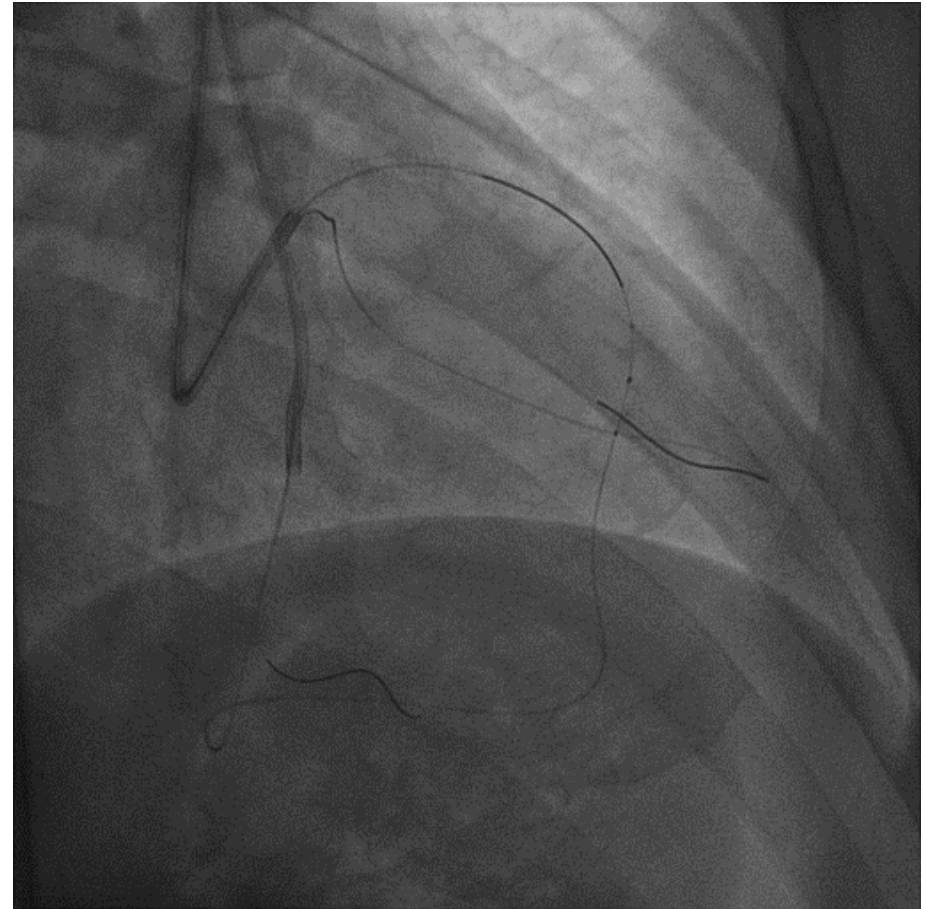
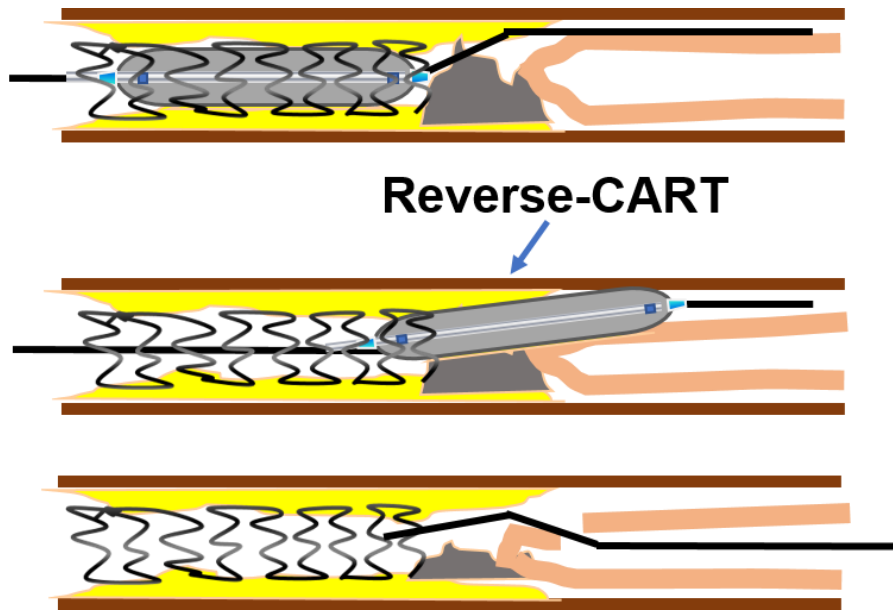


