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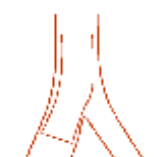
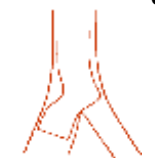

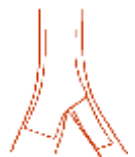
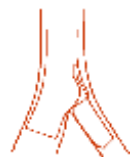

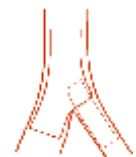
Two-stent techniques for bifurcations: Practical sum-up

T. Lefèvre, Massy, France

Disclosure Statement of Financial Interest

Within the past 12 months, I or my spouse/partner have had a financial interest/arrangement or affiliation with the organization(s) listed below.

Affiliation/Financial Relationship	Company
<ul style="list-style-type: none">• Grant/Research Support• Consulting Fees/Honoraria	Abbott, Astra Zeneca, Lily, Edwards
<ul style="list-style-type: none">• Major Stock Shareholder/Equity• Royalty Income• Ownership/Founder• Intellectual Property Rights• Other Financial Benefit	

	M Main prox. first	A Main Accross side first	D Distal first	S Side branch first
1st stent		 MB stenting across SB		
After balloon		 MB stenting + SB balloon	 MB stenting + kissing	
2 stents		 Elective T stenting	 Internal crush	 Culotte
			 TAP	
3 stents				

**Provisional
SB Stenting
is Now
The Gold Standard !**

Main technical options for elective double stent implantation

“True” bifurcation lesion with an important SB > 3-5 mm lesion length

No risk of losing the SB after MB stenting

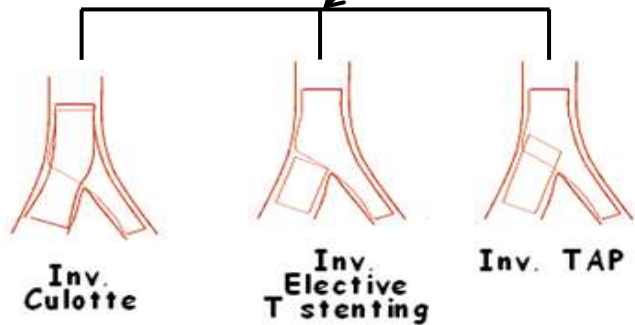
MB stenting followed by planned SB implantation



Major concerns regarding the SB after MB stenting



POT, distal MB rewiring, MB dilation



Always end with a Final Kiss !

Korean Bifurcation Pooled Cohorts (n=291)

Predictors of TVF in 2-stent strategy

	Adjusted HR*	95% CI	p Value
Treated bifurcation in LM	2.09	1.43 – 3.03	<0.001
High SYNTAX score >32	2.00	1.28 – 3.14	0.002
Diabetes mellitus	1.41	1.00 – 1.99	0.05
Second-generation DES	0.26	0.12 – 0.57	0.001
Non-compliant balloon	0.53	0.36 – 0.79	0.002
Final kissing ballooning	0.44	0.29 – 0.68	<0.001

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after MB stenting

Major concerns regarding the SB
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MB stenting followed by
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Provisional approach with 2 stents



T STENT

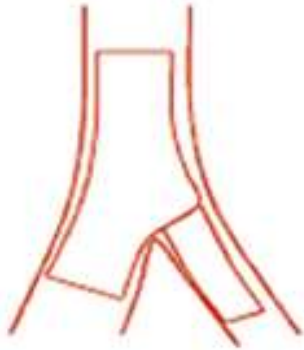
PRO

- Simple
- Well established
- Ideal for T shape angle
- Perfect ostium coverage when distal SB rewiring has been successful

CON

- Risk of incomplete ostium coverage or stent protrusion in the MB

Provisional approach with 2 stents



T STENT



TAP

PRO

- Simple
- Well established
- Ideal for T shape angle
- Perfect ostium coverage when distal SB rewiring has been successful

