

# CTO PCI

## What's New in 2011

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Yasushi Asakura M.D.





# Step by Step Approach

**Antegrade Approach  
with Single Wire**



**Parallel Wire Technique**



**Retrograde Approach**



**IVUS Guided Wiring**



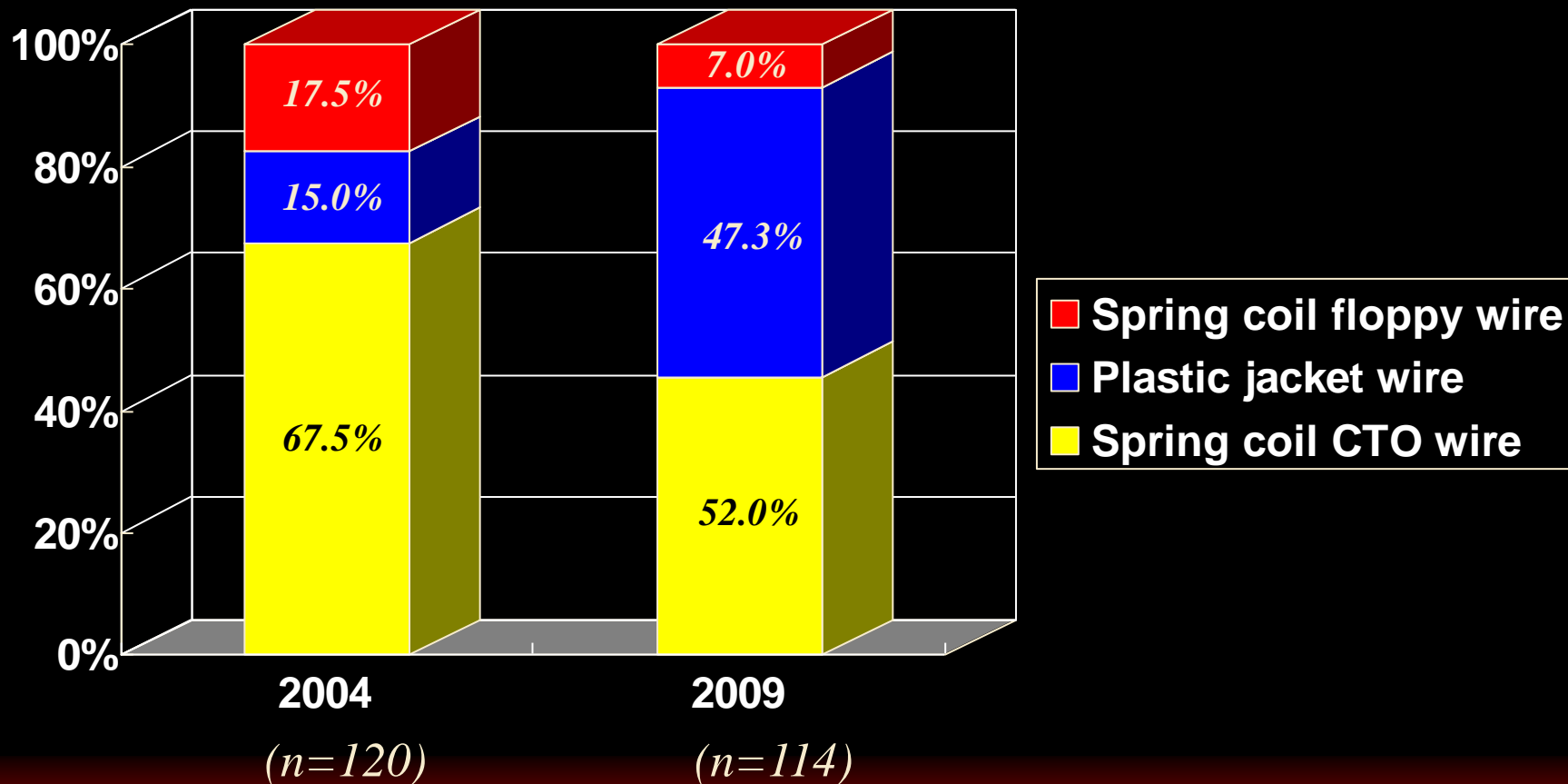
# Wire Selection

**1. Miracle 3, 6, 12g**

**2. Confianza Family**

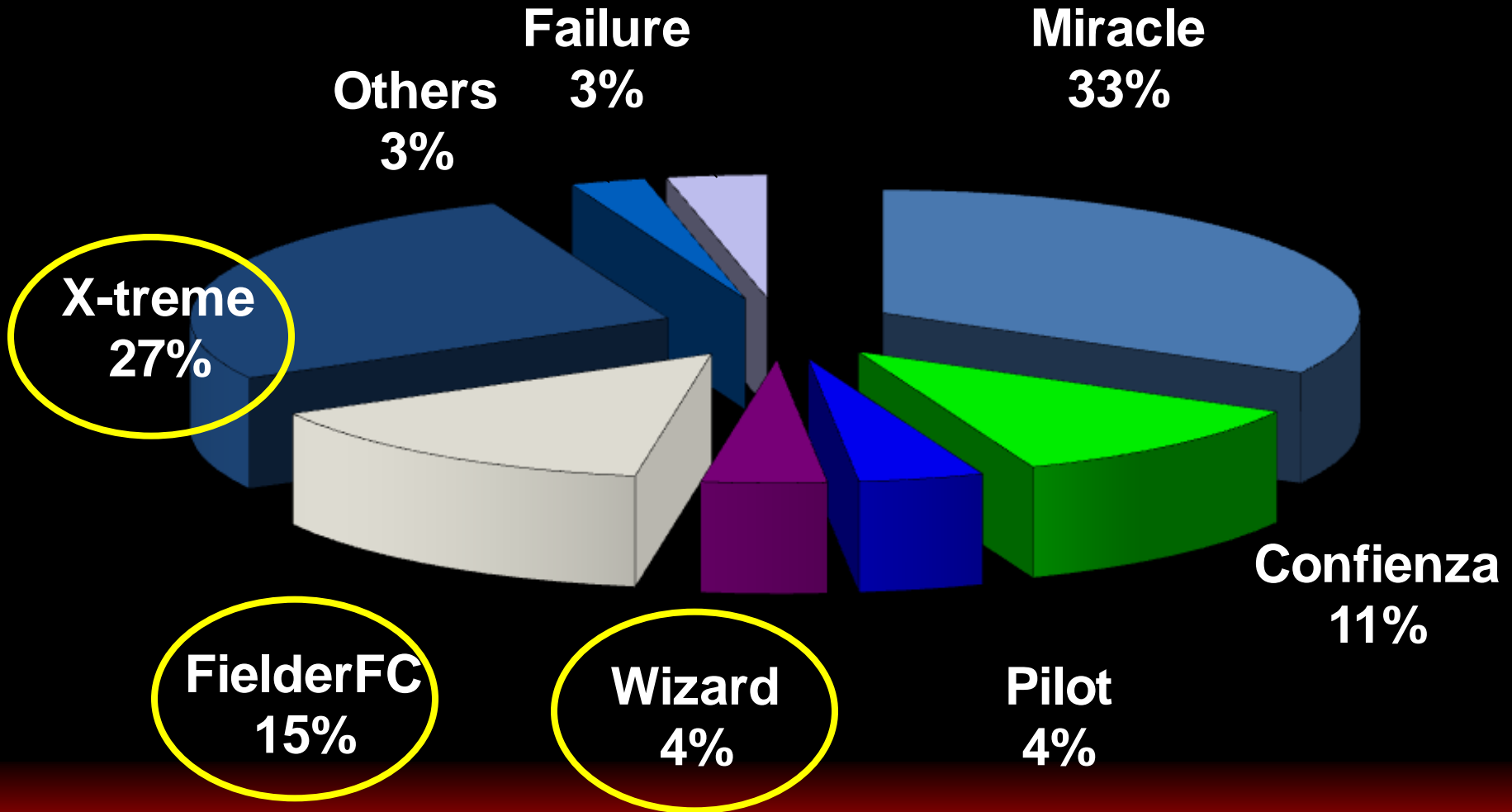


# Crossing Guide Wire in THC

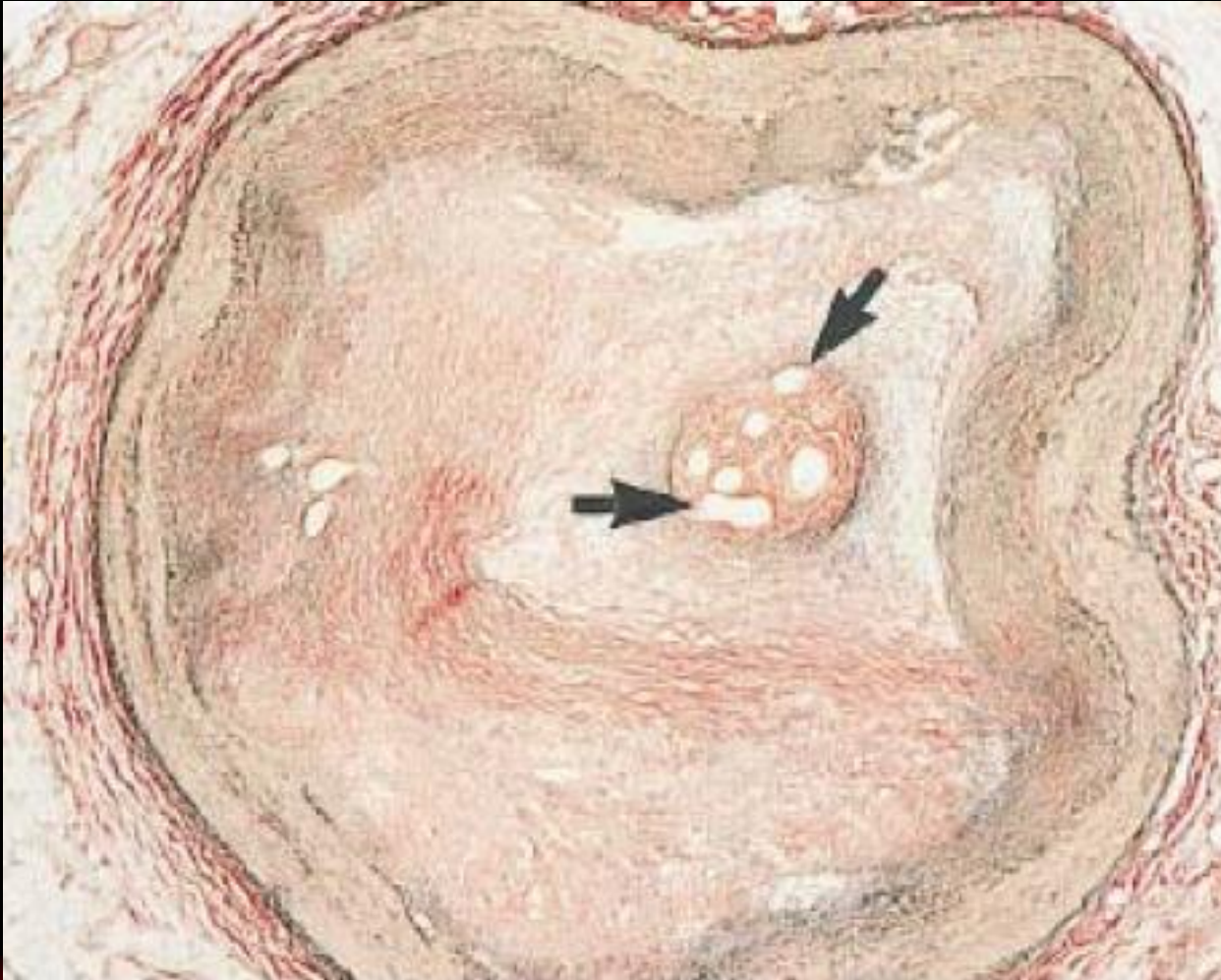




# Crossing Guide Wire in THC

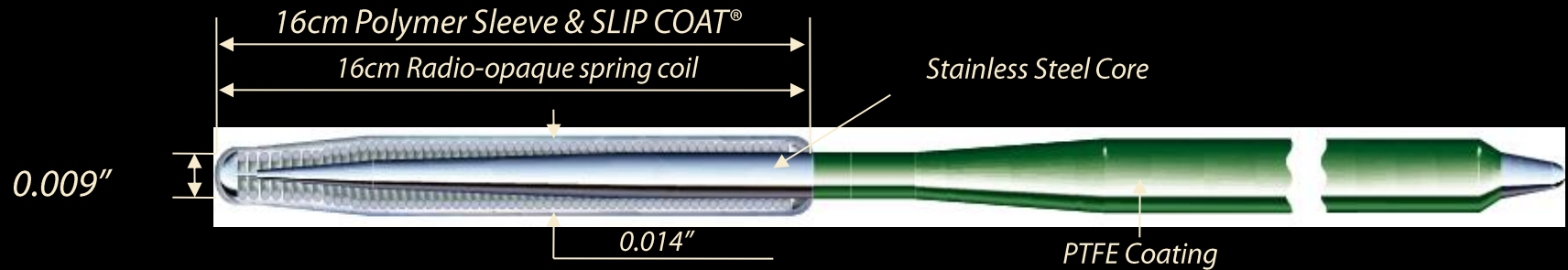


# Microchannels in CTO





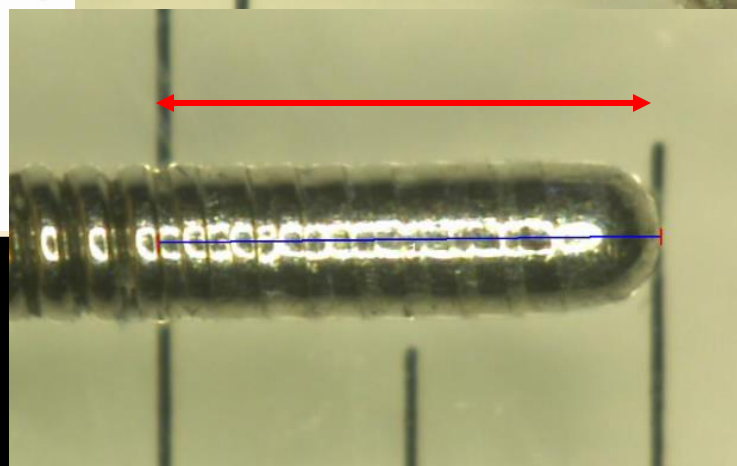
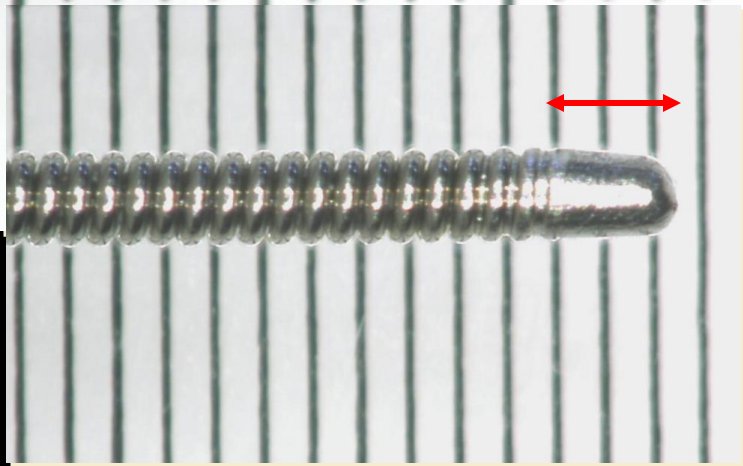
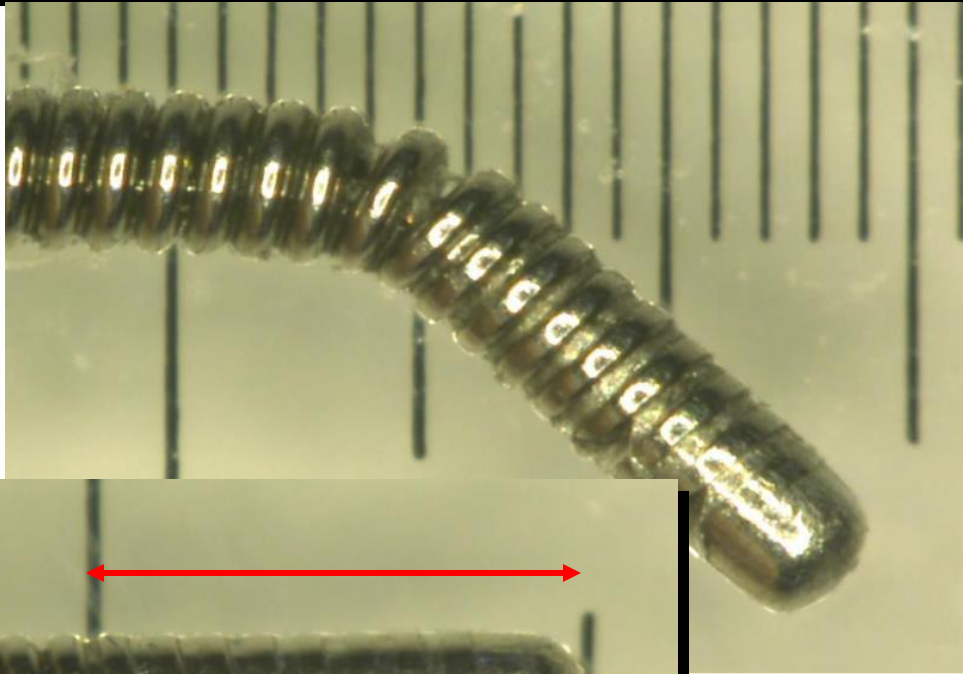
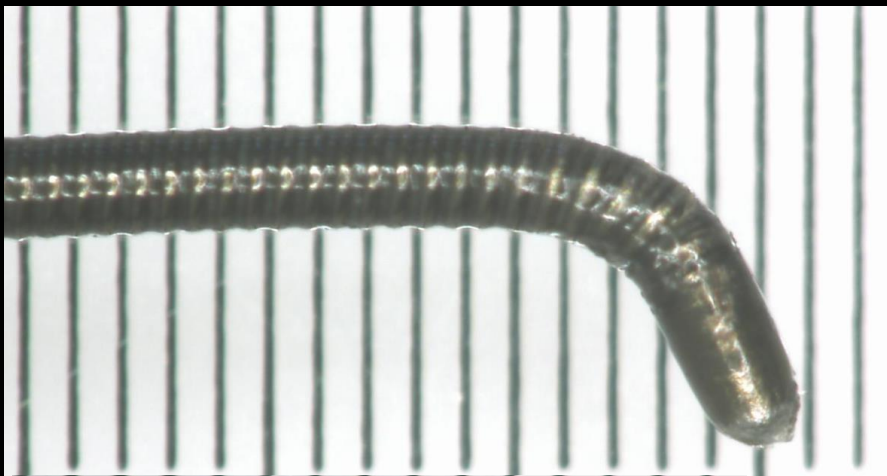
# Structure of Fielder-XT



