Welcome to the 8th European Bifurcation Club 12-13 October 2012 - Barcelona

Non Left Main bifurcation lesion

Where is the balance today?

POT or Kiss or both?

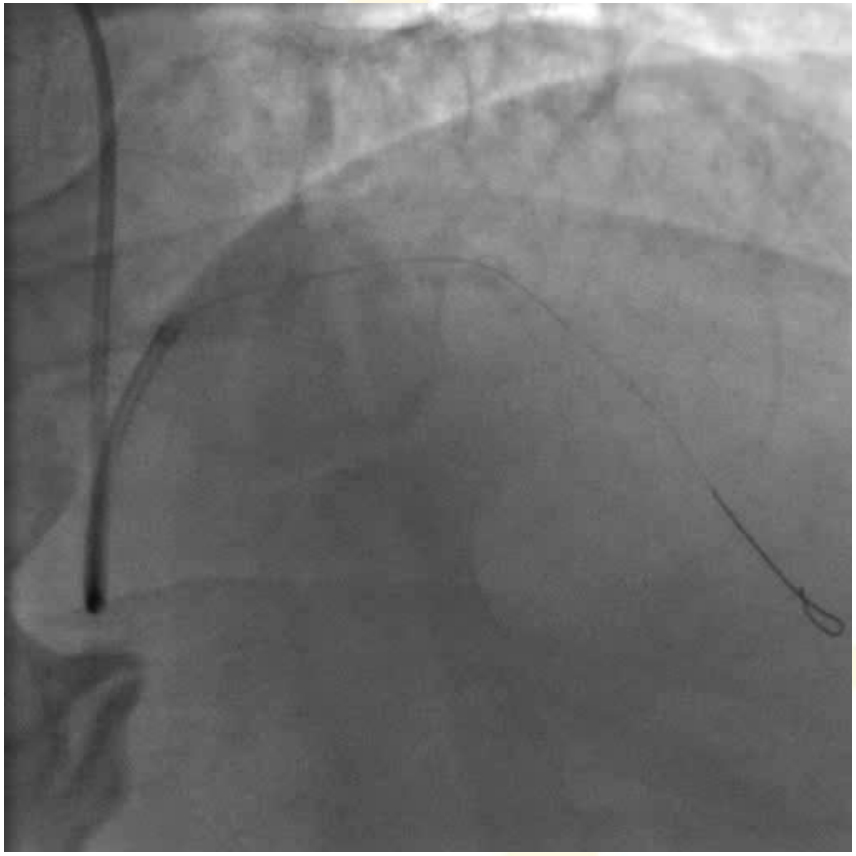
Olivier Darremont

Clinique St Augustin, Bordeaux

France

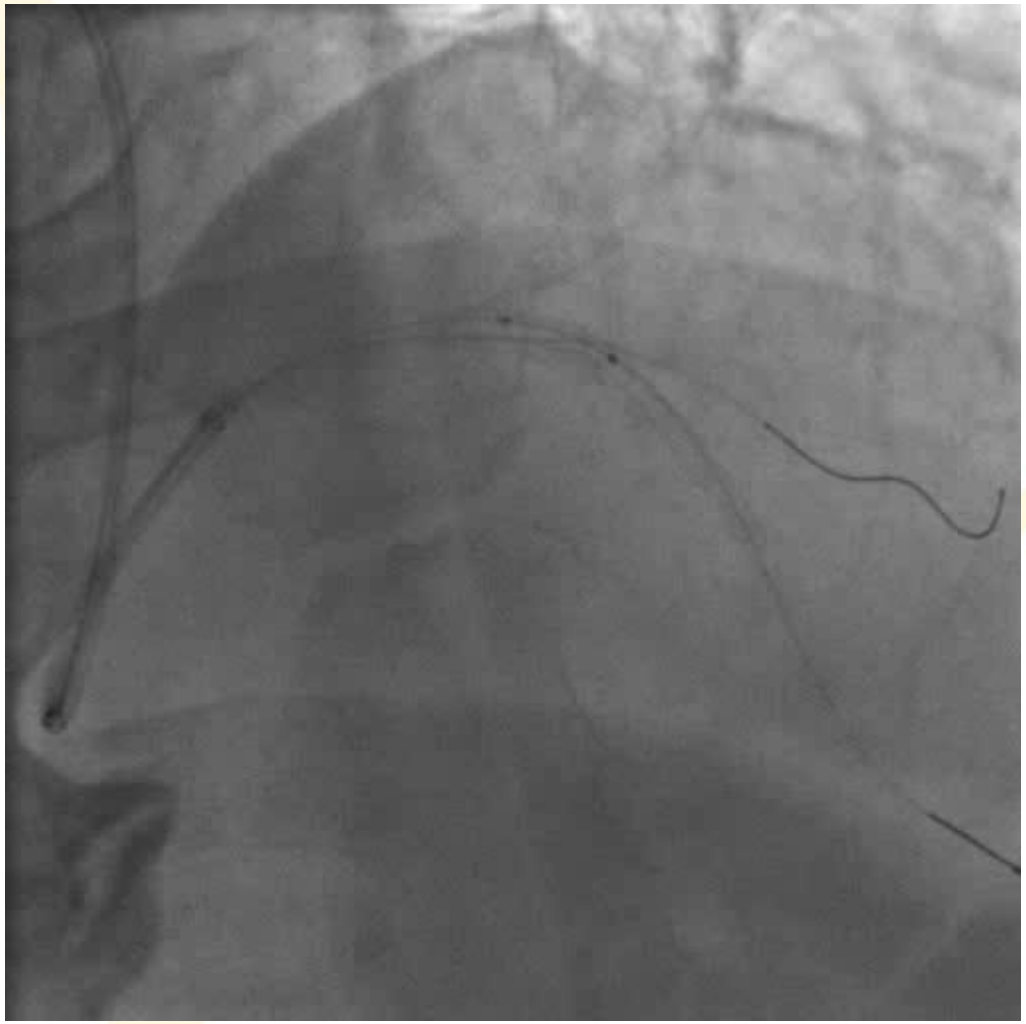
European Bifurcation Club

EBC



- 65 years old male
- HBP, dyslipidemia
- Effort angina
- positive stress test on LAD

After Main branch stenting



POT, what for?

- To adapt the stent to the fractal anatomy : apposition to the proximal main
- To facilitate the distal side branch recrossing
- To avoid recrossing under the stent

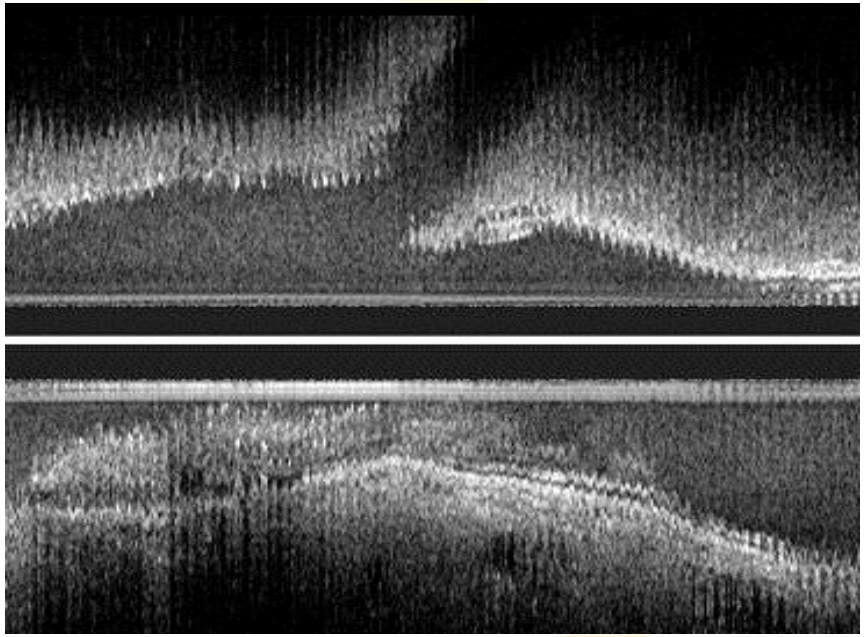
Diameters relationship in bifurcations HK model

Diameter of smaller daughter vessel	Diameter of larger daughter vessel (in terms of the main stent sizes in use)							