**Sion**

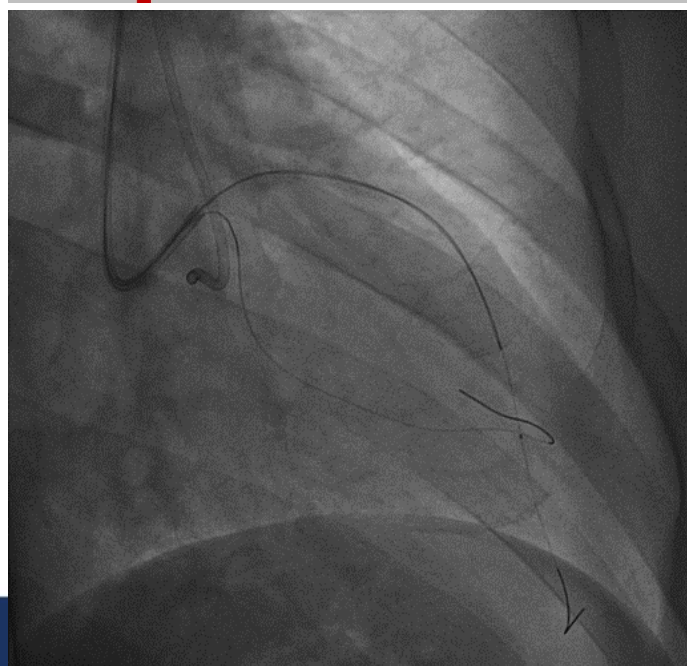
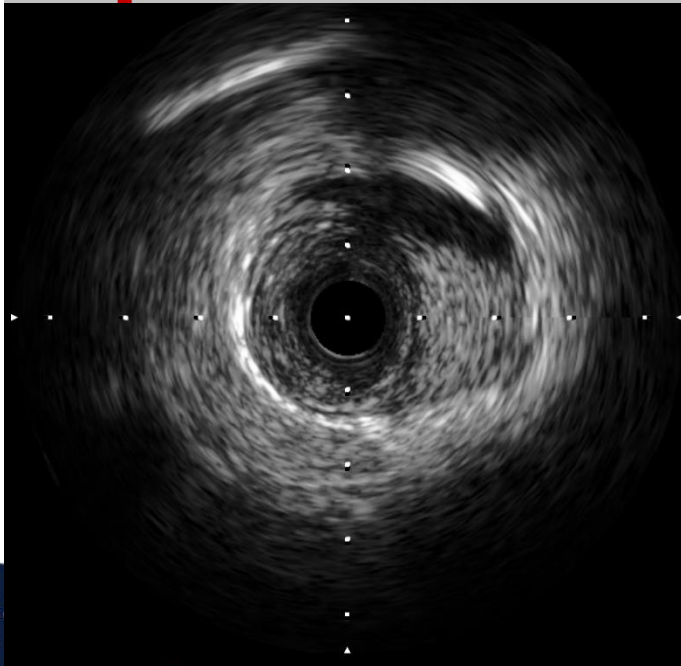
