Precise stent positioning in bifurcation stenting

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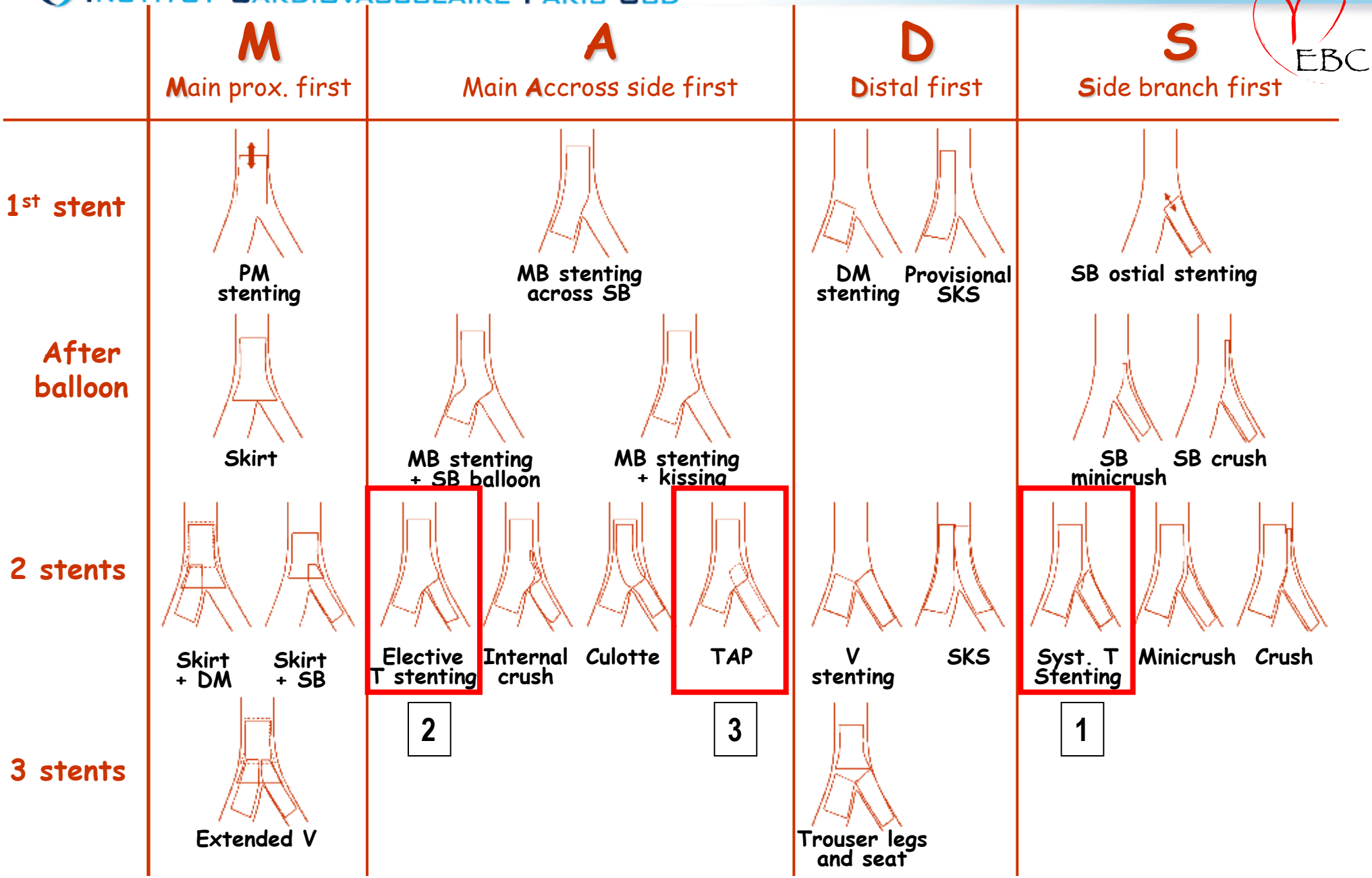
TCTAP 2015

Precise stent positioning in bifurcation stenting

Nothing to disclose



Y. Louvard, CCI 2008 Feb 1;71(2):175-83.

T-stenting history

1. Carrie D, Karouny E, Chouairi S, et al. "T"-shaped stent placement: a technique for the treatment of dissected bifurcation lesions. Cathet Cardiovasc Diagn. 1996;37:311-3.

1. Kobayashi Y, Colombo A, Akiyama T, et al. Modified "T" stenting: a technique for kissing stents in bifurcational coronary lesion. Cathet Cardiovasc Diagn 1998;43:323-6.

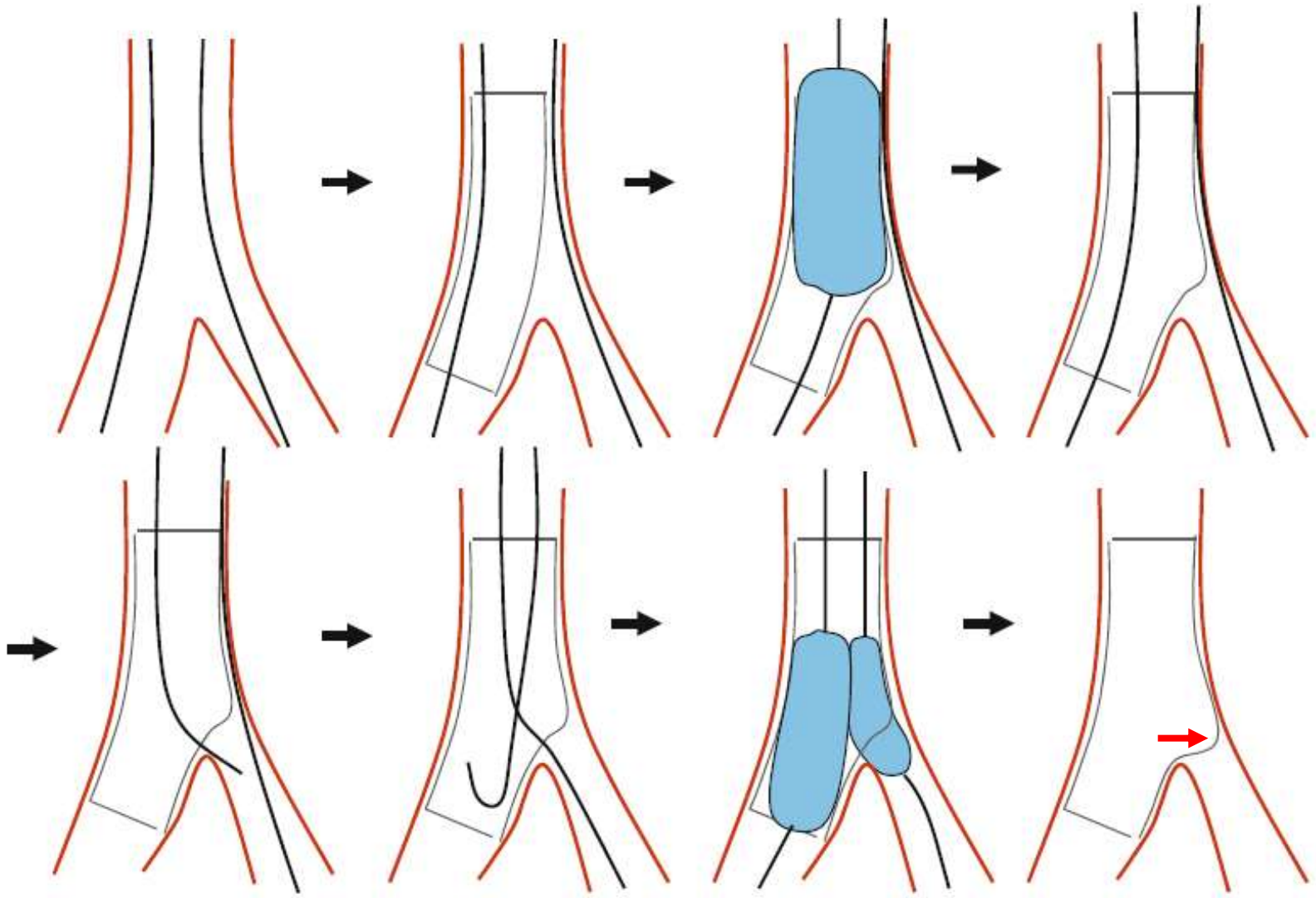
1. Colombo A, Stankovic G, Orlic D, Corvaja N, Liistro F, Airoldi F, Chieffo A, Spanos V, Montorfano M, Di Mario C. Modified T-stenting technique with crushing for bifurcation lesions: immediate results and 30-day outcome. Catheter Cardiovasc Interv. 2003 Oct;60(2):145-51.

