

Sheffield Teaching Hospitals **NHS**
NHS Foundation Trust



The
University
Of
Sheffield.

Dr. Julian Gunn

Restenosis in SKS: How to treat it?

European Bifurcation Club



*Senior Lecturer, University of Sheffield
Hon. Consultant Cardiologist,
Sheffield Teaching Hospitals
UK*



Background: literature

'Kissing' stents for bifurcational coronary lesion.

Colombo A et al. *Cathet Cardiovasc Diagn* 1993;30:327-30

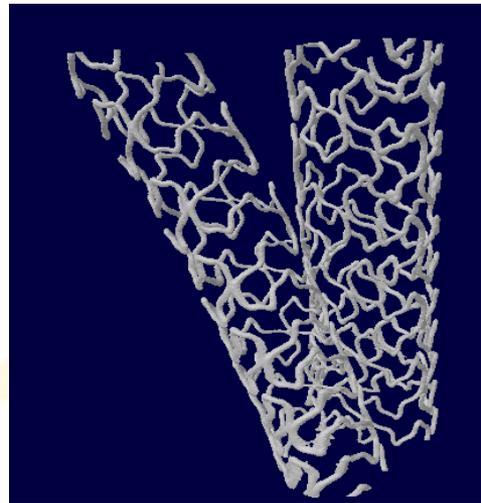
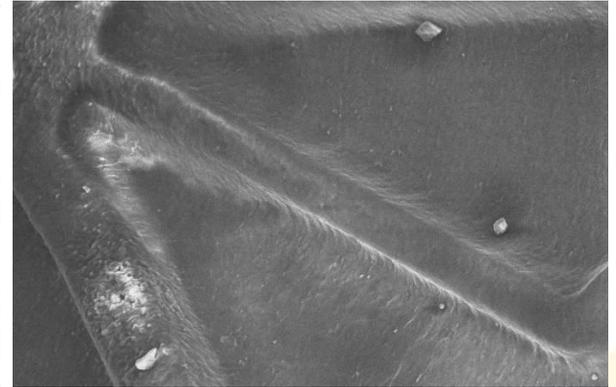
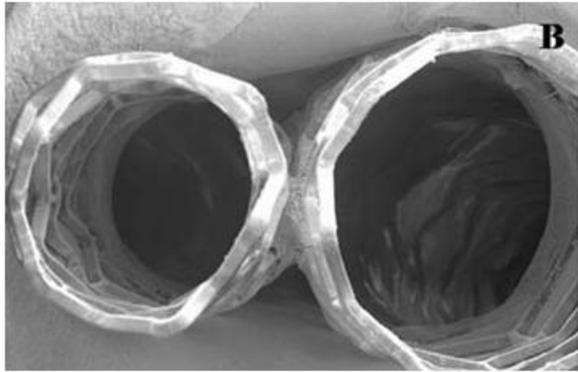
Kissing Palmaz-Schatz stents for coronary bifurcation stenoses.

Teirstein P. *Cathet Cardiovasc Diagn.* 1996;37:314-6

Simultaneous kissing stents (SKS) technique for treating bifurcation lesions in medium-to-large size coronary arteries.

Sharma SK et al. *Am J Cardiol* 2004;94:913-7

Background: Sheffield preclinical





Setting

- Northern General Hospital, Sheffield, UK
- Tertiary Cardiothoracic Centre
- Catchment population 1.8M
- N = 1600 PCI/ p.a
- >50% acute/ emergency (660 PPCIs)
- Majority of cases LMS (colleagues): CABG

