

CTO LIVE 2011

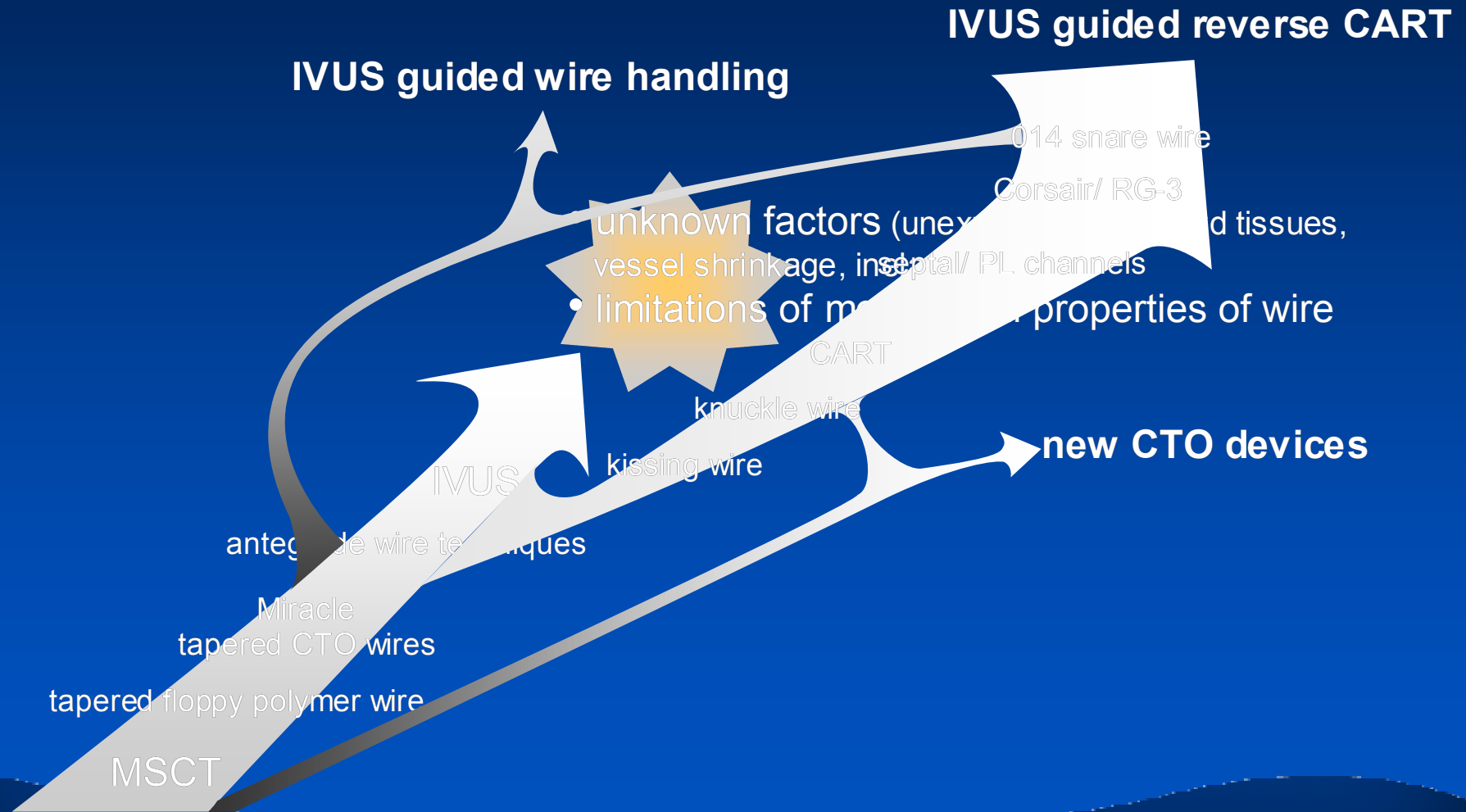
# Angiographic Consideration and Simple Wire Selection for CTO-PCI

## Take Home Message

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# Roadmap to CTOs



# How-Master of CTO

Yasushi Asakura



**Q: What is the most important point while doing ANTEGRADE APPROACH to succeed “CTO” procedures?**

**A: Take good angiography and Read it completely before PCI.**

**During PCI,**

- 1. DO gentle wire manipulation.**
- 2. See angiography from various directions.**
- 3. Take contra-lateral injection, if necessary.**
- 4. Limit use of Conquest.**

# How-Master of CTO

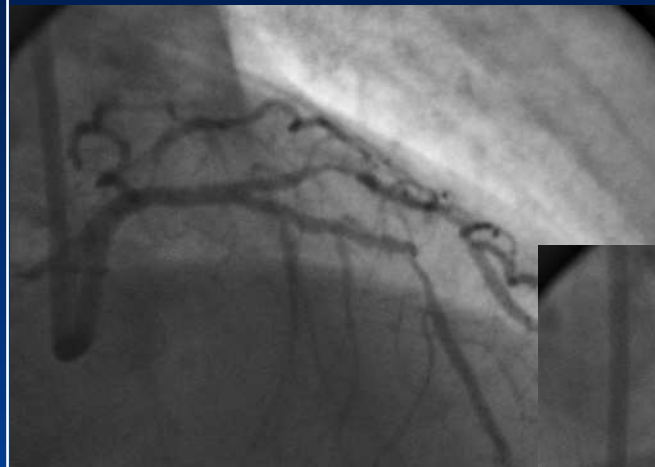
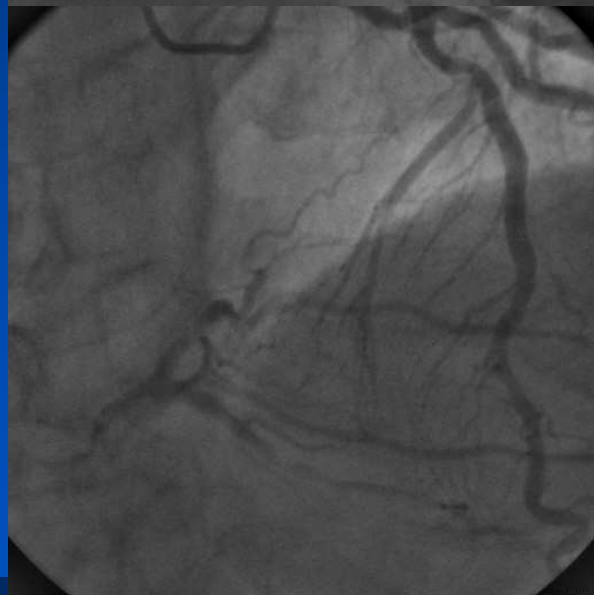
Osamu Katoh



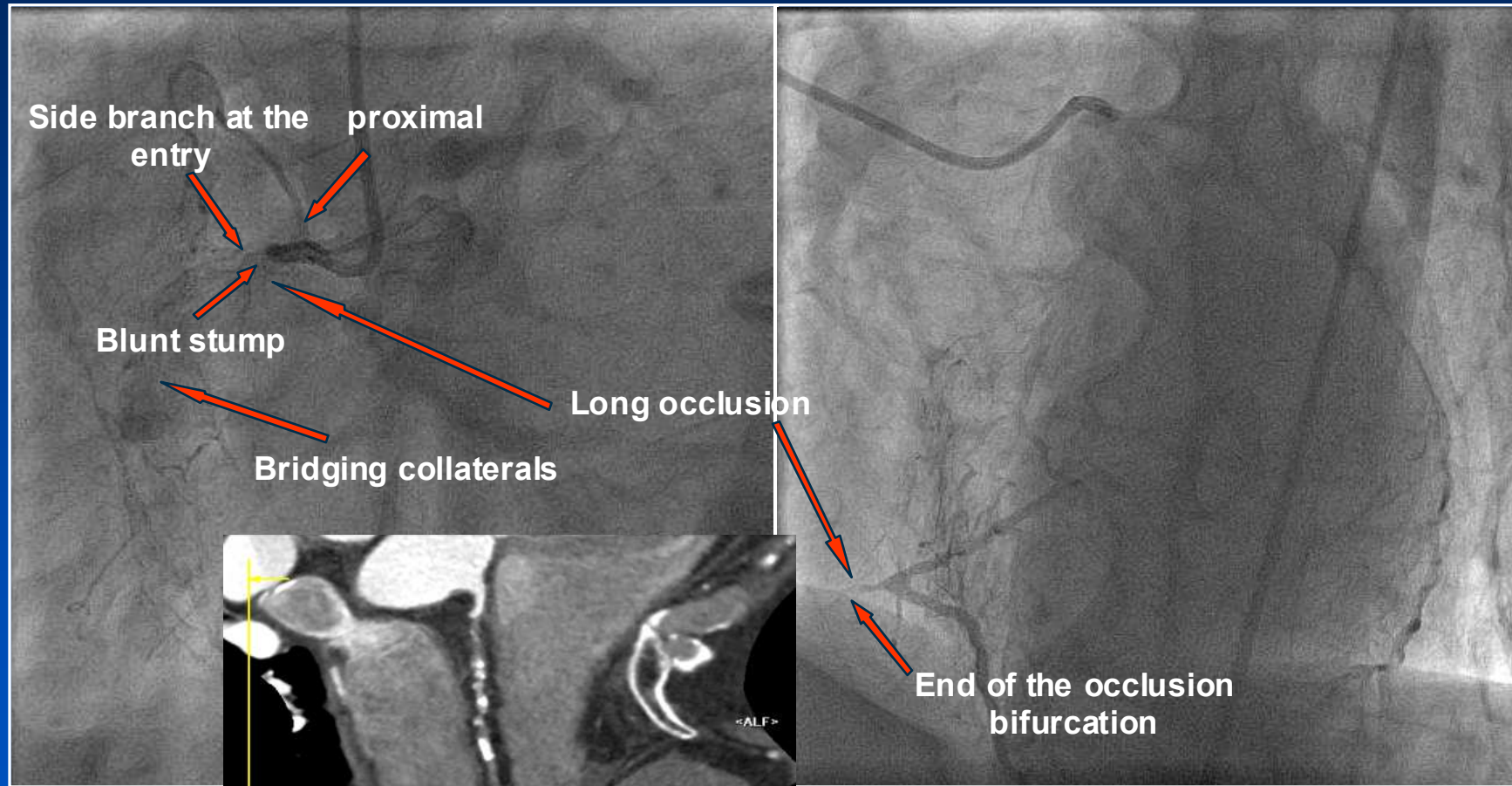
**Q: What is the most crucial point in examining CTO ANGIOGRAM to succeed “CTO” procedures ?**