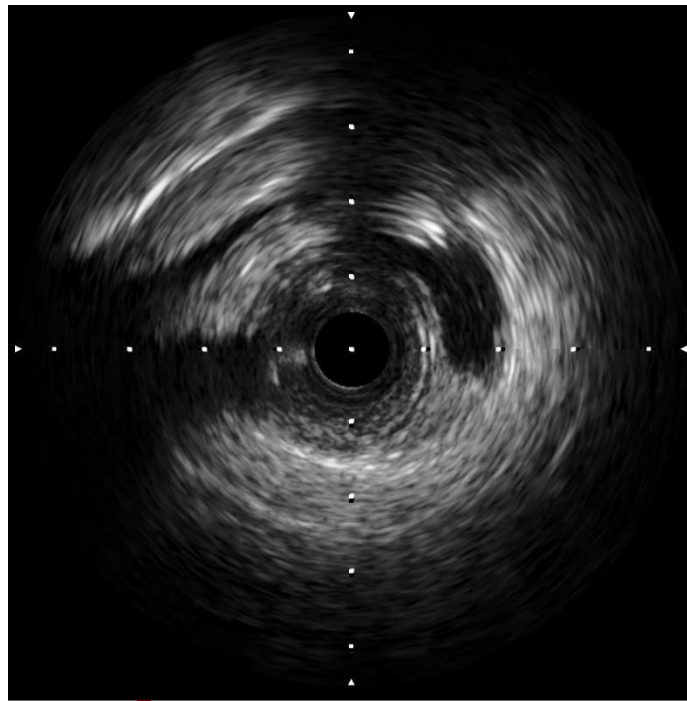
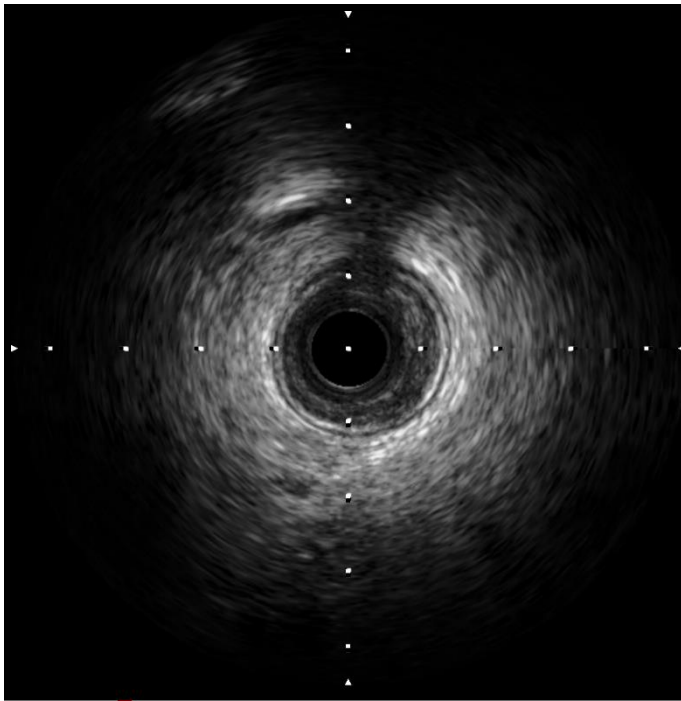