**0.009 Tapered Tip**  
**Hydrophilic Coating & Polymer Sleeve**  
**Tip Load: 0.8g**



# Soldering Length at Wire Tip



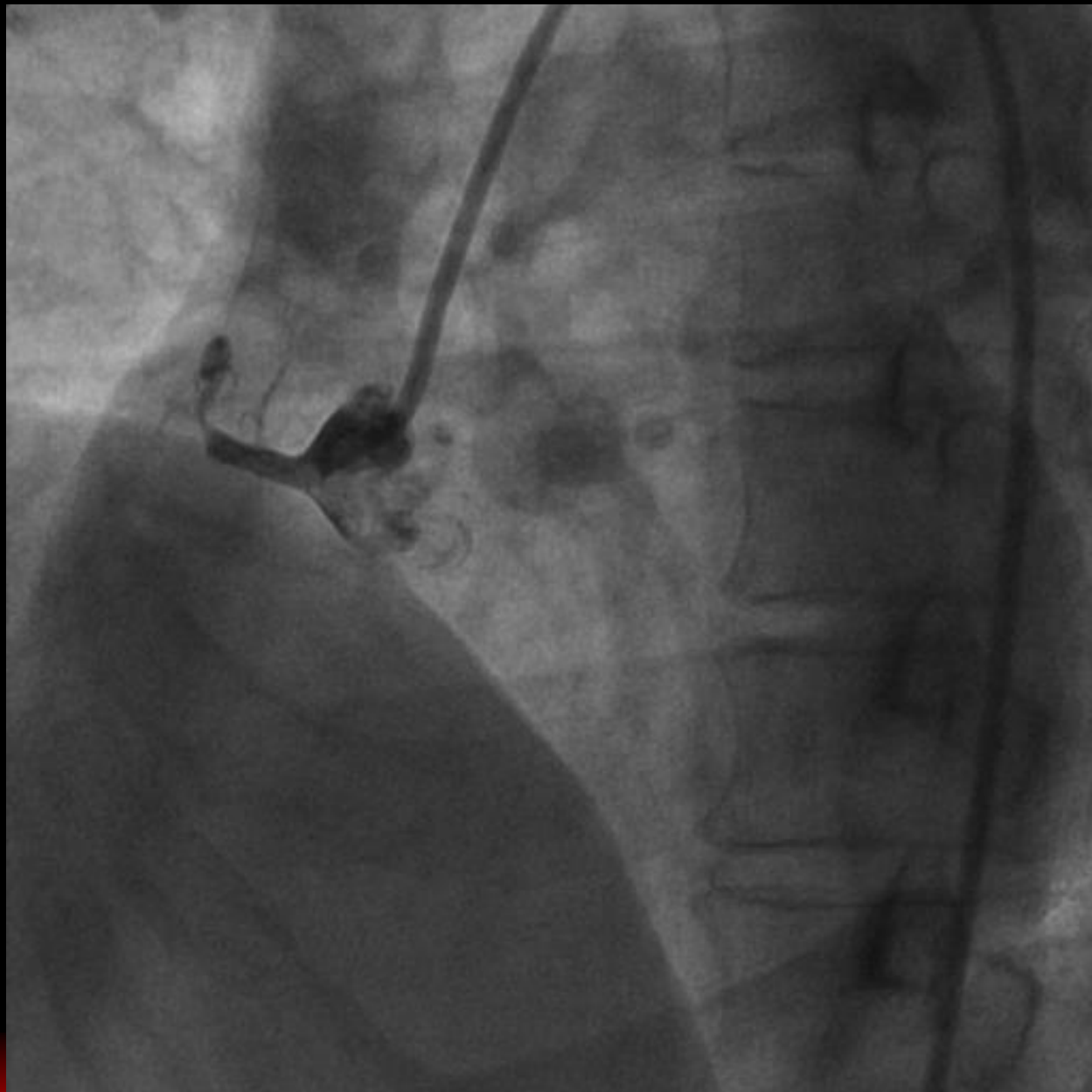
**Fielder-XT**

**0.014" wire**



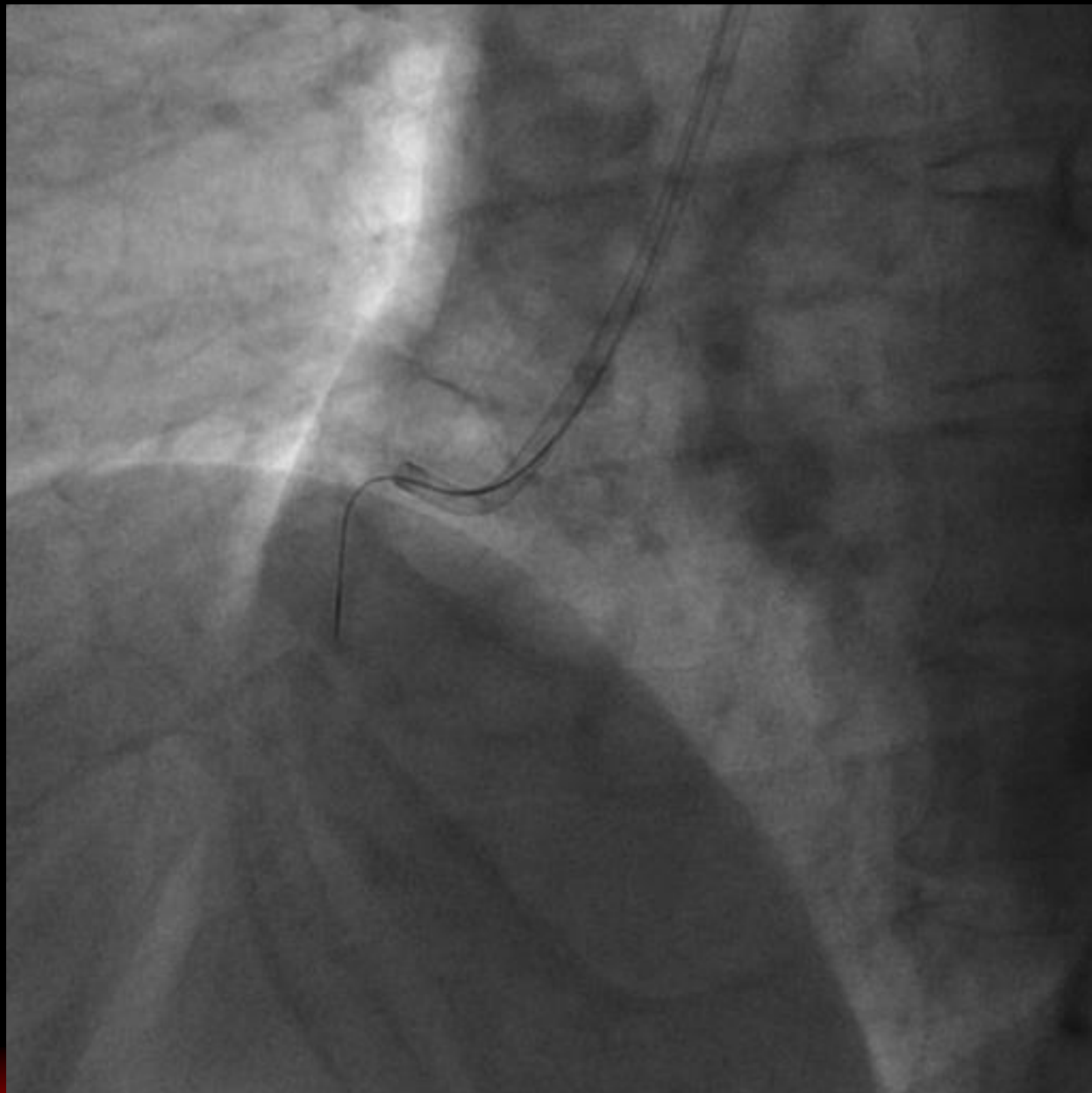


# Case



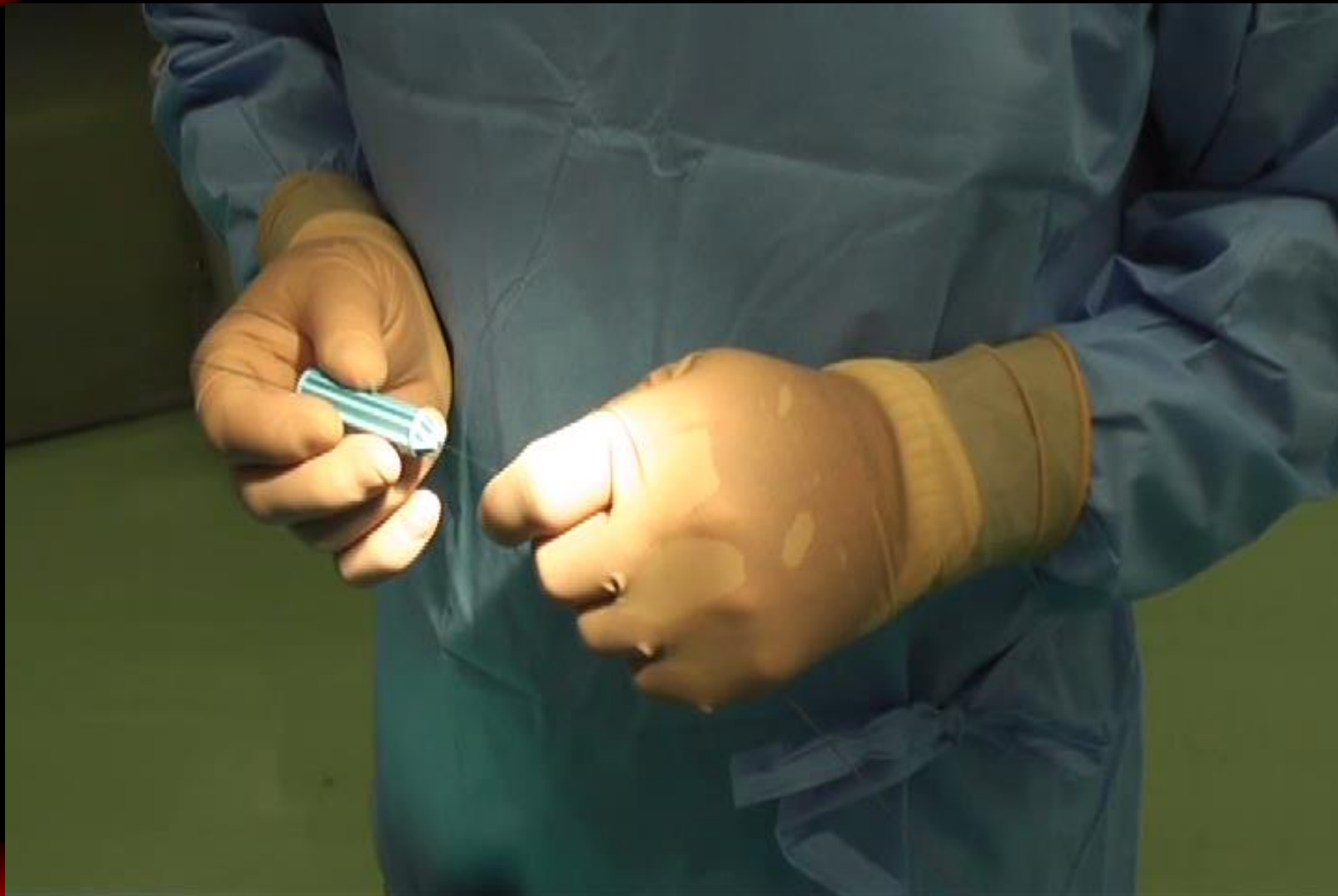


# Fielder XT





# CTO Wire Manipulation



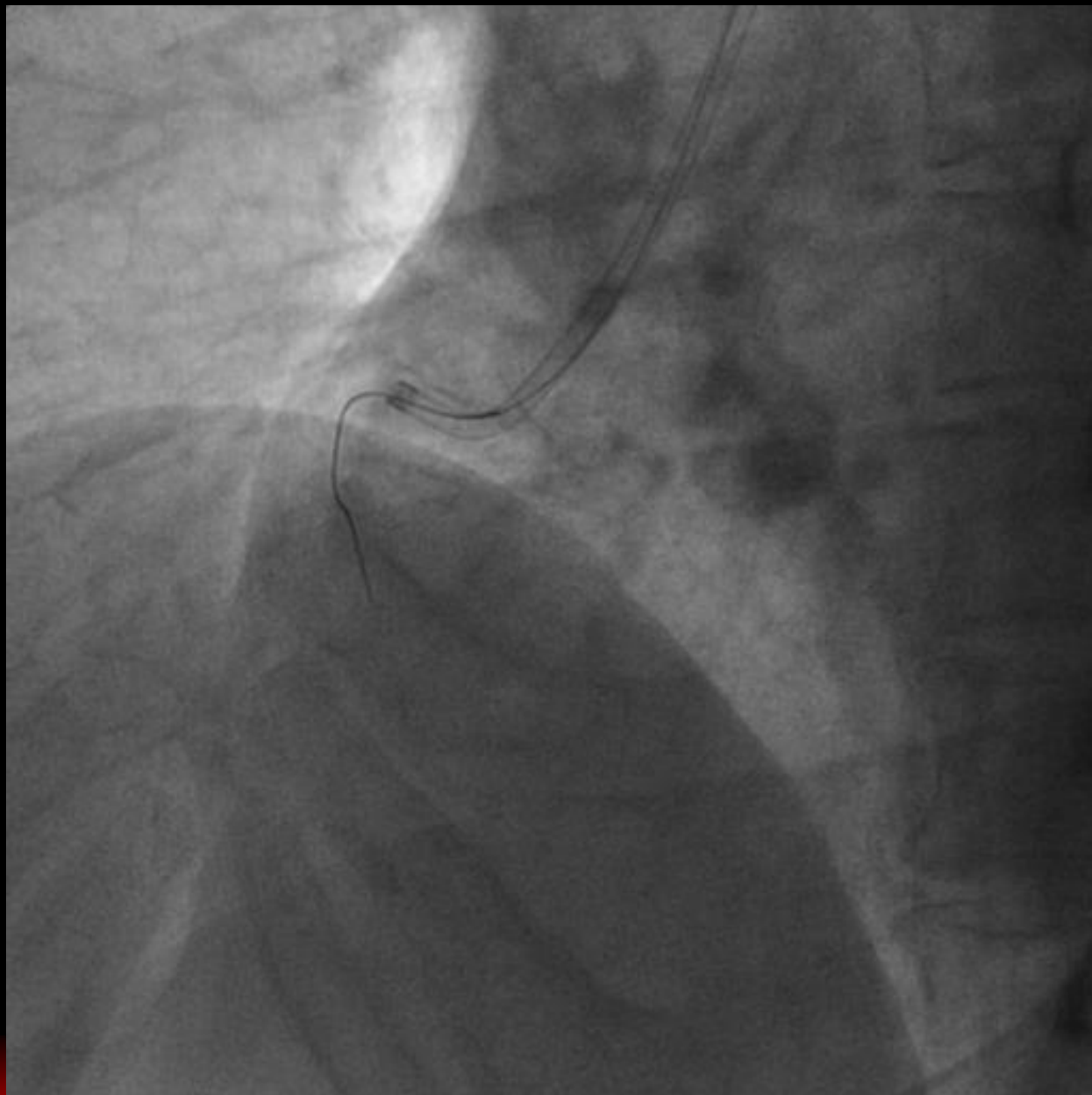


# Tapered Wire Manipulation



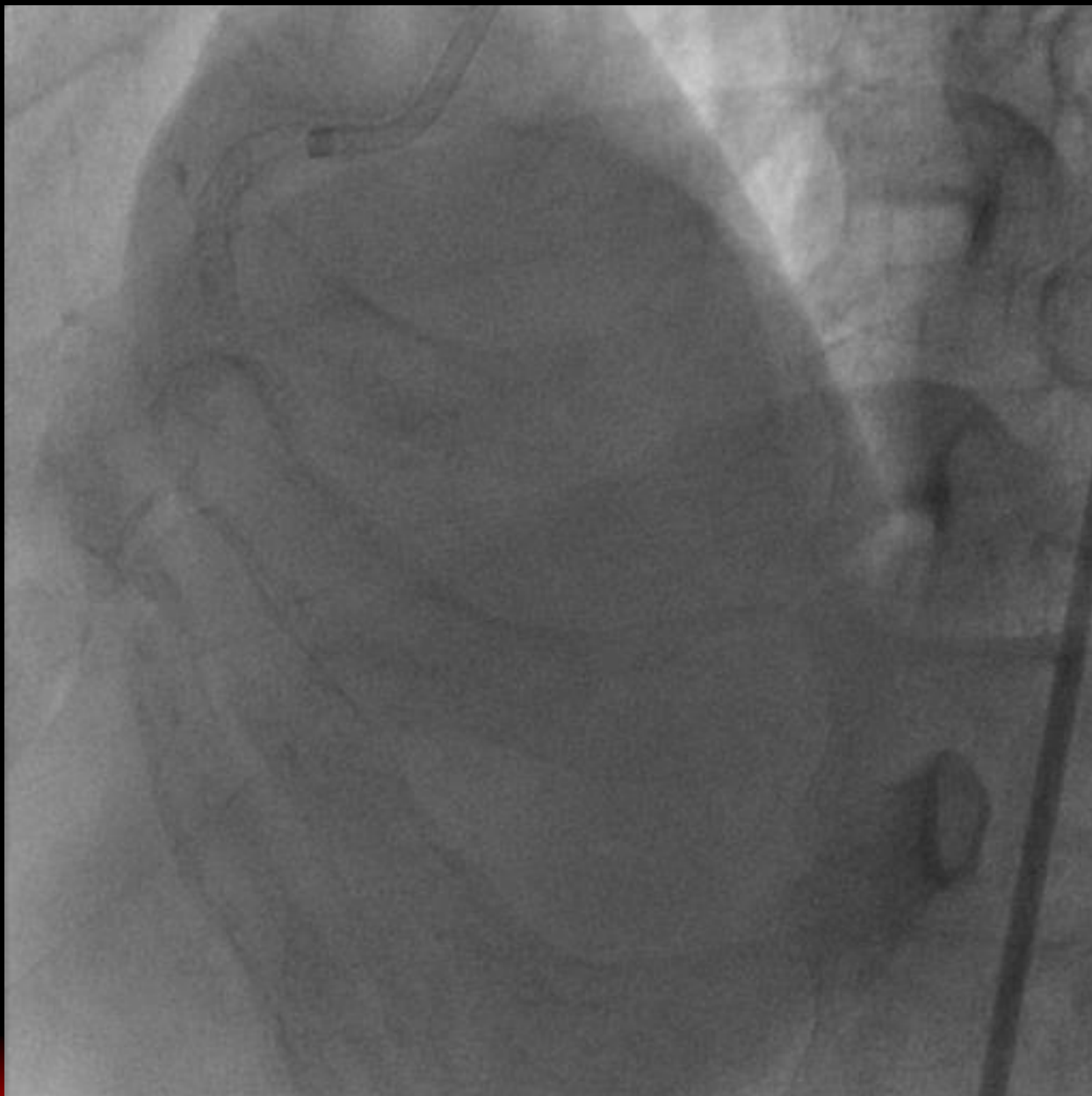


# Fielder XT



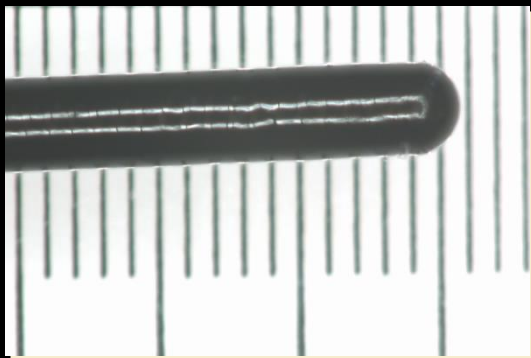


**Final**

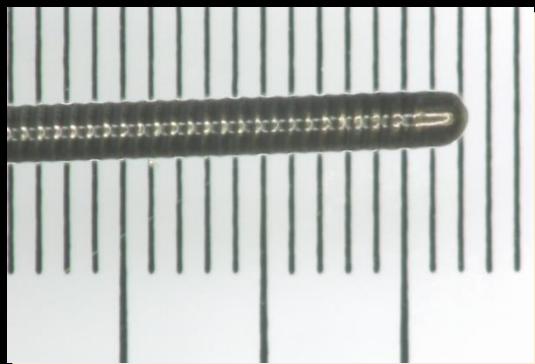




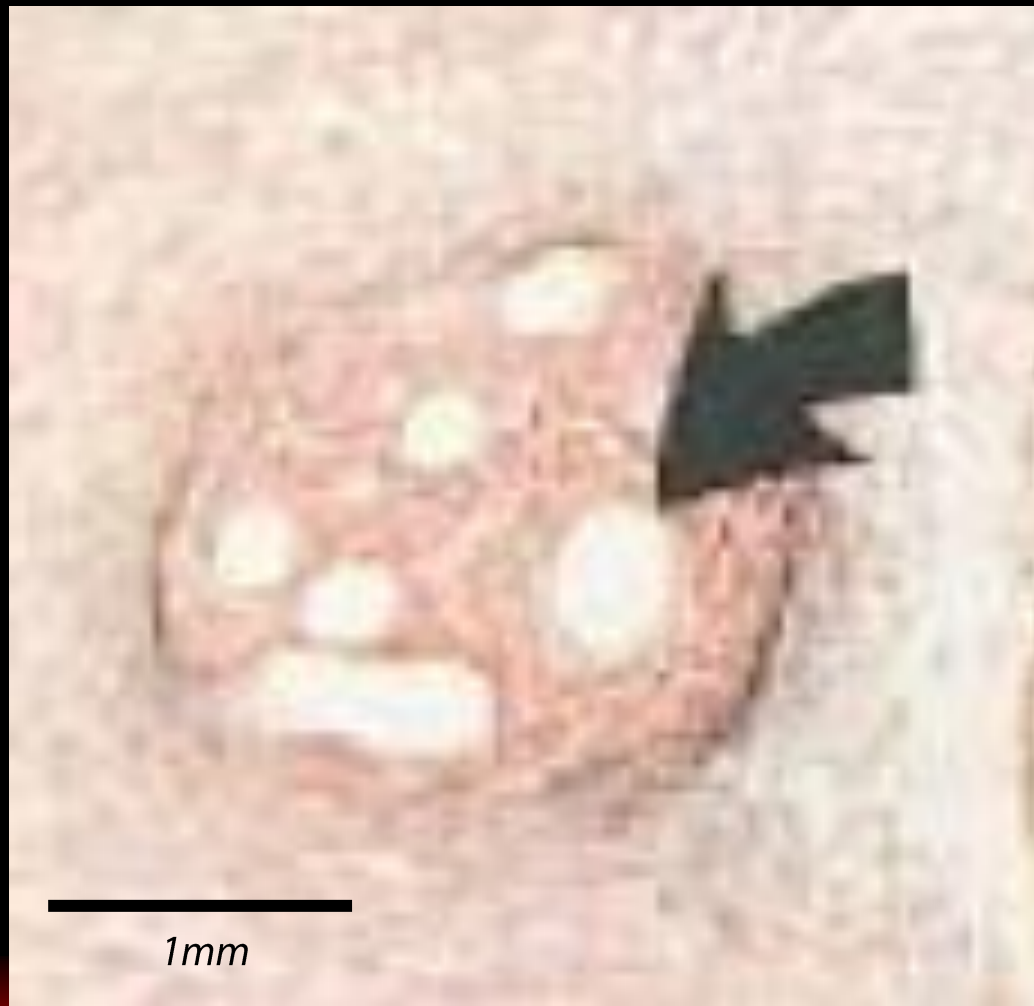
