Routine Kissing Has Still a Potential Benefit.

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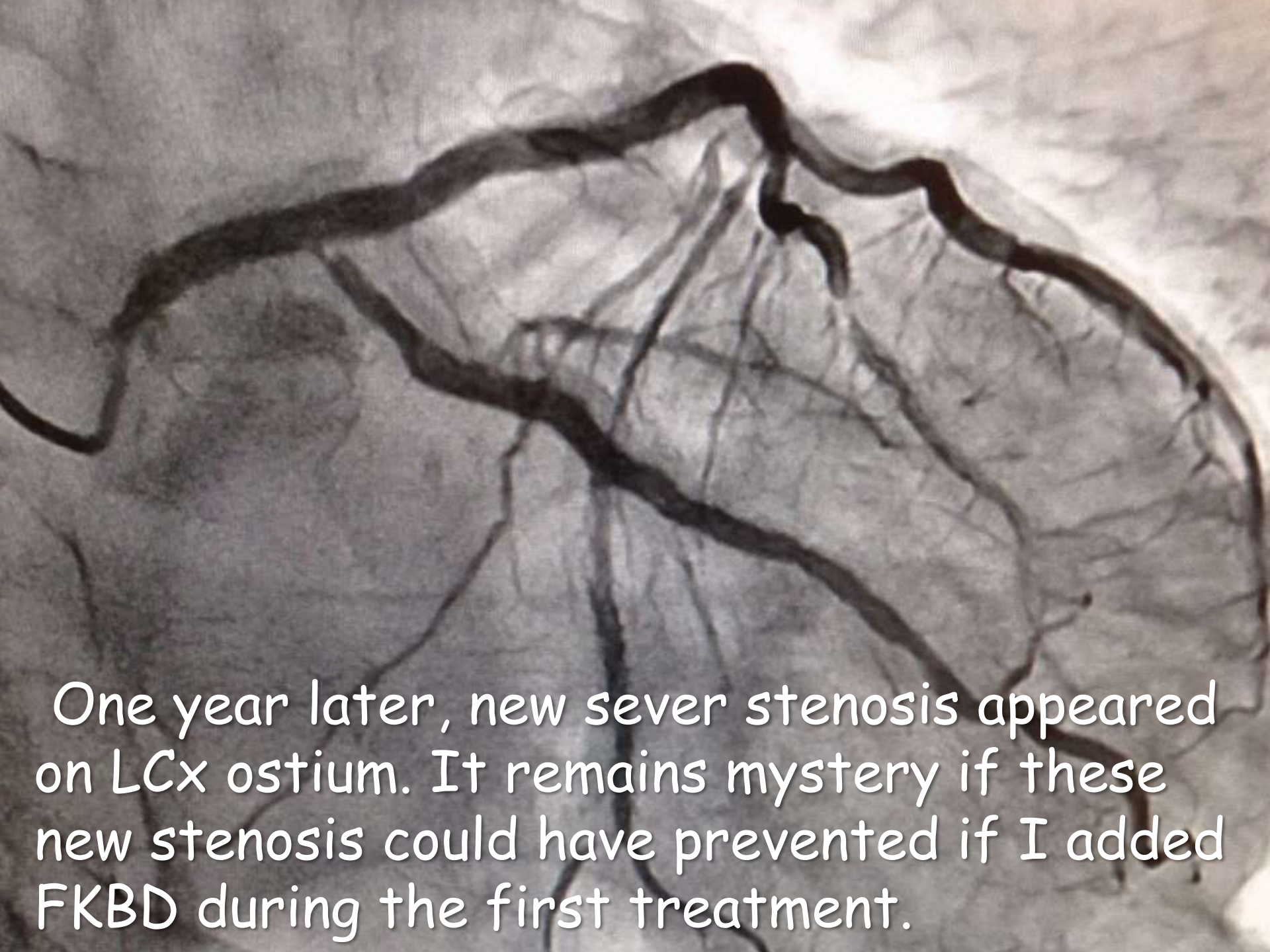
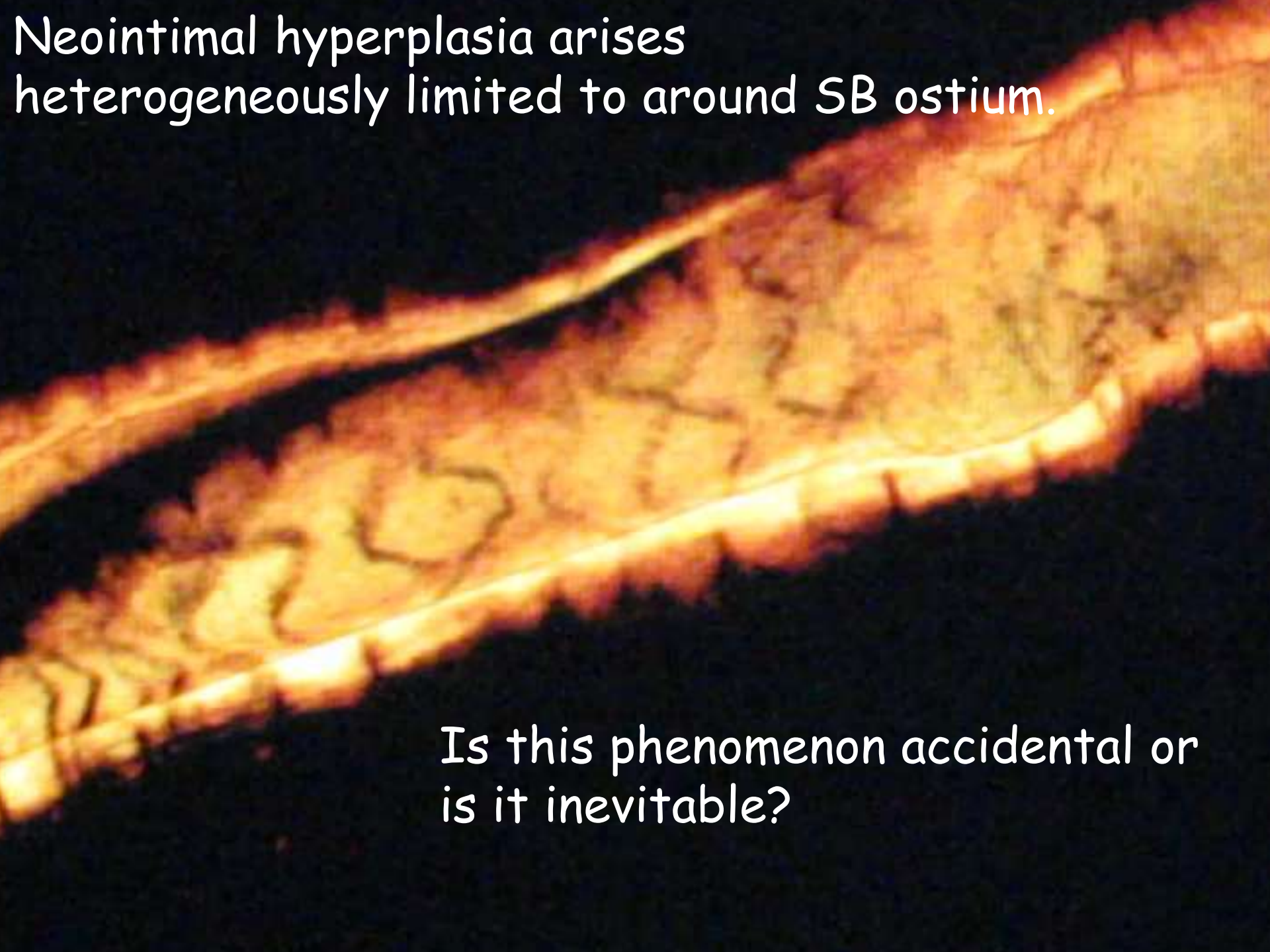
Case1: Resolute Integrity, LMT-LAD without FKBD or POT

