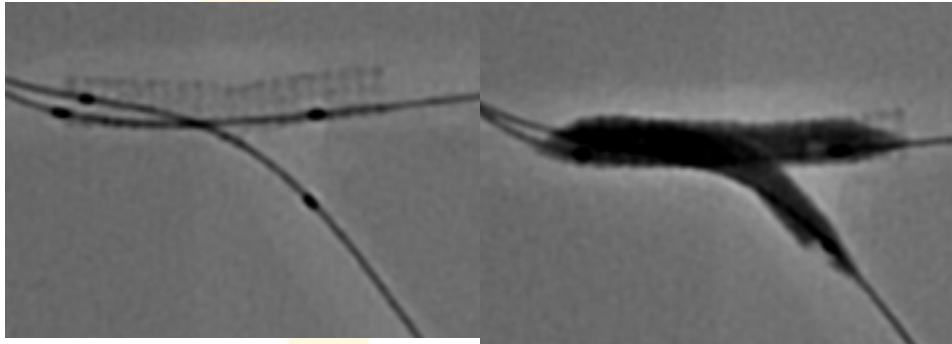


Can POT+SB dilation be an alternative to FKI?

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Department of Cardiology,
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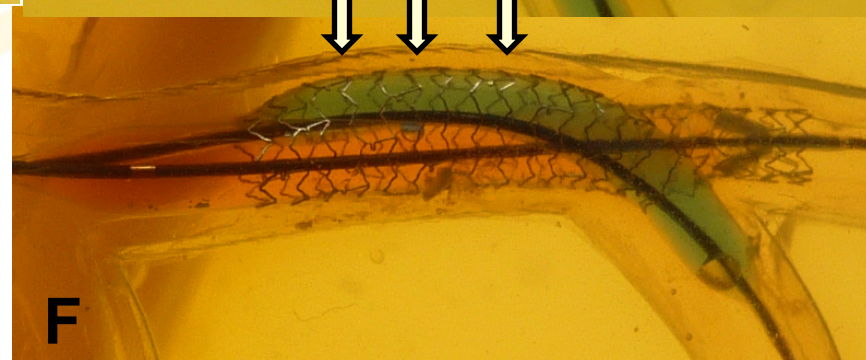
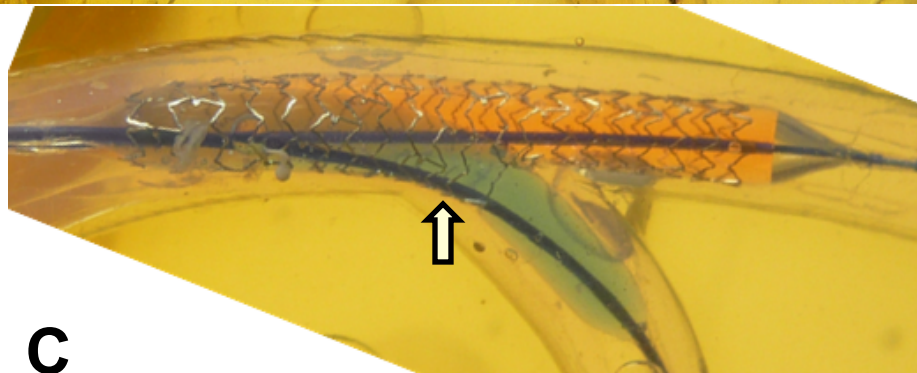
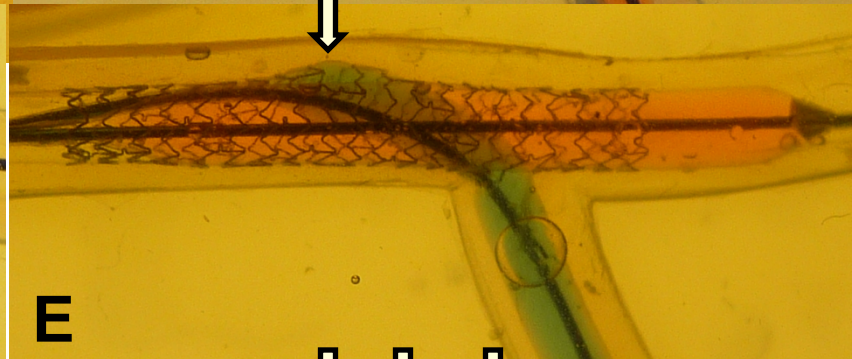
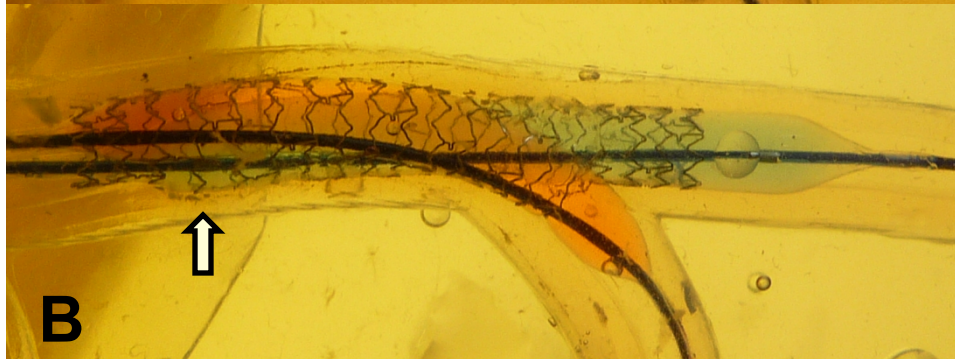
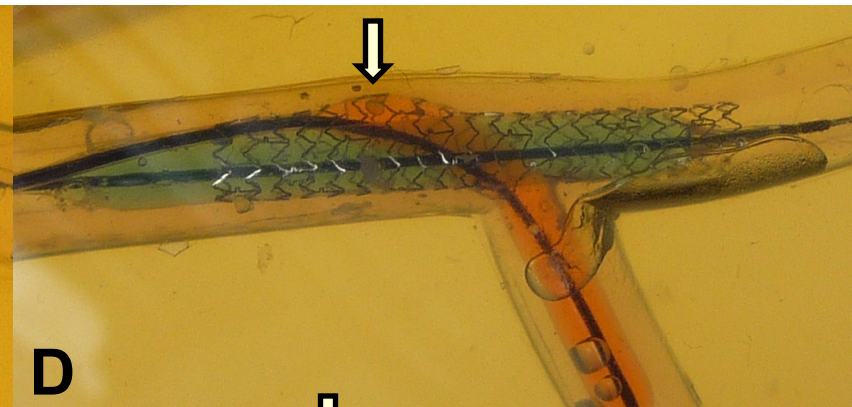
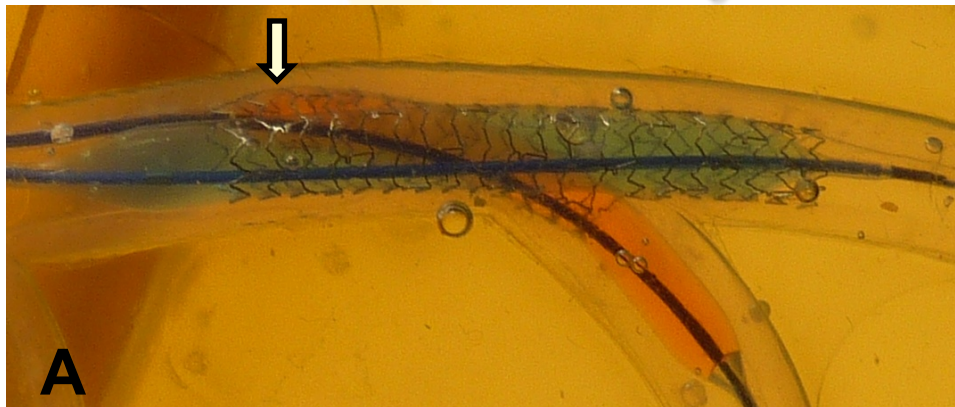
Conventional FKI promotes elliptical deformation in proximal MV.