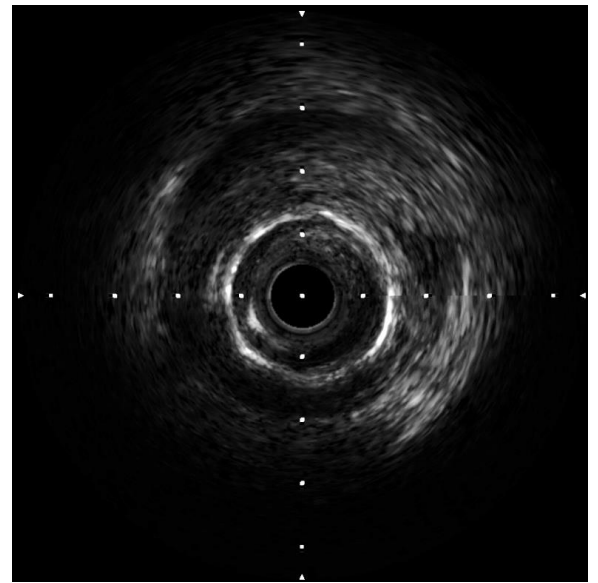
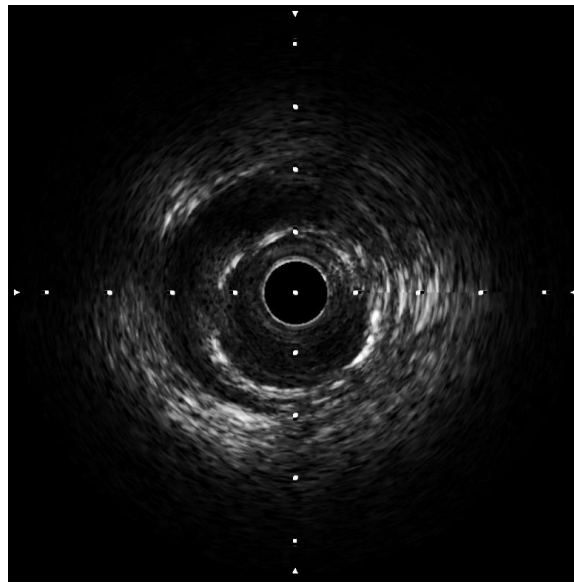
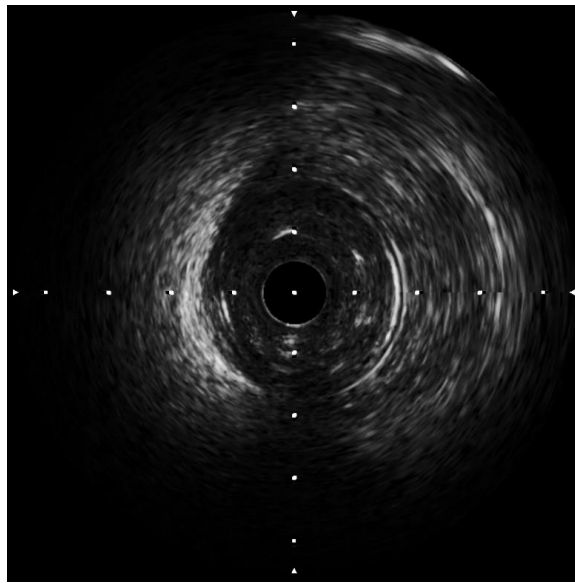