2. Lefevre T, Louvard Y, Morice MC, et al. Stenting of bifurcation lesions: a rational approach. *J Interv Cardiol* 2001;14:573-85.

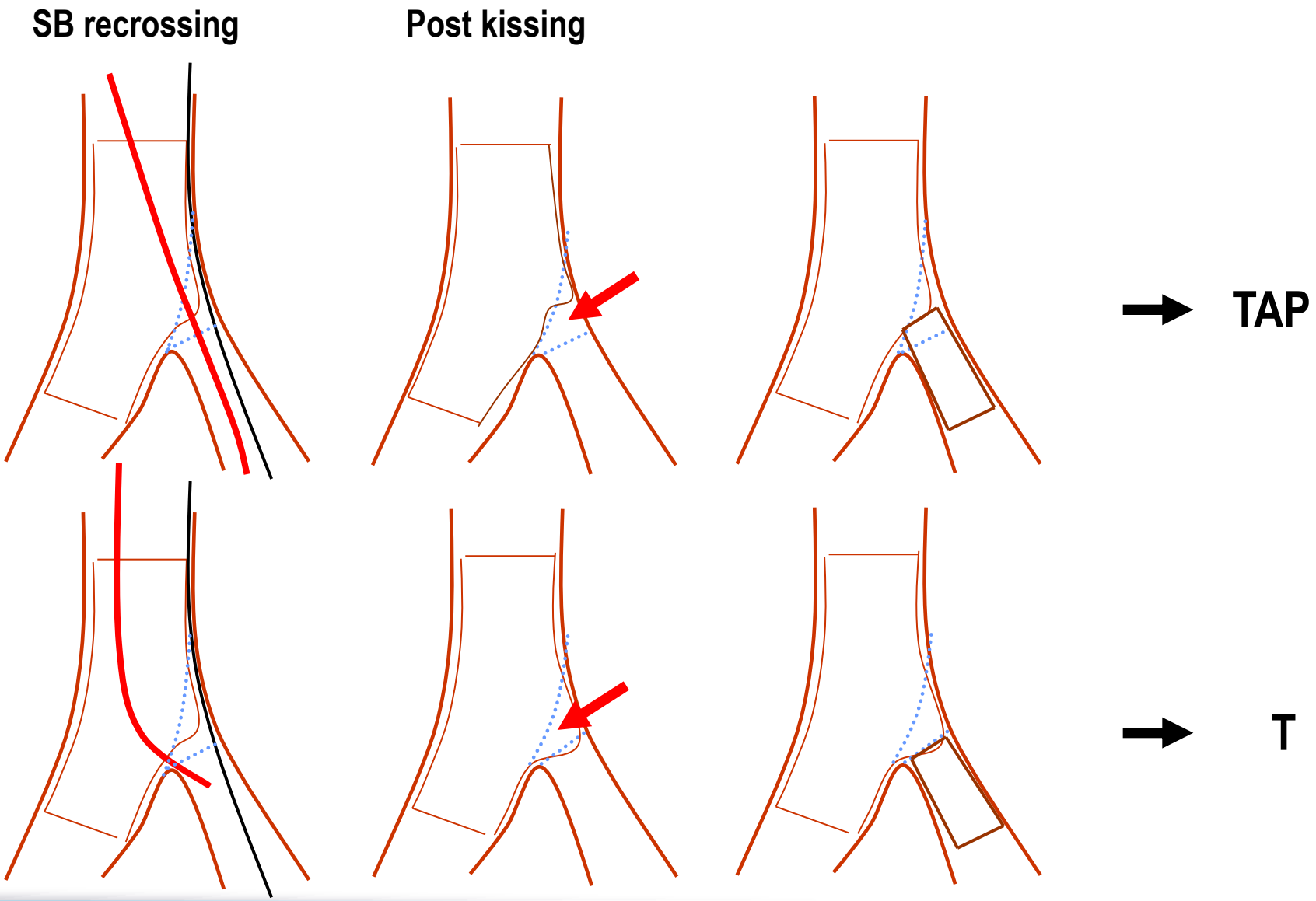
3. Burzotta F, Gwon HC, Hahn JY, Romagnoli E, Choi JH, Trani C, Colombo A.Modified T-stenting with intentional protrusion of the side-branch stent within the main vessel stent to ensure ostial coverage and facilitate final kissing balloon: the T-stenting and small protrusion technique (TAP-stenting). Report of bench testing and first clinical Italian-Korean two-centre experience. Catheter Cardiovasc Interv. 2007 Jul 1;70(1):75-82.

Provisional strategy: elective T / TAP interest of stent enhancment

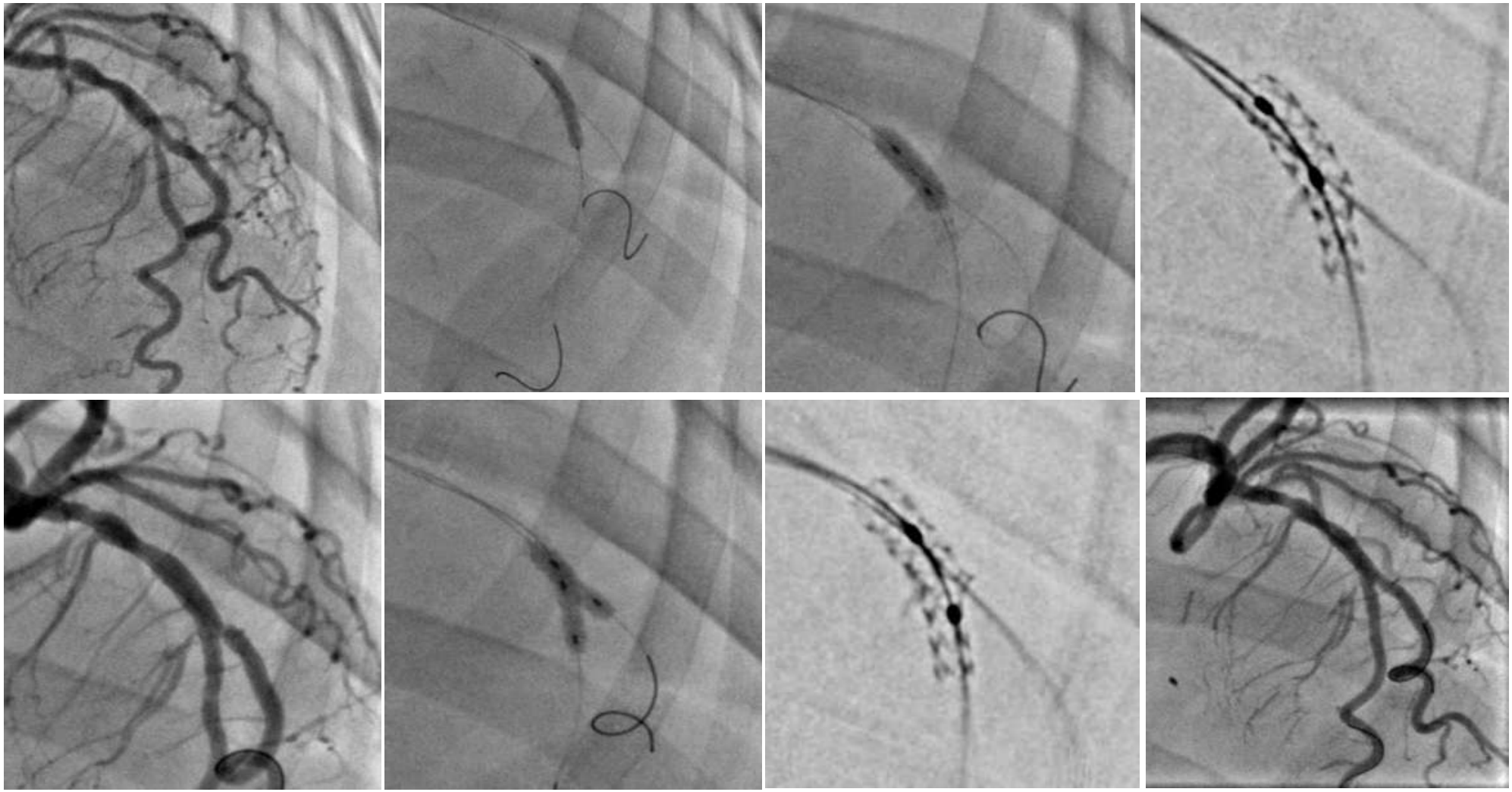
Provisional T stenting



T or TAP ?



