INSTITUT CARDIOVASCULAIRE PARIS SUD

Non Left Main Bifurcation

Keep it open !

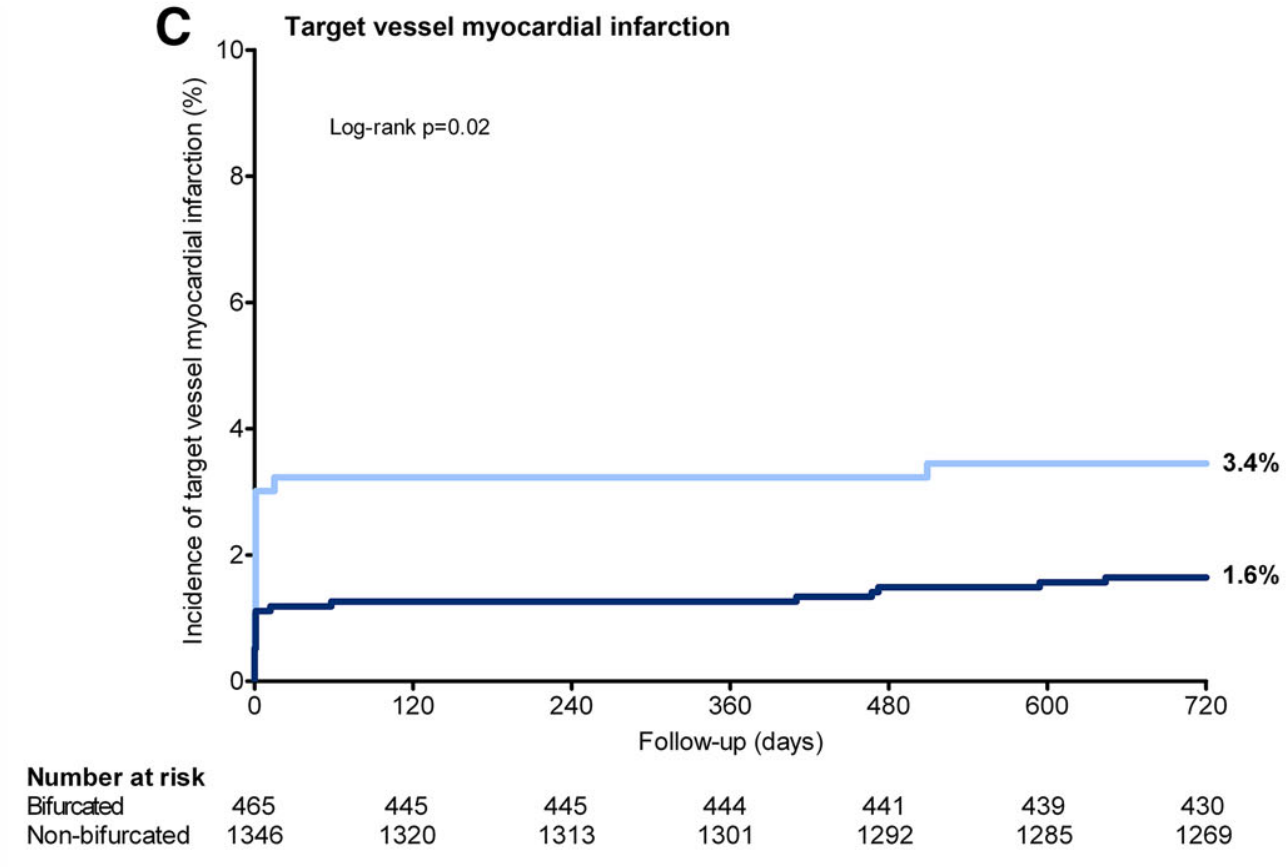
Thierry Lefèvre, Massy, France

Two level of risk with the side branch

- ✓ Acute or subacute SB occlusion
- ✓ Significant residual ischaemia

Periprocedural MI in Bifurcation vs non Bifurcation

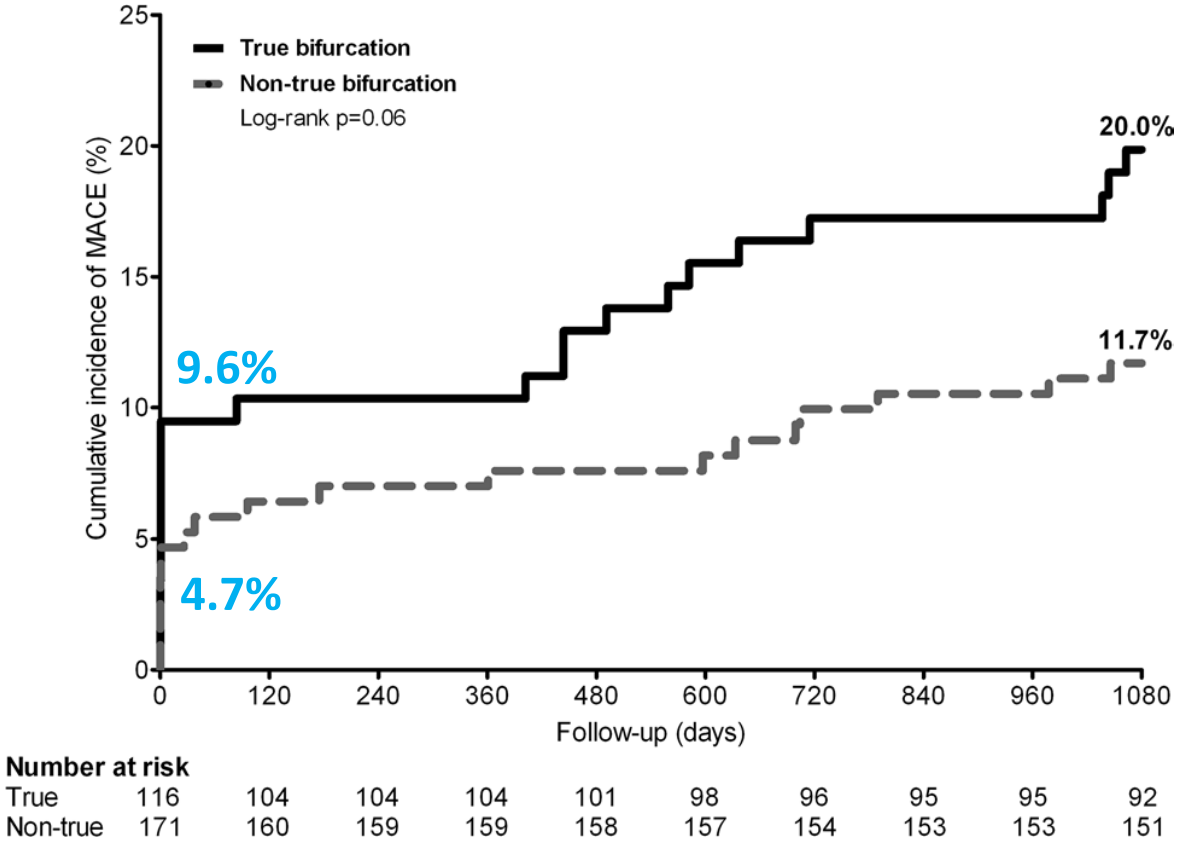