- Ensure full ostial coverage

CON

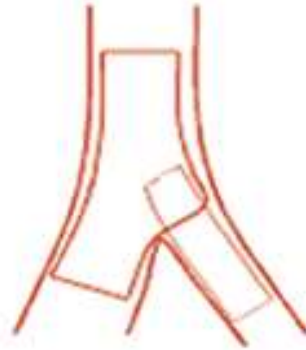
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- Creation of a long neocarina in the case of acute-angled take-off

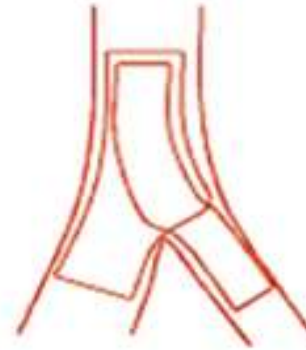
Provisional approach with 2 stents



T STENT



TAP



CULOTTE

PRO

- Simple
- Well established
- Ideal for T shape angle
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- Ensure full ostial coverage

- Ensure full ostial coverage

CON

- Risk of incomplete ostium coverage or stent protrusion in the MB

- Creation of a long neocarina in the case of acute-angled take-off

- Need to rewire the distal MB before performing kissing balloon inflation

Provisional approach with 2 stents



T STENT



TAP



CULOTTE



CRUSH
(Internal)

PRO

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- Well established
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- Ensure full ostial coverage

