

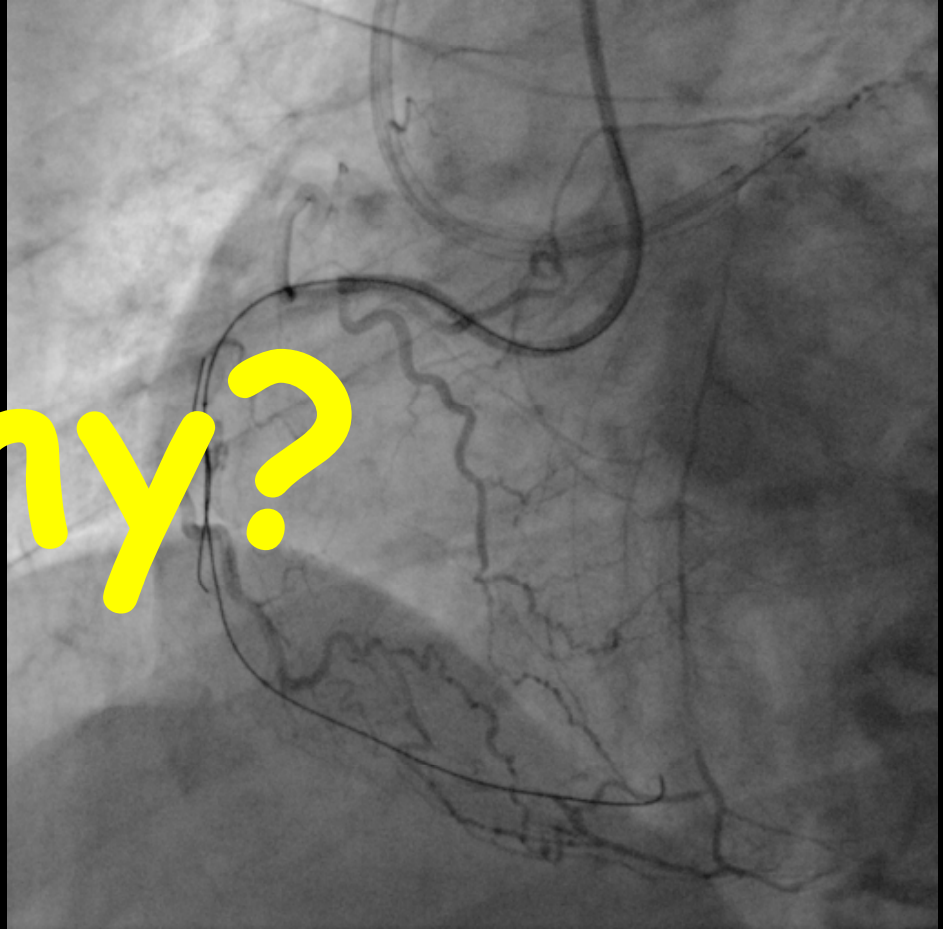
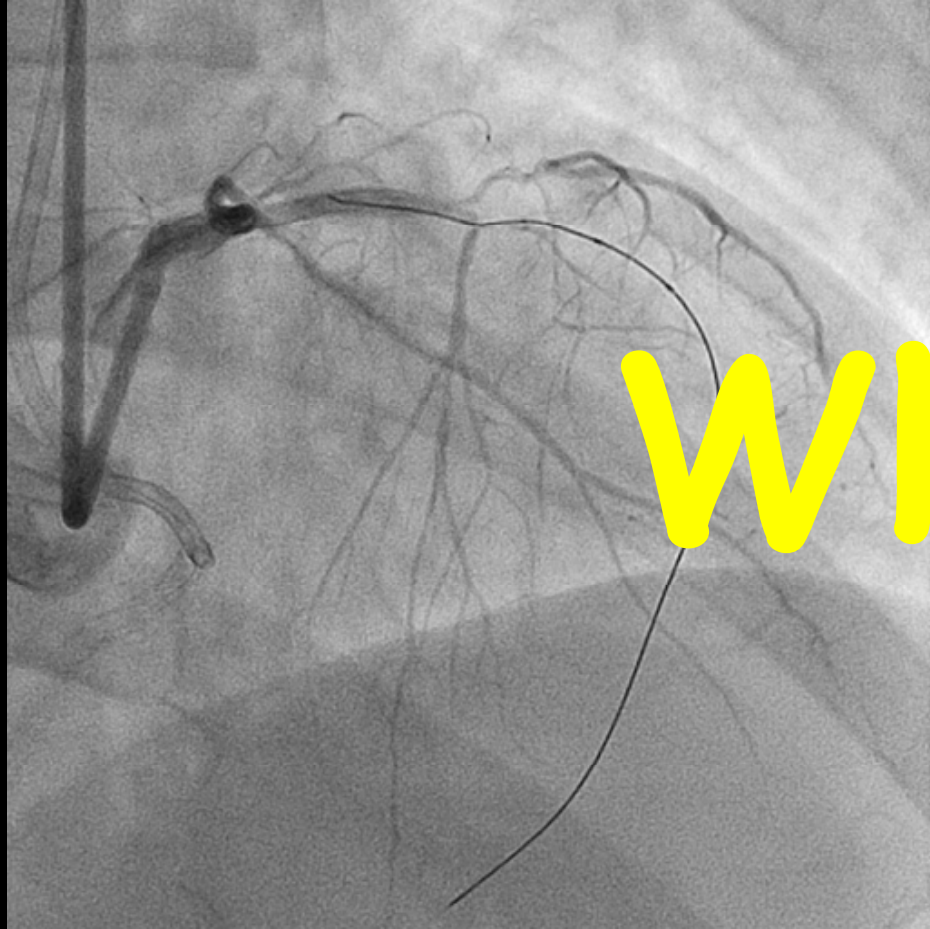
# The Latest Technique in Retrograde Approach

Toyohashi Heart Center  
Yasushi Asakura M.D.





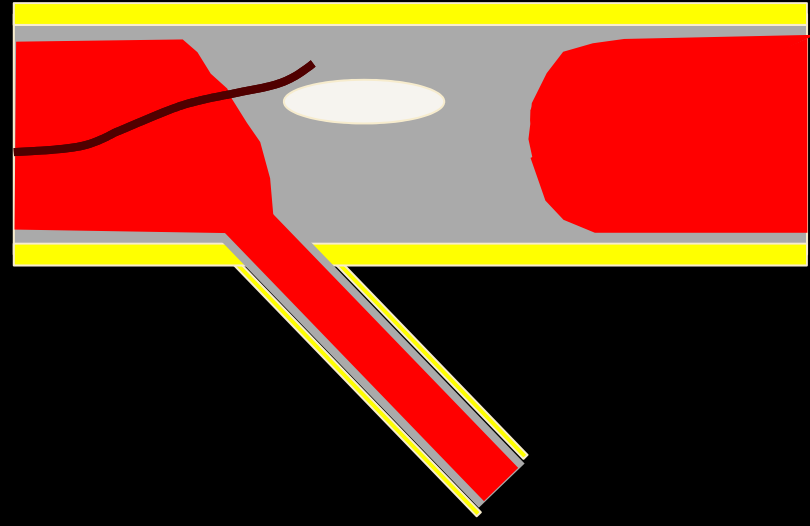
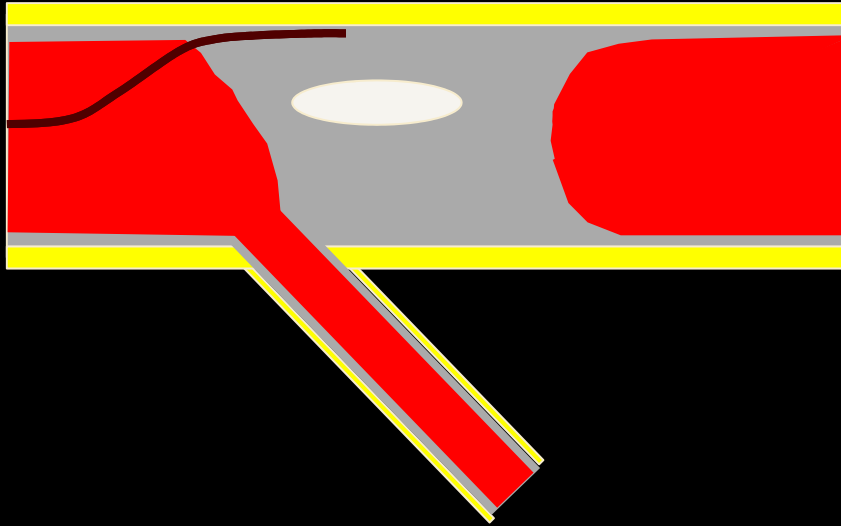
# The Retrograde Approach



Why?

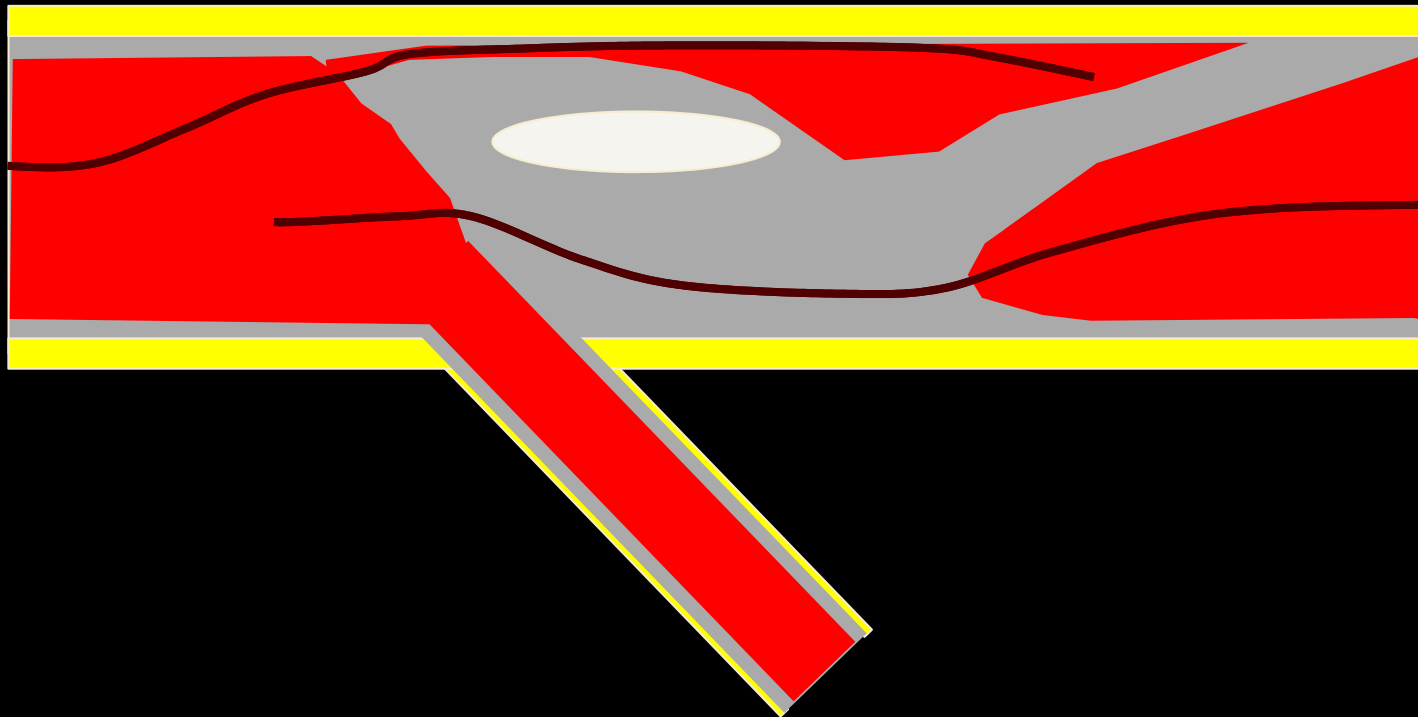


# Failed Antegrade Wiring



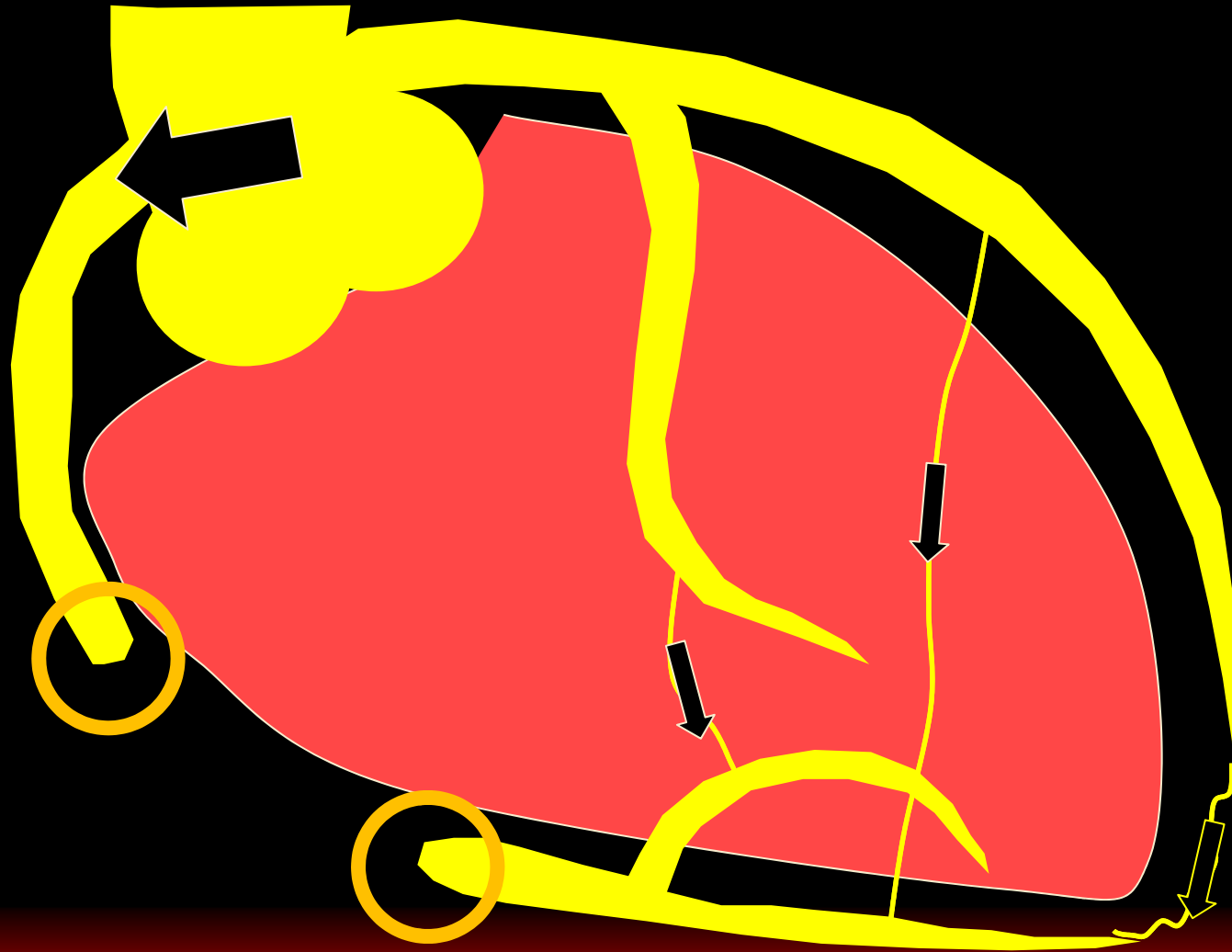


# Increased Chance Side Branch



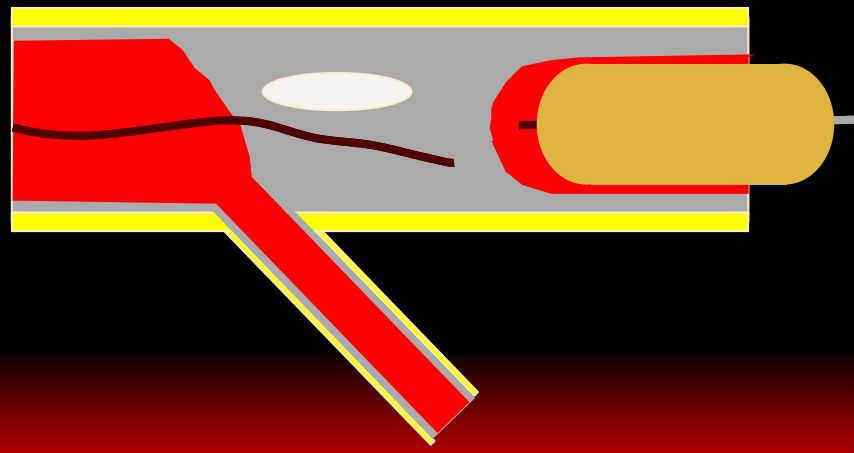
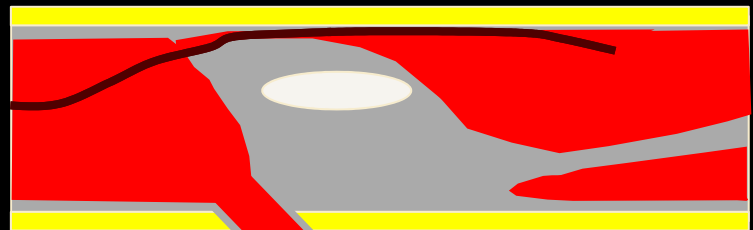
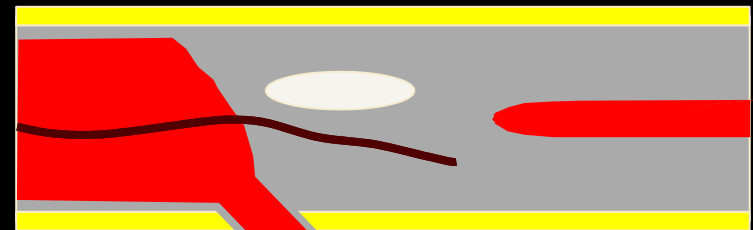


