



Seoul, Korea: 25-27 April 2007

Session: Complex lesion intervention:
What can we do? What should we do?

Bifurcations

15 min

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Bifurcations

1. Provisional

2. Two Stents

3. Keep It Open (KIO)

Bifurcations

Provisional



When the SB has minimal disease or only at the ostium AND when the SB is suitable for stenting

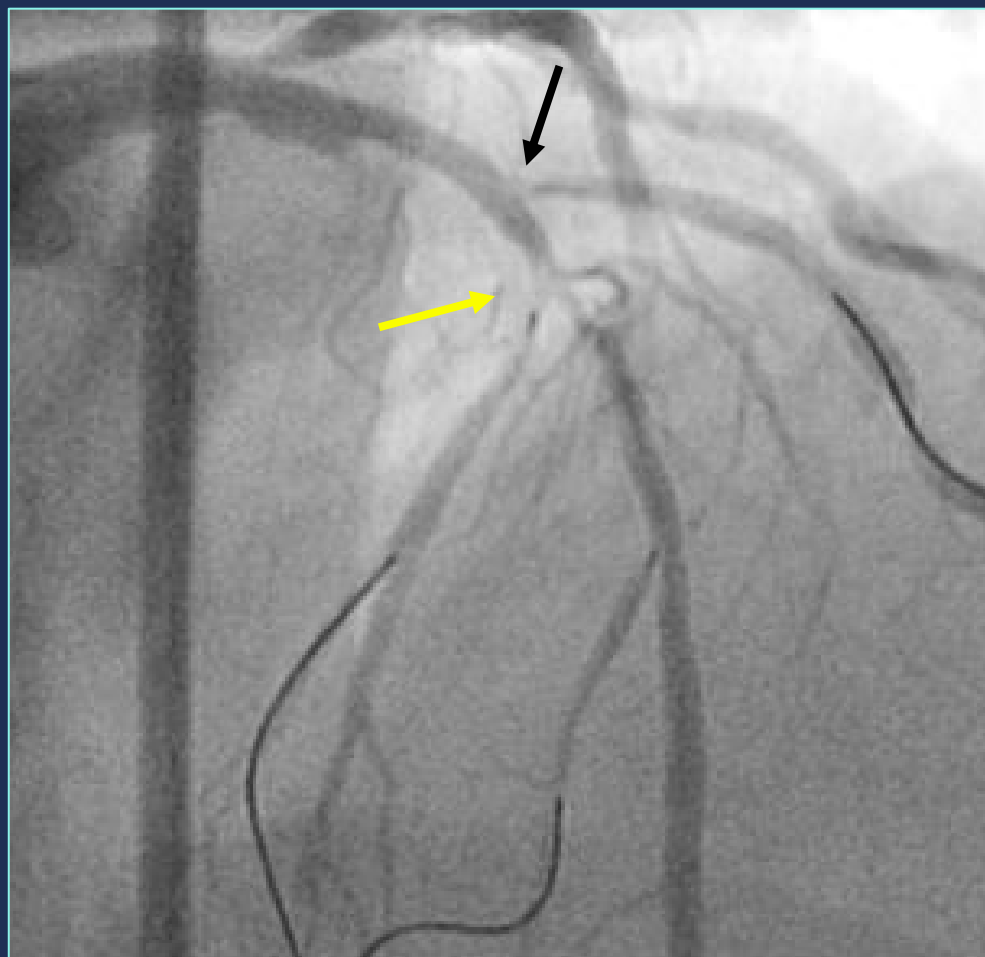
6 Fr guiding catheter

1. Wire both branches
2. Dilate MB and SB if needed
3. Stent MB leaving a wire in the SB
4. Re-wire SB and then remove jailed wire
5. Kissing balloon inflation
6. Stent SB only if suboptimal result (T and Protrusion or Reverse Crush)