- Ensure full ostial coverage

Not well established

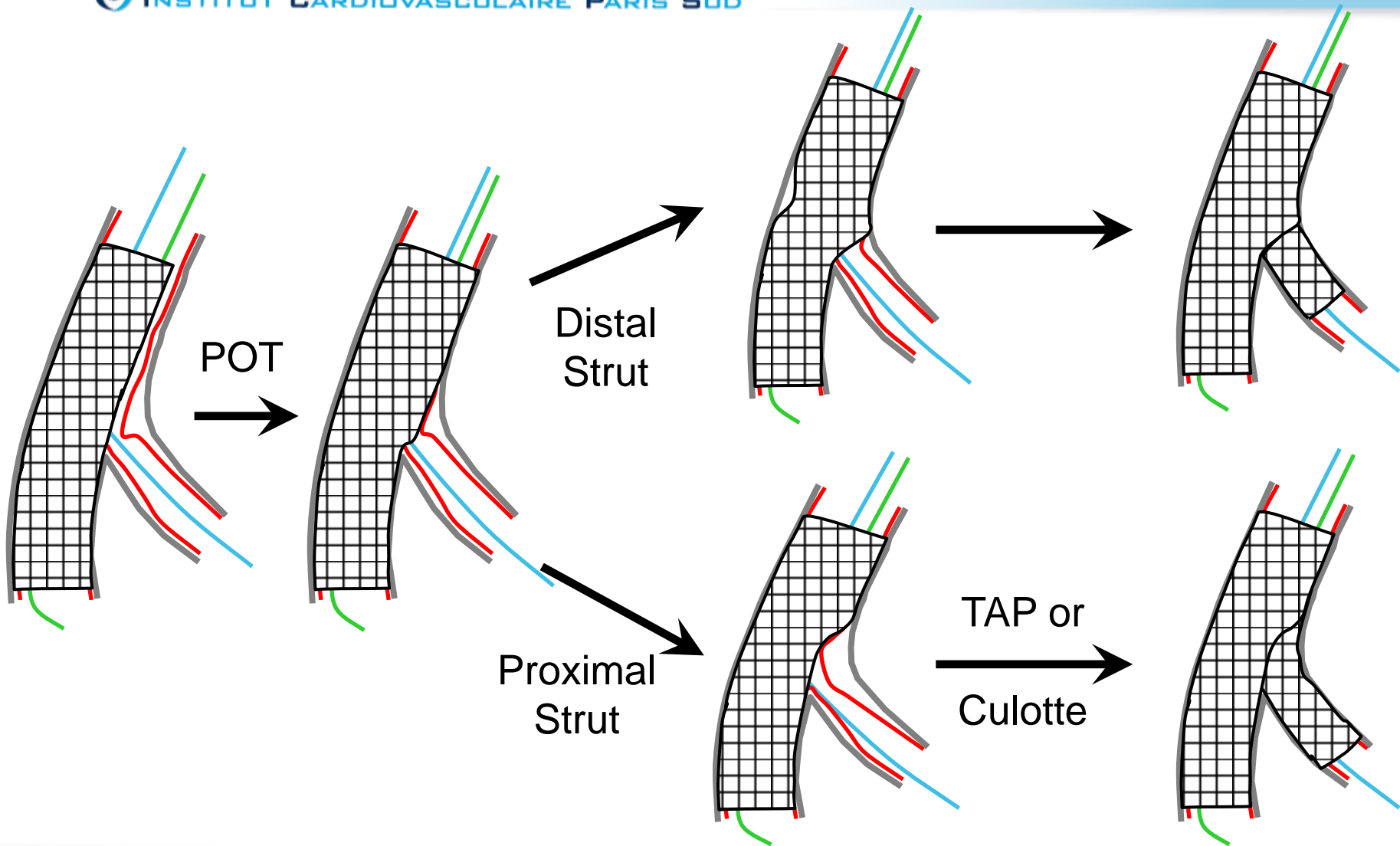
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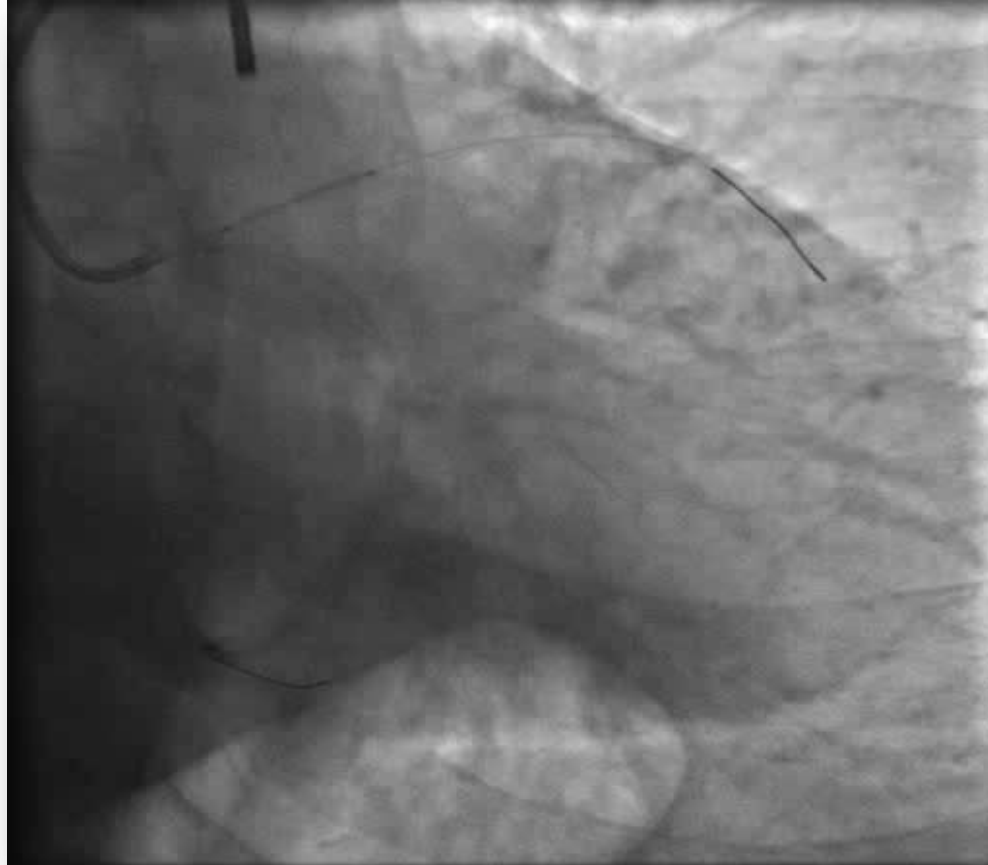
Not well established