# Driving Pressure



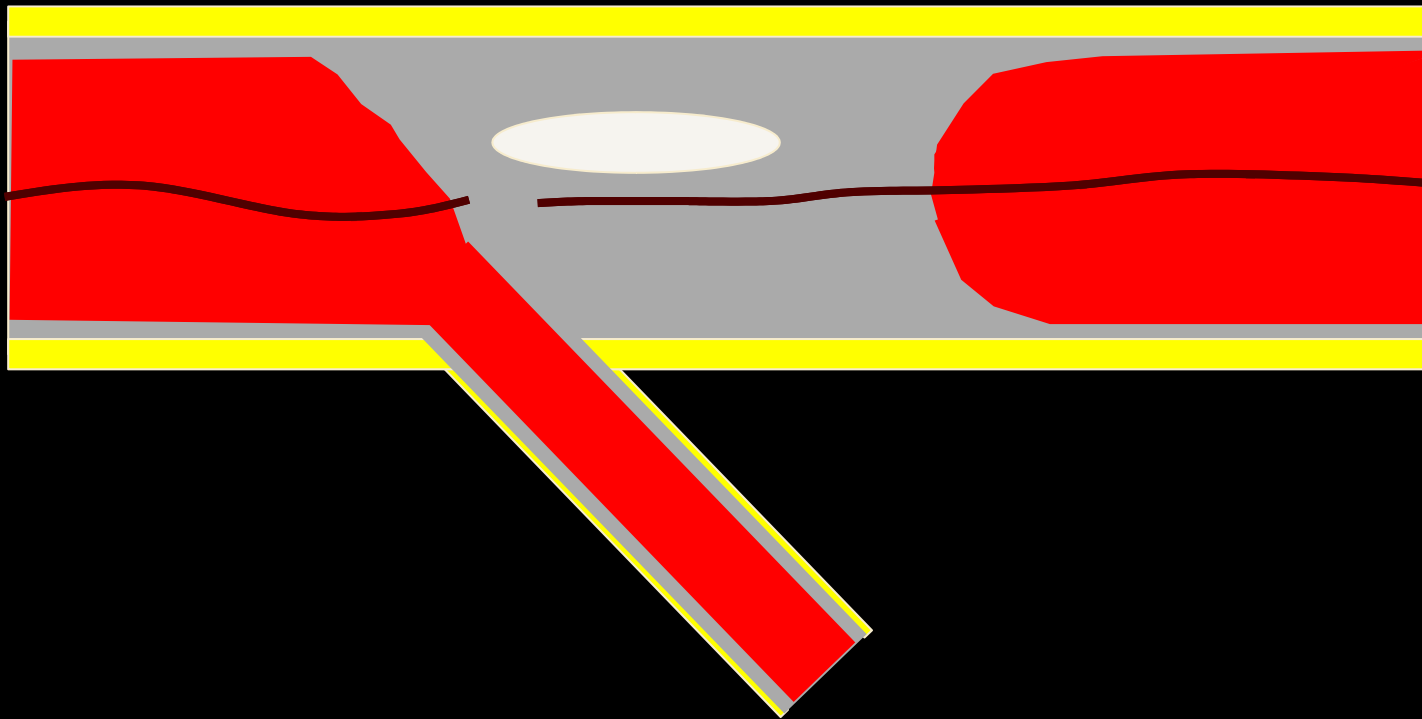


# Exit Lumen



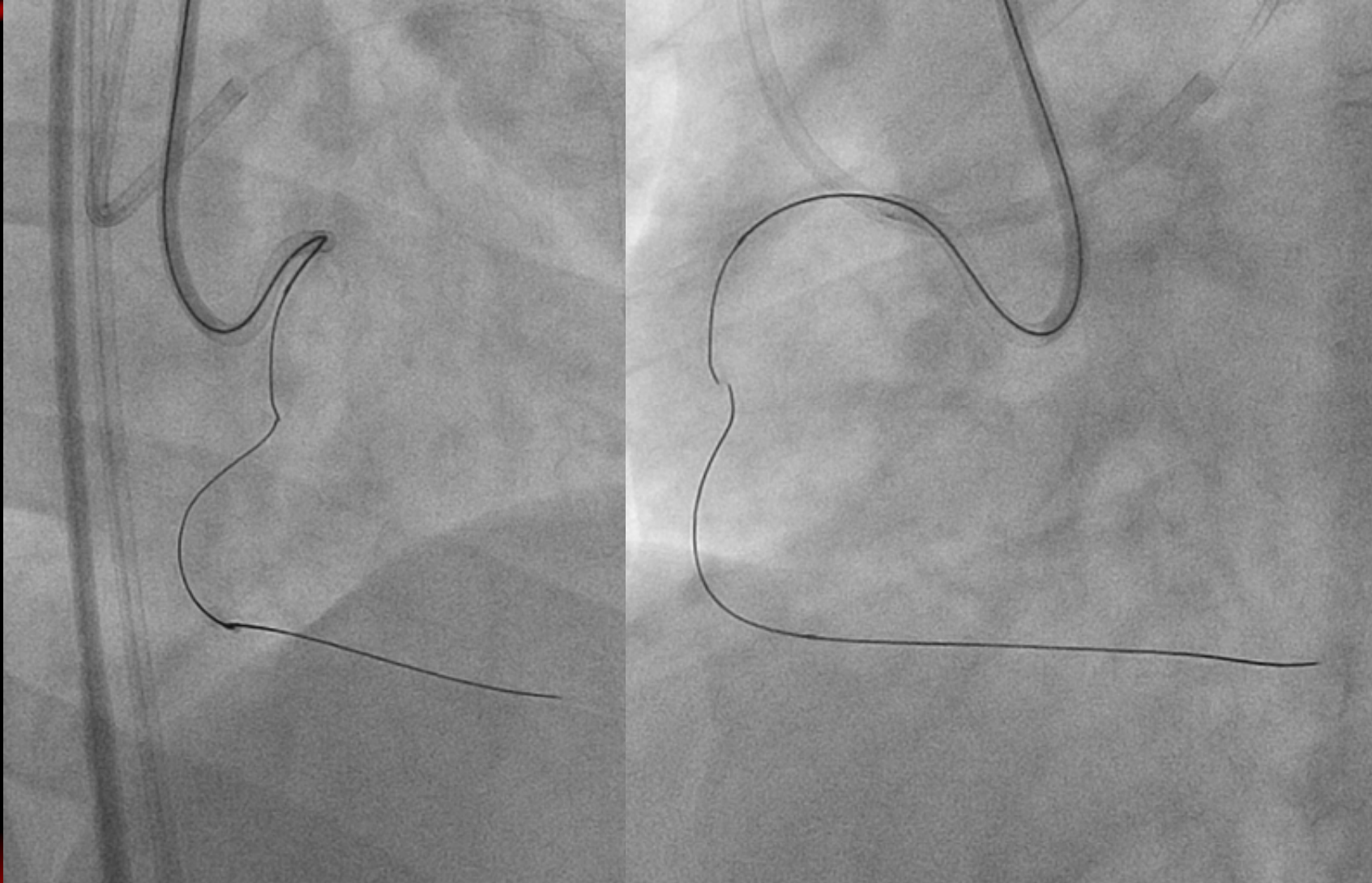


# Landmarks





# Kissing Wire Technique







# Why Retrograde?

1. Increased Chance
2. Side Branch
3. Tissue Character
4. Exit Lumen
5. Landmarks
6. Device Delivery



# Why Retrograde?

1. Increased Chance
2. Side Branch
3. Tissue Character
4. Exit Lumen
5. Landmarks
6. Device Delivery
7. Subintimal Tracking



# ASAHI Corsair

Microcatheter



*ASAHI Corsair was originally developed as a septal channel dilator, to ease retrograde approaches for CTO-PCI. This is a unique device that can be used both as a microcatheter and as a support catheter.*



