

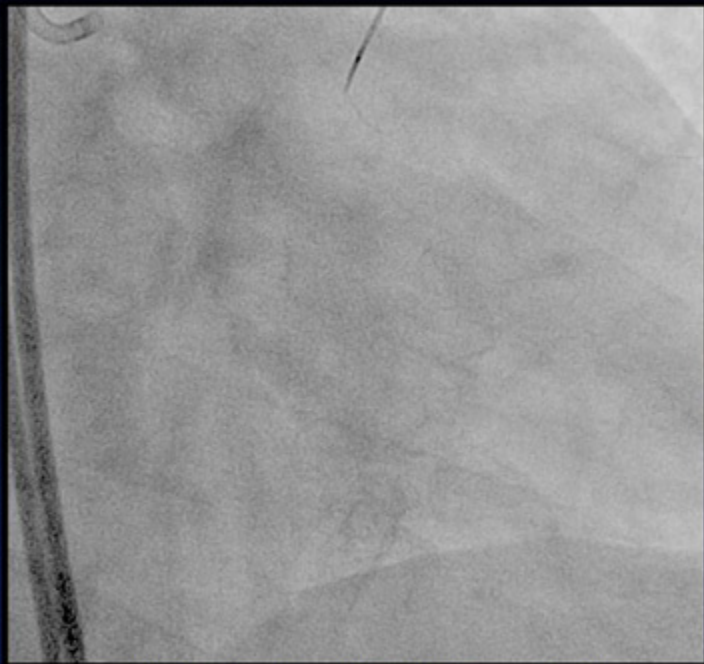
**Intercoronary Collateral:
How to Pick-up and How to Use Wires**

Etsuo Tsuchikane, MD, PhD

Toyohashi Heart Center, Japan

Tips and Tricks for Septal Channel Tracking

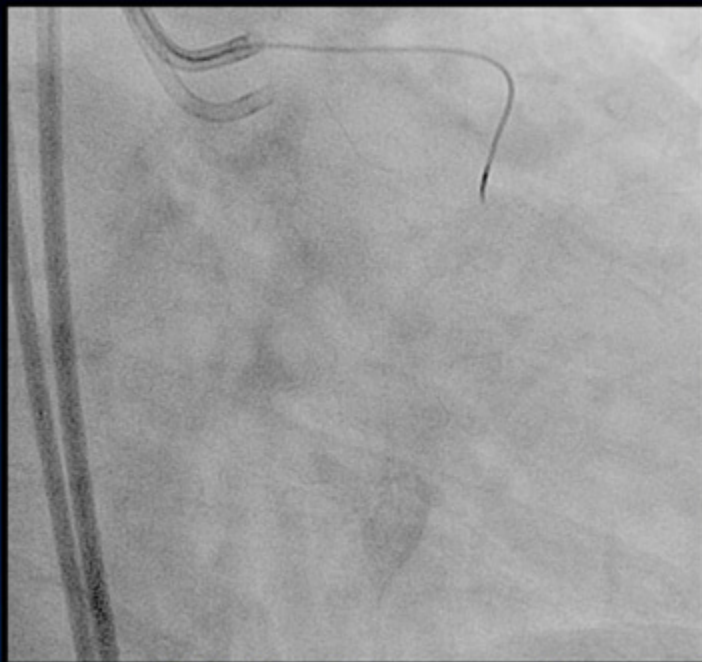
- Target septal branch is selected in RAO w/wo cranial view.
- Tip injection should be done in **RAO caudal** view (w/wo LAO caudal) to confirm the continuous connection.



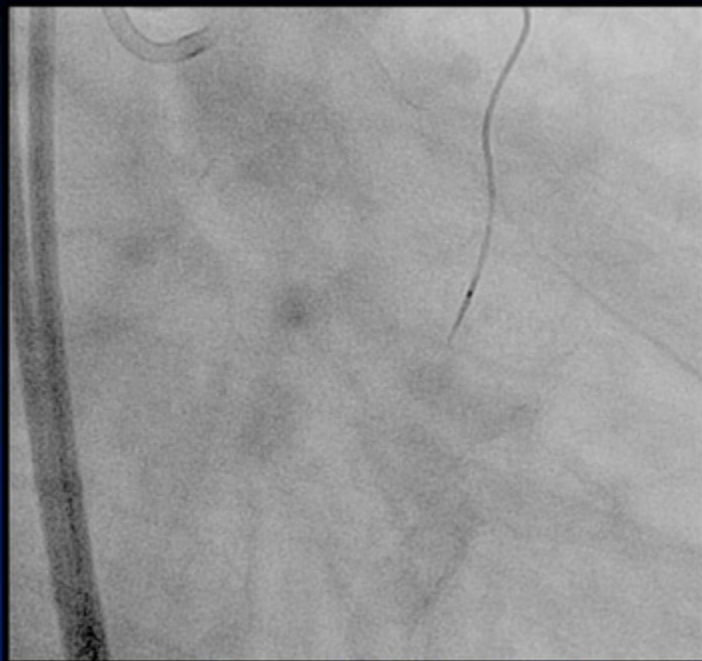
Tip injection in RAO caudal

Tips and Tricks for Septal Channel Tracking

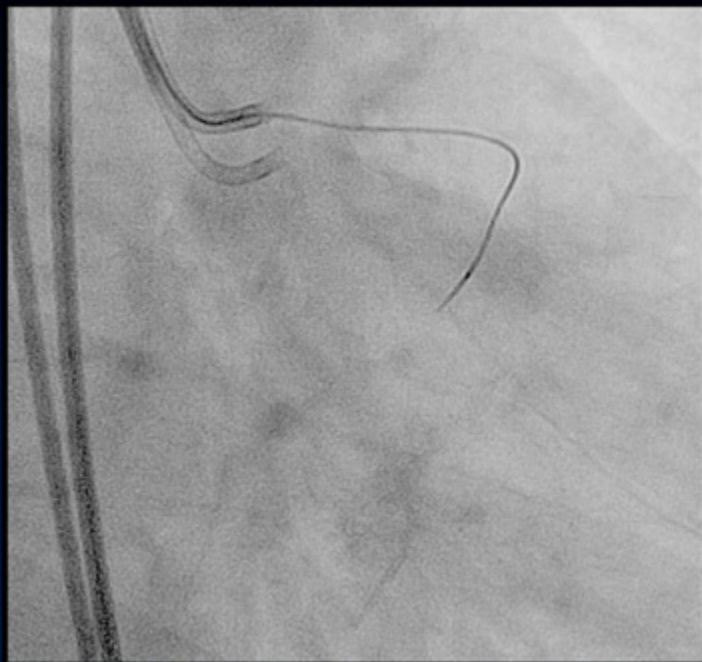
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- **Isolation by repeated tip injection** in a target channel is important to check continuity and morphology.



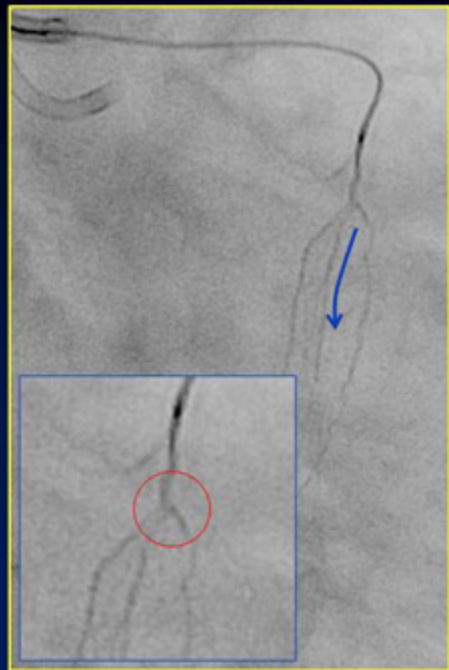
Isolation of target septal



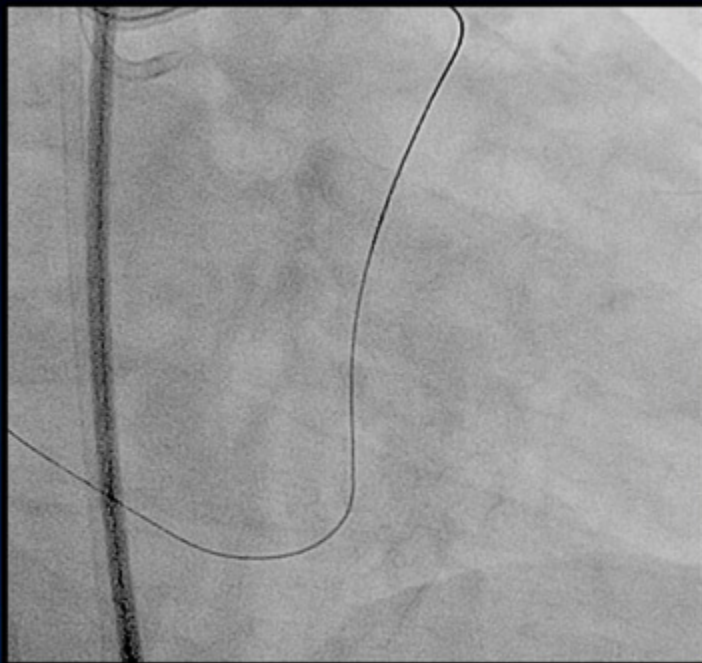
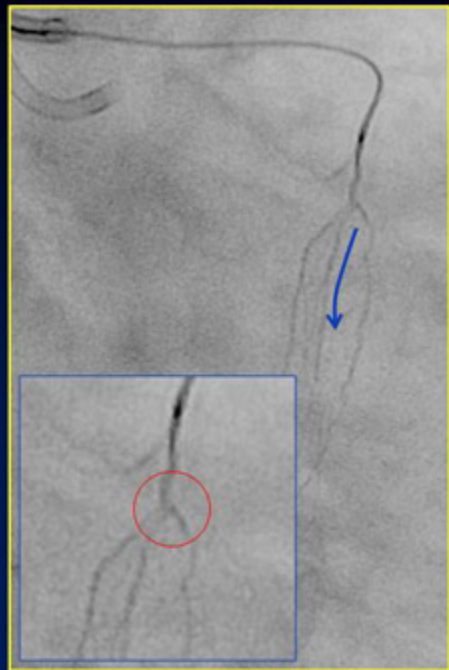
Repeated tip injection ❌



Isolation of target septal ❌



Isolation of target septal





Crossed channel

1st Tip injection

Tips and Tricks for Septal Channel Tracking

- Target septal branch is selected in RAO w/wo cranial view.
- Tip injection should be done in **RAO caudal** view (w/wo LAO caudal) to confirm the continuous connection.
- **Isolation by repeated tip injection** in a target channel is important to check continuity and morphology.
- **Wire selection** depends on channel morphology.