**A: Differentiate reliable information from just speculation: completely imagine CTO segment from angiography (or CTA), not speculation**

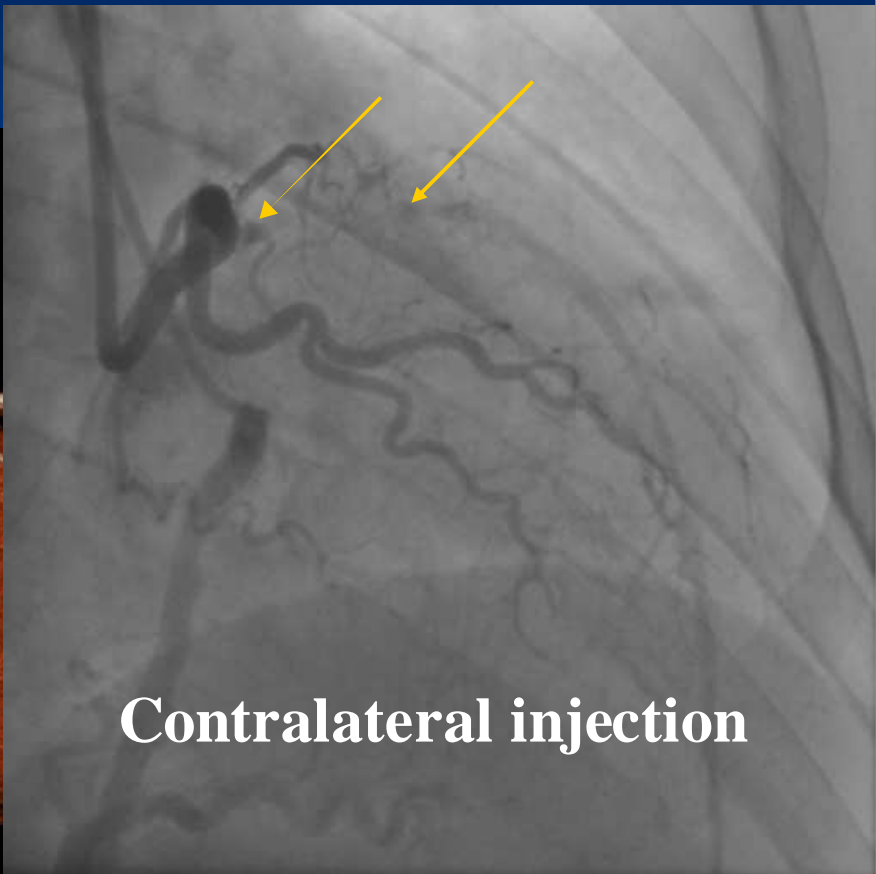
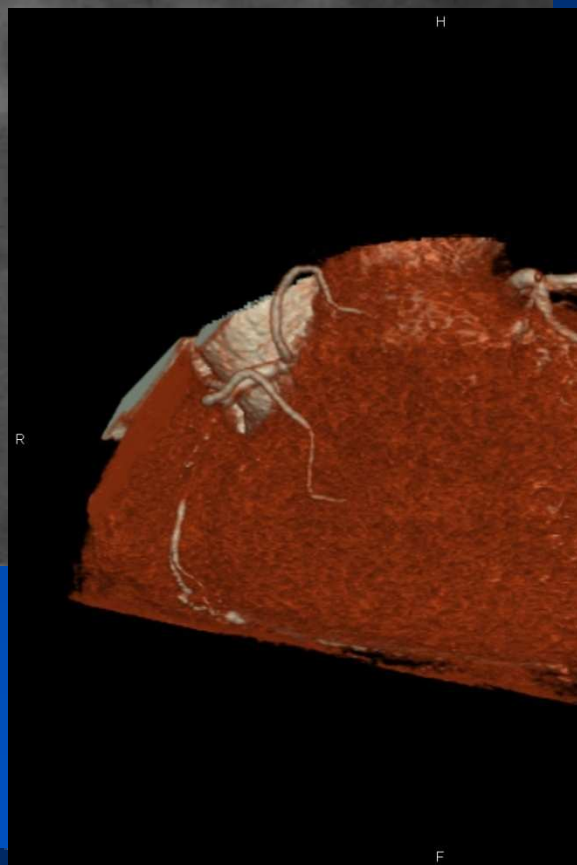
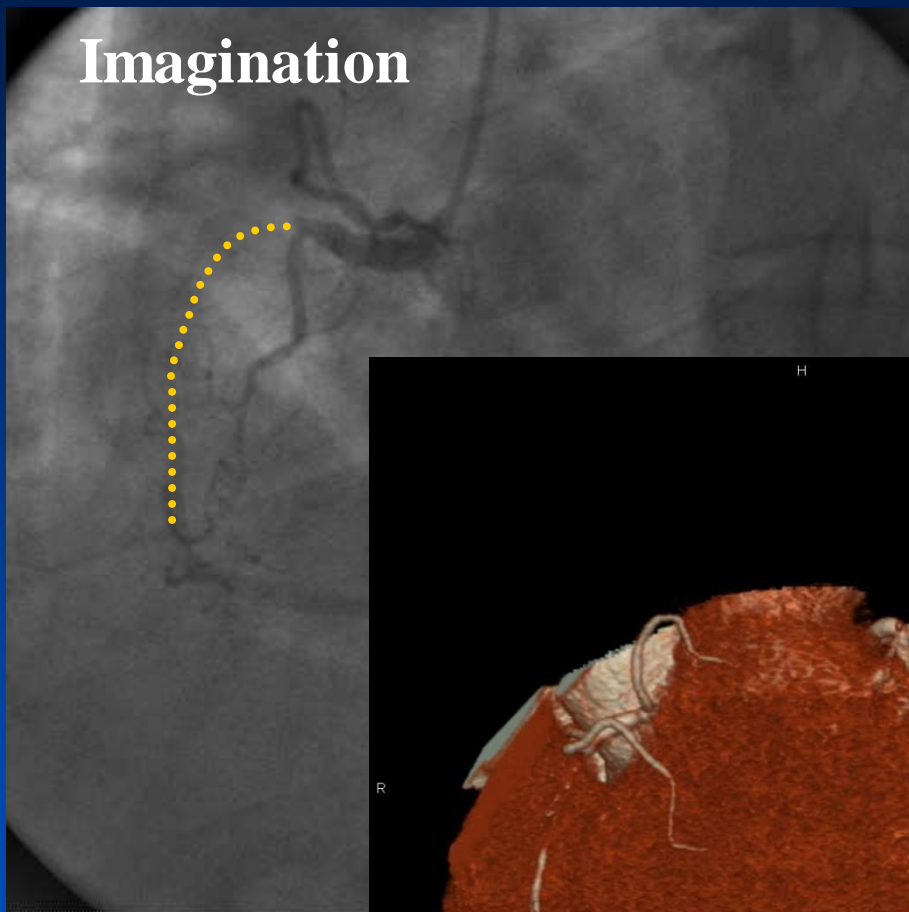
# CTO LIVE 2011