**UB3**

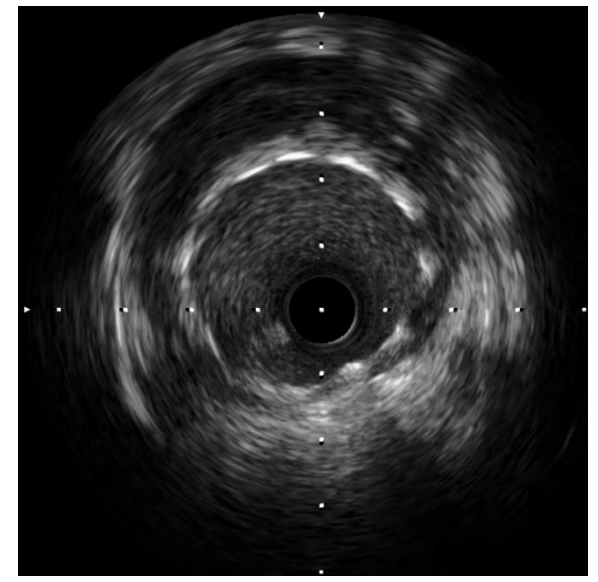
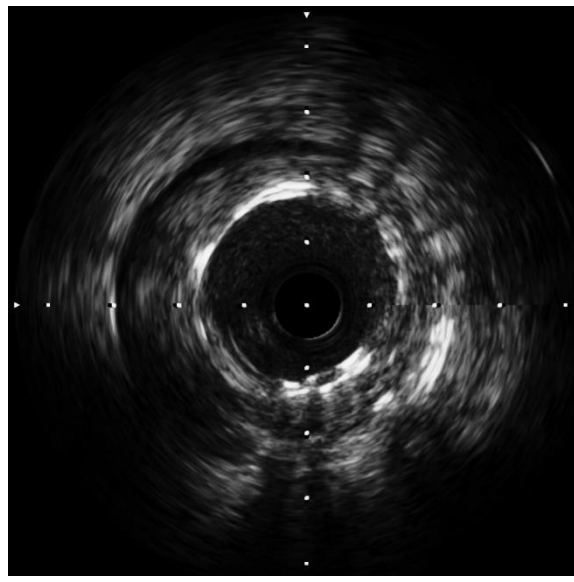
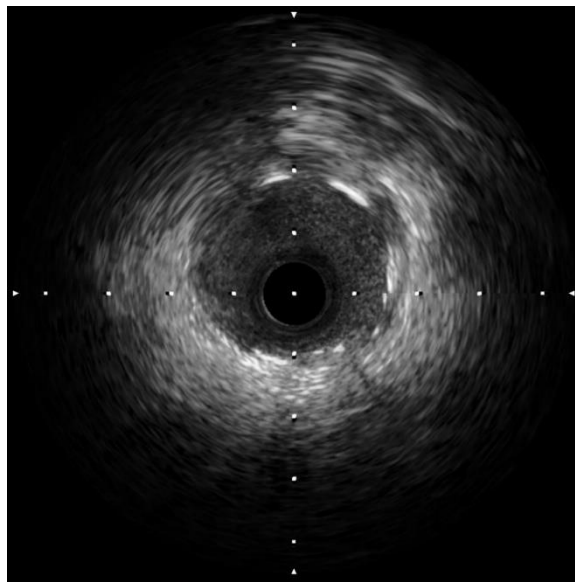


