# How to perform Culotte? (With Case Example)

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# How to perform Culotte?

## Factors Influencing 2-Stent Approaches

- Size of SB @ to MB
  - Important discrepancy (≥1.5 mm): Avoid Culotte
    - T-Stenting
    - Crush/DK-Crush
- Bifurcation Angle
  - >70°: T-stent, or T and Protrusion (TAP)
  - <70°: Culotte, Crush, DK Crush

# How to perform Culotte?

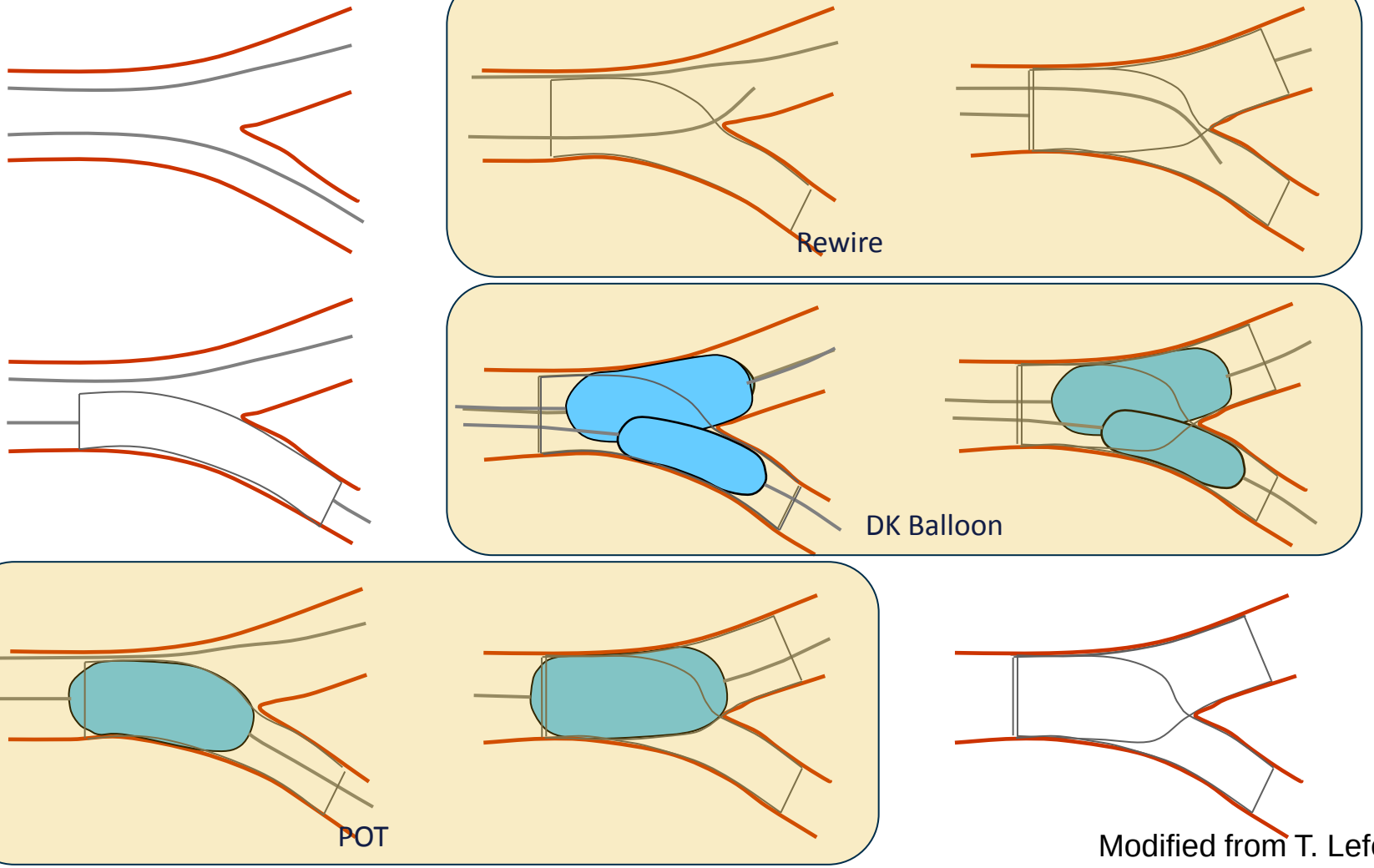
## Culotte Technique: Step-by-Step

- Wiring of both MV and SB.
- Predilatation of MV and/or SB
- Stenting of the MV or SB (IF MV or SB has a risk of

**Typically, the first stent should be placed in the branch with the most angulated entry, whether the MB or SB**

- Dilatation one of branch (MV or SB) through stent.
- Stenting in MV or SB through stent strut.
- Rewiring MV or SB through the second stent.
- Final kissing balloon inflation.

# How to perform Culotte?

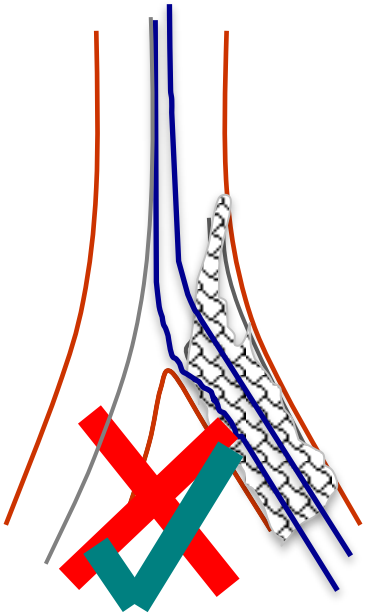



Modified from T. Lefevre

# How to perform Culotte?

## Position of rewiring

DK-Crush



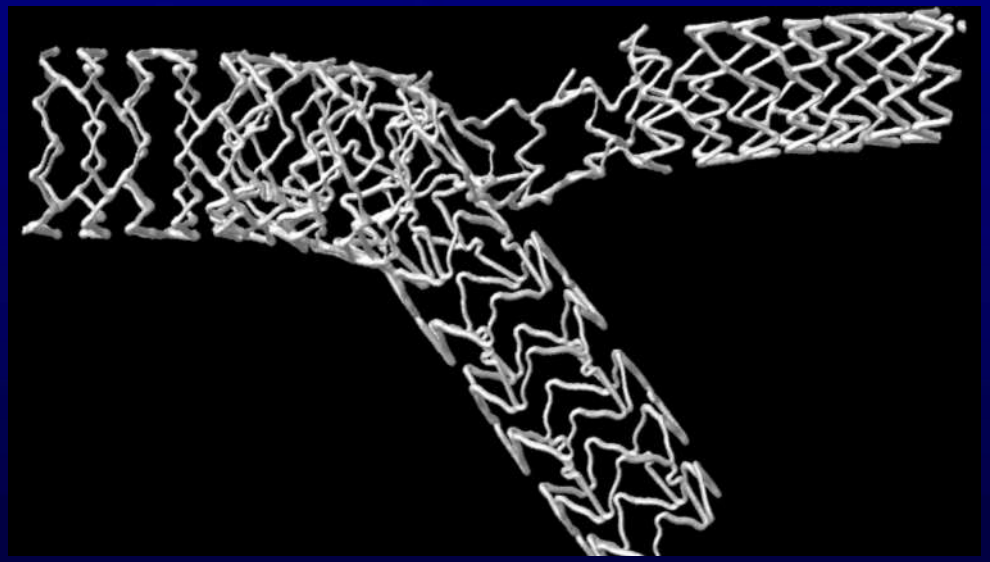
Rewire Concentrically

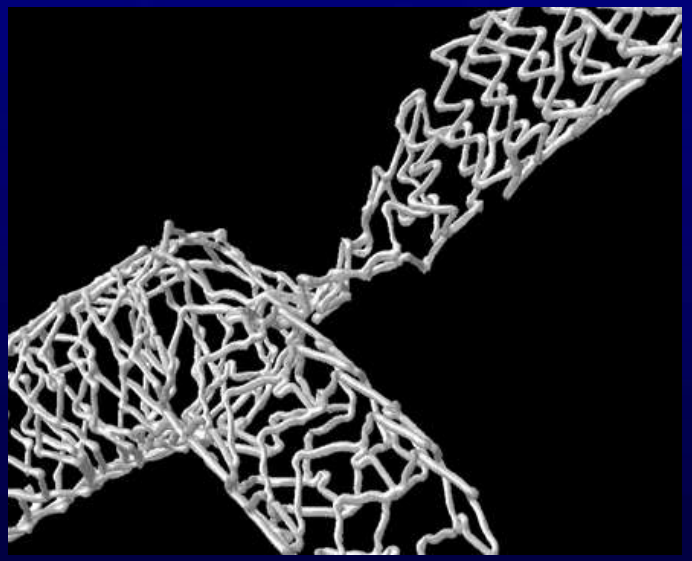
Modified from T. Lefevre

# How to perform Culotte?

- A wire followed by a balloon passed through the side of the MB stent and re-entered