0,1,1 1,01, 1,1,1 Lesions



0,1,1 1,01, 1,1,1 Lesions



0,1,1 1,01, 1,1,1 Lesions



Main technical options for elective double stent implantation

1,1,1 bifurcation lesion with an important SB > 3-5 mm length

No risk of losing the SB after MB stenting

Major concerns regarding the SB after MB stenting



Mini DK-CRUSH



Inv. MB stenting across SB

POT, distal MB rewiring, MB dilation



Inv. Culotte



Inv. Elective T stenting



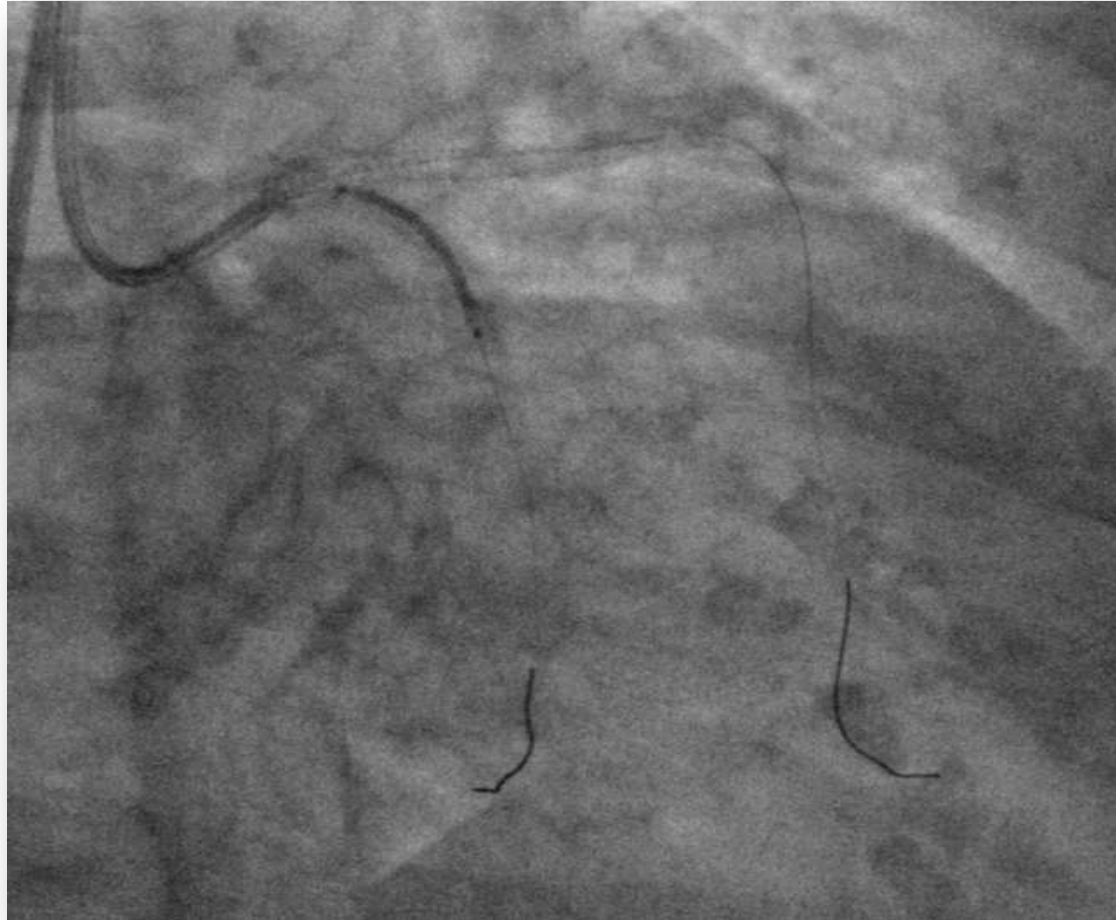
Inv. TAP

Always end with a Final Kiss !