(mm)	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00
2.25	**3.03**	**3.20**	**3.39**	**3.58**	**3.78**	**3.99**	**4.20**	**4.42**
	Δ=0.78	Δ=0.70	Δ=0.64	Δ=0.58	Δ=0.53	Δ=0.49	Δ=0.45	Δ=0.42
2.50		**3.36**	**3.54**	**3.72**	**3.91**	**4.11**	**4.32**	**4.53**
		Δ=0.86	Δ=0.79	Δ=0.72	Δ=0.66	Δ=0.61	Δ=0.57	Δ=0.53
2.75			**3.70**	**3.87**	**4.06**	**4.25**	**4.44**	**4.64**
			Δ=0.95	Δ=0.87	Δ=0.81	Δ=0.75	Δ=0.69	Δ=0.64
3.00				**4.04**	**4.21**	**4.39**	**4.58**	**4.77**
				Δ=1.04	Δ=0.96	Δ=0.89	Δ=0.83	Δ=0.77
3.25					**4.37**	**4.55**	**4.73**	**4.91**
					Δ=1.12	Δ=1.05	Δ=0.98	Δ=0.91
3.50						**4.71**	**4.88**	**5.06**
						Δ=1.21	Δ=1.13	Δ=1.06
3.75							**5.05**	**5.22**
							Δ=1.30	Δ=1.22
4.00								**5.38**
								Δ=1.38