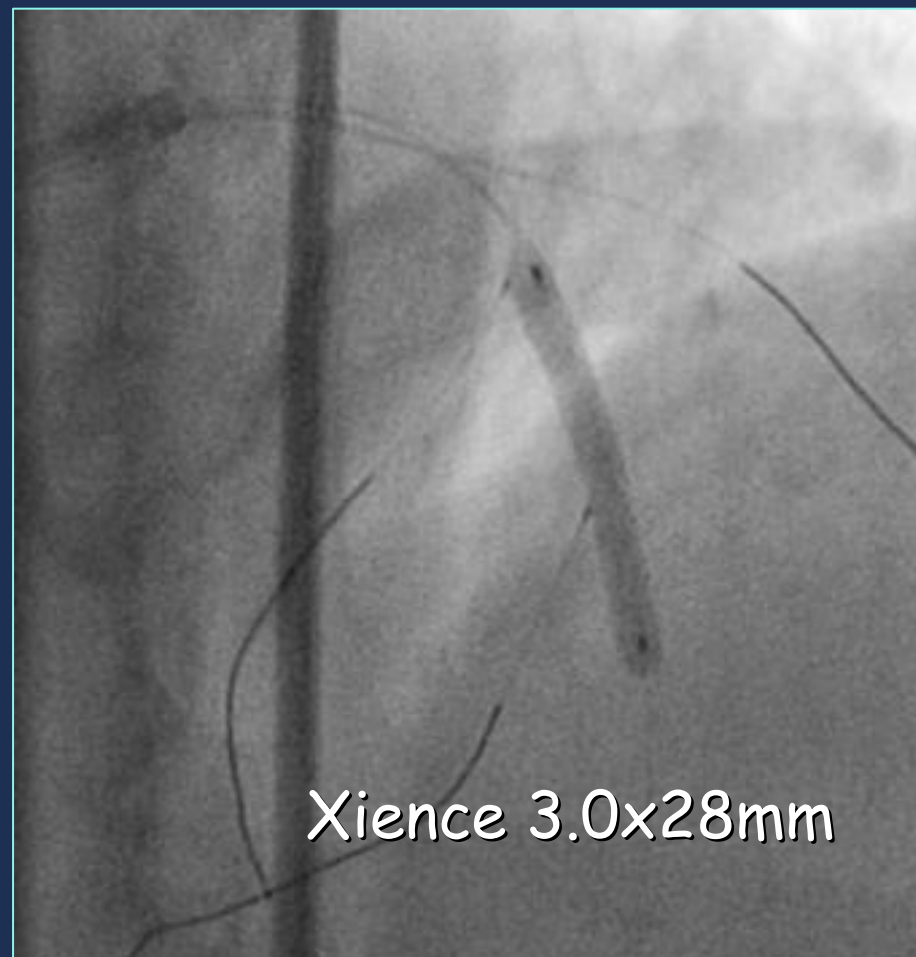
Side branch protection



Lesion on LAD-Diag

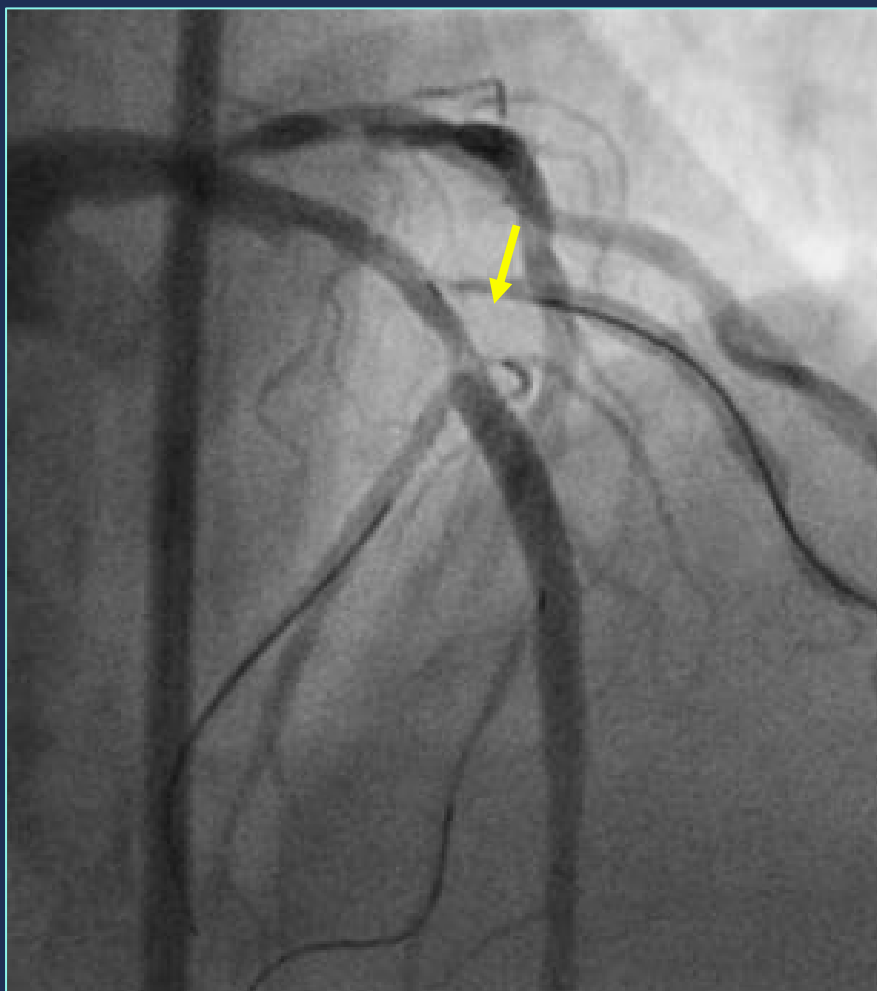


Baseline Angiography

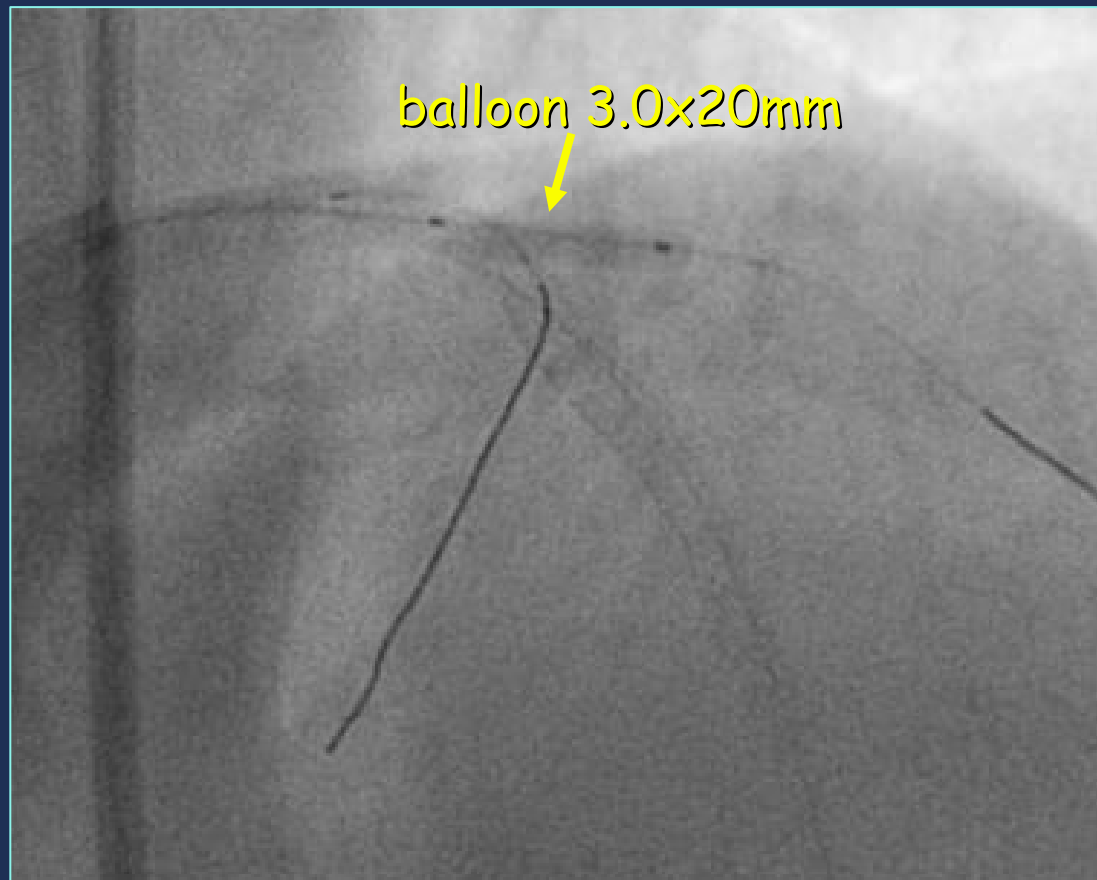


Stent on LAD

Lesion on LAD-Diag



After Stent



POBA on Diag



Final Result

Bifurcations

Two Stents

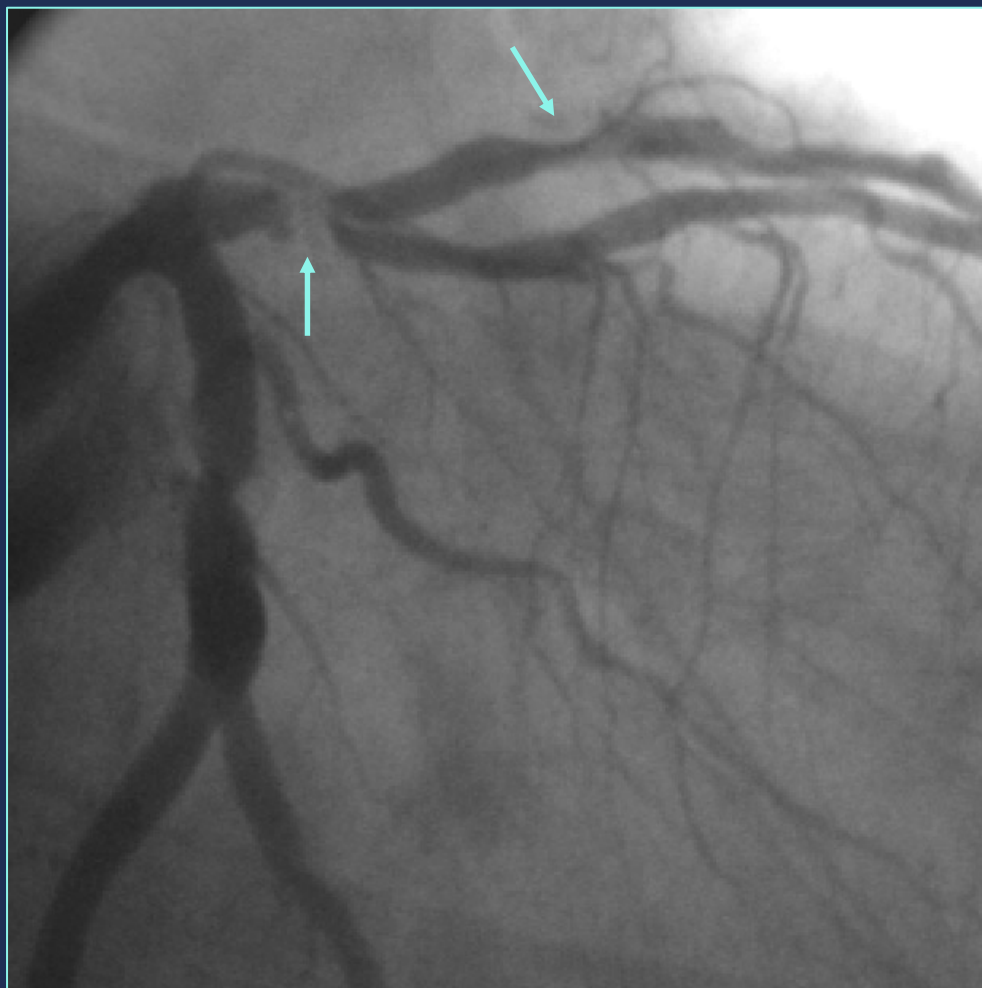


When the SB has disease extending beyond its ostium AND when the SB is suitable for stenting

8 Fr guiding catheter

1. Wire both branches
2. Dilate MB and SB if needed
3. Perform crush or V-stent
4. If crush: rewire SB and perform high pressure SB dilatation
5. Kissing balloon inflation