# Microchannels and Wire Tip



***0.014 inch : 0.36mm***

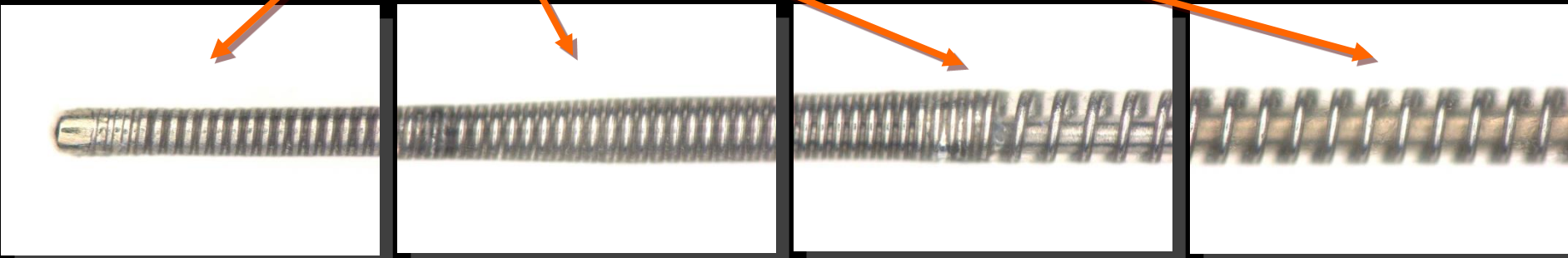
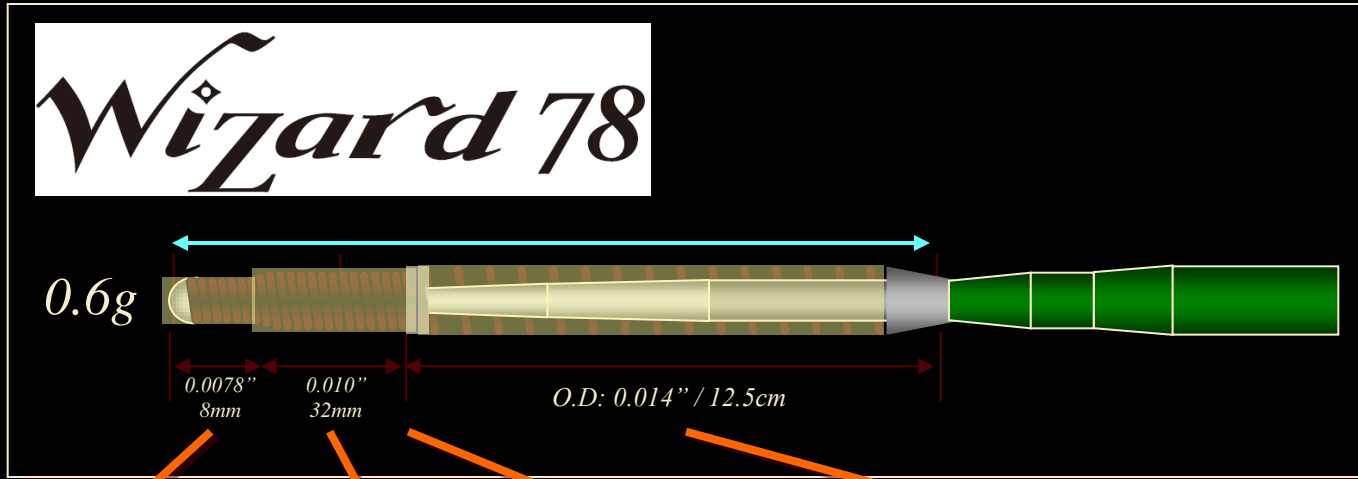


***0.009 inch : 0.23mm***





# Wizard78 Structural Image







# Tapered Wires 2011

- ✓ **Fielder-XT (ASAHI)**
- ✓ **Wizard (Life Line)**
- ✓ **Fielder-XTA, XTR (ASAHI)**
- ✓ **Abbyss (NIPRO)**
- ✓ **Progress (Abbott)**
- ✓ **Equation (JJ)**



# Step by Step Approach

**Antegrade Approach  
with Single Wire**



**Parallel Wire Technique**



**Retrograde Approach**



**IVUS Guided Wiring**



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

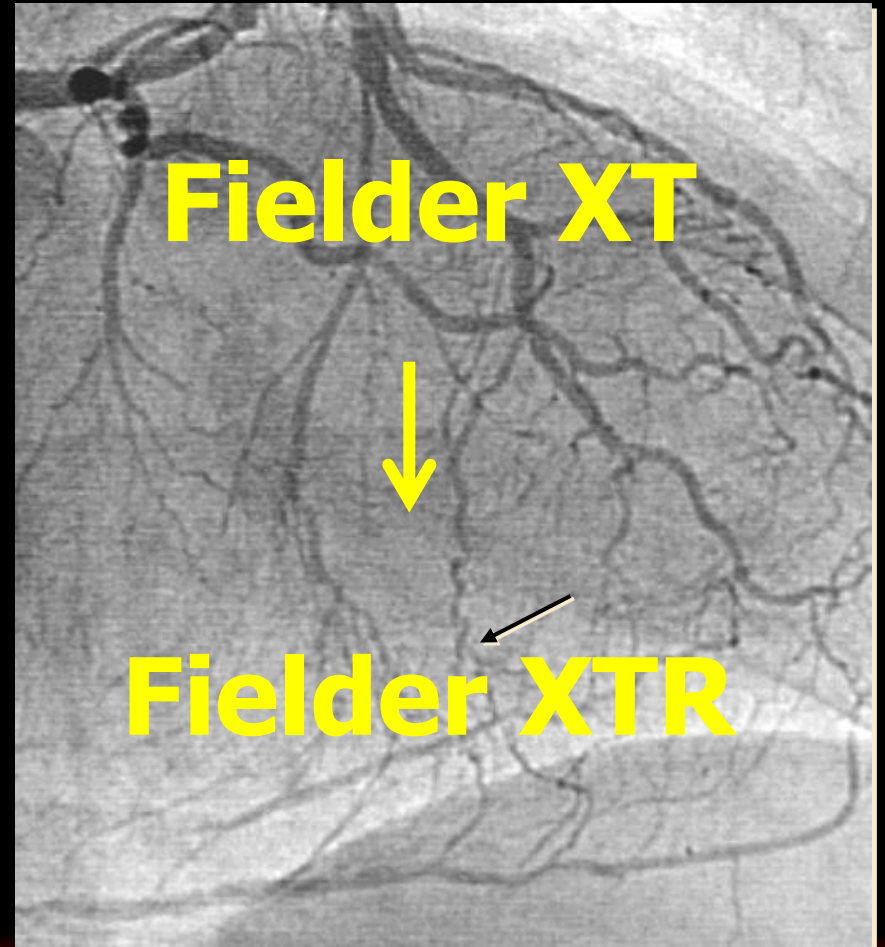
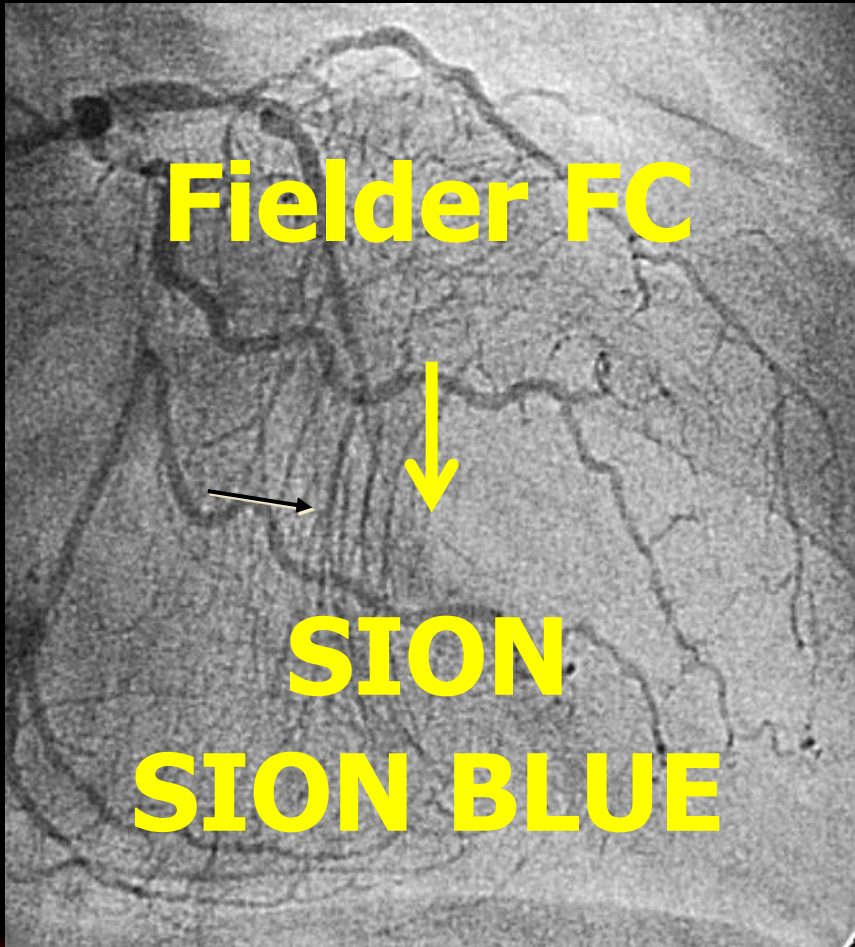