before

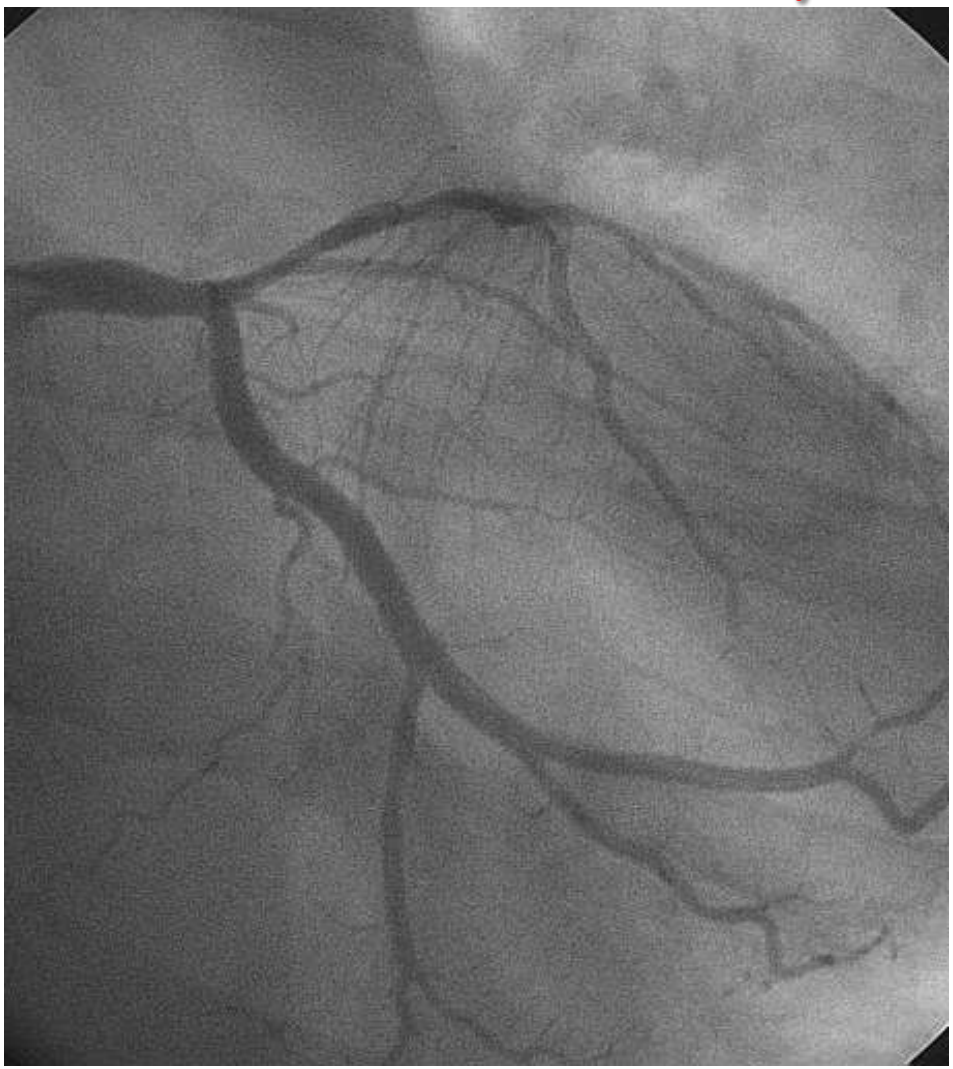
after

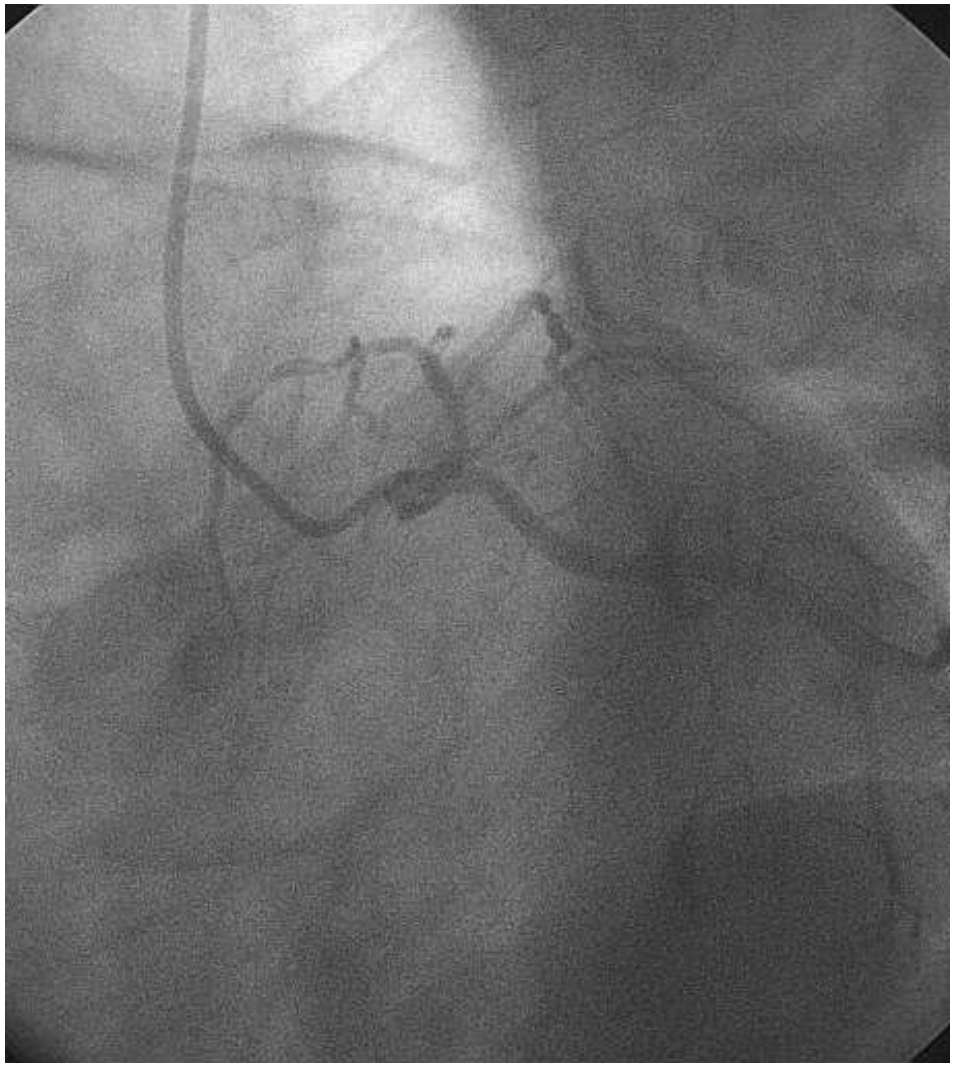


One year later, new sever stenosis appeared on LCx ostium. It remains mystery if these new stenosis could have prevented if I added FKBD during the first treatment.