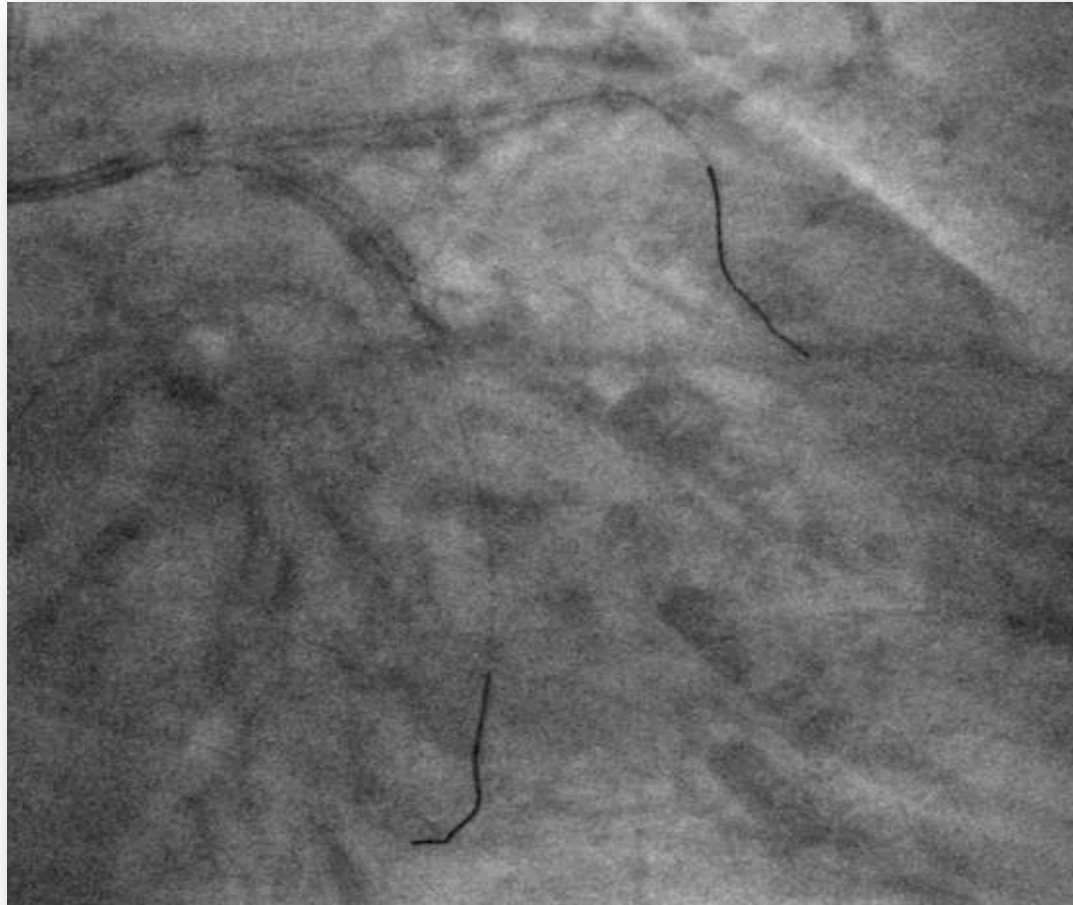
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