

# **Usefulness of the Reverse Wire Technique in the Highly Angulated Side Branch of Left Main Bifurcation**

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# Case Information

**Name:** XX Wang **Sex:** male **Age:** 81-year-old

**Chief Complaint:** chest discomfort for 10 months

**Past History:** Hypertension (20 years), DM (20 years), pre-PCI (twice, 2013)

**Social History:** smoking (-), alcohol (social)

**Family History:** none

**ROS:** fever/chills/headache/dizziness (-/-/+/-)

dyspnea/palpitation/hemoptysis (-/-/-)

nausea/vomiting/edema (-/-/-)

# Abnormal Laboratory Results

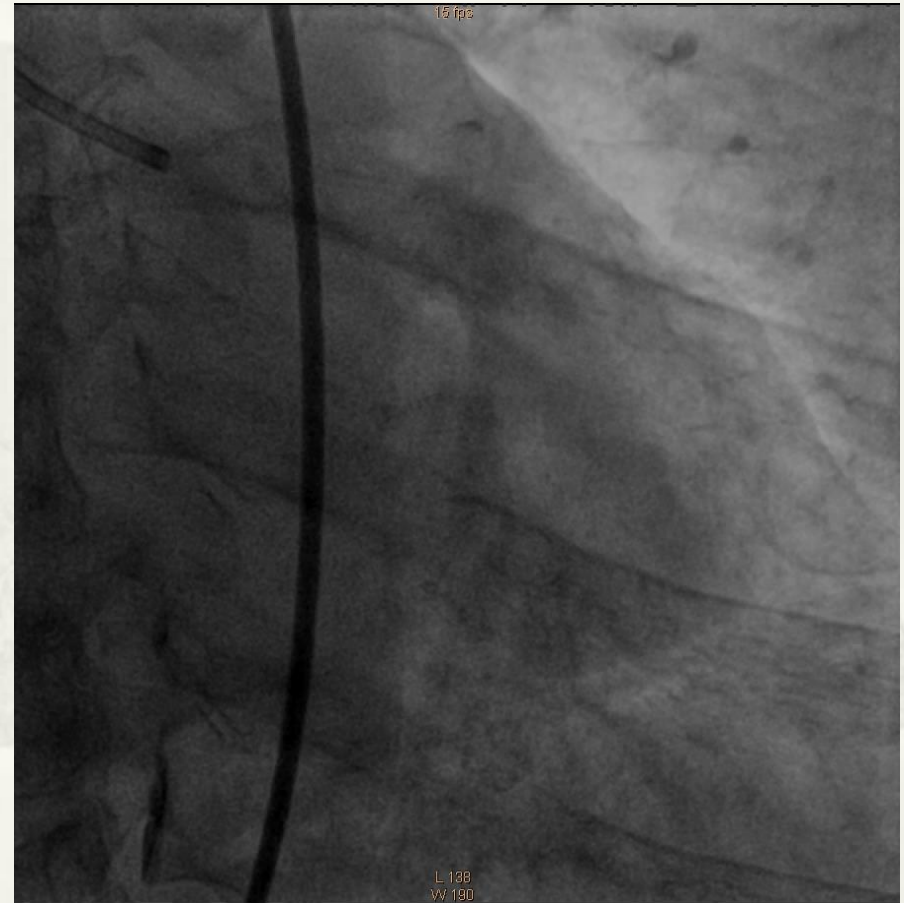
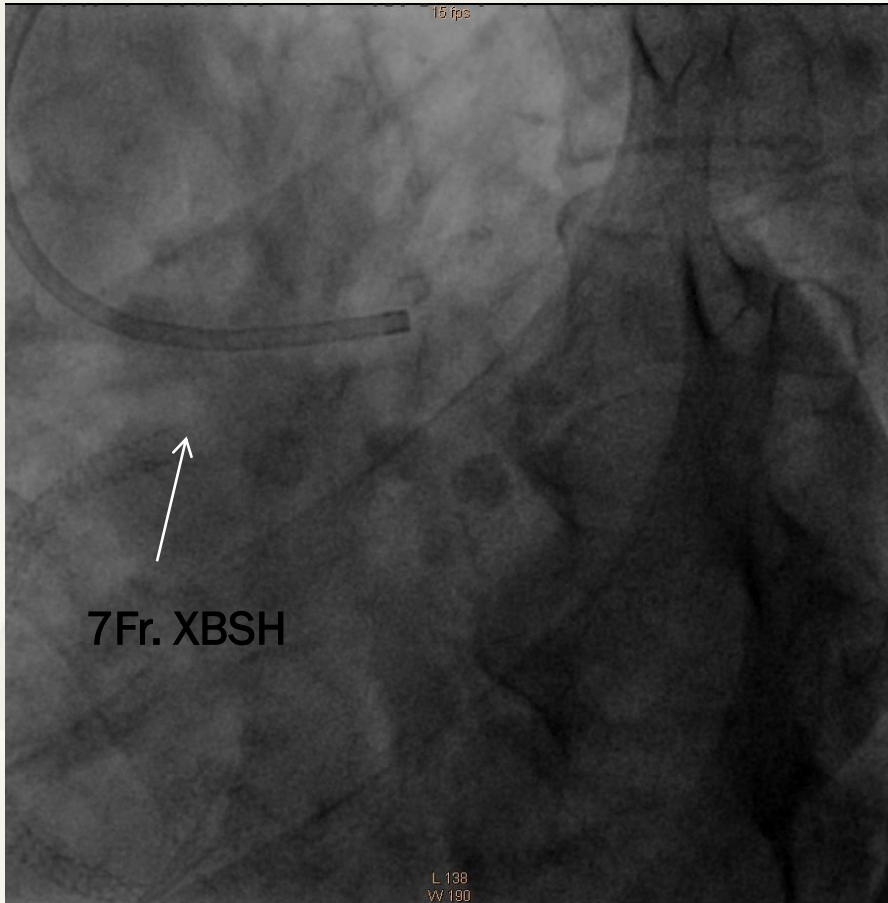
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**Glucose:** 8.16 mmol/L, **HbA1c:** 7.9%,  
**Urinary microalbumin (+).** **CREA:** 75.1  $\mu$ mol/L.