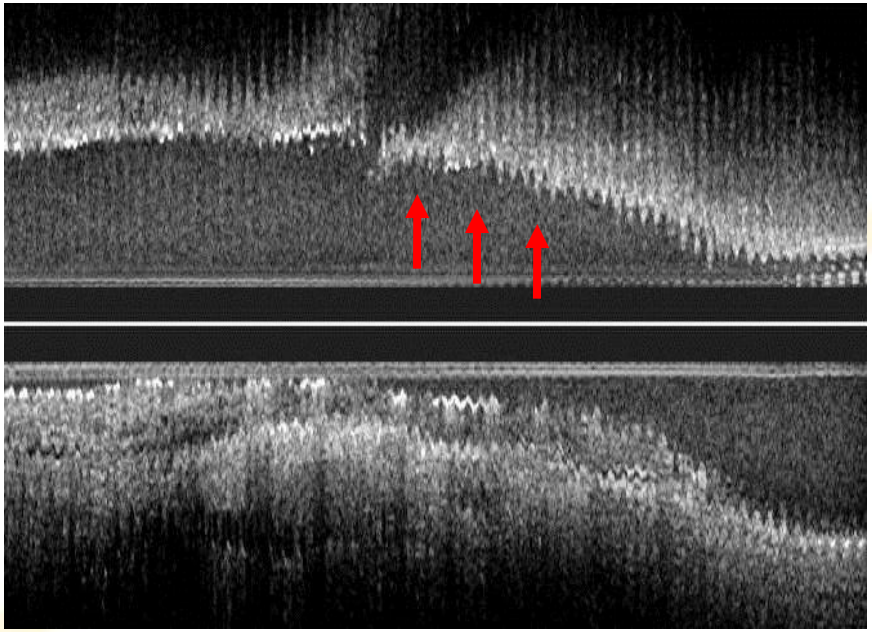
Huo et al. Eurointerv 201;7:1310-1316

Carina Shift vs. Plaque Shift

Before stenting



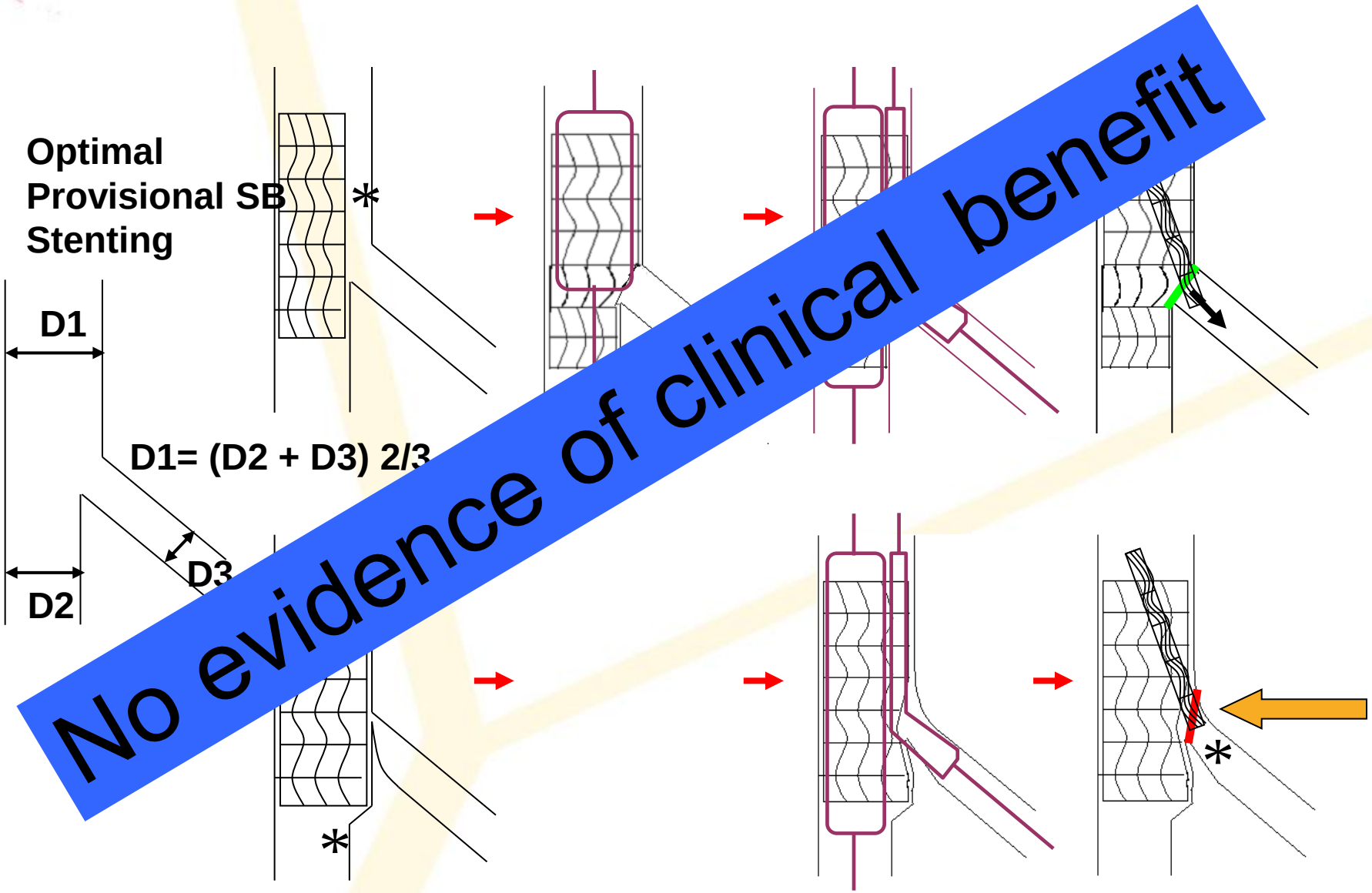
After stenting



Stent over-expansion in the main branch increases the risk of SB