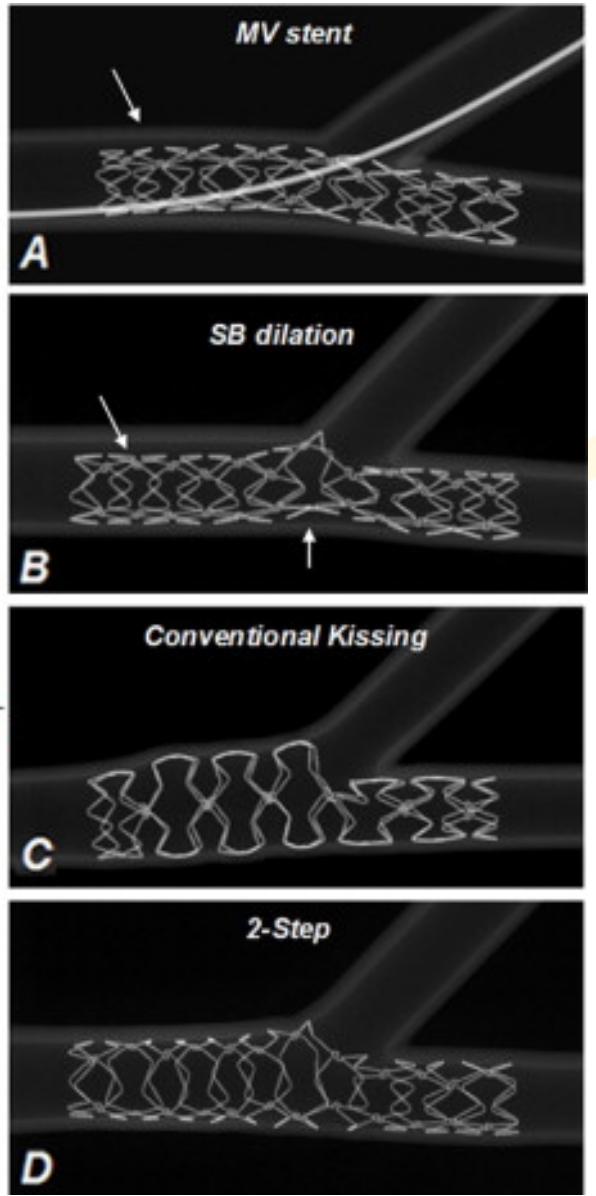
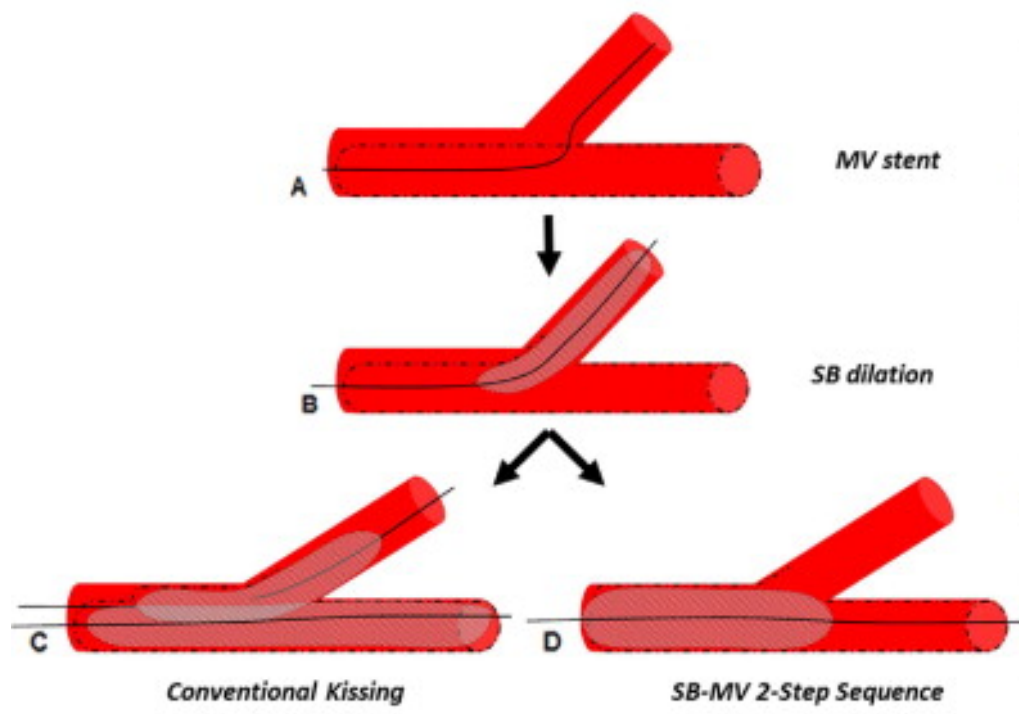
- ML Vision 3.5/28, 14atm
- SB Ryujin 3.0/20, 12atm
- KBT (6atm)
MV Ryujin 3.5/20
SB Ryujin 3.0/20



Various proximal expansion is induced by KBI.