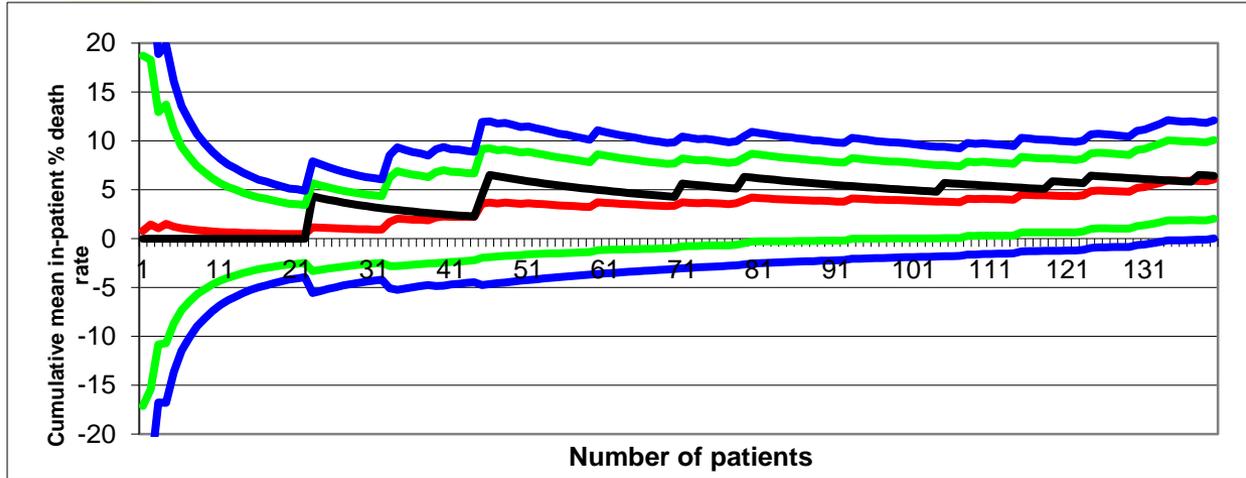
- LMS: Single (senior) operator JG 2000 – 2012
- JG patients with bif LMS offered PCI or CABG (if fit)
- N= 442 LMS PCI;
 - 222 (50%) Single stent
 - 178 (40%) DES SKS (2004 -)
- Full feasible revascularisation
- Consecutive
- *All-comers* (ACS 53%, elderly, frail, 52% CABG unsuitable, 21% IABP)