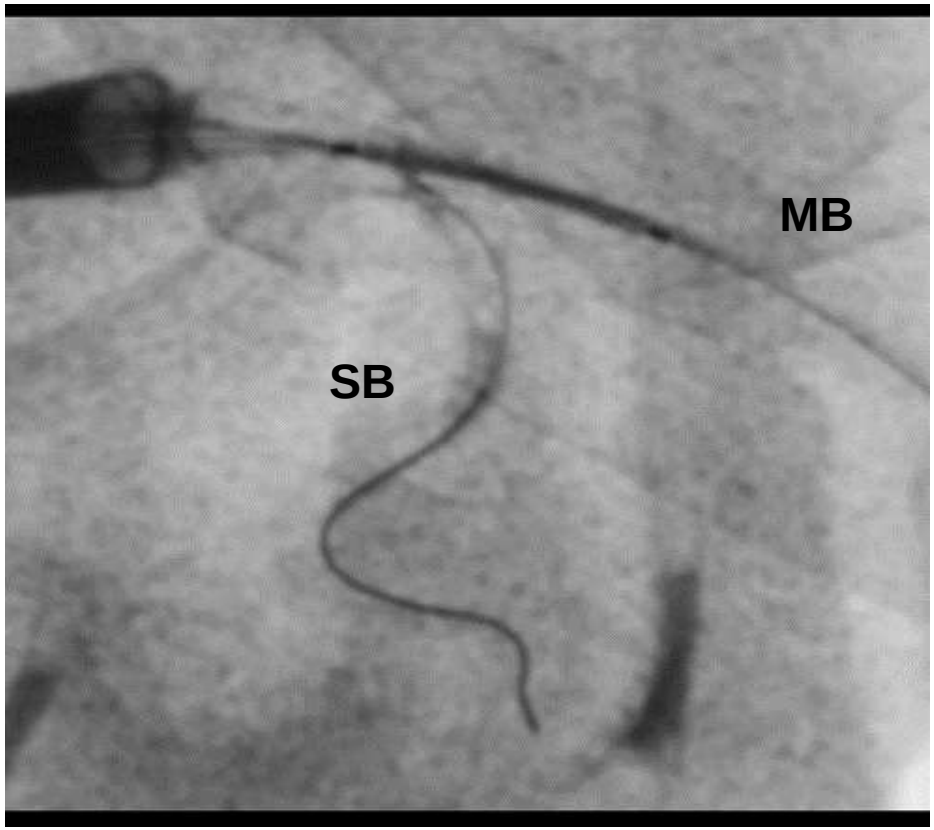
Provisional T stenting

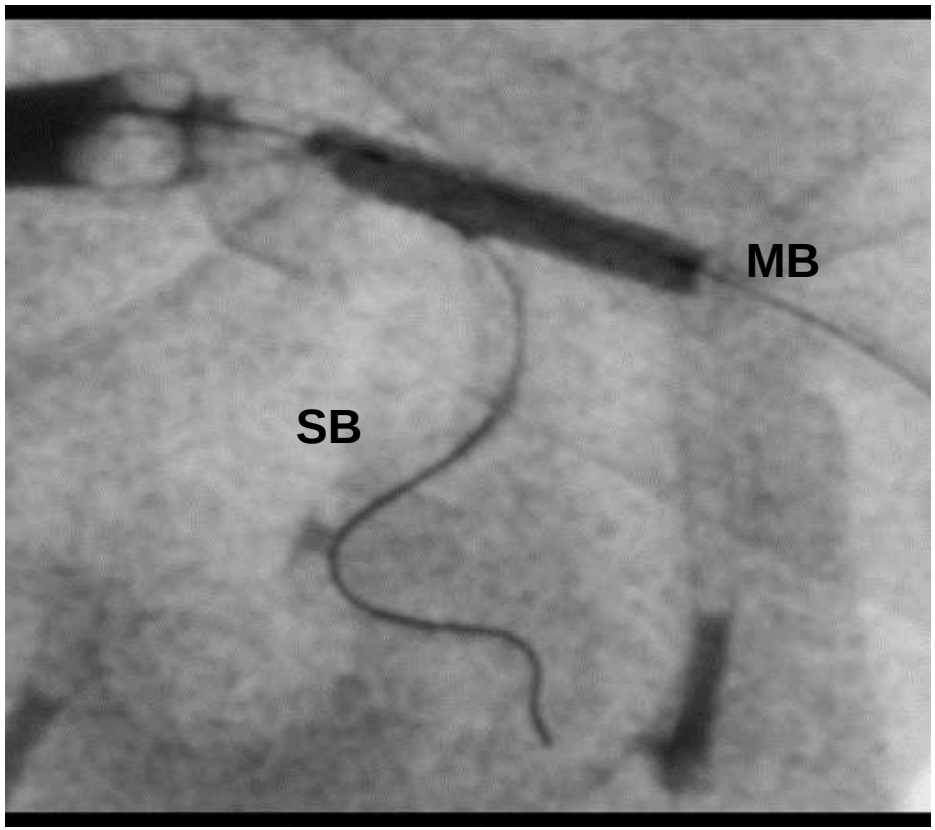


TAP

TAP

Step 1: stenting on MB with jailed guidewire on SB

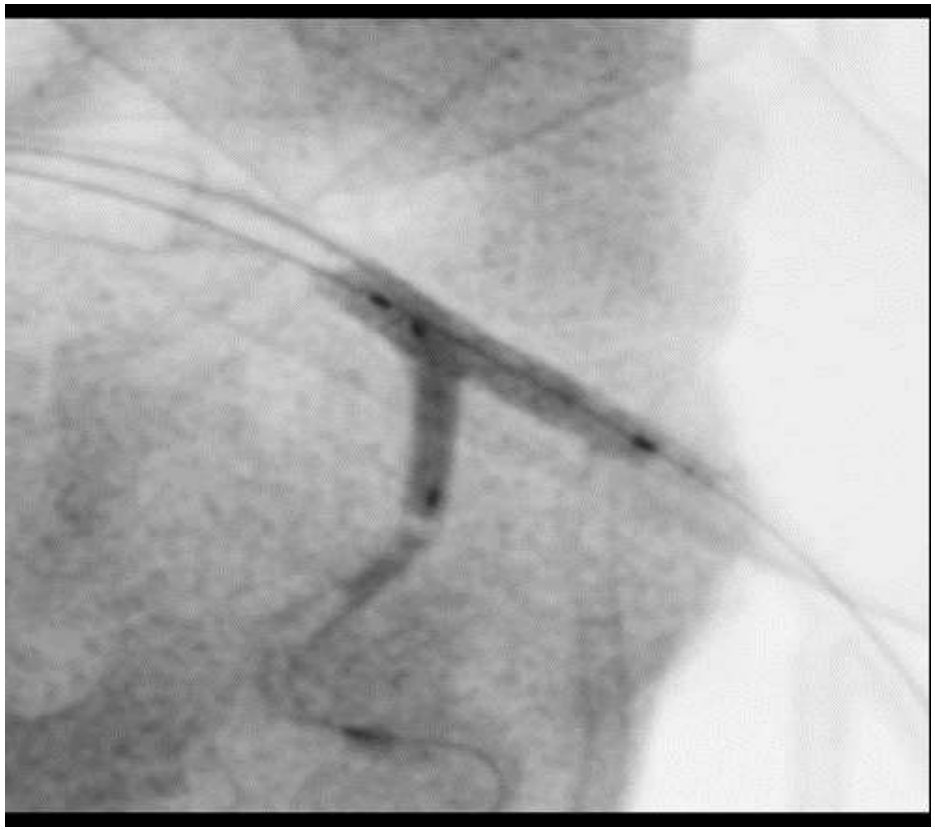




Courtesy of F. Burzotta

TAP

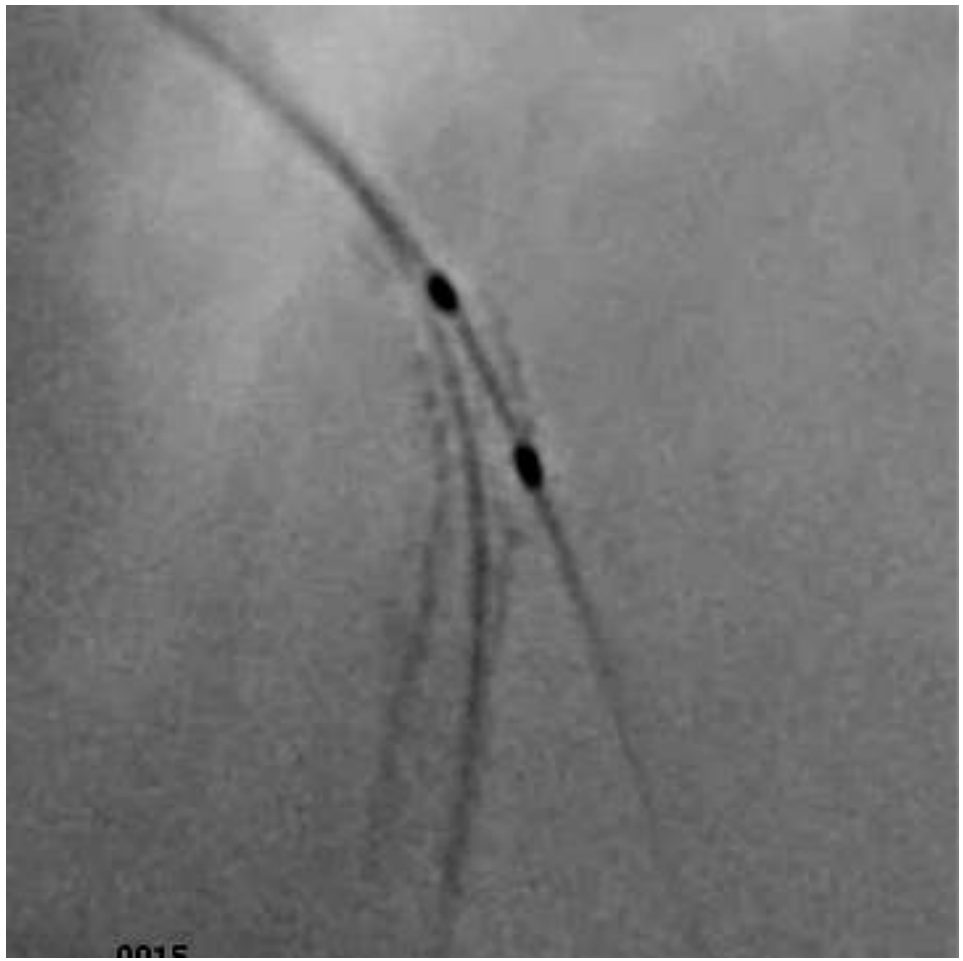