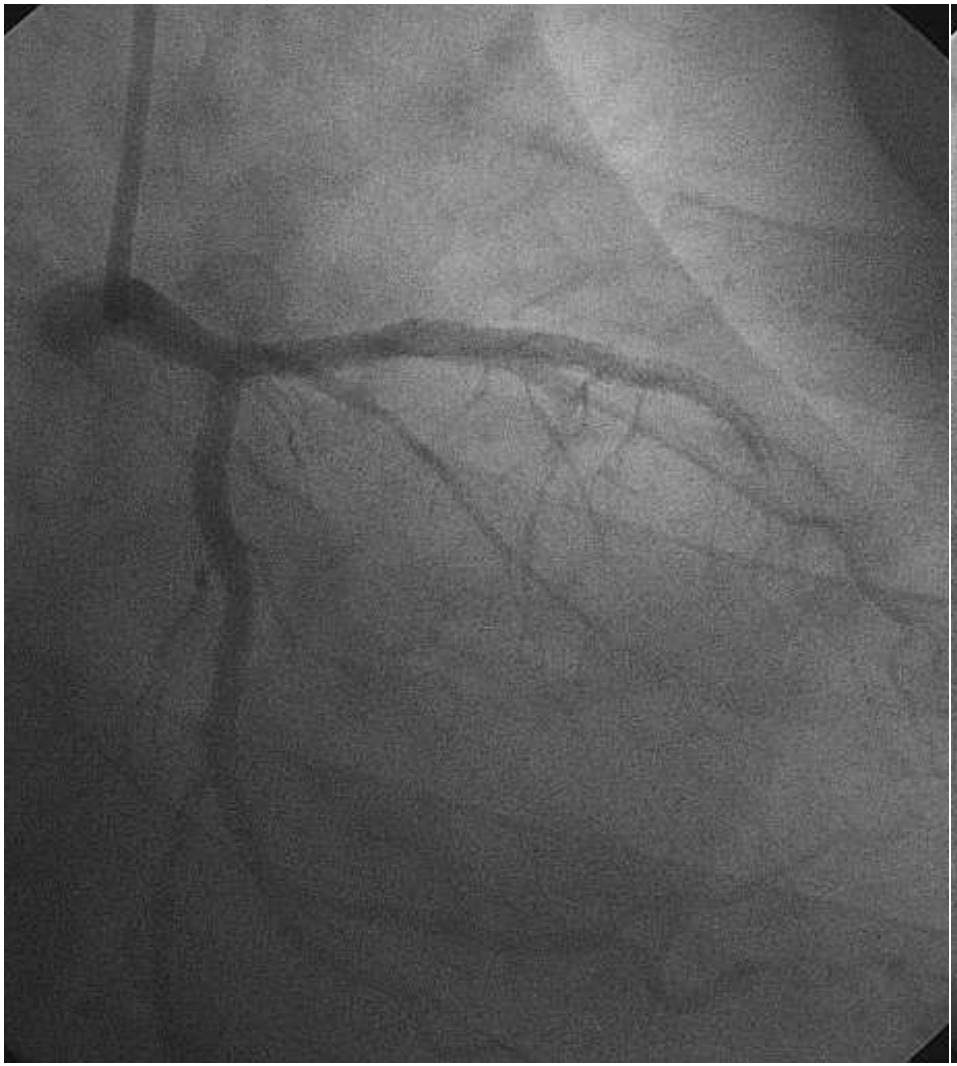

Neointimal hyperplasia arises
heterogeneously limited to around SB ostium.
Is this phenomenon accidental or
is it inevitable?