EuroIntervention 2012, in press



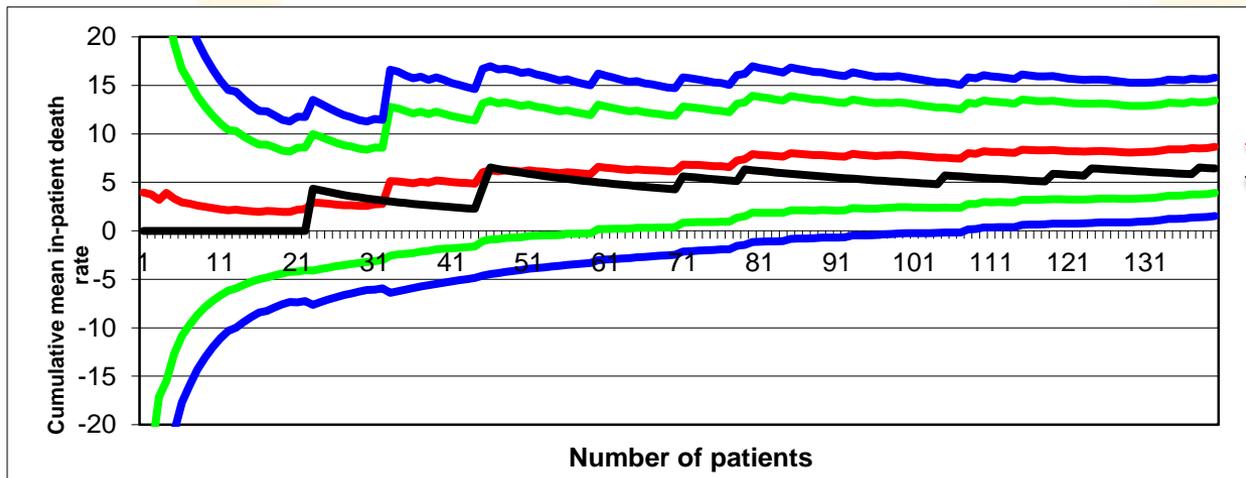
Mortality – accords with clinical risk

New
York
PCI
Risk



← Predicted
← Actual

Euro
Score
Risk

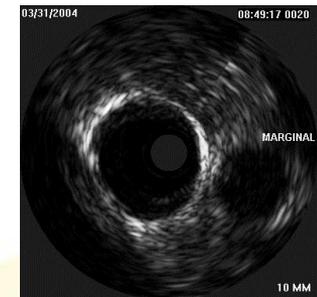
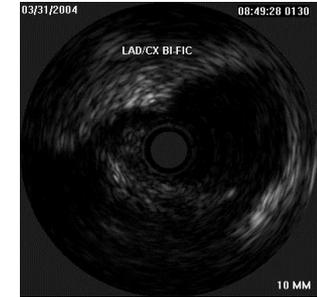
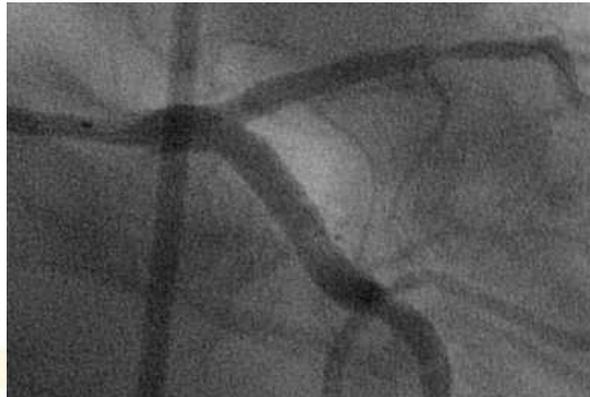
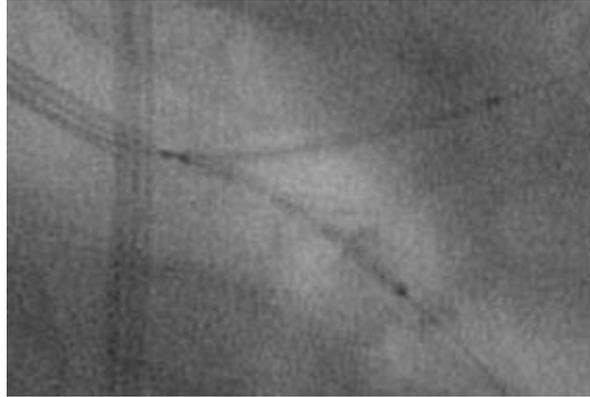
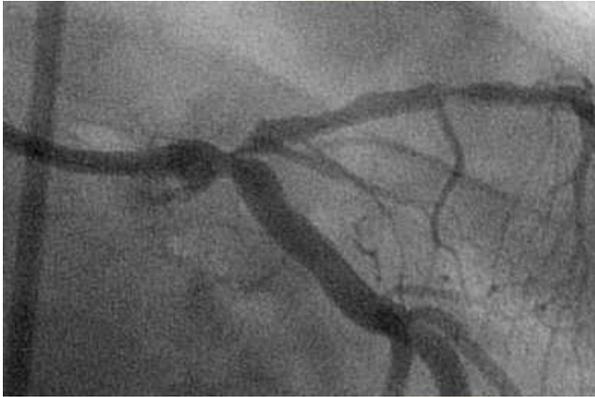