# What's New?

## 1. Wire Selection

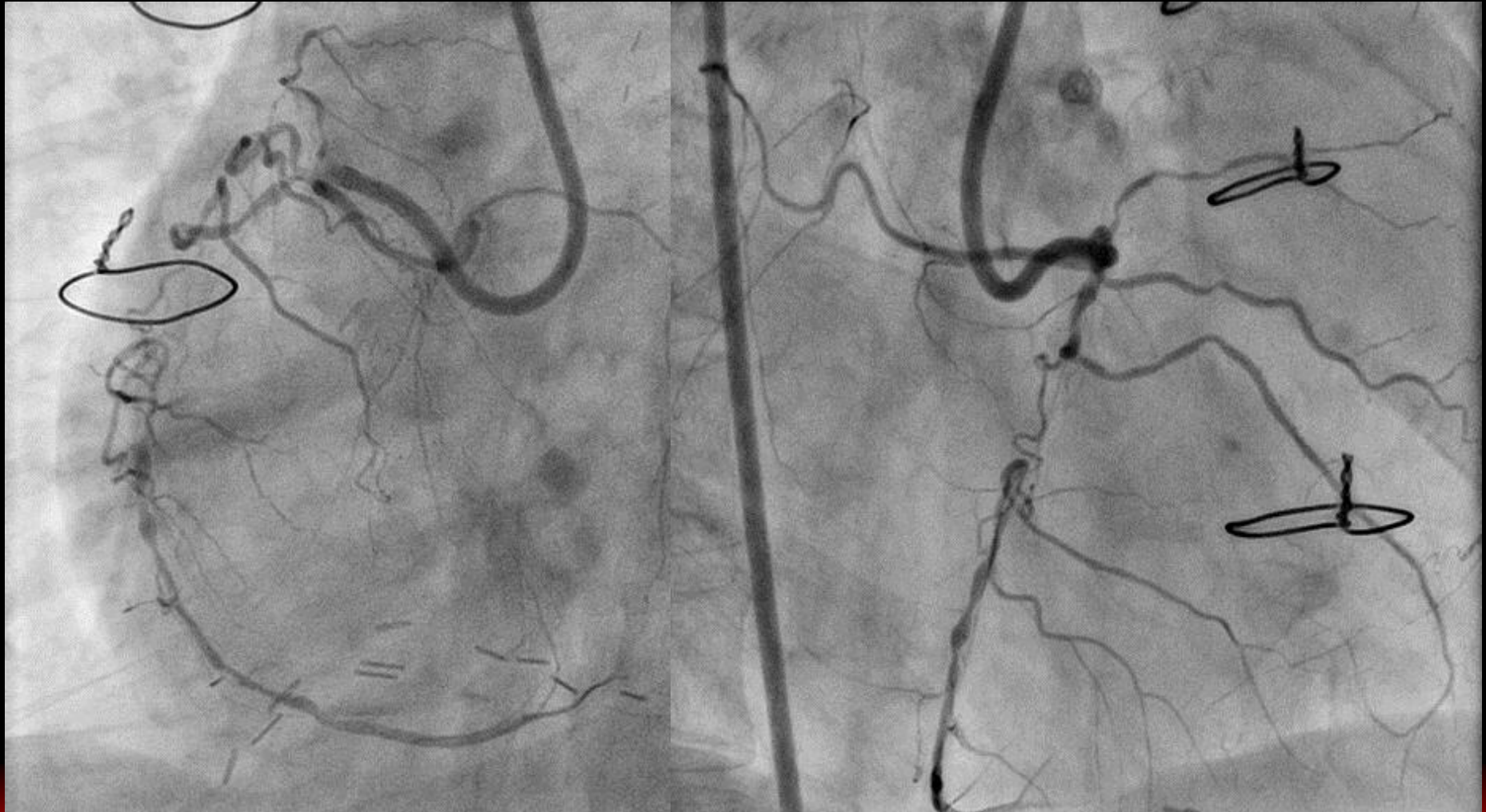


# Wire Selection 2011



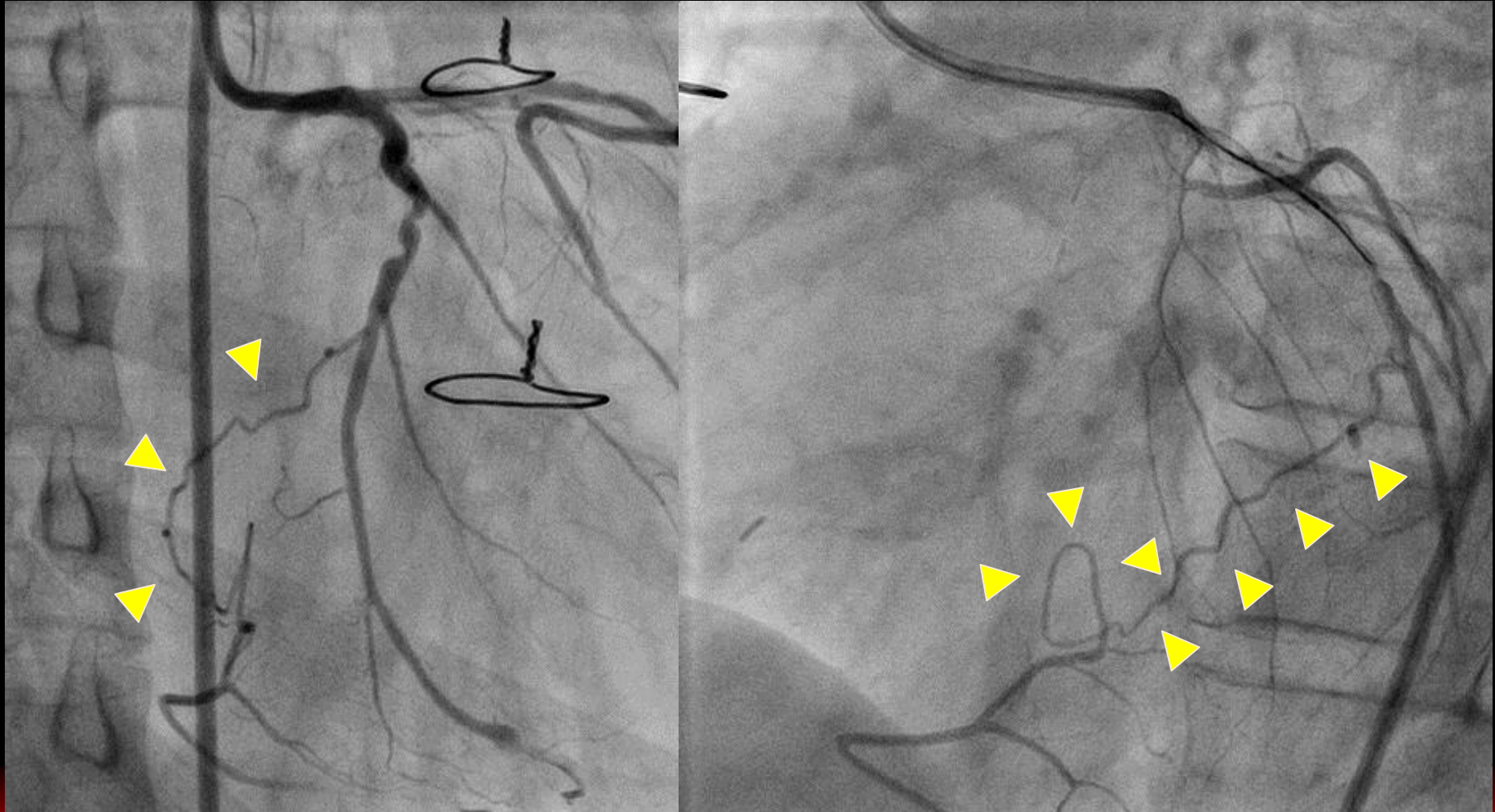


# Case





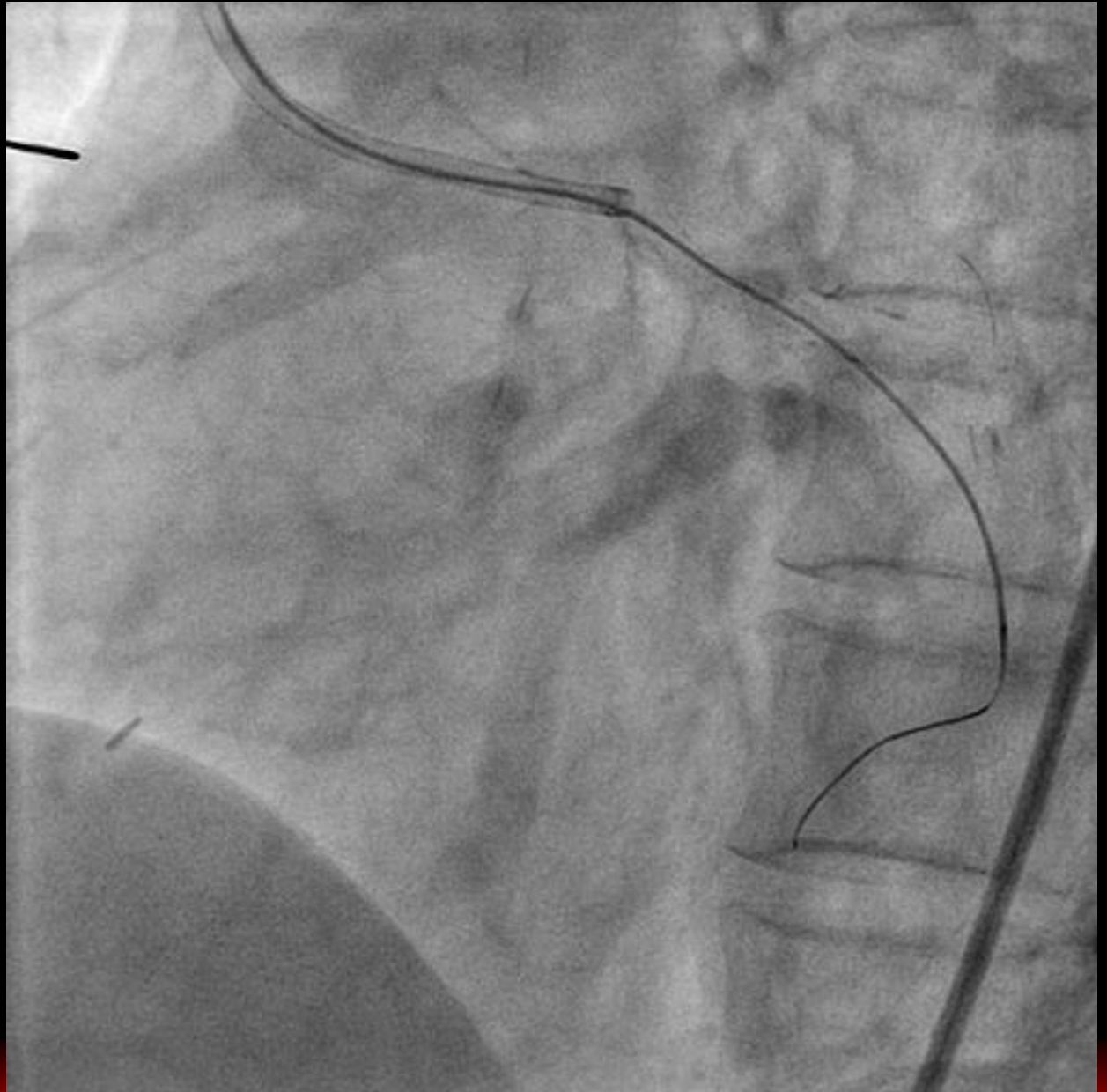
# Retrograde Approach





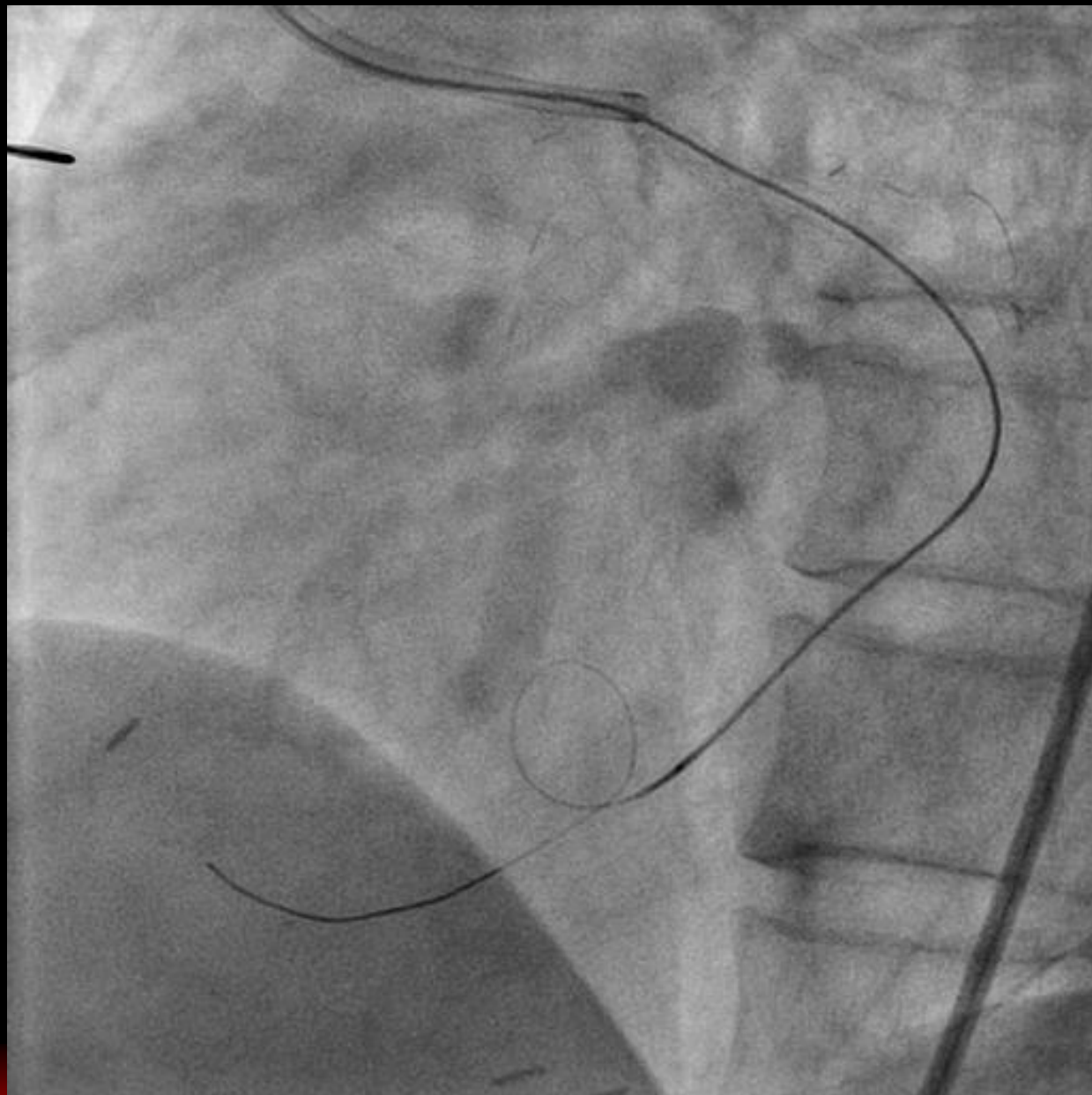


**SION**





**SION**





# Case Fielder XTR





# Trends in a Retrograde Technique

- ✓ **Wire Selection (SION, Fielder XTR)**
- ✓ **Corsair Support Procedure**
- ✓ **Channel Selection (Septal / Epicardial<sup>↑</sup>)**
- ✓ **Subintimal Tracking (R-CART >>CART)**



# What's New?

**1. Wire Selection**

**2. IVUS Guided R-CART**



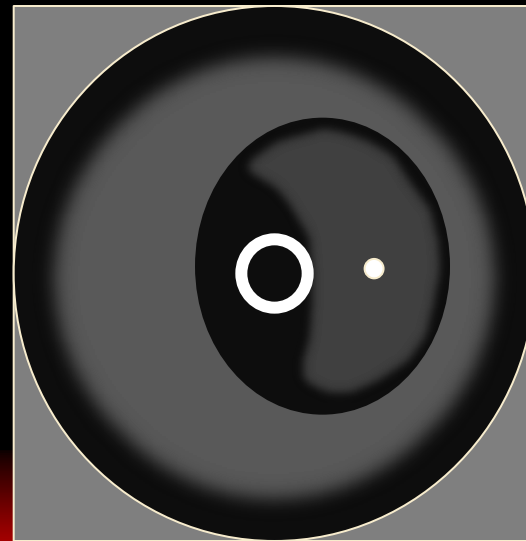
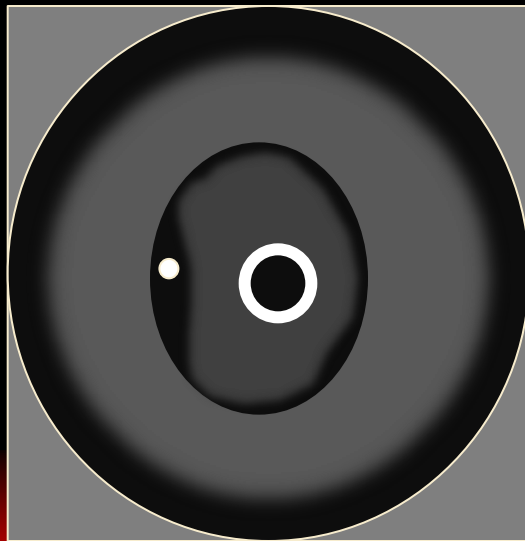
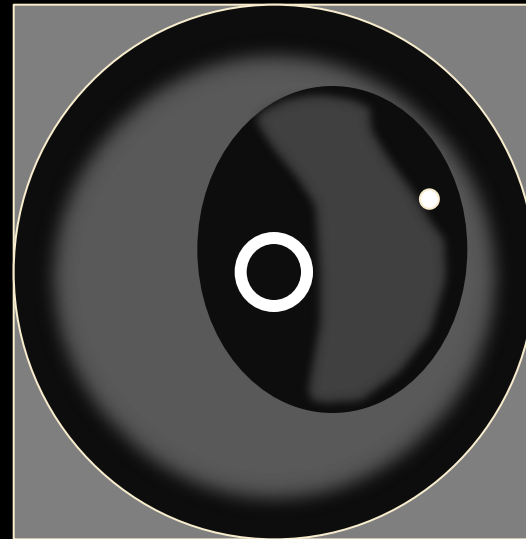
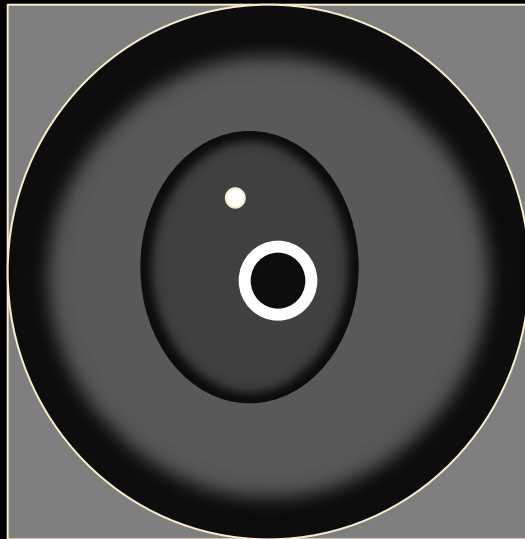
# IVUS Tells Us