**ECG:** sinus rhythm and nonspecific ST-T changes.

**UCG:** LVEDD=42mm, LA=40mm, IVS=8mm,  
LVPW=8mm, LVEF=58%, E/A <1.0, MR, TR.

# CAG/PCI



pre-attempted GW: Rinato → XT-R → SION with Finecross MC  
2013-8-7

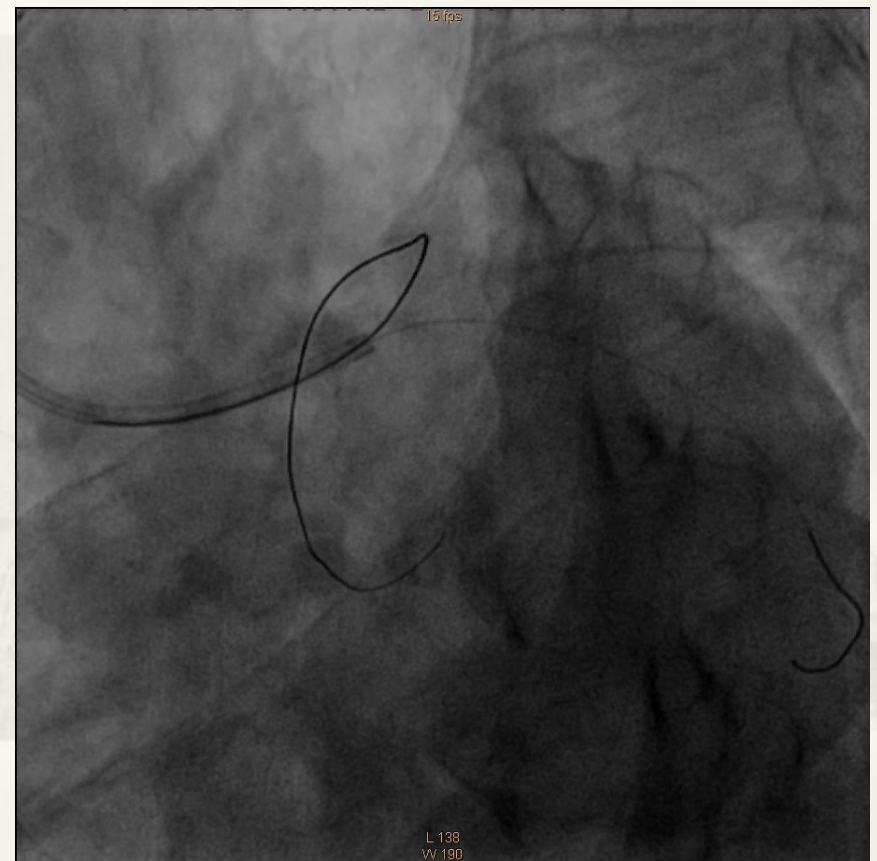
# Reverse Wire Technique



SION GW with the Crusade MC ( Operator: 木下順久 , Japan )

2013-8-7

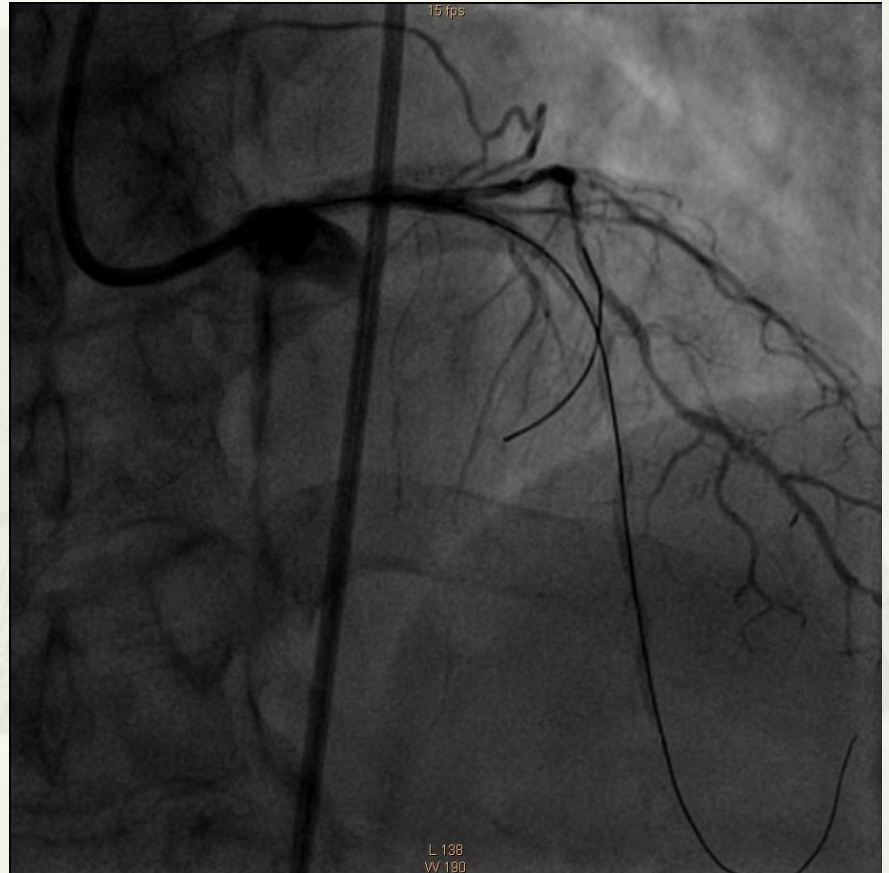
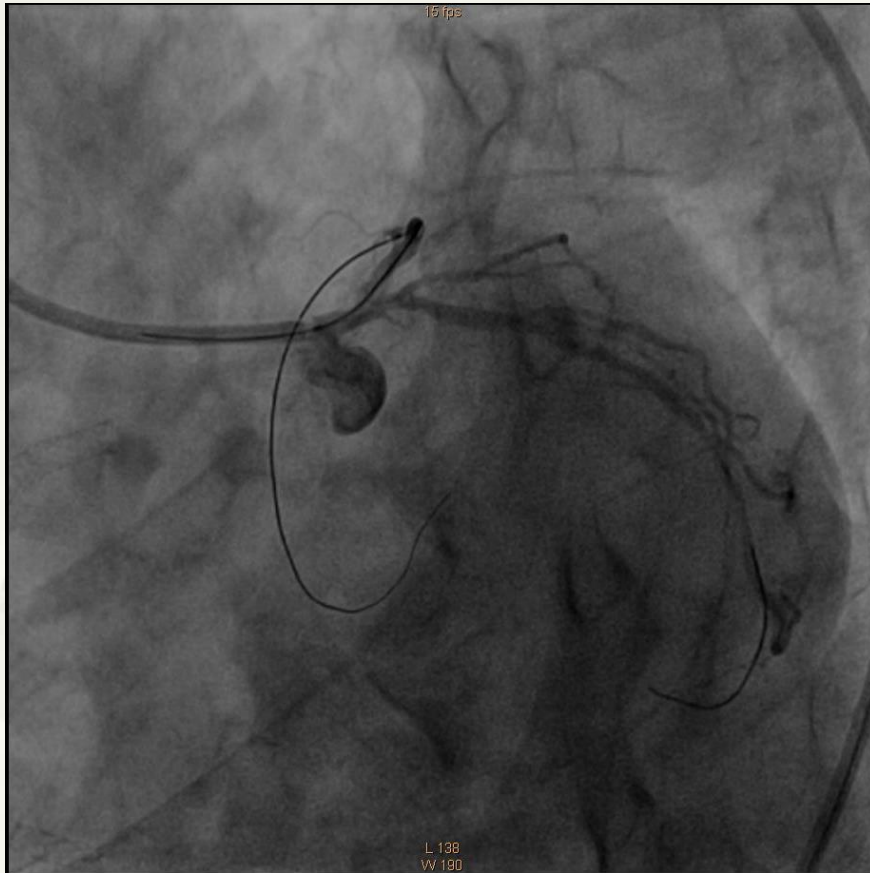
# PCI Procedure-Ballooning