← Predicted
← Actual

EuroIntervention 2012, in press

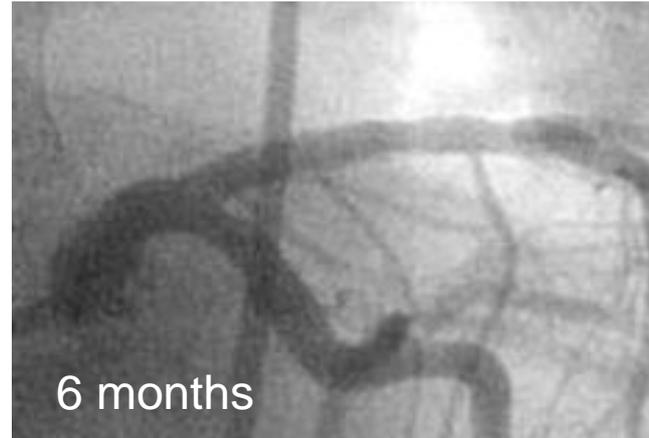
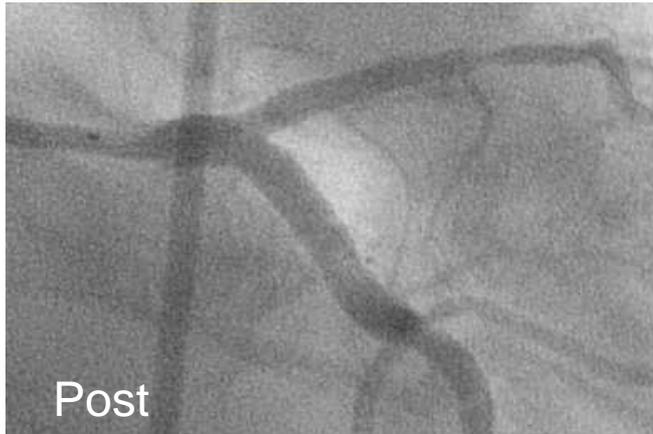
SKS Example

Case 2



Angiographic followup(1st=30)

Case 2



Routine
6m
Angio
Cases
1-29*

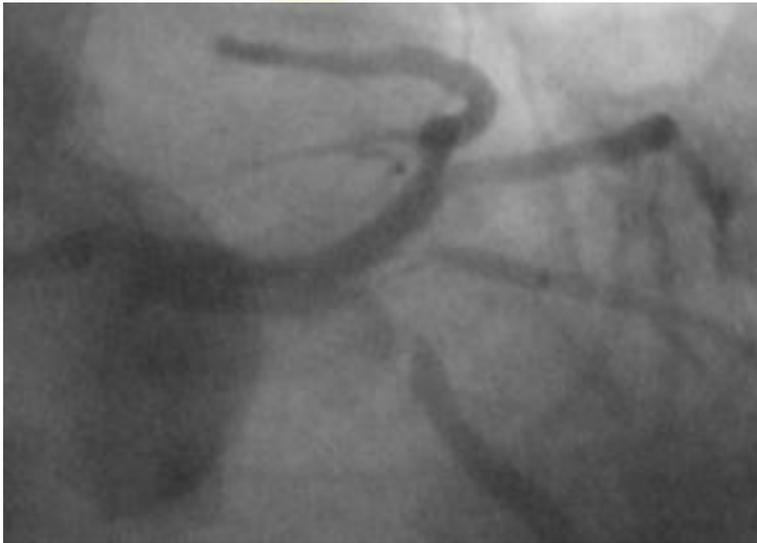
Angiographic restenosis (>50%)