# Standardized Retrograde Technique

## 1. Channel Crossing

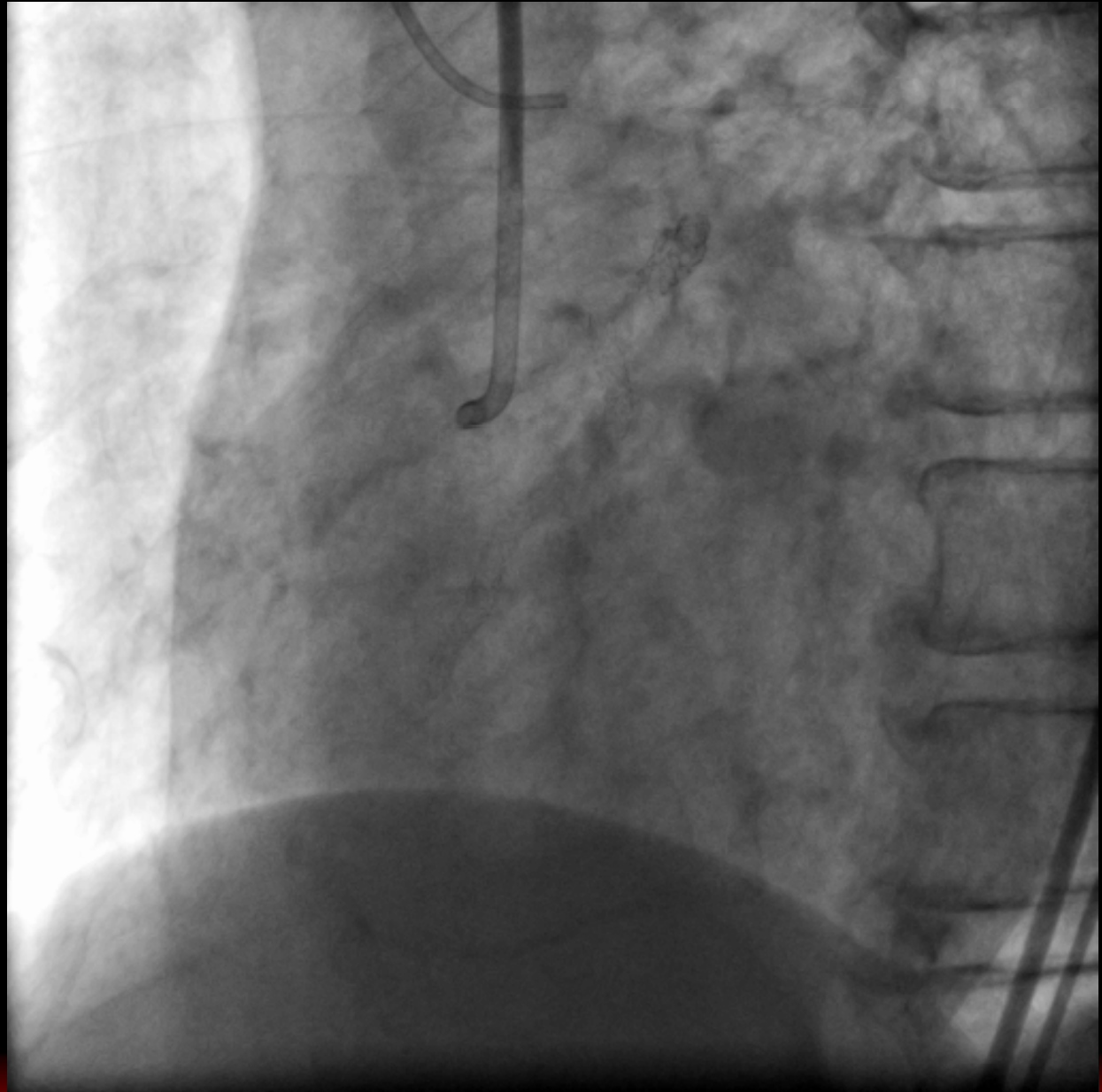


# Standardized Retrograde Technique

1. Channel Crossing
2. Retrograde Wiring

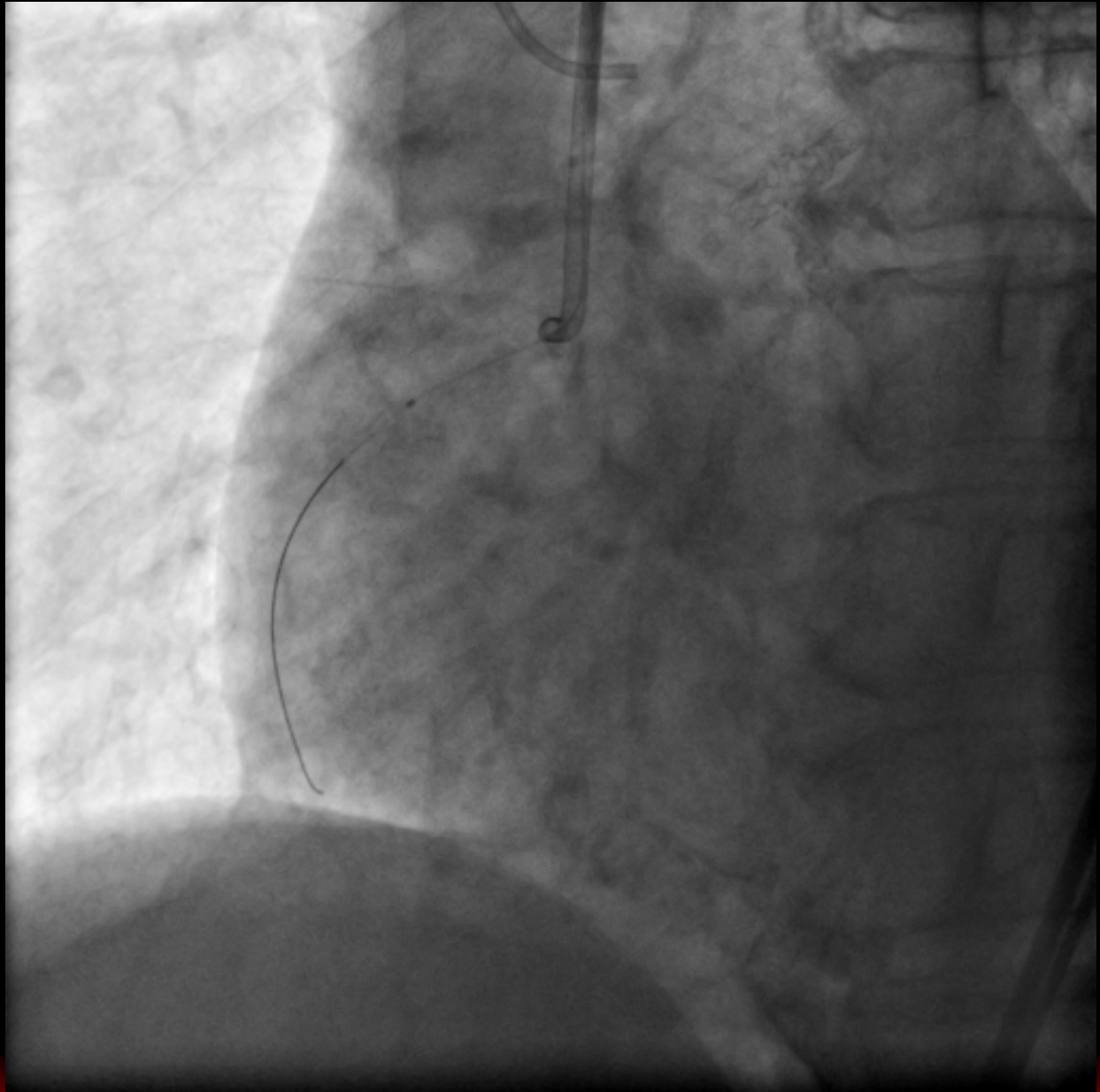


# Case RCA



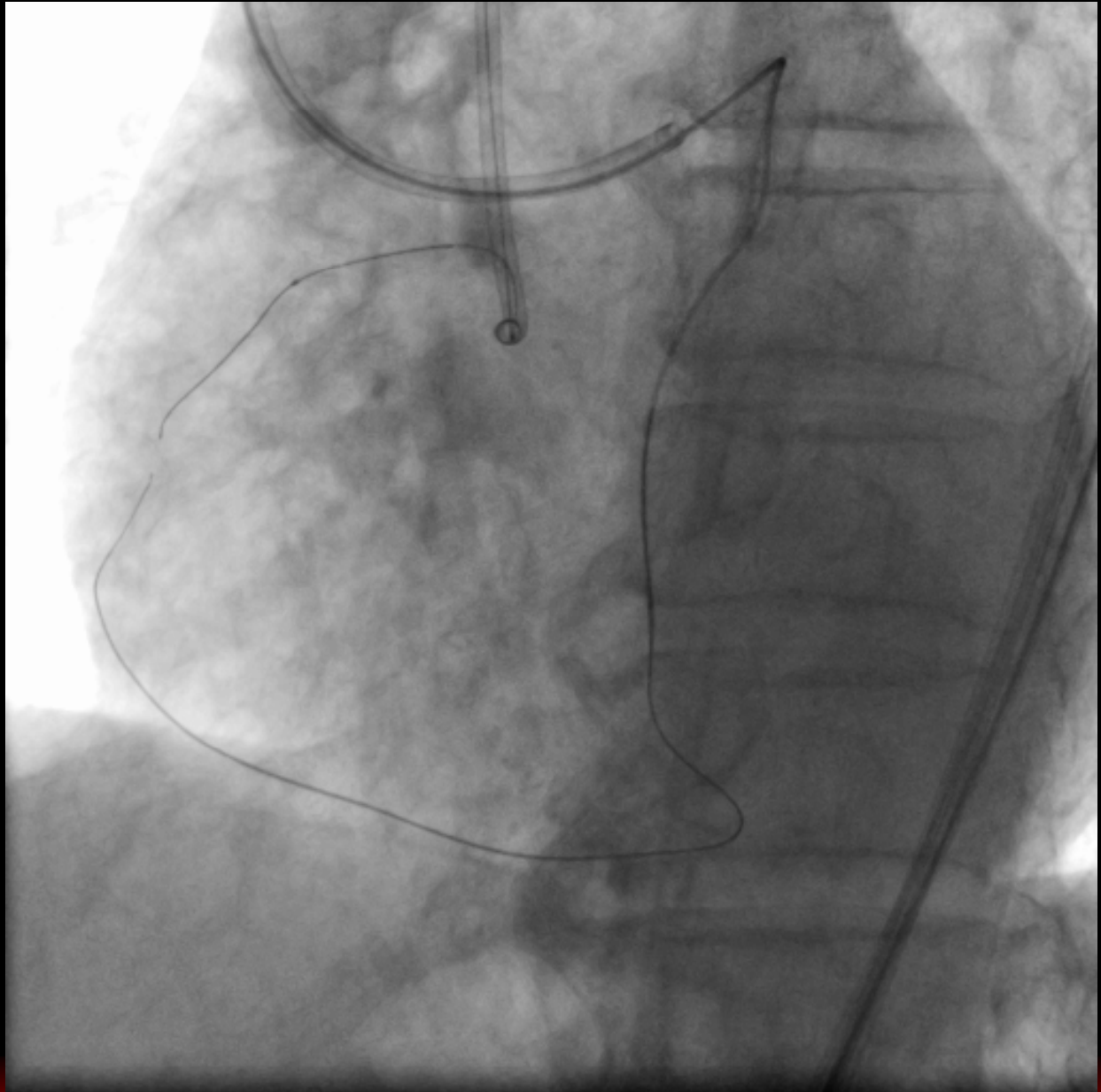


# PCI





# Retrograde Approach



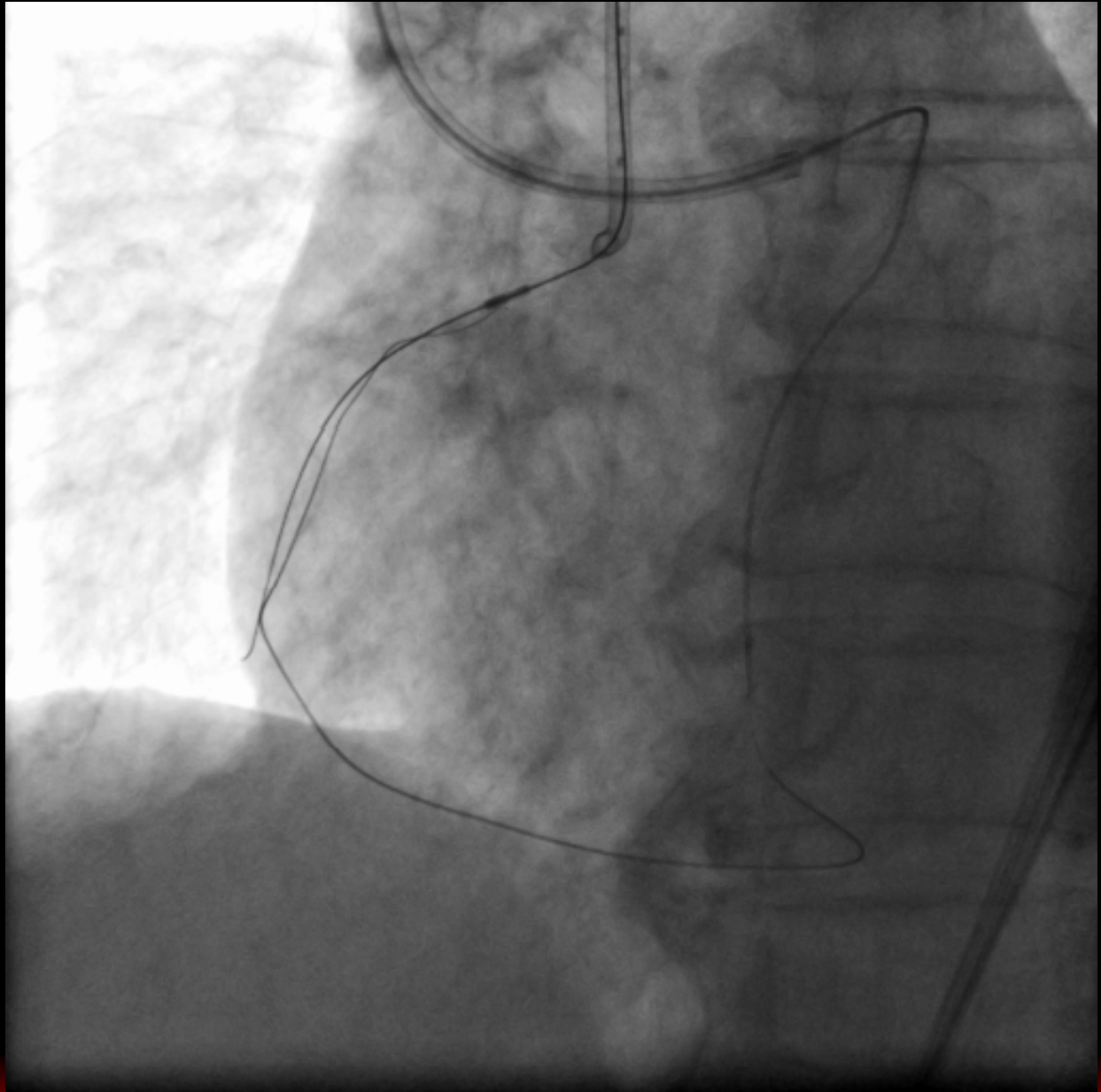




**IVUS  
Guided  
Wiring**

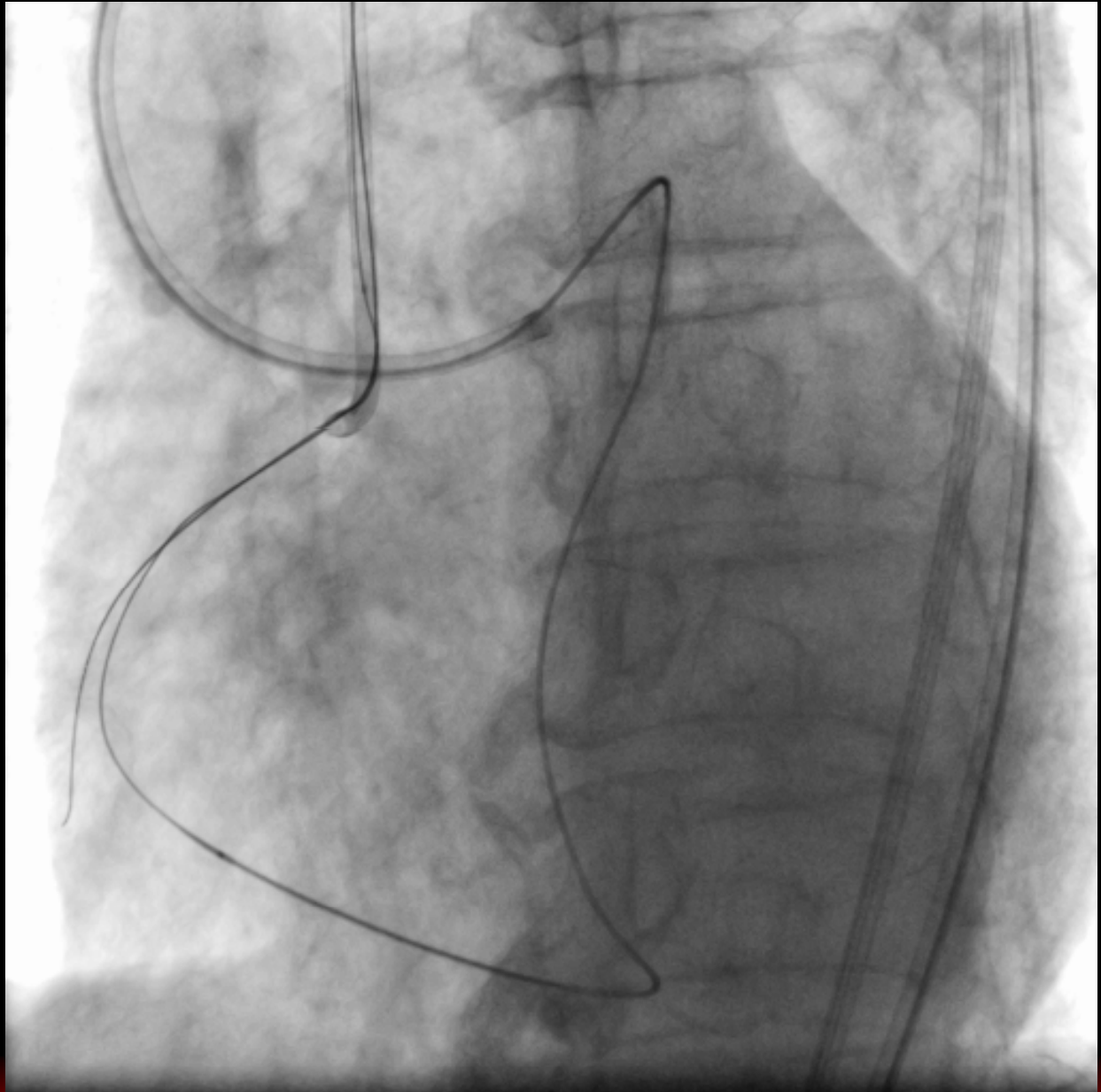


**Retrograde  
Wire  
Crossing**





**Retrograde  
Wire →  
Guide Cathe  
↓  
Trapping  
Technique**

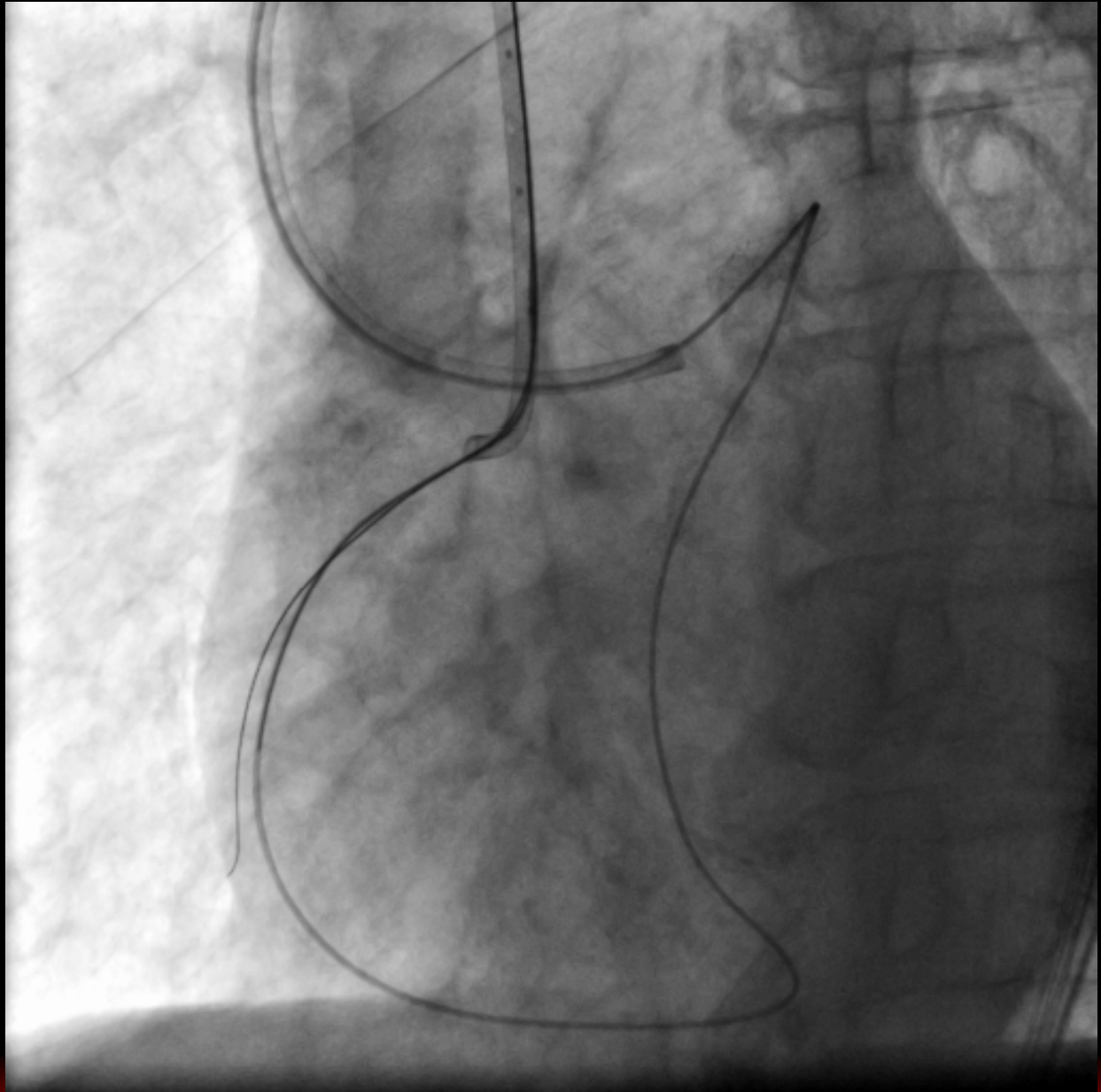




**Trapping  
Technique**



**Corsair →  
Guide Cathe**