Invatec balloon (1.0×10mm) @LMCA-to-LAD => TREK balloon (2.5×20mm)

**2013-8-7**

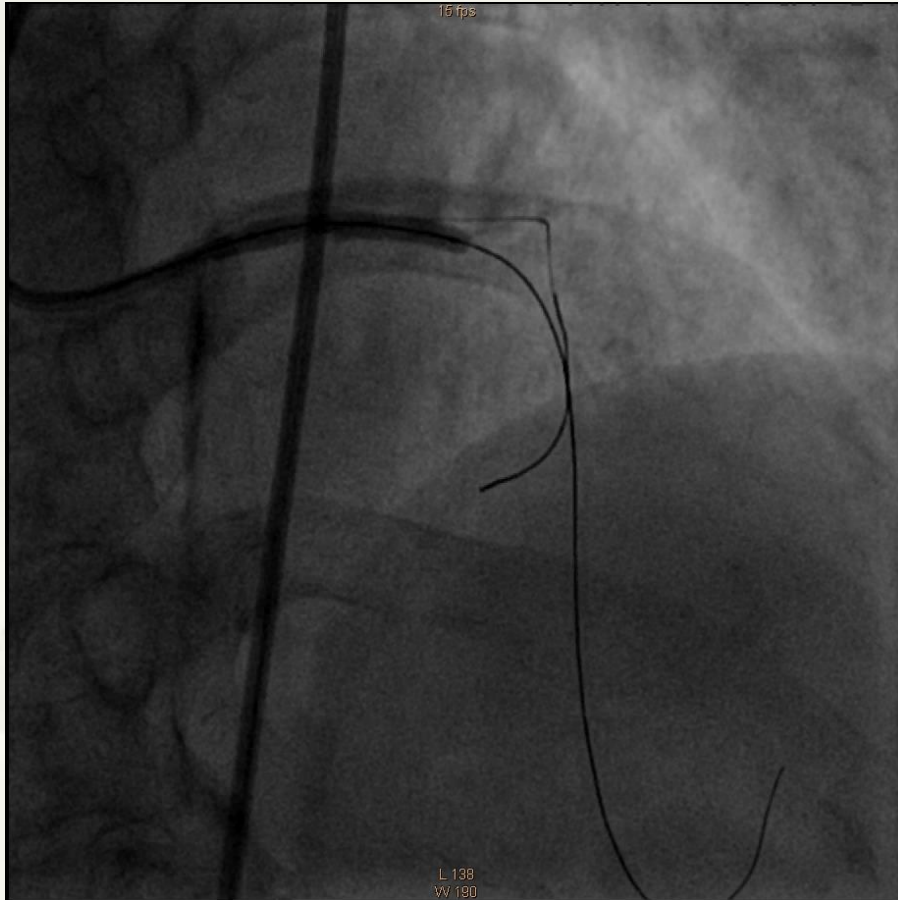
# PCI Procedure-Stenting



Xinece