- 2/29
- 6.9%

**Cathet Cardiovasc Interv* 2007;69:209-15

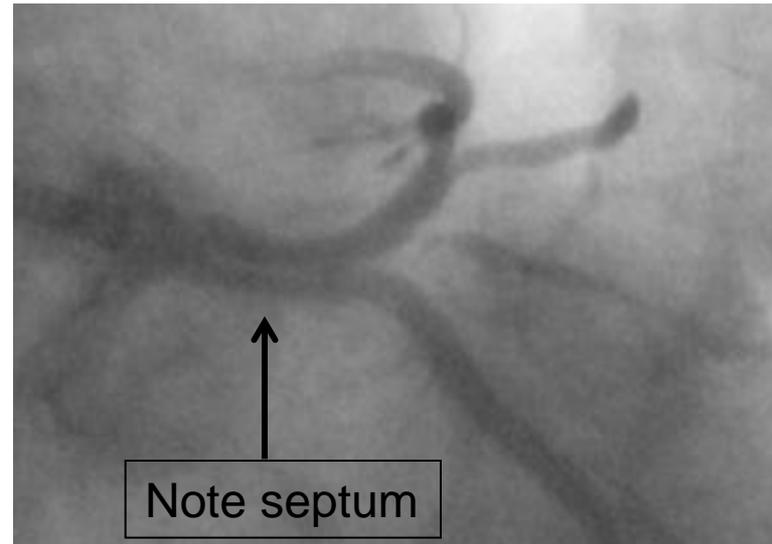
SKS Restenosis: Example 1

11 months after SKS



2.75x24 Taxus LAD
2.75x24 Driver Cx

Rx SKB/S (2006)