Dutch Peers trial



Liefke C. van der Heijden et al. Clin Res Cardiol (2016) 105:206–215

Periprocedural MI in Bifurcation PCI

Twente trial



K. G van Houwelingen et al. Heart Vessels (2016) 31:1731–1739

Keep it open to prevent periprocedural MI

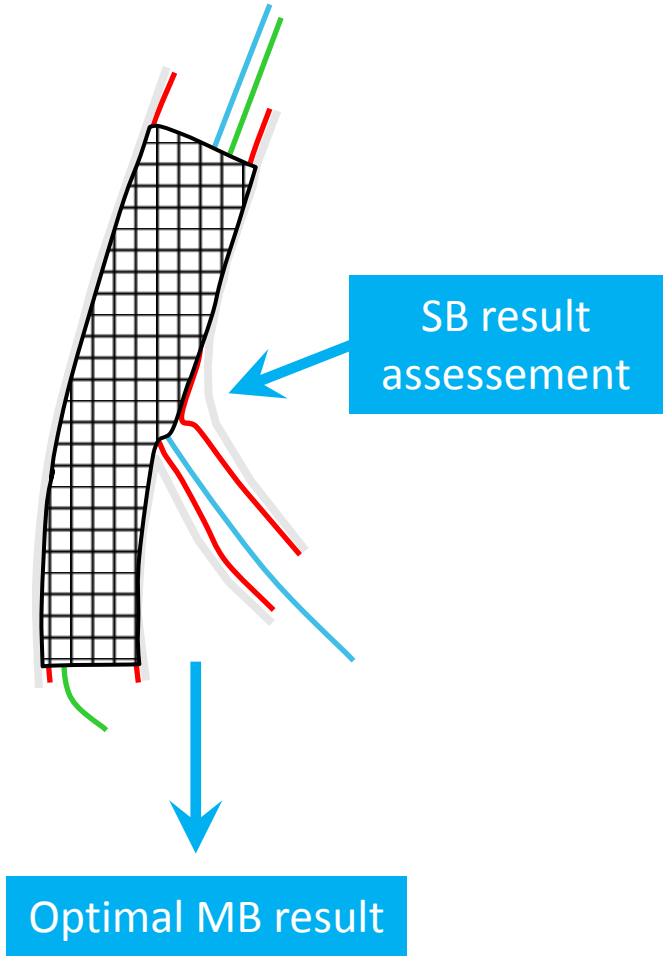
Protect the SB that you don’t want too loose with a wire !