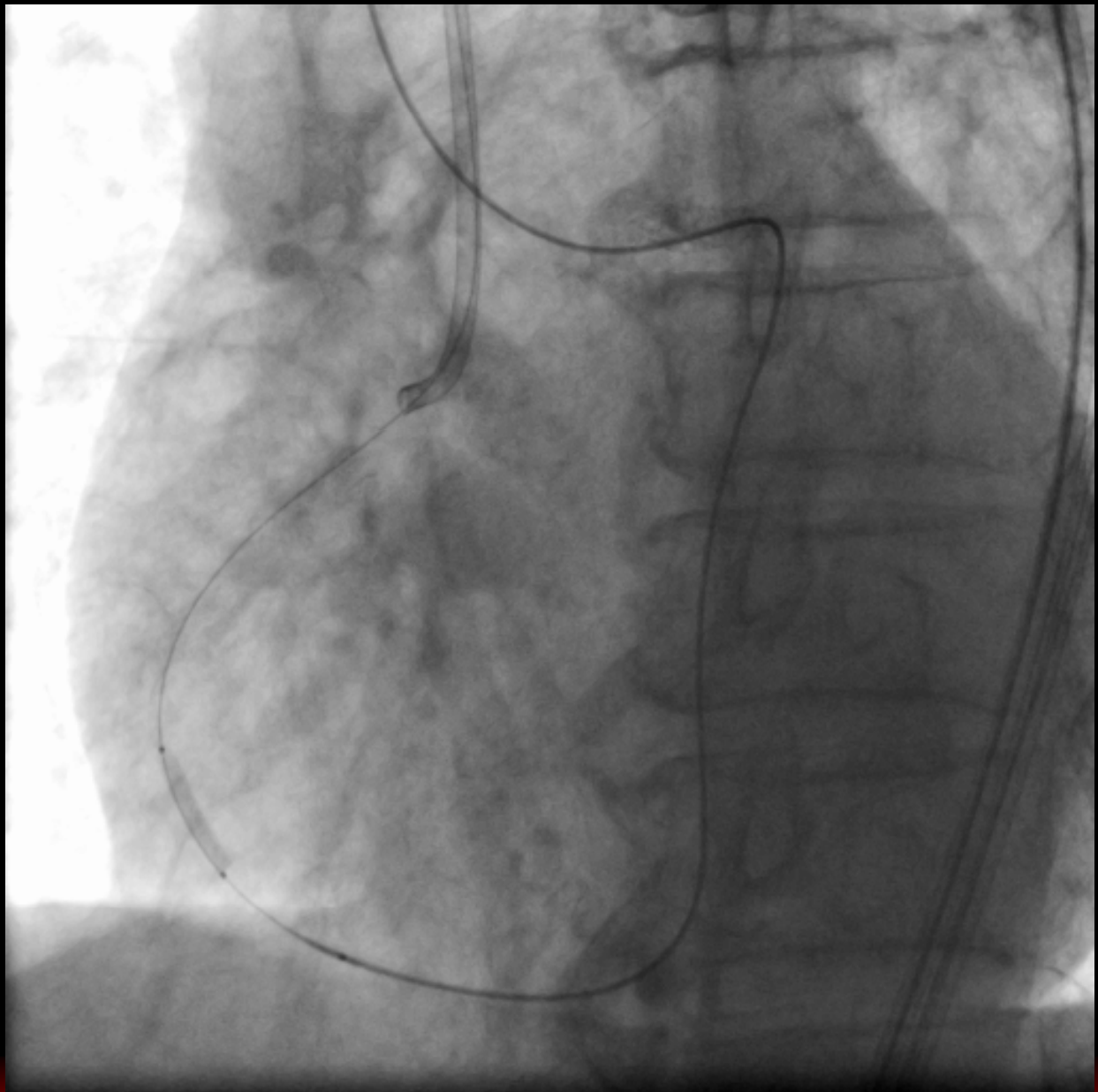


# Externalize Using 300cm Wire



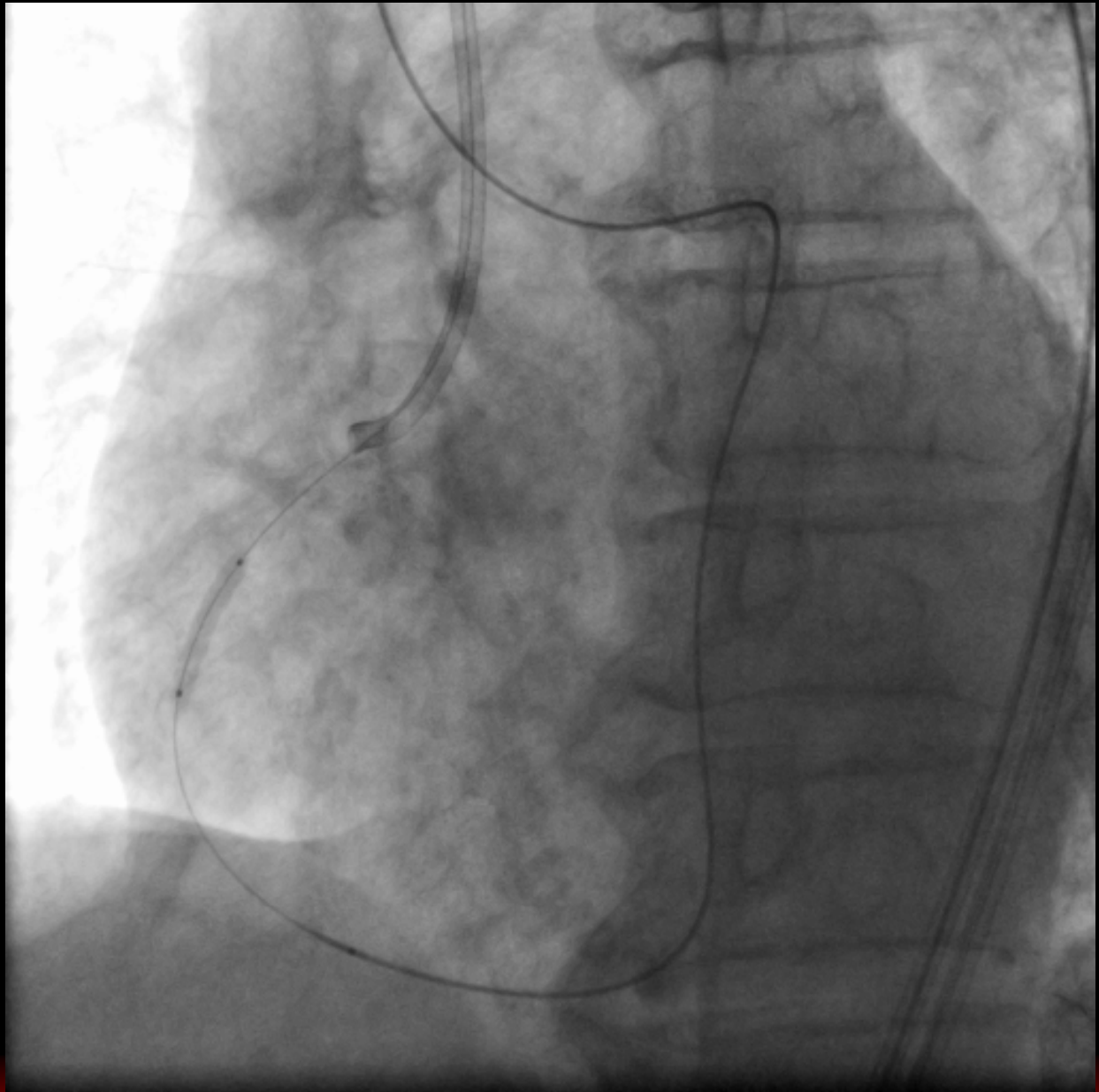


# Balloon



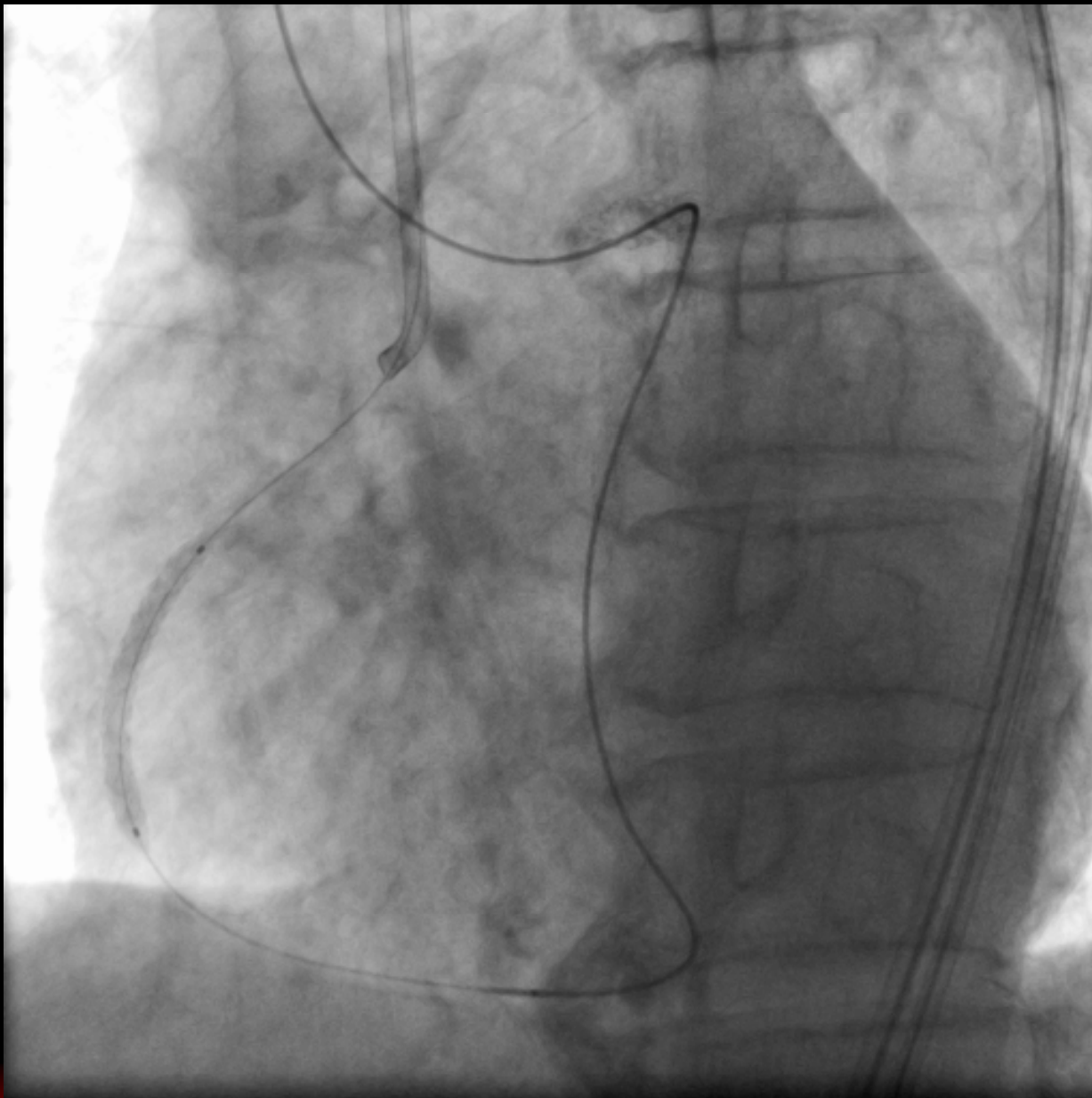


# Balloon



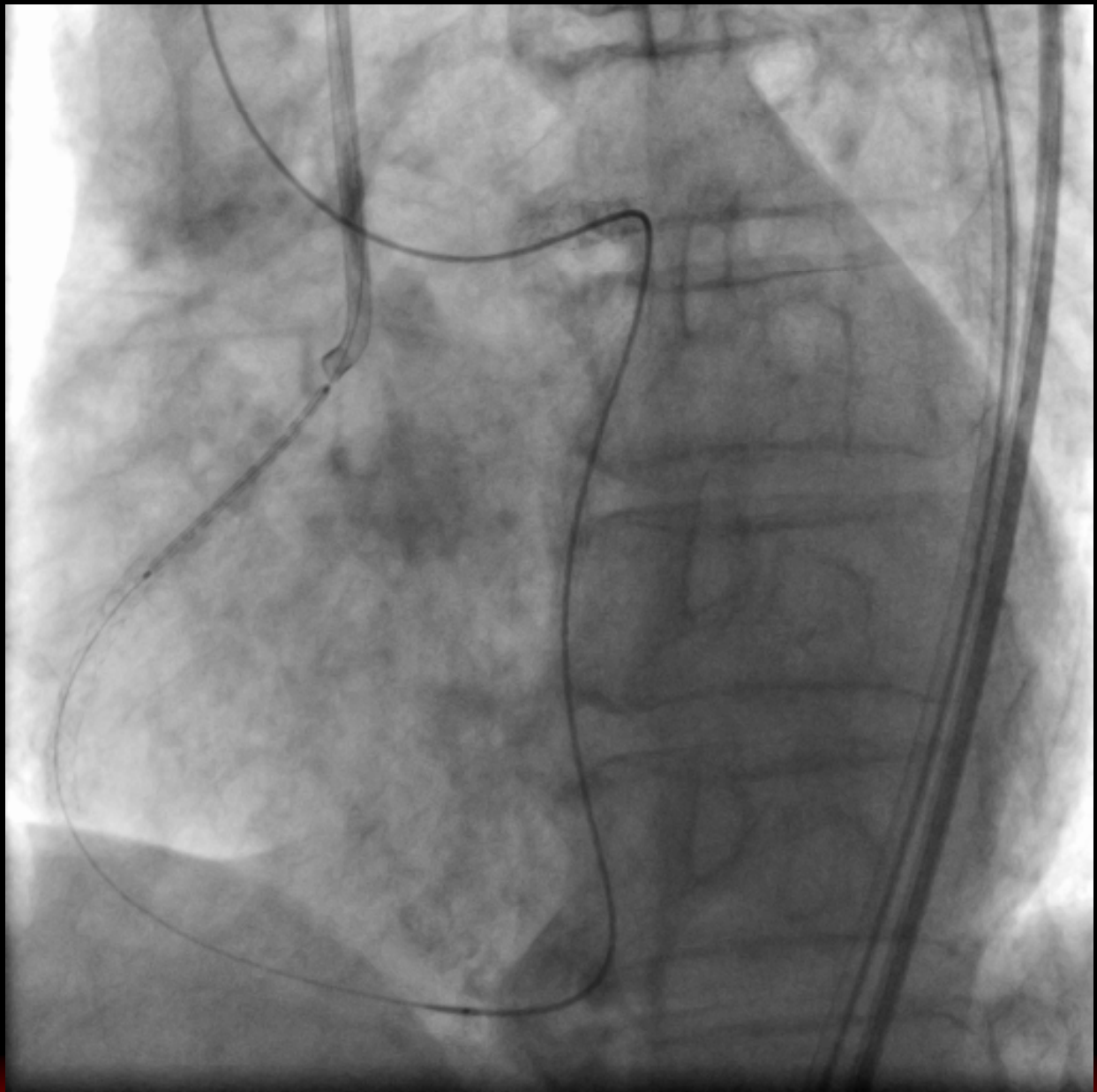


# Stent





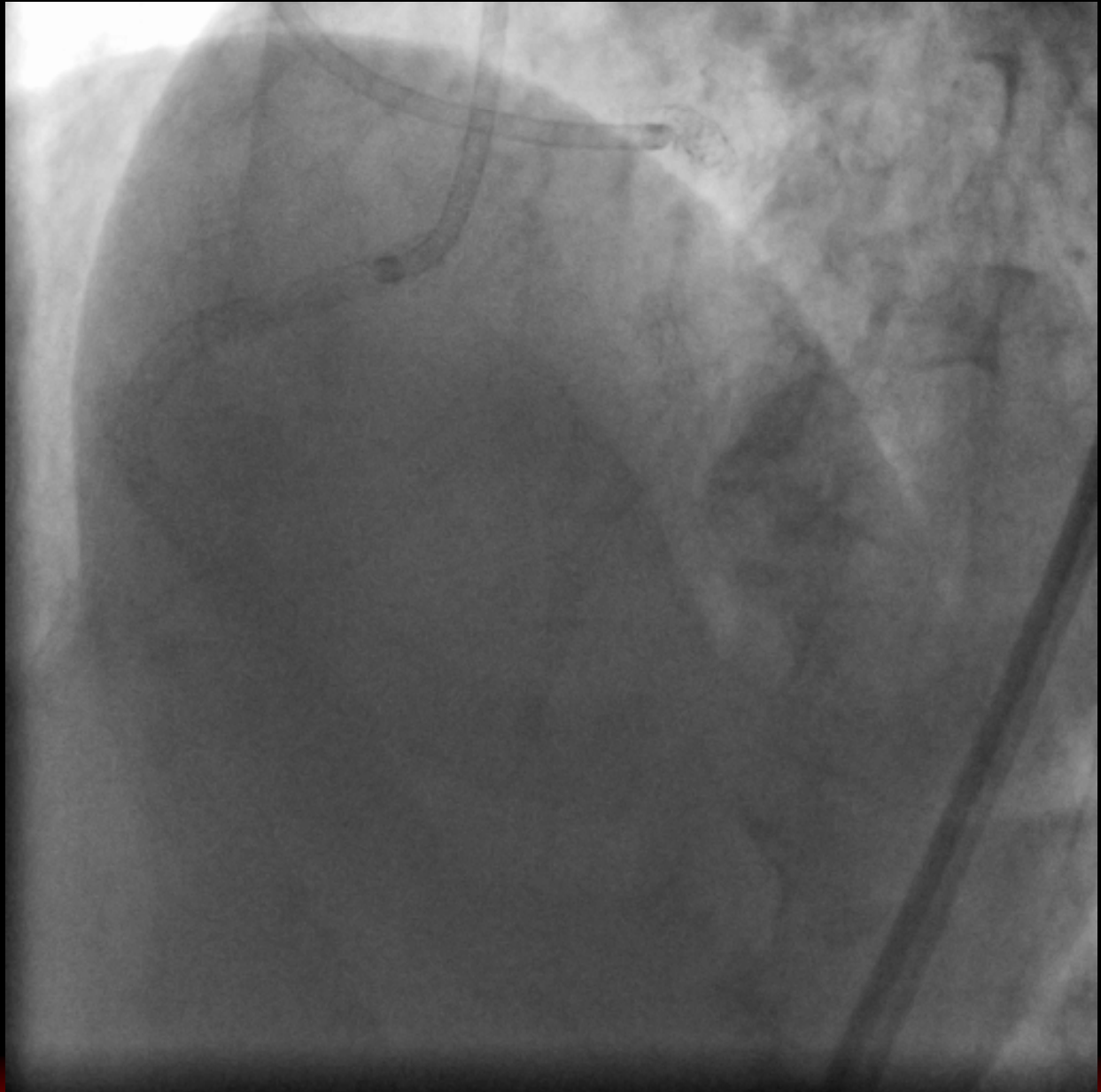
# Stent





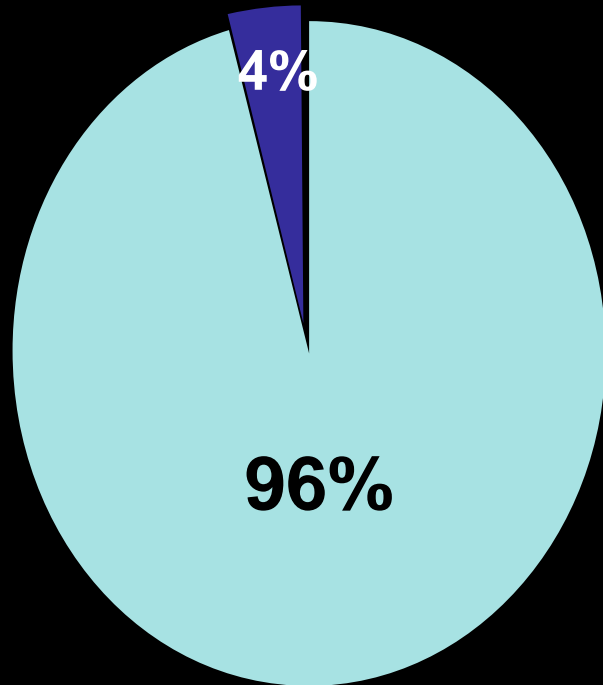


**Final**





# Acute Results in CART Registry



■ success recanalization ■ failed

attempted technique	number (%)
retrograde wire crossing	38 (32%)
kissing wire	6 (5%)
CART	66 (55%)
reverse CART	3 (3%)
antegrade approach	2 (2%)



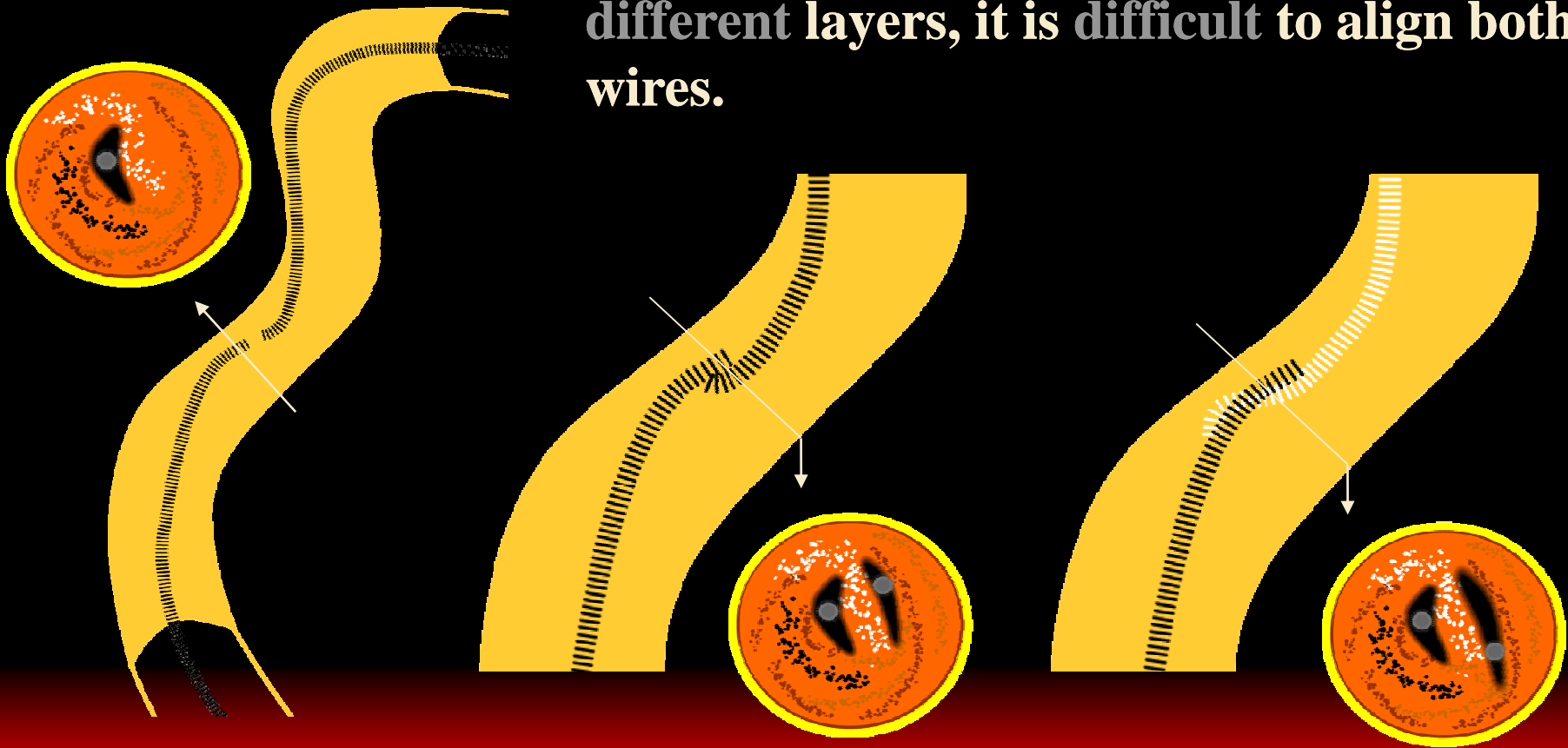