Wire Selection for Septal Channel Tracking

- No more Fielder FC
- 1st choice is **SION/SIONblue**

New Guide Wire for Collateral Channel Tracking

ASAHI SION, SION blue (ASAHI Intecc)



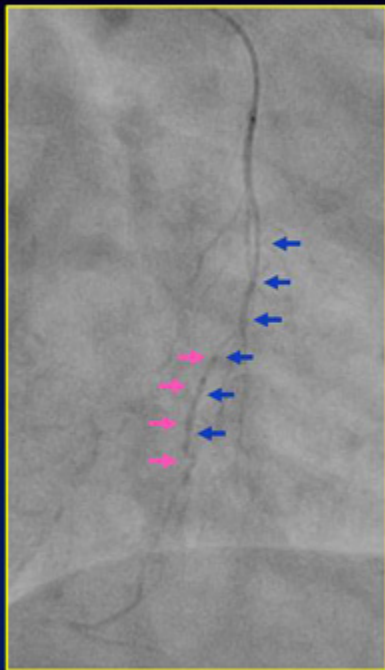
“Composite core” Double coil design



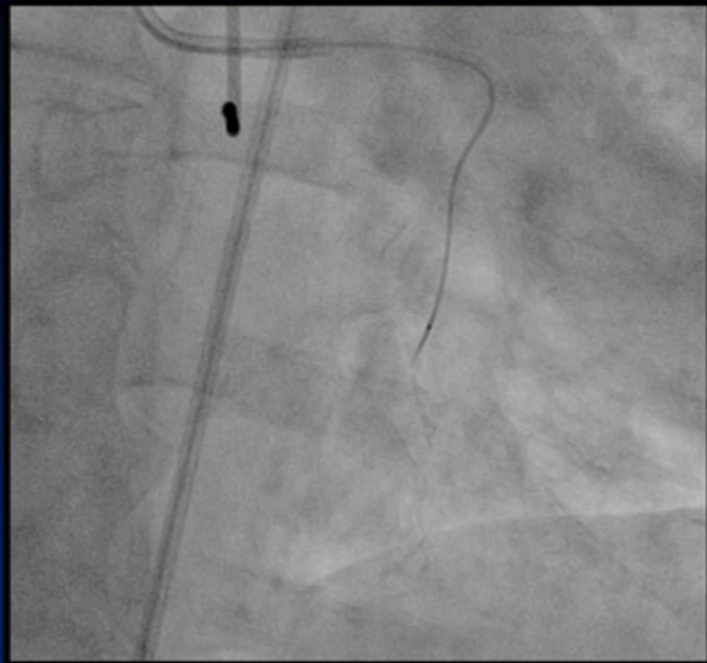
- Durable tip
- High torque response
- tip load ; SION 0.7g, SION blue 0.5g
- 0.014" diameter design
- 28cm Hydrophilic coating



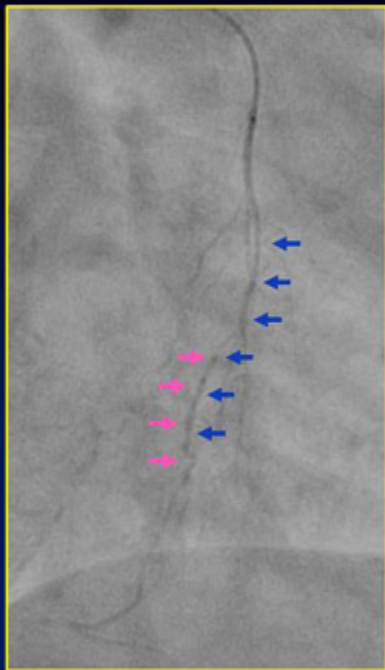
Tip injection



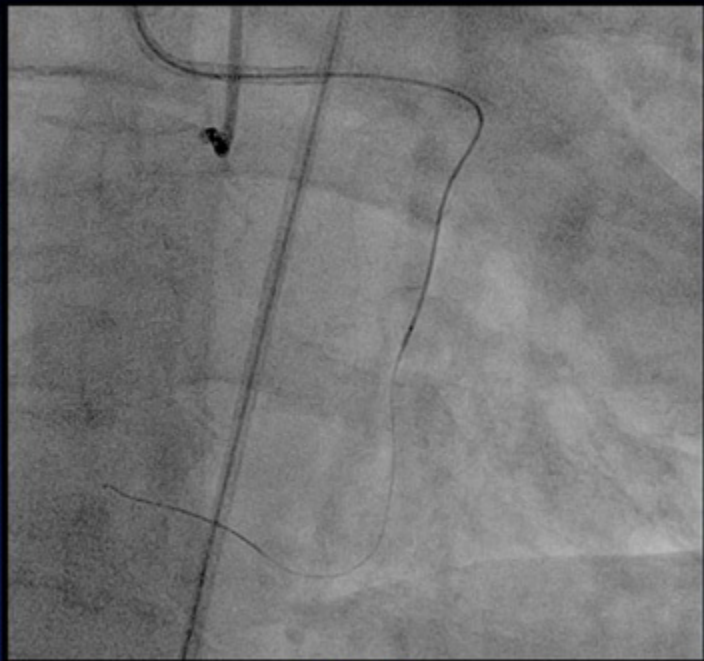
→ bends



Repeated tip injection



→ bends



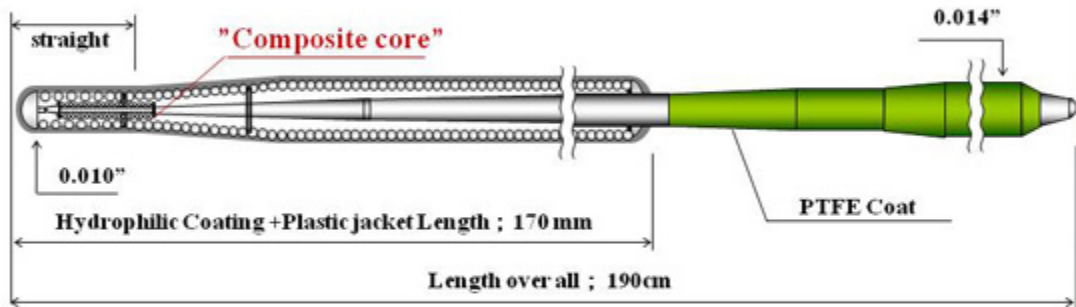
SION

Wire Selection for Septal Channel Tracking

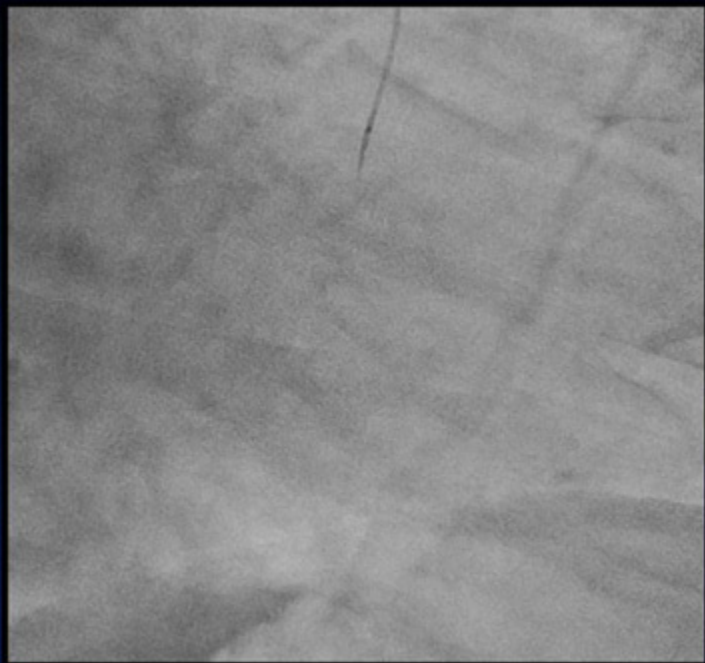
- No more Fielder FC
- 1st choice is **SION/SIONblue**
- If the channel is tiny or partially narrowing, **Fielder XT-R**

New X-treme XT-R <Revolution>

ASAHI intecc; Japan

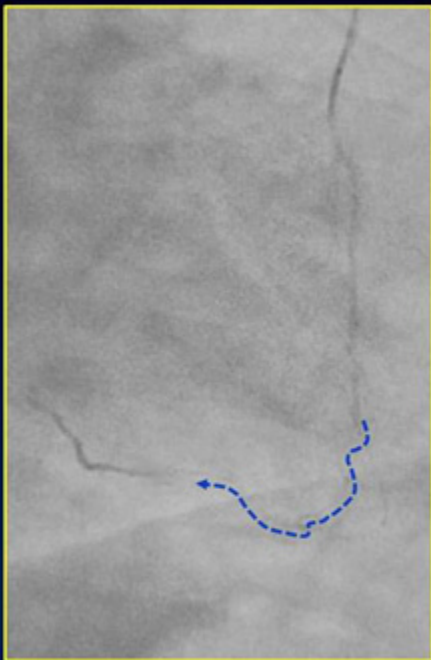


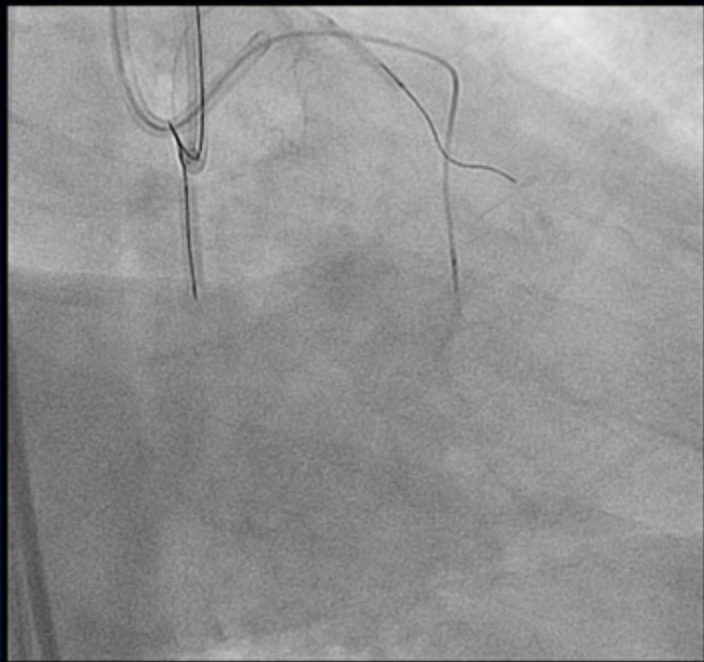
- ✓ New Fielder XT with " composite core" design
- ✓ Durable & Flexible 0.010" tip – Tip load = 0.6gf
- ✓ High torque performance for retro/antegrade approach