**1. Vessel Size**

**2. Position of Wires**

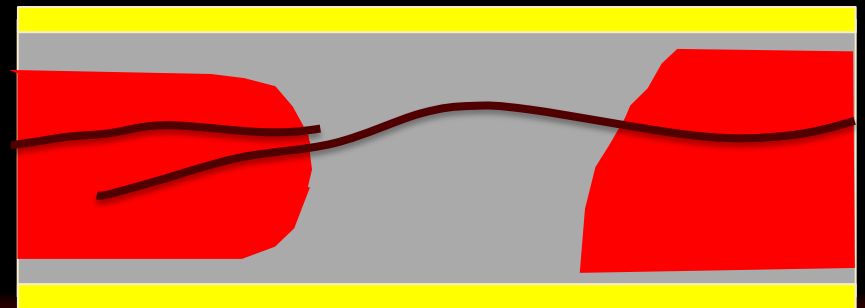
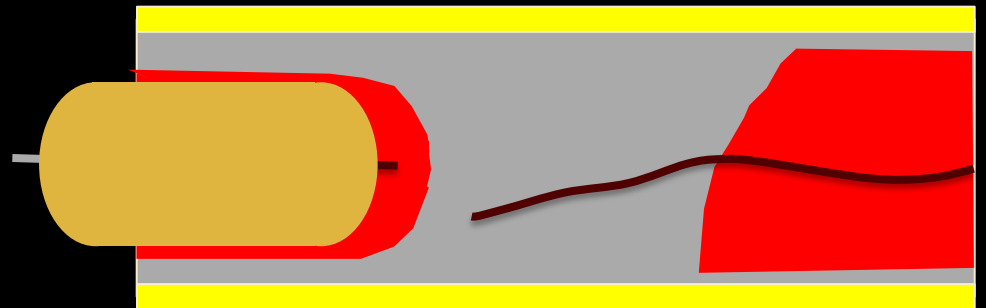
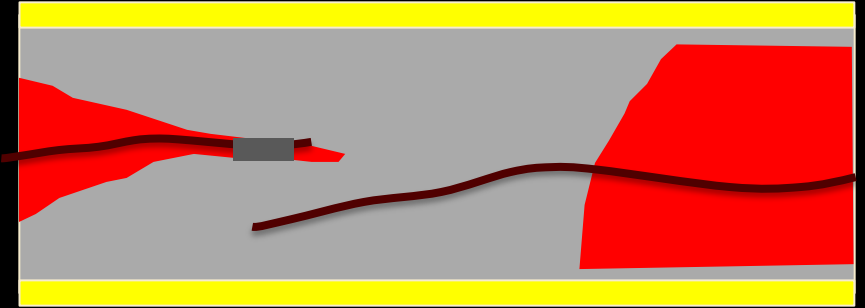
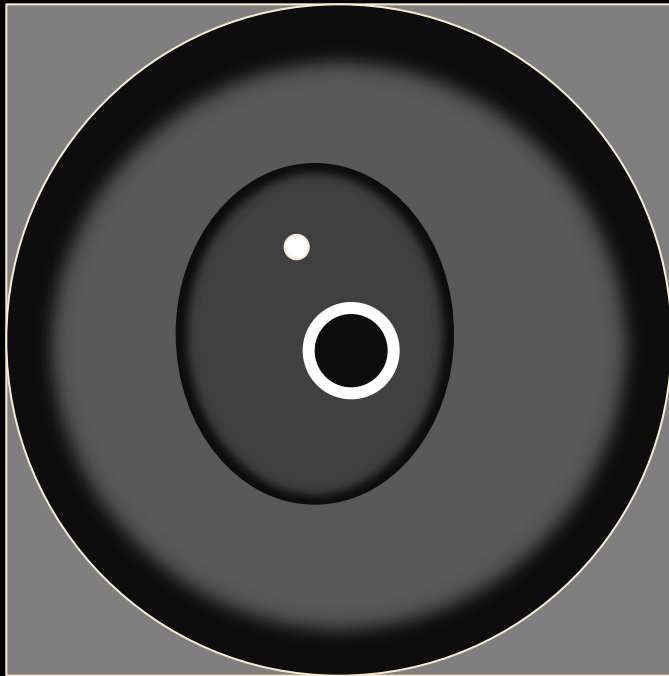


# IVUS Findings





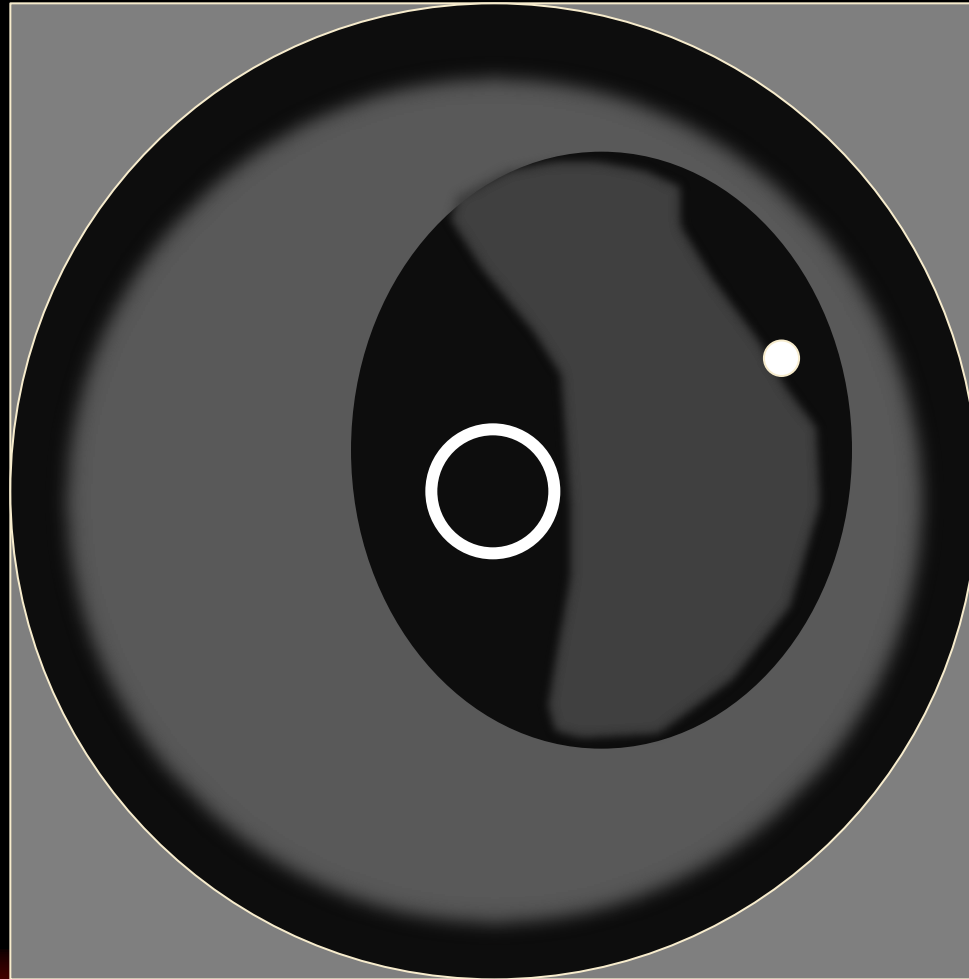
# Both Wires in Intima







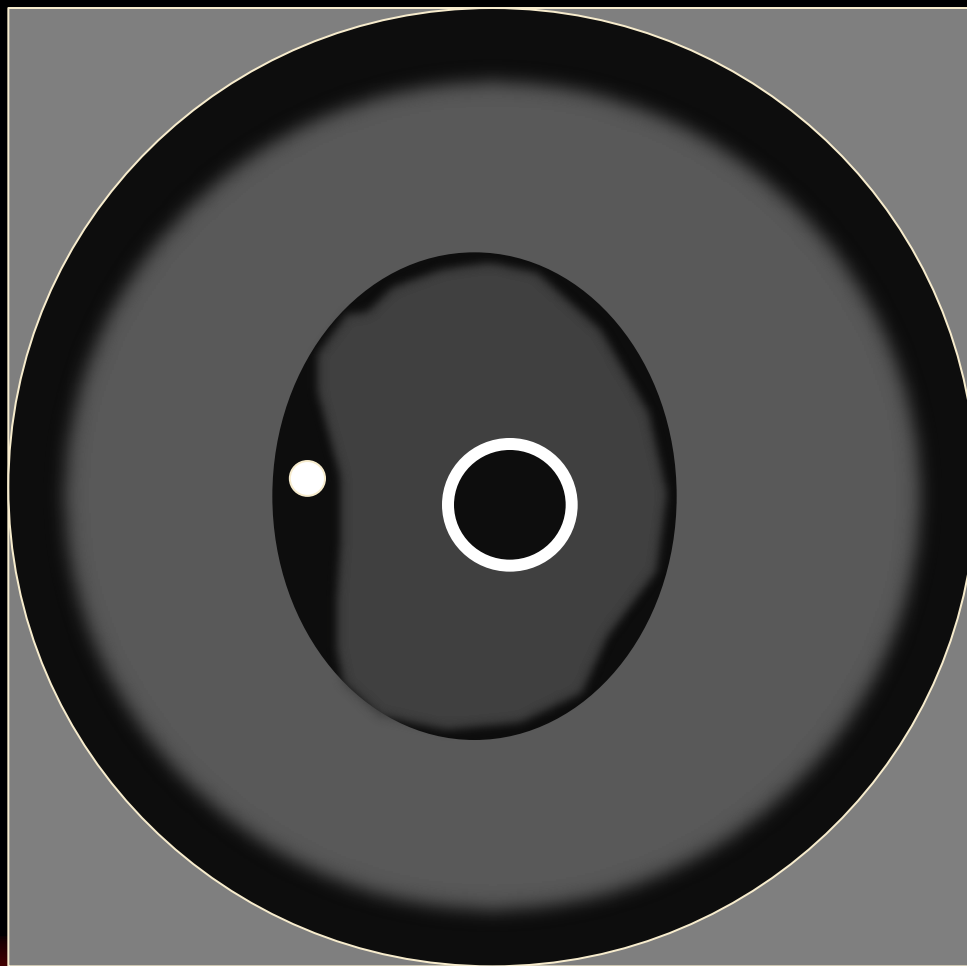
# Both Wires in Sub-Intima





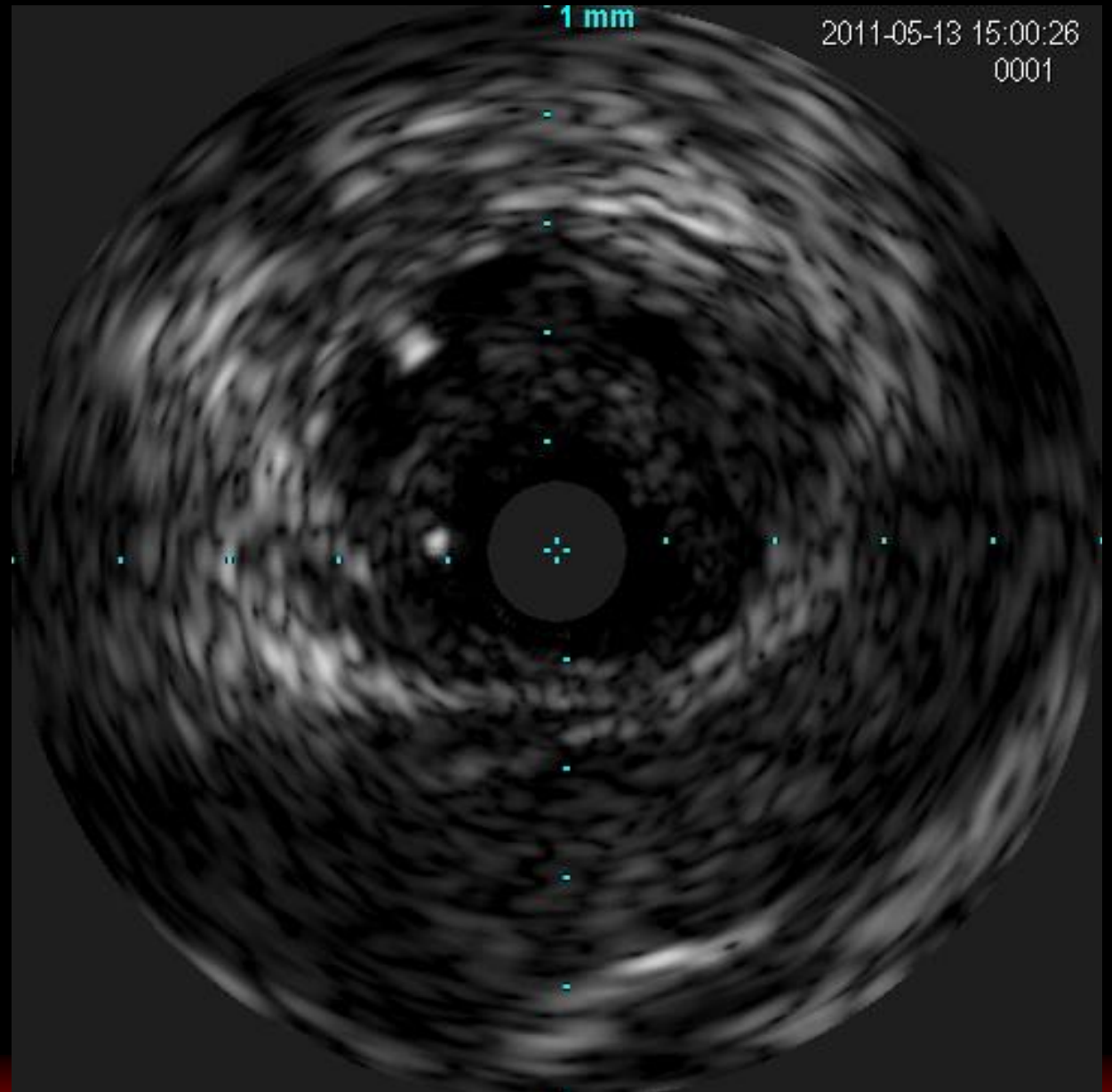
**Antegrade Wire in Intima**

**Retrograde Wire in Sub-Intima**





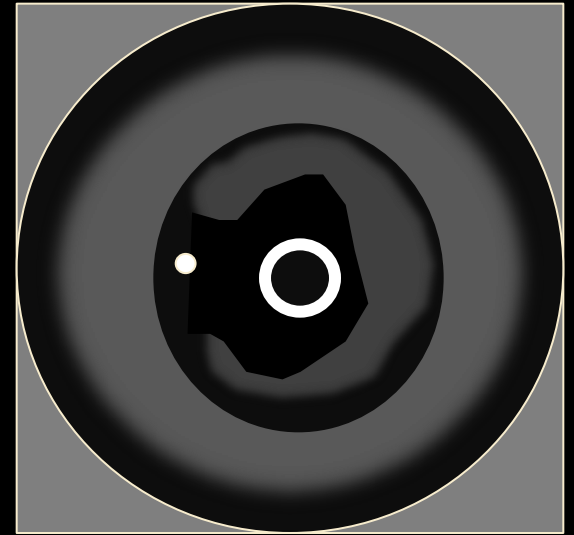
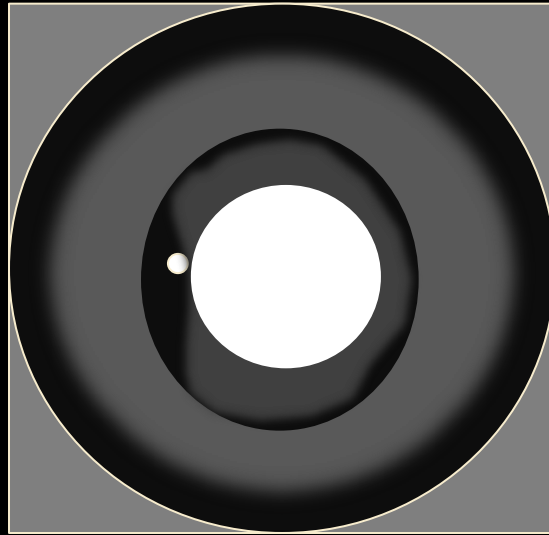
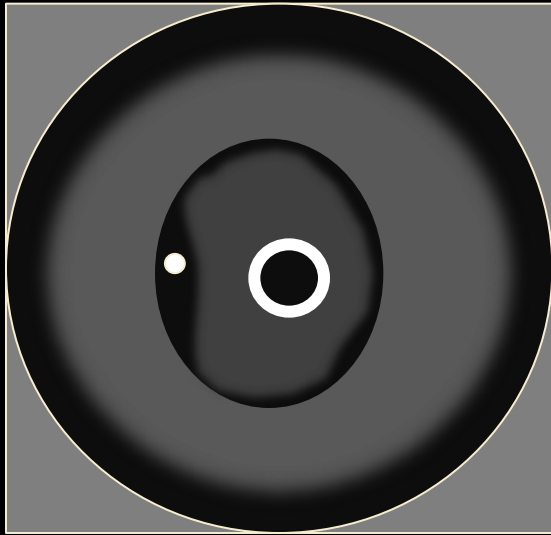
# IVUS