# Analyzing the CTO with Angiography



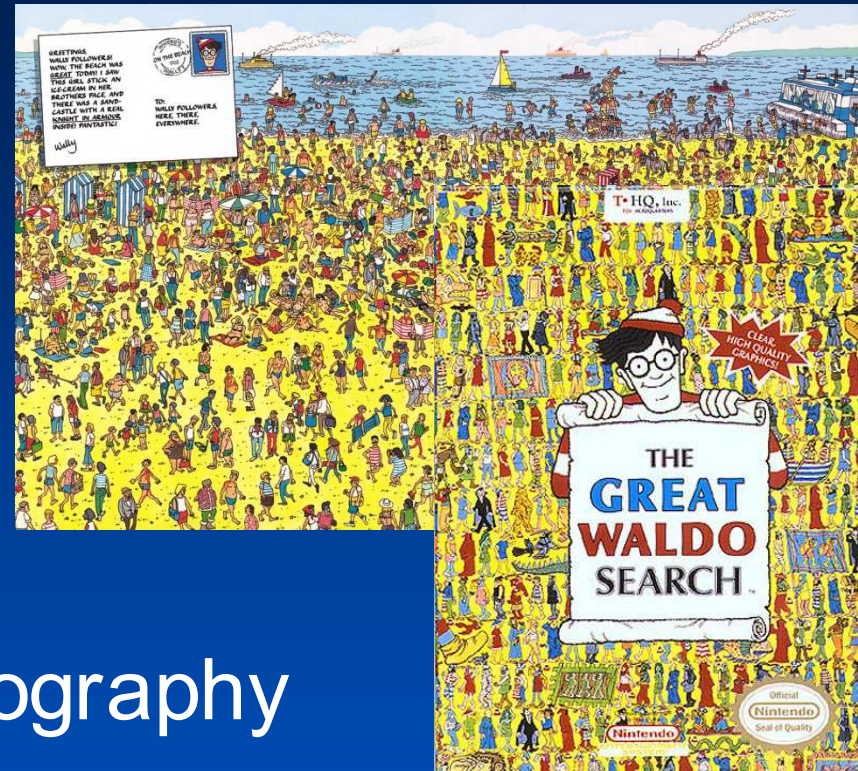
# Imagination



# Contralateral injection

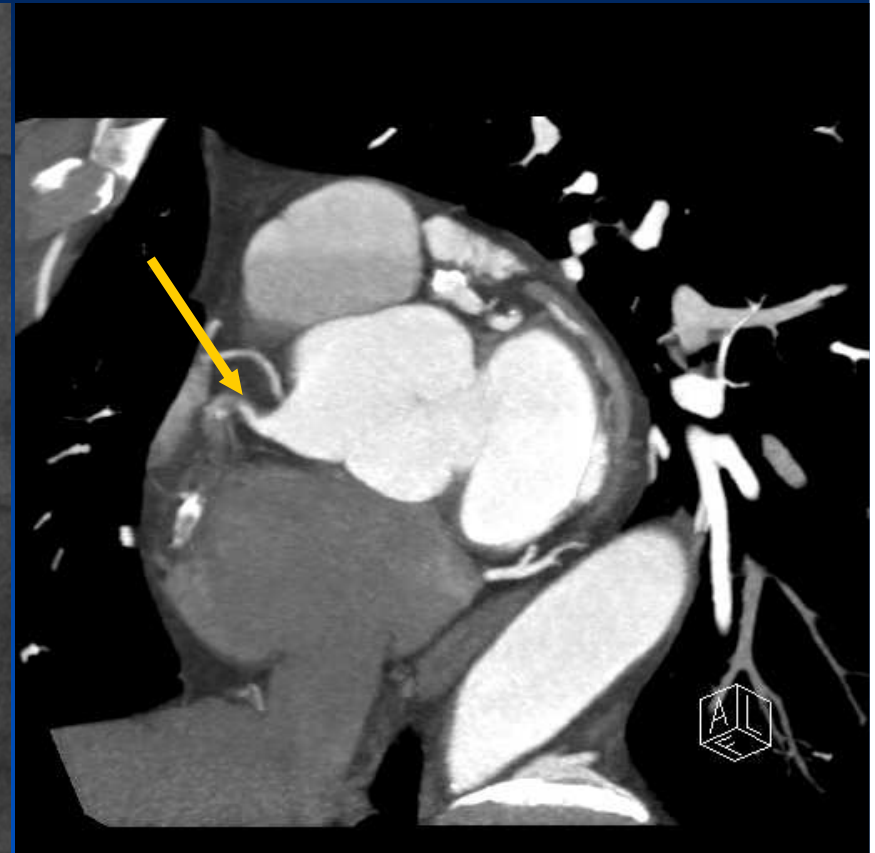
# Digestion of angiography

- Find stump
- Find normal island
- Find microchannel
- Refer to MSCT angiography
- Find intercoronary channels for retrograde

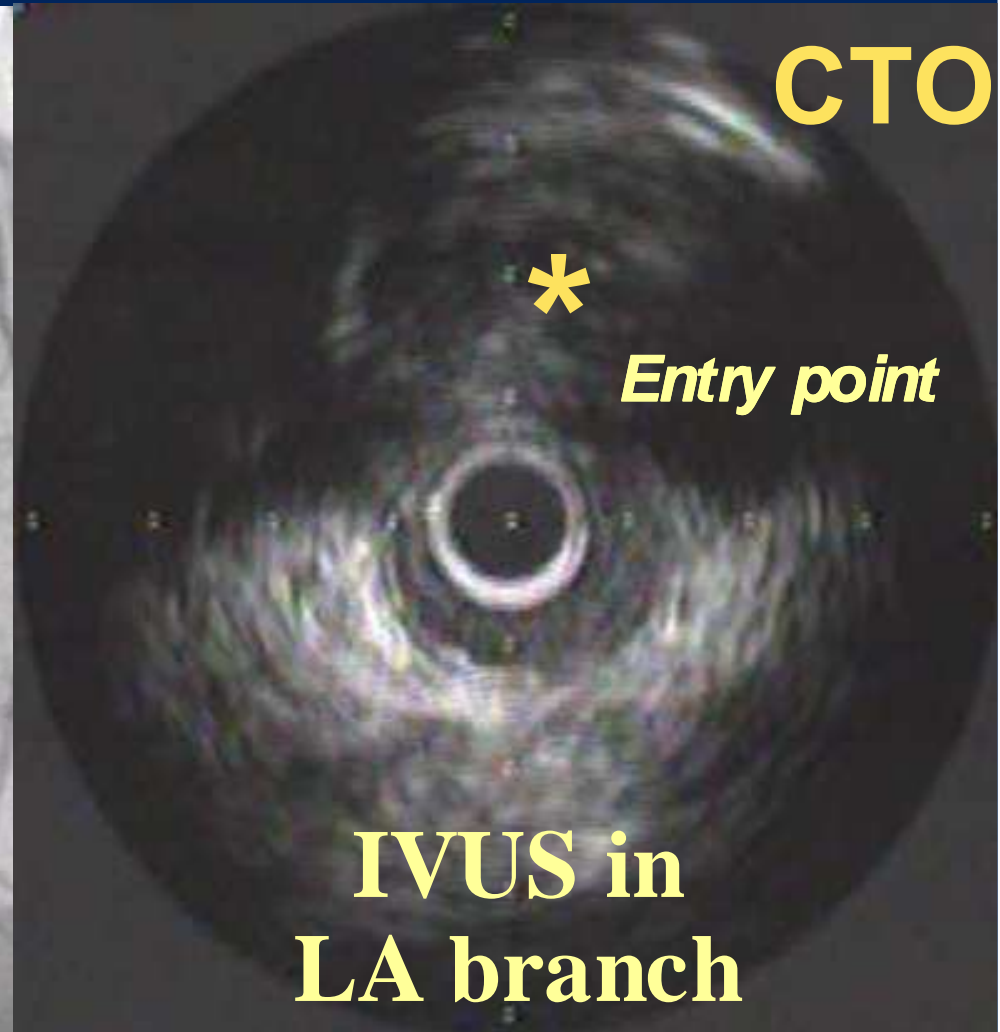
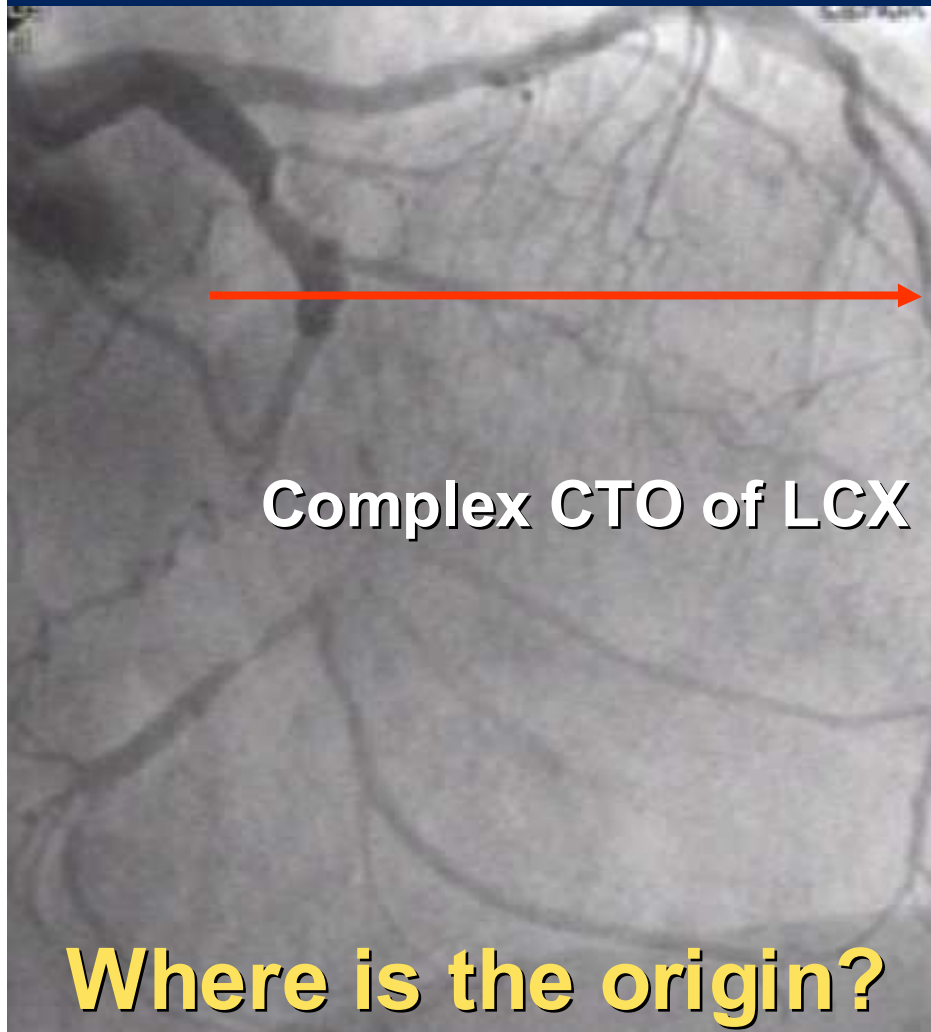