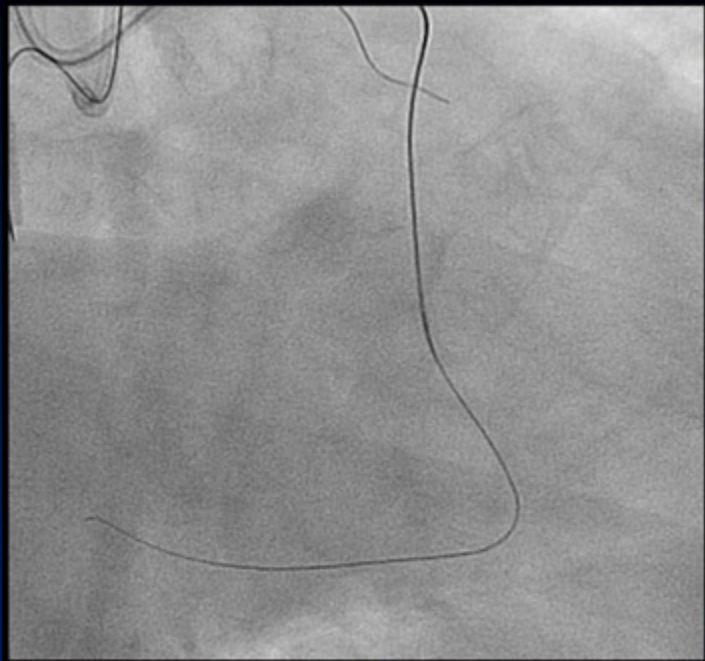




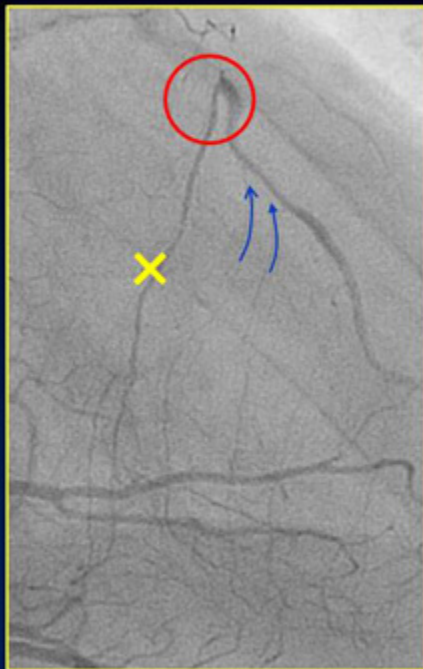
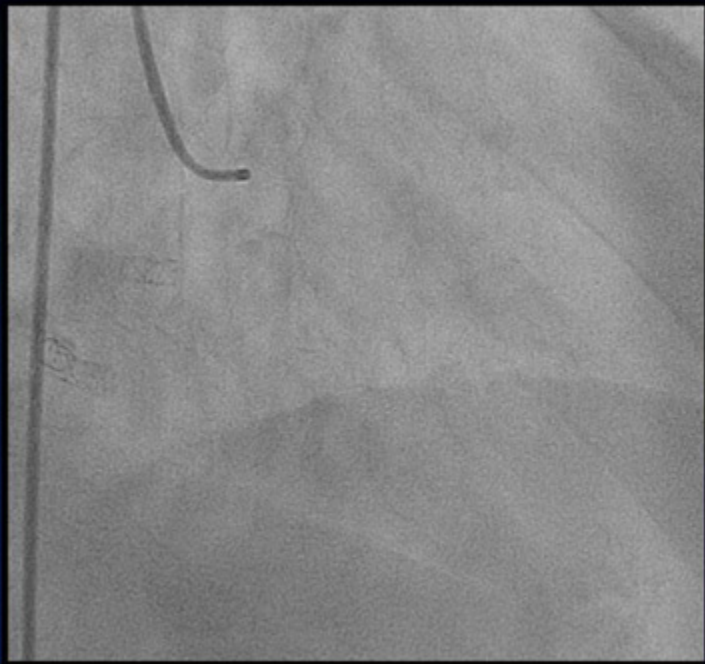
XT-R



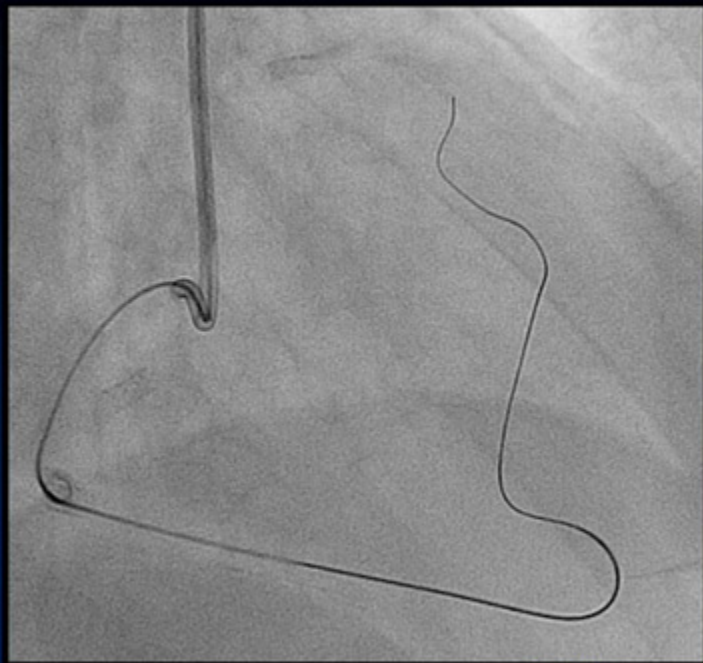




XT-R

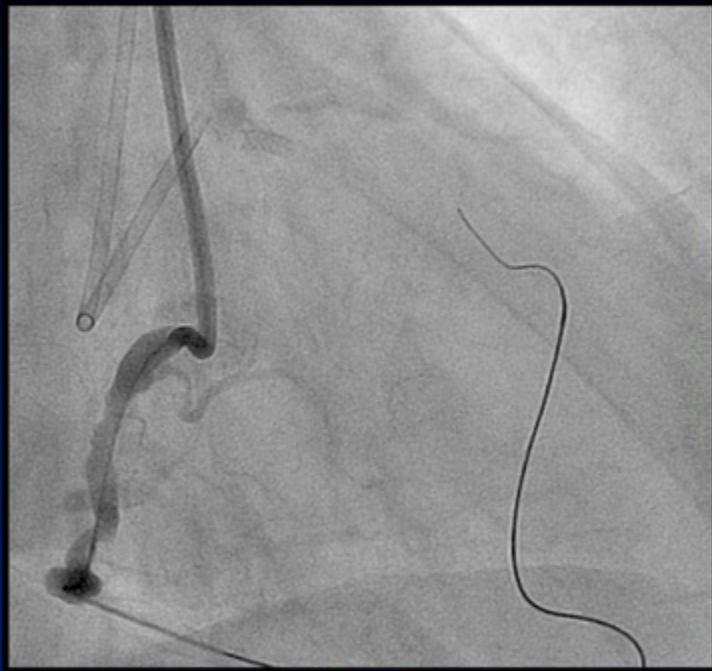




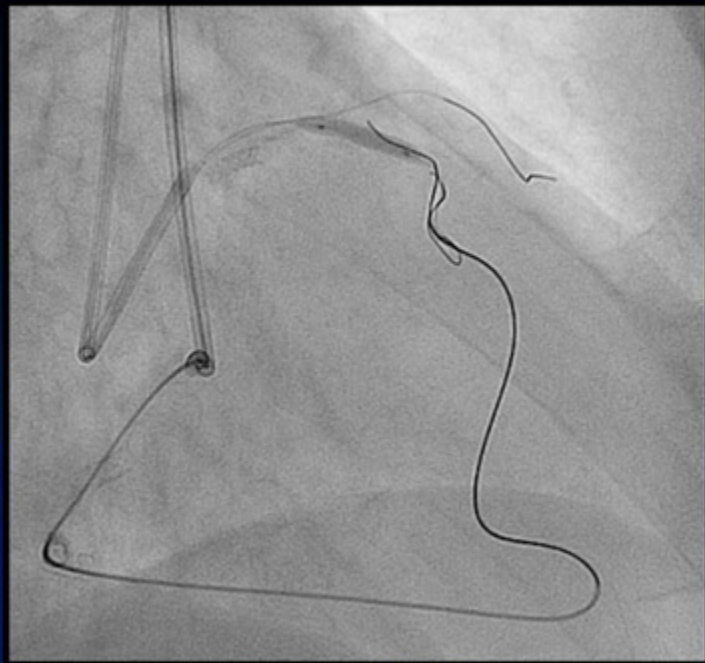


XT-R

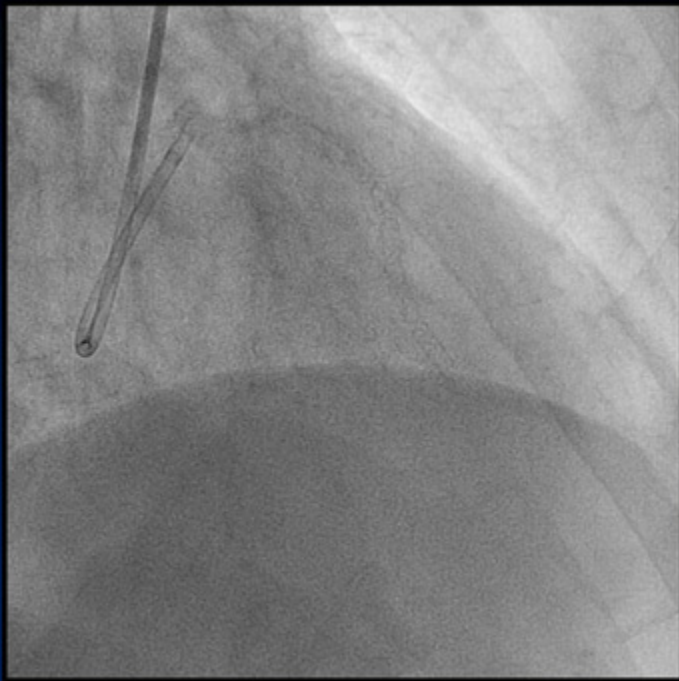




XT-R

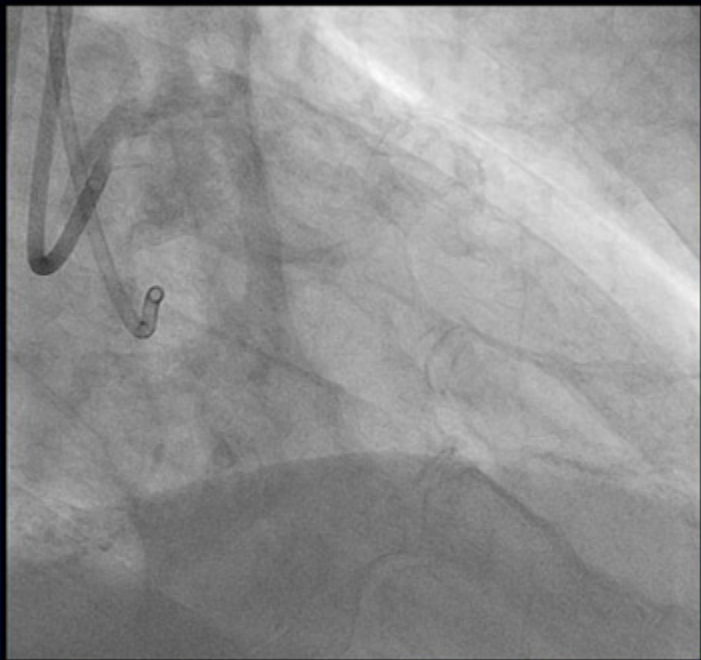


Reverse CART



Tips and Tricks for Septal Channel Tracking

- Target septal branch is selected in RAO w/wo cranial view.
- Tip injection should be done in **RAO caudal** view (w/wo LAO caudal) to confirm the continuous connection.
- **Isolation by repeated tip injection** in a target channel is important to check continuity and morphology.
- **Wire selection** depends on channel morphology.
- “Visible”, does not always means “Possible”



Promising septal?