# Standardized Retrograde Technique

1. Channel Crossing
2. Retrograde Wiring
3. Kissing Wire Technique



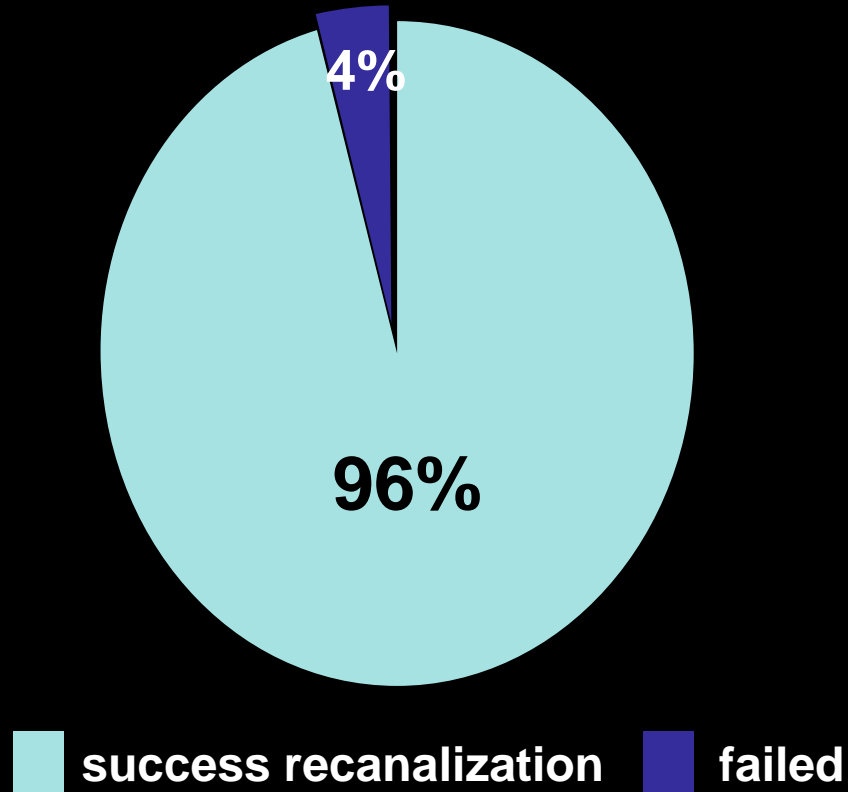
# Major Limitation of Kissing Wire Technique

If antegrade and retrograde wires are in different layers, it is difficult to align both wires.





# Acute Results in CART Registry



attempted technique	number (%)
retrograde wire crossing	38 (32%)
kissing wire	6 (5%)
CART	66 (55%)
reverse CART	3 (3%)
antegrade approach	2 (2%)



# **Standardized Retrograde Technique**

- 1. Channel Crossing**
- 2. Retrograde Wiring**
- 3. Kissing Wire Technique**
- 4. IVUS Guided Wiring**
- 5. Subintimal Tracking**