2-step ballooning

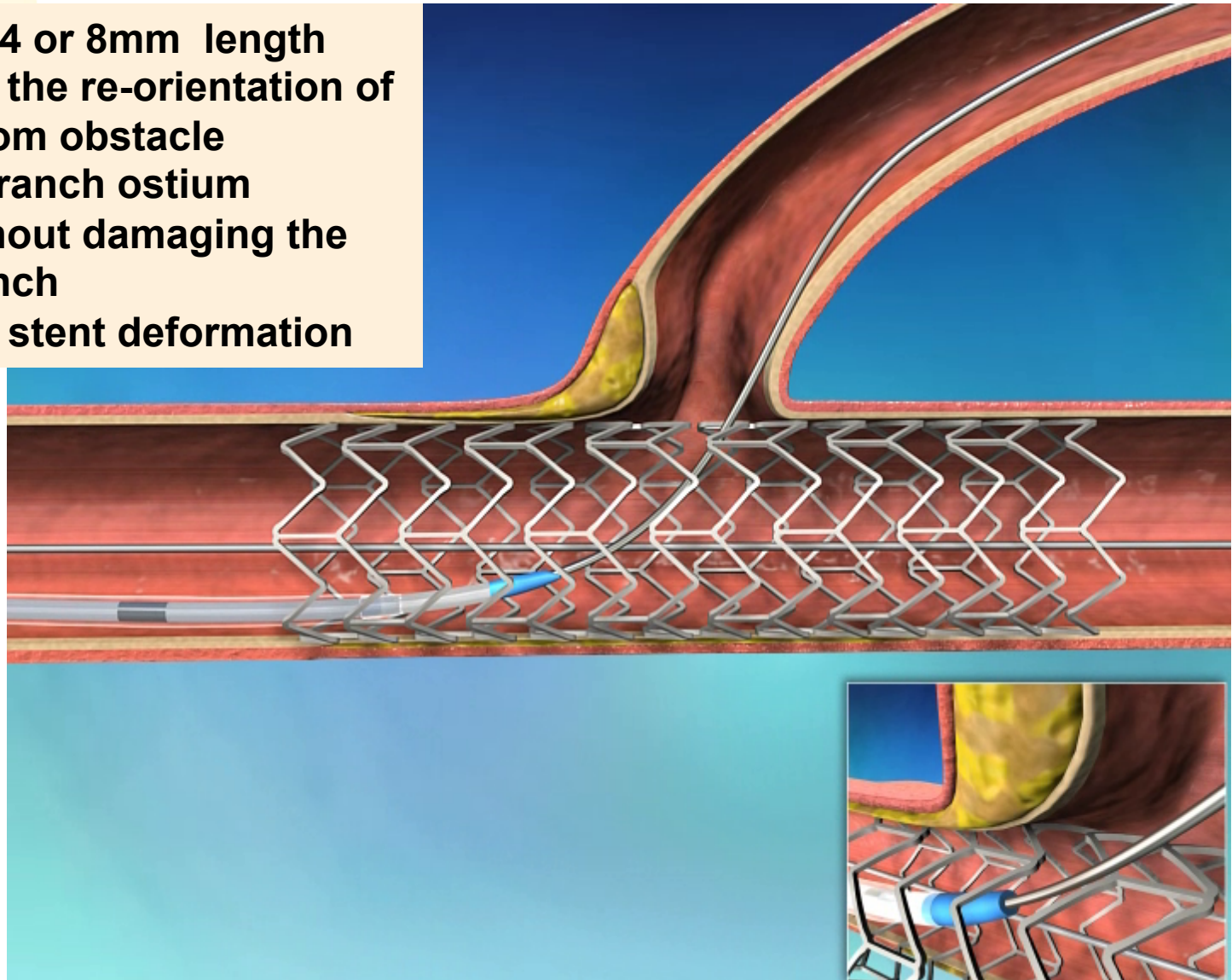


- SB ballooning + POT
- Less elliptical stent deformation and overexpansion



Glider balloon: A unique dedicated SB balloon

- Short balloon 4 or 8mm length
- Torqueable for the re-orientation of the tip away from obstacle
- Optimal side branch ostium expansion without damaging the distal side branch
- Minimizing MV stent deformation

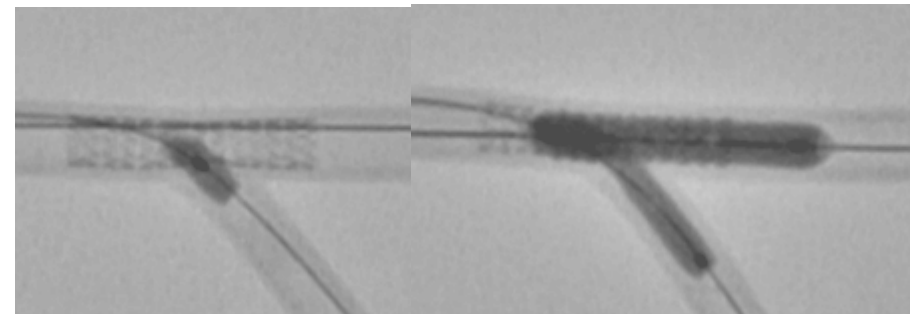
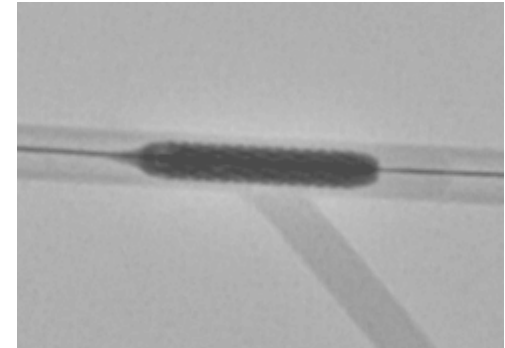