- Distortion with balloon inflation

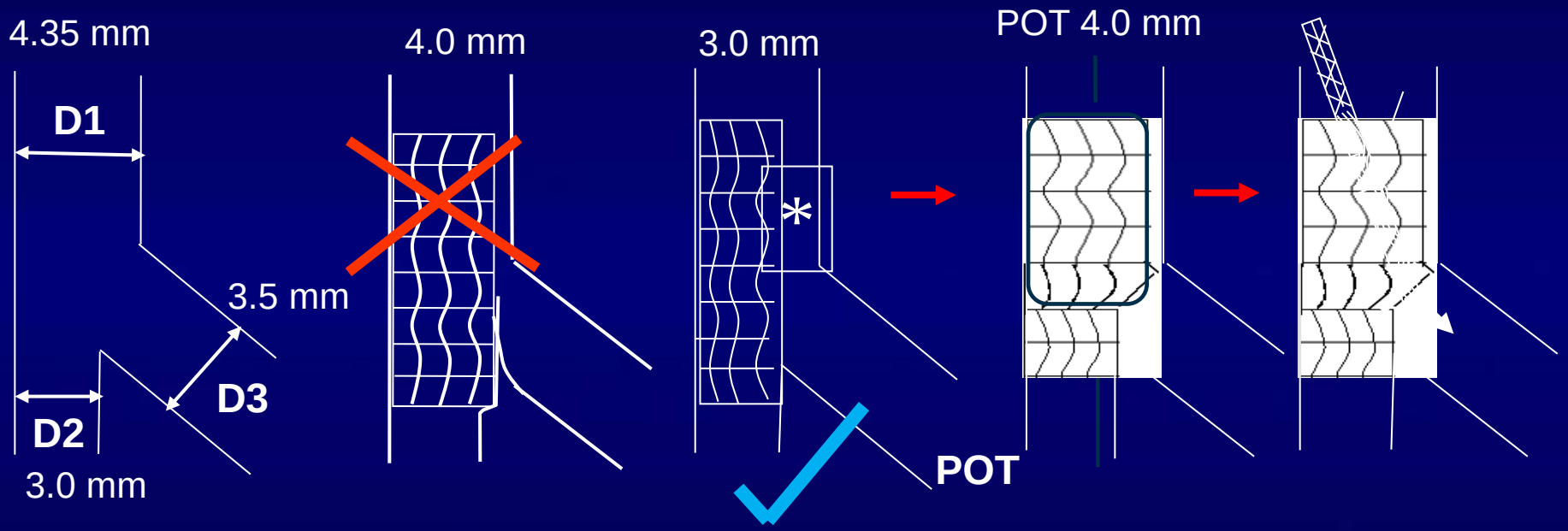




Courtesy of J. Ormiston

# How to perform Culotte?

## Proximal Optimisation Technique (POT)




Murray's law: $D_{mother} = 0.67 * (D_{daughter\ 1} + D_{daughter\ 2})$

- The primary stent should be sized according to the distal vessel diameter (D2)
- Postdilatation (POT) is required to optimise the proximal MV stent diameter

Consensus from 5th EBC meeting EuroIntervention 2010;6(1):34-8

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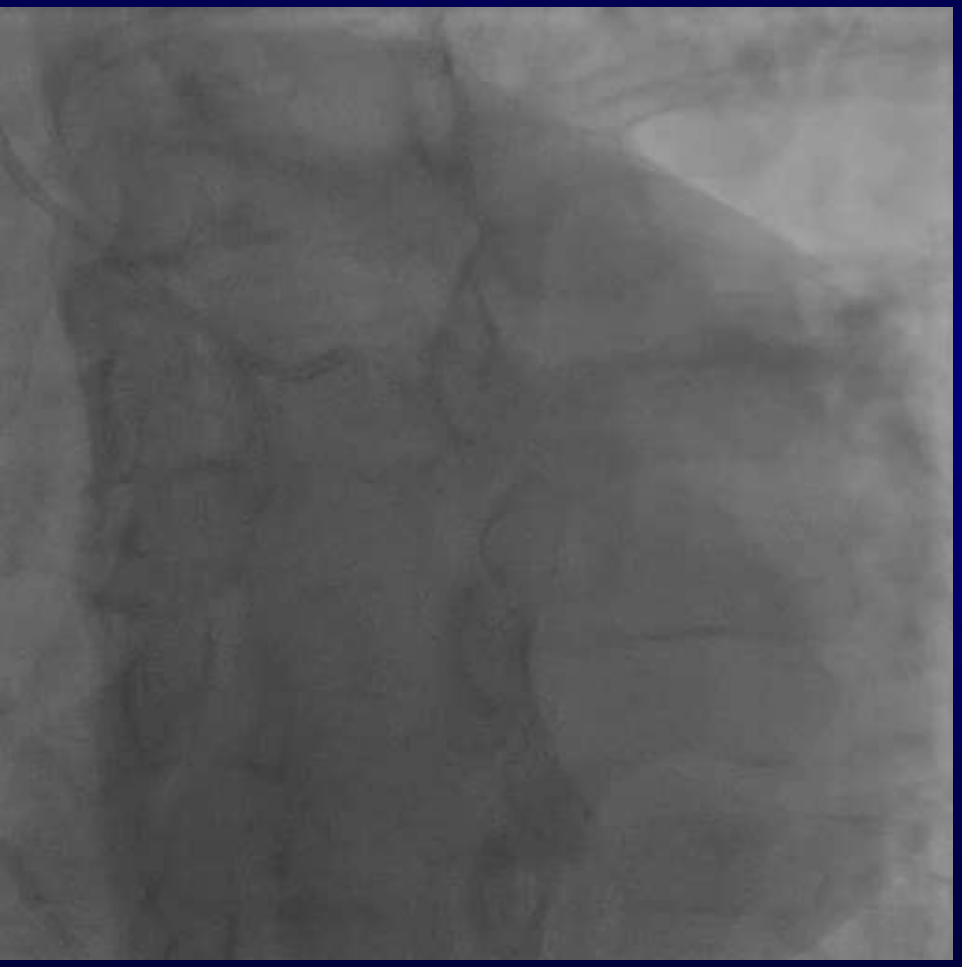
Male, 69 yrs