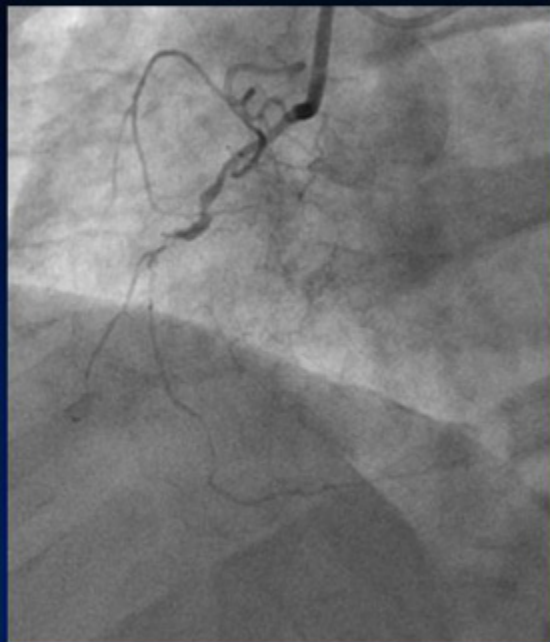


Epicardial channel

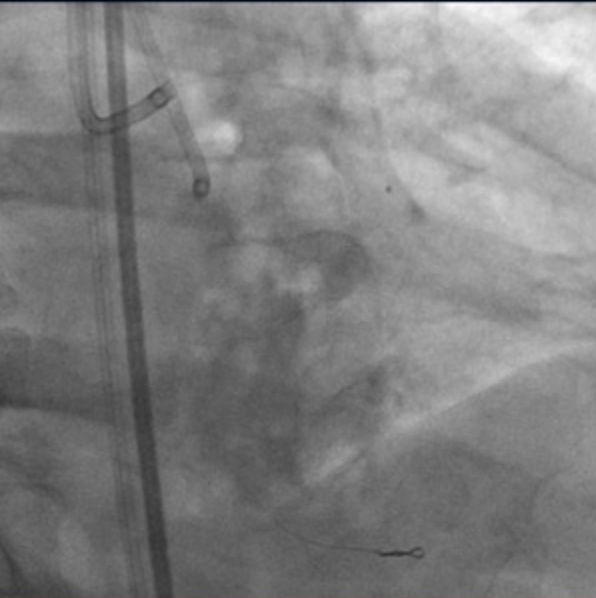
Tips and Tricks for Septal Channel Tracking

- Target septal branch is selected in RAO w/wo cranial view.
- Tip injection should be done in **RAO caudal** view (w/wo LAO caudal) to confirm the continuous connection.
- **Isolation by repeated tip injection** in a target channel is important to check continuity and morphology.
- **Wire selection** depends on channel morphology.
- “Visible”, does not always means “Possible”
- “Invisible”, does not always means “Impossible”!

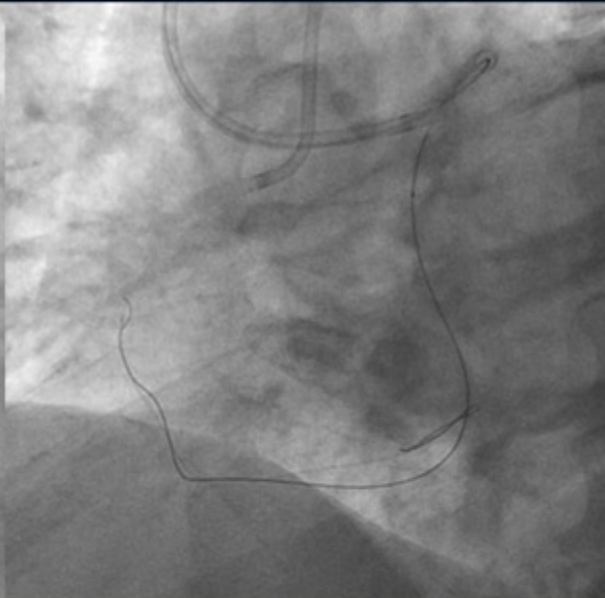
Invisible Septal Channel



Invisible Septal Channel



No connection by tip injection



Fielder XT

Wire Selection for Septal Channel Tracking

- No more Fielder FC
- 1st choice is **SION/SIONblue**
- If the channel is tiny or partially narrowing, **Fielder XT-R**
- When you try an invisible channel, **Fielder XT-R**

Change in Wire Selection for Septal Channel Tracking

2010

2011



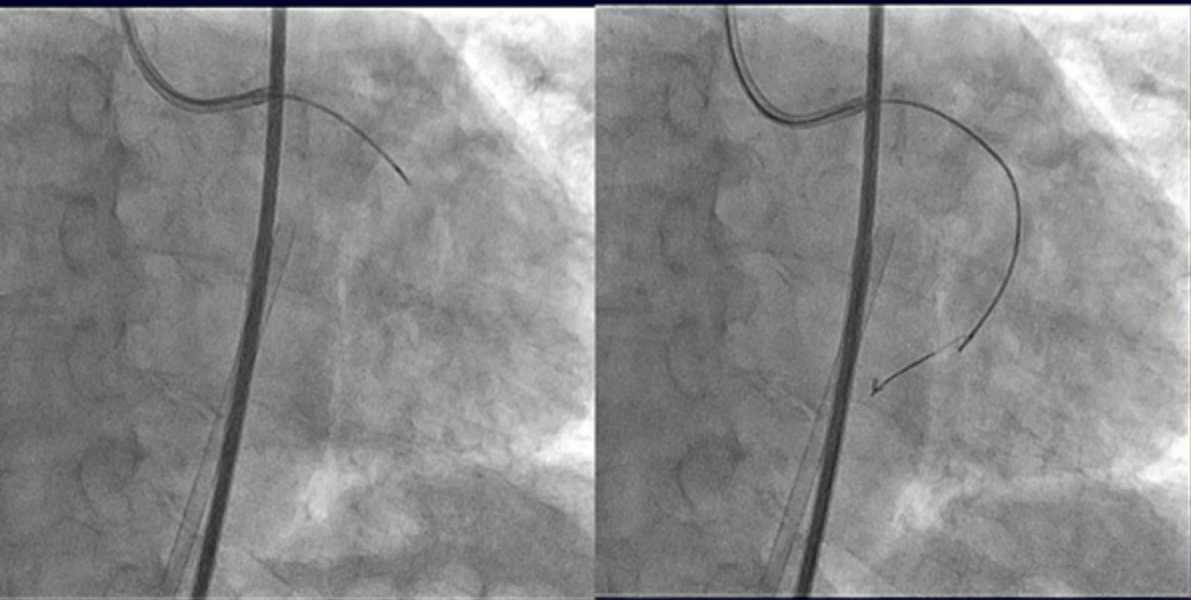
■ FC ■ XT ■ SION ■ SIONblue ■ XT-R

Tips and Tricks for Septal Channel Tracking

- Target septal branch is selected in RAO w/wo cranial view.
- Tip injection should be done in **RAO caudal** view (w/wo LAO caudal) to confirm the continuous connection.
- **Isolation by repeated tip injection** in a target channel is important to check continuity and morphology.
- **Wire selection** depends on channel morphology.
- “Visible”, does not always means “Possible”
- “Invisible”, does not always means “Impossible”!
- **Do not** persist in the 1st target channel. It's important to explore another channel when necessary.

Tips and Tricks for Epicardial Channel Tracking

- Corkscrew-like, however vessel size is important!
- It's necessary to straighten each bend inside the channel for successful crossing.
- New wire, **SION**, supported by Corsair works very well in these settings.
- Repeated tip injection helps to keep in the parent vessel.