Step 2: Kissing on MB and SB after rewiring of the SB (according to Provisional T-stenting strategy)



Courtesy of F. Burzotta

T or TAP ? (stent boost)

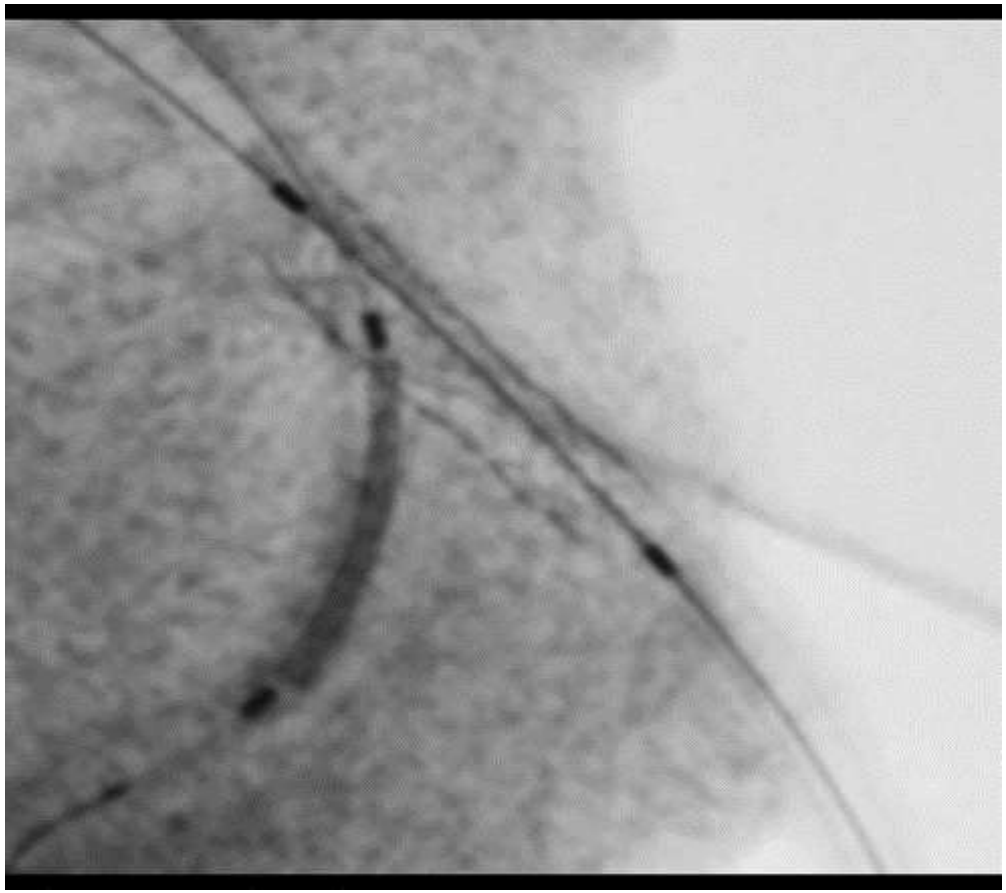
T



TAP

TAP

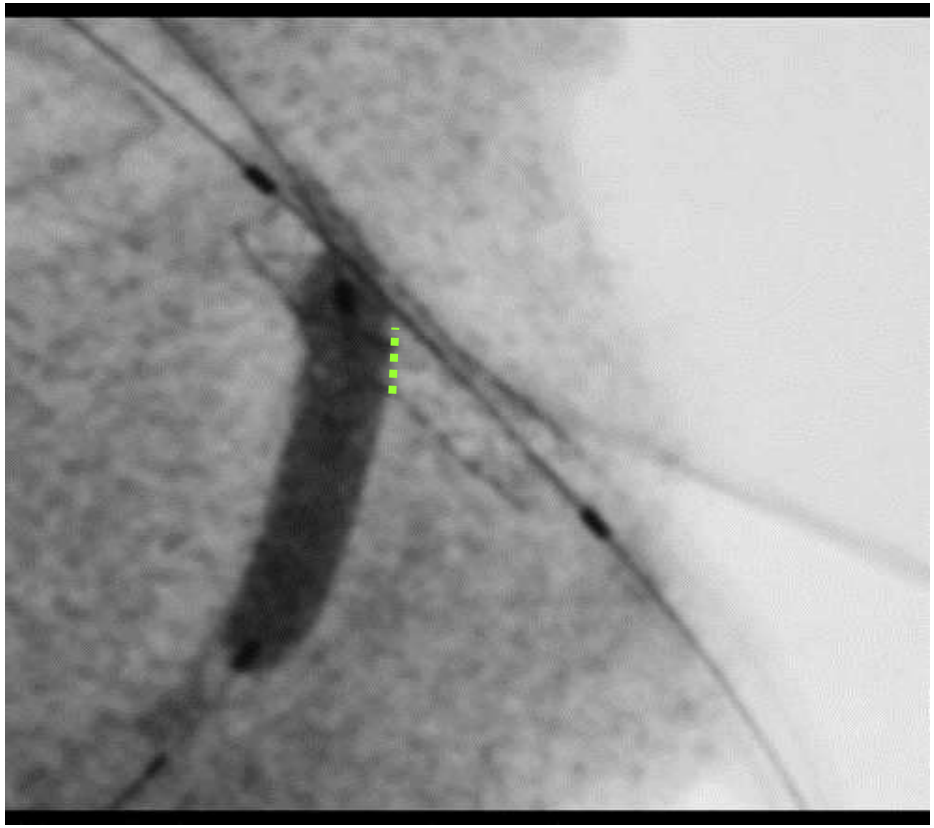
Step 3: Placement of the stent on the SB with uninflated balloon on MB ready for final kissing balloon