occlusion, which can be reduced by IVUS-guided stent size selection.

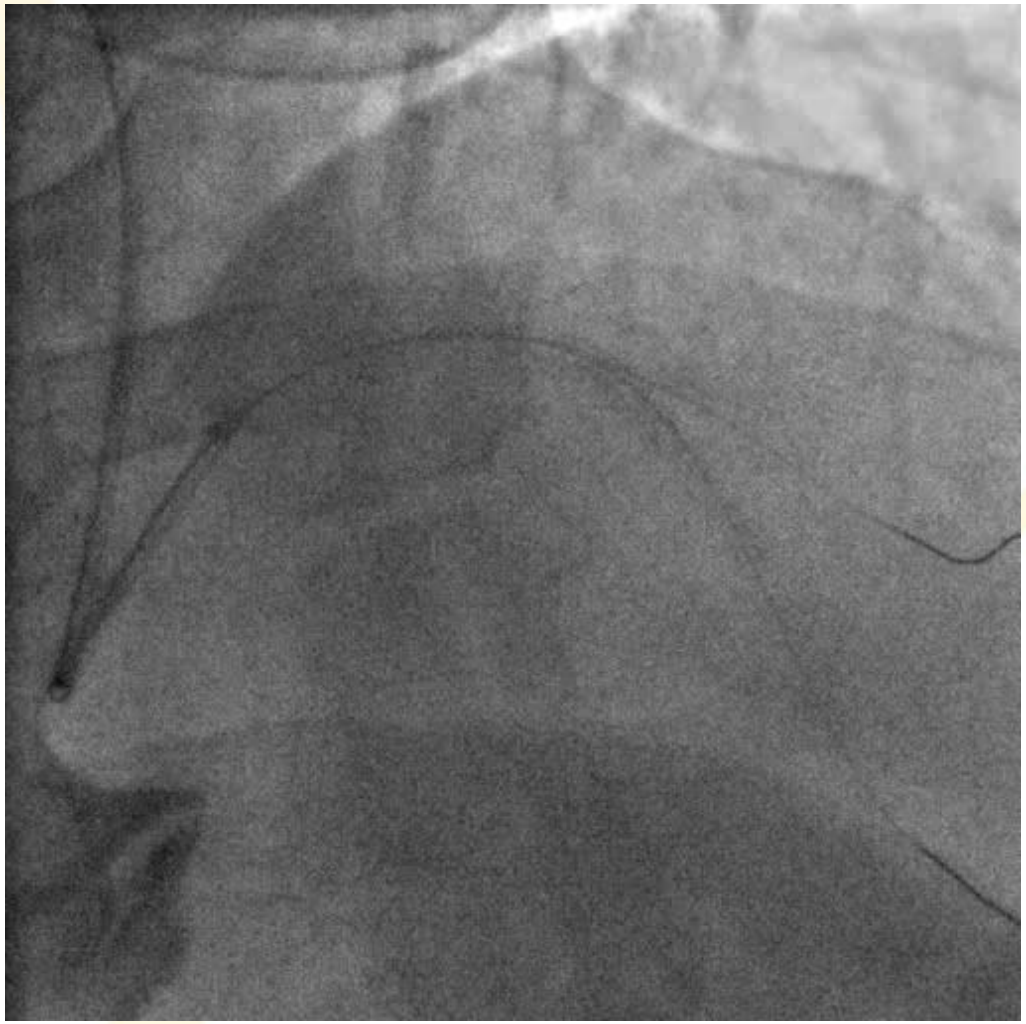
Ku BK, EBC 2009

Successfull POT vs no POT



No evidence of clinical benefit

After POT



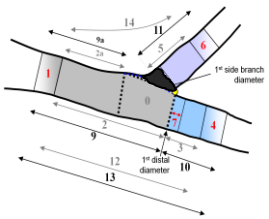
Kiss, what for?