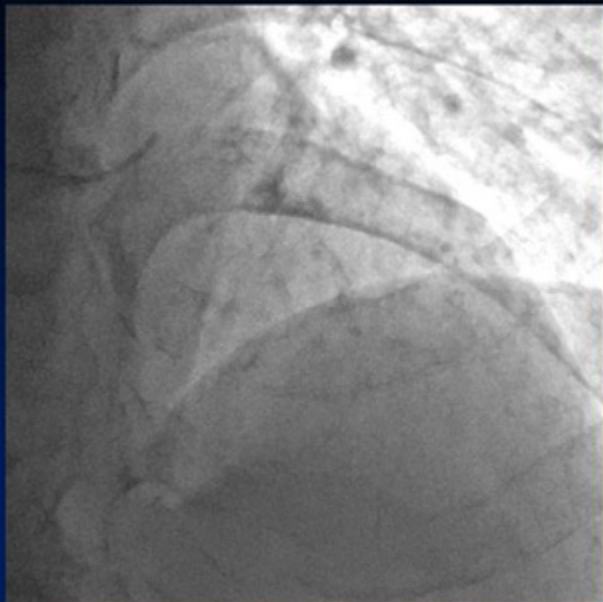


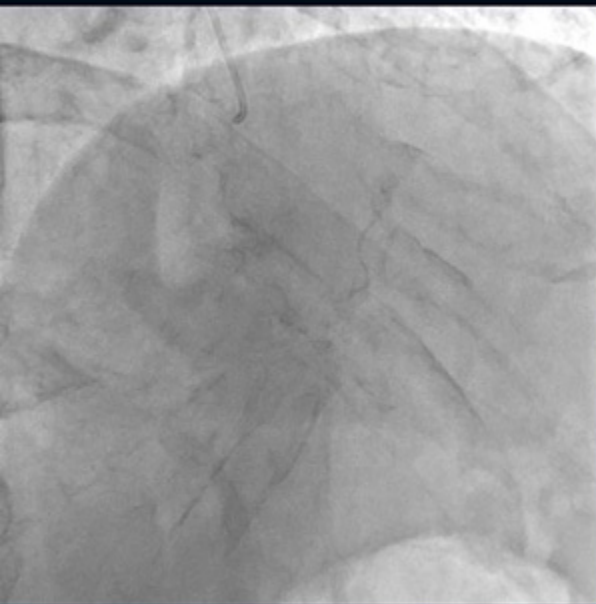
SION with Corsair

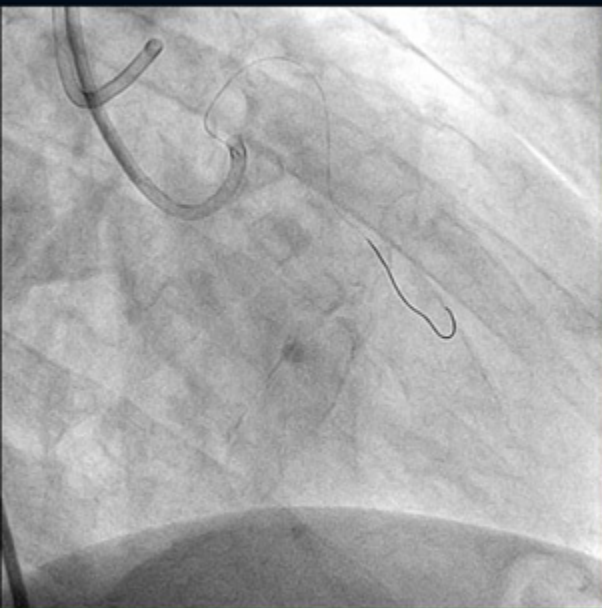


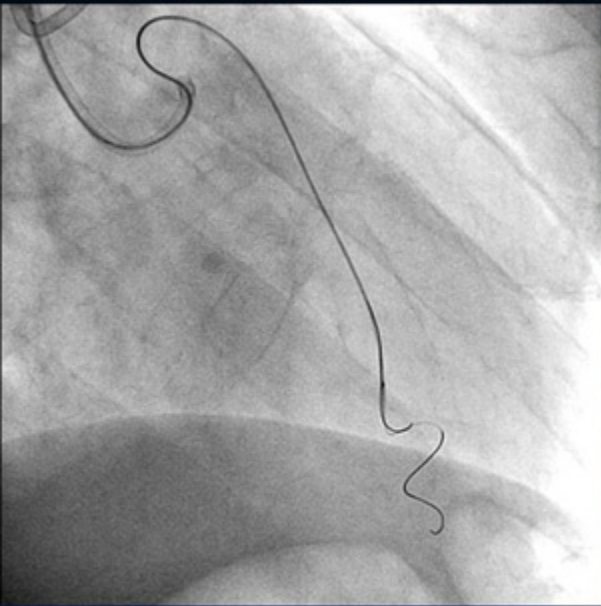
Knuckled SION

LAD-CTO, Reattempt

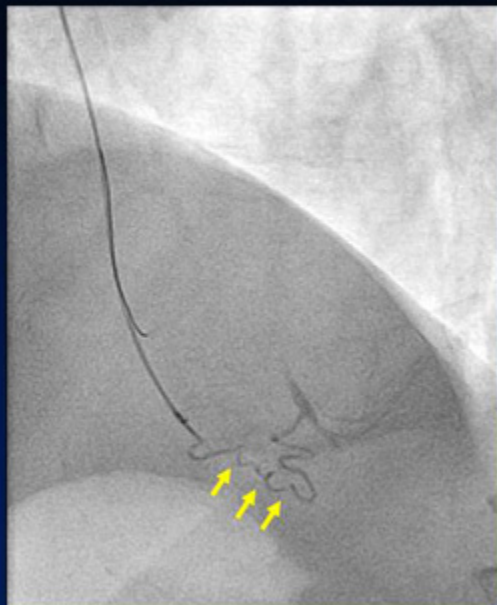
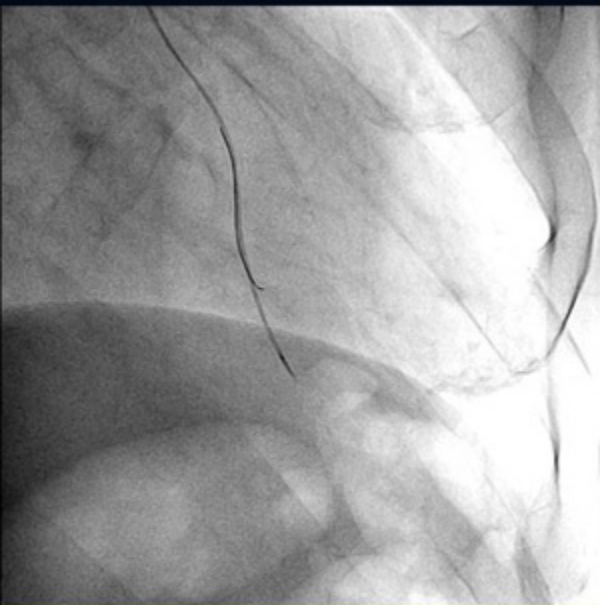


 ~~Septal~~ Conus branch

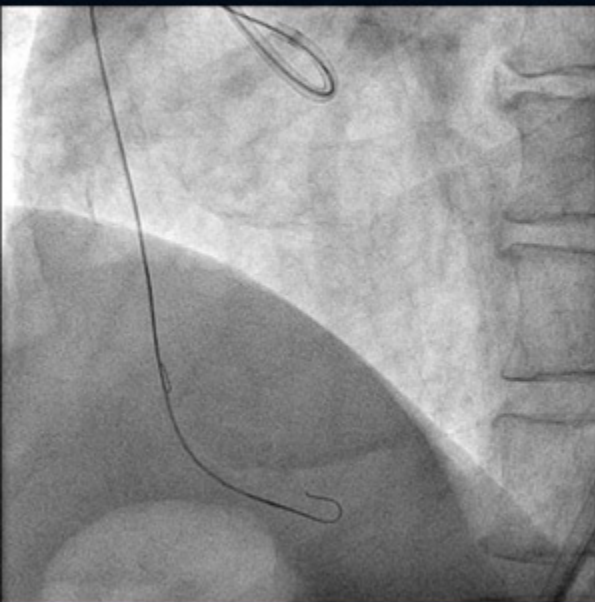




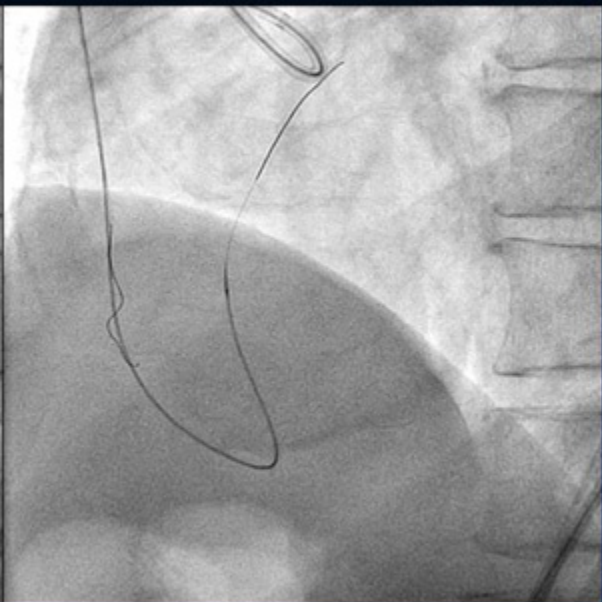
- **Fielder FC as anchor**
- **SION with Corsair**



Tip injection



Corsair straightened bends.

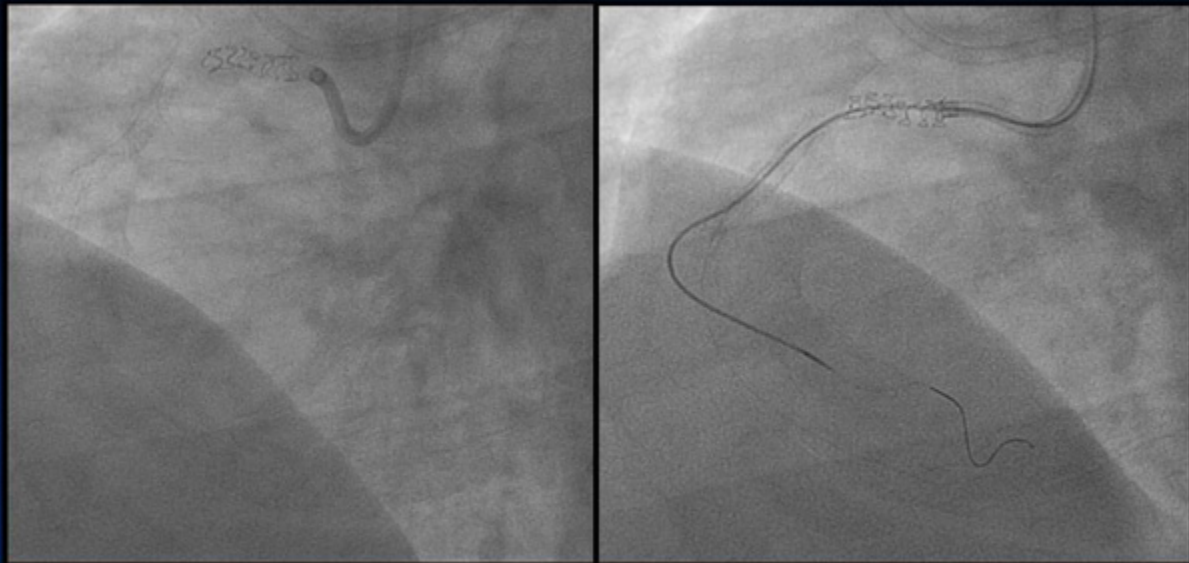


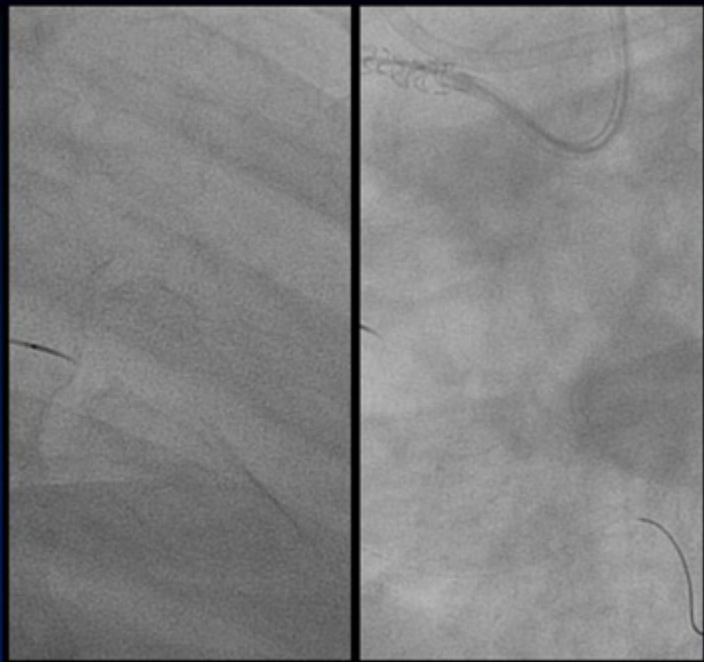
Successful crossing

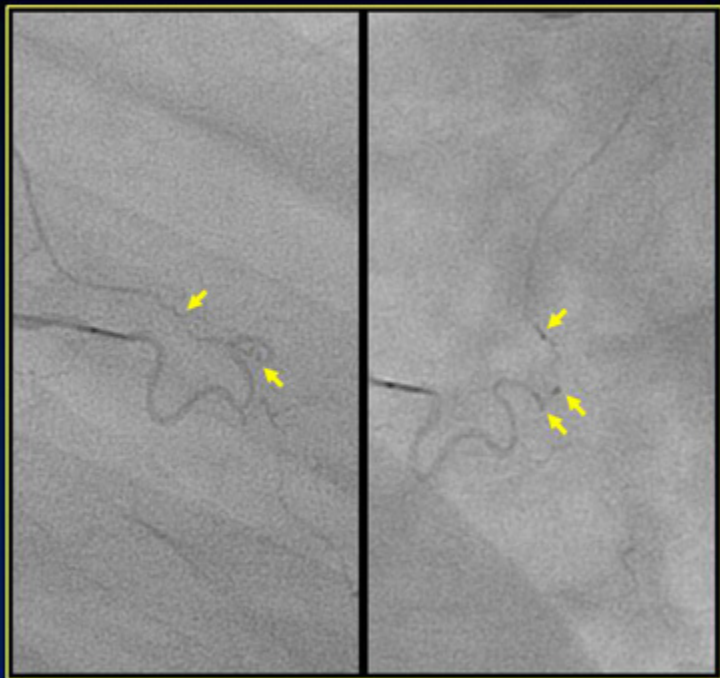
Tips and Tricks for Epicardial Channel Tracking