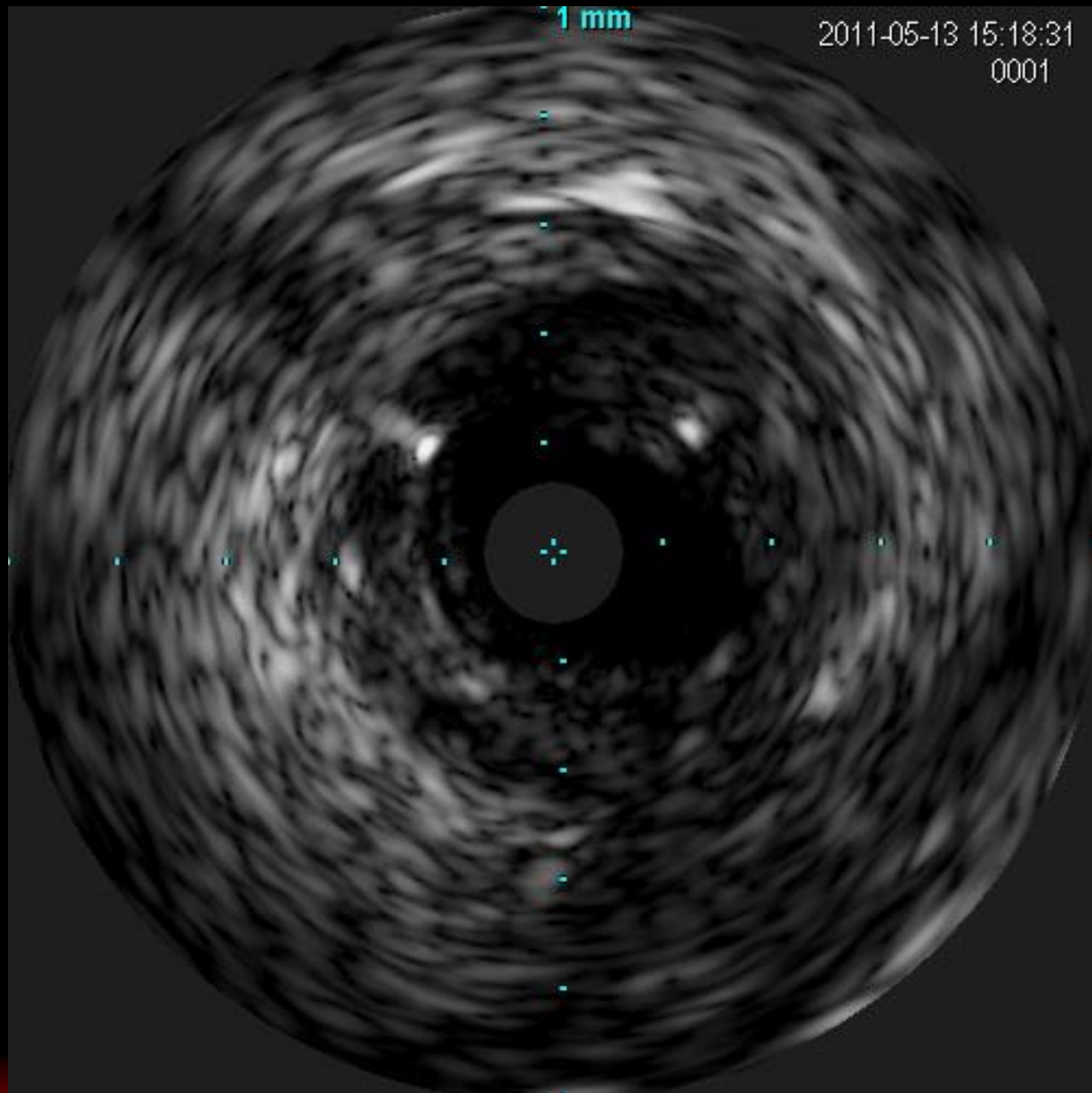
# Antegrade Wire in Intima

## Retrograde Wire in Sub-Intima



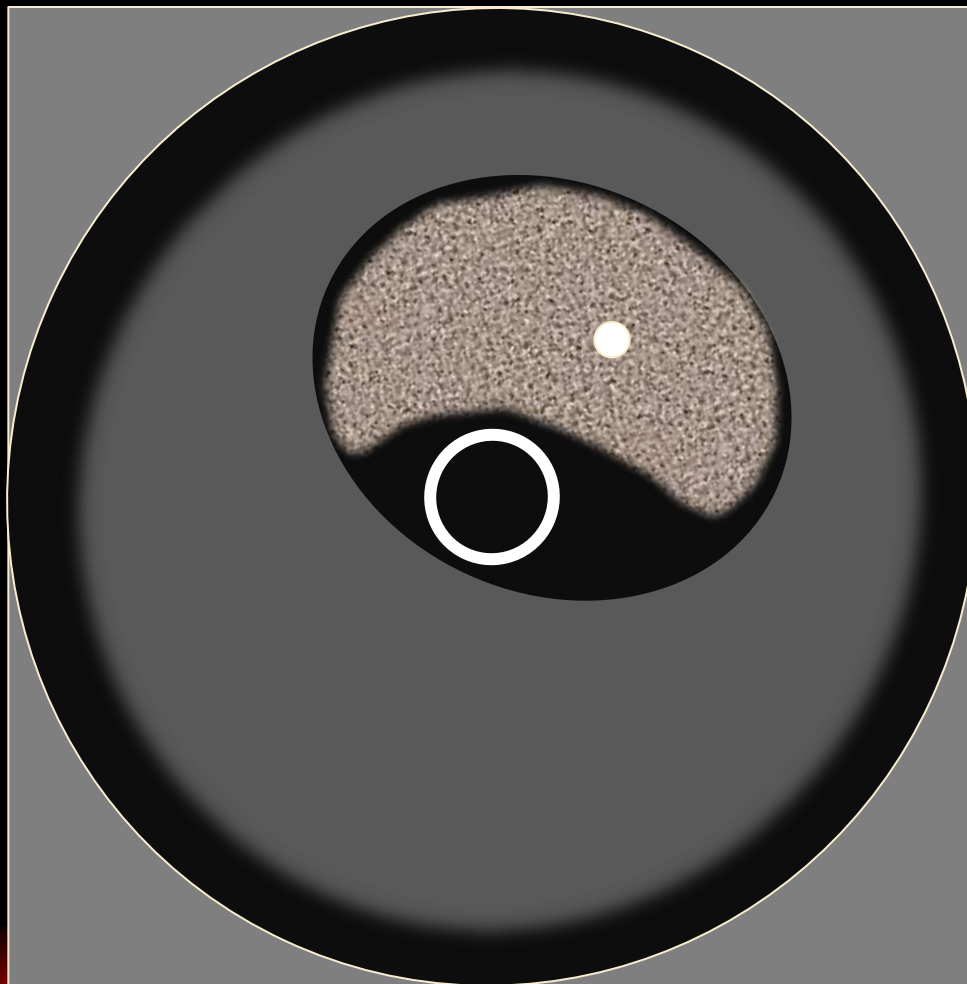


# IVUS



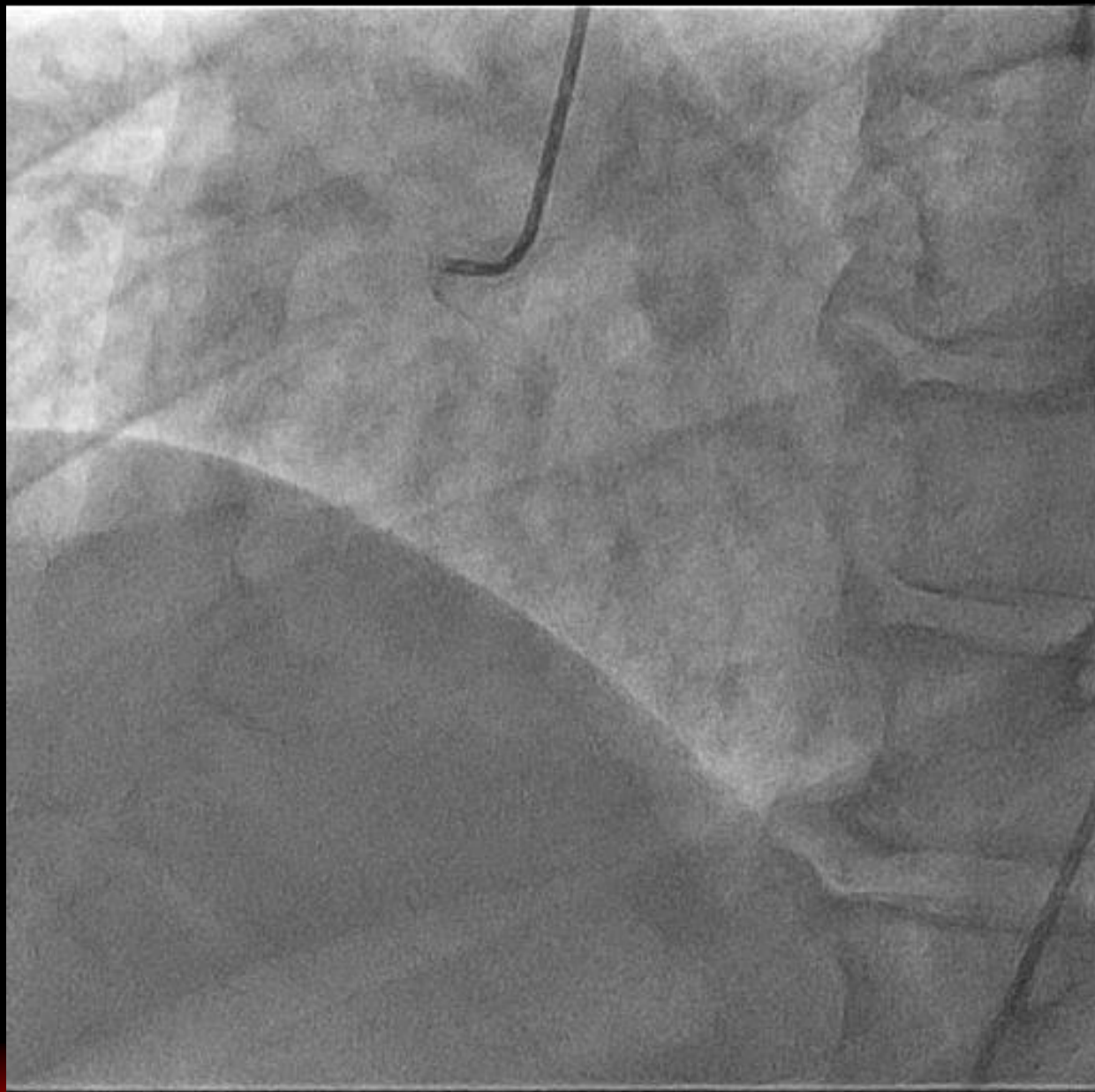


# Antegrade Wire in Sub-Intima Retrograde Wire in Intima



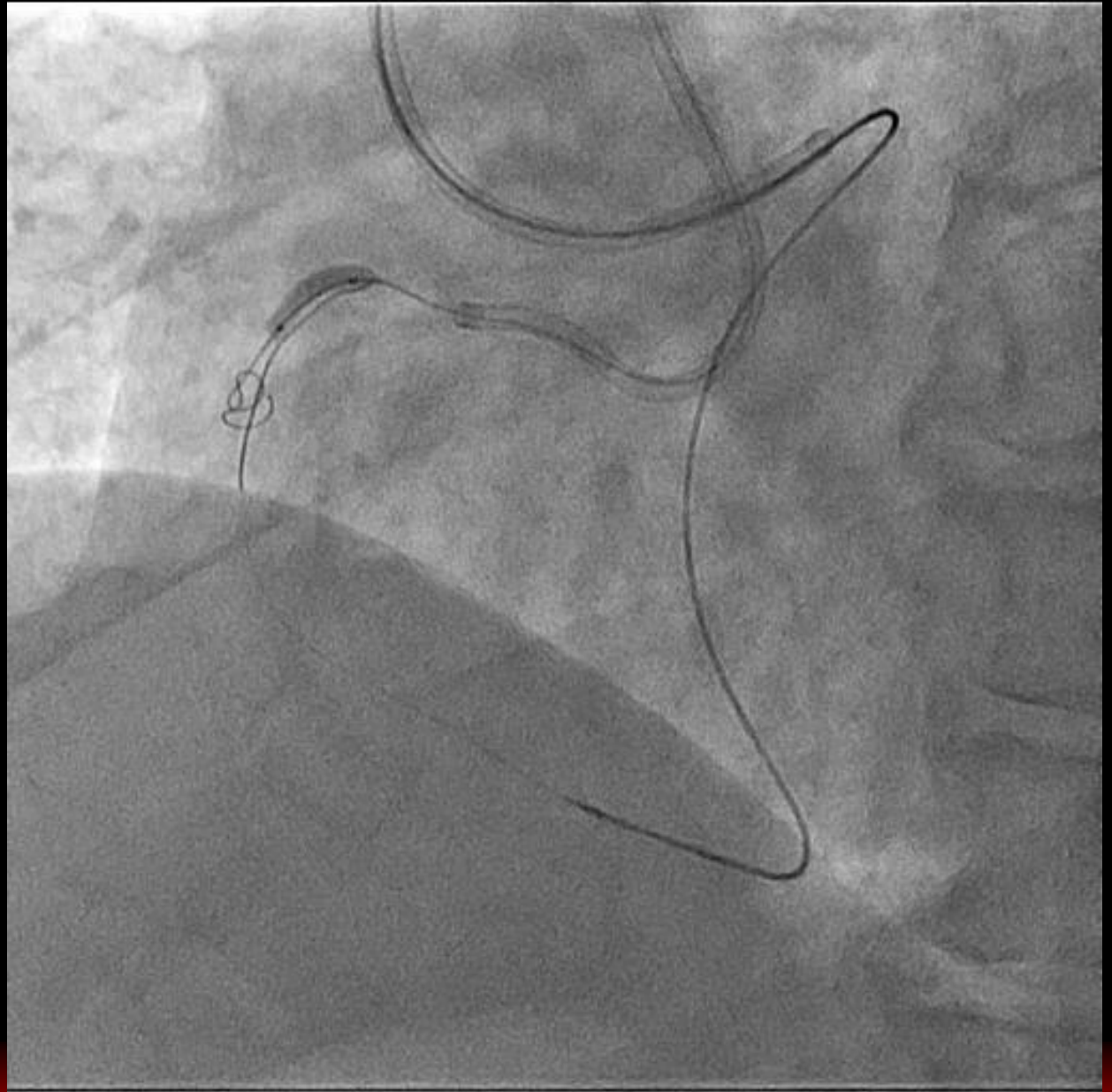


# Case RAO





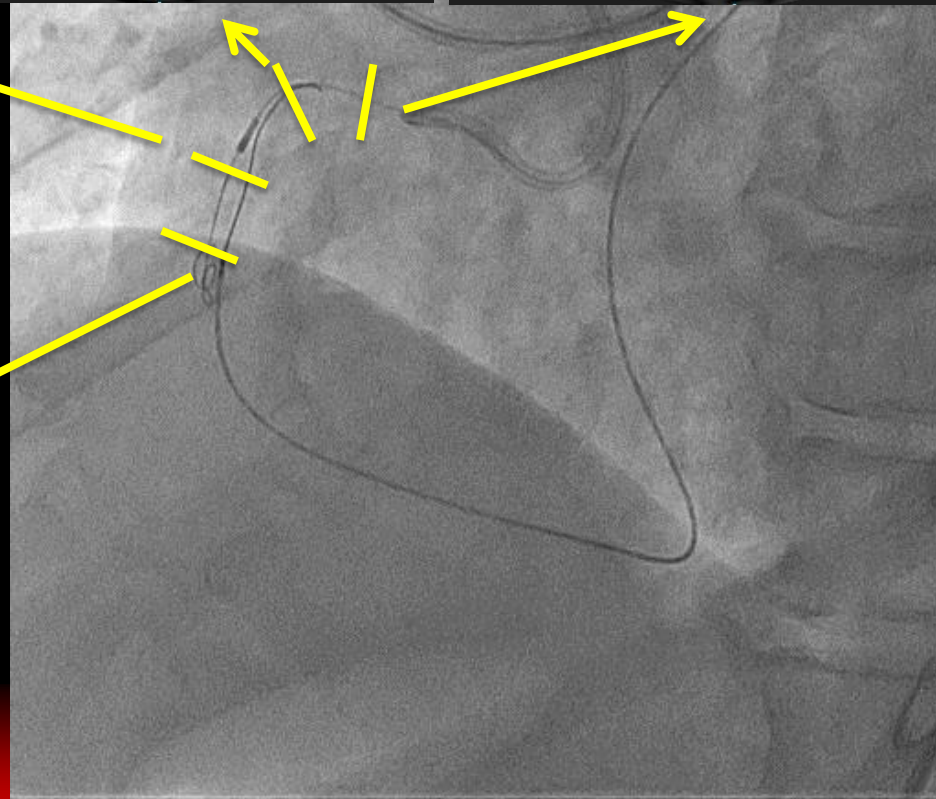
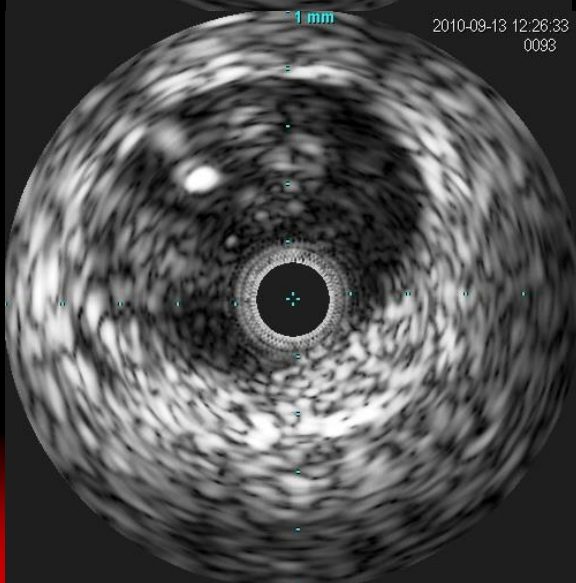
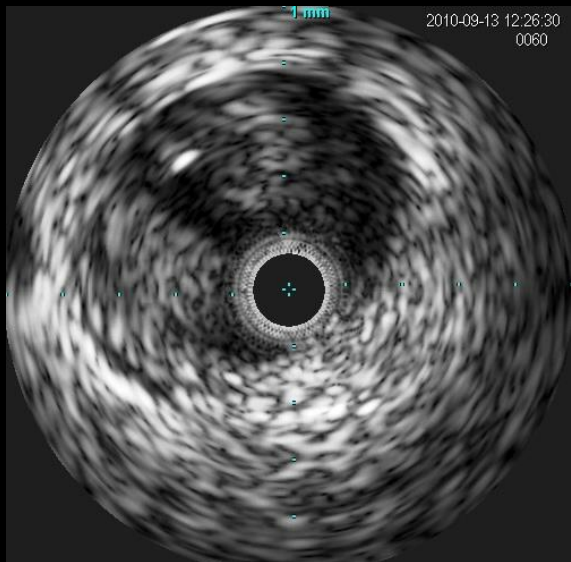
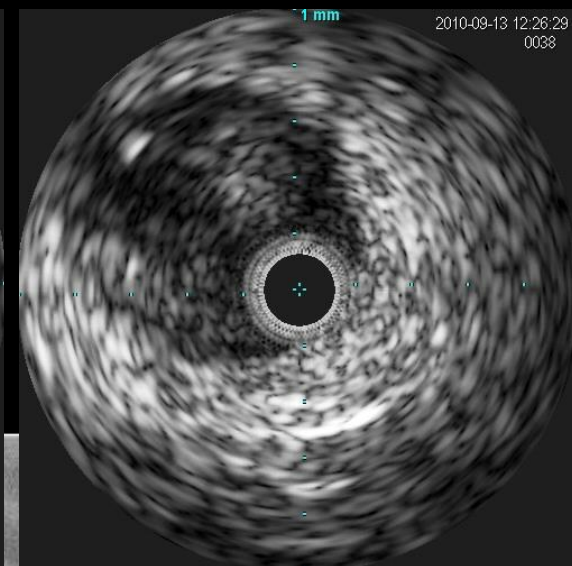
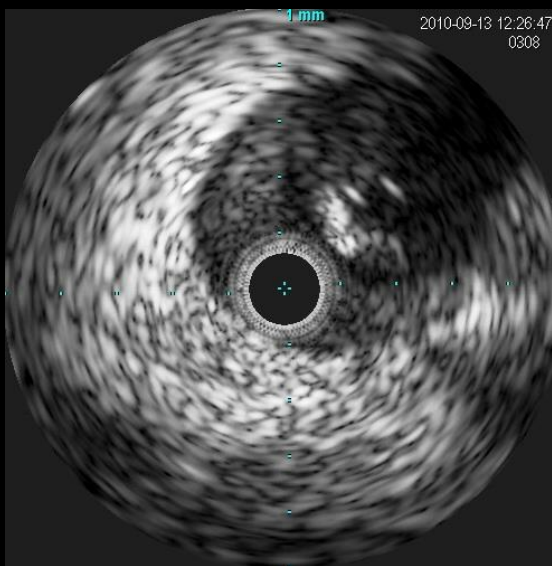
# Retrograde Approach