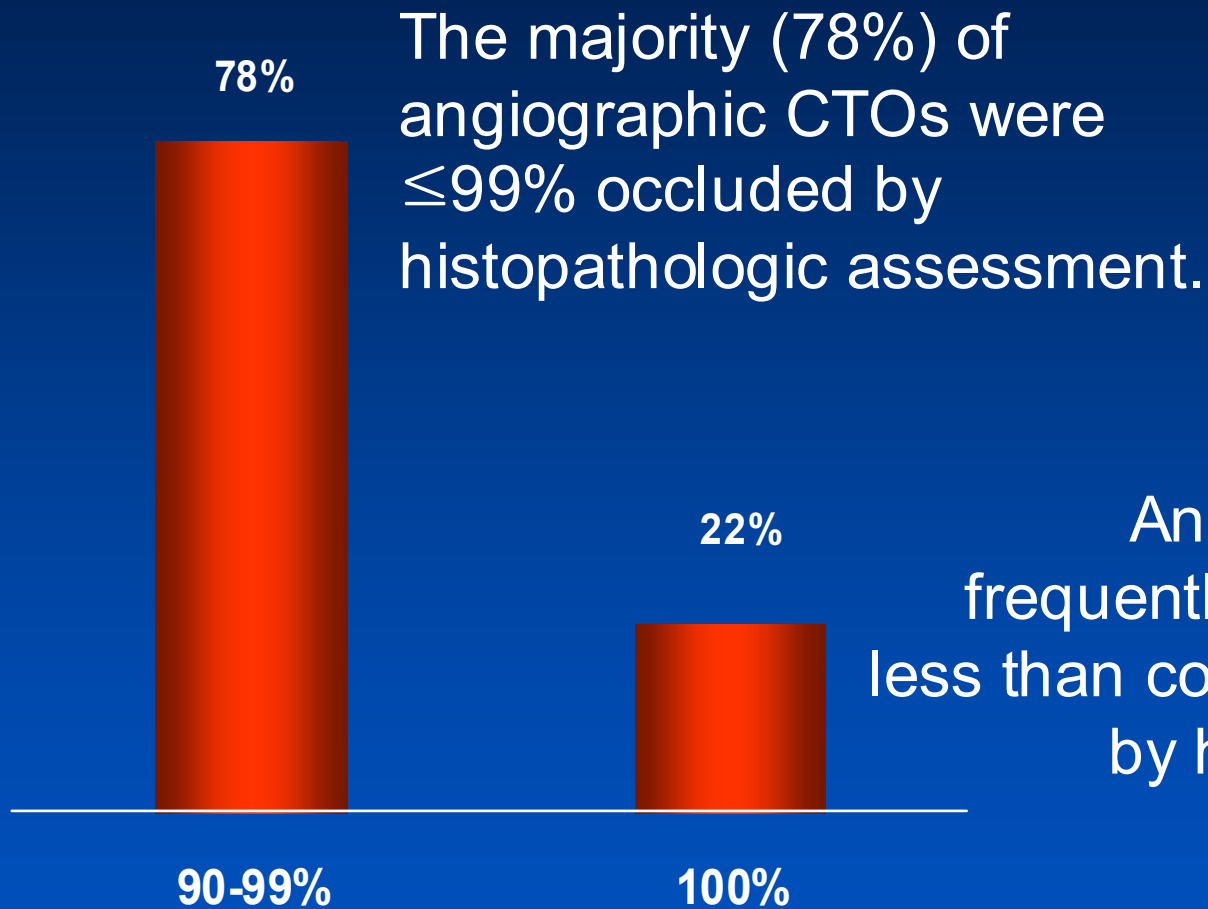
# Find the stump with MSCT



# IVUS Guided Technique for Looking For the Entry



# Chronic Total Occlusion



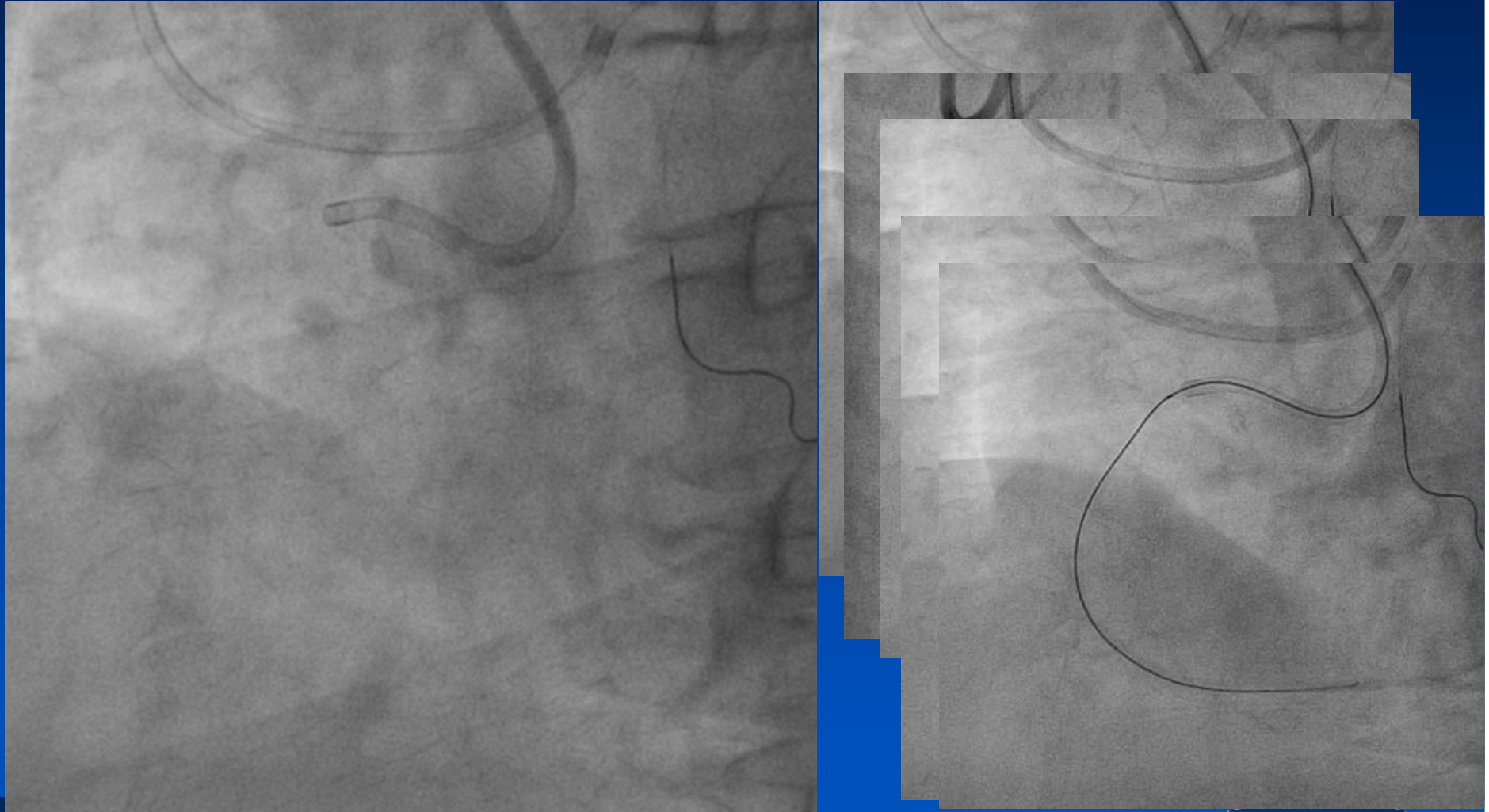
The majority (78%) of angiographic CTOs were  $\leq 99\%$  occluded by histopathologic assessment.

Angiographic CTOs frequently corresponds to less than complete occlusion by histologic criteria.

## Stenoses by histopathologic assessment

J Am Coll Cardiol. 1997;29:955-63.

# Microchannel

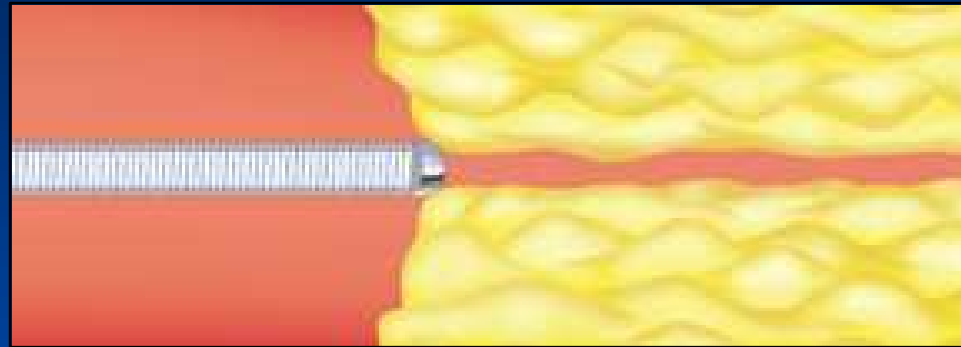


**Fielder XT with Finecross**

# Big Tips Are for Waiters!

Microchannels: Key for crossing...