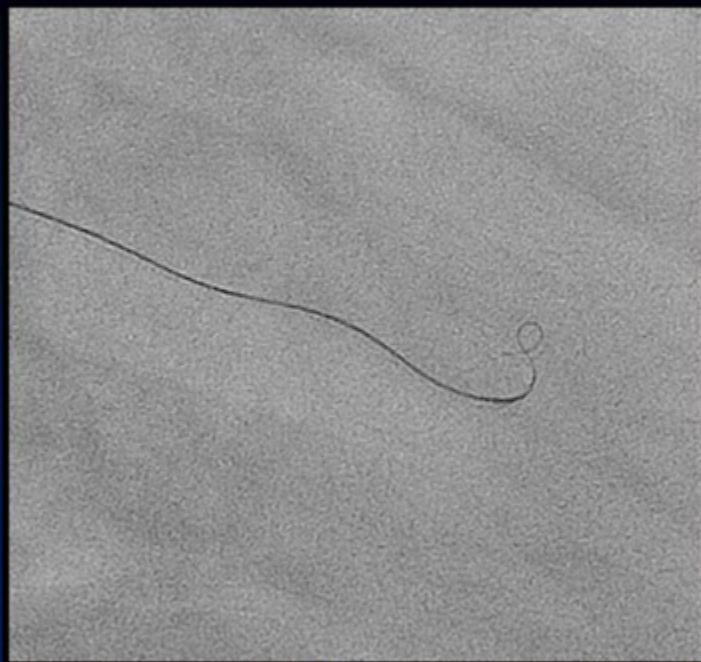
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- It's necessary to straighten each bend inside the channel for successful crossing.
- New wire, **SION**, supported by Corsair works very well in these settings.
- Repeated tip injection helps to keep in the parent vessel.
- When the channel is tiny or acute bended, **XT-R** is better.

LAD-CTO, RV Channel

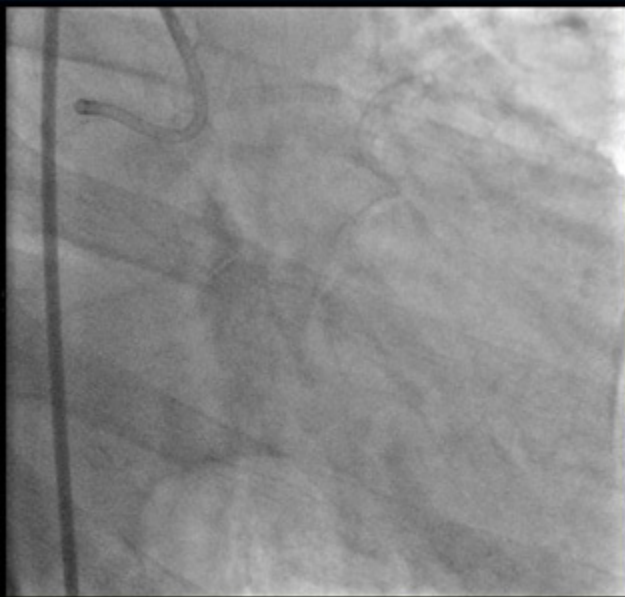


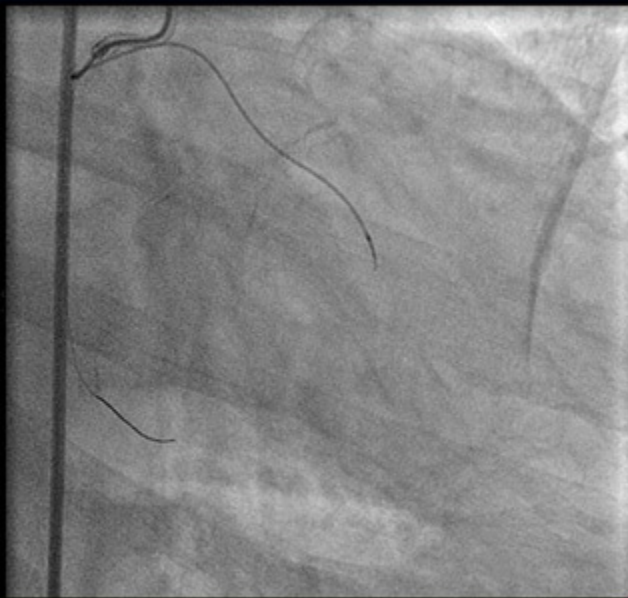




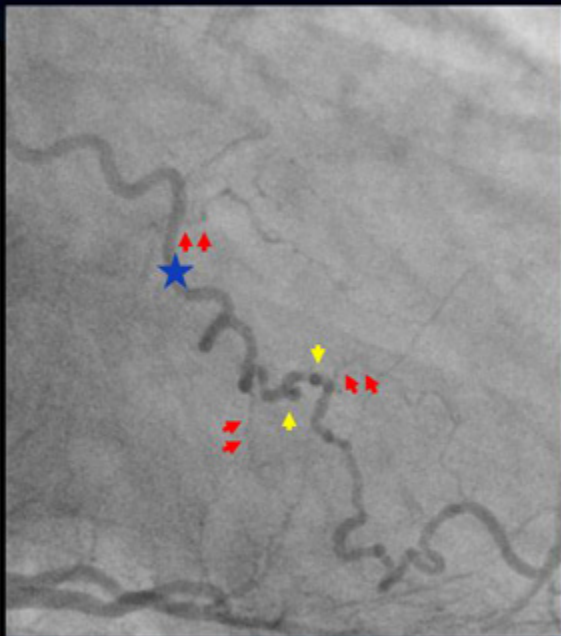


XT-R

**RV channel****↑ critical bends****↑ risk of perforation**

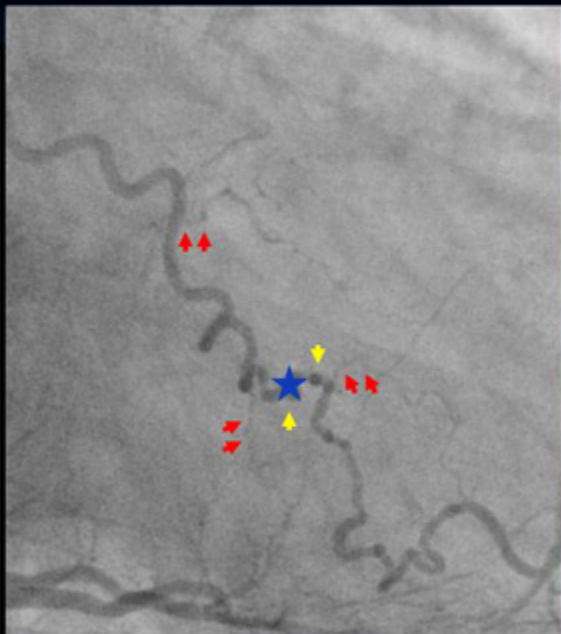
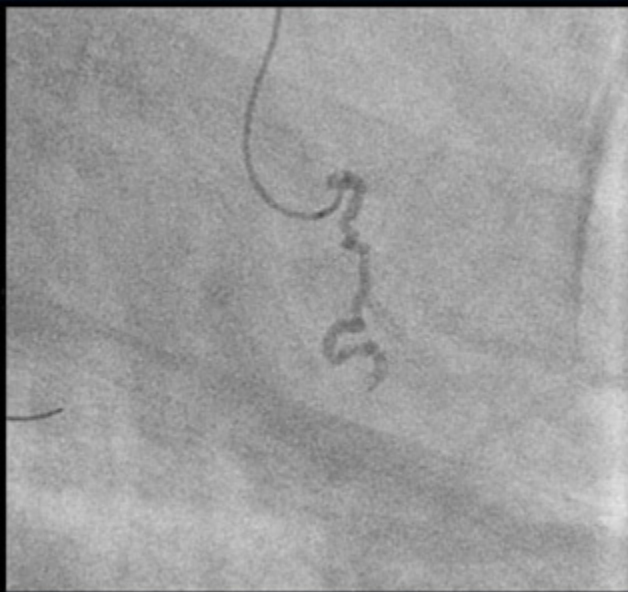


Tip injection



 **critical bends**

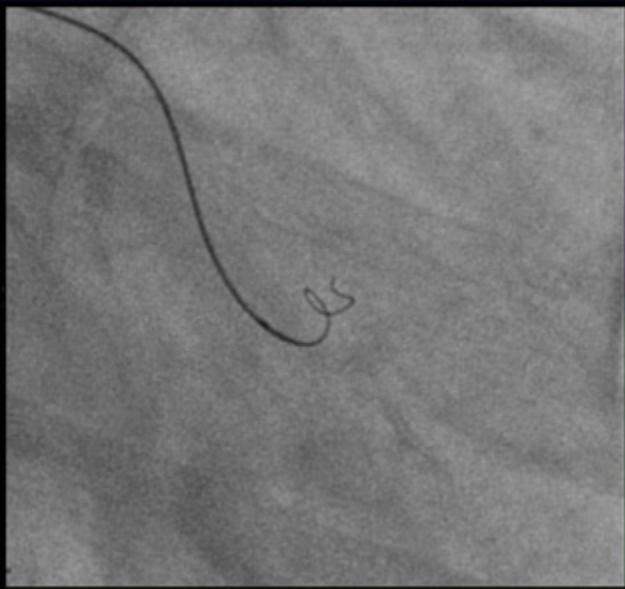
 **risk of perforation**

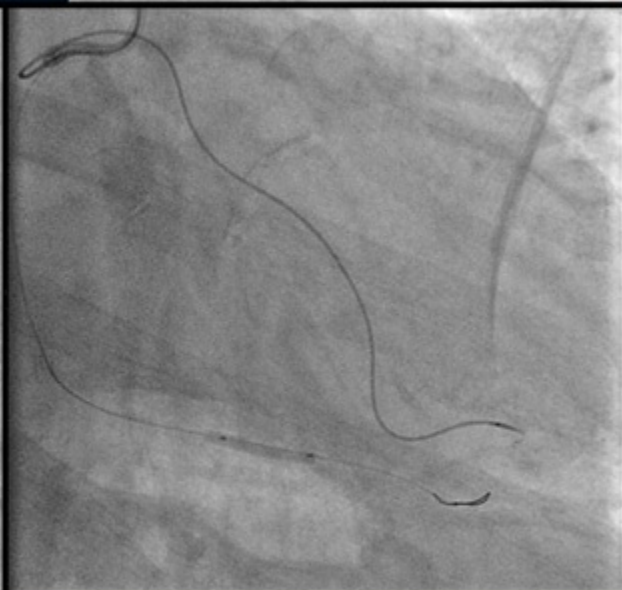
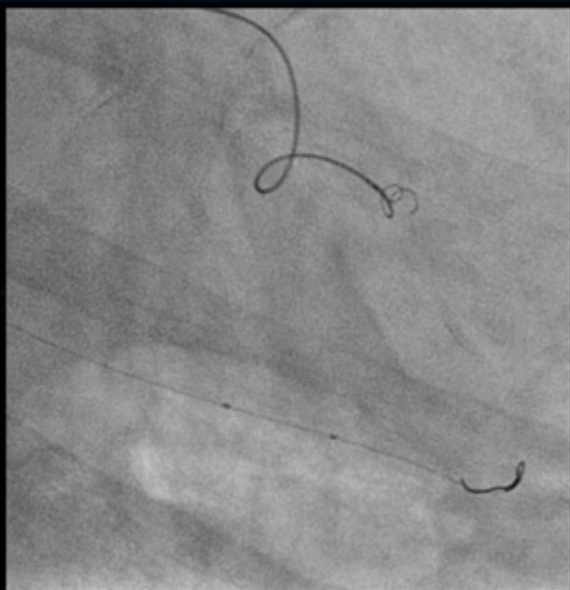