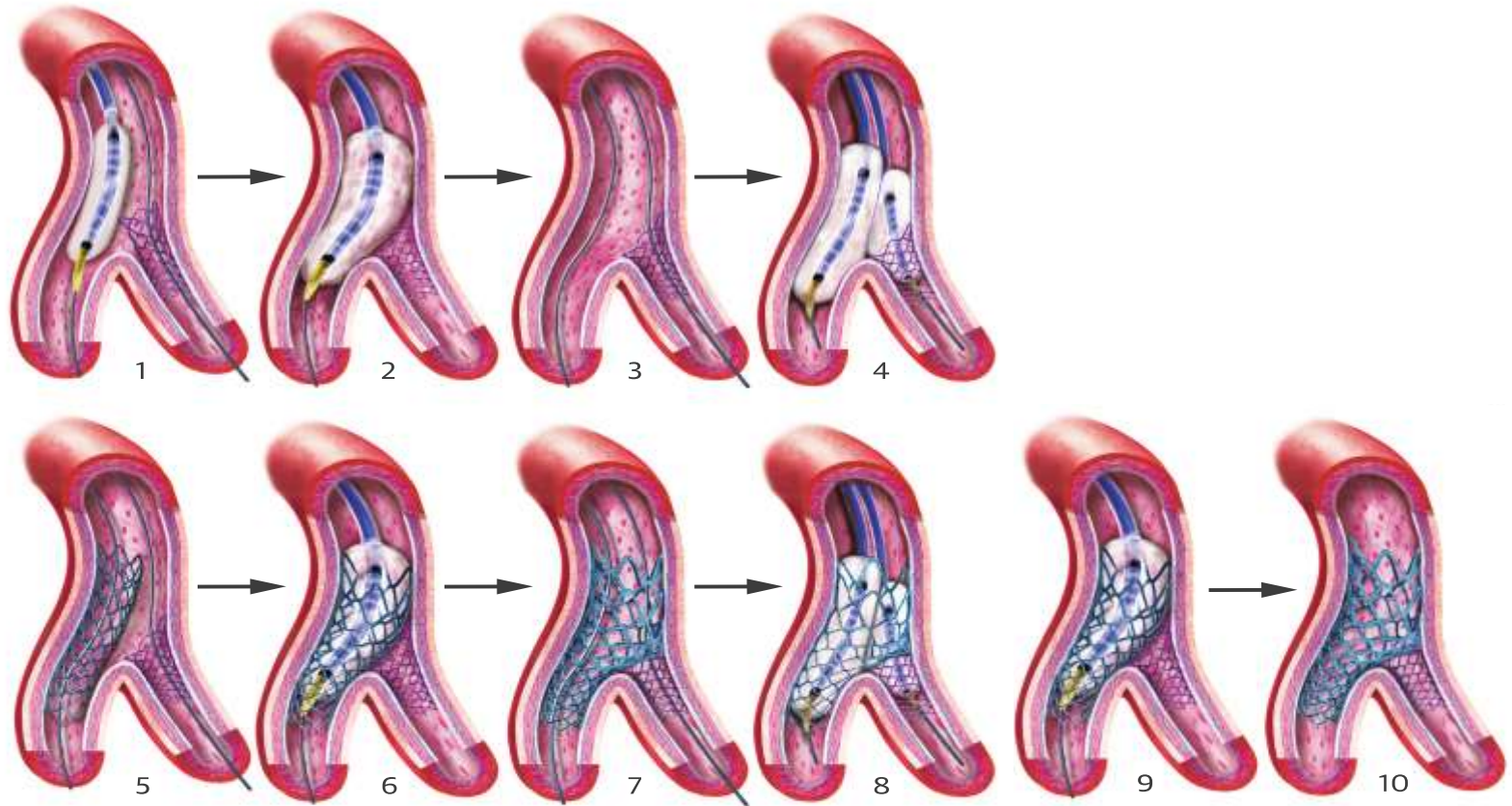
Inv. Elective T stenting