Treatment of Bifurcation Lesion with two stents

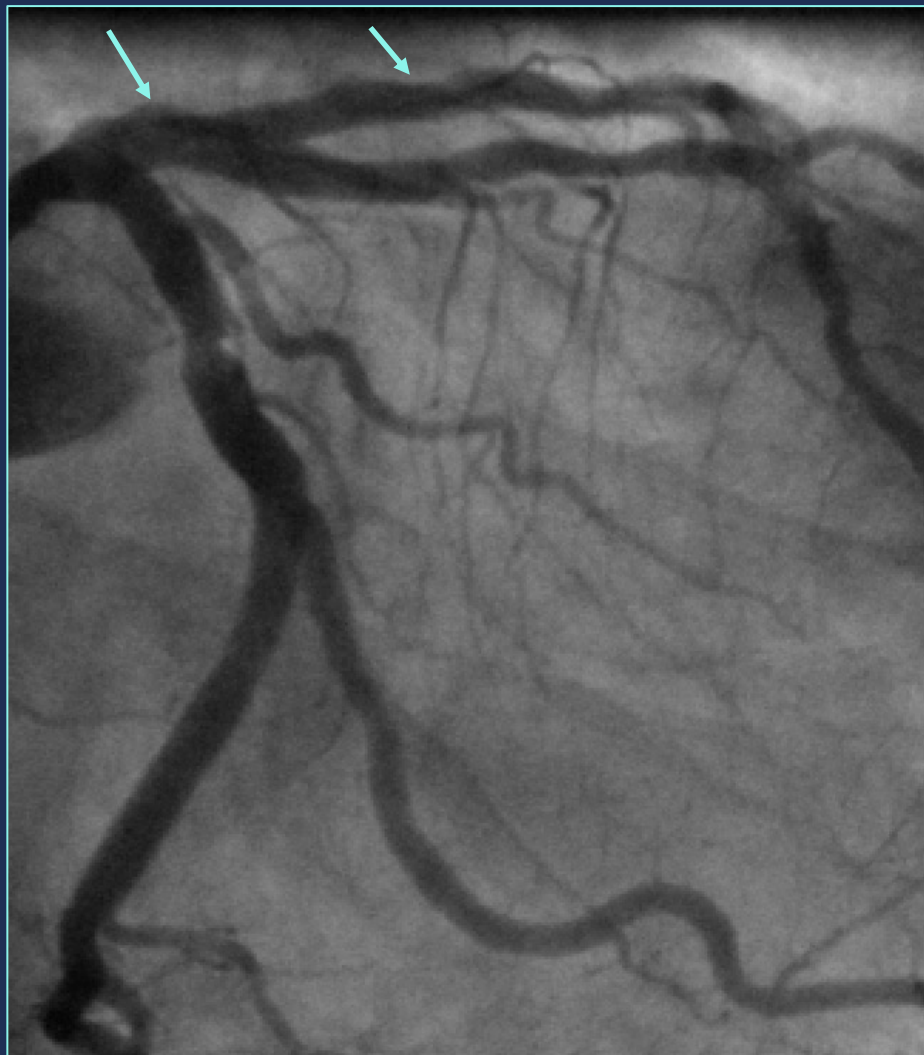


Baseline



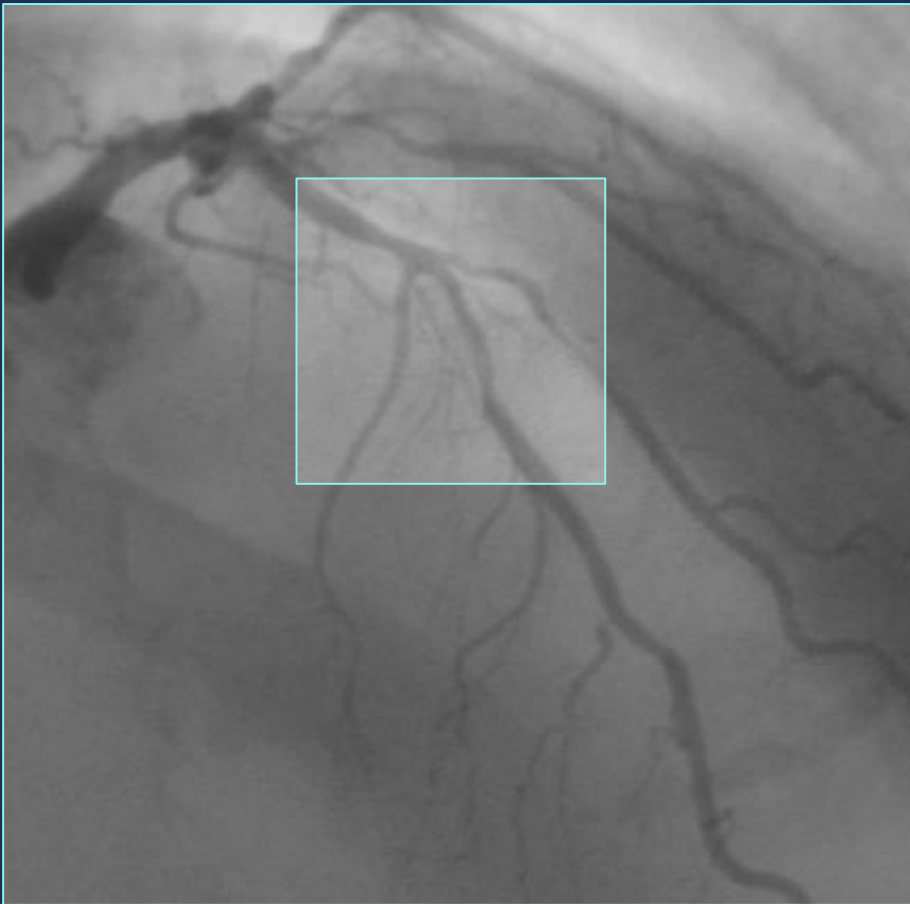
Treatment

Treatment of Bifurcation Lesion with two stents



Final Result

A Typical Case for 2 stents



Baseline



Following Crush




Keep It Open (KIO)

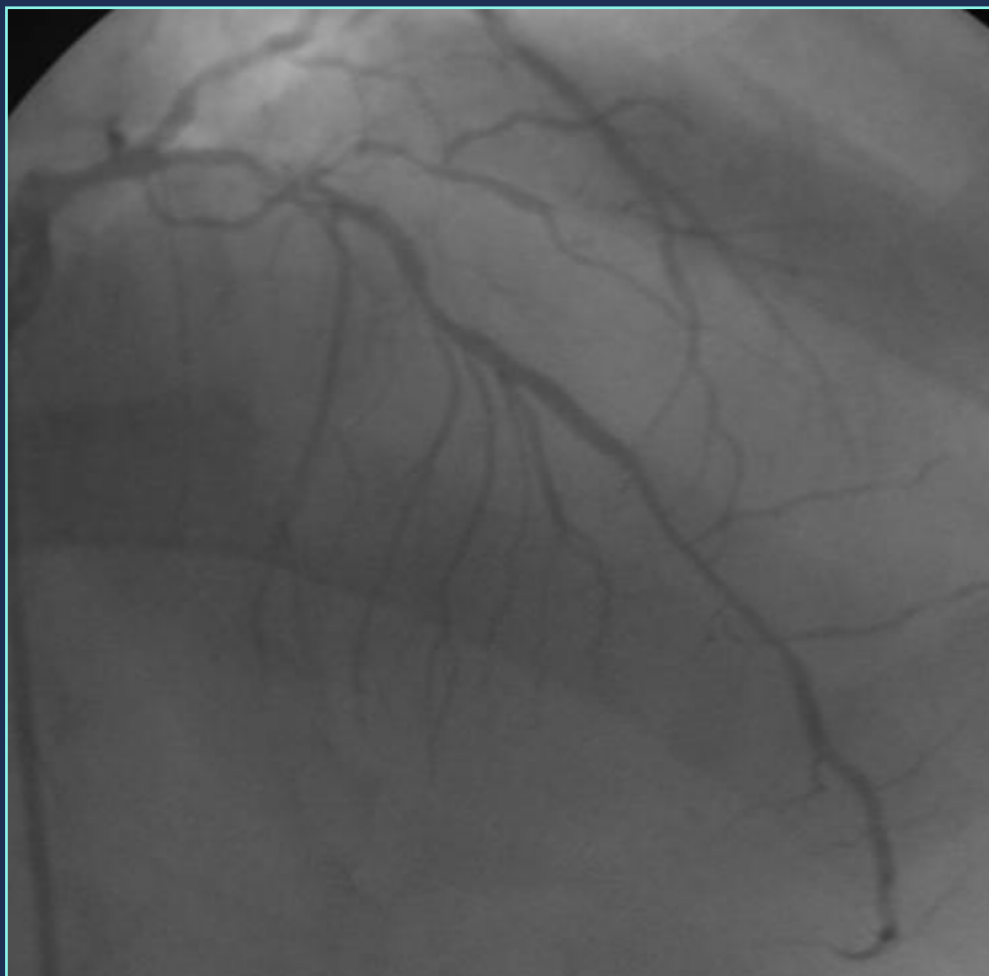
When the SB has ostial or diffuse disease AND when the SB is not suitable (too small) for stenting or clinically not relevant