Repeated tip injection

↑ critical bends

↑ risk of perforation

**XTR****↑ critical bends****↑ risk of perforation**



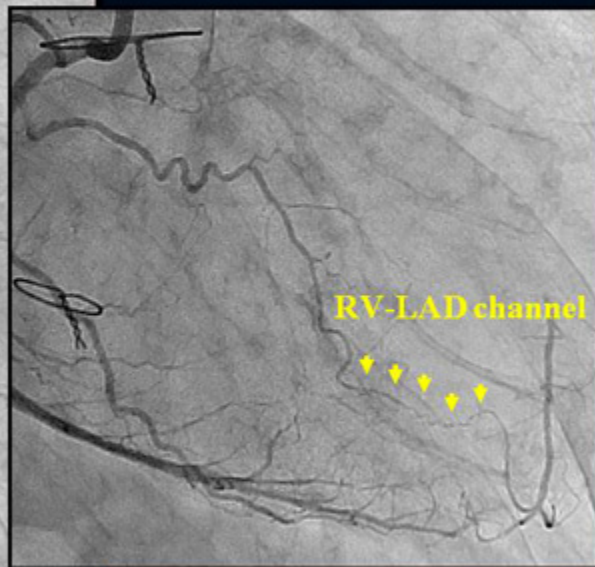
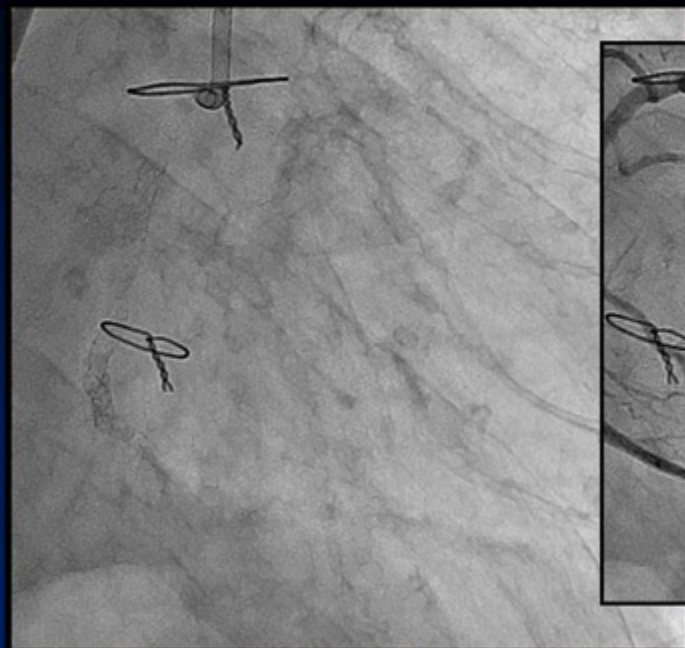
XTR under anchoring

↑ critical bends

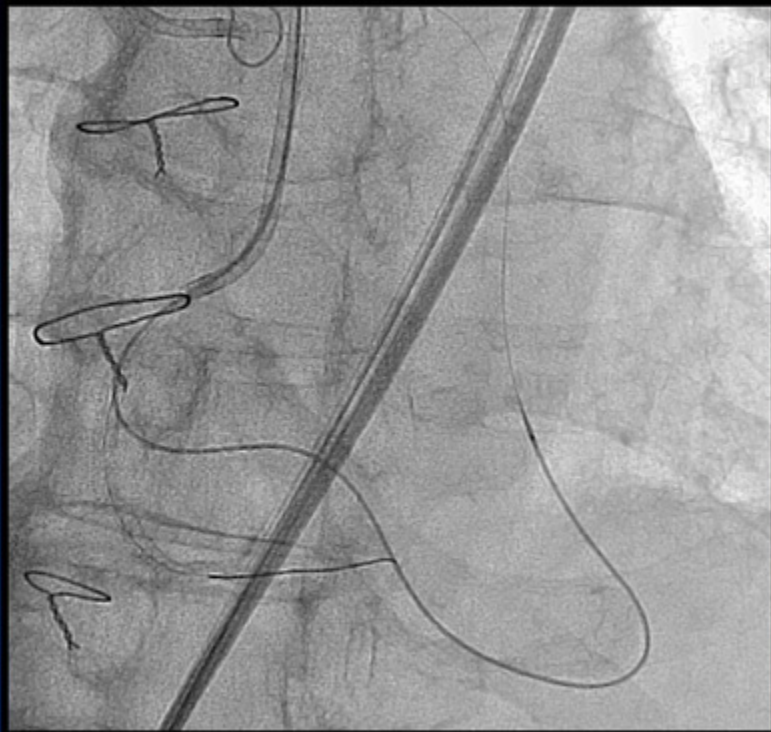
↑ risk of perforation

Tips and Tricks for Epicardial Channel Tracking

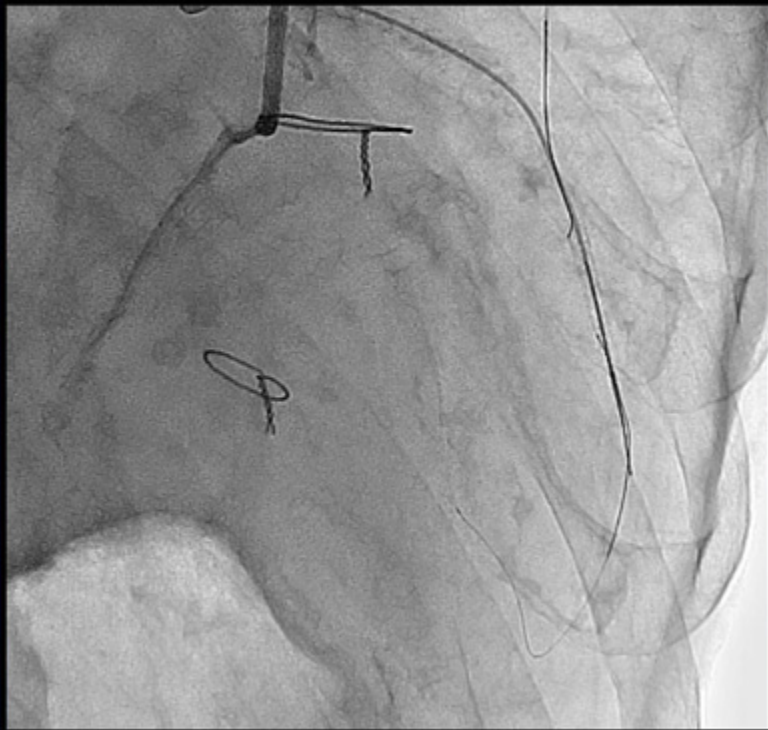
- Corkscrew-like, however vessel size is important!
- It's necessary to straighten each bend inside the channel for successful crossing.
- New wire, **SION**, supported by Corsair works very well in these settings.
- Repeated tip injection helps to keep in the parent vessel.
- When the channel is tiny or acute bended, **XT-R** is better.
- However, be cautious of channel rupture after Corsair removal.



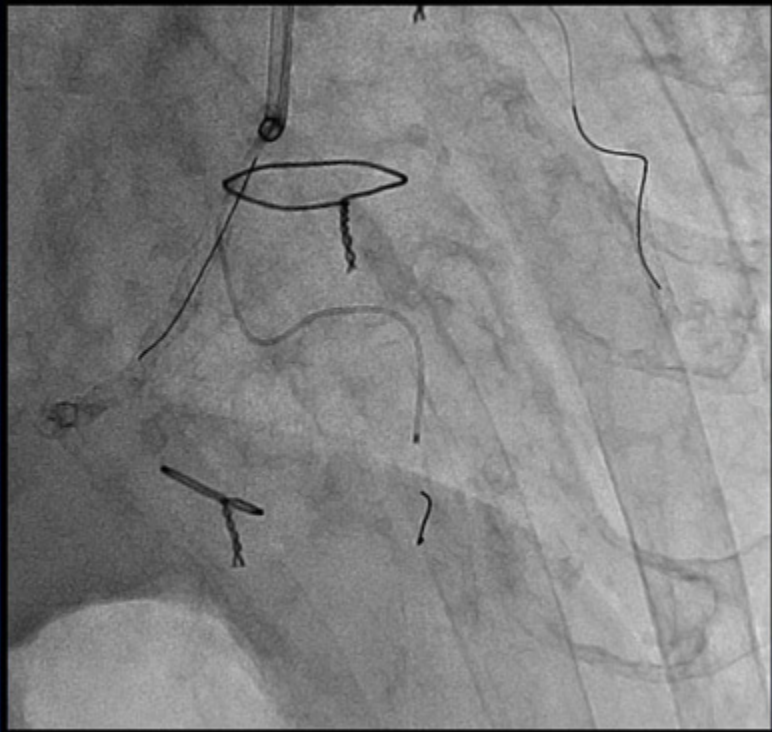
Collateral from RCA



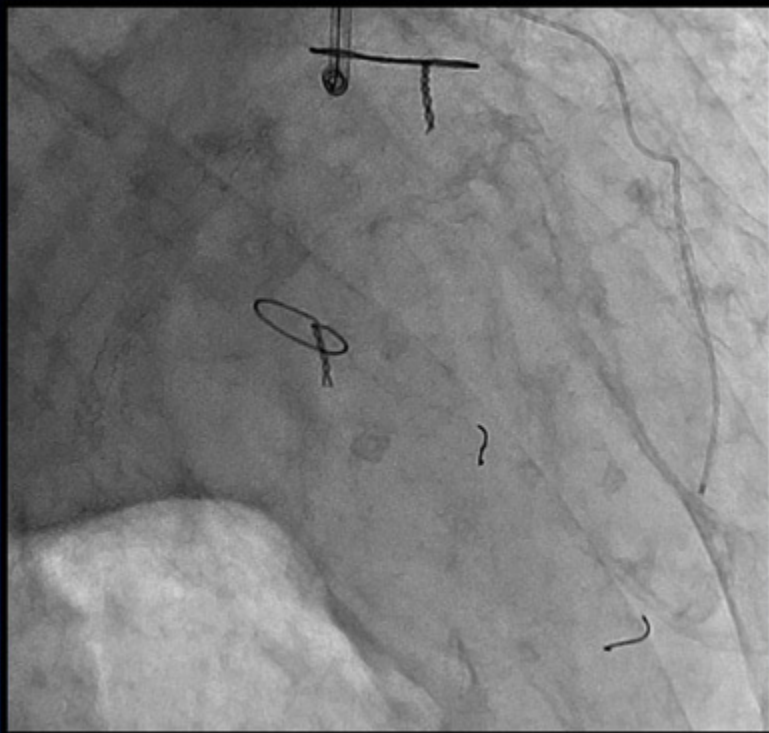
XT-R with Corsair



Channel rupture was revealed after removal of Corsair.



1st coil was placed in RV branch.