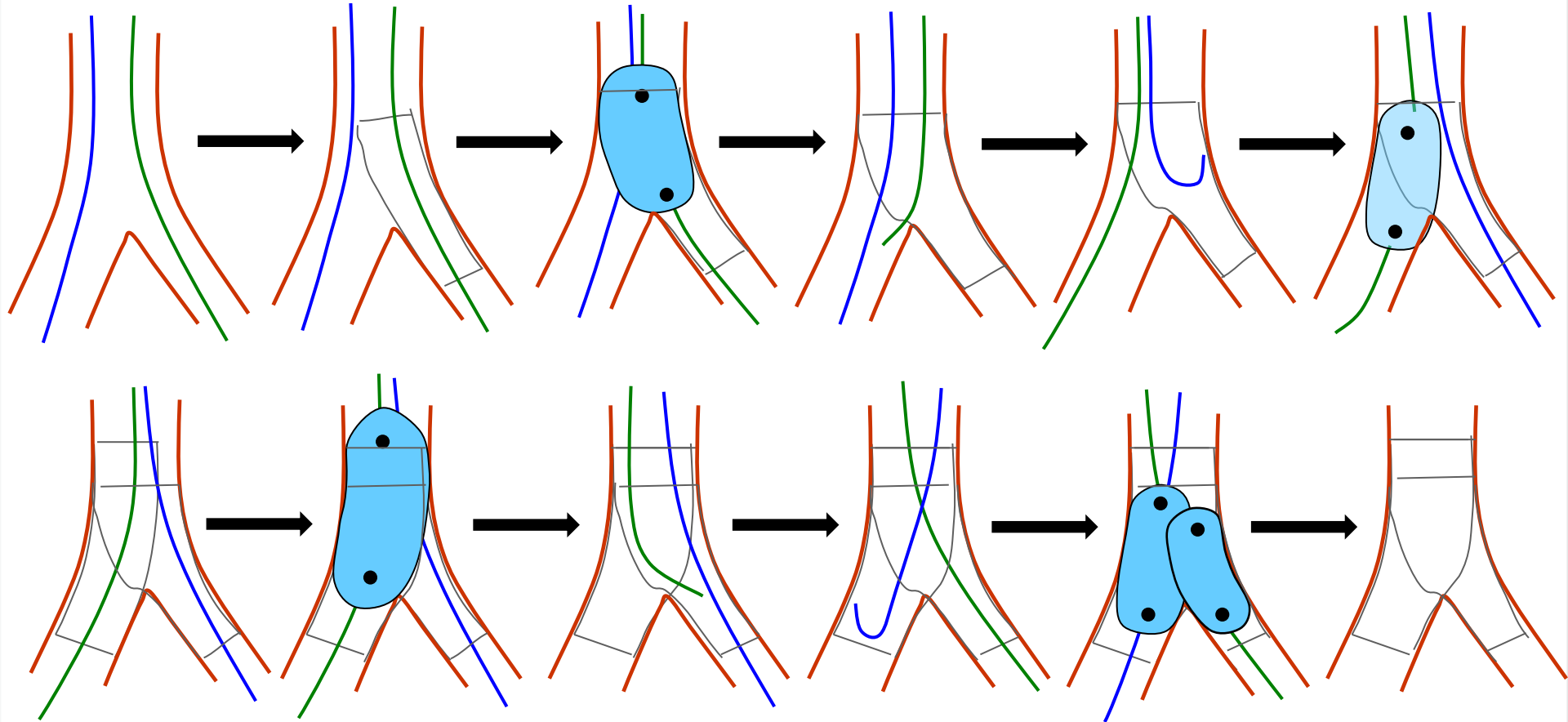
Inv. TAP

Always end with a Final Kiss !

Mini DK Crush



Inverted "culotte" technique



Conclusion

- ✓ In true bifurcation lesions, the two-stent technique is selected according to the potential difficulty to access the side branch.
- ✓ Even when two stents are needed (10-15%), provisional side branch stenting can be the technique of choice in the majority of cases.
- ✓ After main branch stenting, T stenting is preferred after careful analysis of the result after POT and side branch stent strut opening
- ✓ TAP or culotte should be used if the side branch ostium result is not optimal.

Conclusion

- ✓ When side branch access is anticipated to be difficult after main branch stenting, Mini DK crush or culotte should be preferred.
- ✓ These techniques are technically demanding and all steps should be followed in order to respect the anatomy, have minimal overlap and stents well apposed.
- ✓ In all cases, final kissing balloon inflation should be performed preferably with short non compliant balloons and long inflations.