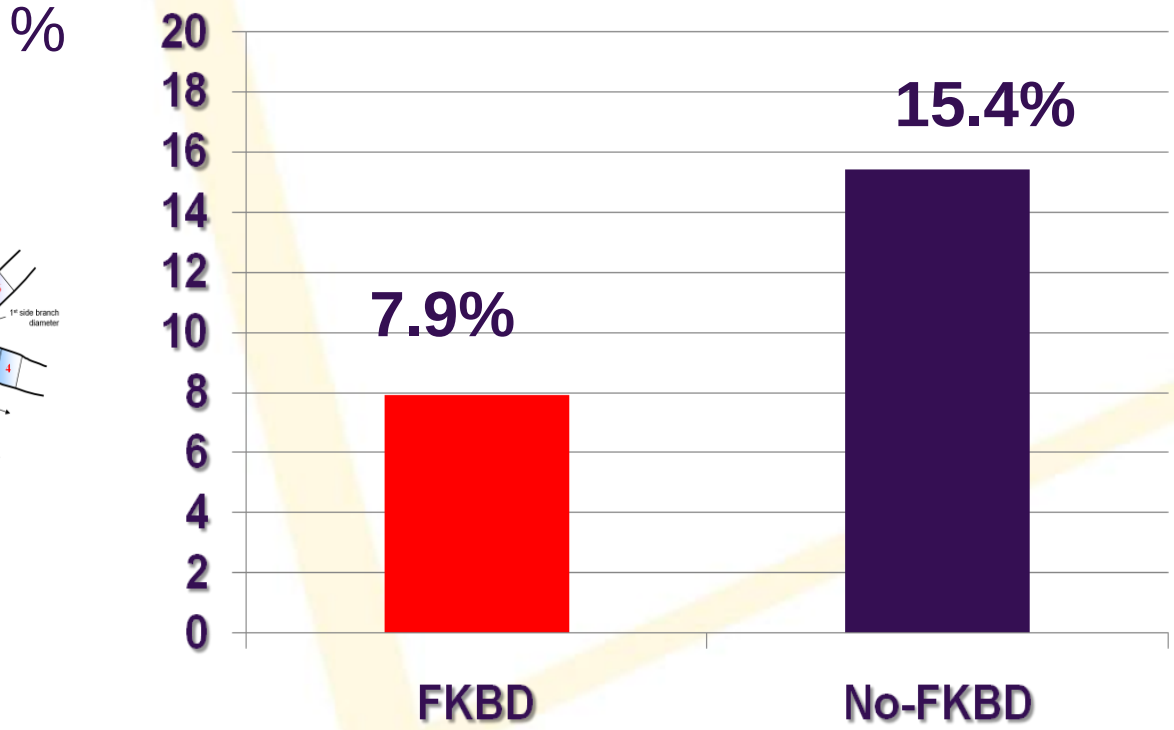
- To correct a **poor result** in SB
  - TIMI flow < 3, EKG, Pain…
  - carena / plaque shift
  - previous stenosis
  - to prepare a SB s
- When SB ic result / flow are good :
  - side branch access
  - **ove the jail strut**
  - relocate the flow divider
  - Correct stent deformation after side ballooning

No evidence of clinical benefit

Nordic-Baltic Bifurcation Study III (6 m)

(Re)stenosis: Ostial Side Branch





p=0.039

Binary Restenosis: ≥50% diameter stenosis at follow-up

Nordic-Baltic Bifurcation Study III (6 m)