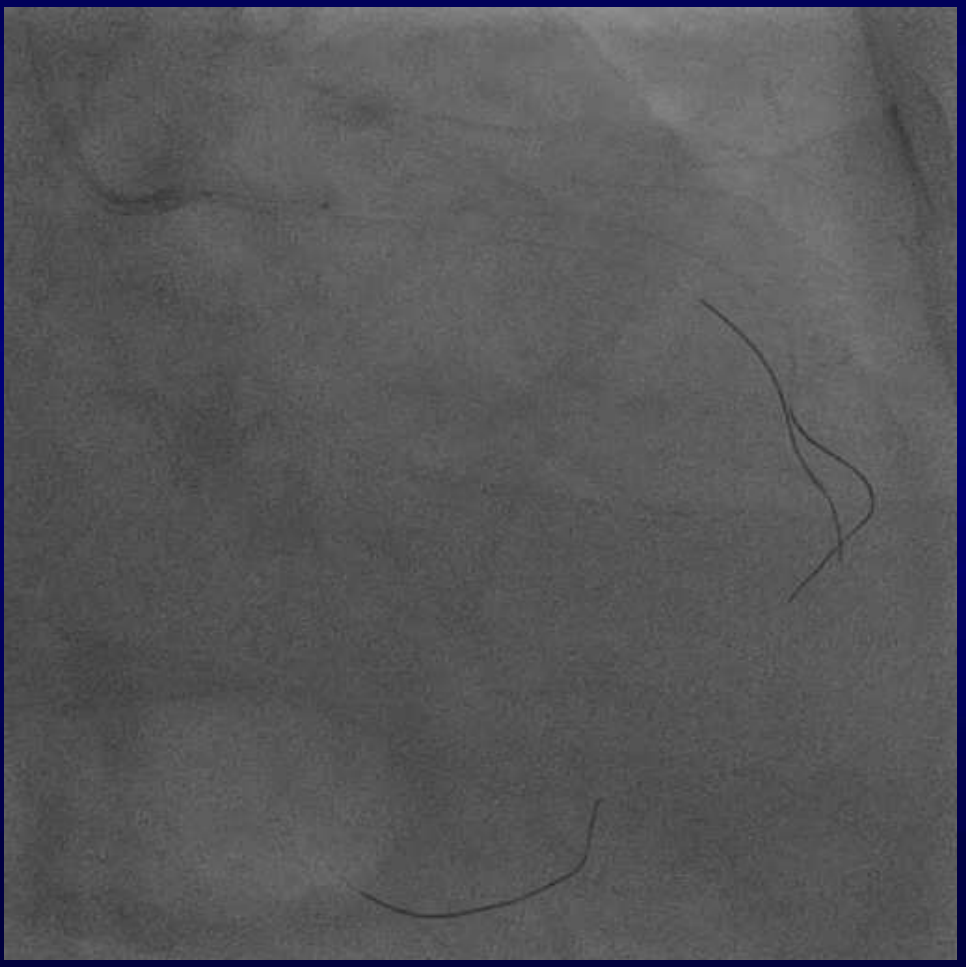


# How to perform Culotte?

6F EBU 3.5 Sion, Sion Blue, Runthrough

# How to perform Culotte?

2.5mm Balloon



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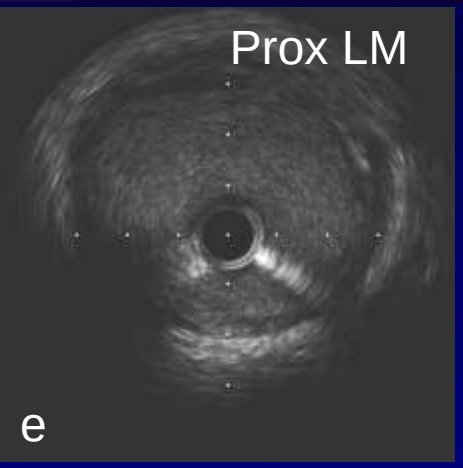


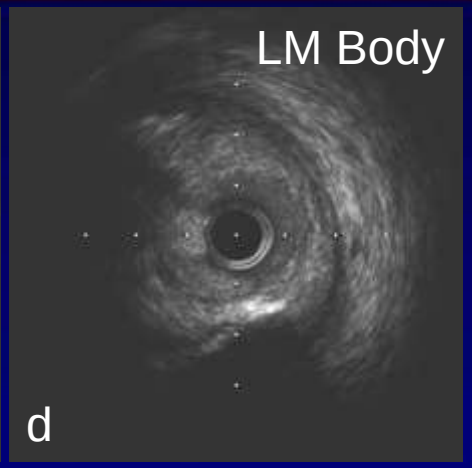


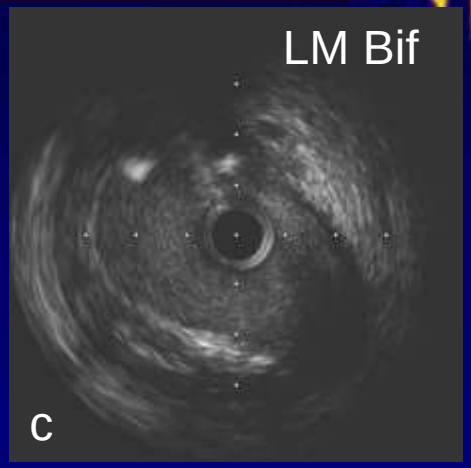


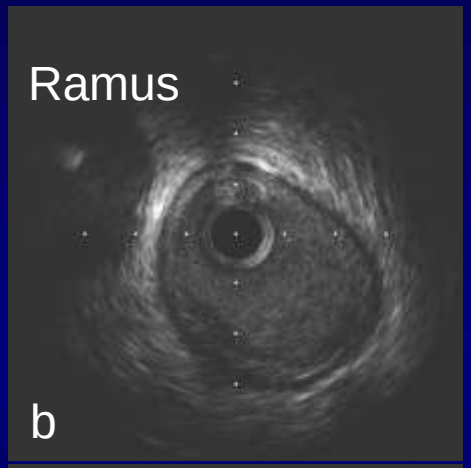


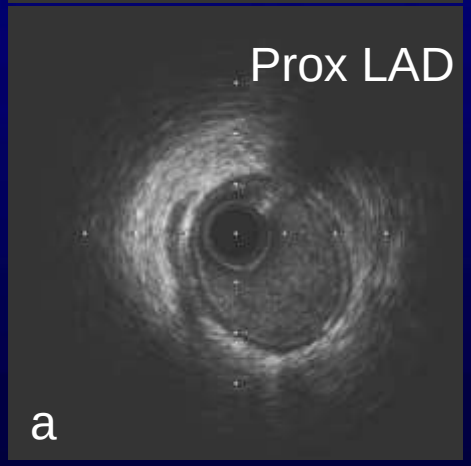


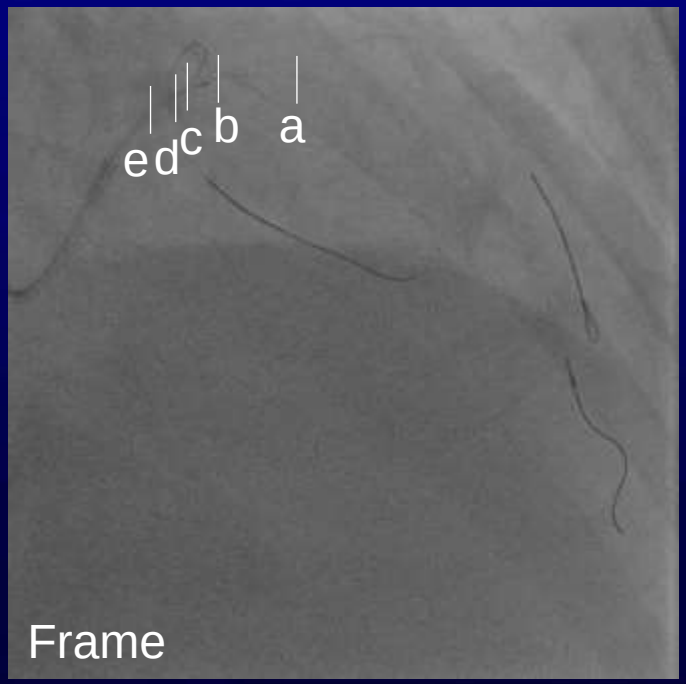

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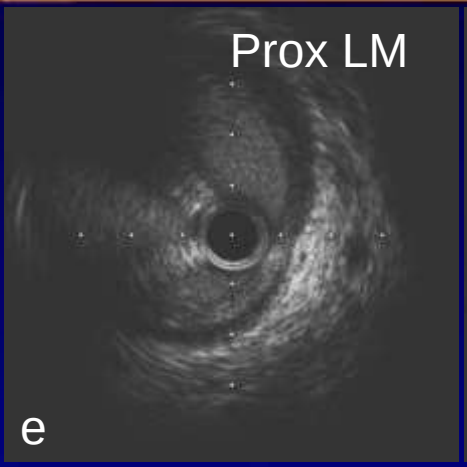