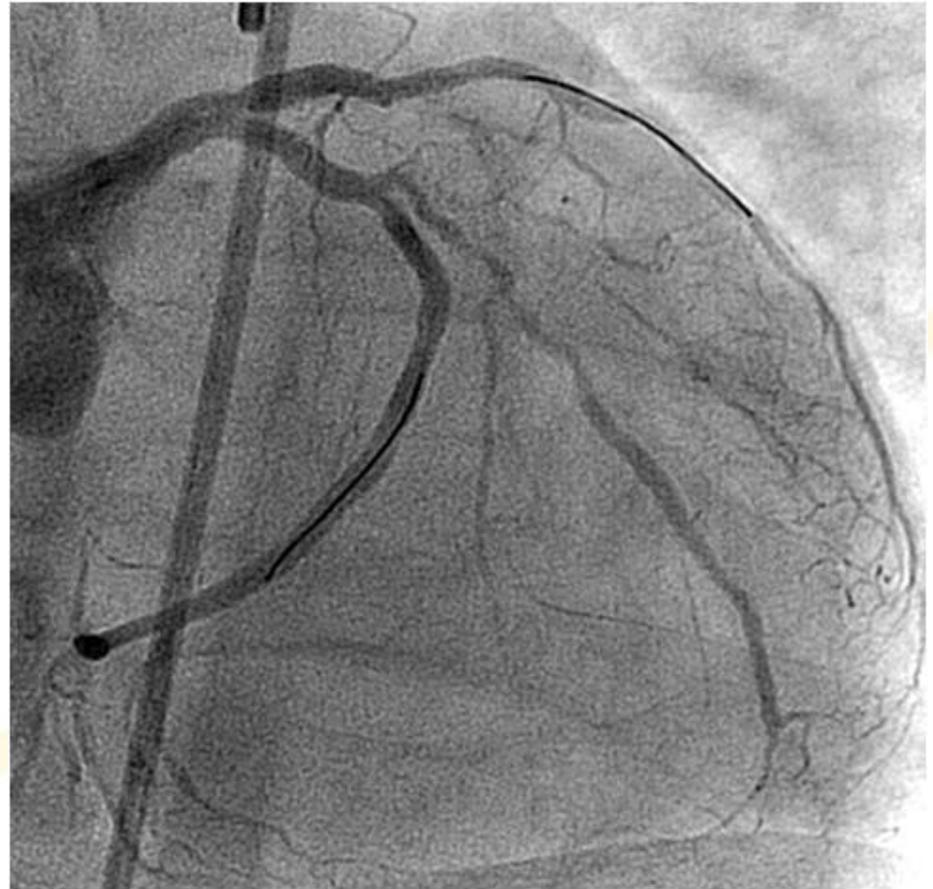
2.75 balloon LAD
3x24 Taxus Cx



SKS Restenosis: Example 2 - a

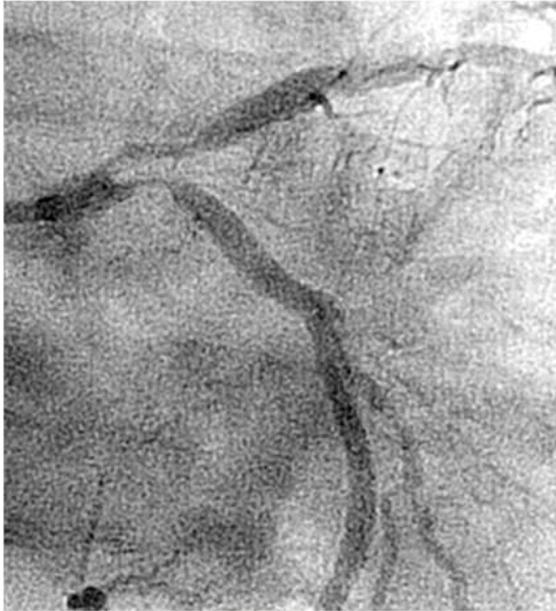


1st PCI Rx SKS 2008
3.0x24 Taxus LAD