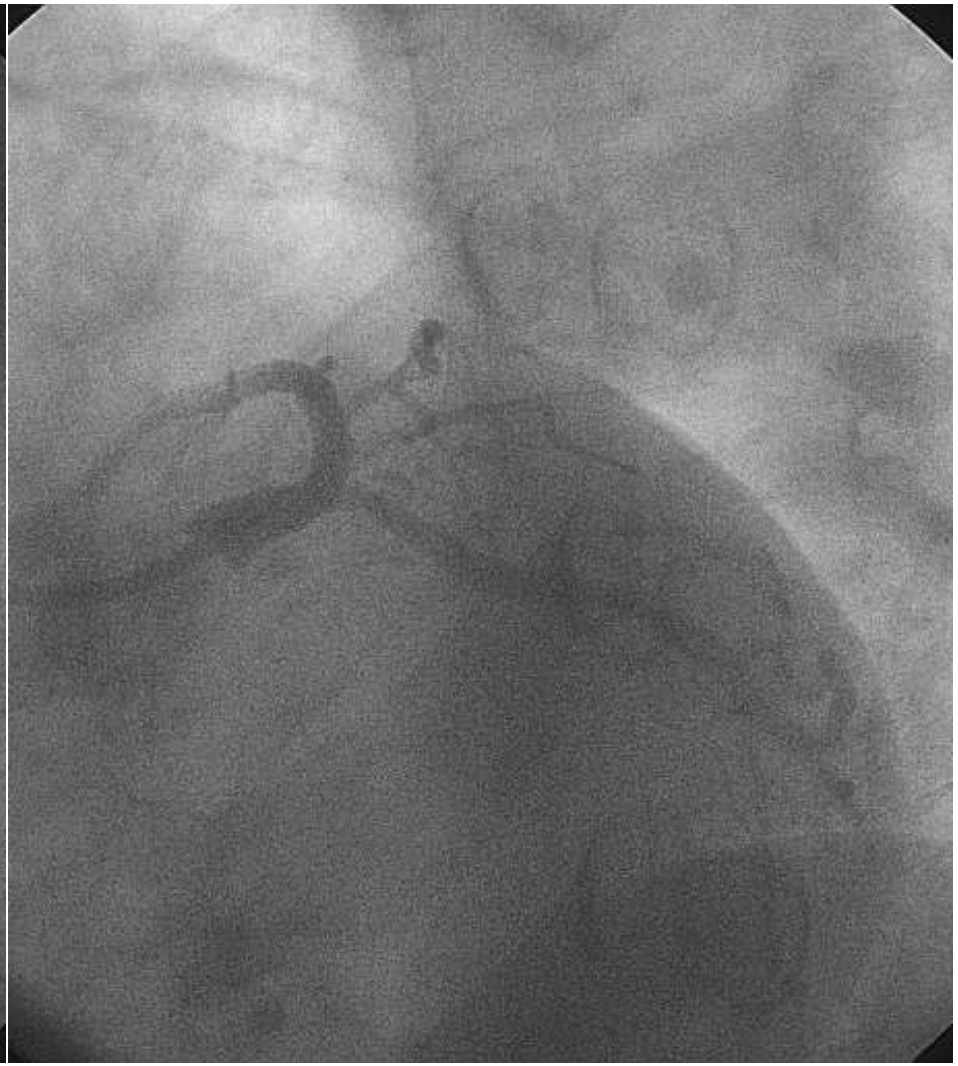
Case2: 54yo Male in 2006



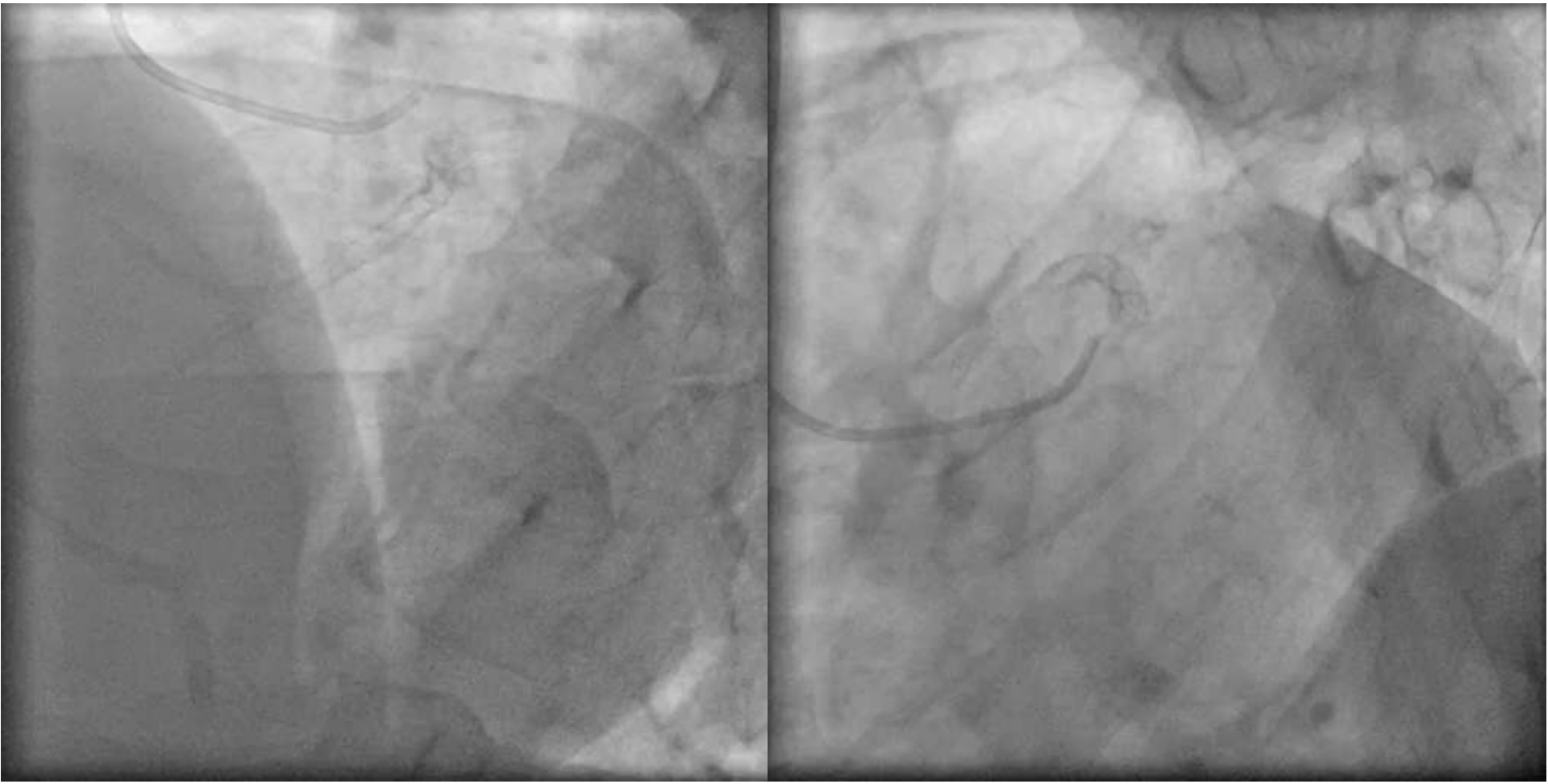


He received one Cypher without FKBD





Nine years later 63yo in 2015

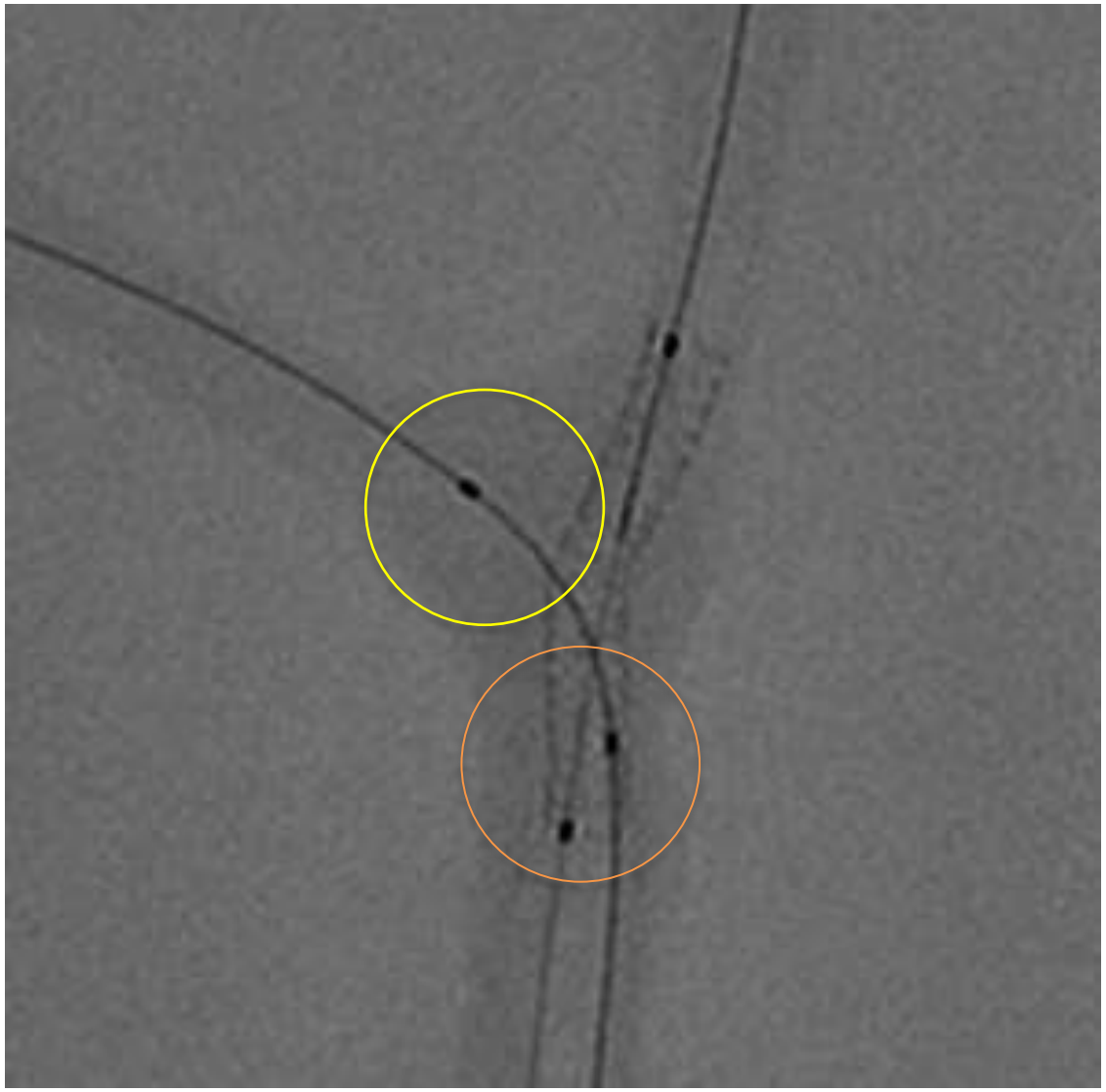


There was no restenosis in Cypher, but new sever stenosis appeared on LCx ostium.

Purpose of Routine Kissing

- There is a technique called Final Kissing Balloon Dilatation (FKBD) that prevents the ischemia in SB dominated area during acute and chronic stage after the placement of DES only in MV.

Routine Kissing Methods



Using two right size N/C balloons for reference vessel diameter, inflating both MV and SB with high pressure at once was the traditional way of Kissing.

I can express today's theme in other words with "Is Routine Kissing useful for side branch protection on acute phase and long period ?".

Mandatory ?

- What would be my simple answer to this question?

It is NO!

Nordic-Baltic Bifurcation Study III

Randomized comparison of final kissing balloon dilatation vs. no final kissing balloon dilatation in coronary bifurcation lesions treated with stenting of the main vessel.

The Nordic-Baltic Bifurcation Study III