I. Bench Testing

Murasato Y. Iwasaki K. et al. Euro PCR 2014

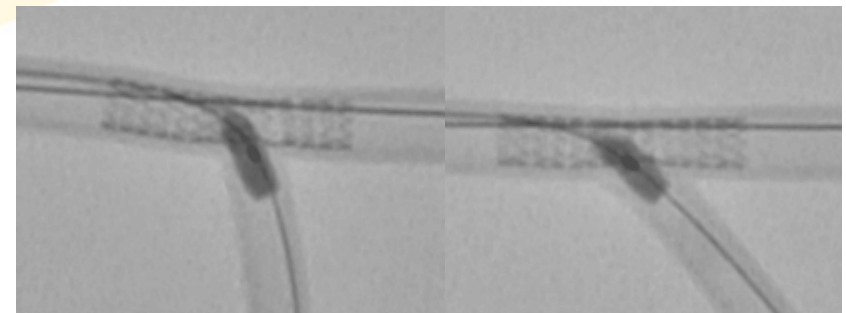
- **MV stenting (18atm)**
 - Nobori 3.5/18mm, 2link
 - Xience prime 3.5/18, 3link
 - Integrity 3.5/18, 2link, helical
- **Glider balloon (3.0/4 mm, 10atm) vs. SB dilation (NC Voyager 3.0/15 12atm) followed by KBI (stent balloon 3.5/18 + NC Voyager 3.0/15, 10atm)**
- **High-angle (80°) model**
- **low-angle (45°) model**
- **Evaluation on Micro CT**



Glider balloon

KBI

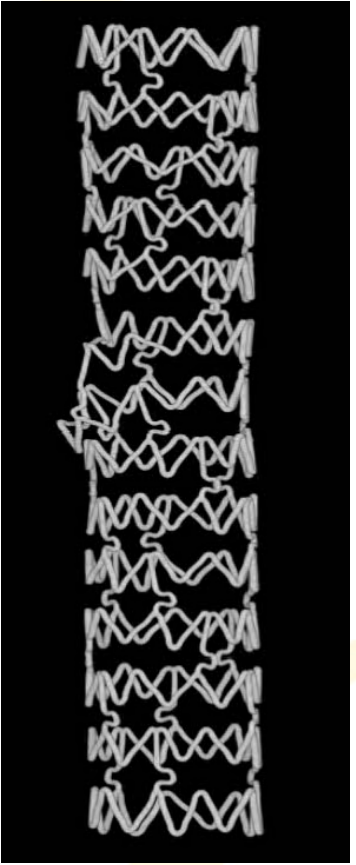
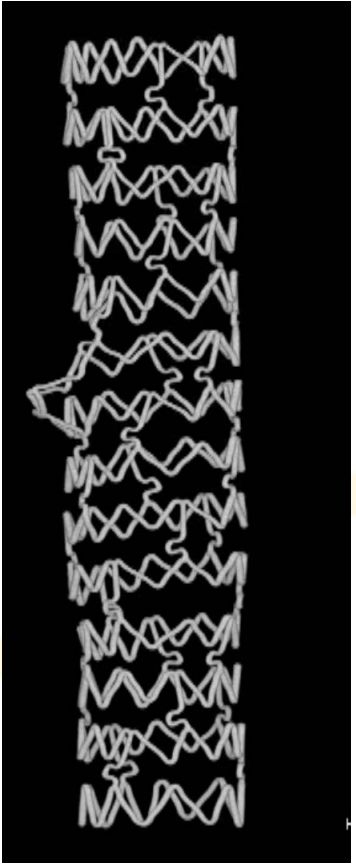
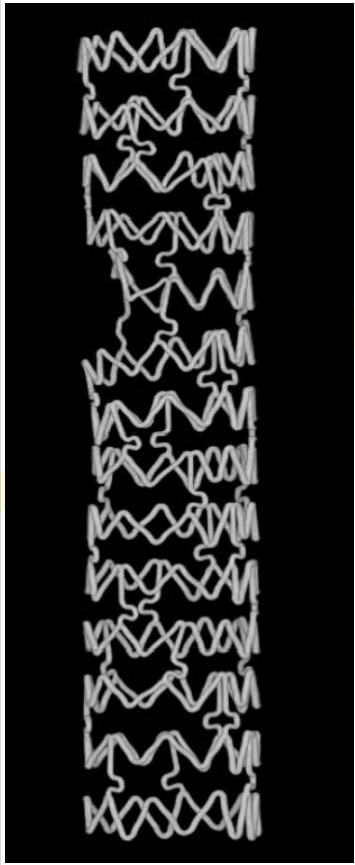
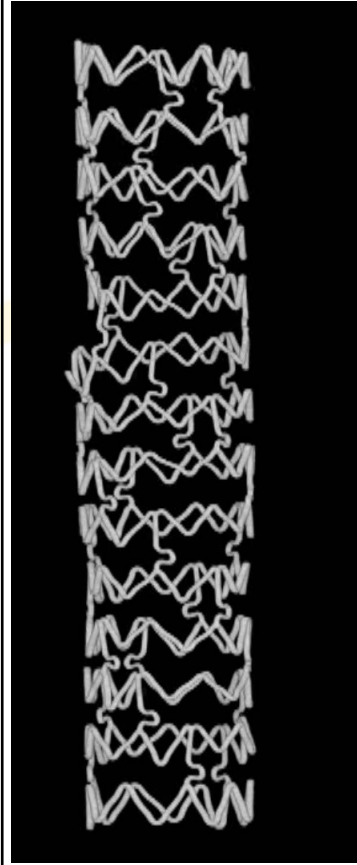
(minimal overlap)