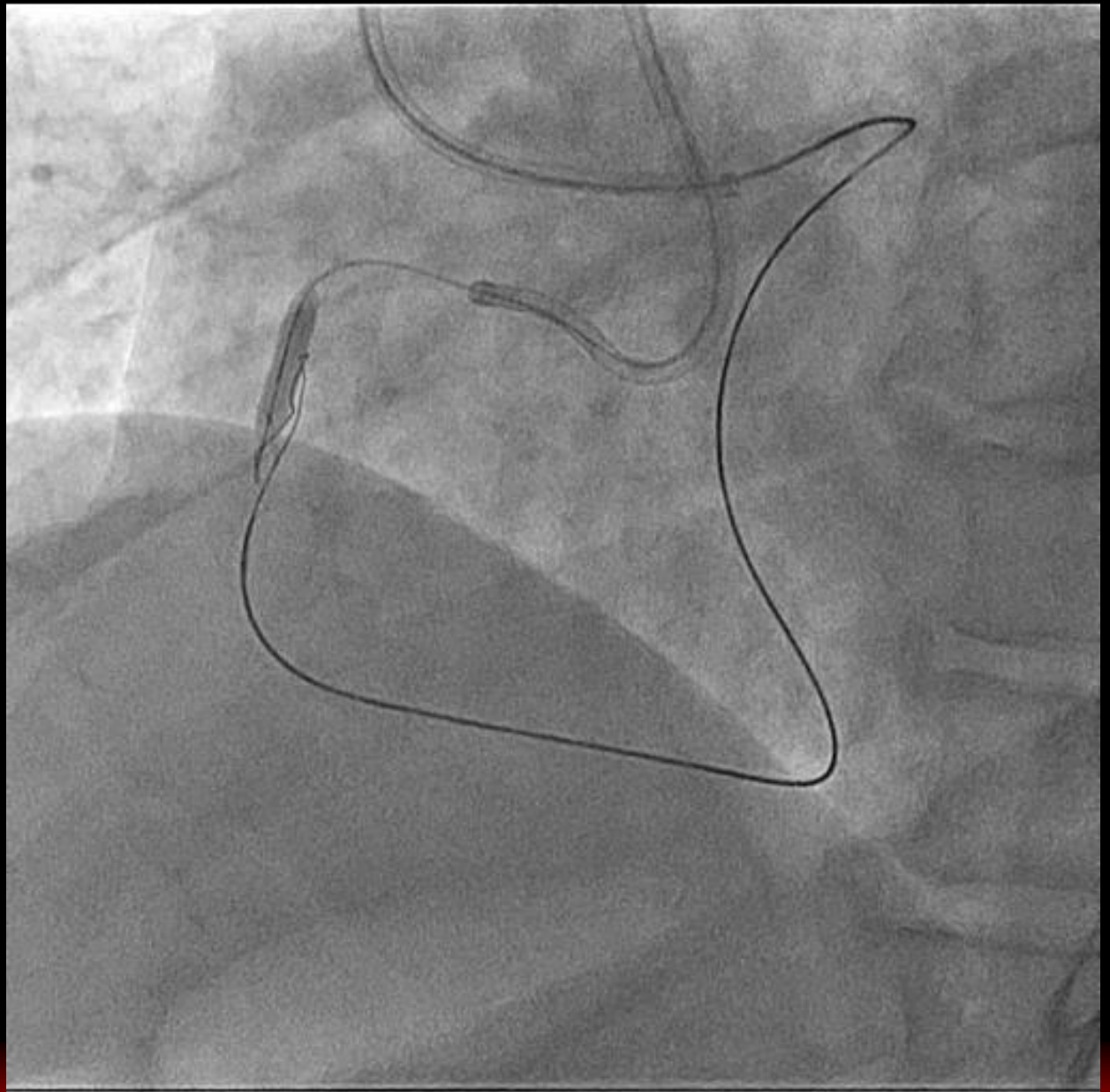


# IVUS



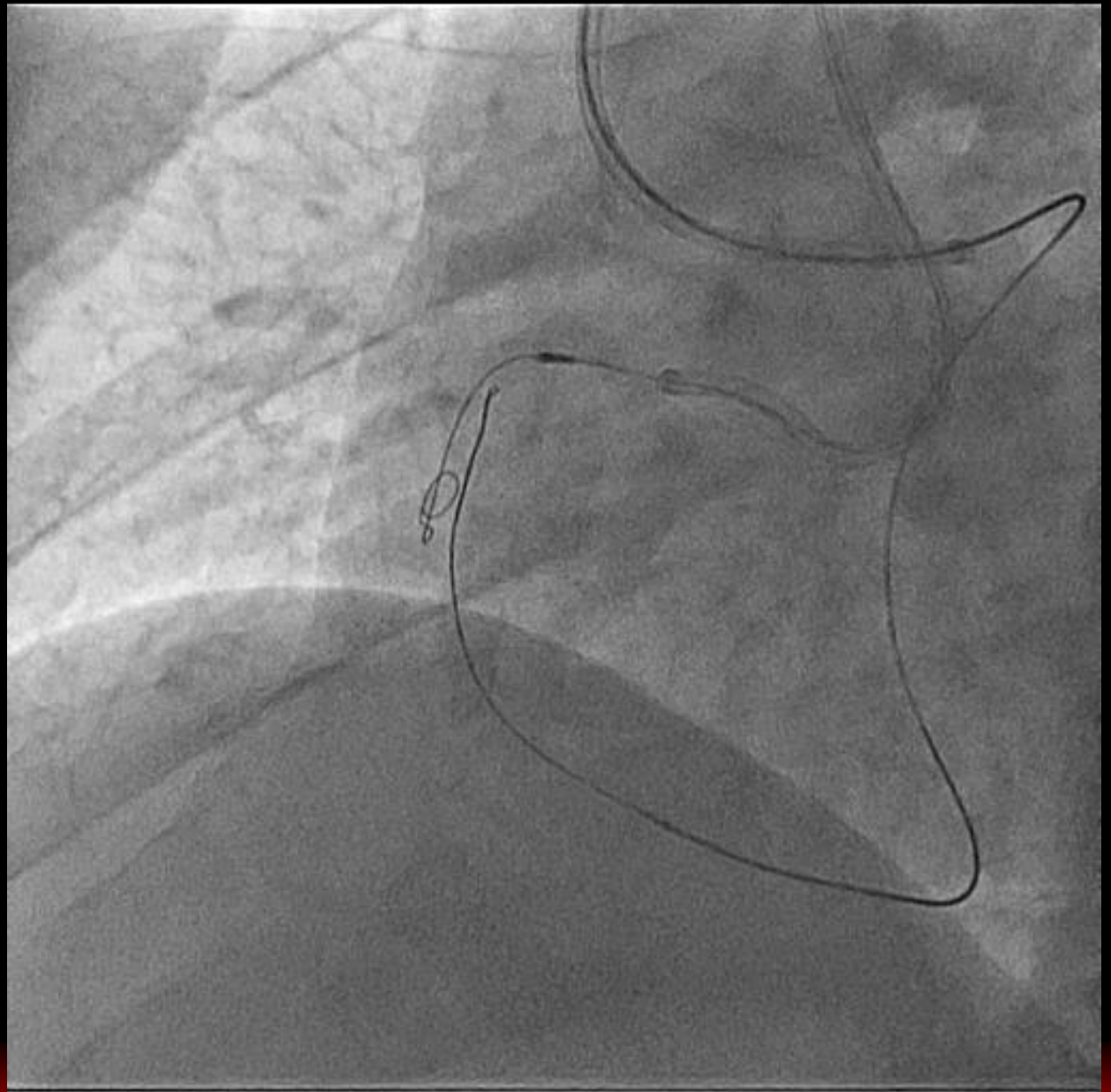


# 4.0mm Balloon



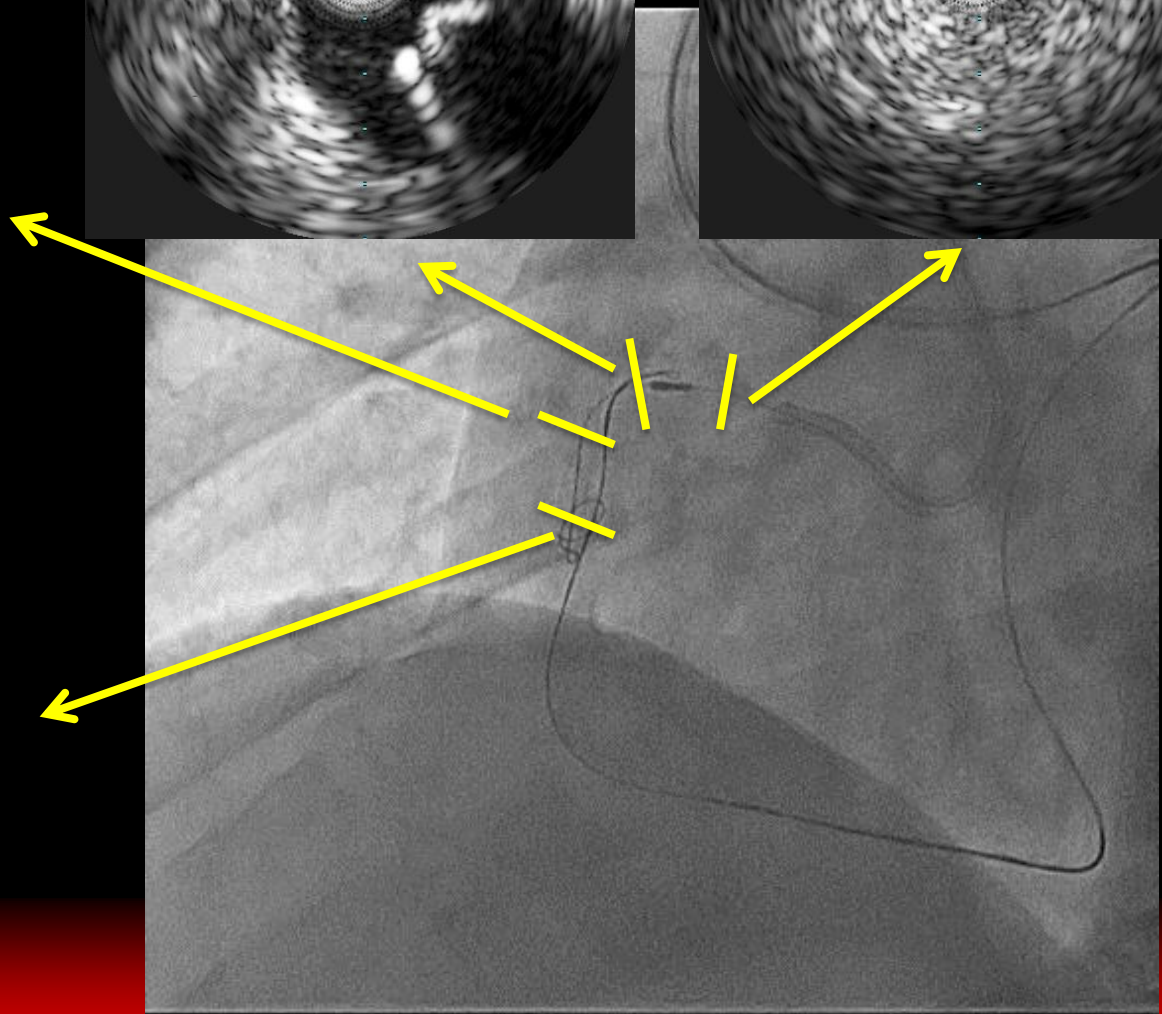
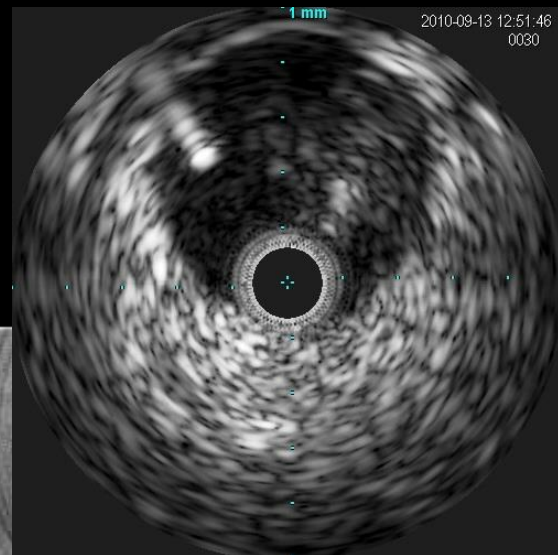
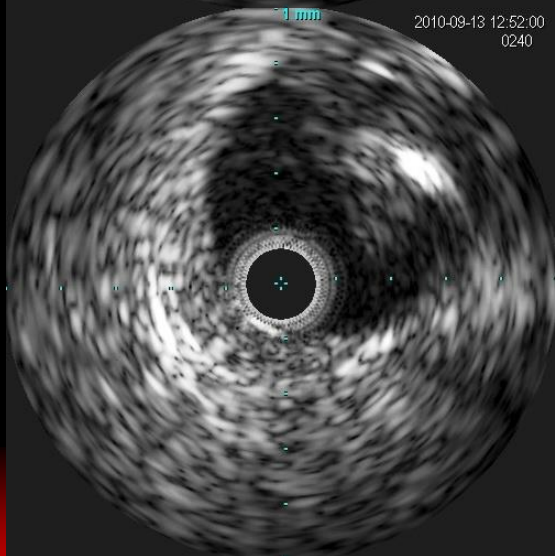