- Decrease the risk of SB occlusion
- Good marker of the SB ostium
- Facilitates SB access
- The jailed wire can be used to reopen the SB

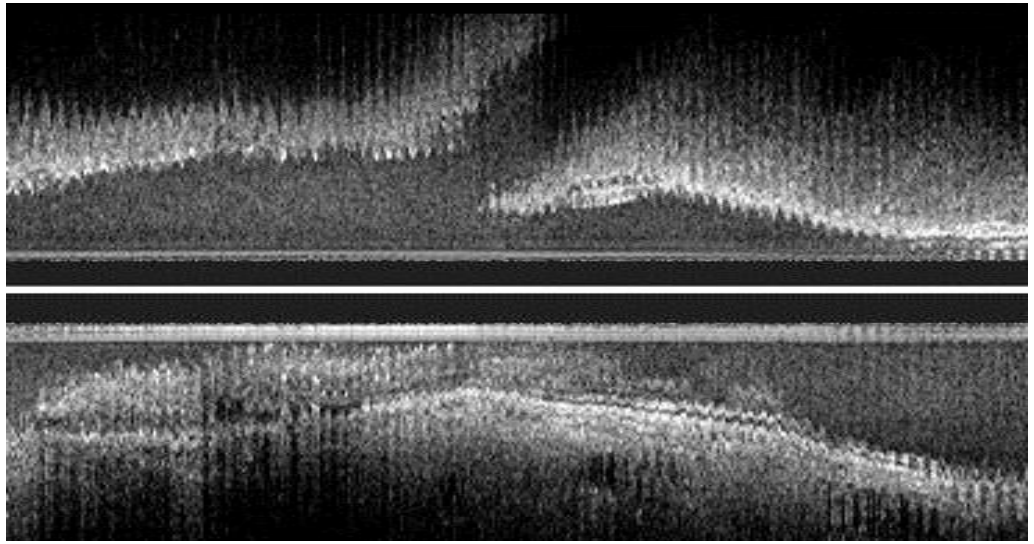
Respect the fractal low to avoid carena shifting

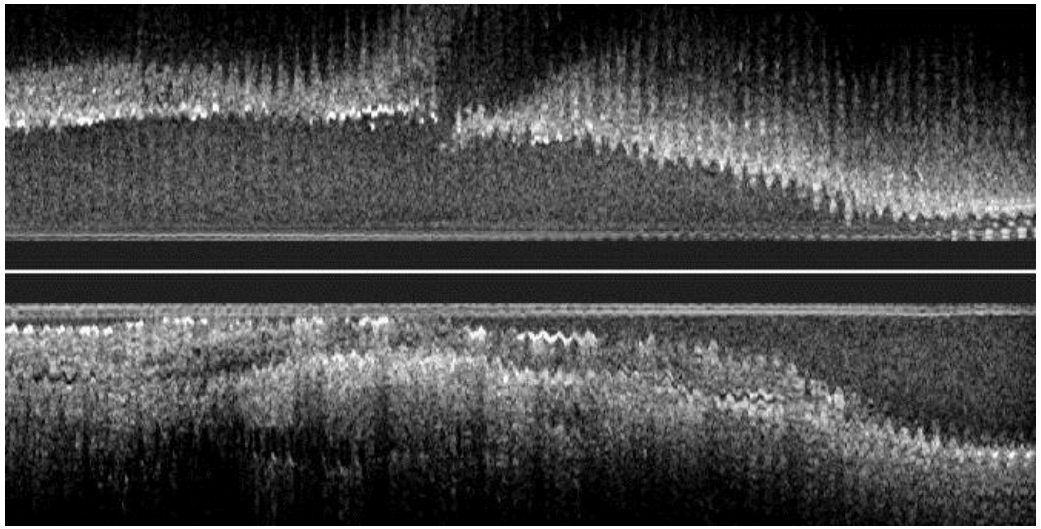
Keep it open is part of the provisional strategy