**Case**  
**RCA**





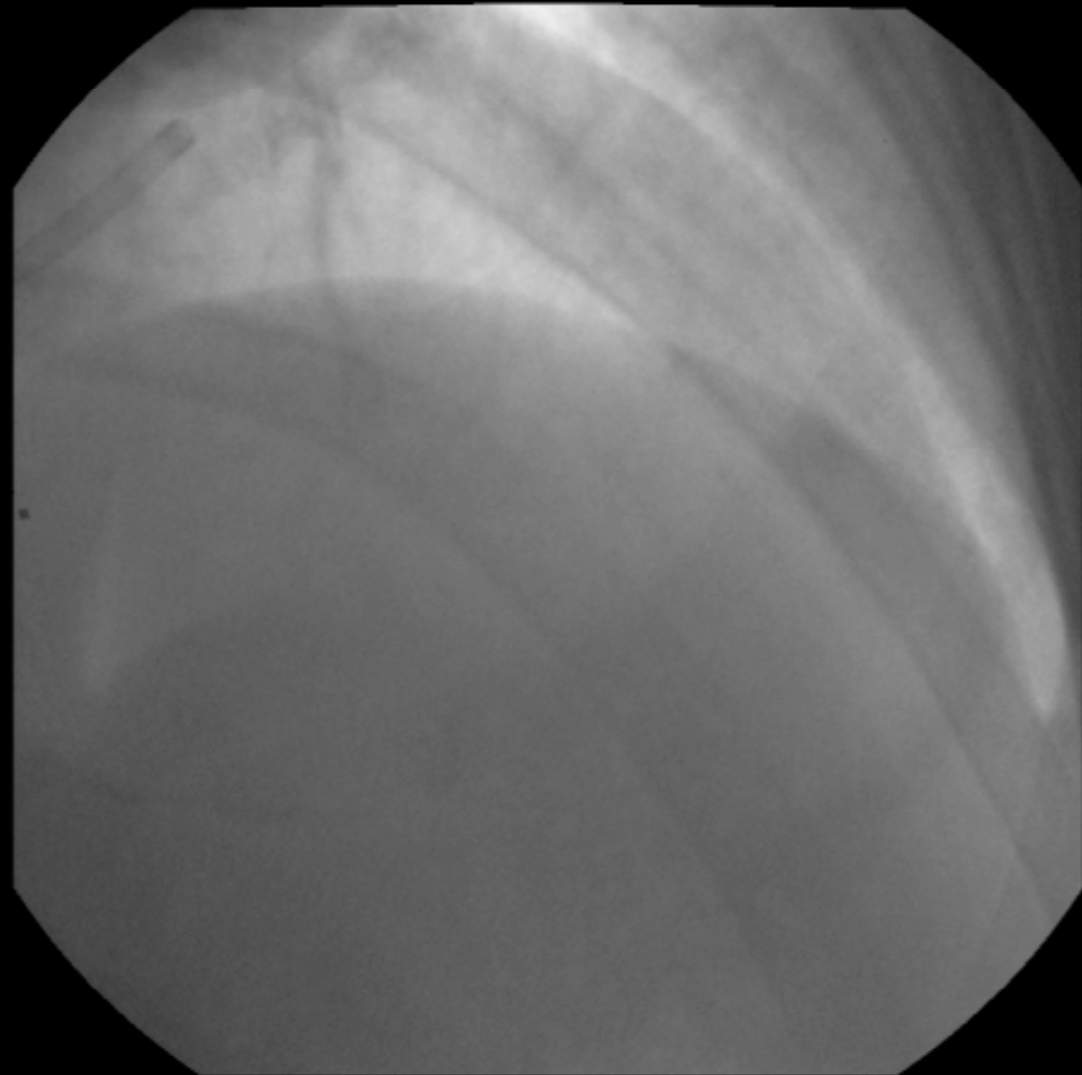
**LCA**  
**RAO**  
**Caudal**





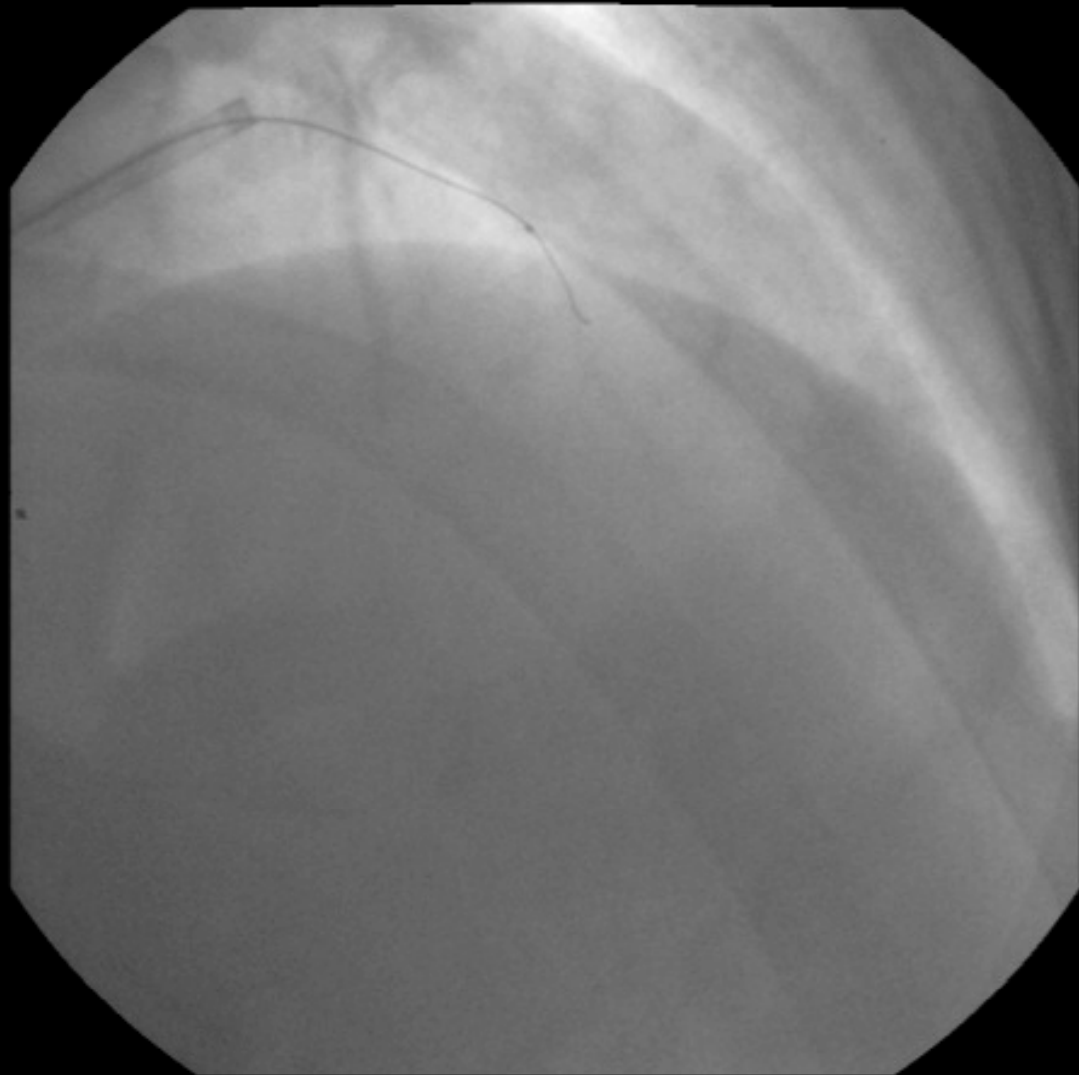


**LCA**  
**RAO**  
**Cranial**



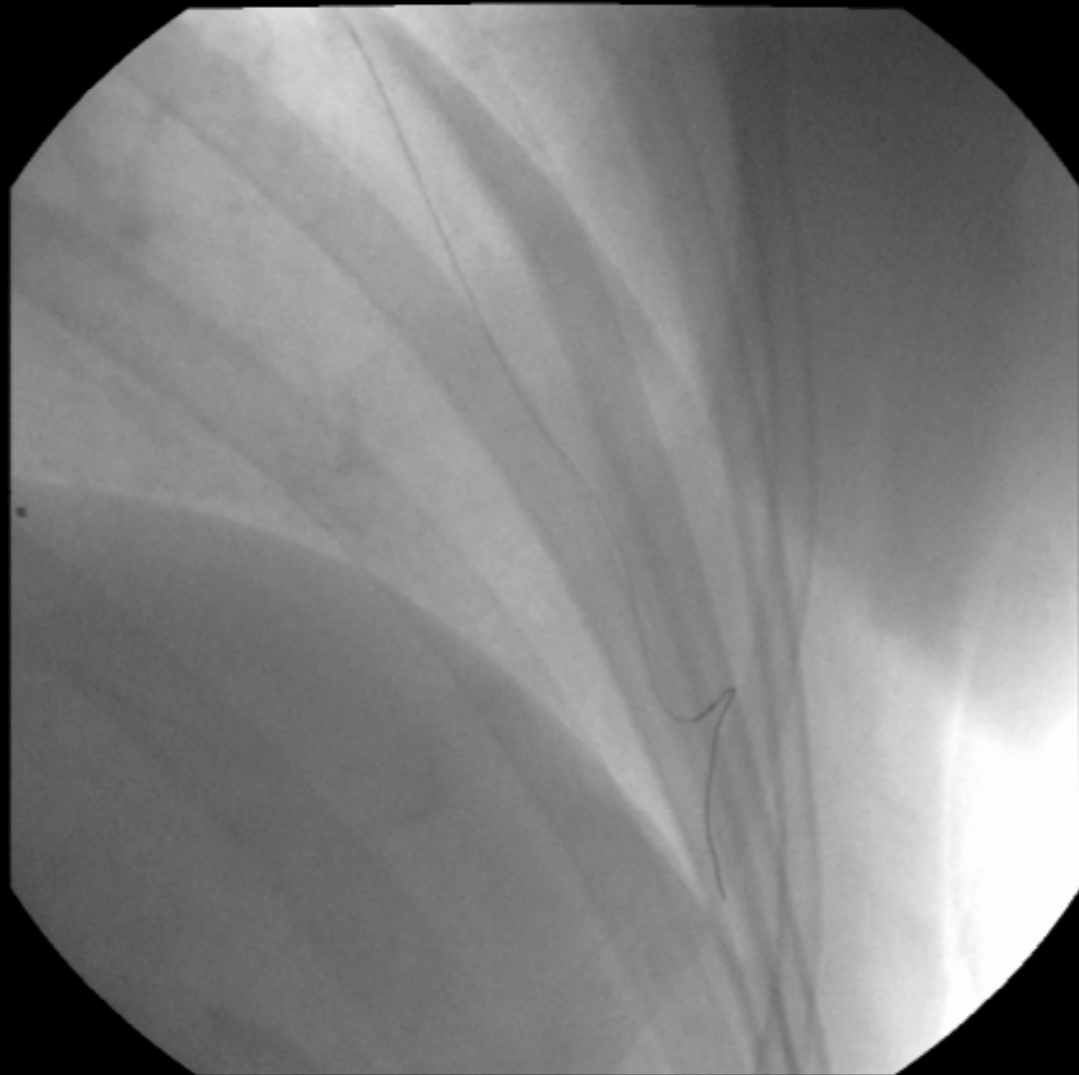


# Antegrade Wiring



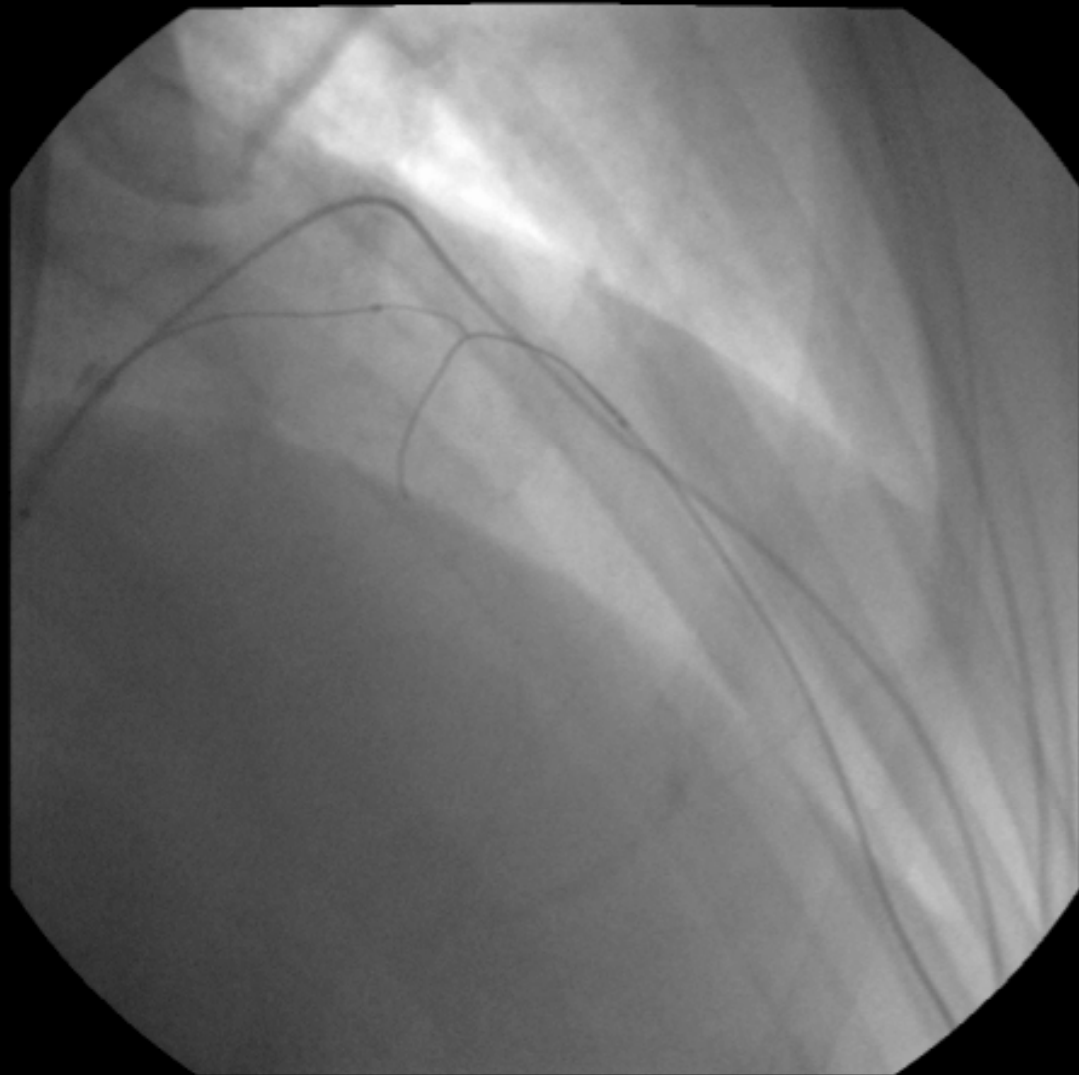


# Retrograde Wiring



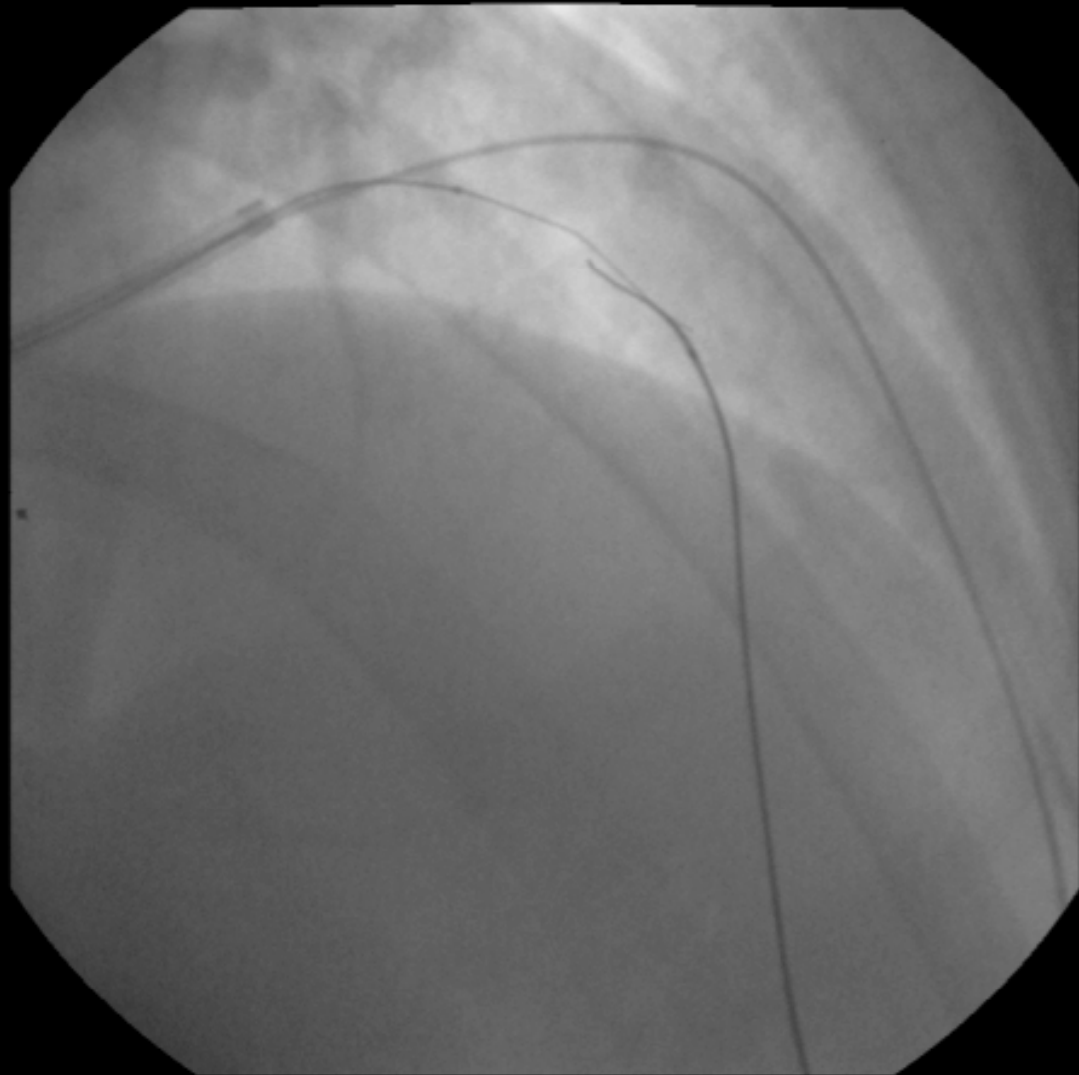


# Retrograde Wiring with Corsair



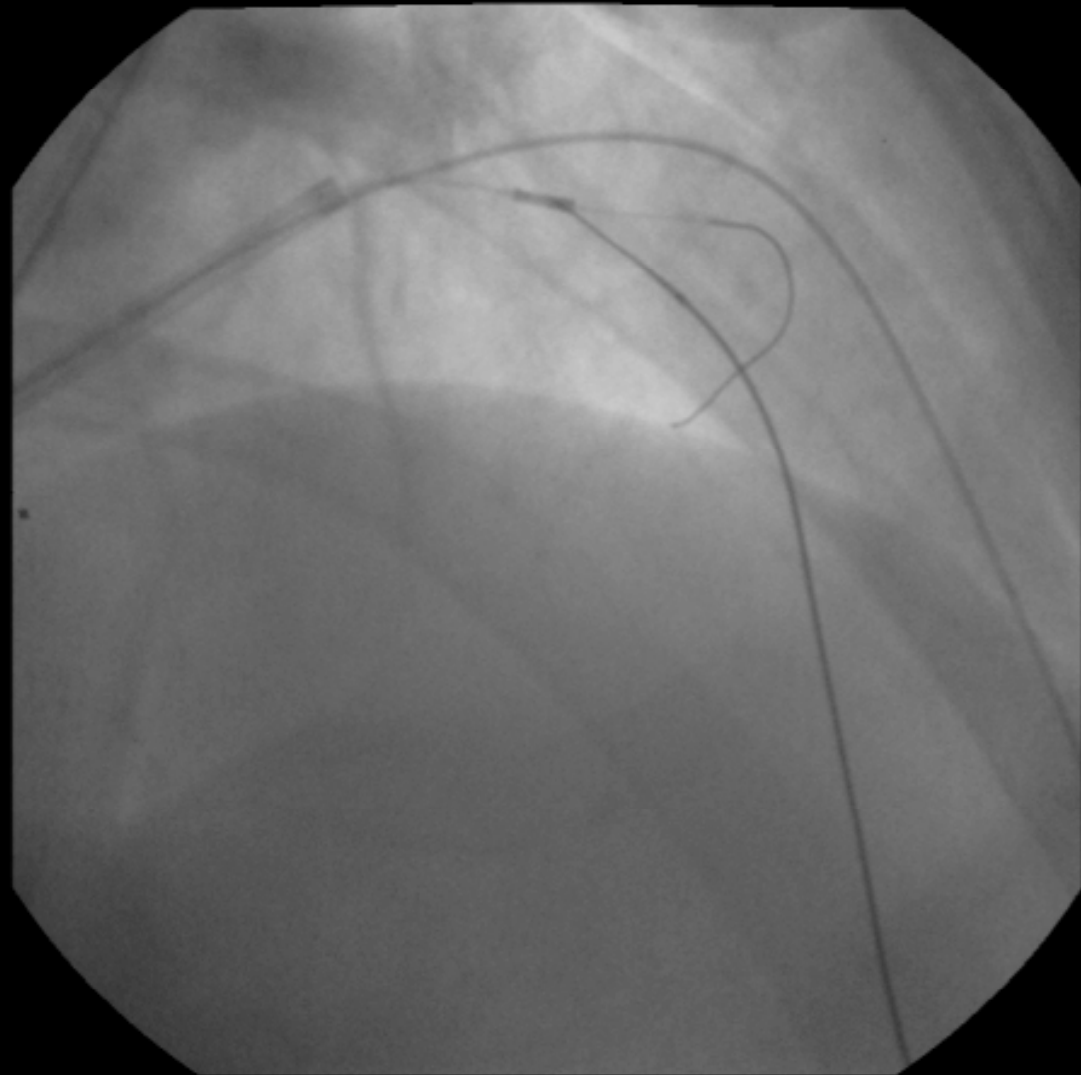