Courtesy of F. Burzotta

TAP

Step 4: Inflation of the stent on the SB with uninflated balloon on MB ready for final kissing balloon



Courtesy of F. Burzotta

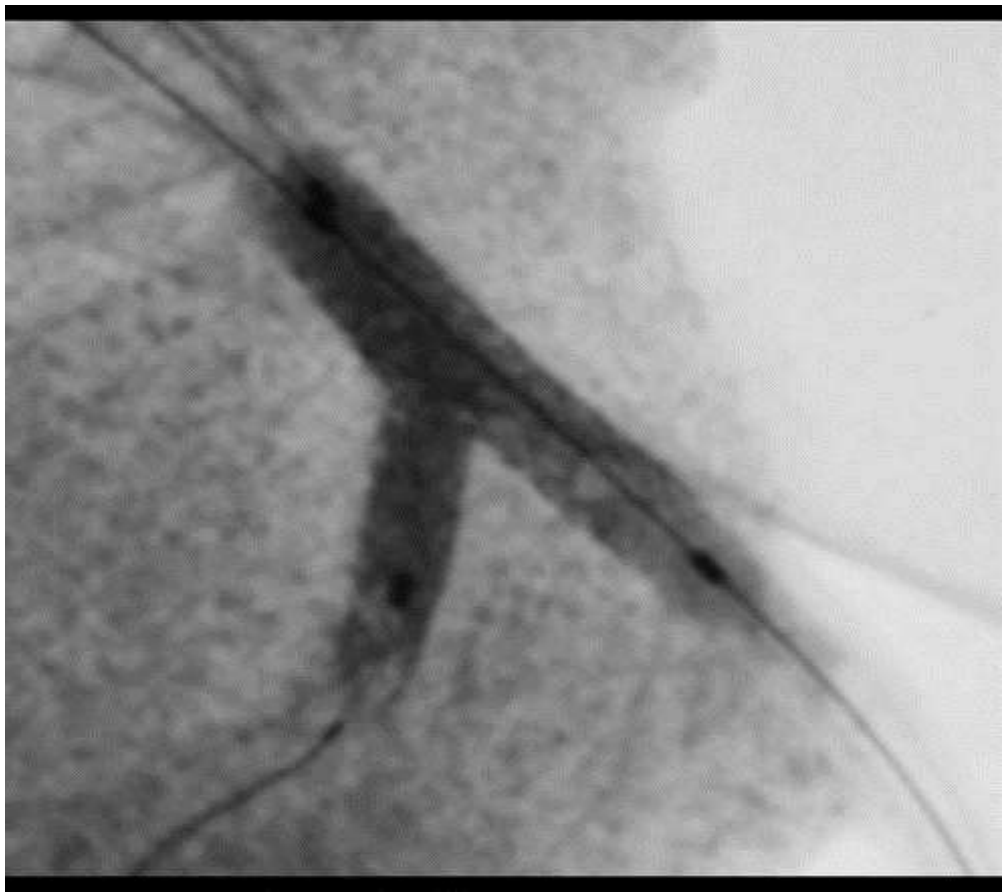
TAP

Step 5: The balloon of the SB stent is slightly pulled within the MB to perform kissing balloon inflation

Courtesy of F. Burzotta

TAP

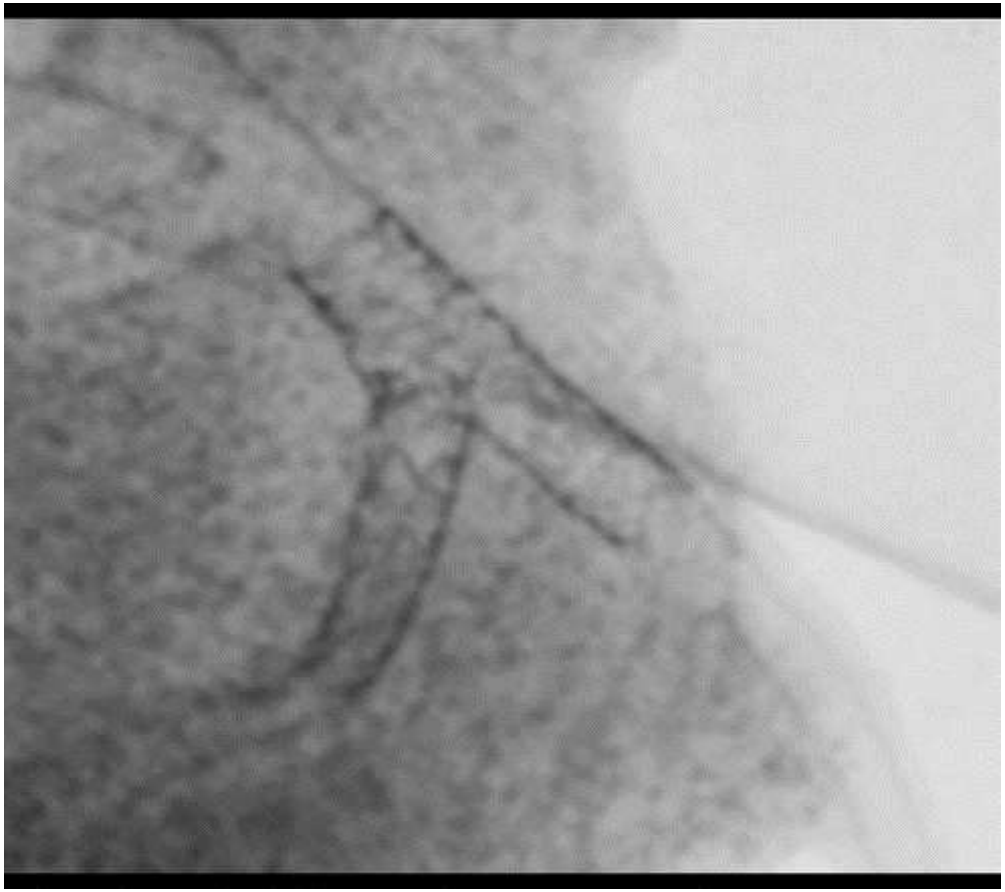
Step 6: Final kissing balloon of the bifurcation with the SB stent's balloon and the MB balloon