True Bifurcation Subgroup

Medina 1,0,1 - 0,1,1 – 1,1,1

	FKBD (n=92)	No-FKBD (n=80)	p
8m SB ≥50% DS (%)	7.6	20.0	0.024

COBIS Registry

Independent Risk Factors for MACE and TLR

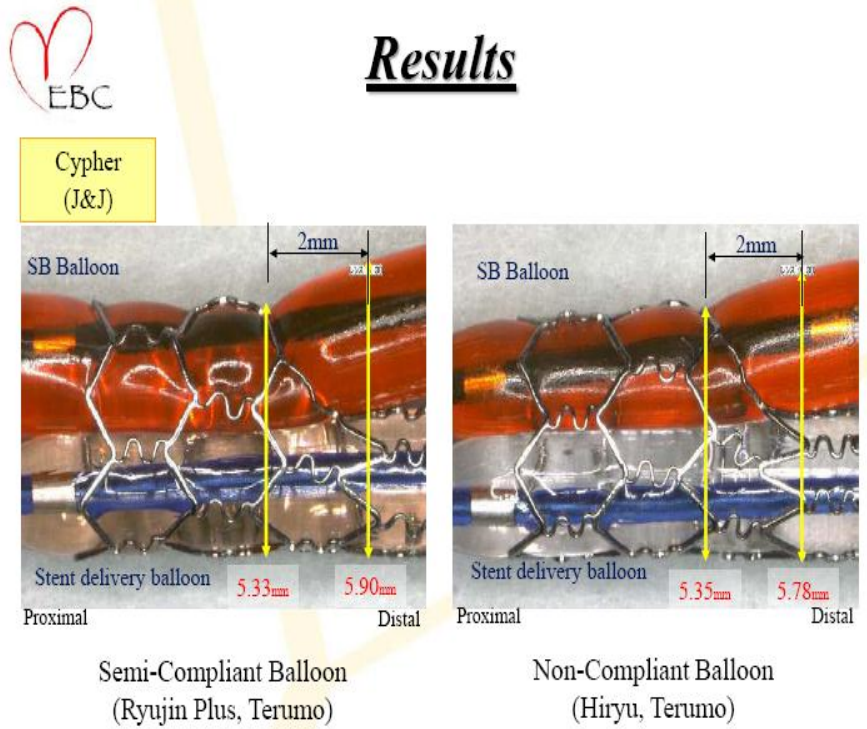
	HR (95%CI)	P value
MACE		
Final kissing ballooning	2.01 (1.29–3.13)	0.002
Use of paclitaxel-eluting stent	1.98 (1.34–2.92)	0.001
Stent length in the main vessel	1.02 (1.001–1.03)	0.03
TLR		
Final kissing ballooning	3.09 (1.84–5.16)	<0.001
Use of paclitaxel-eluting stent	2.28 (1.45–3.59)	<0.001
Stent length in the main vessel	1.02 (1.01–1.04)	0.01
Stent diameter in the main vessel	0.42 (0.20–0.89)	0.02

Gwon Circ J 2010 Sept 28

Kissing With NC Balloons

Don't kiss too big (non-compliant balloons)

1 year	n=99
Target lesion revascularisation	3
Stent thrombosis	0
Myocardial infarction	0
Cardiac death	1
Non-cardiac death	2
Total MACE	4
Side Branch stent	6