# Kissing Wire Technique



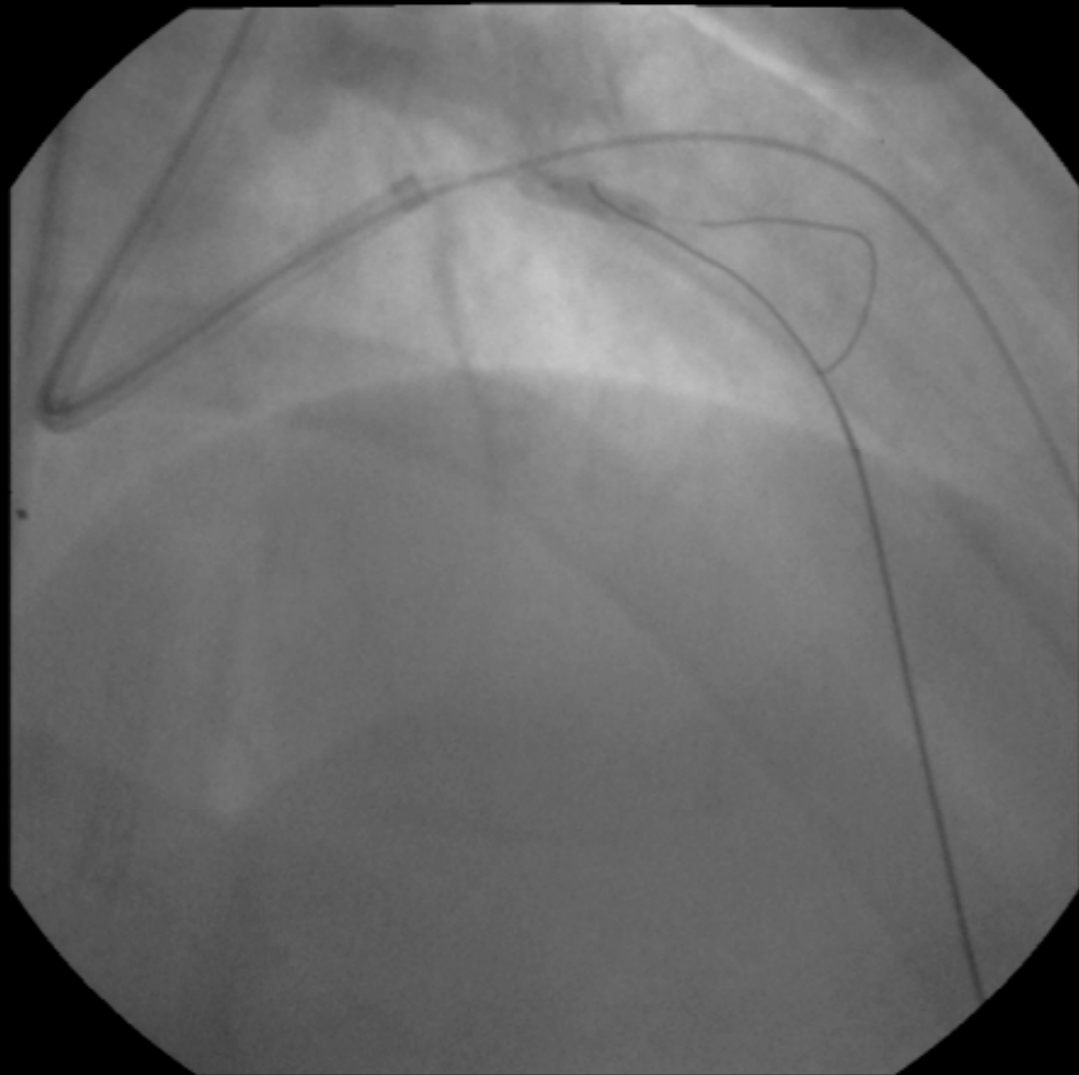


# IVUS Guided Wiring



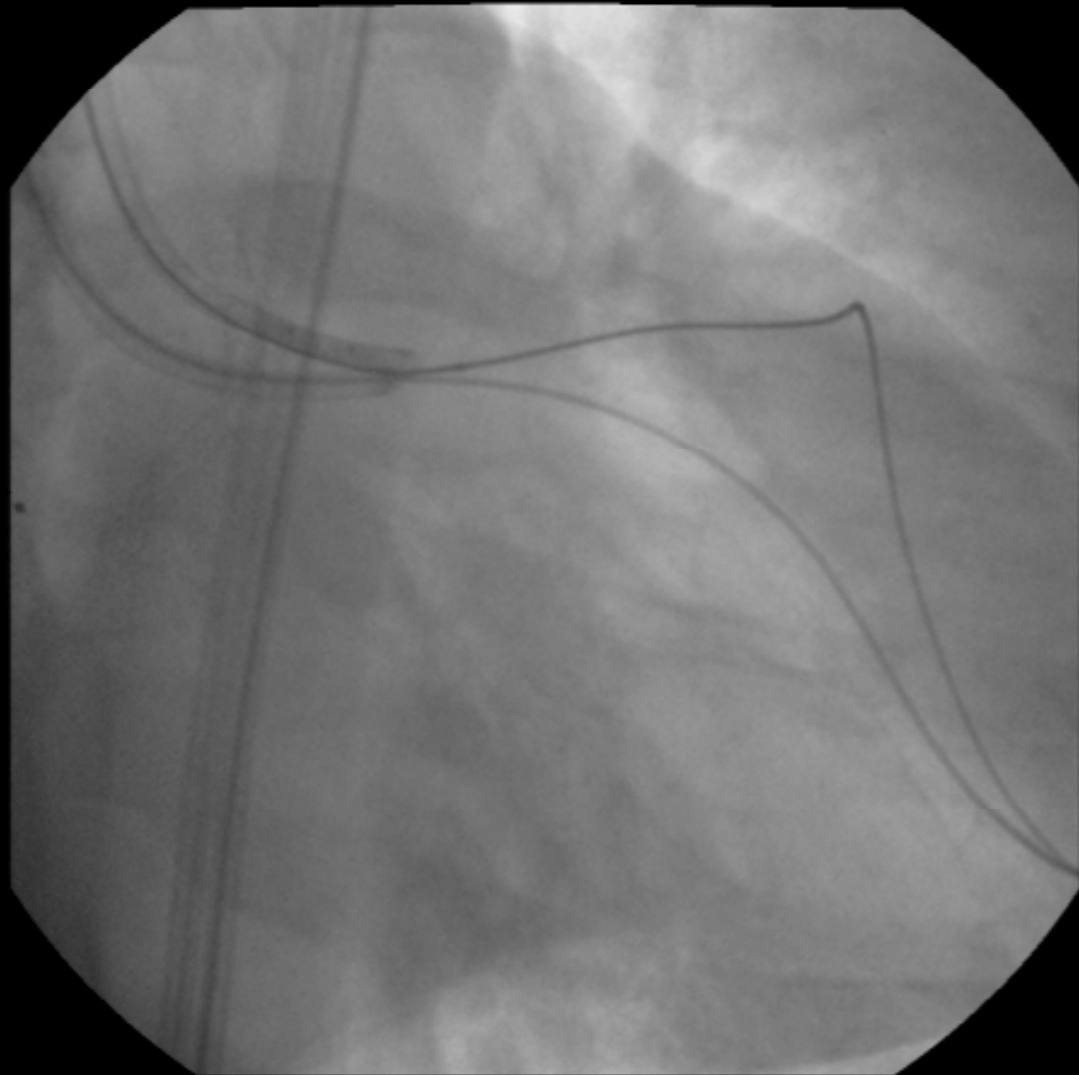


# Reverse CART





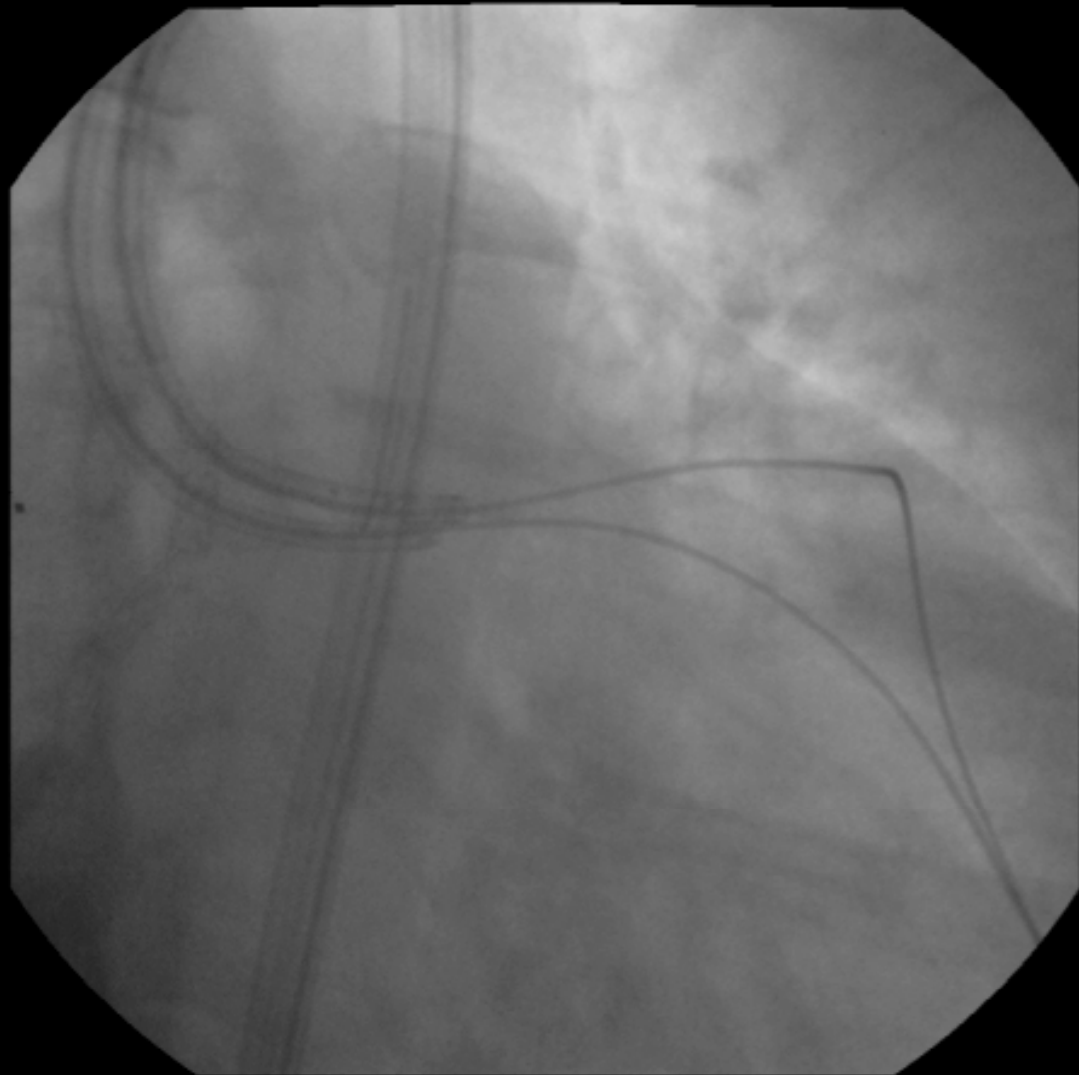
# Successful Wiring







**Externalization  
of  
300 cm GW**



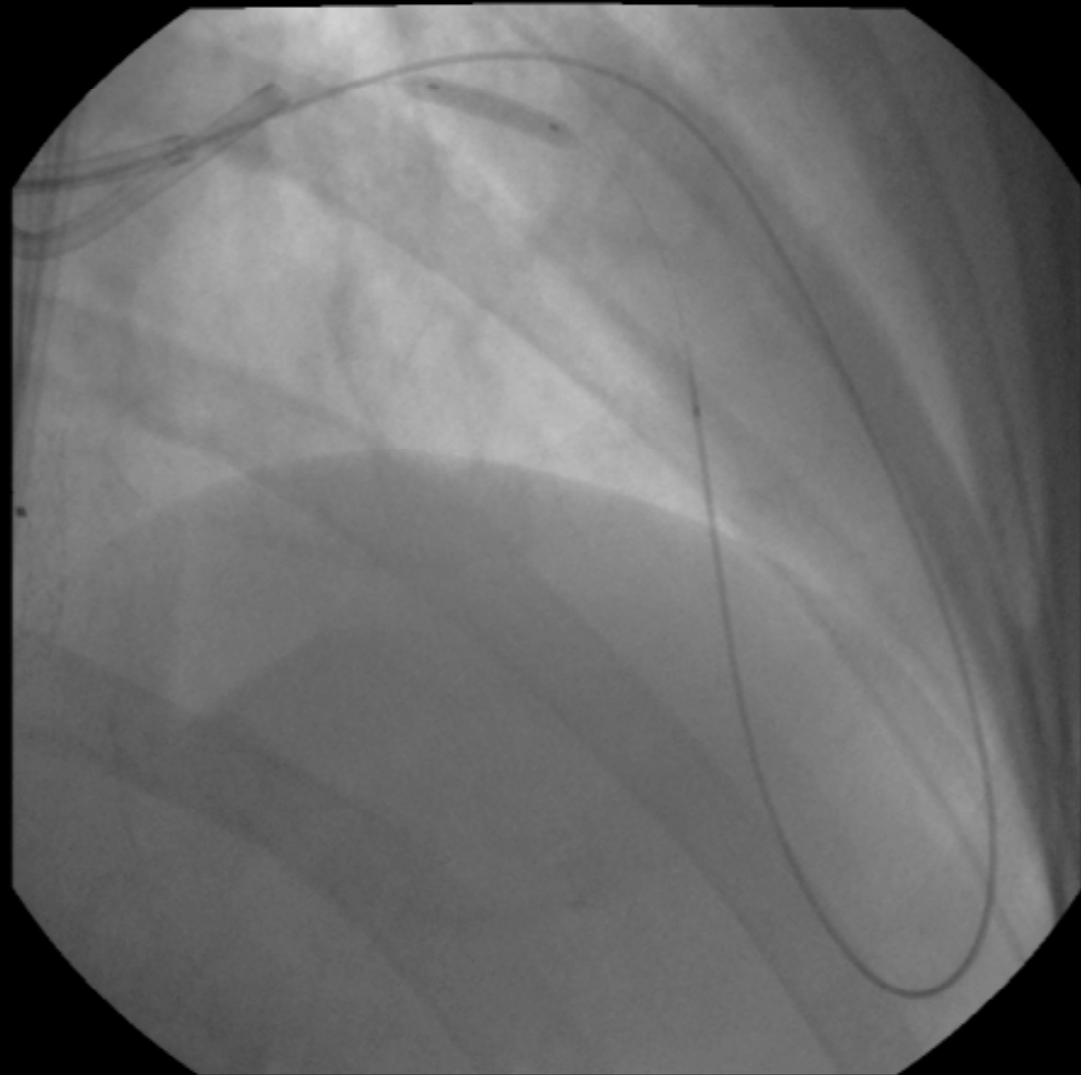


**Externalization  
of  
300 cm GW**



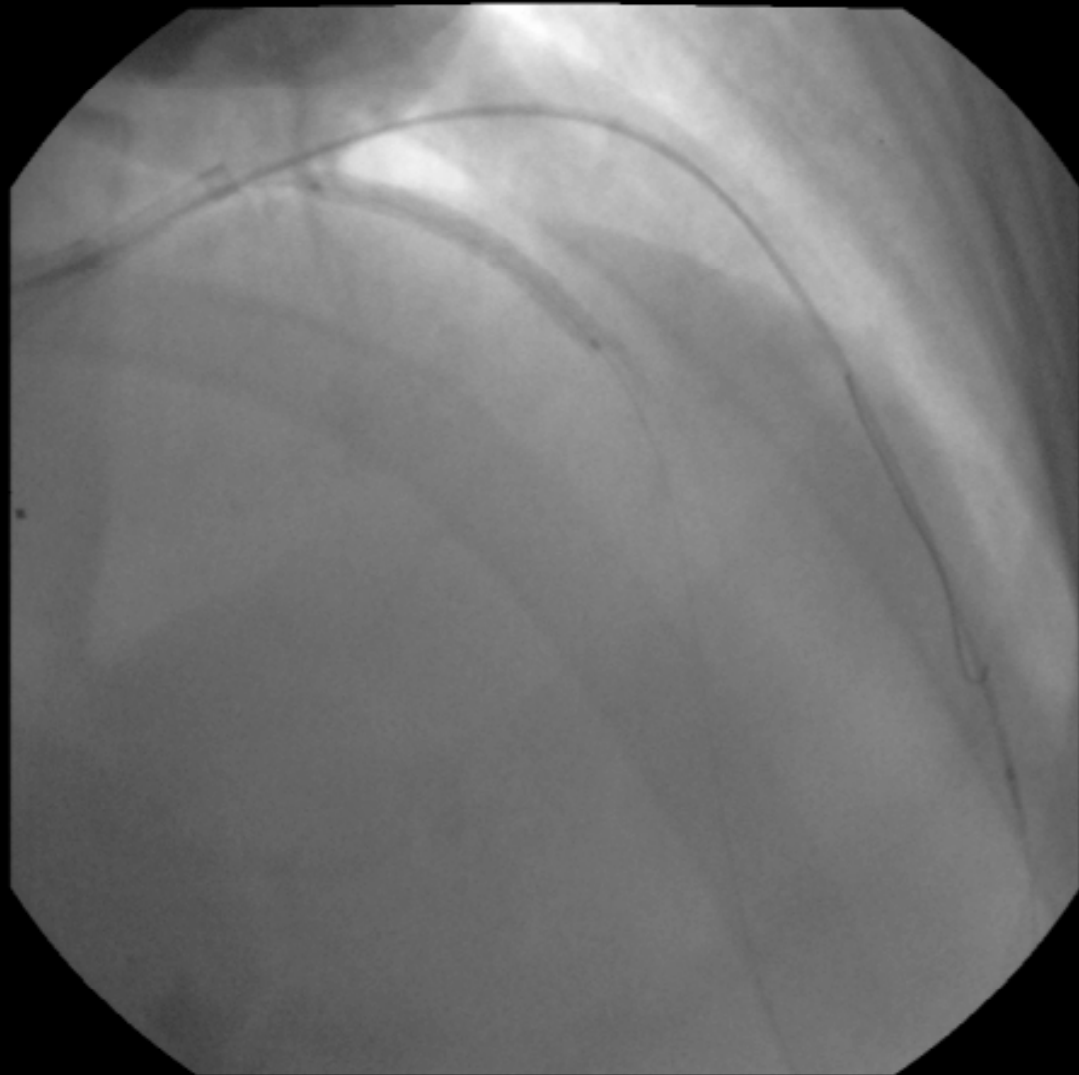


# Balloon



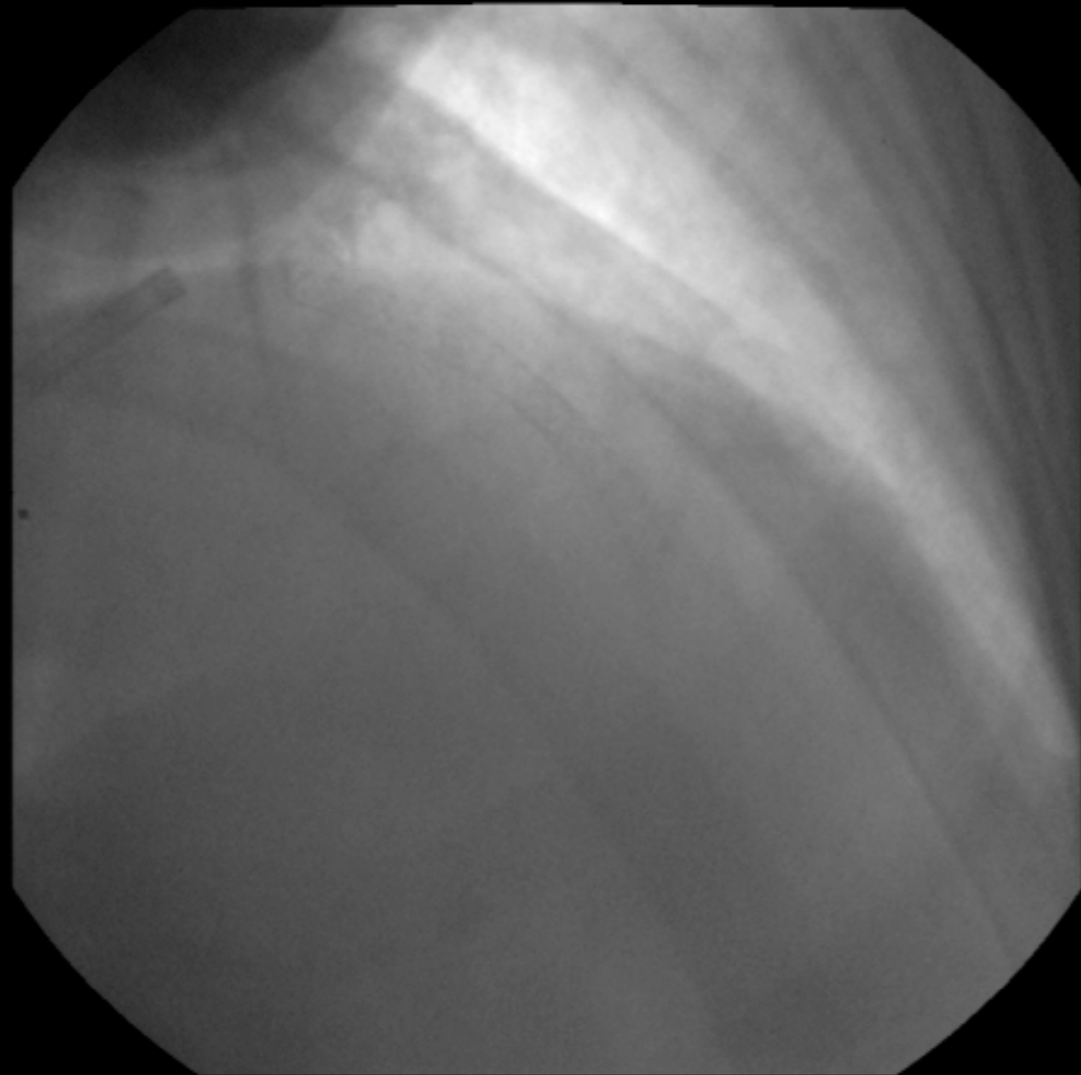