Courtesy of F. Burzotta

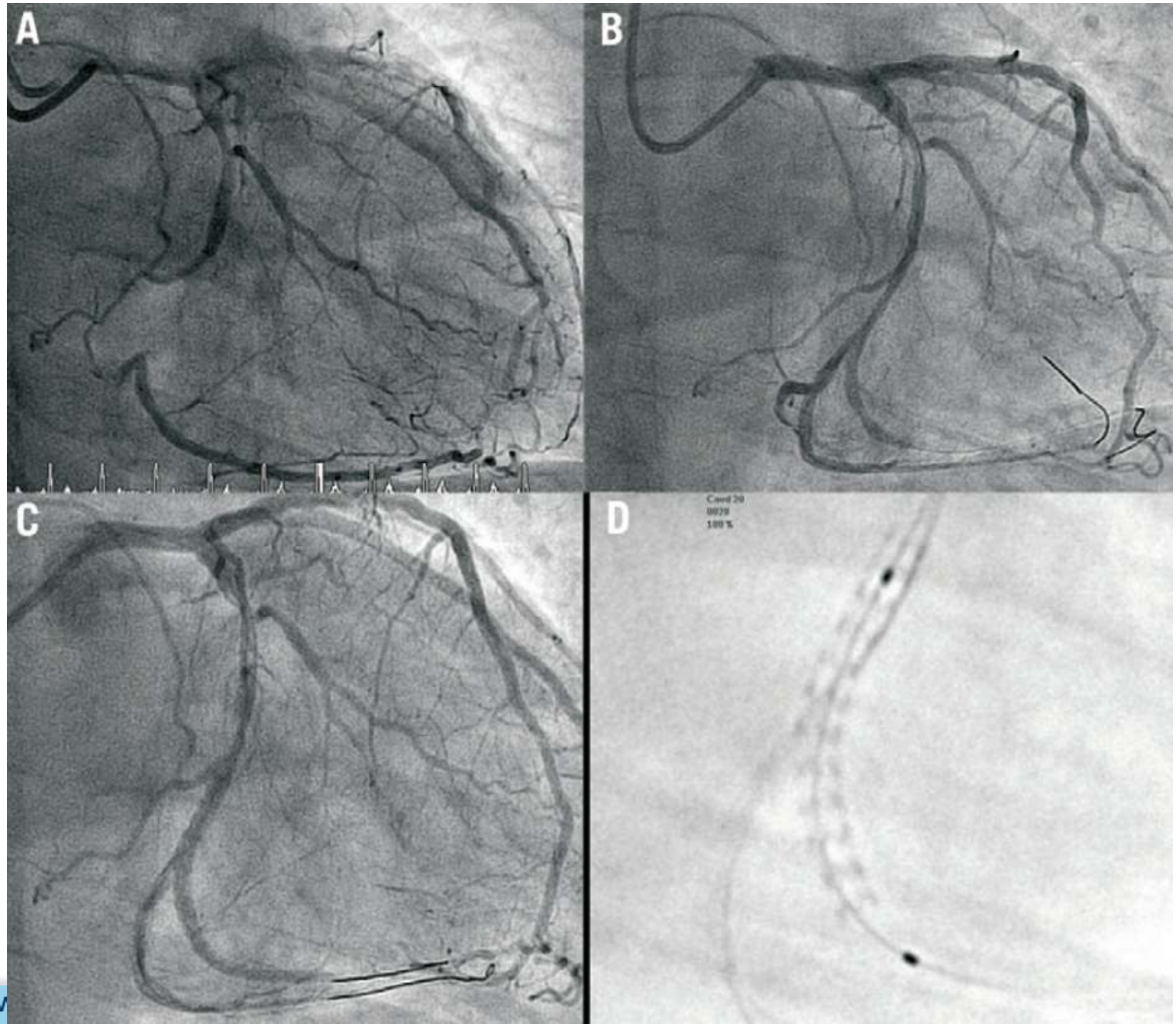
TAP

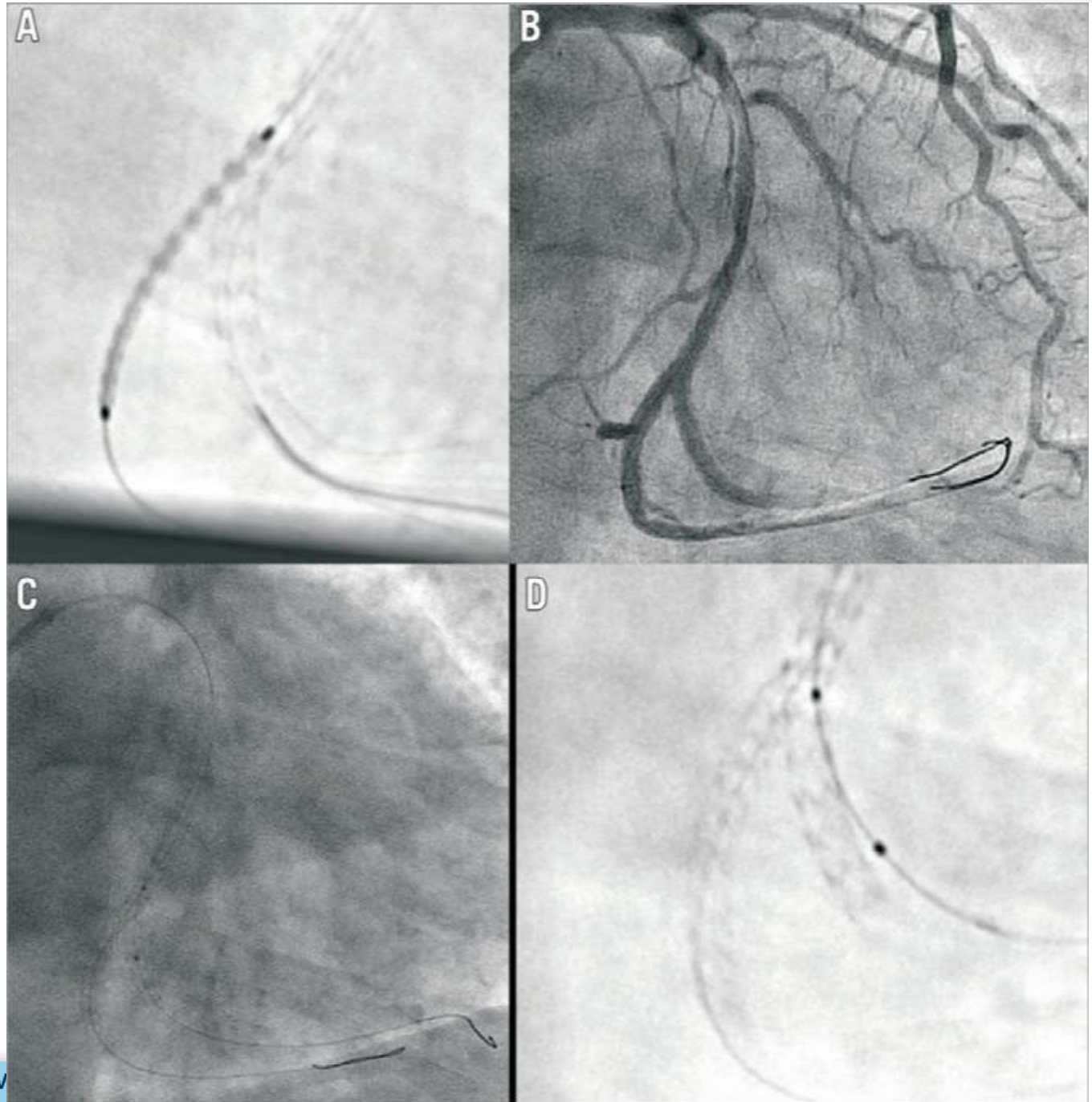
Final result



Courtesy of F. Burzotta

Other advantages of stent enhancment; avoid mistakes


A
B
C
D


A