0.010" tip



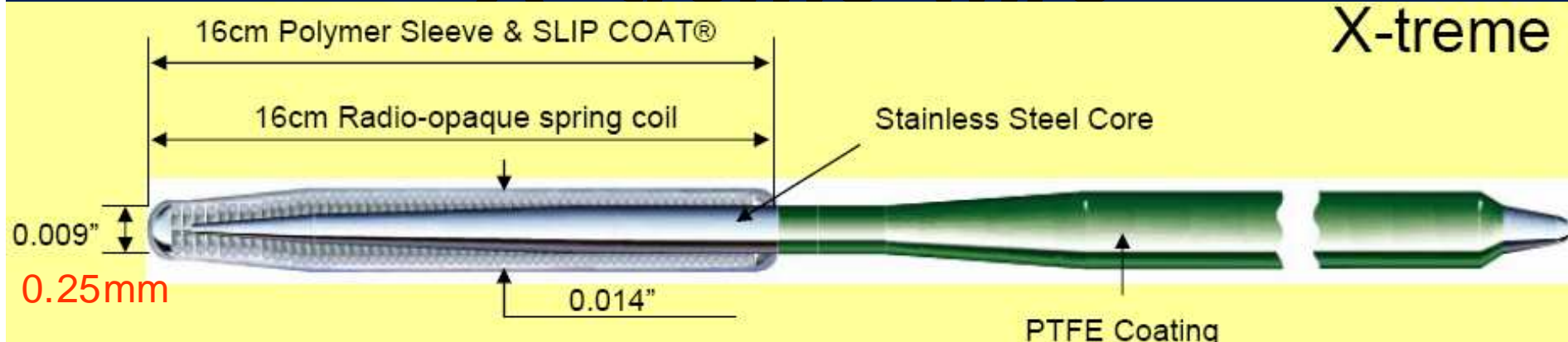
0.007" microchannel

0.014" tip



0.007" microchannel

# X-treme wire

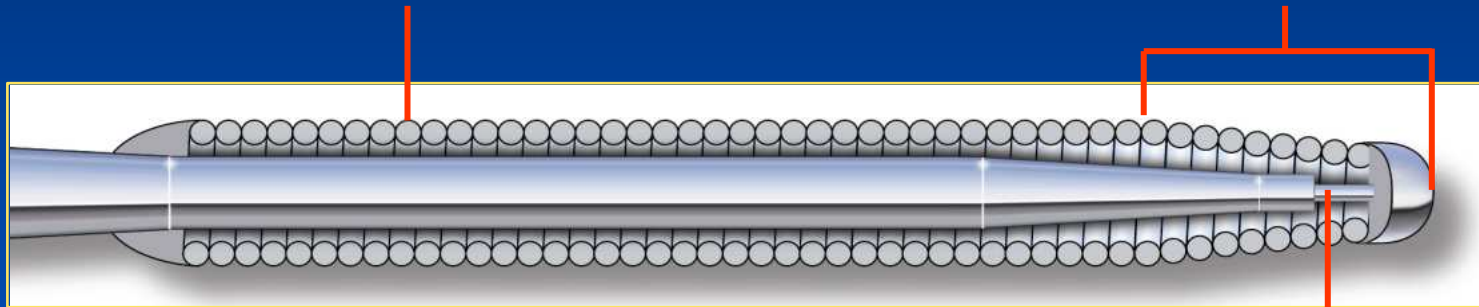


- **One-Piece Core Wire**
  - Supports the entire guidewire from the proximal to the distal end. This design transmits the guidewire torque fully from one end to the other.
- **Tapered Tip**
  - 0.009" (0.25mm) tapered tip facilitates trackability in tortuous vessels such as fine septal channels with corkscrew aspect.
- **Flat Core Tip**
  - Provides flexibility and excellent shaping memory.
- **Smooth Tapered Core**
  - Enhances support performance which provides excellent guidewire trackability.

# HI-TORQUE CROSS-IT™ XT Coronary Guide Wire

Hydrocoat hydrophilic coating  
for low friction and smoother  
lesion access

Tapered 0.010" tip coil facilitates  
access of highly stenosed lesions



Core-to-tip design  
for precise steering

# Evolving strategy

Any kind of CTO

Initial soft/tapered  
hydrophilic wire

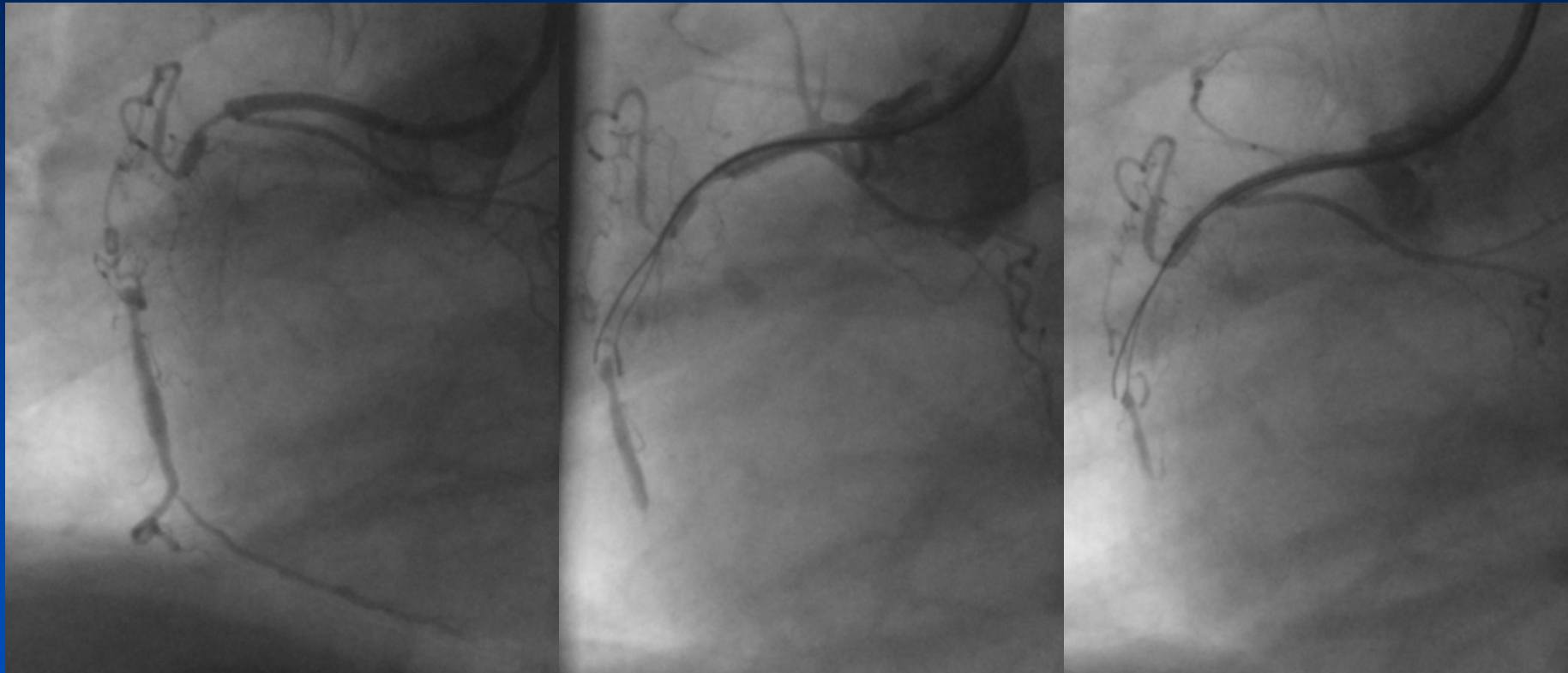
More stiffer specialized wire  
according to lesion  
characteristics