# Stenting



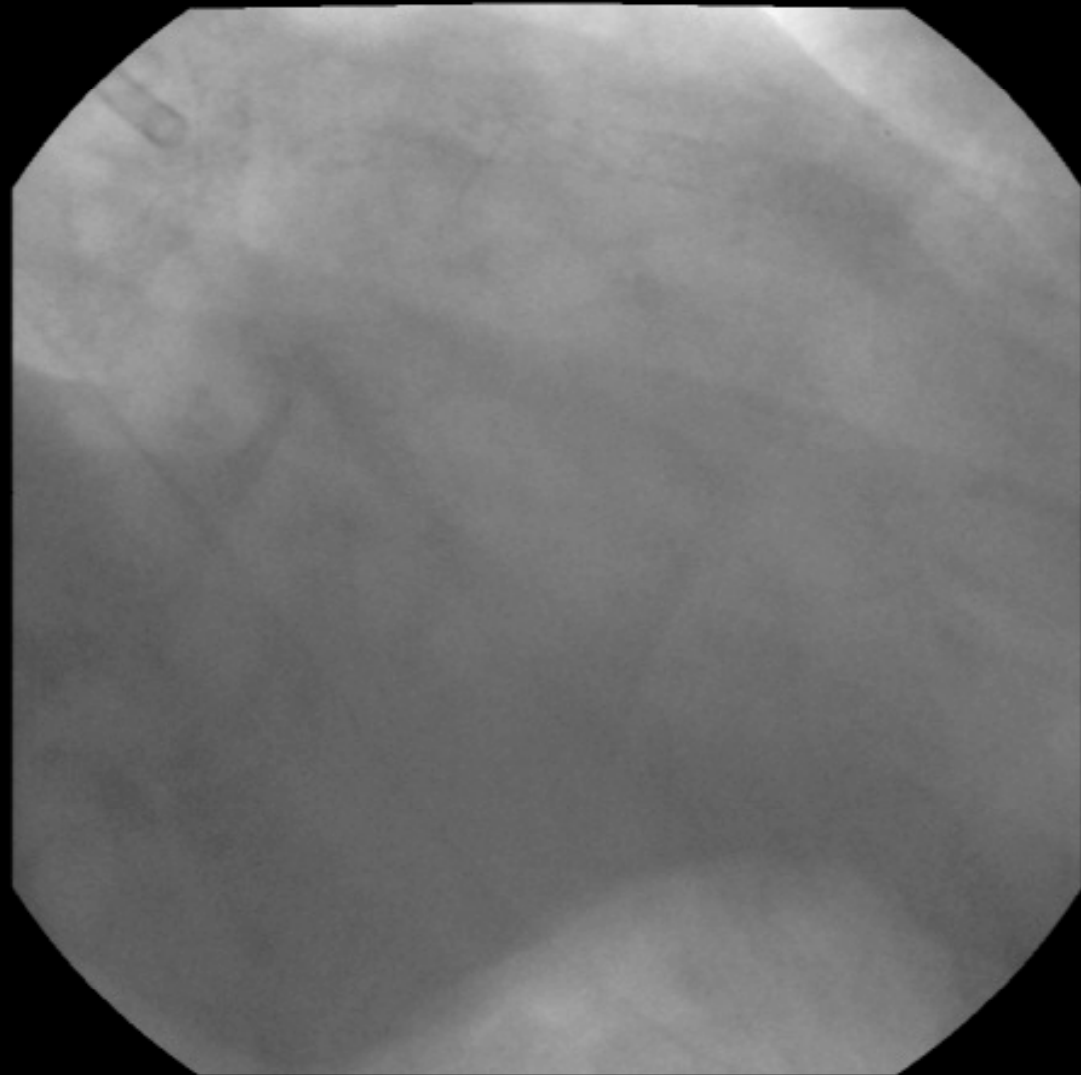


**Final**





**Final**





# Summary

- 1. The retrograde approach is absolutely indispensable in CTO PCI.**
- 2. In general, it is indicated to patients in whom the first PCI failed or CTO segment has complex morphology.**
- 3. Corsair that is a channel dilator would make CTO PCI easier and safer.**
- 4. Externalization using 300cm wire after IVUS guided reverse CART is standardized procedure in Corsair era.**