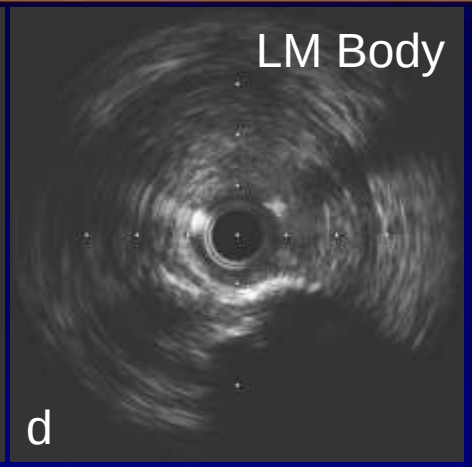


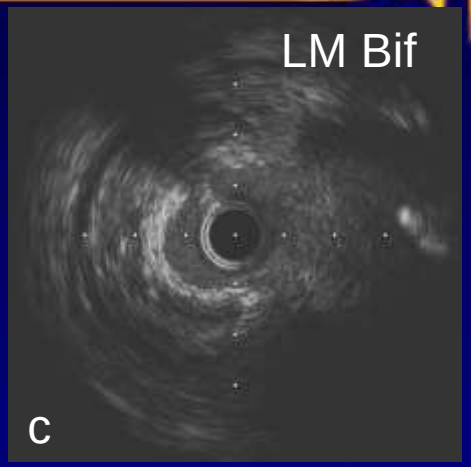


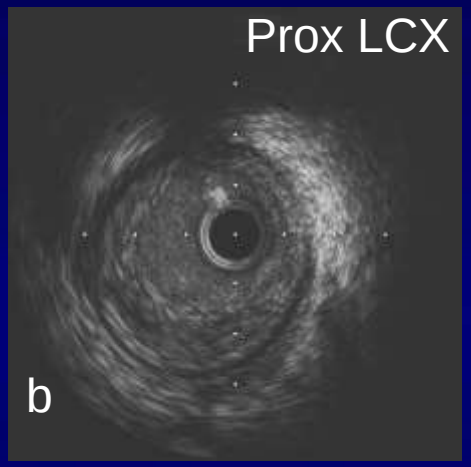


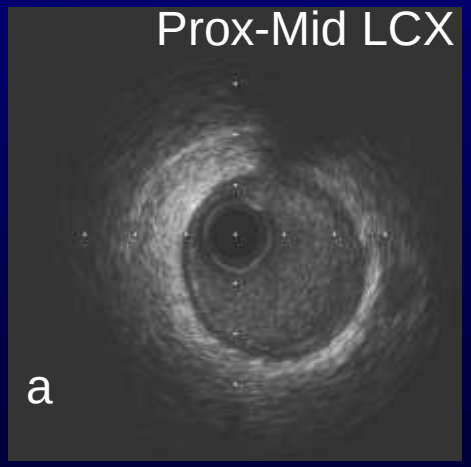


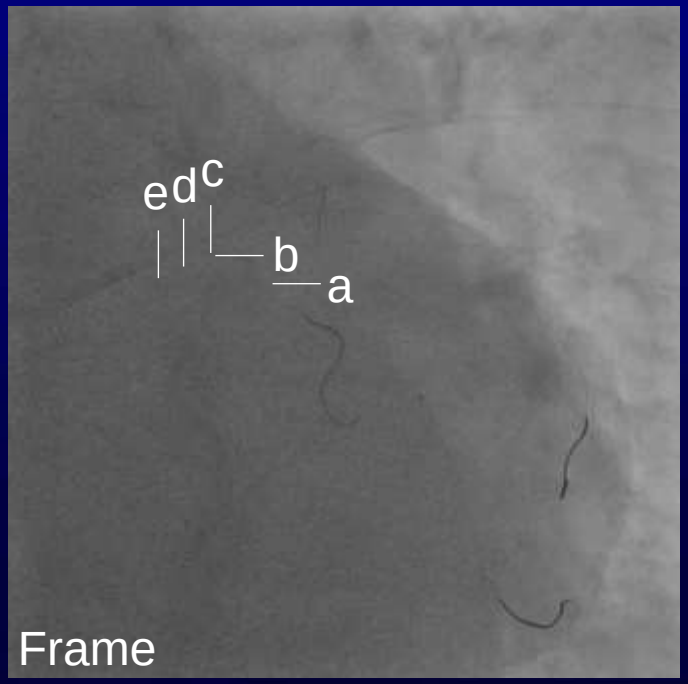


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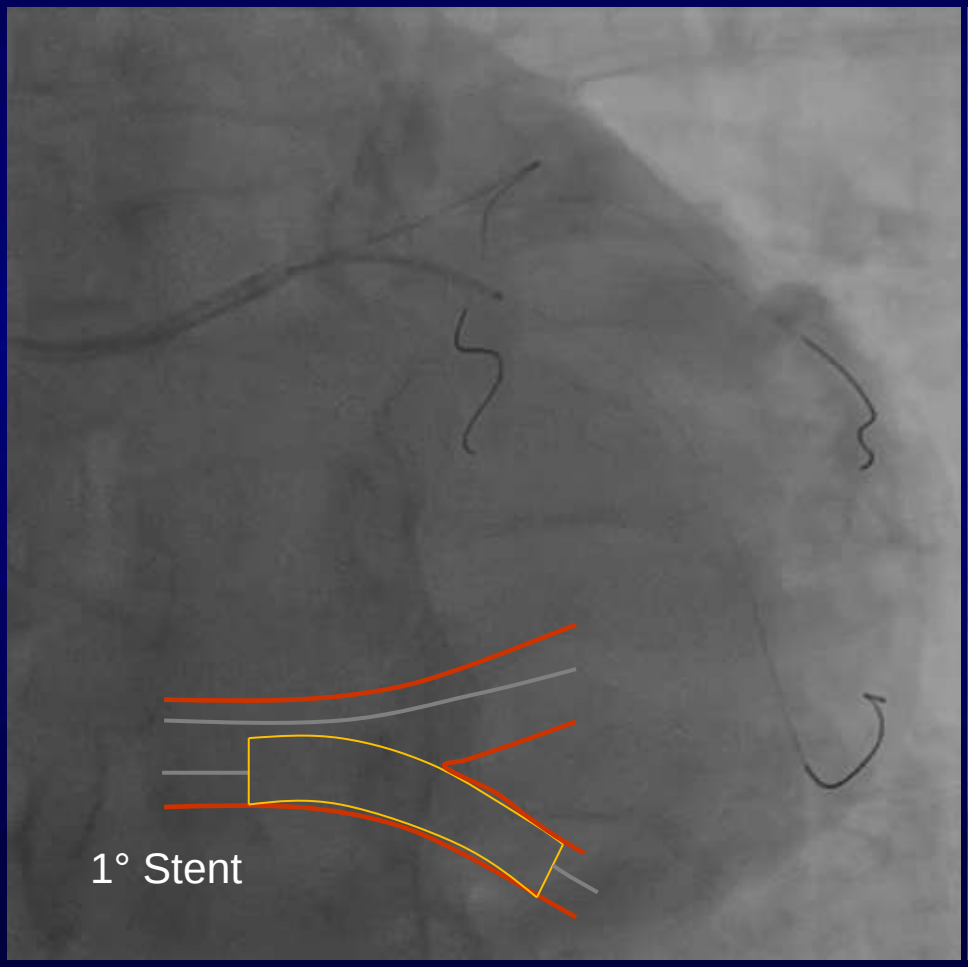
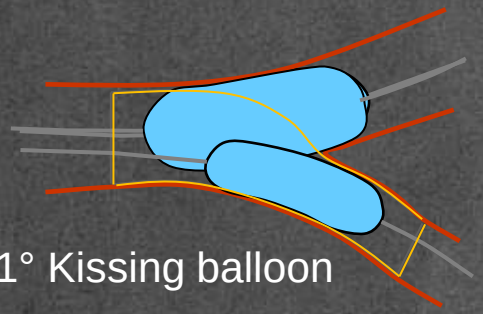
# How to perform Culotte?