V stent (3.0×23mm) @LMCA-to-LAD

2013-8-7

# High Pressure Ballooning

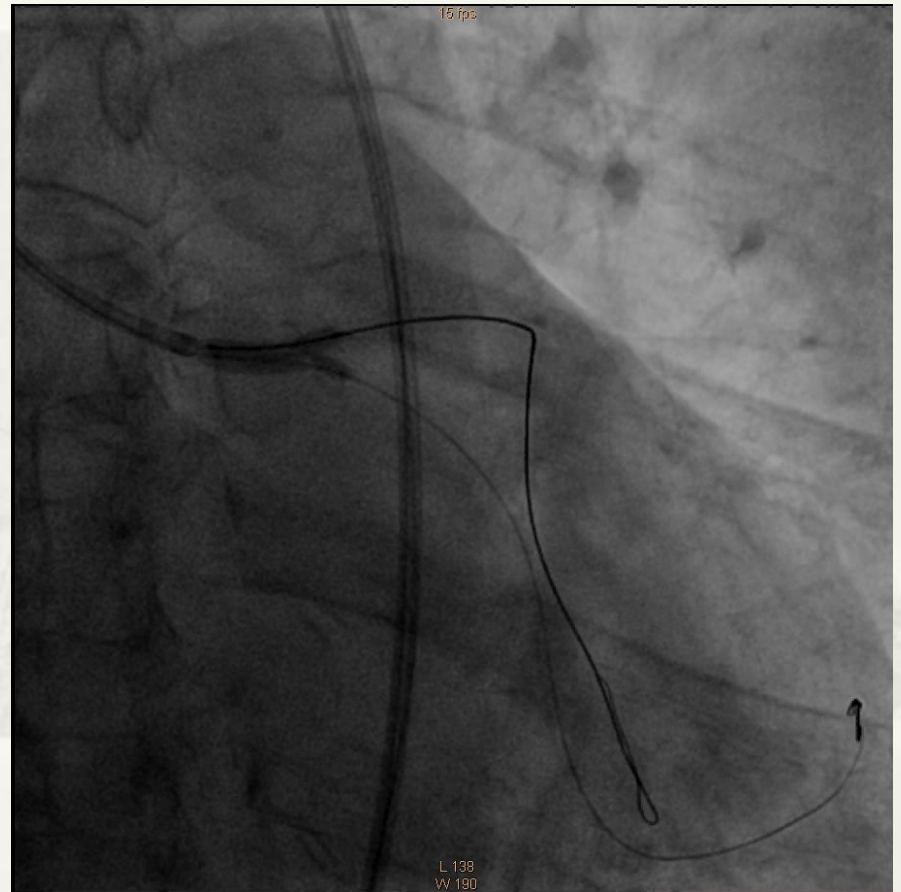
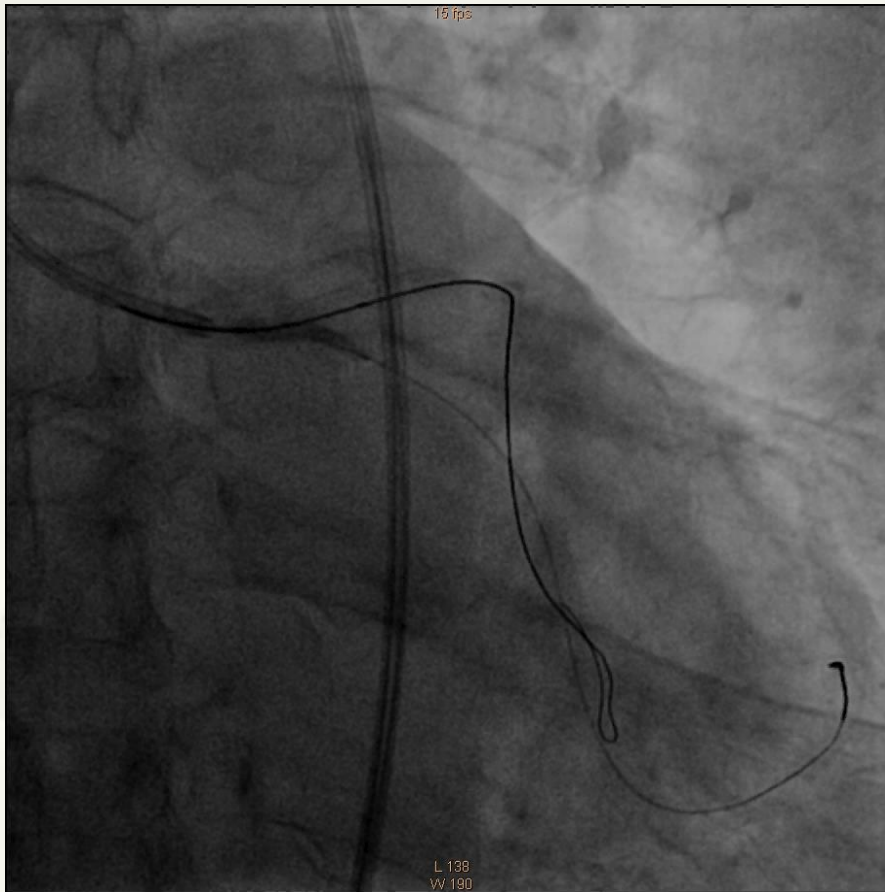