6 Fr guiding catheter

1. Wire both branches
2. Dilate MB if needed
3. Stent MB and leave wire in the SB
4. Perform post-dilatation of the MB with jailed wire in the SB

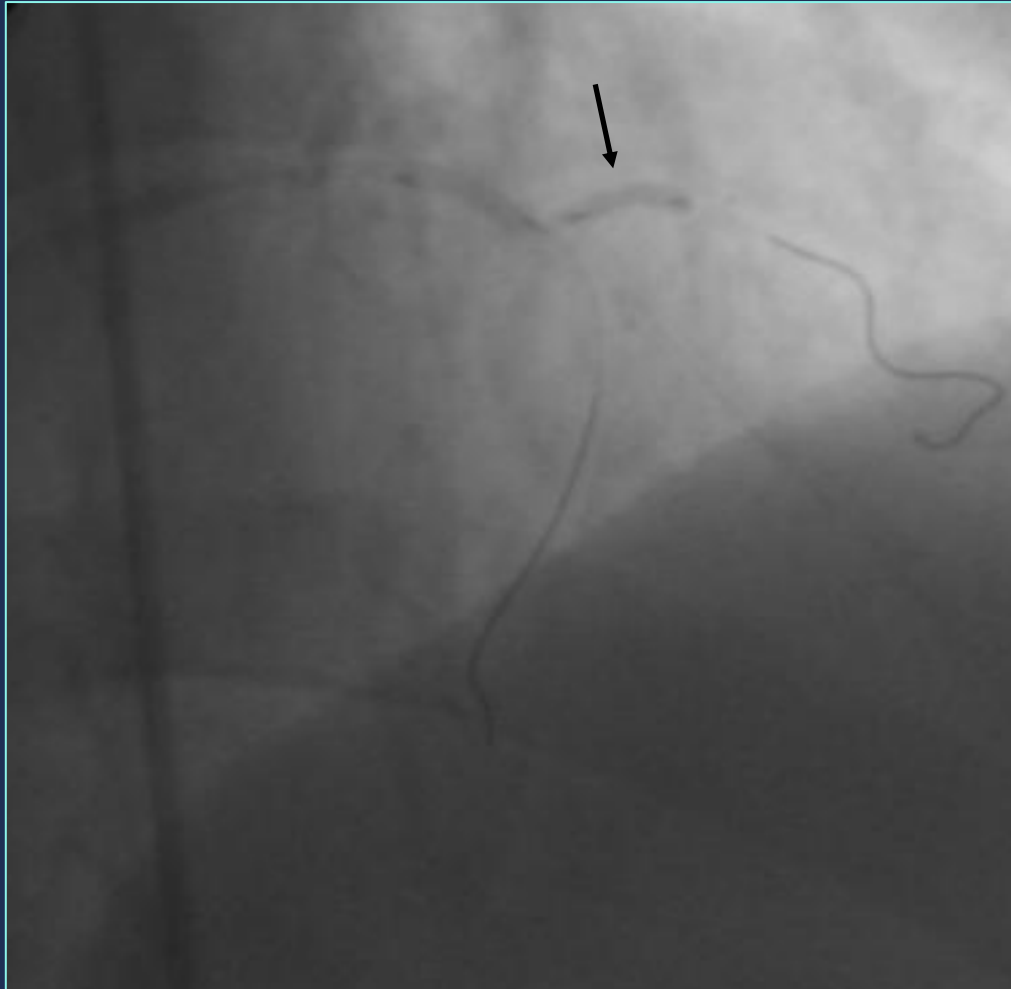
 Do not re-wire SB or postdilate or predilate SB

Example of Keep It Open (KIO)



Baseline

Example of Keep It Open (KIO)



Balloon inflated on SB
(Should not have been done)



Post Balloon inflation on SB

Example of Keep It Open (KIO)



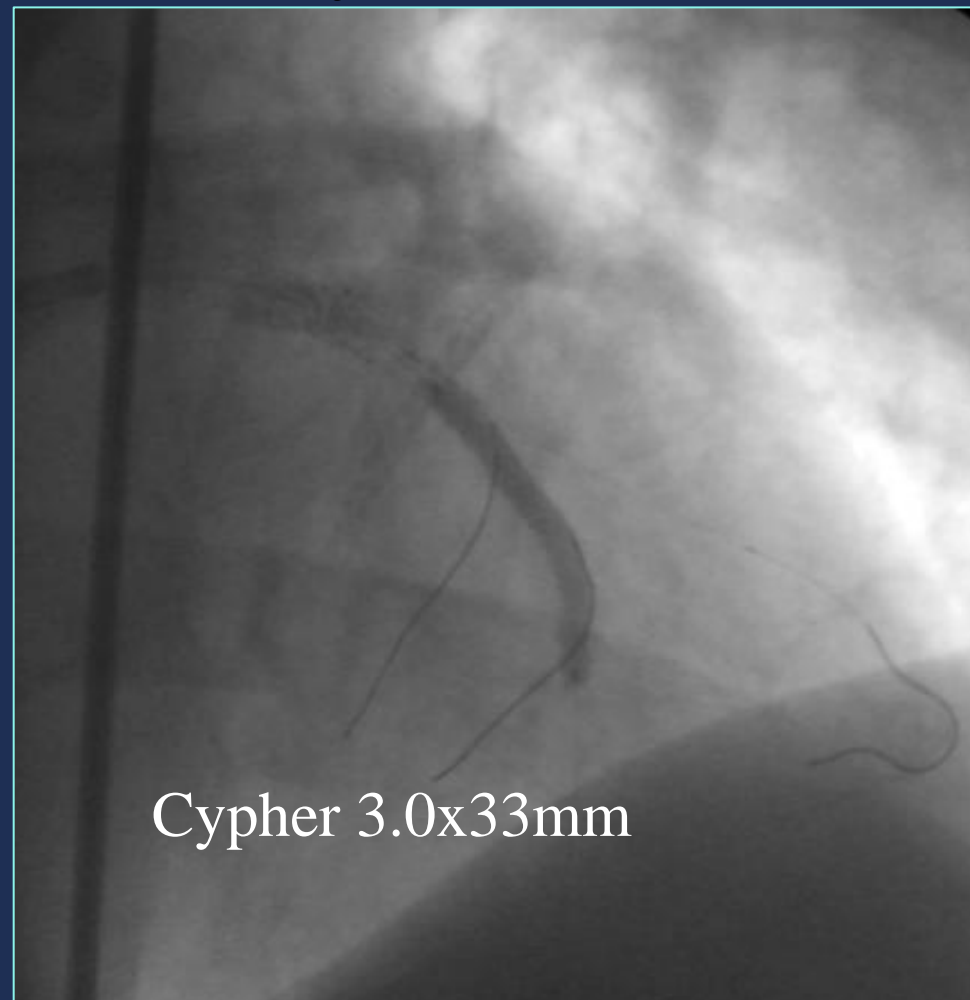
Stenting of MB
Rewiring of SB with large dissection