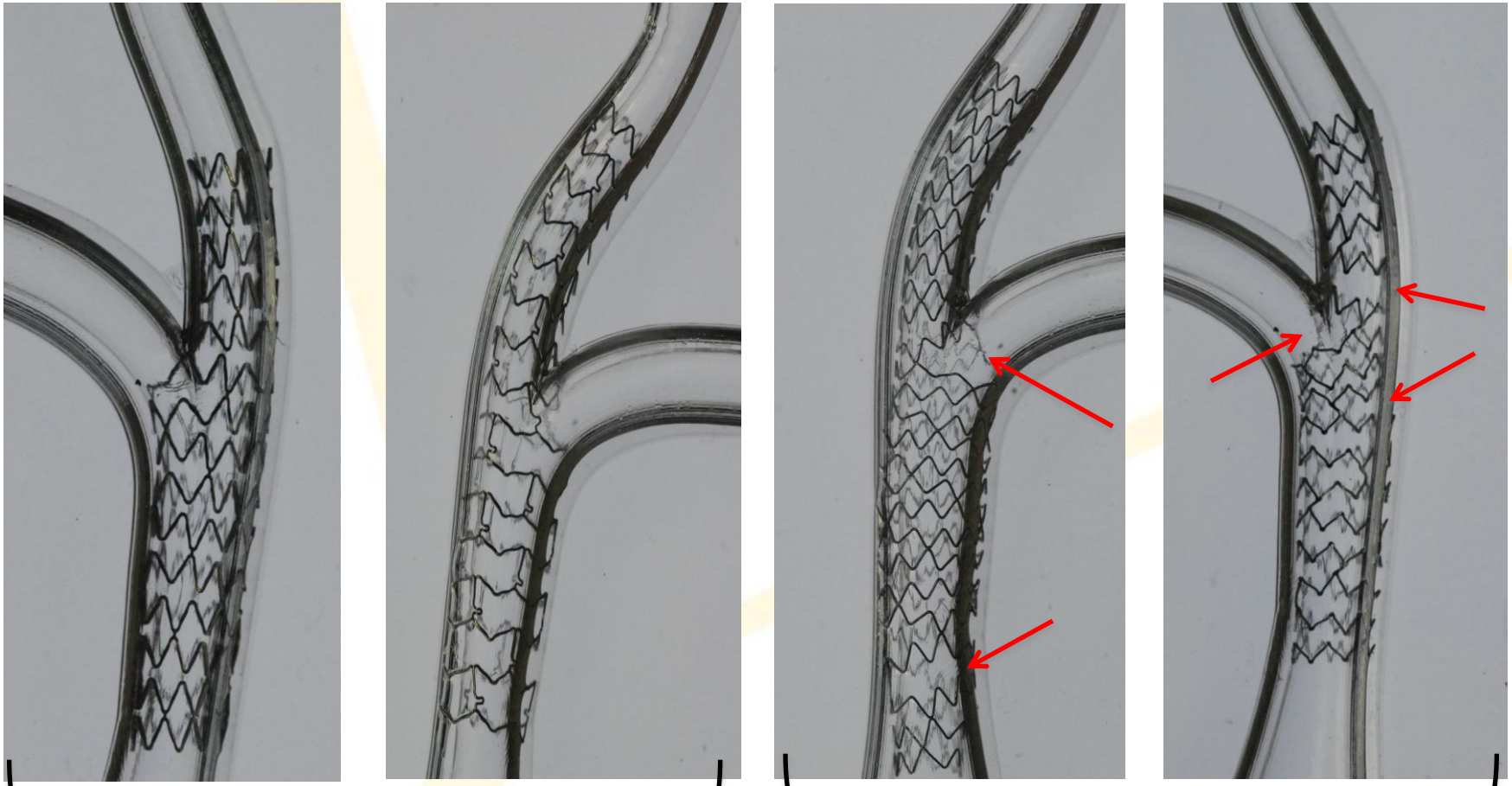


Mylotte D et al. Eurointerv 2012;7:1162-1169

Kinoshita, EBC 2009

“Kissing with 3.5mm stents”