3-year outcome

Niels R. Holm, Matti Niemelä, Kari Kervinen, Andrejs Erglis, Michael Maeng, Evald H. Christiansen, Indulis Kumsars, Sanda Jegere, Andis Dombrovskis, Pål Gunnes, Sindre Stavnes, Terje K. Steigen, Thor Trovik, Markku Eskola, Saila Vikman, Hannu Romppanen, Timo Makikallio, Knud N. Hansen, Per Thayssen, Lars Åberge, Lisette O. Jensen, Anders Hervold, Juhani Airaksinen, Mikko Pietilä, Ole Frobert, Thomas Kellerth, Jan Ravkilde, Jens Aarøe, Jan S Jensen, Steffen Helqvist, Iwar Sjögren, Stefan James, Heikki Miettinen, Jens F. Lassen and Leif Thuesen

For the Nordic-Baltic PCI Study Group

Procedure

1. Wiring of MV and SB
2. Predilatation at operators discretion
3. Stenting MV, jailing SB wire

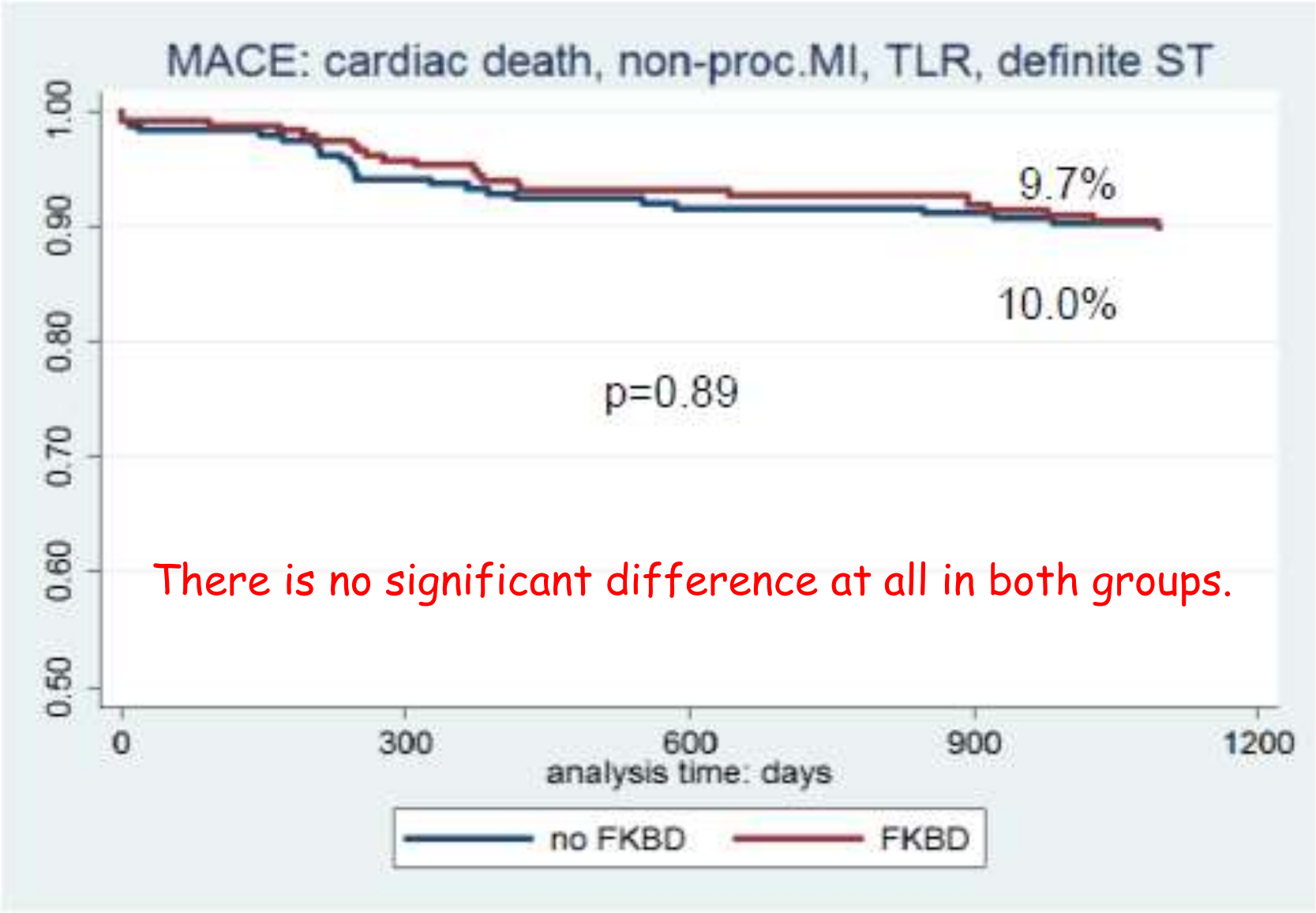
If TIMI flow 3 in MV and SB → *Randomization*

- *Provisional KBD group*: procedure terminated

- *Mandatory FKBD group*:
  4. rewiring of jailed SB
  5. FKBD
     - if SB TIMI flow <3 → SB stenting

The wise person might anticipate that FKBD will make some complication (sever dissection or occlusion) in SB.

Event free survival at 36months



There is no significant difference at all in both groups.