Jailed wires for side-branch protection

side branches are selectively wired



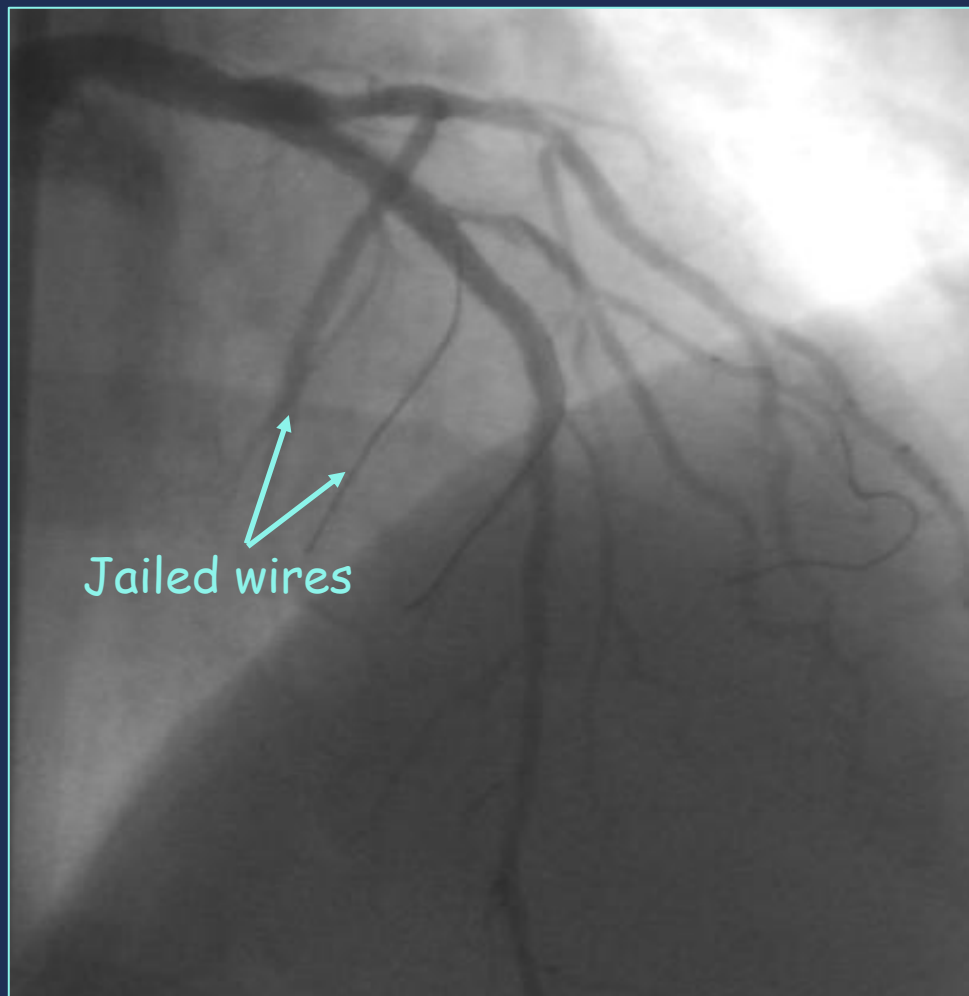
Baseline



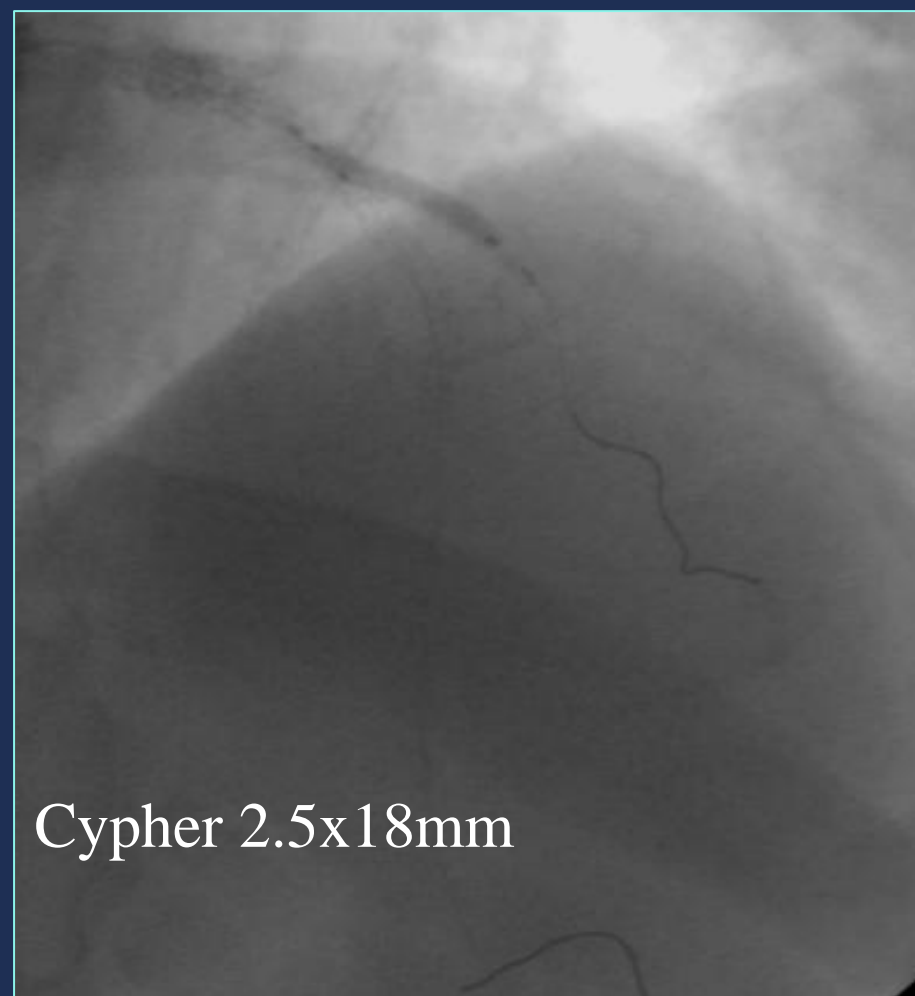
Side-Branch protection

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Jailed wires for side-branch protection

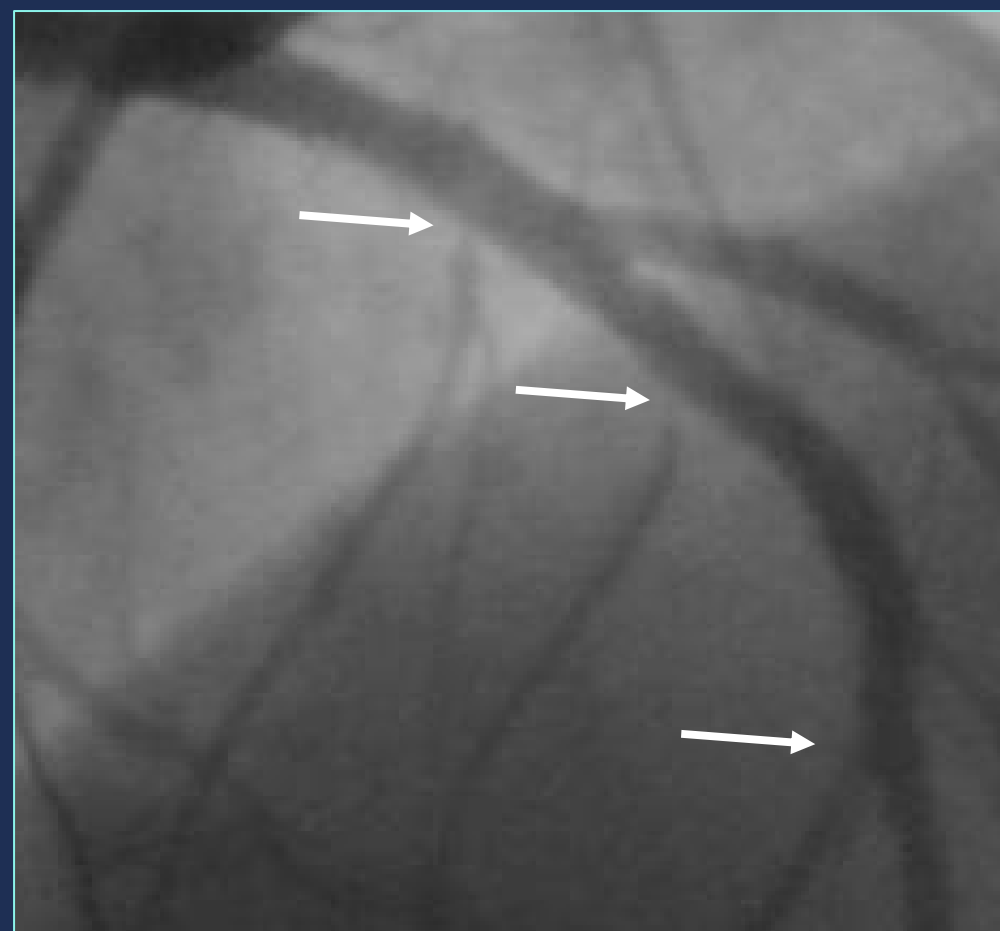
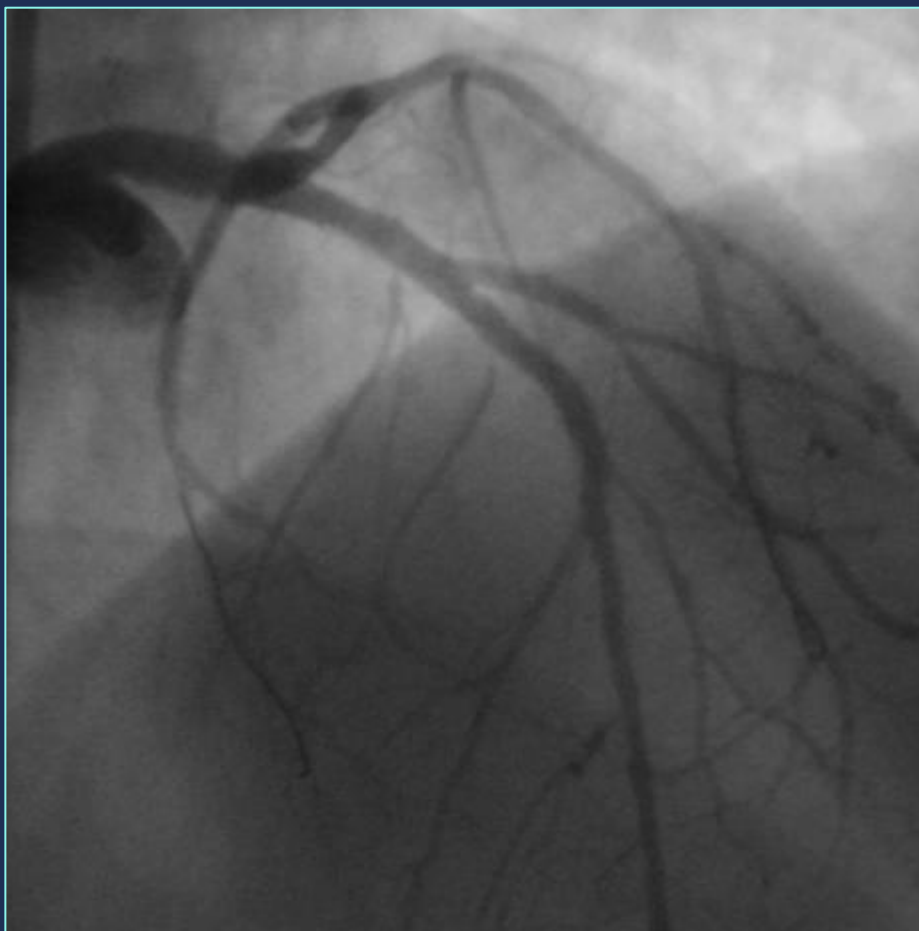