Xinece V stent (3.0×23mm) @LMCA-to-LAD

2013-8-7



# Kissing Balloon Inflation

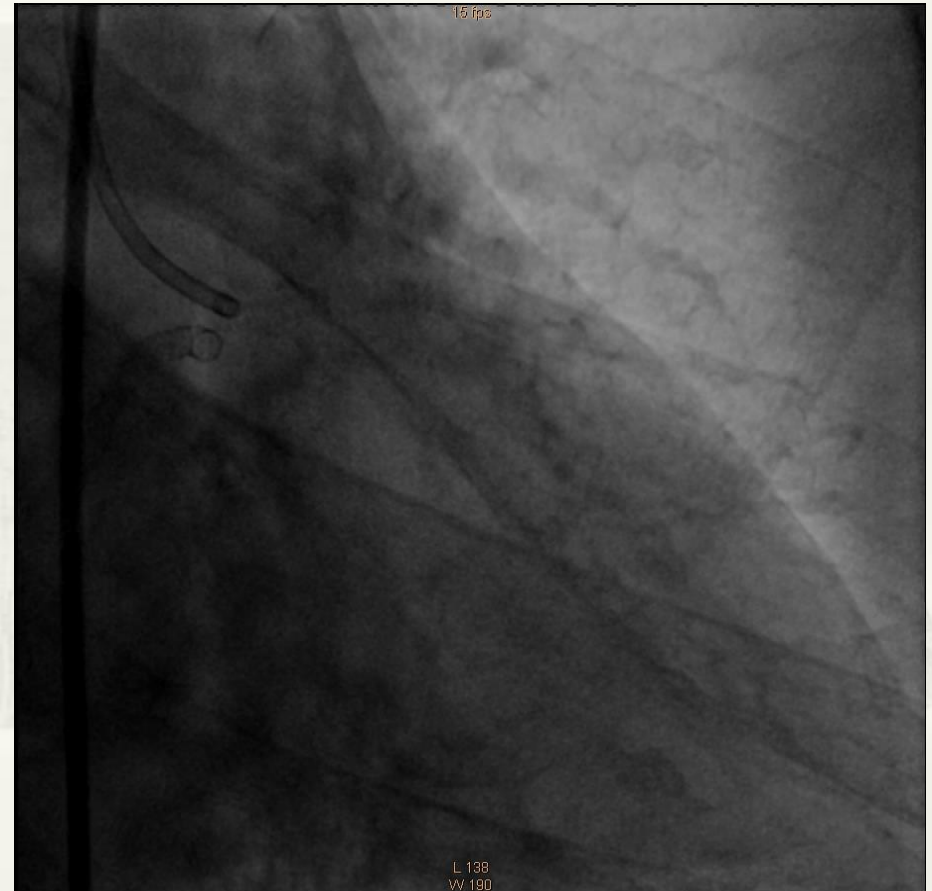