Individual endpoints at 36 months

	No-FKBD (n=239)	FKBD (n=238)	p
Total death (%)	2.1	5.9	0.03
Cardiac death (%)	0.4	2.1	0.10
Non-procedural MI (%)	2.9	2.9	0.99
Stent thrombosis, definite (%)	1.3	0.8	0.65
Target lesion revascularization (%)	8.4	6.3	0.39

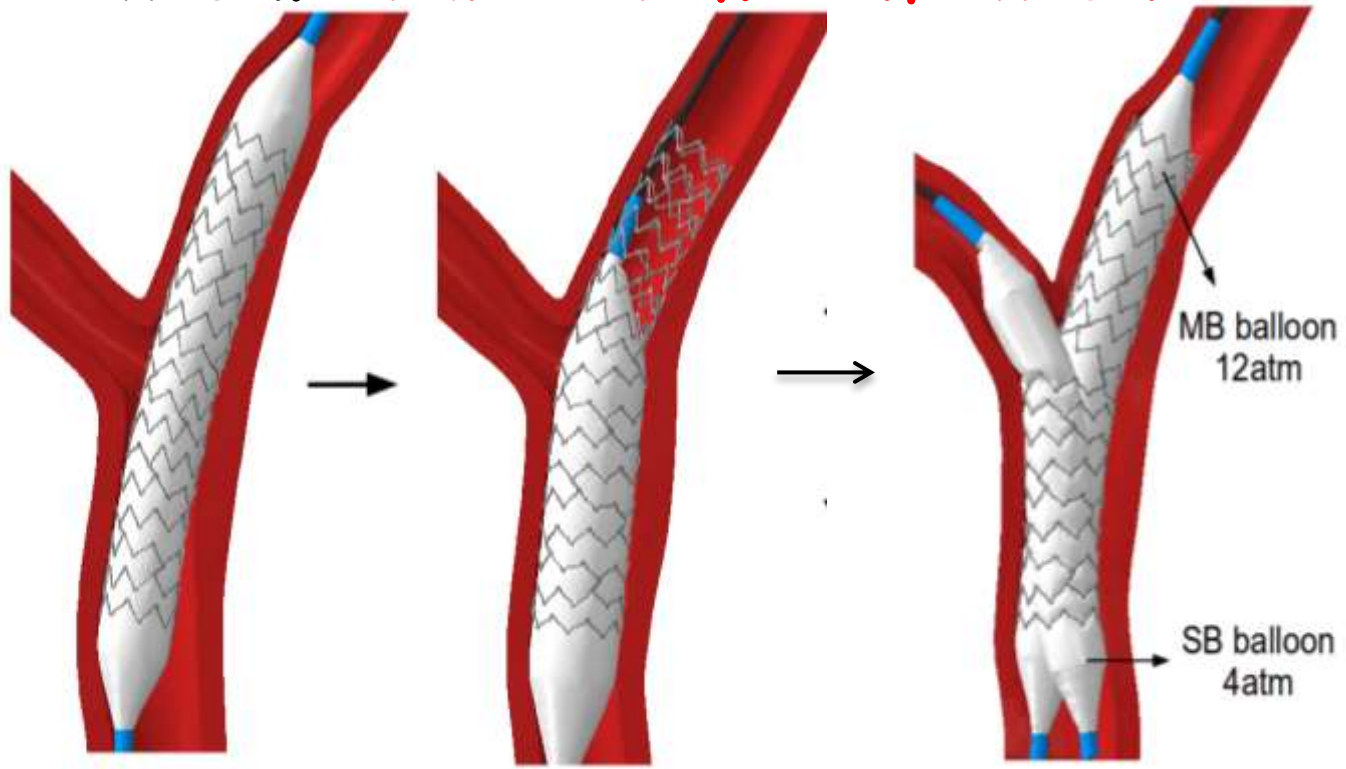
There is more total death in FKBD group.

On the other hand, they show a tendency to be more TLR in No-FKBD group.

- Less invasive for Patient (radiation, contrast)
- Maintain the MV and SB blood flow.
- Deform the stent strut that jailing the side branch ostium.
- Less deformation of MV stent strut.
- No dissection, No occlusion of SB and MV.
- Simple, Easy and Economical.

If there is such a convenient Kissing method, we really should do it, and this is my consistent suggestion.

It reduces the risk of dissection in SB by performing a modified FKBD after the placement of stent in MV without predilation. +three time inflation



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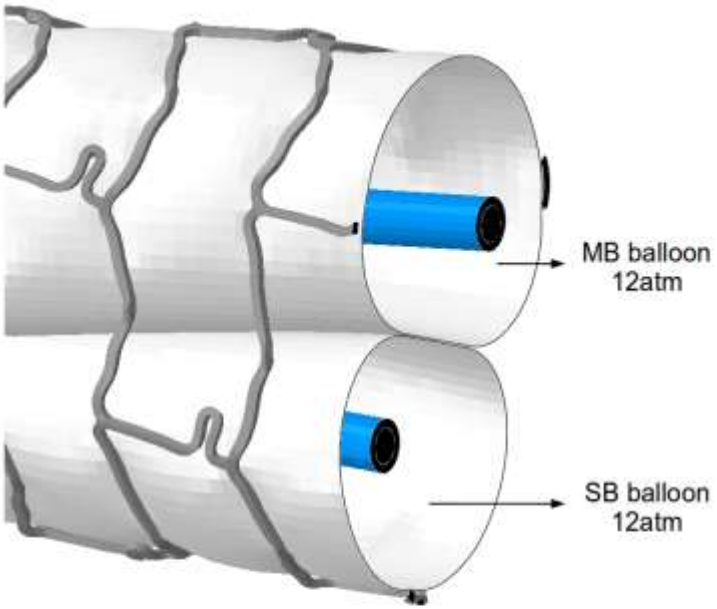
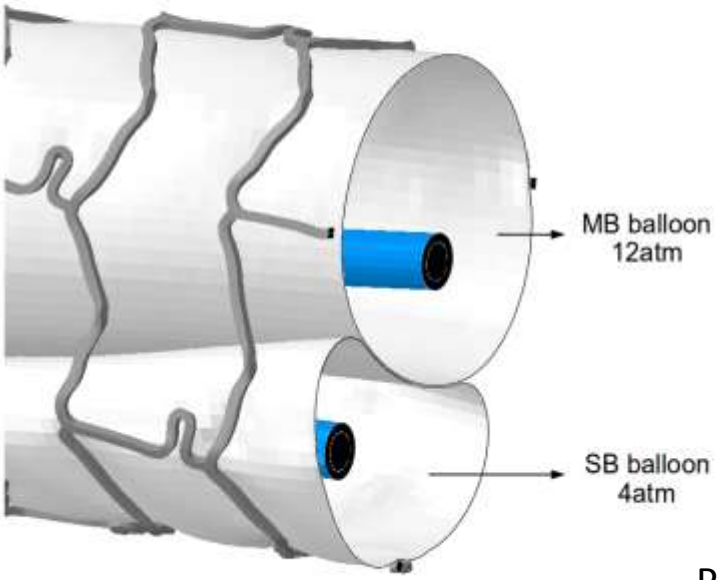


Simultaneous FKBD



Modified FKBD

Cross-sectional view of the overlapping balloons during final kissing balloon postdilation

- Modified FKBD will reduce the elliptical stent deformation of proximal MV.
- It will reduce the SB ostium complication.