3.5 mm SES



# How to perform Culotte?

1. Rewiring and keeping jailed wire for facilitating balloon delivery through the strut
2. High pressure dilatation stent strut



1° Kissing balloon

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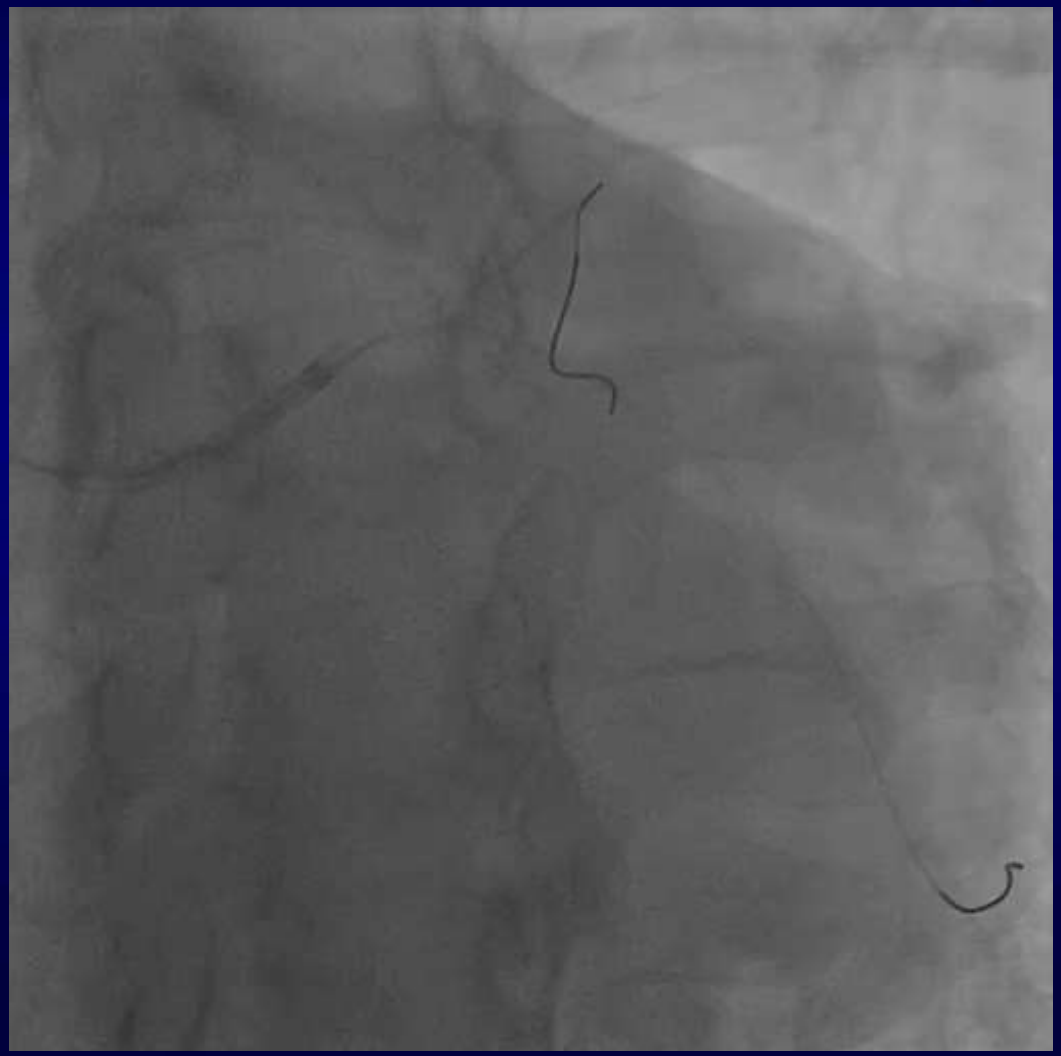

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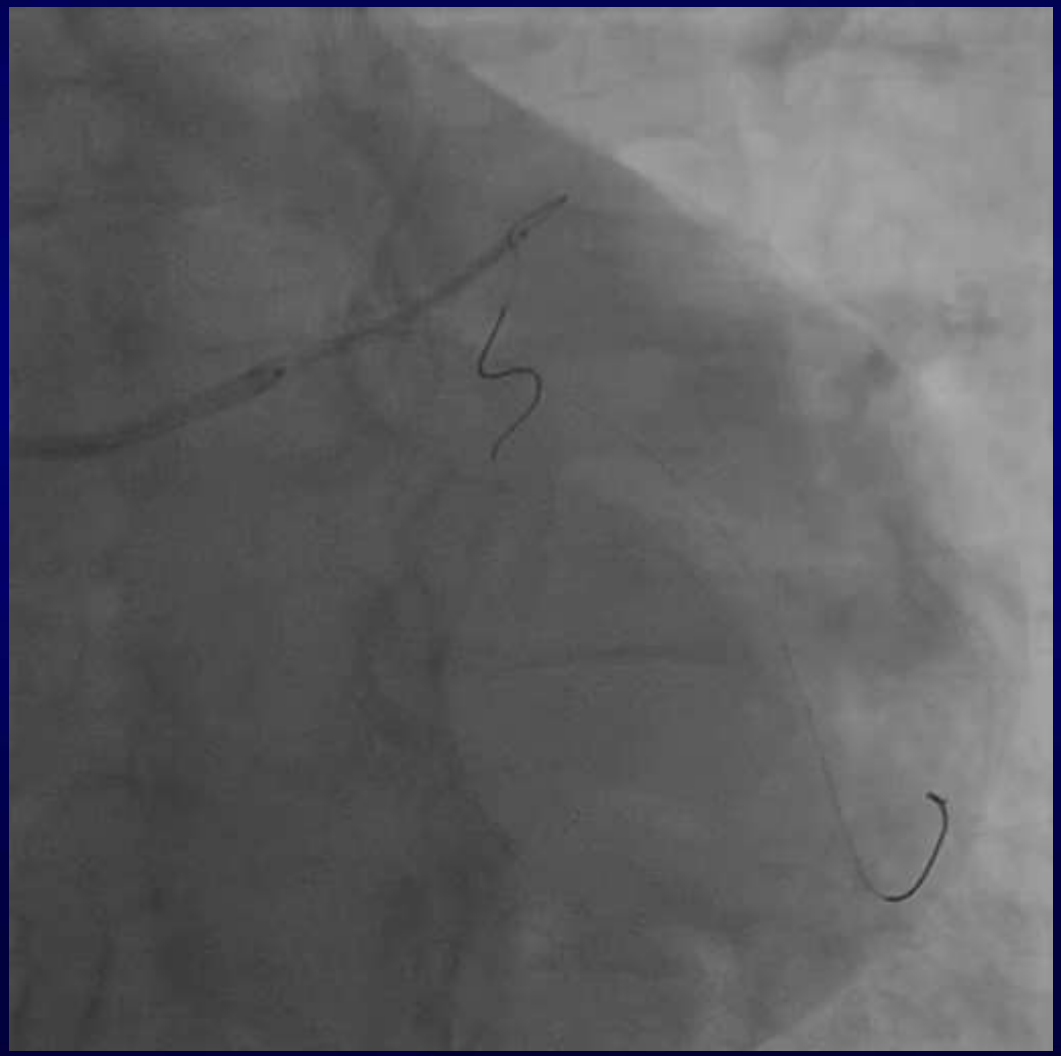
4.0 mm SES