Two TREK balloons (2.5×20mm)

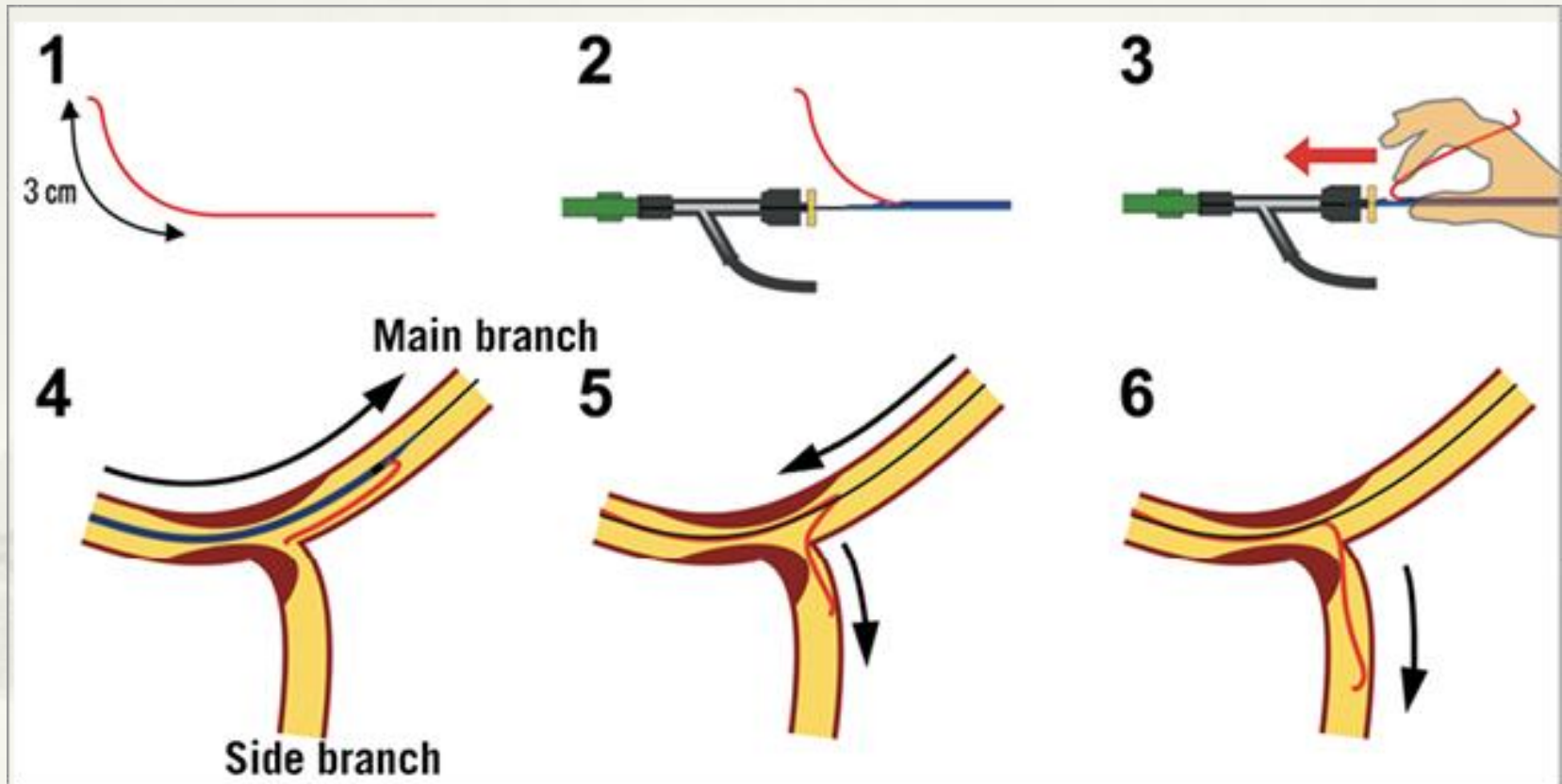
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# Final Results