After stent



Stent in Diagonal

Jailed wires for side-branch protection

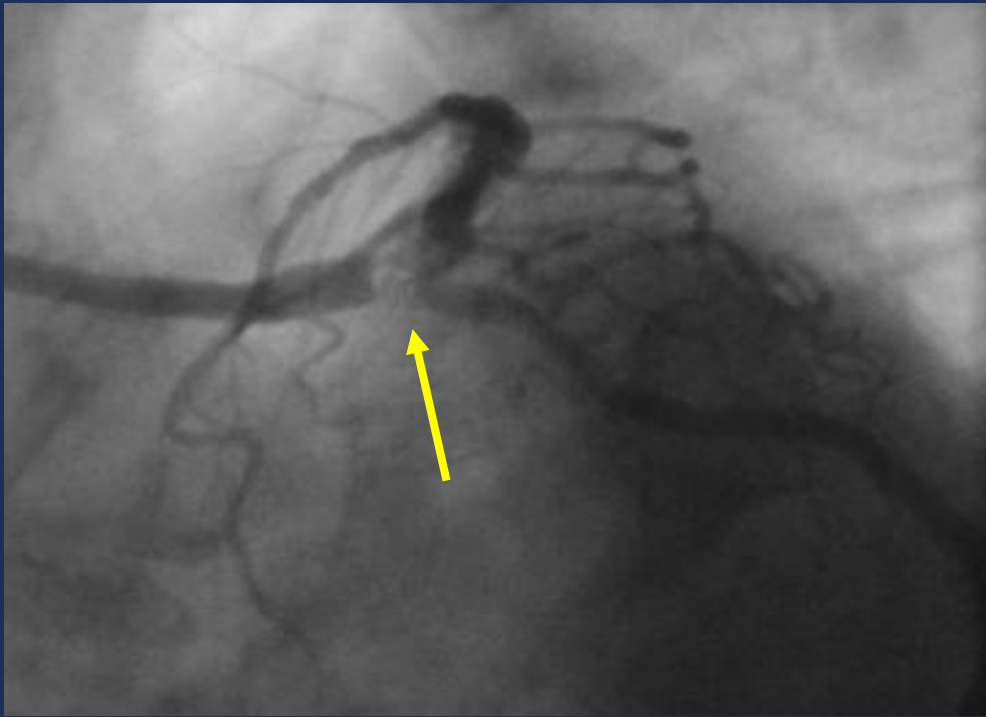


Final Result

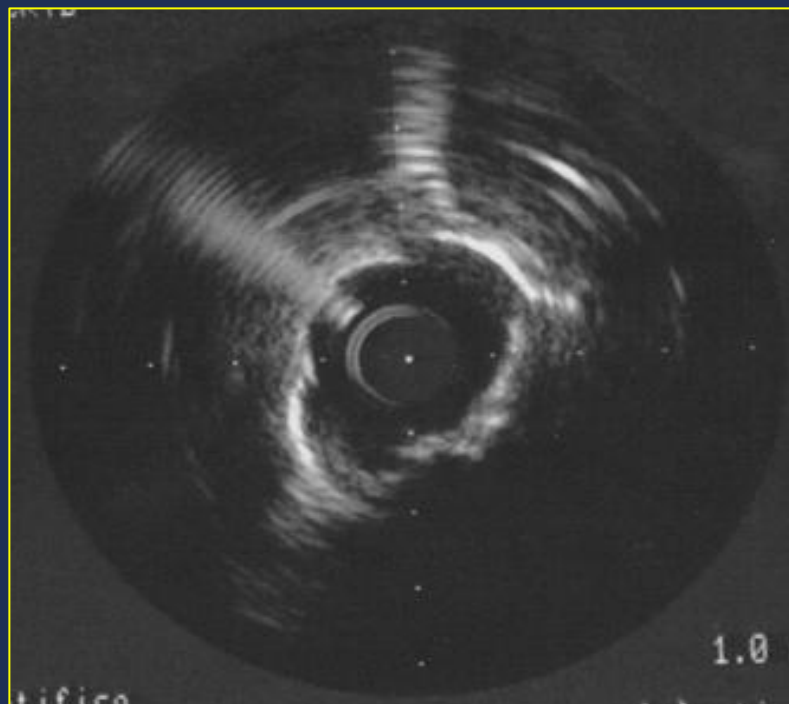


Thrombosis and restenosis in bifurcations

The final result



IVUS Images Post Rotablator



LAD Os



Cx Os



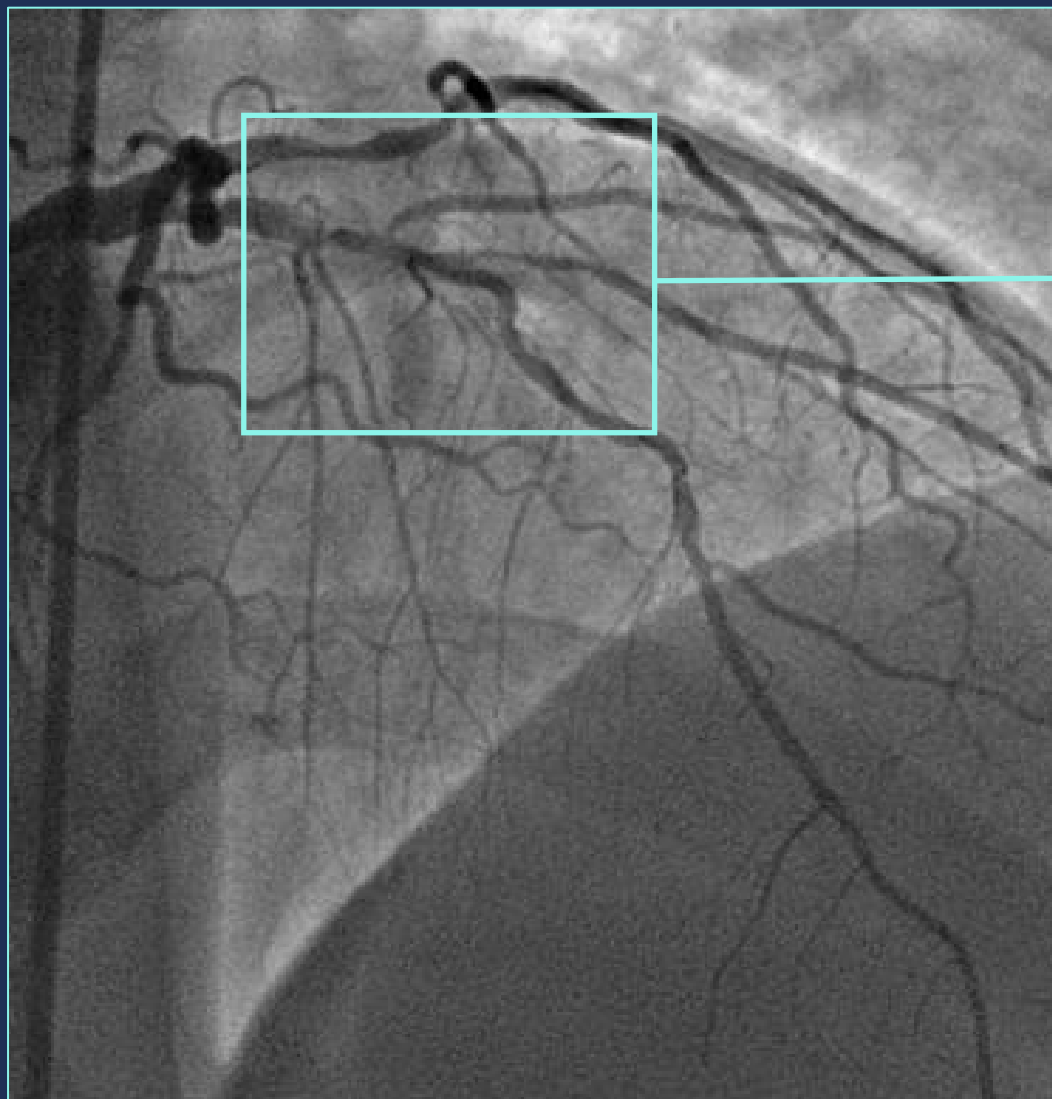
- Crush technique: 3.0x33 Cypher in Cx and 3.5x18 Cypher in LAD.