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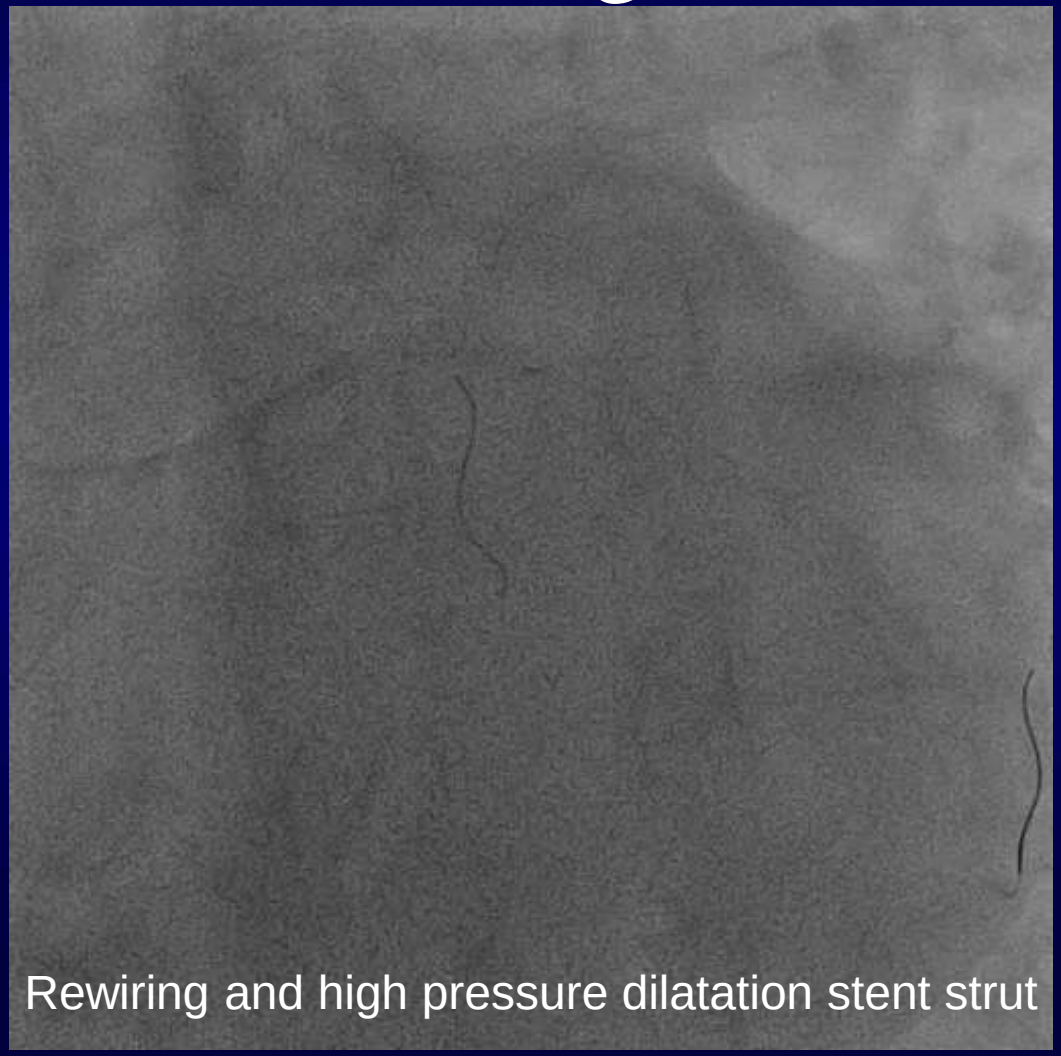
3.5mm NCB @ 18atm



Rewiring and high pressure dilatation stent strut

# How to perform Culotte?

4.5mm NCB @ 20atm

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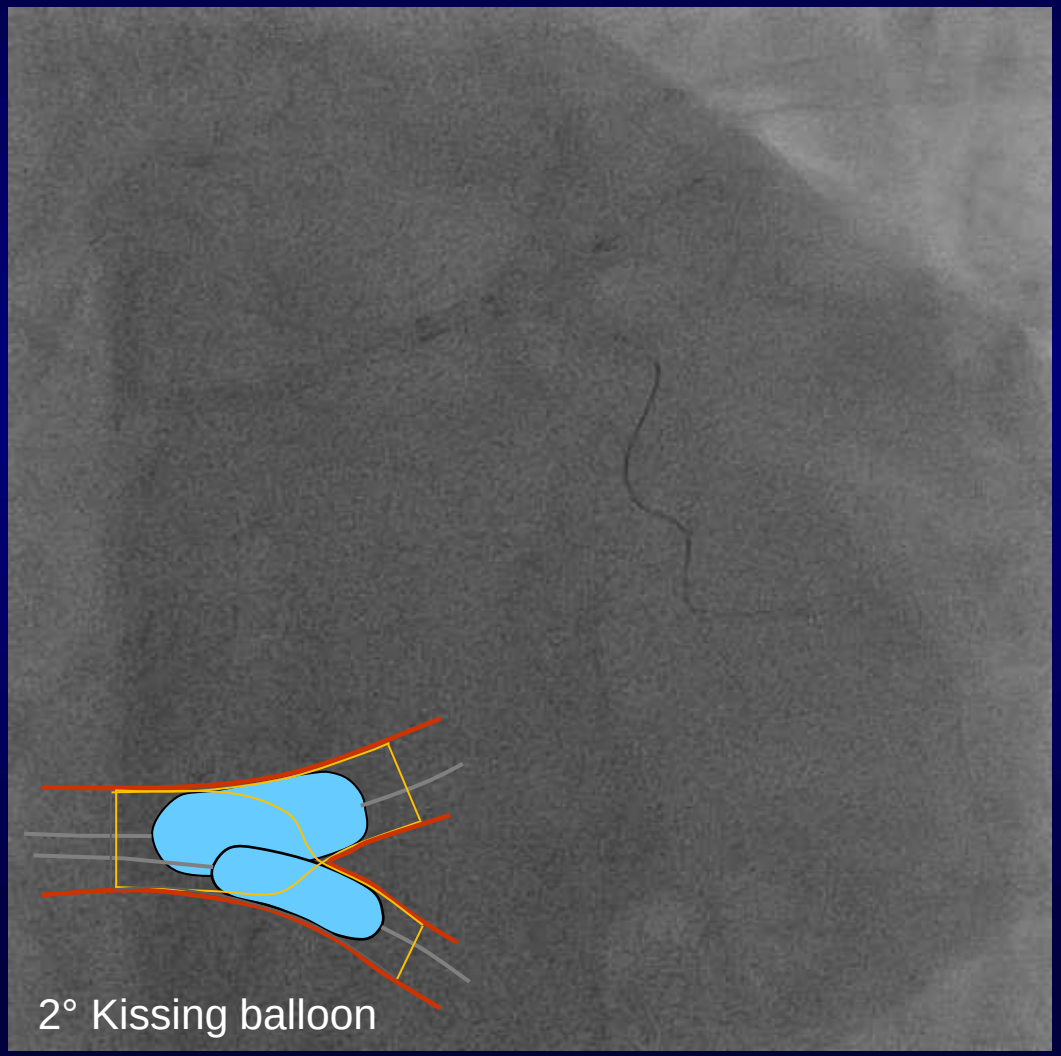