KDL

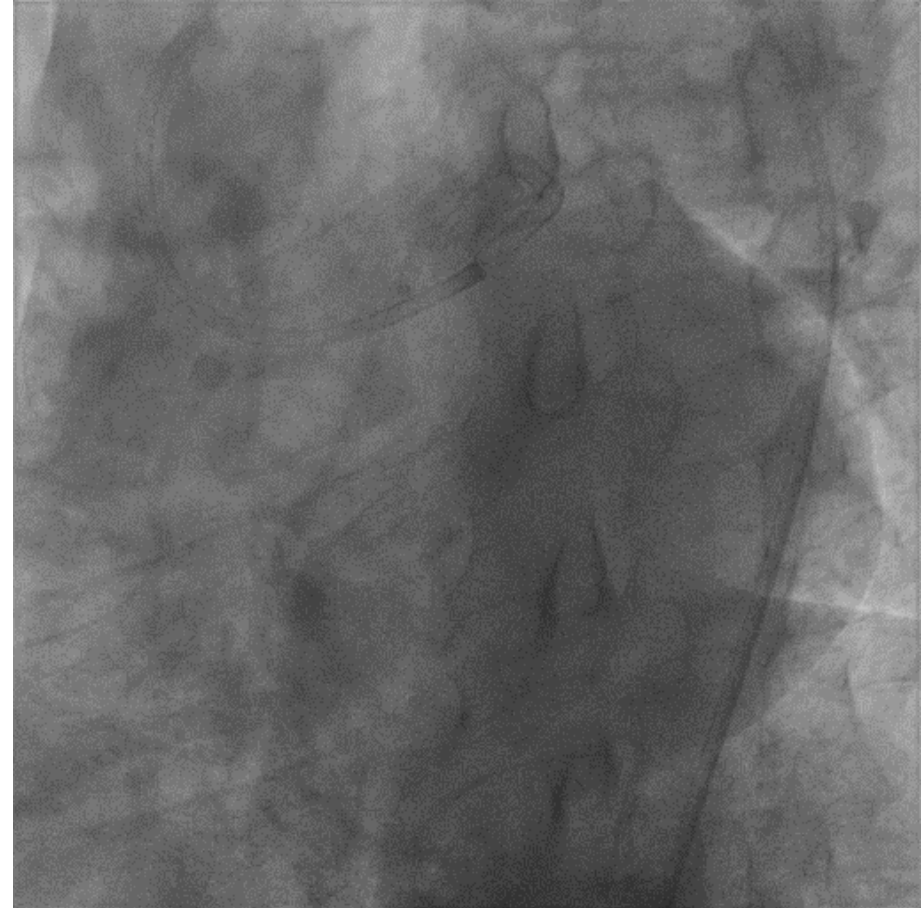
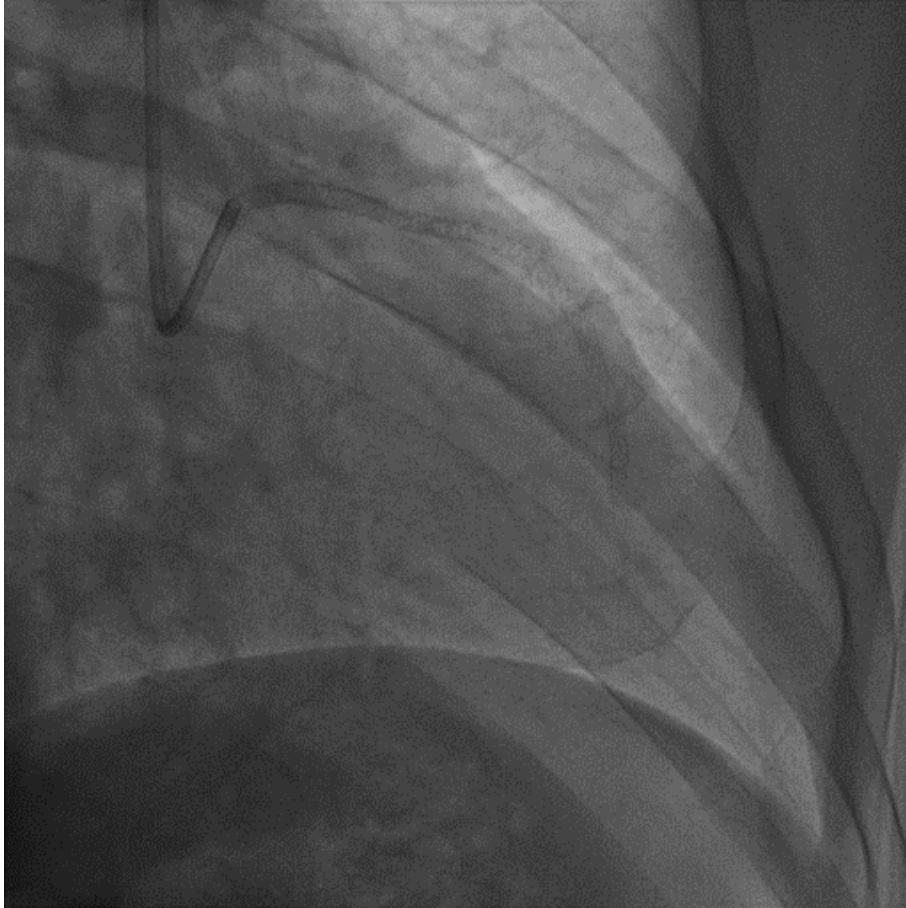




**After re-stenting**



# Final result



# ***Take Home Message***

- ***CTO ISR is still challenging***
- ***More mechanisms have been revealed with Intravascular imaging***
- ***Identifying the type of occlusive stent is helpful for PCI strategy (esp wire selection)***
- ***Initial stenting should be optimized to reduce long-term adverse events***



***Thanks for  
your  
attention !***

***4th Hospital of Harbin Medical University***