80°

45°

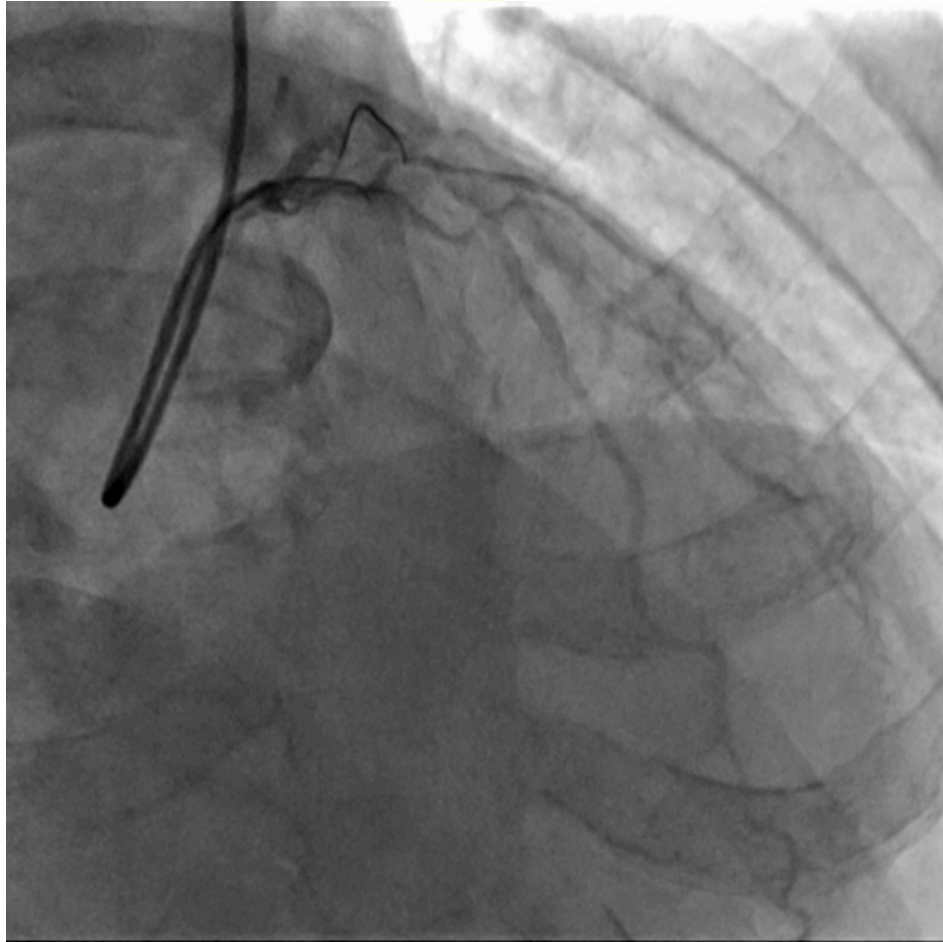
②Xience

| Bifurc angle | 45 deg. | | 80deg. | |
|---------------------|--|---|--|--|
| SB dilation | Glider | KBI | Glider | KBI |
| Stent configuration |  |  |  |  |



Case: 69 y.o. male, effort AP **1-1-1 lesion in LAD-diagonal bifurcation**

Tortuous MV lesion and diffuse SB lesion



Rt radial approach, GC: IL3.5 SH, 6Fr



Predilation resulted in serious dissection in both branches.

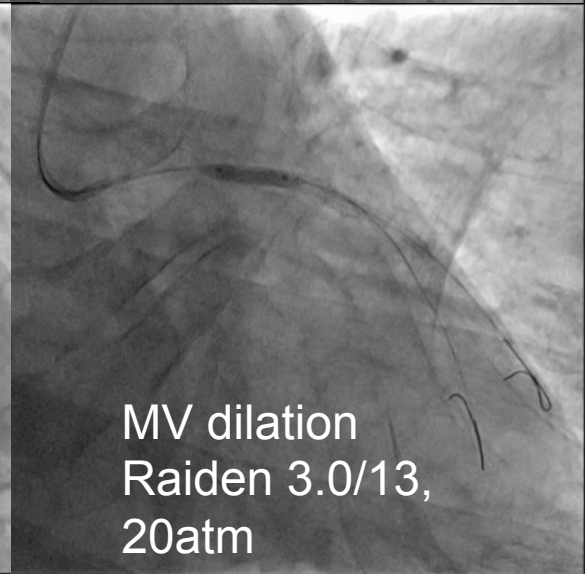
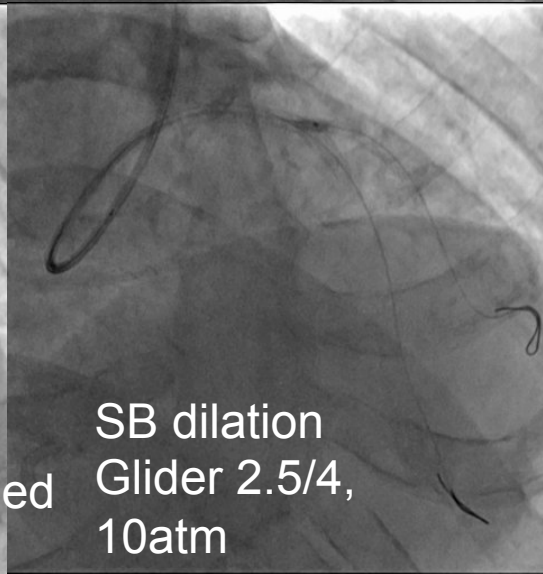
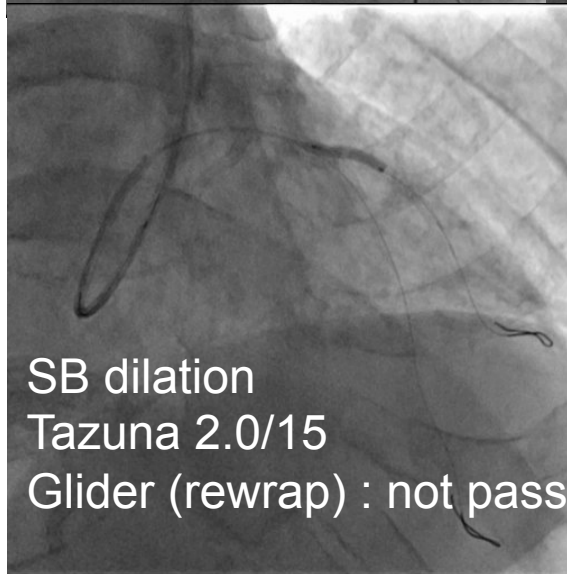
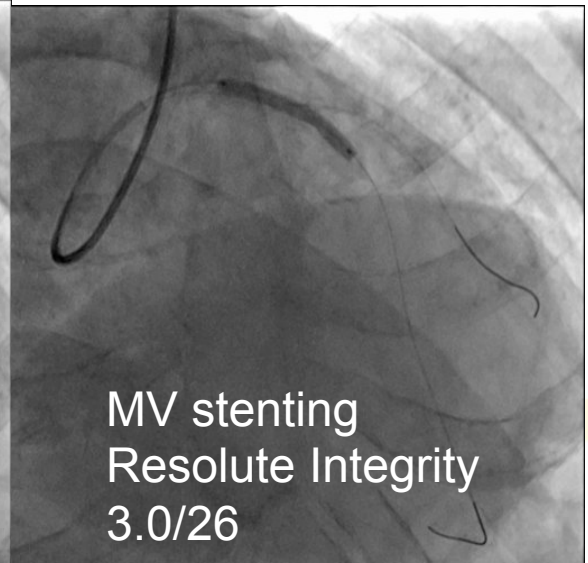
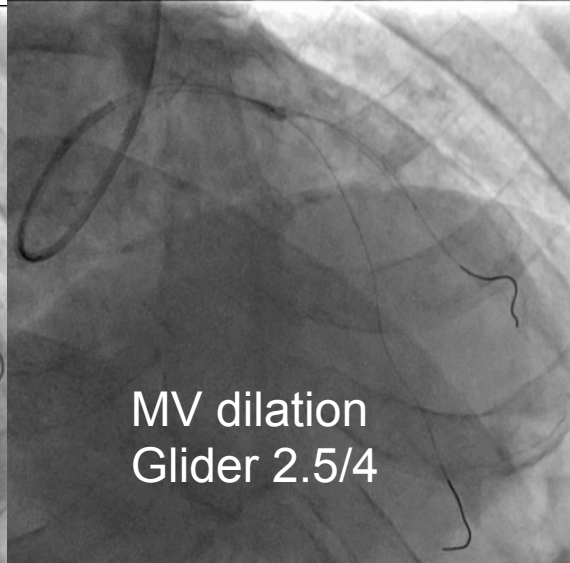