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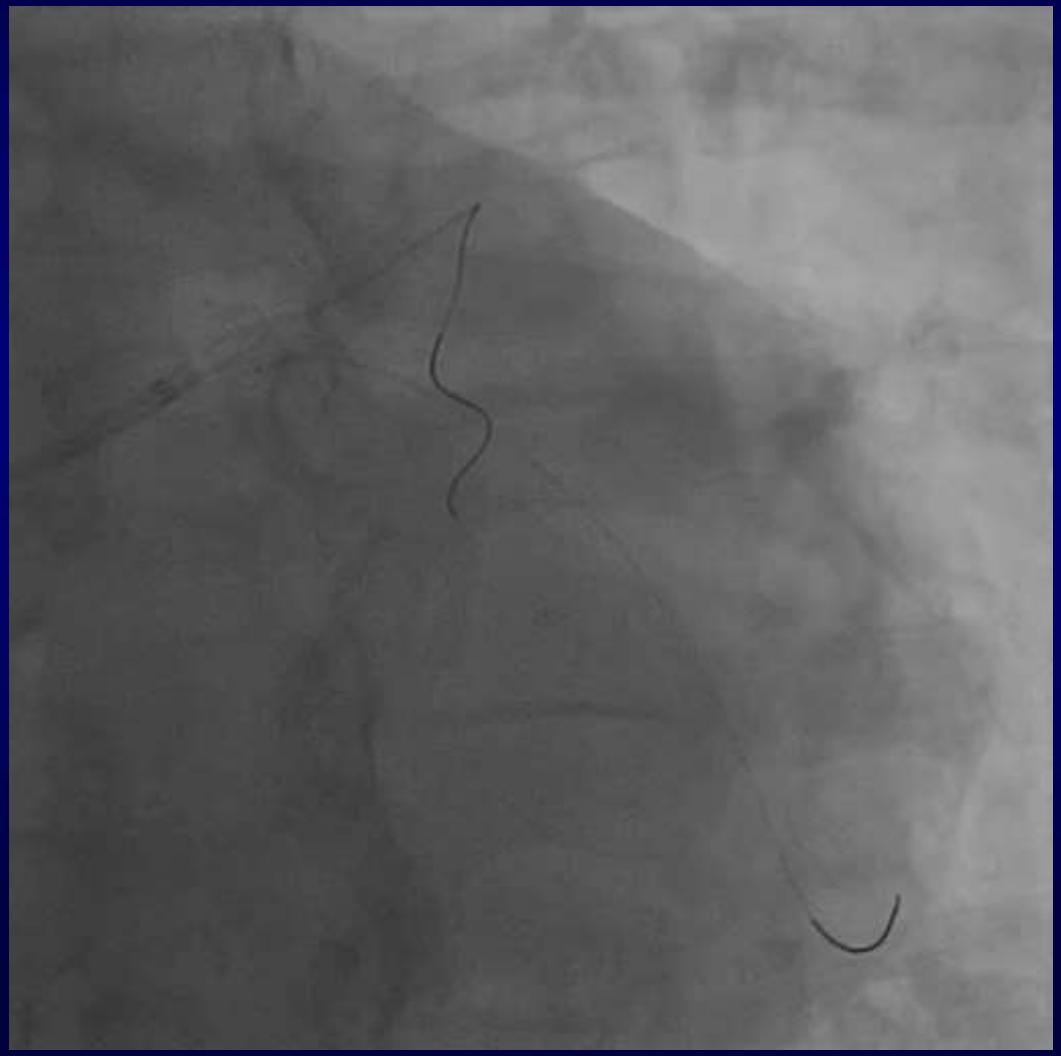

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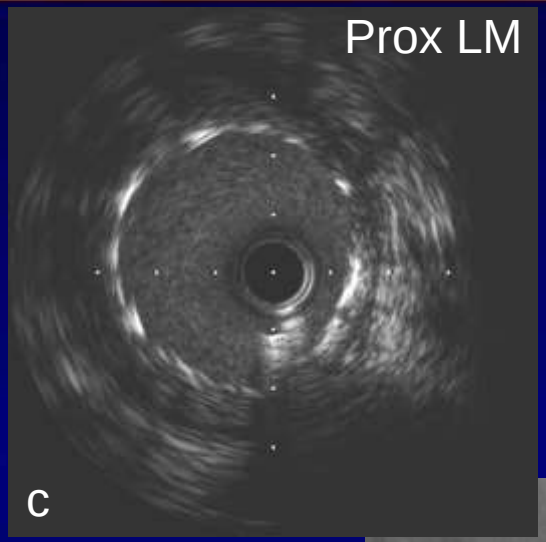