NOBORI | XIENCE Prime | INTEGRITY | ELEMENT

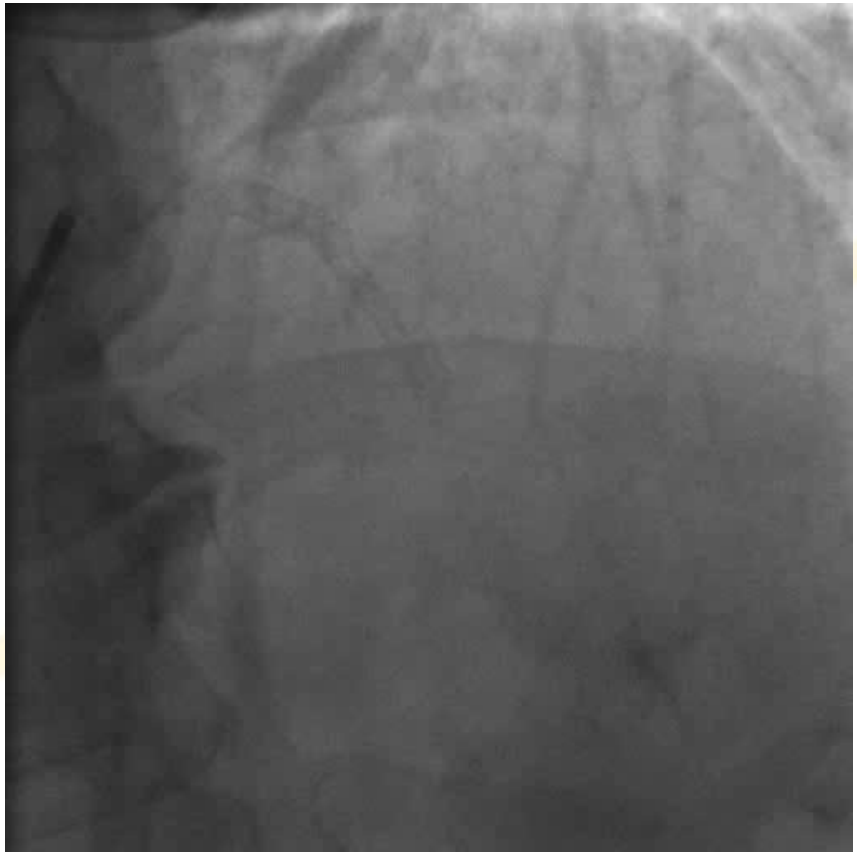


3 connectors

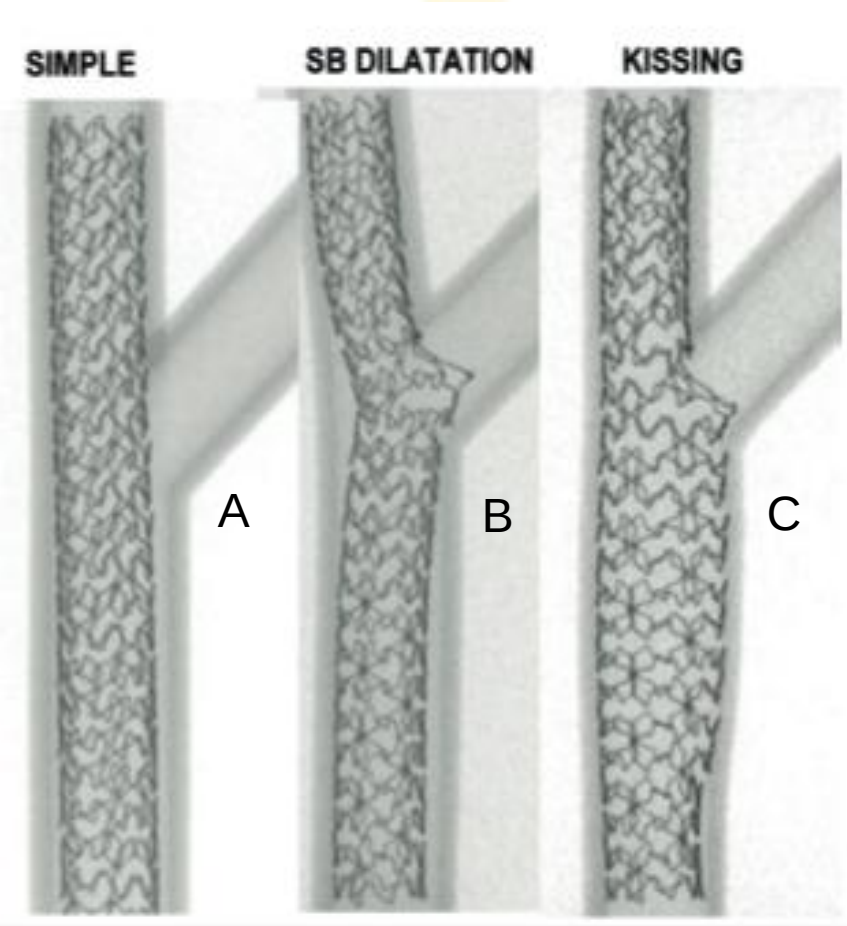
+-1

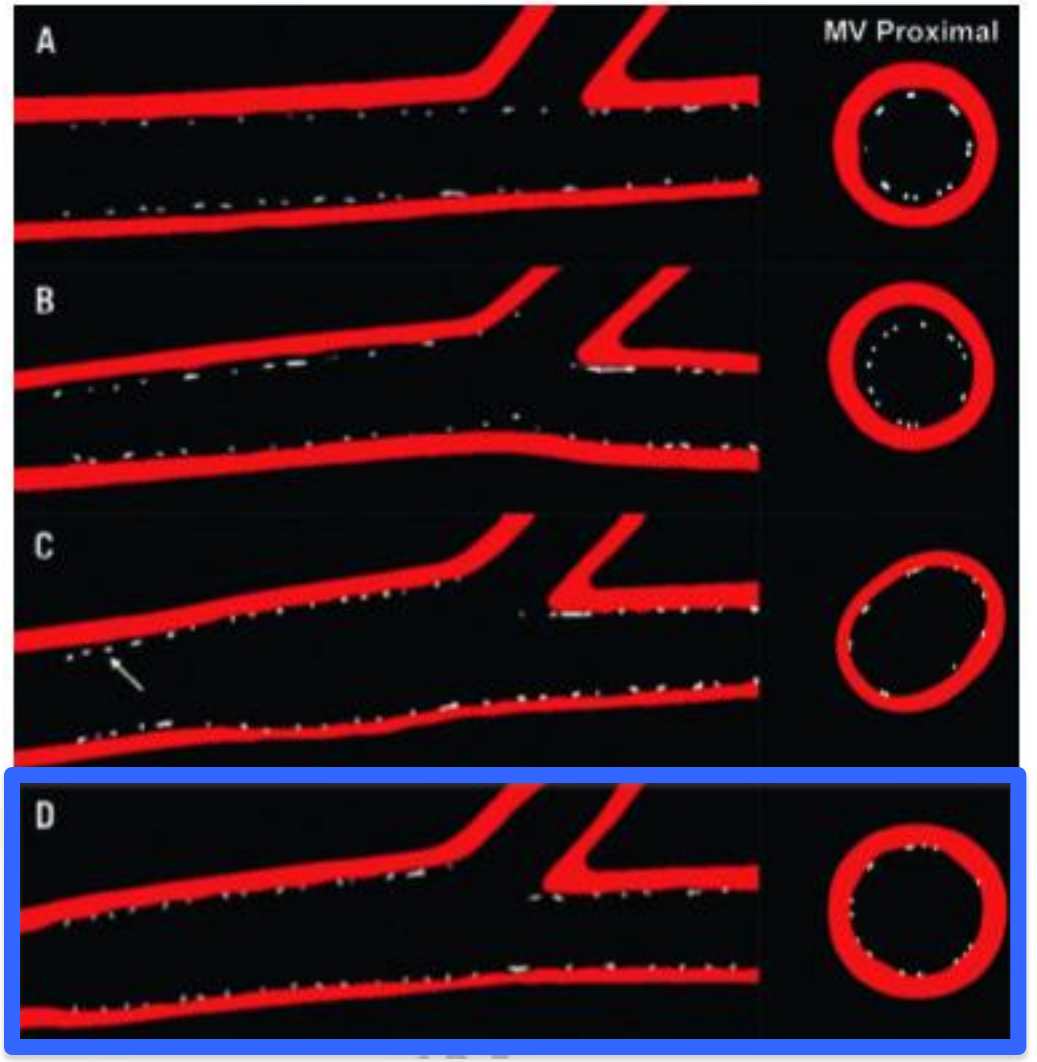
2 connectors

Kissing NC and final result



Final POT?





N.Foin et al. Eurointerv 2011;7:597-604

Conclusion

- POT, always first
- Kiss, only if side branch lesion
- Final POT after kissing??