Predilation

MV: Raiden3.0/13, SB: Tazuna 2.0/15

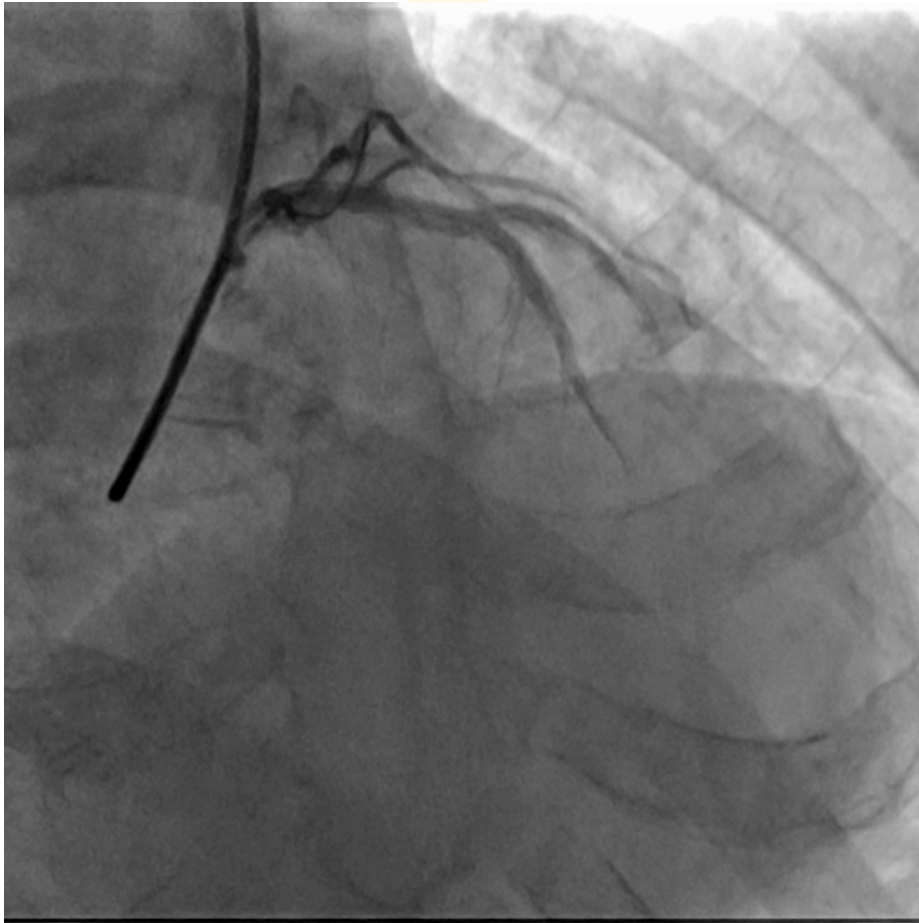


Culotte stenting without FKI

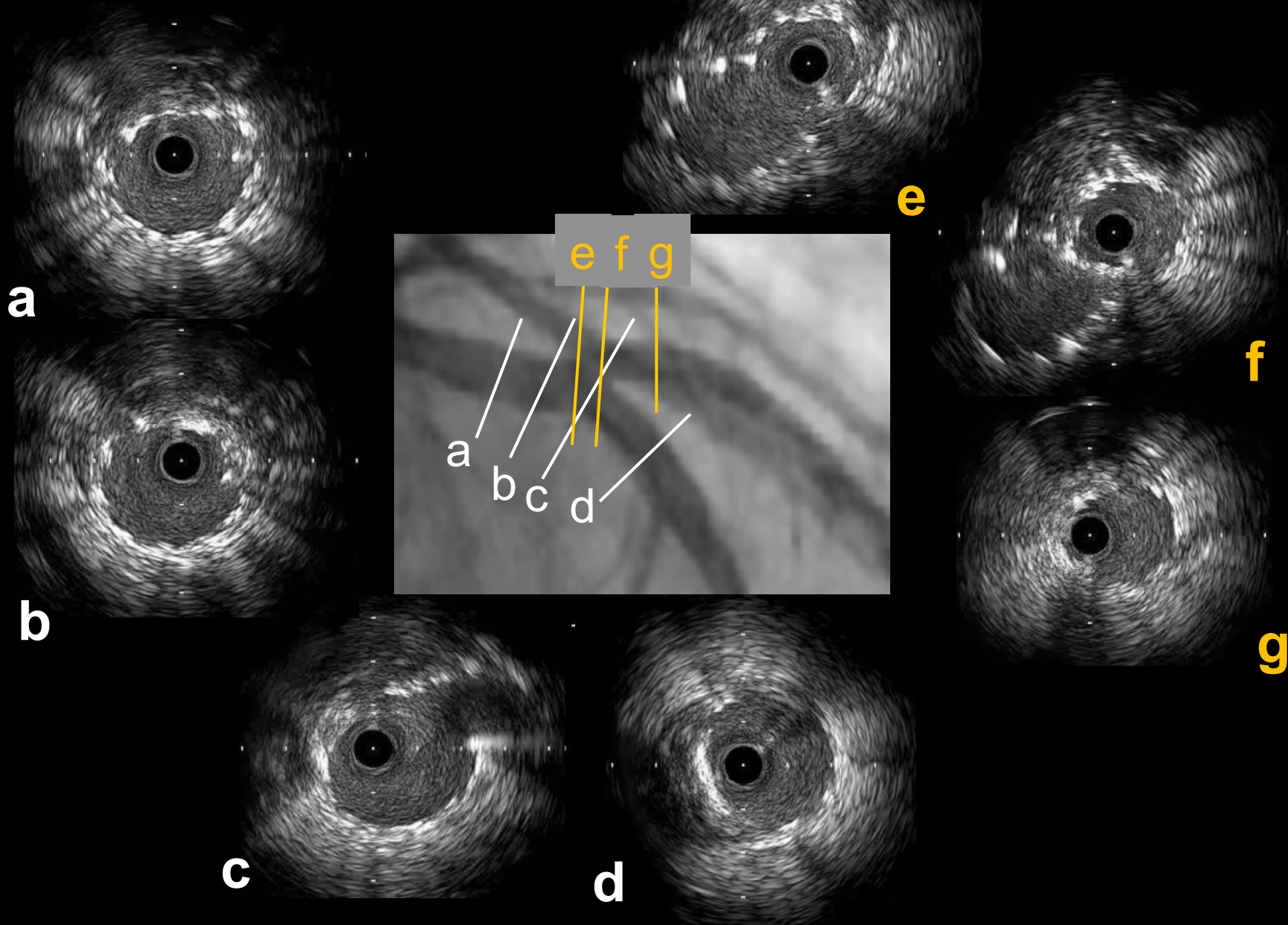




Final CAG

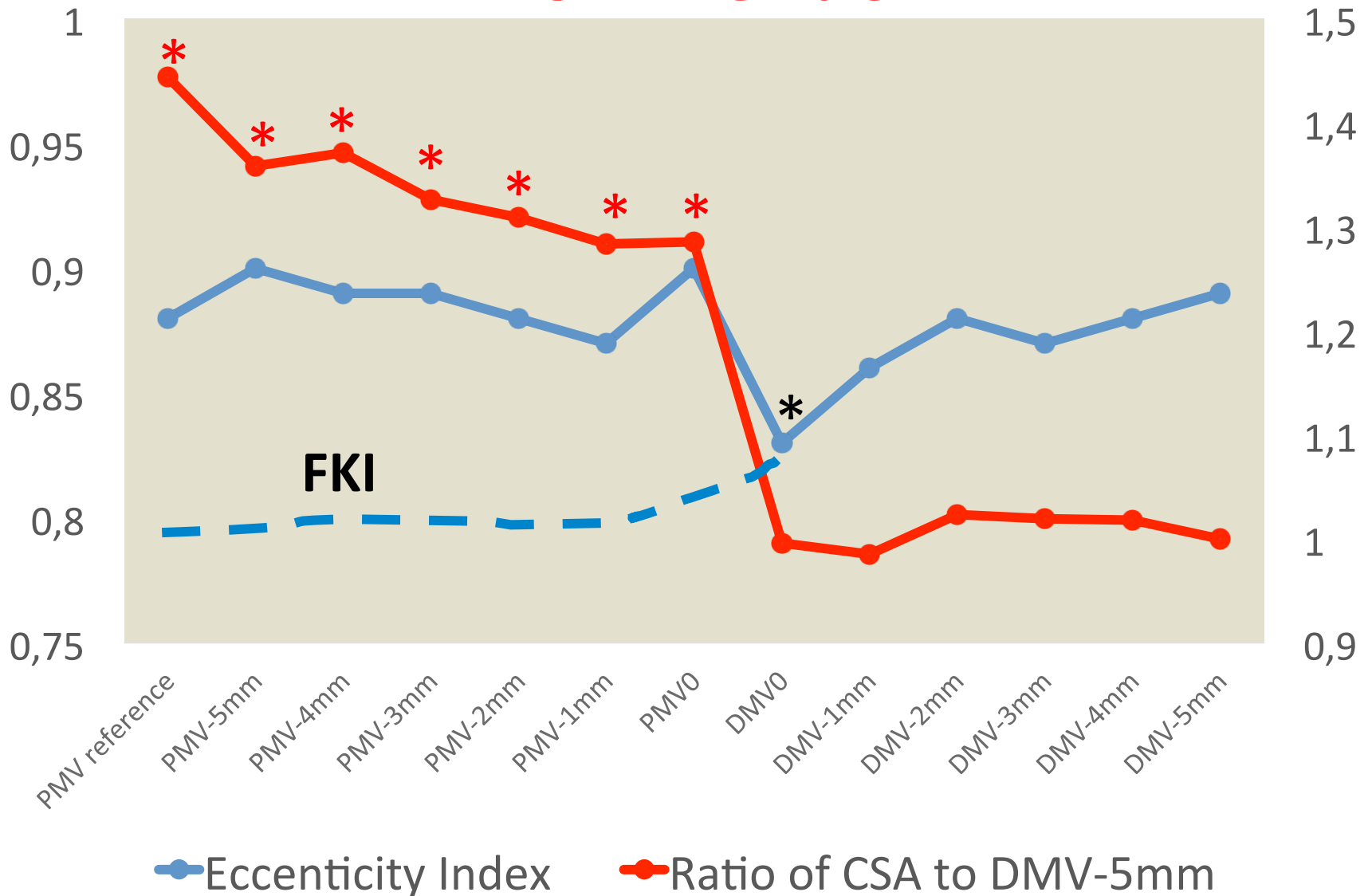


IVUS