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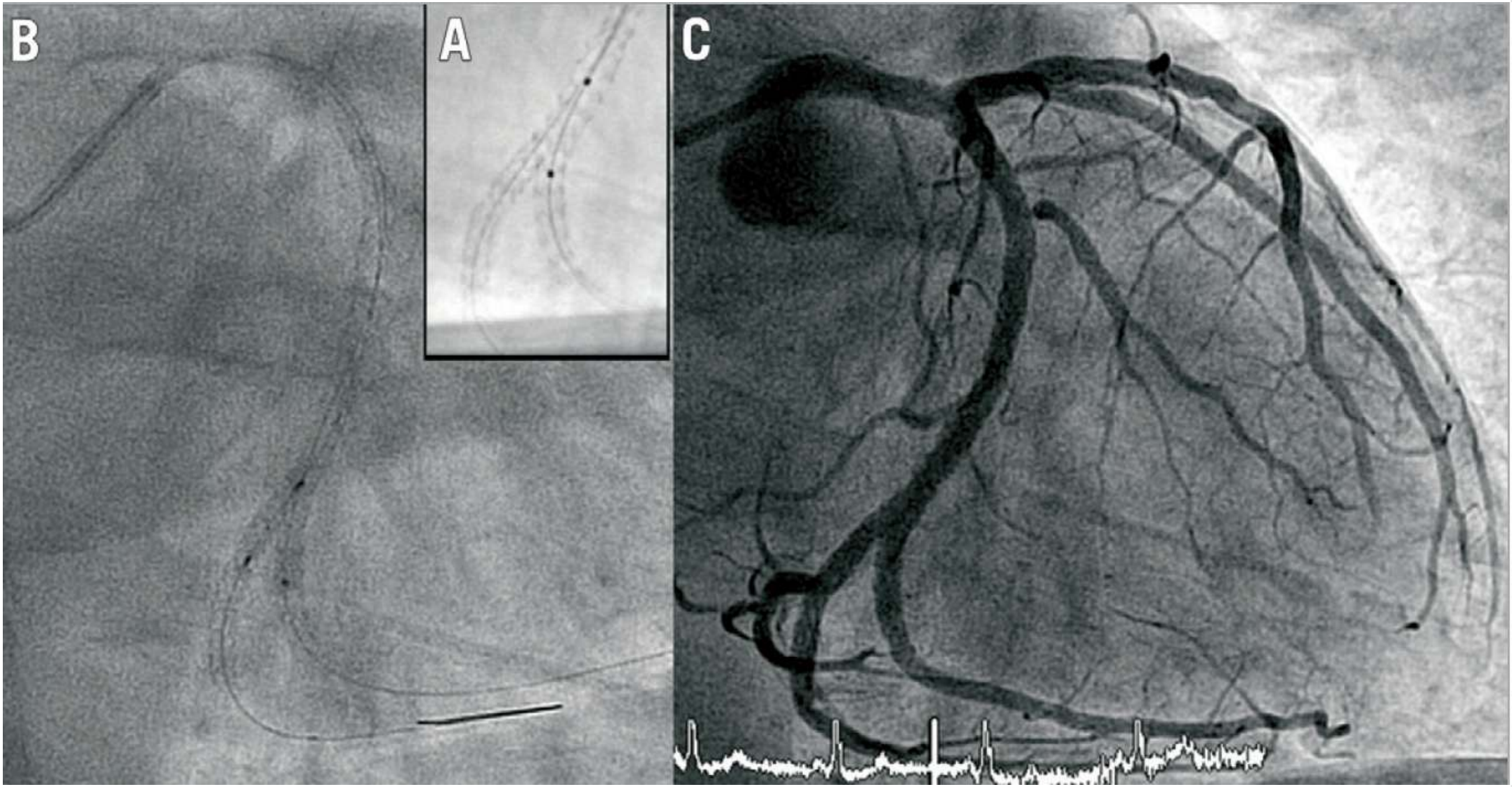
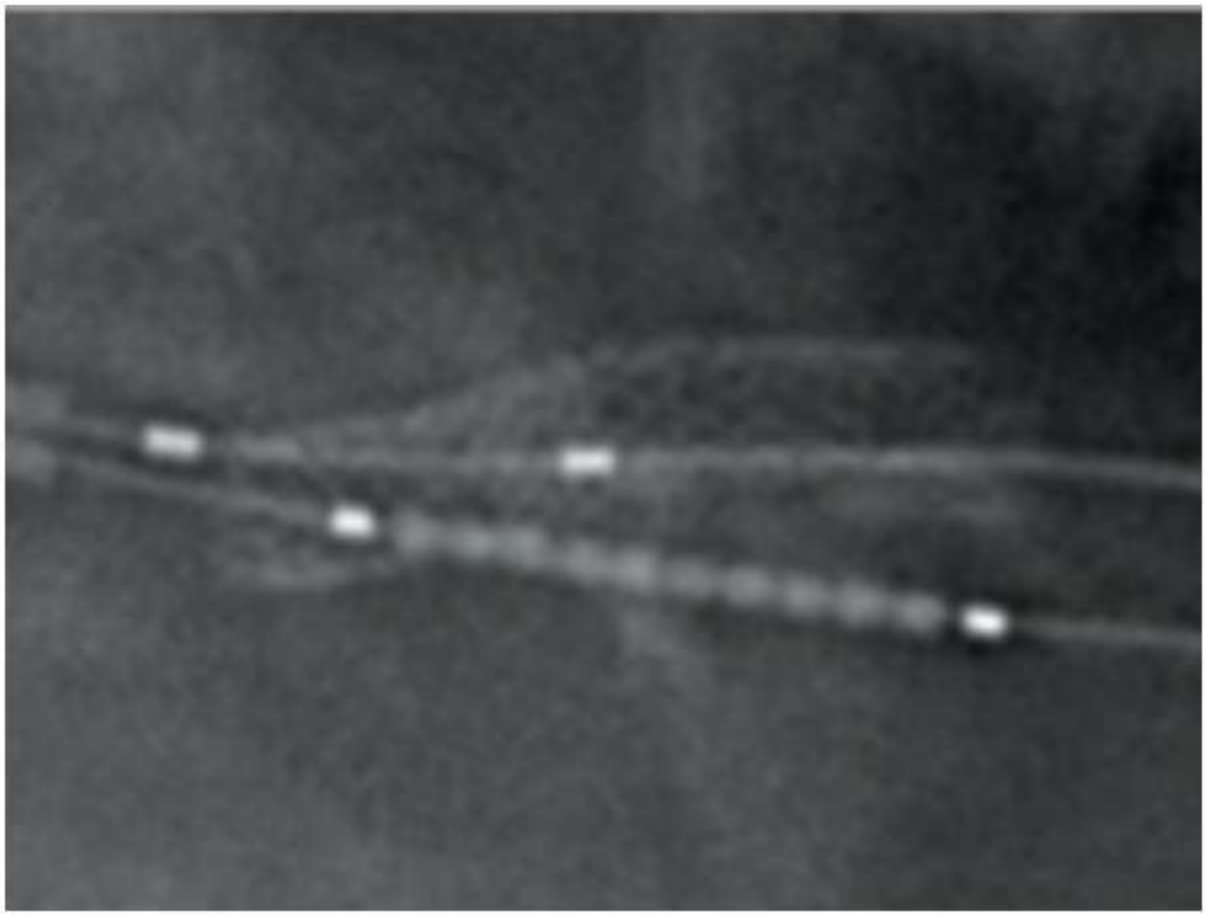

B
A
C

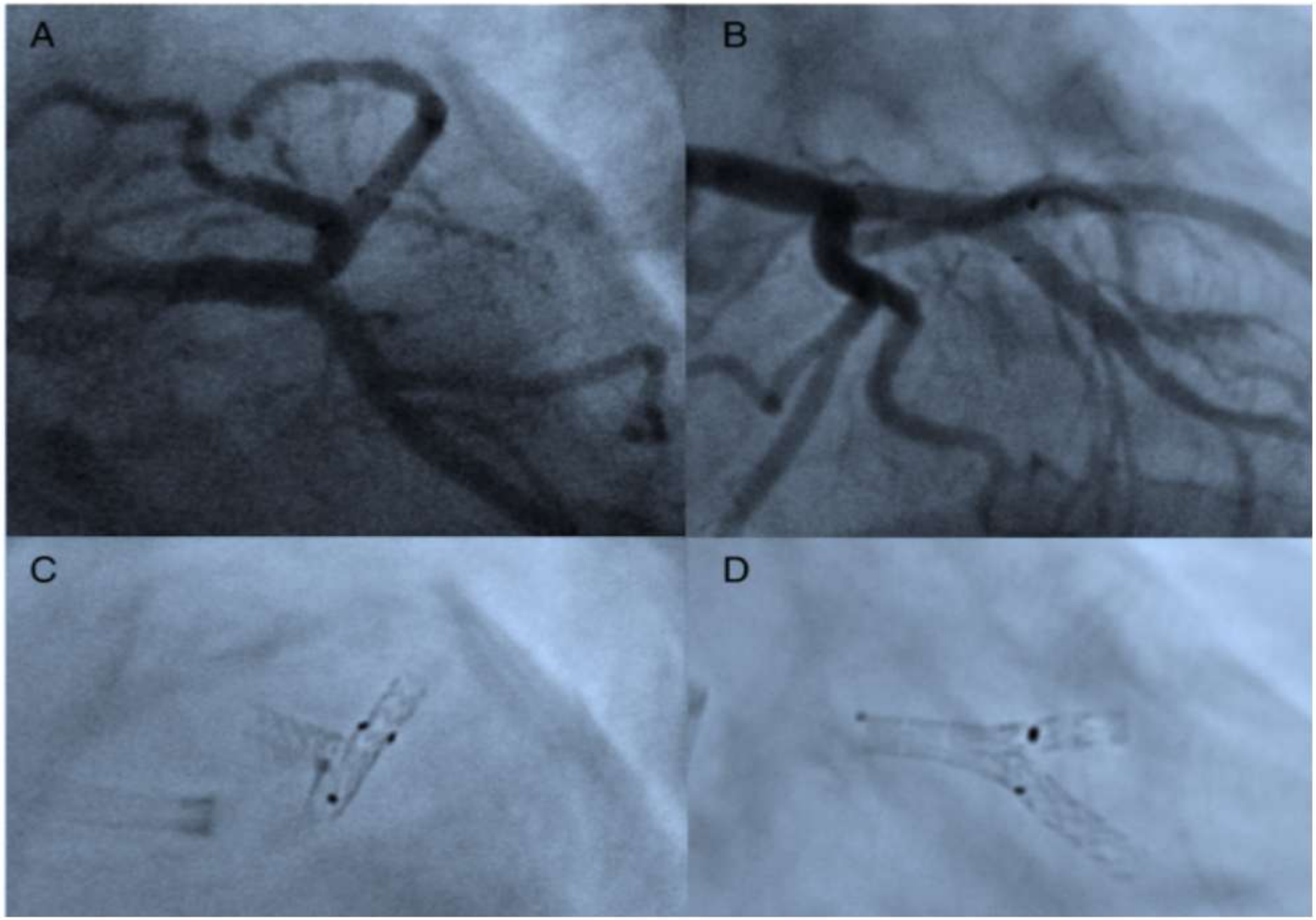
Stent enhancment usefull for any 2 stent technique