# Parallel Wire Technique

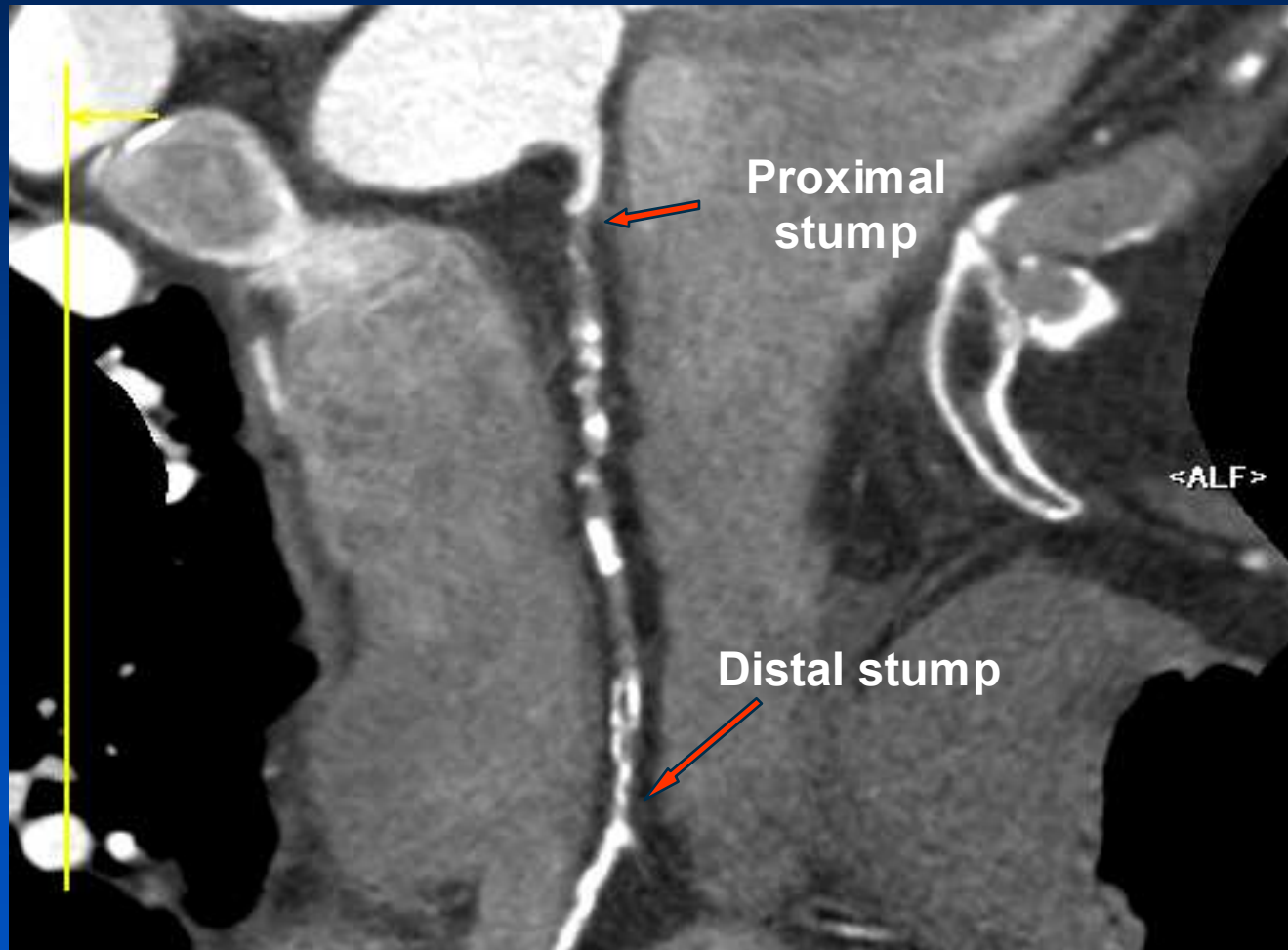


# Parallel wire technique

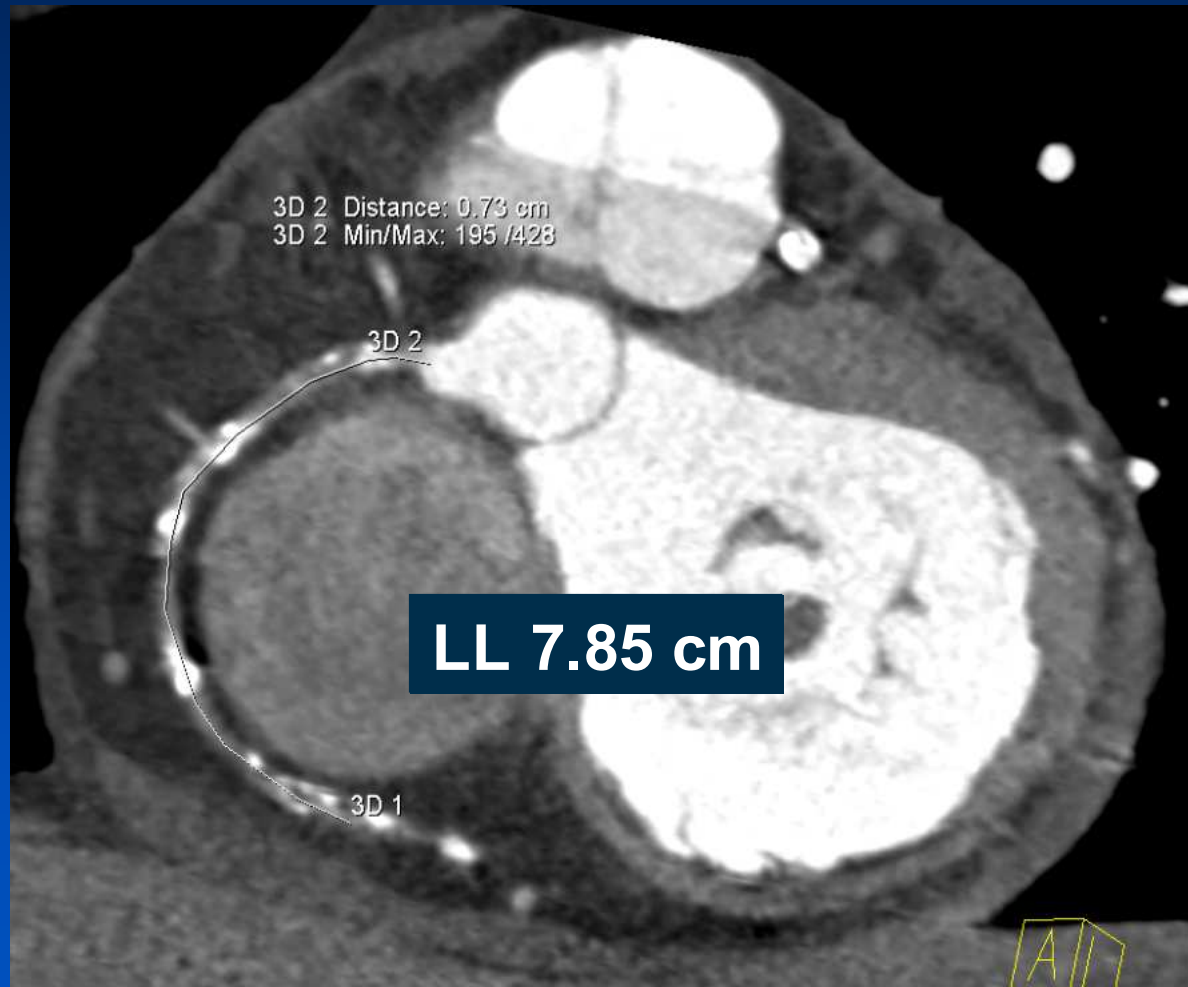


Parallel wire technique with ASAHI  
Miracle Brothers and Conquest wires

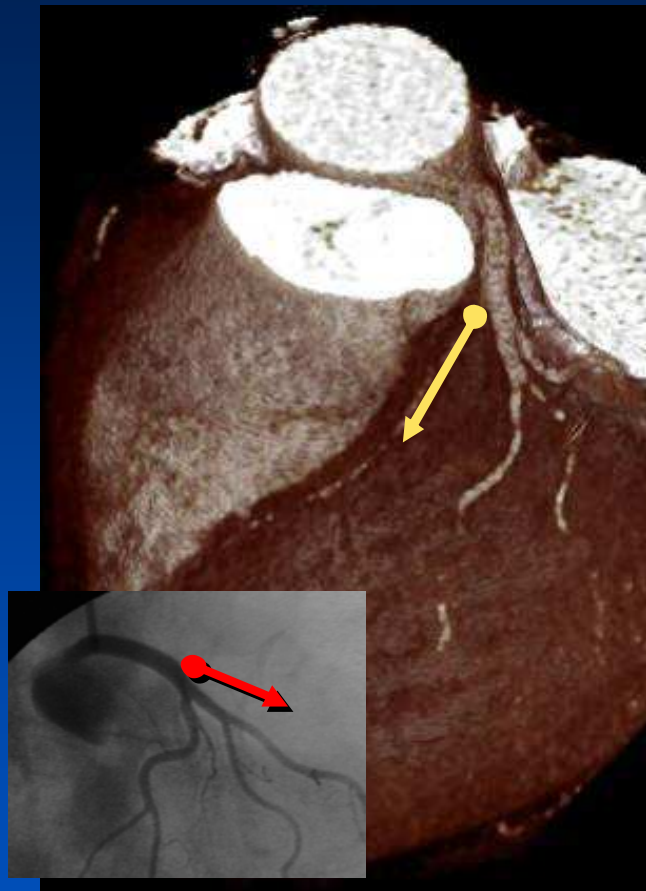
# Analyzing the CTO



# Analyzing the CTO

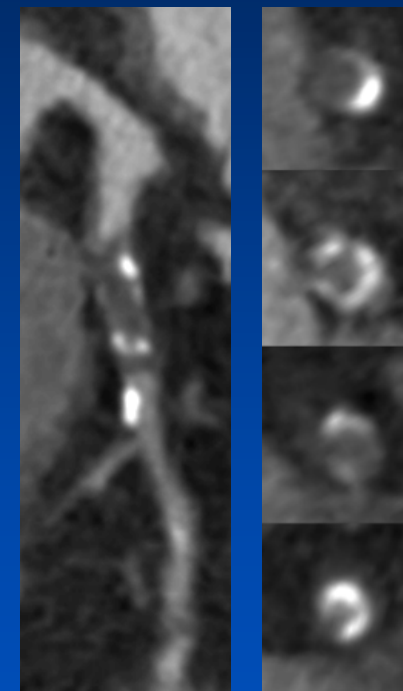


# Occlusion morphology, branch points and trajectory

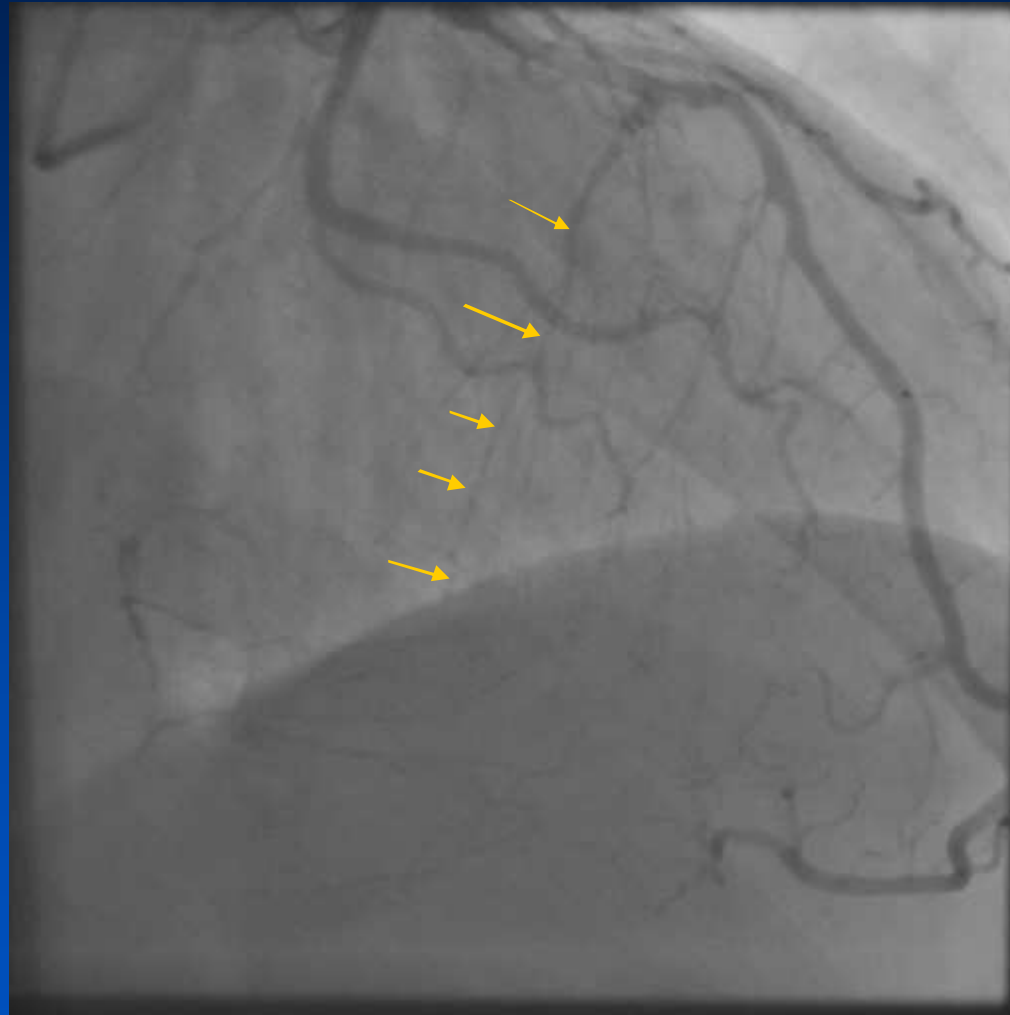