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	Simultaneous FKBD	Modified FKBD	p-value
Ostial stenosis	20±11%	15±9%	< 0.001
Ellipticity index	1.36±0.06	1.17±0.05	< 0.001
Malapposed struts	6.4±3.4%	6.3±3.6%	0.39

Comparison of the results obtained using the simultaneous and the modified final kissing balloon dilatation (FKBD) strategies

Modified FKBD results in a reduced ostial stenosis and decreases the elliptical deformation in the proximal main vessel. The amount of stent strut malapposition was similar in the two techniques.

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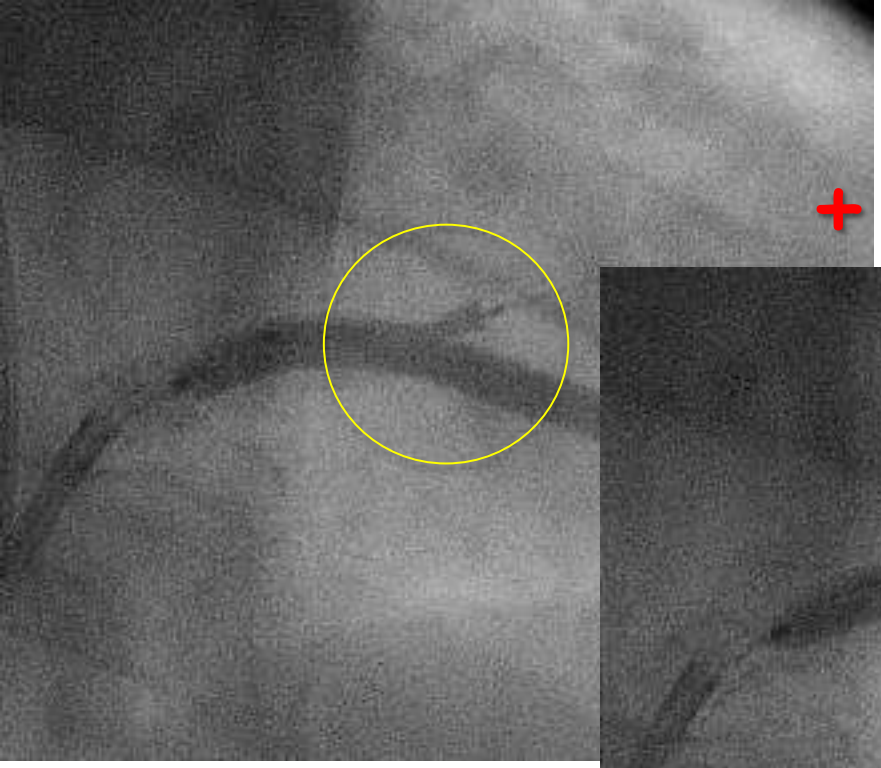
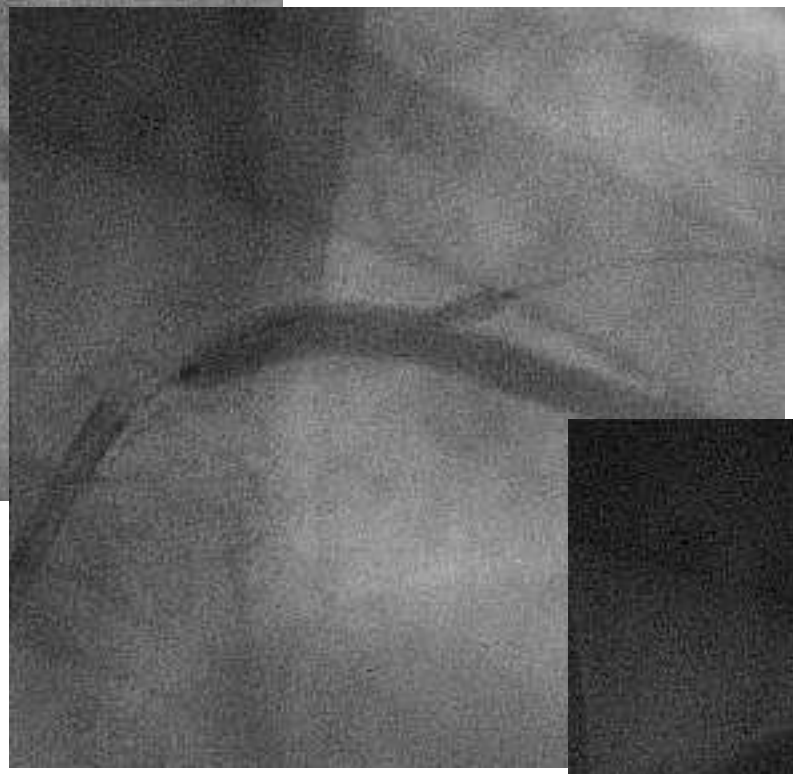
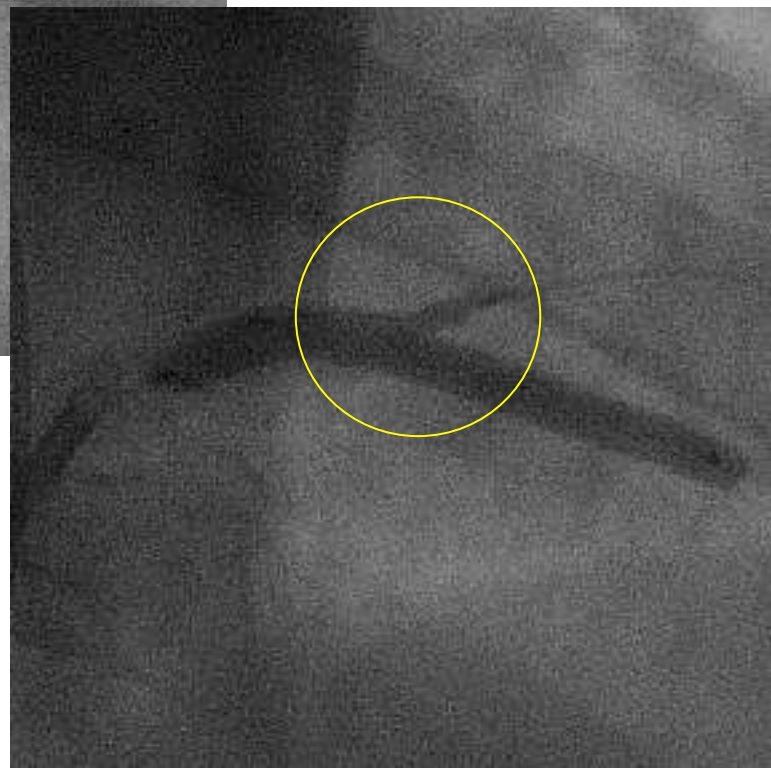
Modified FKBD + three time inflation