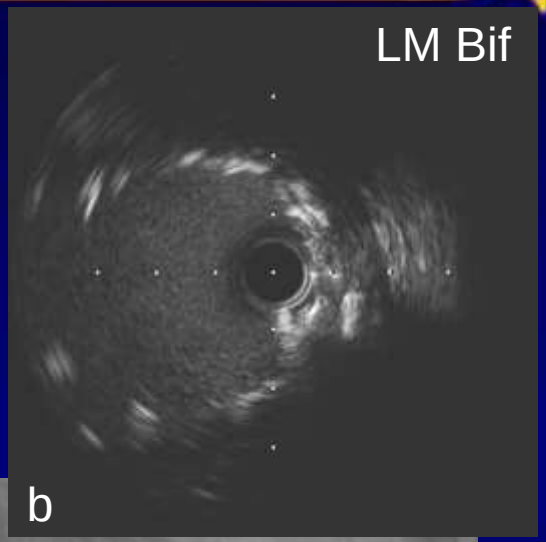


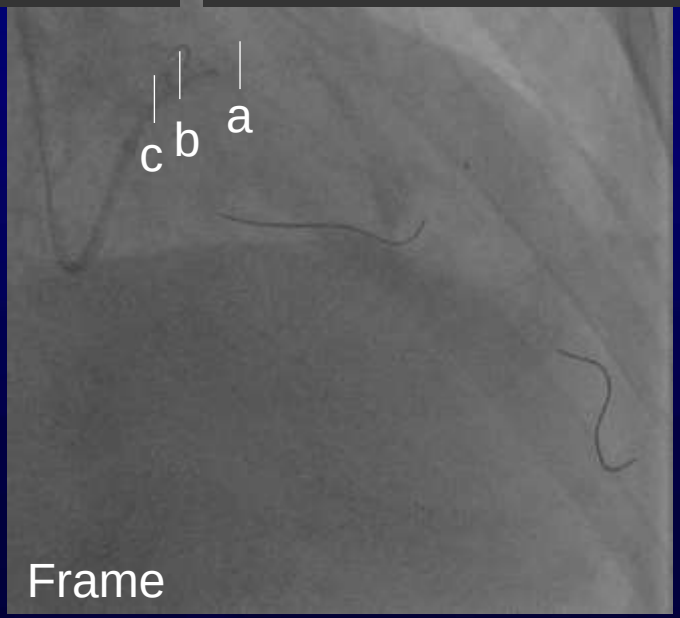


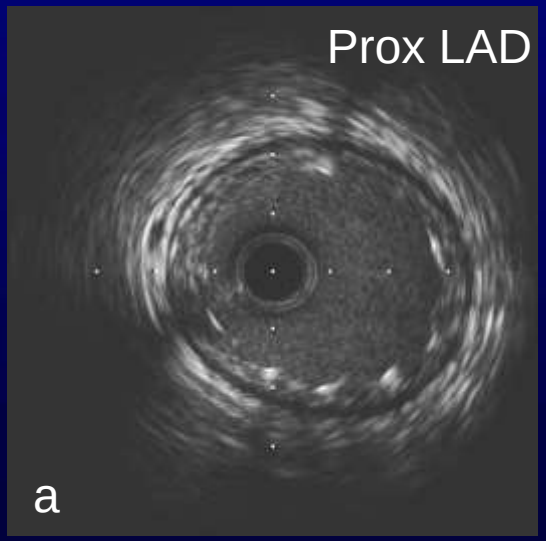


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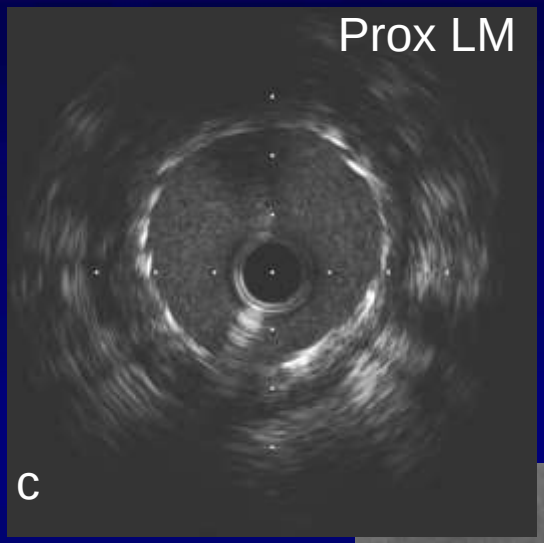


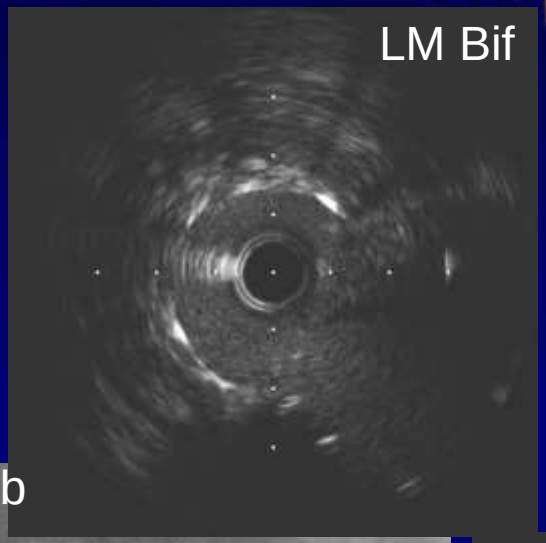


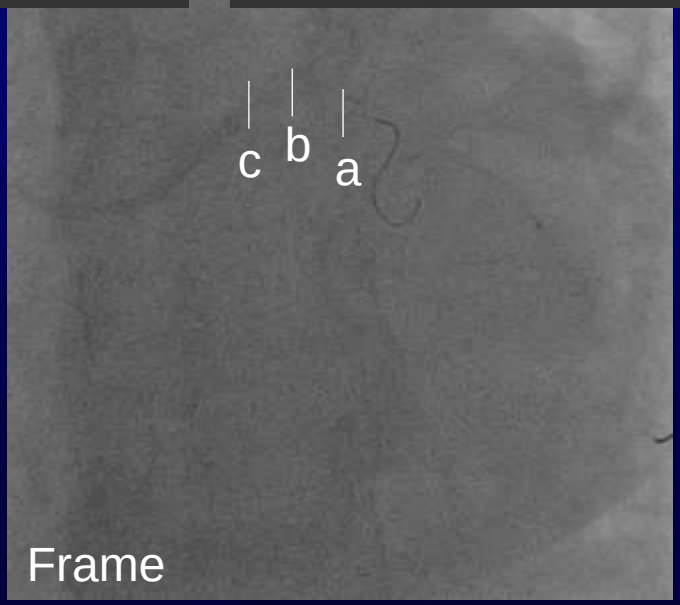


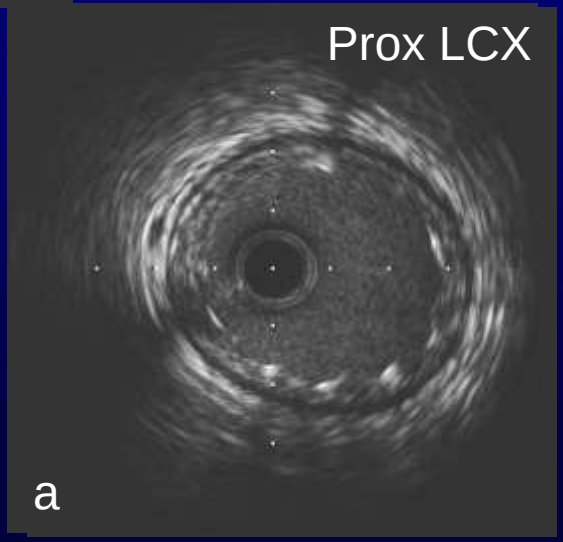


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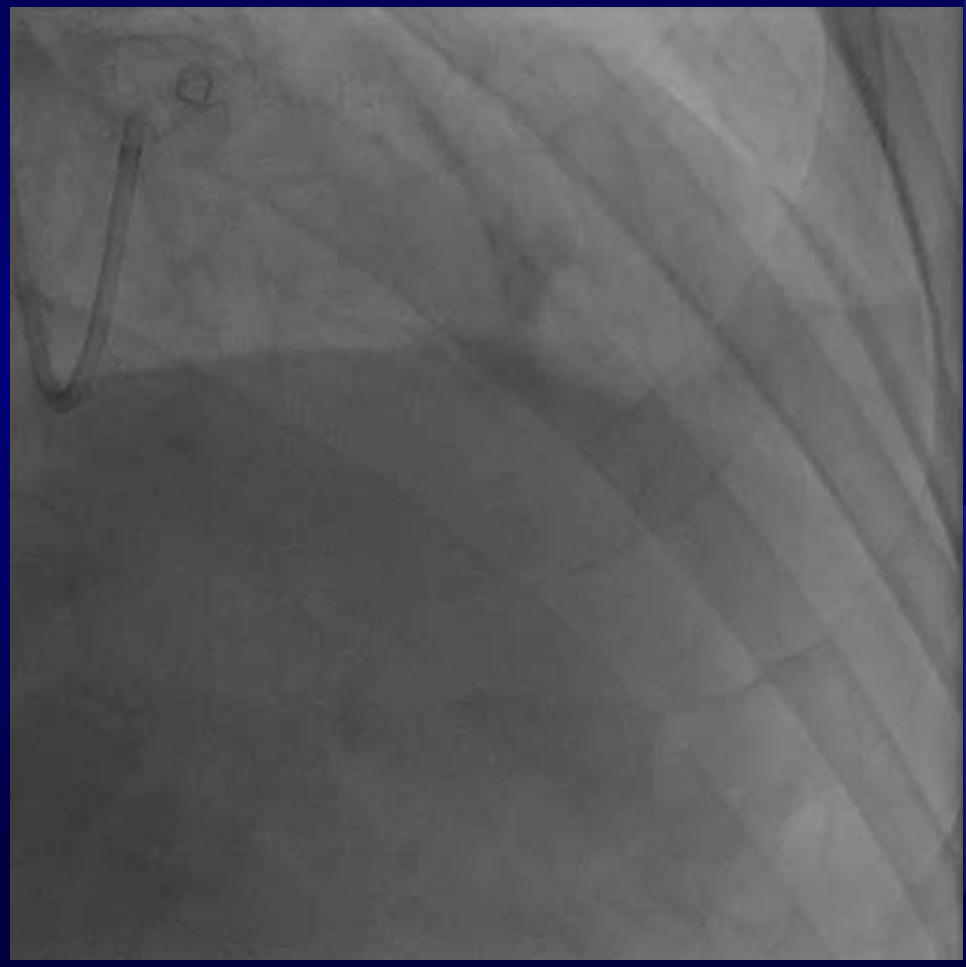
Final Results