Vessel tortuosity

# Endoluminal Course and calcification

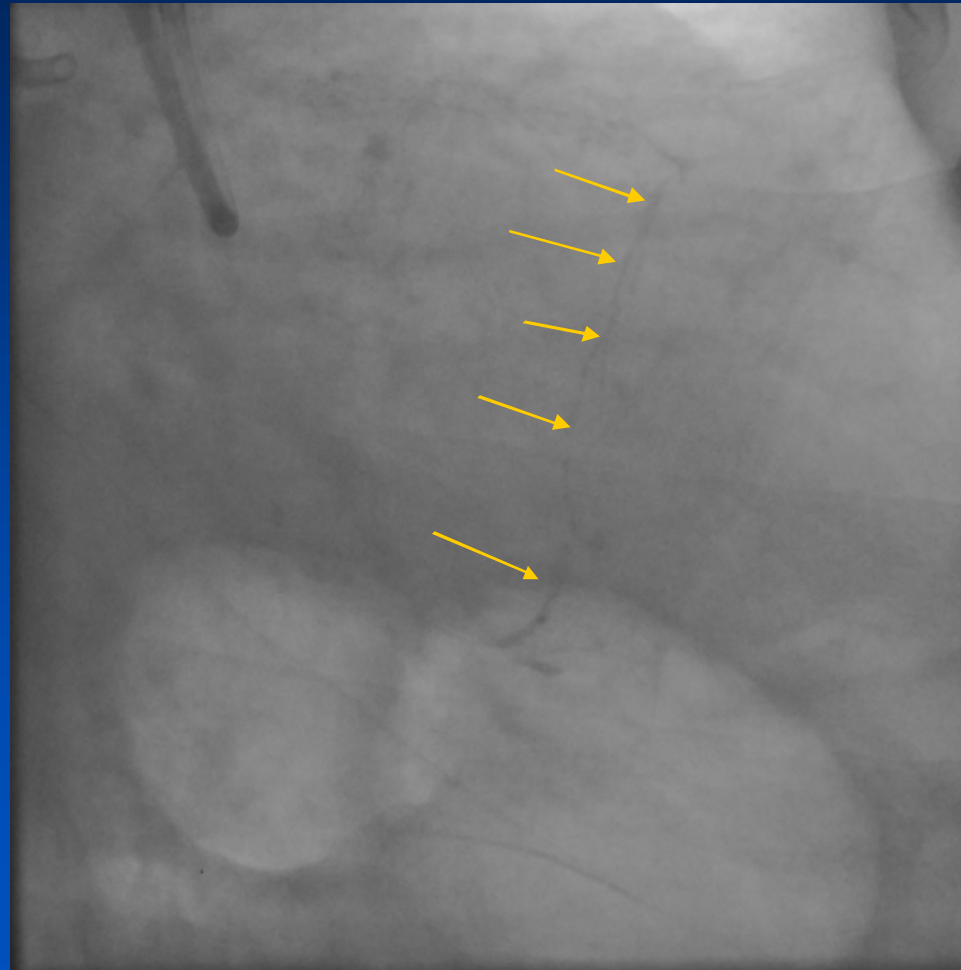


# Try to find Intercoronary collaterals for retrograde approach



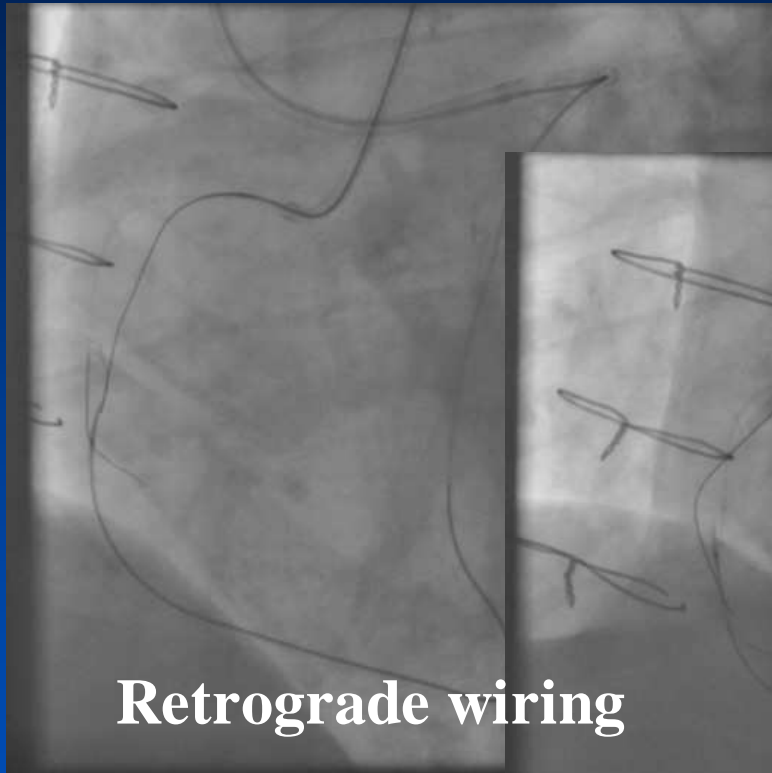
***RAO cranial or RAO caudal for at least 30 seconds***

**Forgotten vessel :**  
**Intercoronary collaterals for retrograde approach**  
**Microcatheter anioqram help the visualization of intercoronary collateral**