MB and SB wirering
MB stenting
(sizing according to distal MB diameter)
POT



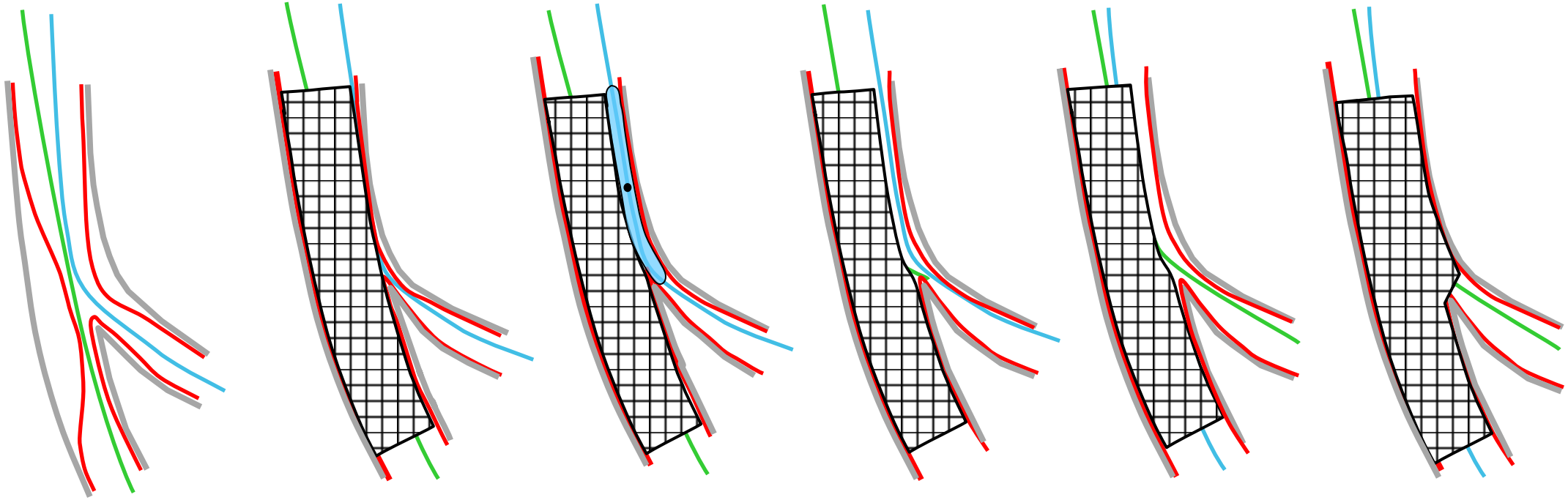
Respect the anatomy





Courtesy of Koo et al.

How to save the SB in case of occlusion



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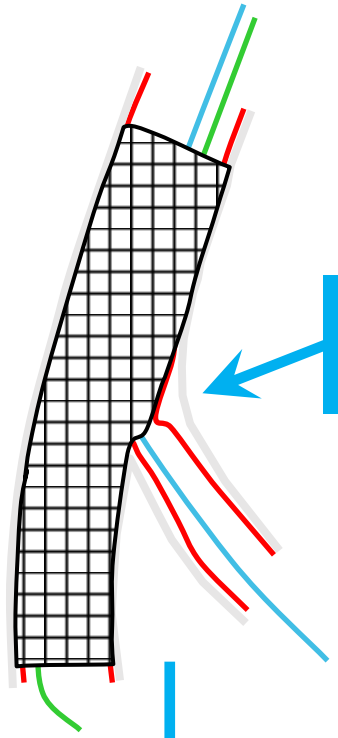

SB result assessement

Optimal MB result

Result obtained in the SB accepted (*keep-it-open* principle)

***jailed* SB deserving further intervention**

SB rewiring
(aimed at achieving *distal rewiring*)

SB dilation **kissing balloon**

SB dilation **kissing balloon and re-POT**

SB dilation **re-POT**

SB result assessment

OK

SB stenting (<10%)

The remaining question is

when to open the SB after MB stenting?

Because of relevance or for long-term outcomes ?

Relevance

A branch that may be source of ischemia > 10% of the myocardium after the procedure:

FFR/IFR

SB > 2.25 mm

Long SB > 73 mm

….

Because of relevance or for long-term outcomes ?

Long-term outcomes

Reposition the carena in the center

Give further access to the SB that may stented in the future

Avoid endothelial colonisation of the unopened cells

In daily practice

- ✓ We always start with two wires (or more)
- ✓ Assess the side branch relevance
- ✓ When it is relevant we always open the MB stent toward the side branch (aiming at crossing a distal cell)
- ✓ End the procedure with a final Kiss
- ✓ When in doubt use FFR and stent the SB when necessary

Conclusion

Keep it open is part of the provisional side branch stenting strategy.

Protect the SB if you don’t want to loose it (> 1.5 mm ?)

Optimizing MV stenting is far more important than correcting angiographic appearance of the side branch.

MB stent sizing (distal ref.) and POT is a nice way to avoid carena shifting

POT/Kiss relocate the carena as a flow divider and gives access to the SB

Think twice (area of myocardium and IFR/FFR) before stenting the side branch