Reverse crush

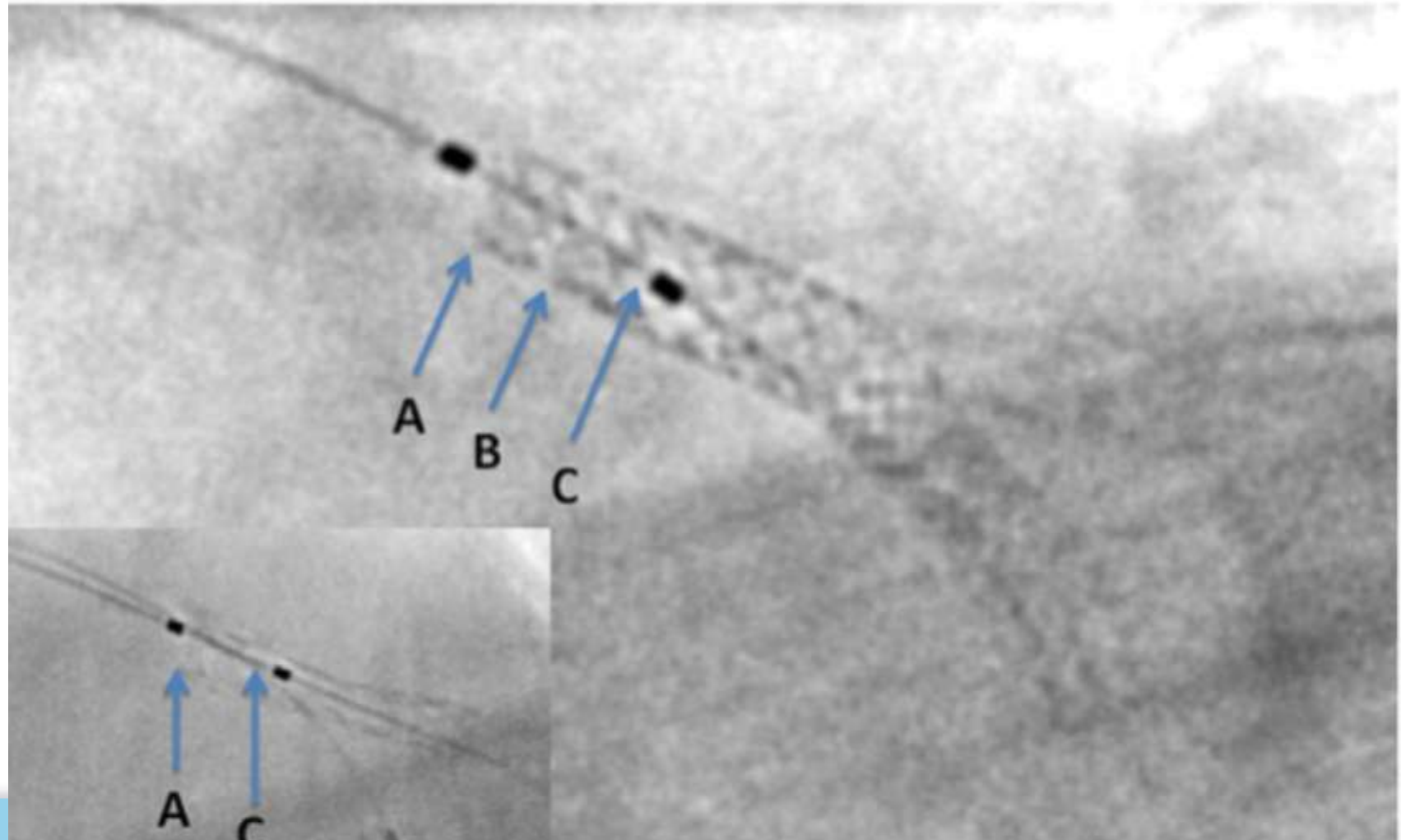
Also for dedicated stents

Axxess™ stent

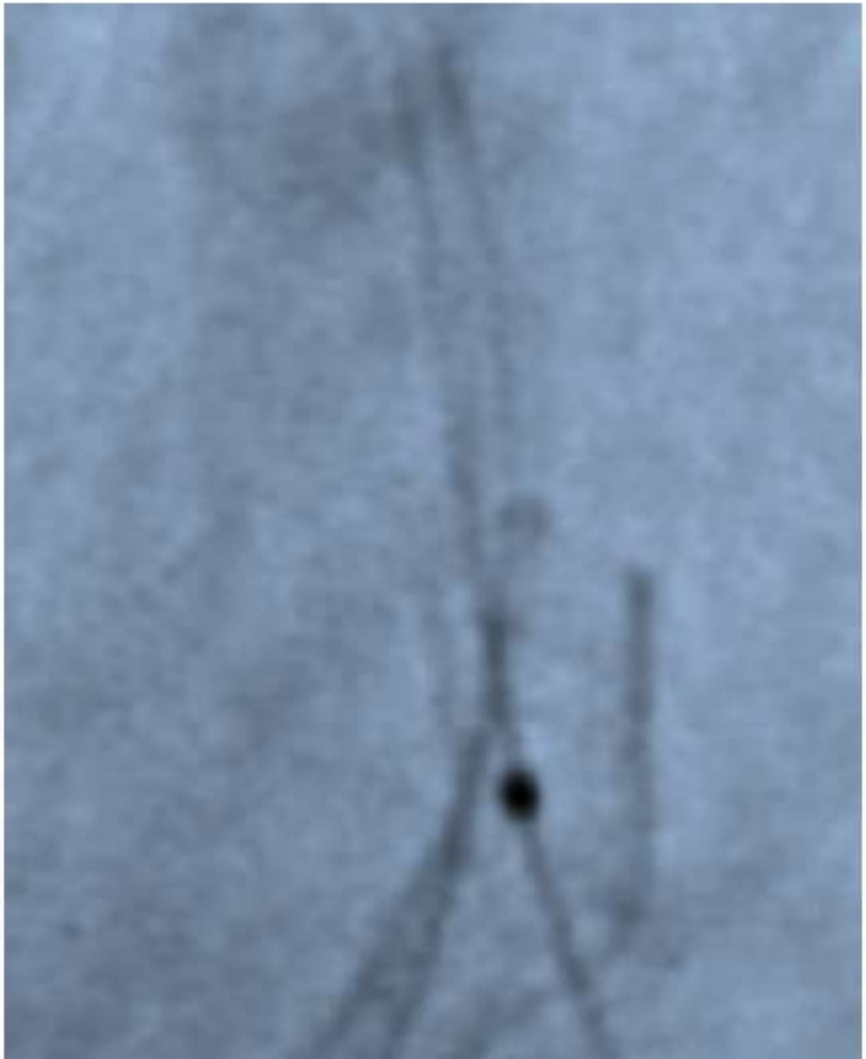


EBC

TRYTON stent



Stentys™ stent



Conclusion

- Precise positionning of the stent(s) is crucial for the outcome of the treatment of a bifurcation lesion, zoom, collimation help to see better
- Stent enhancement is a real must to be precise in stent positionning, specially when using complex techniques, and for the selection of the 2 stent technique to use
- Other imaging modality (OCT, IVUS) help to assess and optimise the result But not for positionning