No bleeding from RCA. Then, 2nd coil was placed in apical branch.
CTO Live 2012



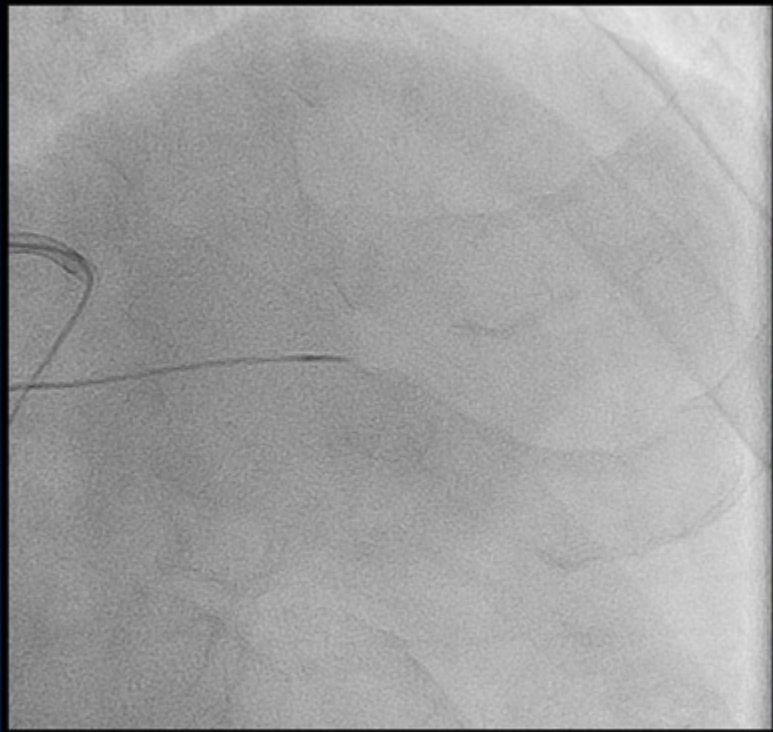
Final angiogram

XTR Disease

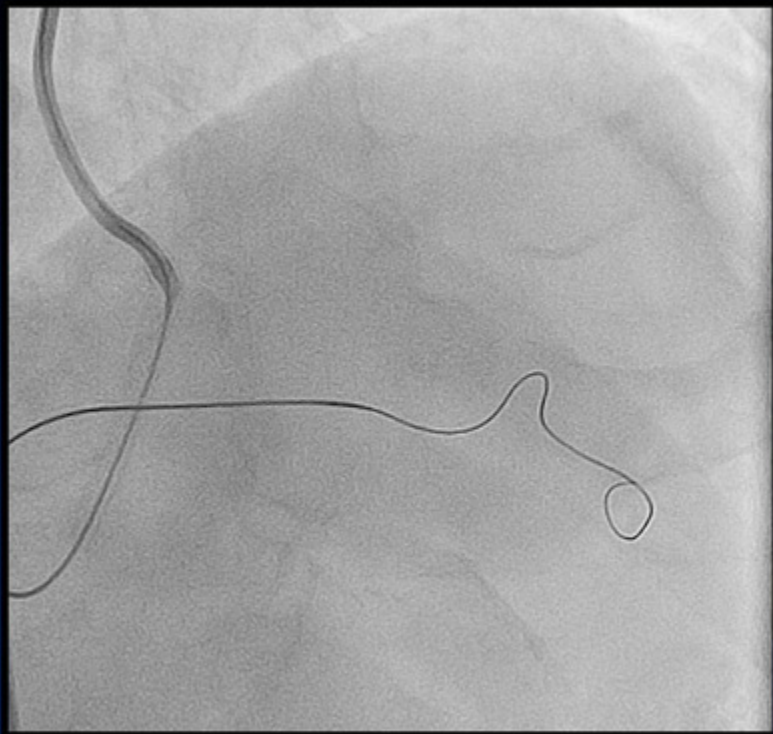
◆ **XTR enables us to cross a tiny tortuous channel.**

◆ **Corsair easily follows the crossed XTR.**

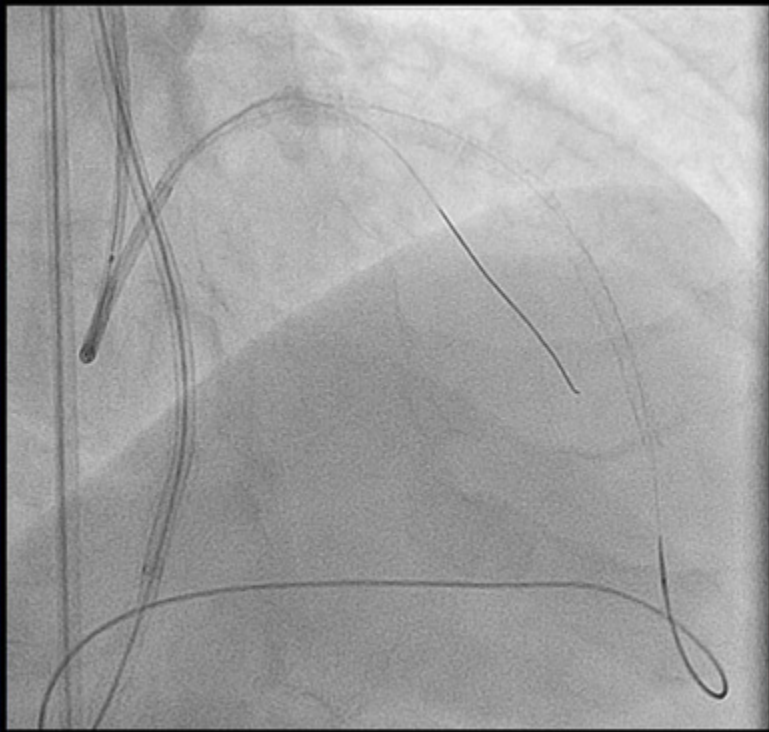
◆ **Channel rupture is revealed after Corsair removal.**



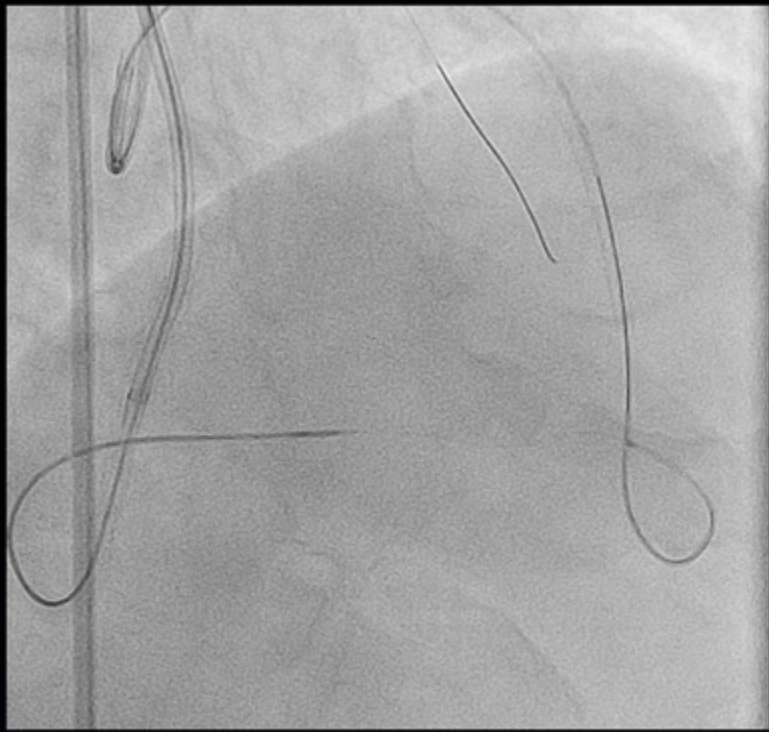
Tip injection (PD to LAD)



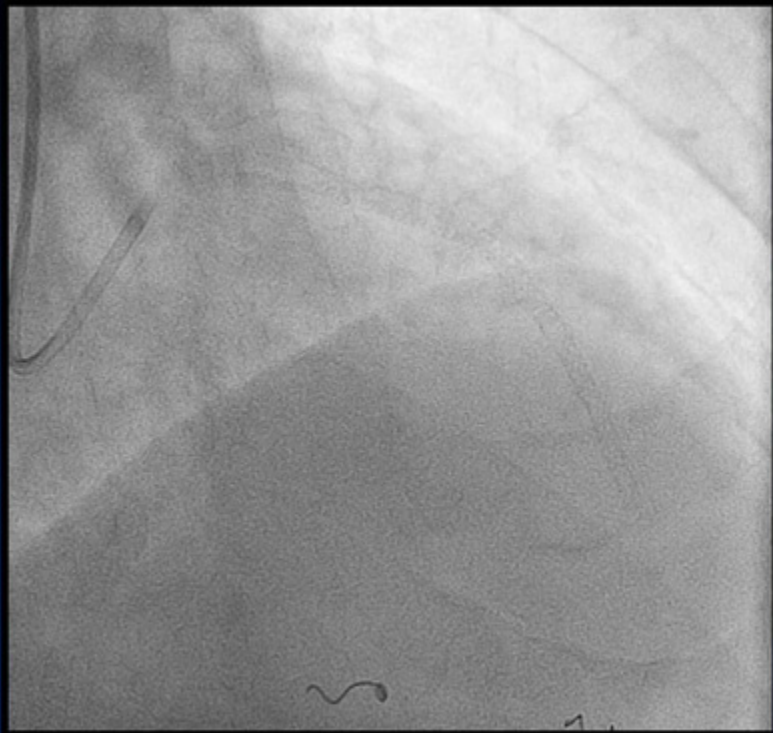
XTR crossed successfully.



Successful recanalization was achieved, however...



Channel rupture was revealed after removal of Corsair.



2 coils was placed bilaterally.

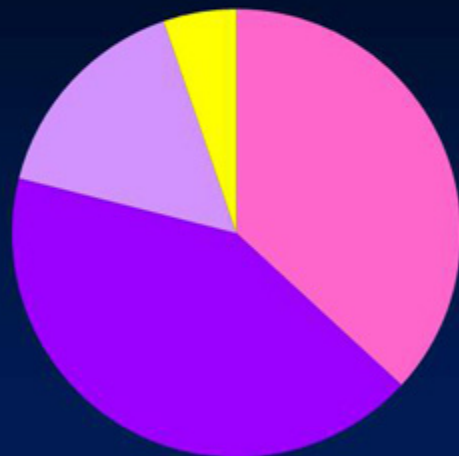
XTR Disease

◆ To manage this new disease,

- 1. Always prepare coils and MCs,**
- 2. Anticipate it,**
- 3. Check it before wire removal,**
- 4. Then put coils bilaterally when necessary.**

Change in Wire Selection for Epicardial Channel Tracking

2010



2011



■ FC ■ XT ■ SION ■ SIONblue ■ XT-R

Tips and Tricks for Epicardial Channel Tracking

- Corkscrew-like, however vessel size is important!
- It's necessary to straighten each bend inside the channel for successful crossing.
- New wire, **SION**, supported by Corsair works very well in these settings.
- Repeated tip injection helps to keep in the parent vessel.
- When the channel is tiny or acute bended, **XT-R** is better.
- However, be cautious of channel rupture after Corsair removal.
- When crescent ischemia happens, this channel should be abandoned.