Final result after kissing



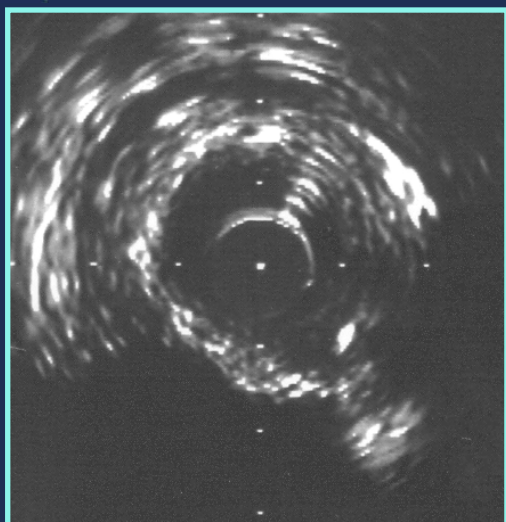
No restenosis at FU

IVUS in DES Era

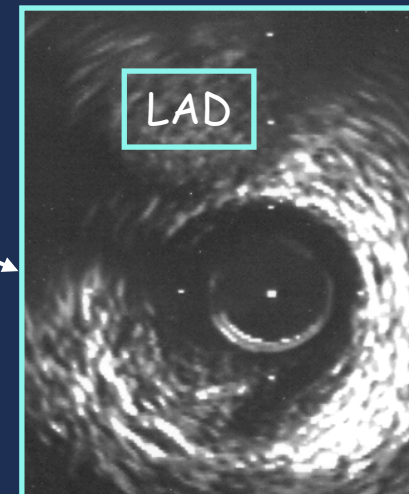
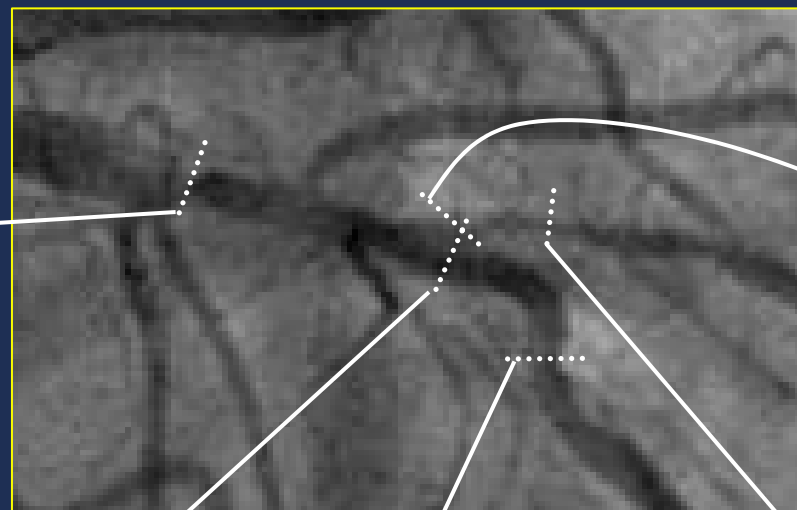