Stent eccentricity index: POT + Glider



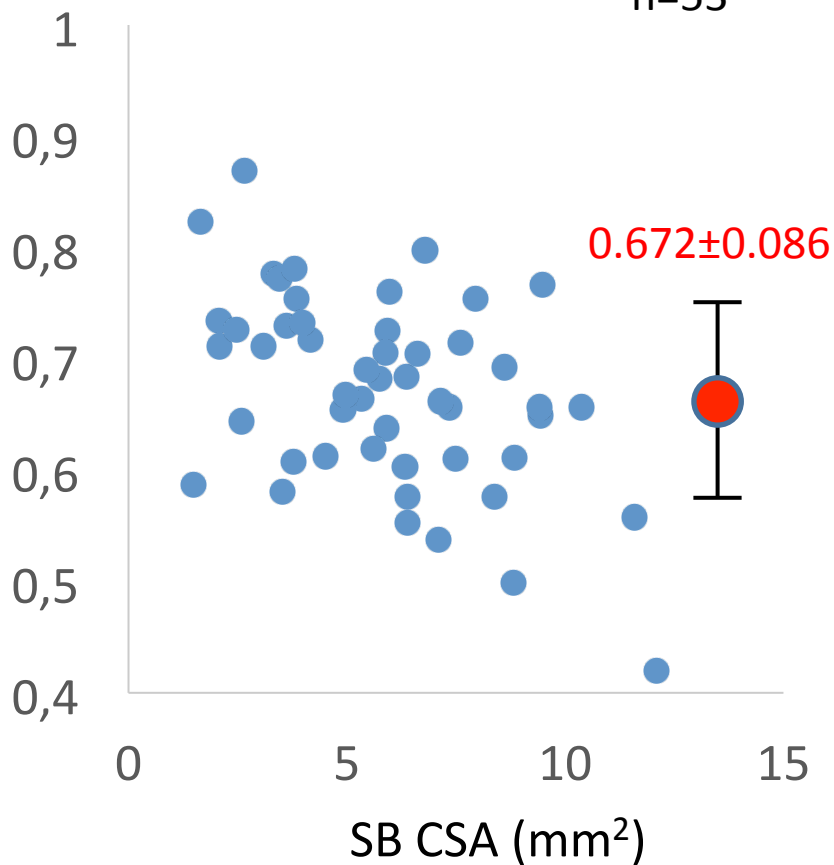
Relation between fractal ratio and SB CSA

POT + Glider

Fractal ratio = Diameter MV / Diameter (MB+SB)

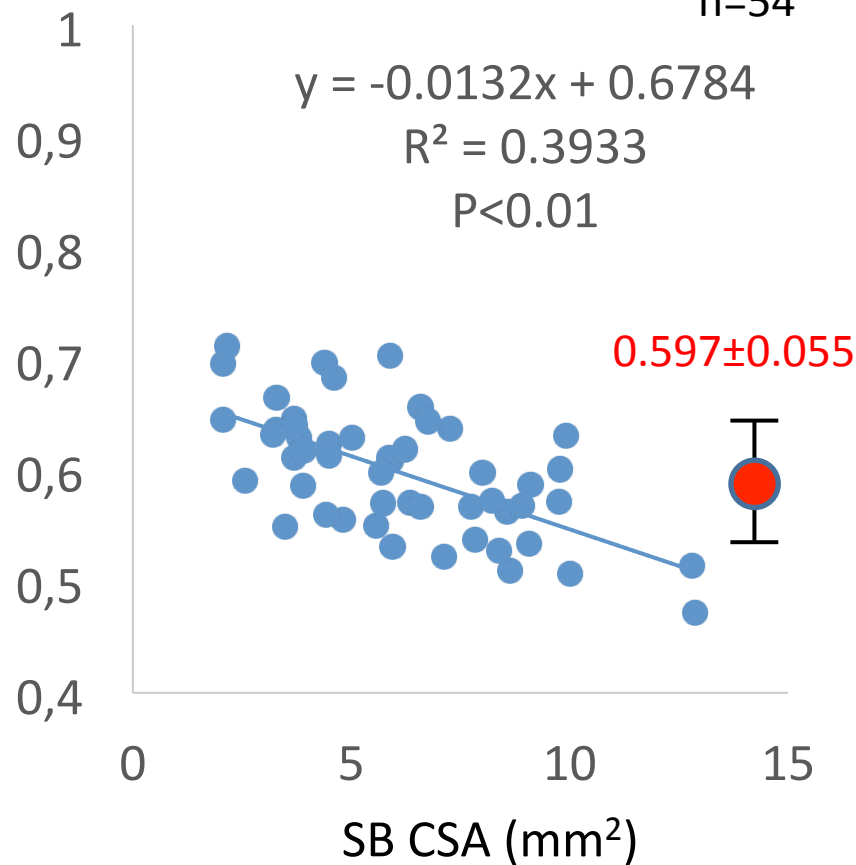
Reference

n=53



Bifurcation (treated site)

n=54



Conclusion

The SB dilation using the Glider balloon combined with POT is a simple and predictable procedure which provides more symmetrical stent expansion and less deformation compared to conventional FKI.

Thank you for your attention!