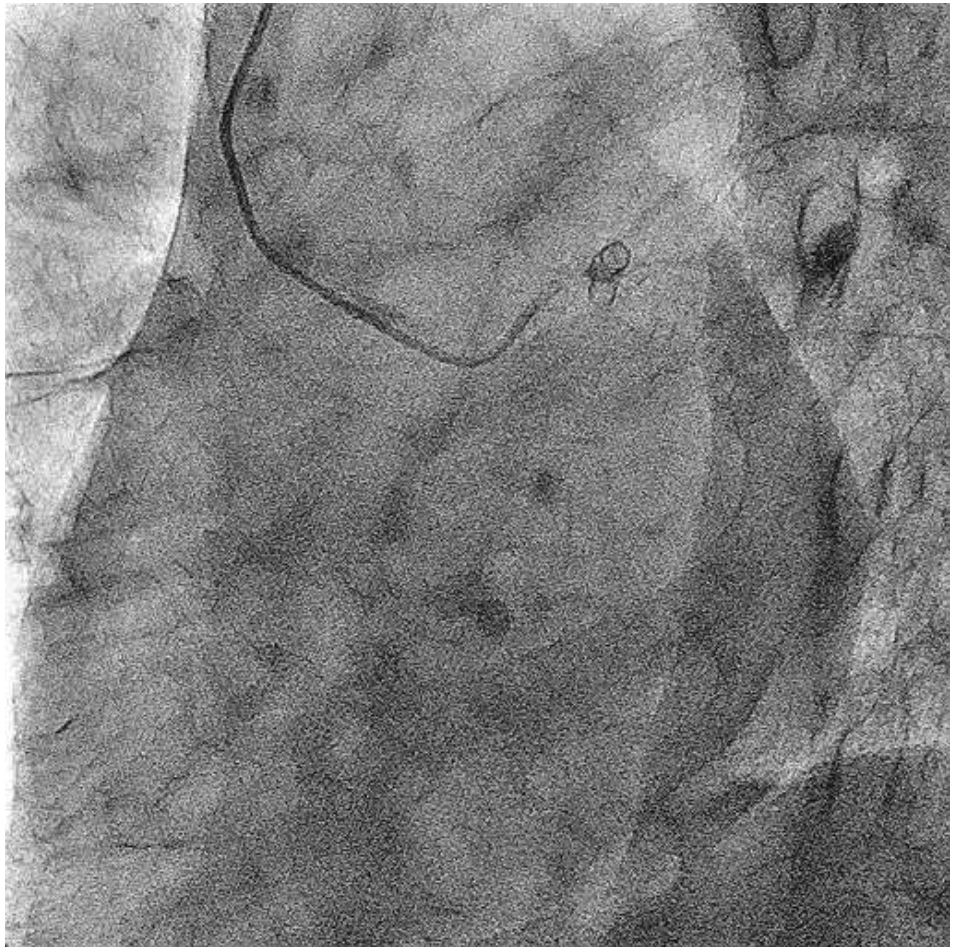




MV:12atm
SB :6atm

Compare to the first time dilatation, third time SB balloon expanded smoothly.
It means that the stent strut was expanded well.

Case: Modified FKBD



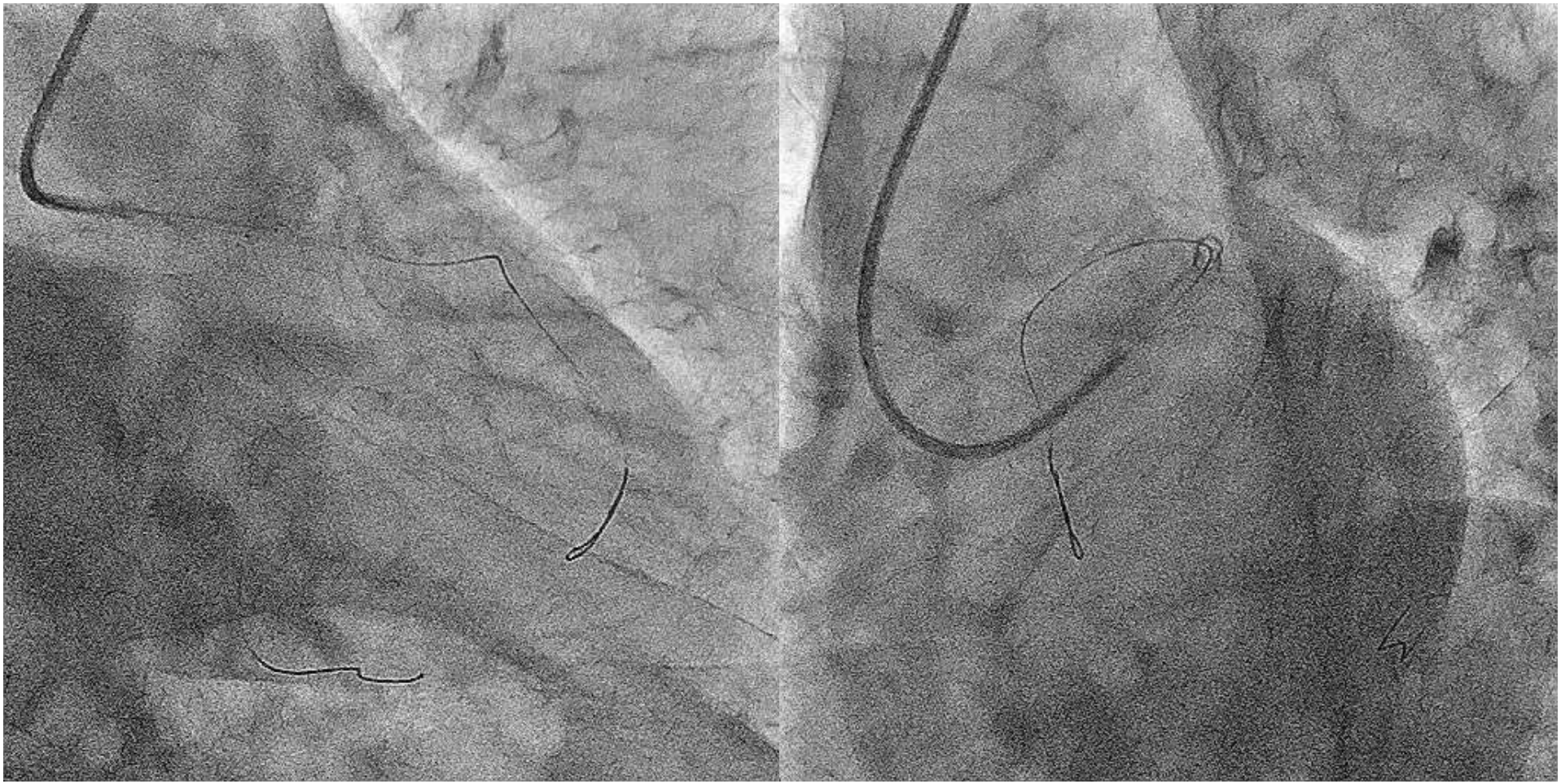
FFR: 0.73

MV :delivery Bal. 12atm
SB: S/C Bal. 6atm

1st kissing

3rd Kissing

Final



My conclusion of today

- Rugged and Rough Kissing is not too acceptable. But generous Kissing with creative in[illegible] it can expect a good result.