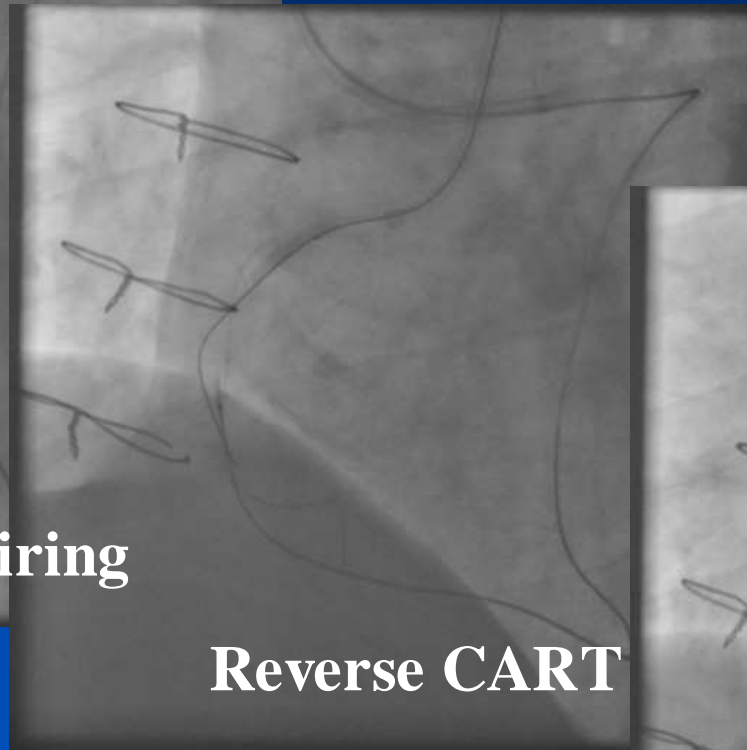


**Fielder FC with Finecross**

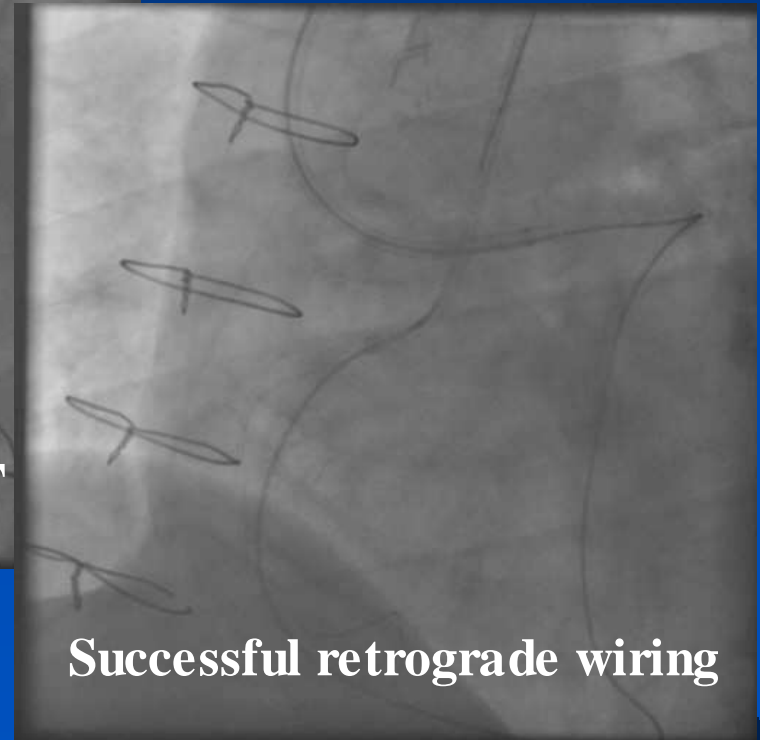
# *Retrograde approach*



**Retrograde wiring**



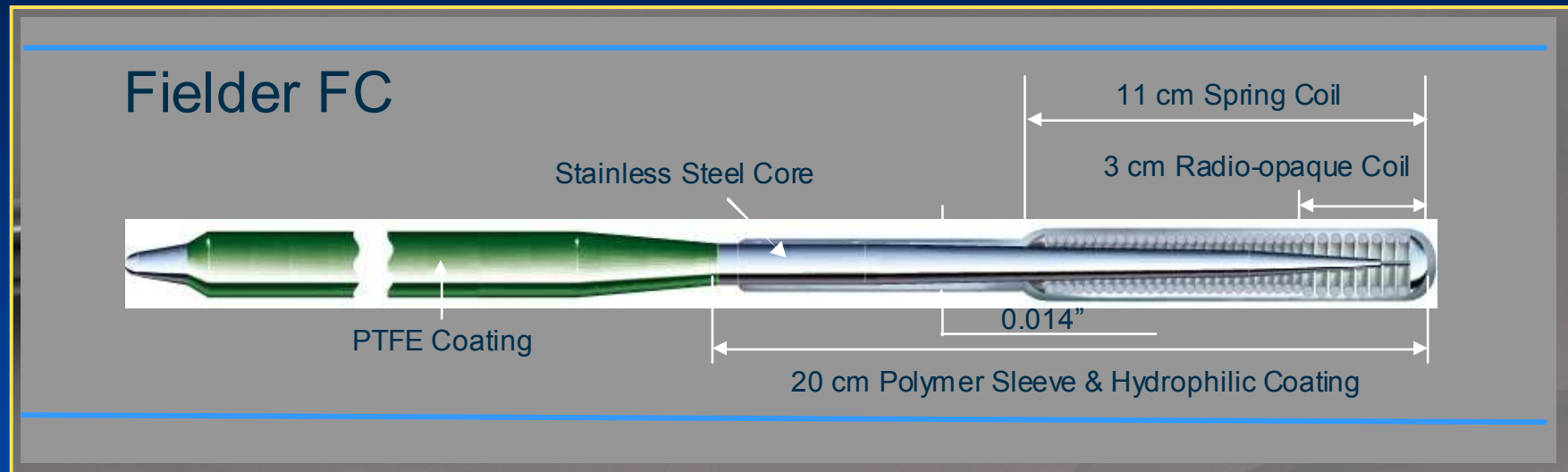
**Reverse CART**



**Successful retrograde wiring**



# ASAHI FIELDER FC™ PTCA Guide Wire



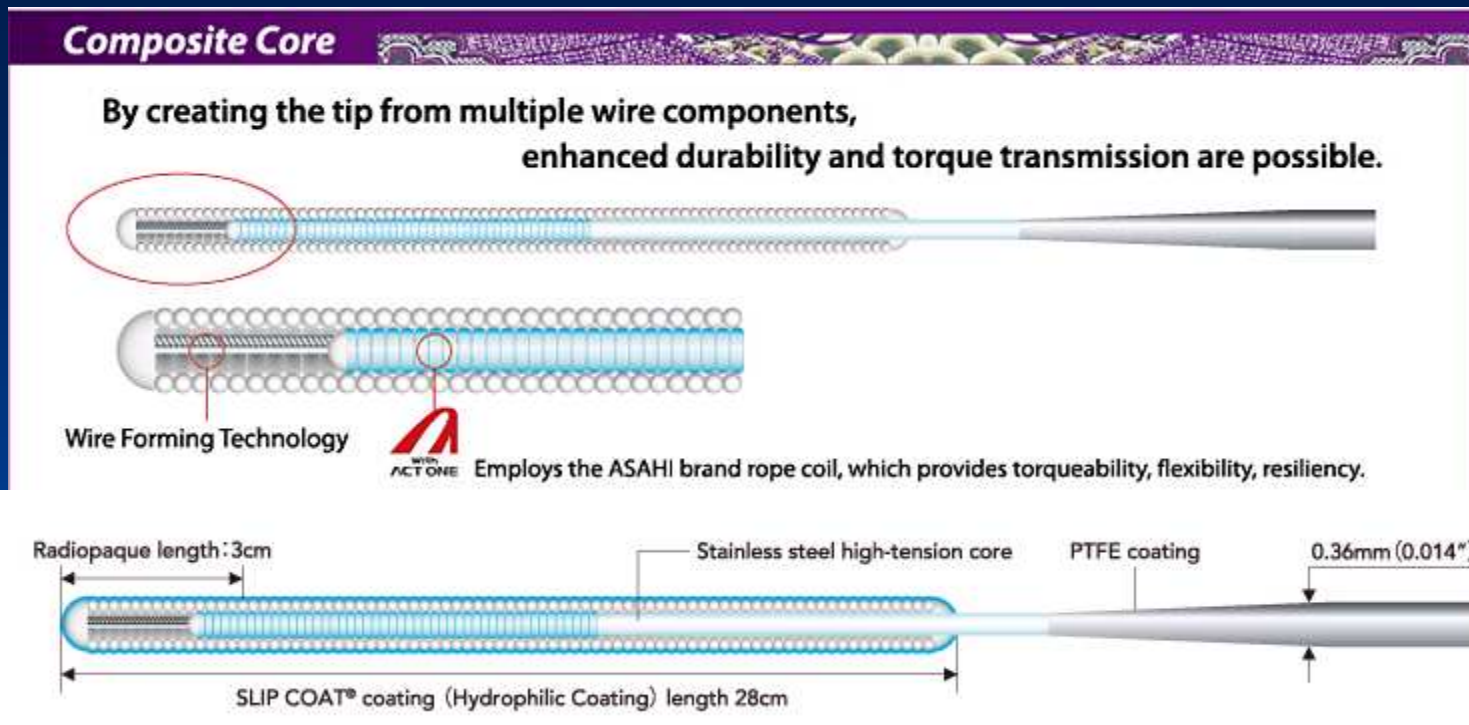
## Device description

Polymer covered guide wire with extra support for effortless movement in tortuous anatomy

## Stiffness

Tip Load = 0.8 g

# Asahi SION

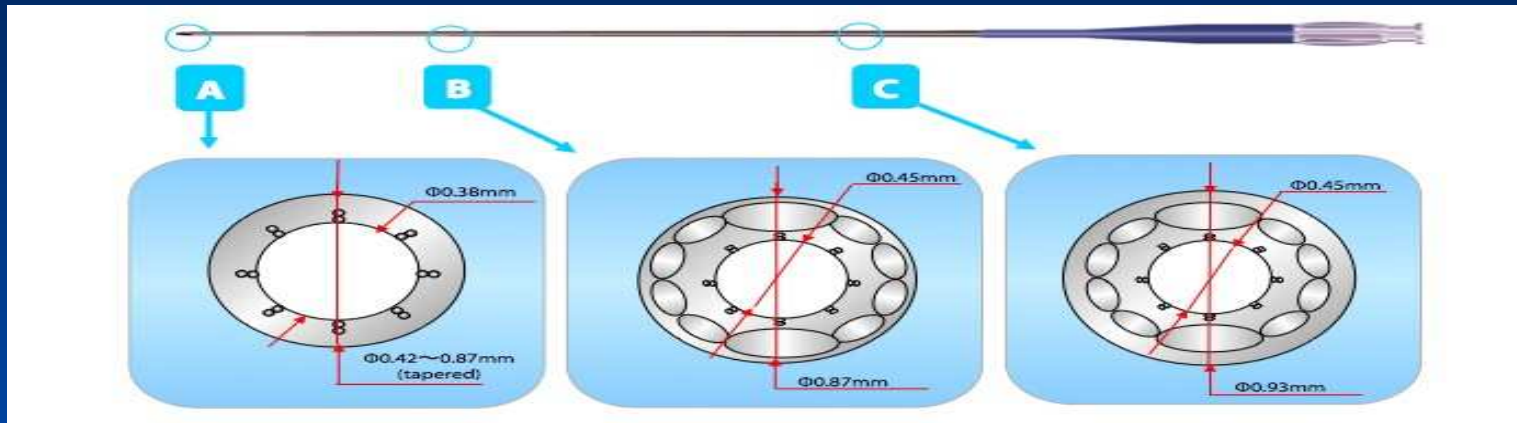


- Durable tip with outstanding shape retention
  - Possible to treat multiple lesions with one wire
- Advanced torque performance even in extreme tortuosity
  - Easier vessel selectivity, even after an acute angle
- Flexible shaft and atraumatic tip
  - Employ the wire in a variety of situations stress-free

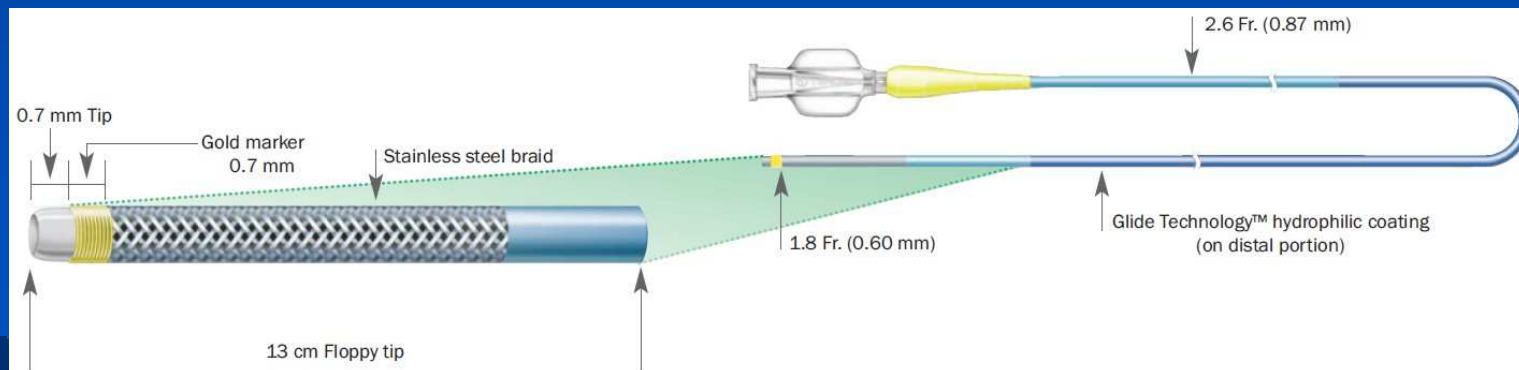
# Retrograde wire crossing

## Fielder FC/XT/SION-Miracle3-Conquest Pro

### ASAHI Corsair Microcatheter



## TERUMO's FineCross MG



# Conclusions..

- **Complete dissection and digestion of angiography with MSCT/IVUS is basically important in CTO-PCI**
- **Tapered hydrophilic wire and step-up wire escalation is essential step in any kind of CTO-PCI**
- **Smart supporting micro-catheter improve wire advancement to target land.**

# Never give-up

**It is over and before throwing away to, it  
does not think to dry that it is one it is  
impossible**

**Stop if the procedure is harmful to patients**

SAVE THE DATES!

6<sup>th</sup>  
**CTO**  
**LIVE**  
2012

**Saturday, January 7, 2012**

Asan Medical Center, Seoul, Korea



# ANGIOPLASTY SUMMIT **TCTAP 2011**

TRANSCATHETER CARDIOVASCULAR THERAPEUTICS ASIA PACIFIC

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