# IVUS Guided Wiring



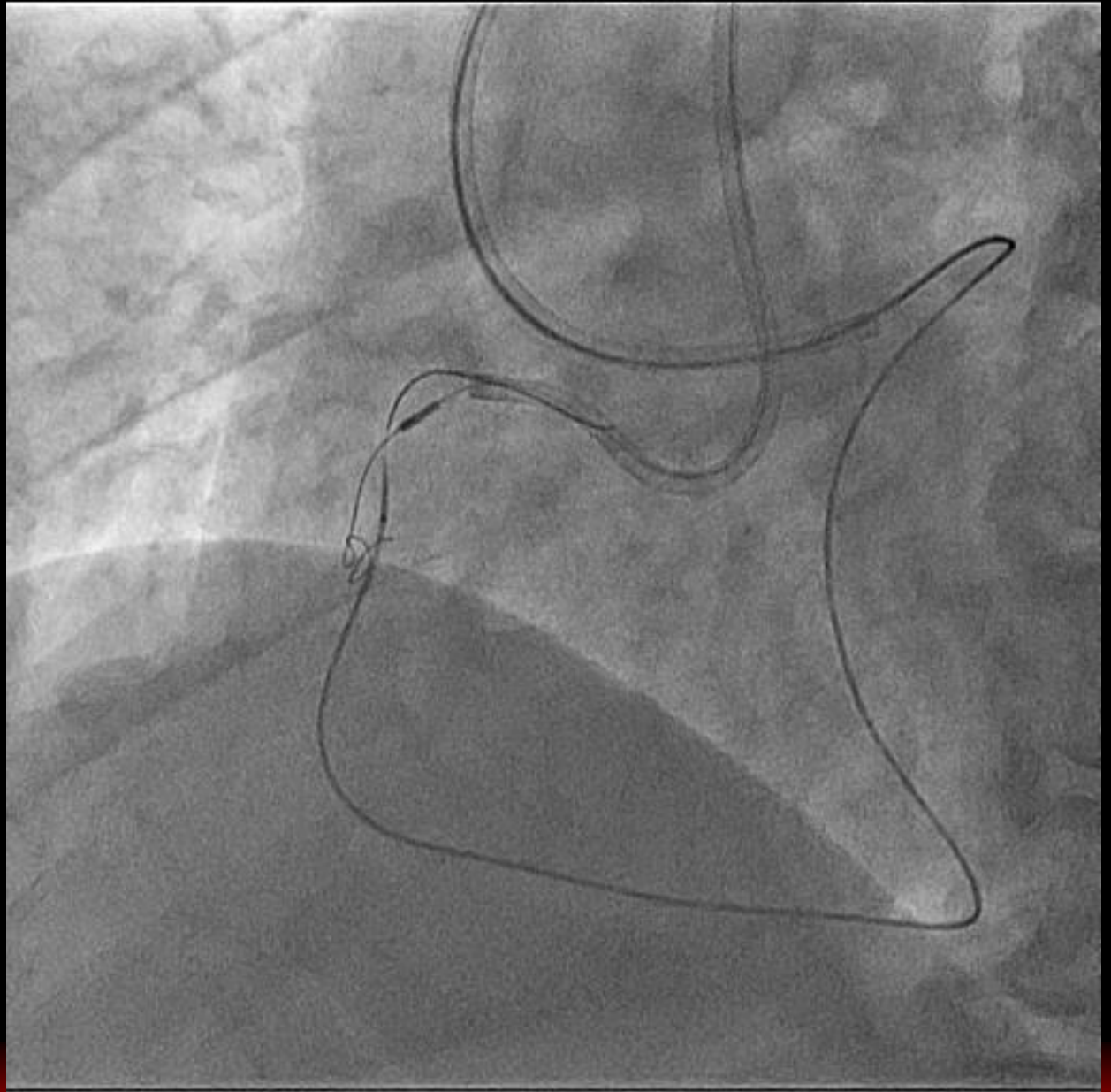


# IVUS



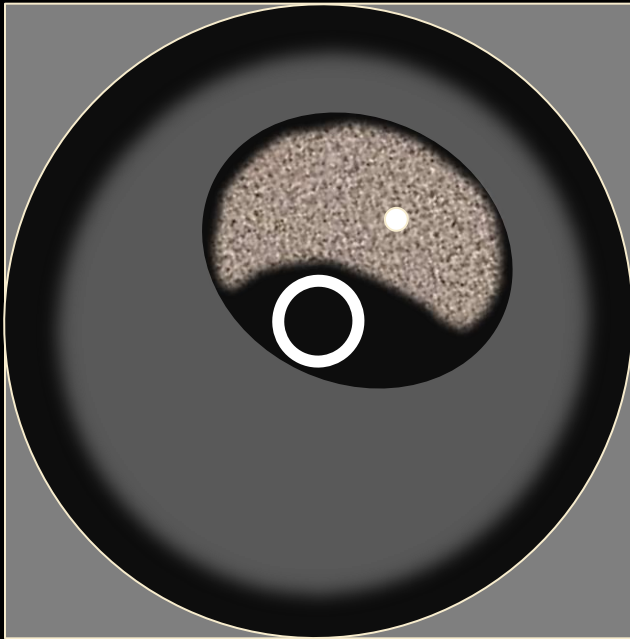


# Retrograde Wiring





# How to Make Connection?

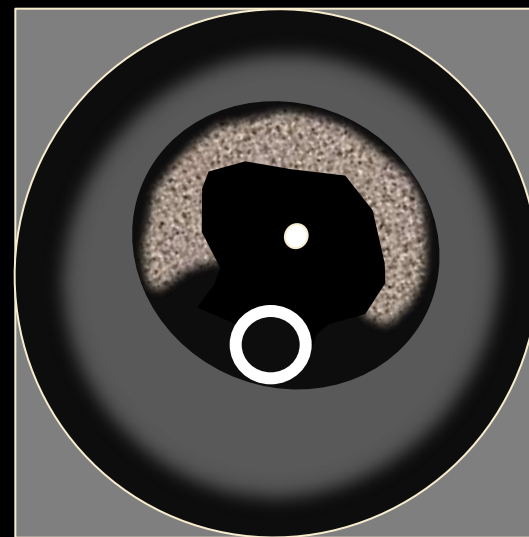
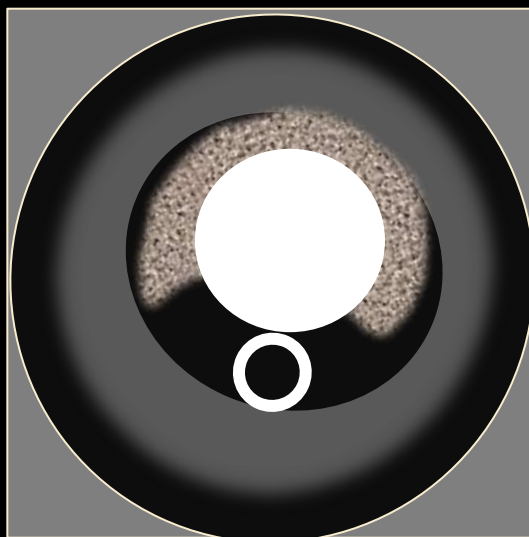


**1. R-CART**

**2. CART**

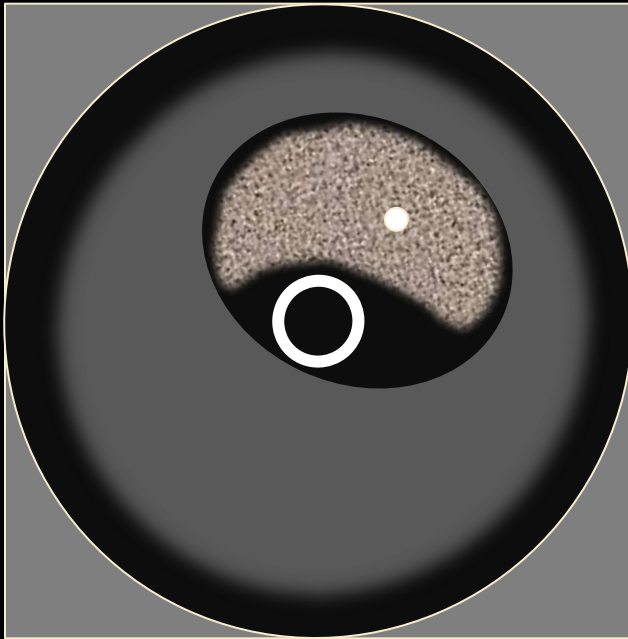


# Antegrade Wire in Sub-Intima Retrograde Wire in Intima





# How to Make Connection?

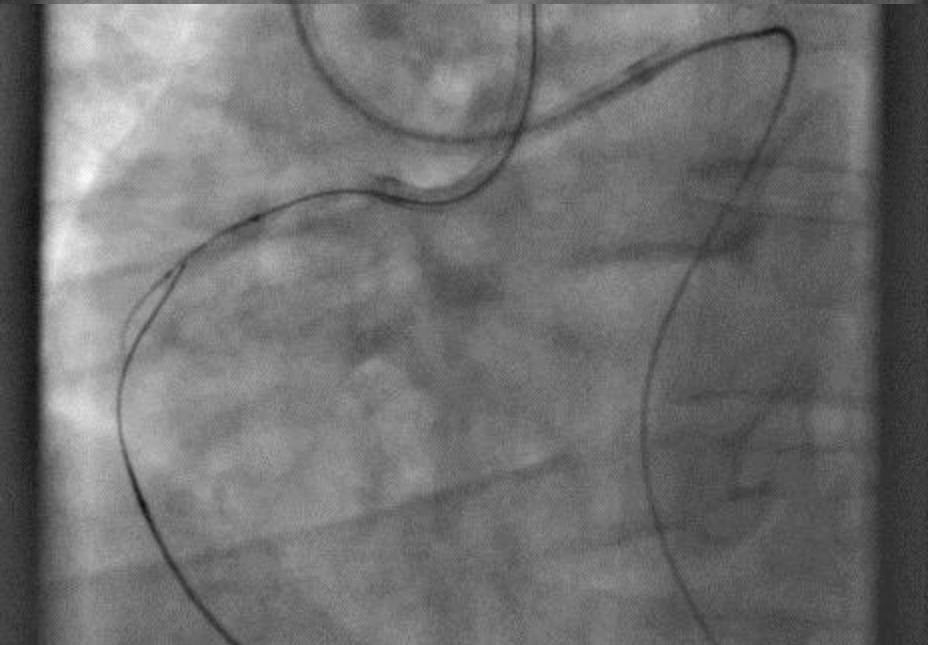


- 1. R-CART**
- 2. CART**
- 3. Knuckle Wire**
- 4. Wire Penetration**



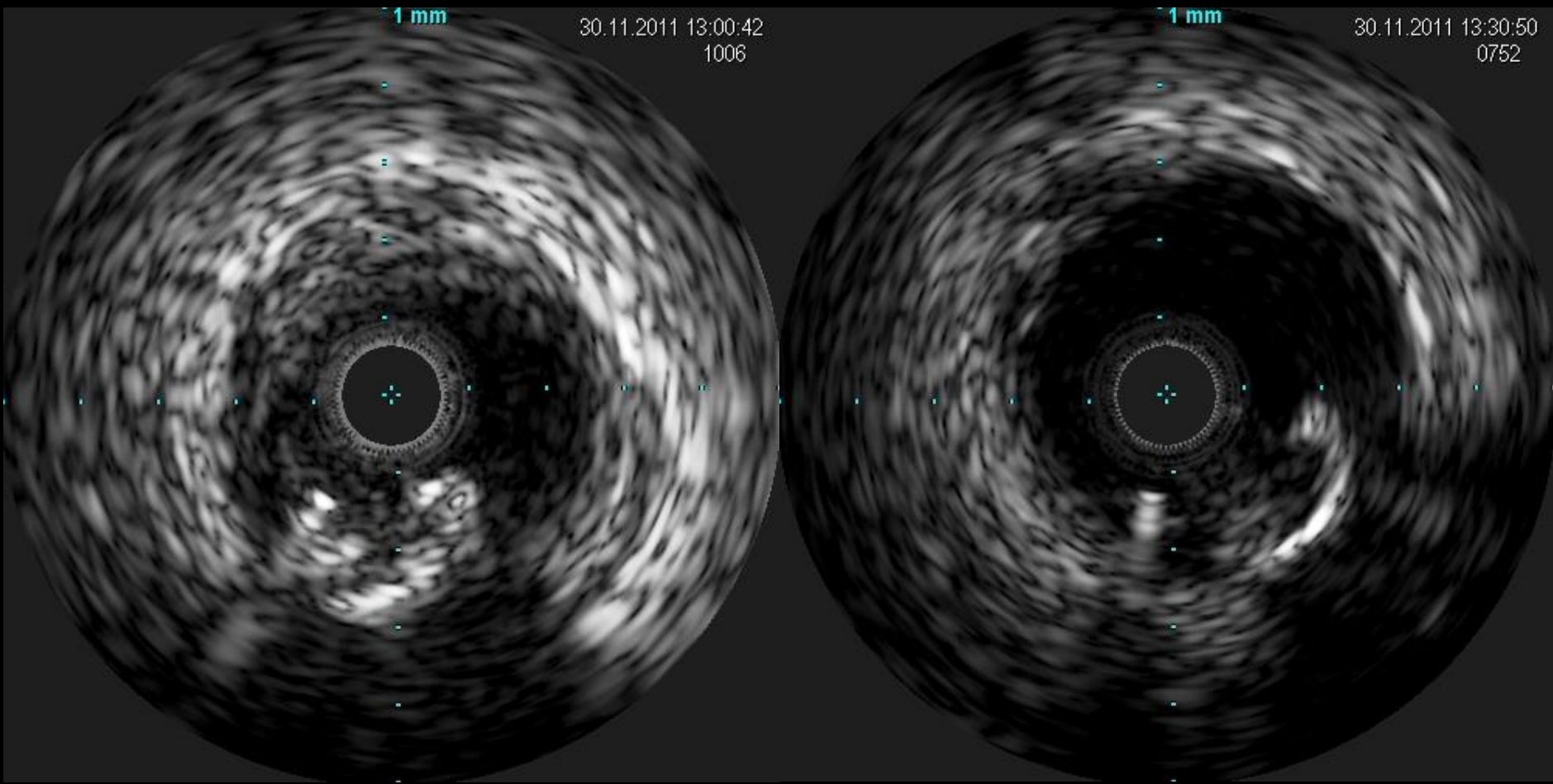


# Case



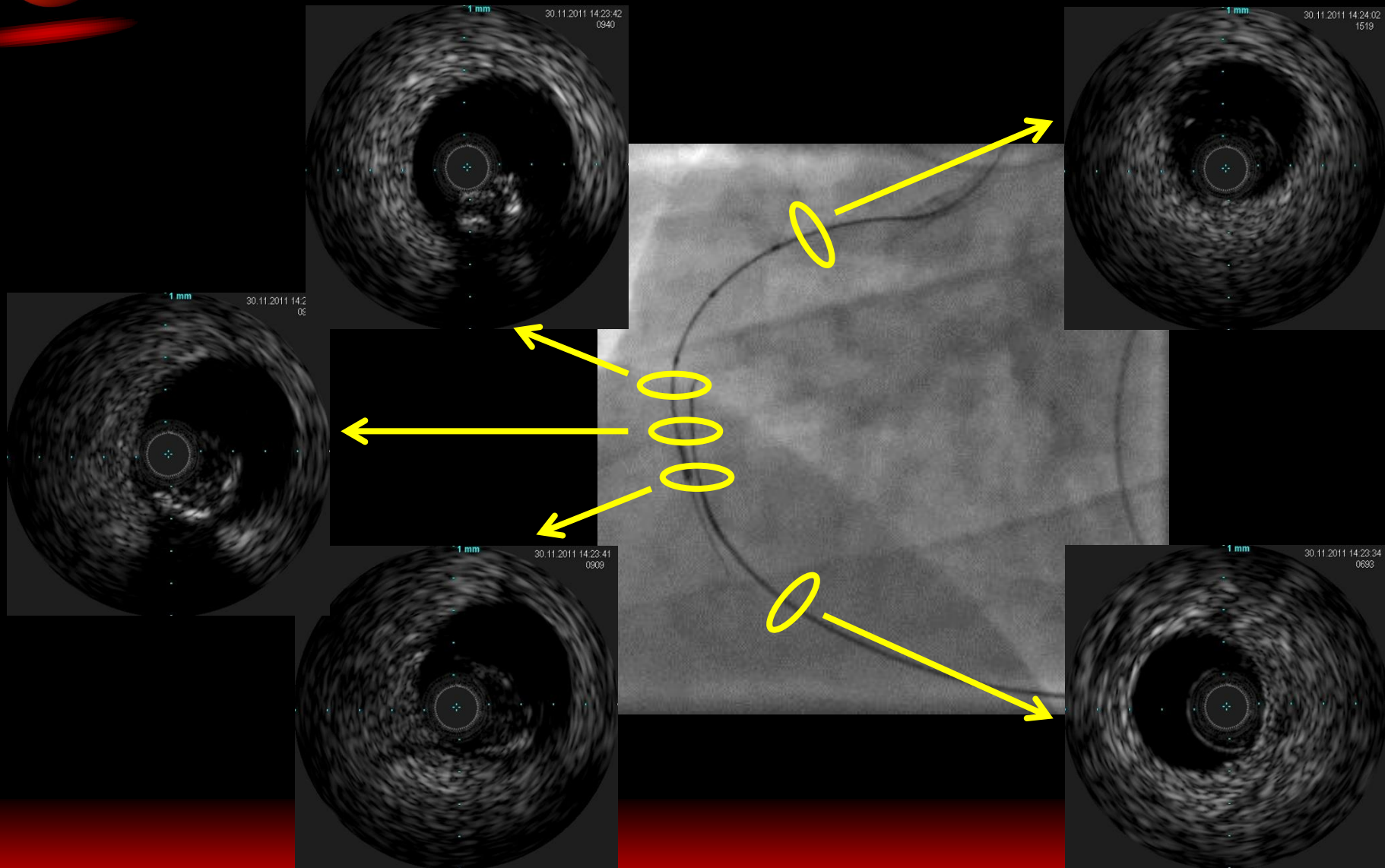


# Reverse CART



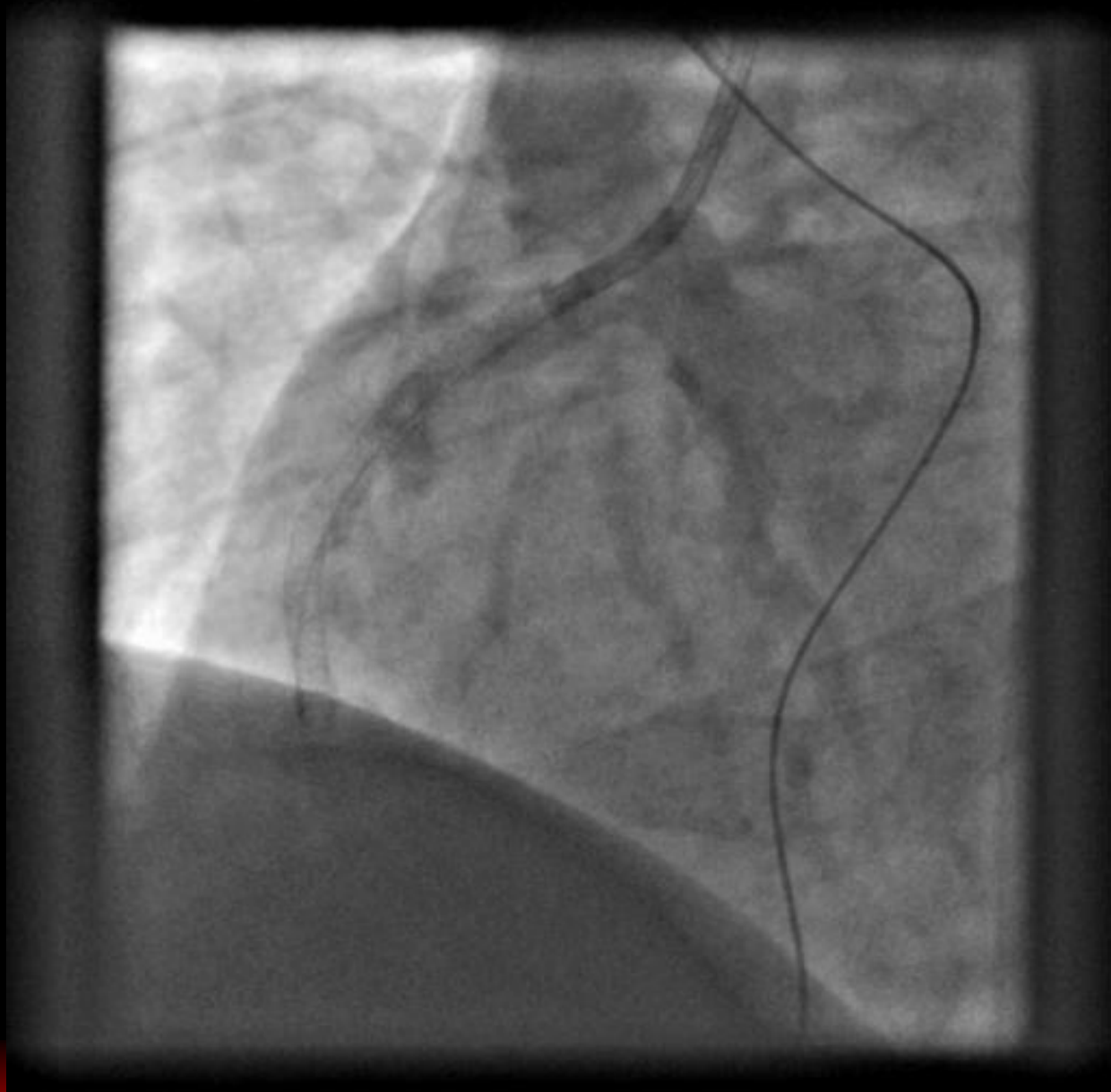


# Penetration Using Conquest Pro 12





**Final**





# Summary

- 1. In an antegrade approach, we often start with tapered soft wire in order to do micro-channel tracking.**
- 2. Retrograde technique has been established and standardized.**
- 3. In a retrograde approach, we more often use epicardial channel owing to Corsair and new wires.**
- 4. R-CART is common procedure and IVUS guidance is sometimes helpful.**



# TOPIC 2012

**July 26-28, 2012**

**Thank you for Attention!**