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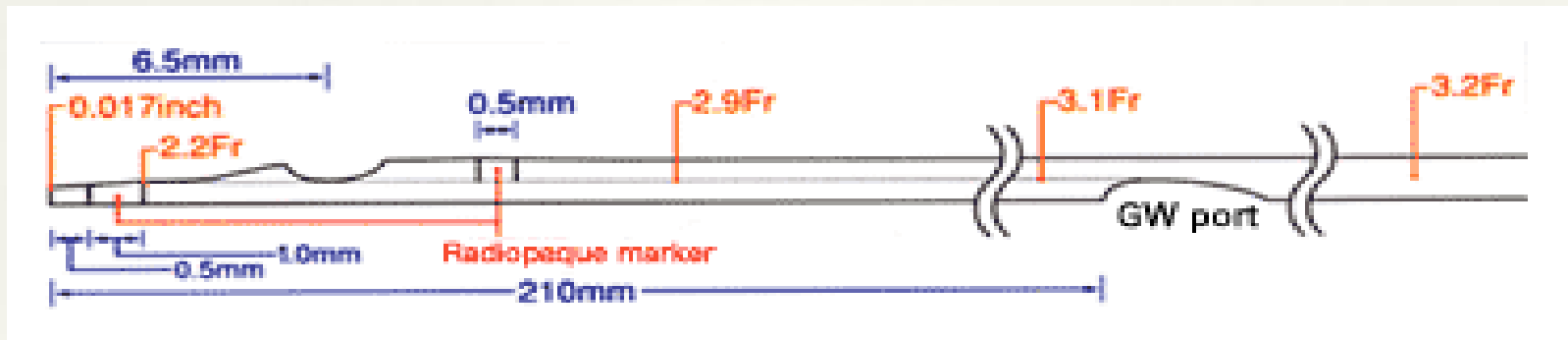
# Reverse Wire Technique



Watanabe S, Saito N, Bao B, Tokushinge A, Watanabe H, Yamamoto E, Kawase Y, Kimura T. Microcatheter-facilitated reverse wire technique for side branch wiring in bifurcated vessels: an in vitro evaluation. *EuroIntervention*. 2013 Nov;9(7):870-7.

Kawasaki T, Koga H, Serikawa T. New bifurcation guidewire technique: a reversed guidewire technique for extremely angulated bifurcation - a case report. *Catheter Cardiovasc Interv*. 2008;71:73-6.

# Crusade Microcatheter



# Tips of Reverse Wire Technique

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1. Appropriate Length: a round shape of 3 cm from the guidewire tip.
2. Suitable in the highly angulated bifurcation more than 150° angle.
3. GW requirement: a polymer-jacket hydrophilic guidewire (Fielder FC etc.).
4. Crusade dual port microcatheter.

Watanabe S, Saito N, Bao B, Tokushinge A, Watanabe H, Yamamoto E, Kawase Y, Kimura T. Microcatheter-facilitated reverse wire technique for side branch wiring in bifurcated vessels: an in vitro evaluation. *EuroIntervention*. 2013 Nov;9(7):870-7.



**Thank you!**  
**Welcome to Guilin! (桂林)**