Baseline
Angiogram

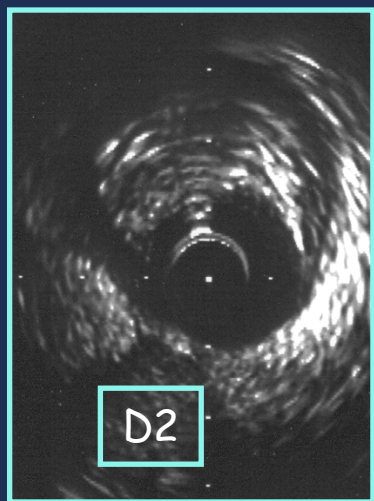
Pre-Intervention IVUS Analysis



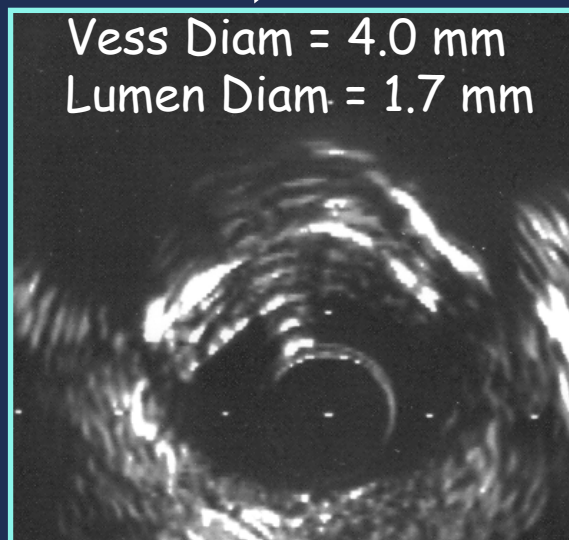
Vess Diam = 4.2 mm
Lumen Diam = 2.1 mm



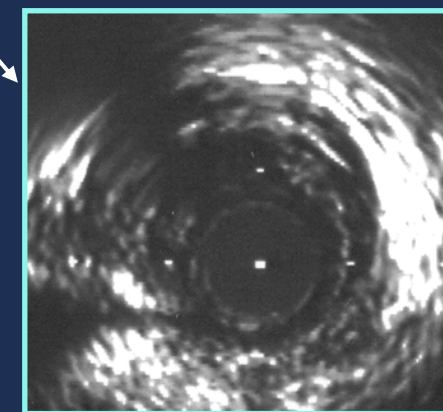
Vess Diam = 2.6 mm
Lumen Diam = 1.9 mm



Vess Diam = 3.4 mm
Lumen Diam = 2.1 mm

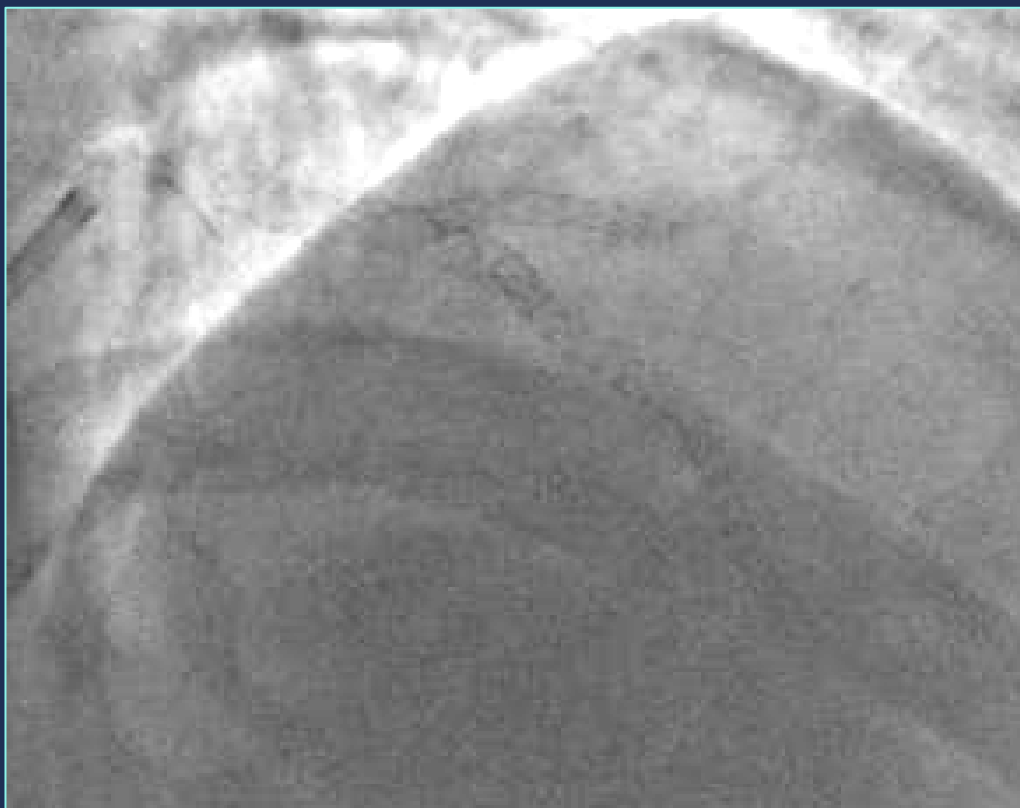


Vess Diam = 4.0 mm
Lumen Diam = 1.7 mm



Vess Diam = 2.8 mm
Lumen Diam = 1.6 mm

Crush technique



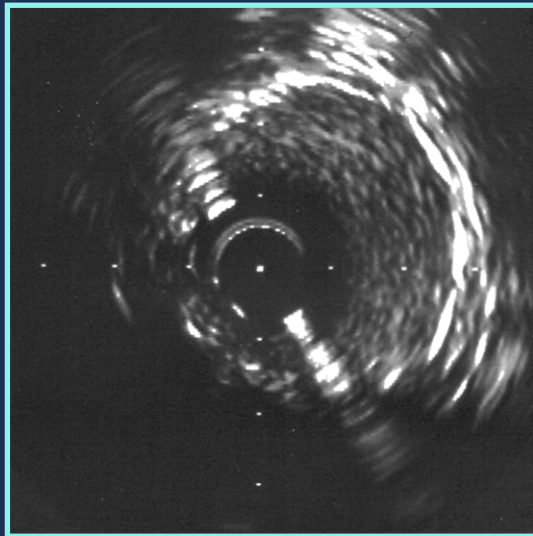
LAD: Cypher 3.0 x 33mm, 2.75 x 33 mm
D2: Cypher 2.5 x 23 mm
Post-dilation with non-compliant
balloons and FKB were performed

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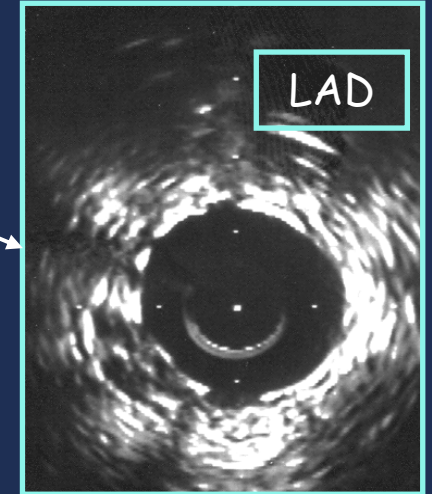
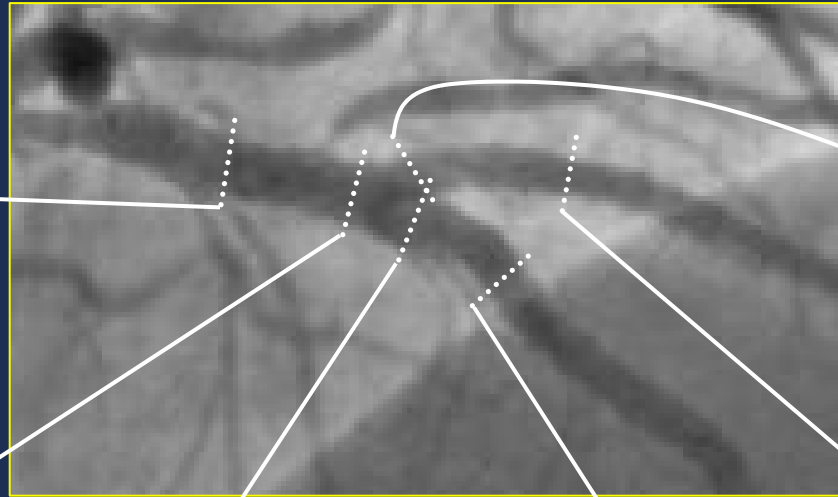
Final Angiogram



Final IVUS Analysis

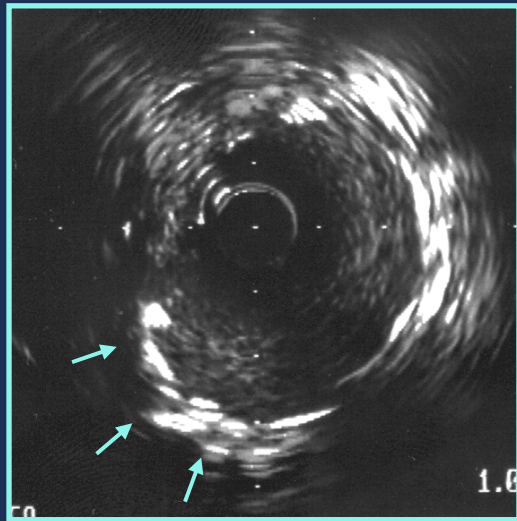


Stent Area = 11.2 mm²

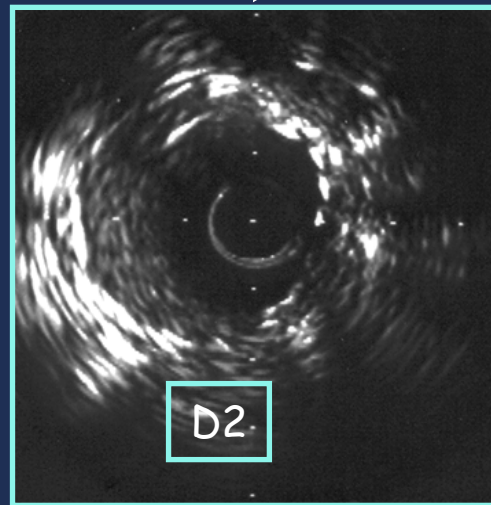


LAD

SA = 5.3 mm²

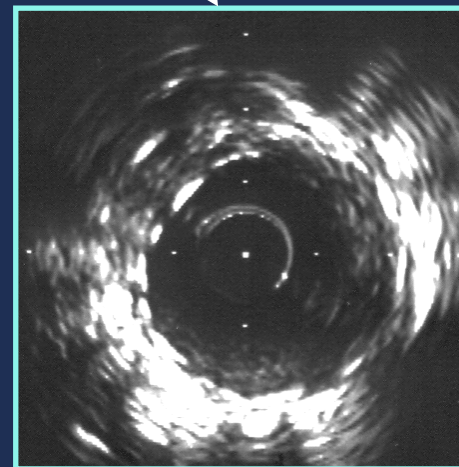


SA = 15.2 mm²

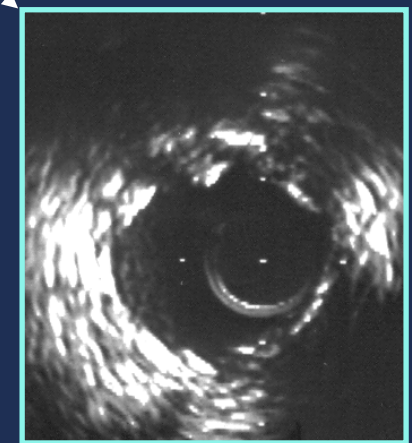


D2

SA = 10.1 mm²



SA = 9.3 mm²



SA = 4.9 mm²

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Approach to Bifurcational Lesions including LM