3.0x24 Taxus Cx

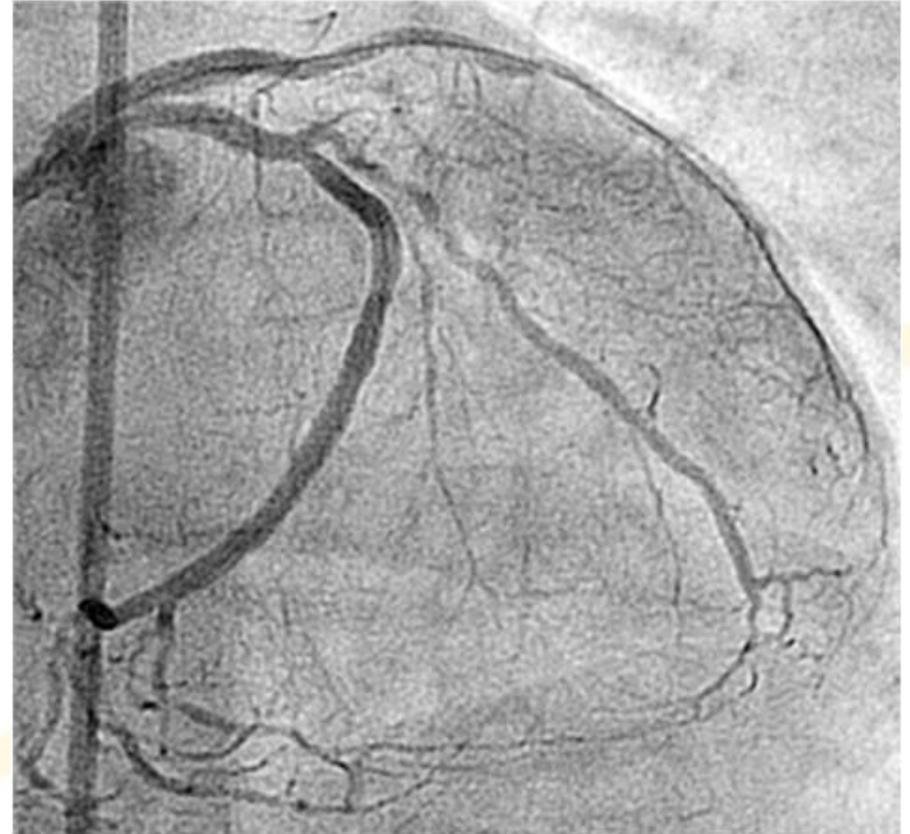




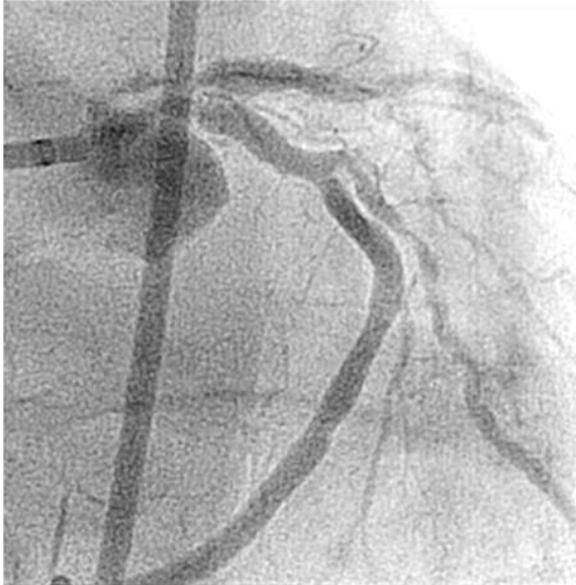
Example 2 -b: 9m Restenosis



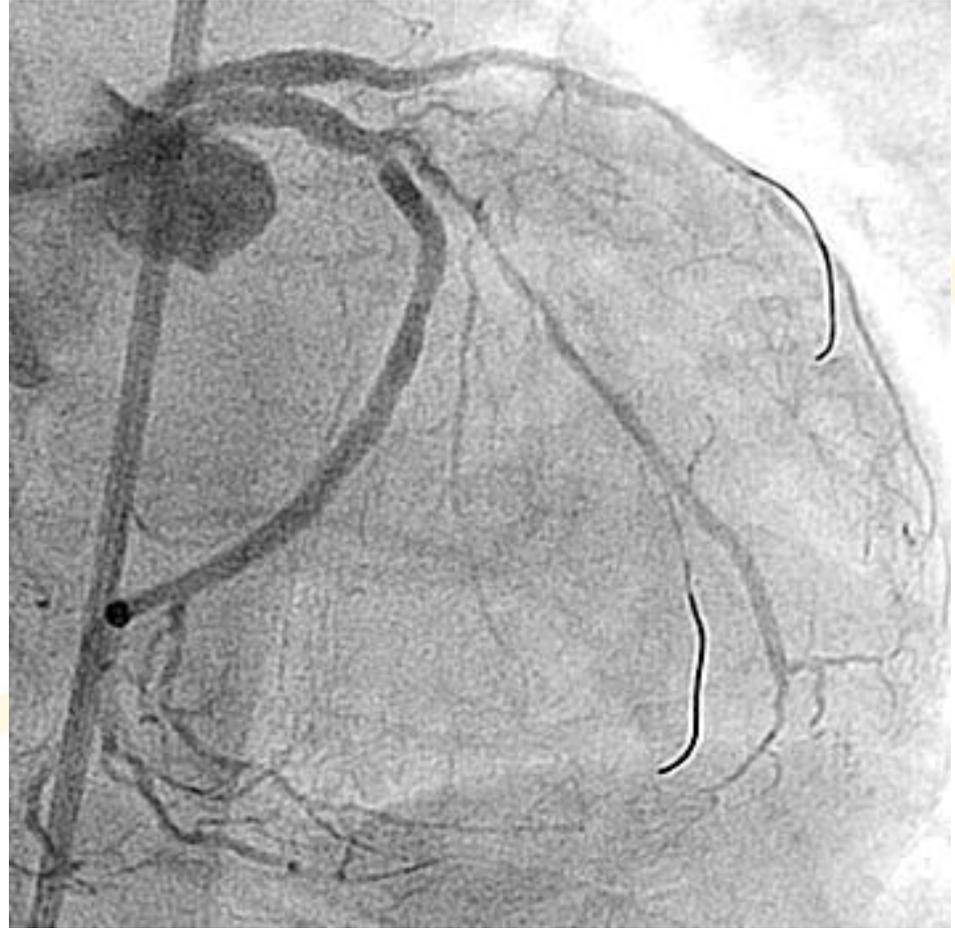
2nd PCI 2009
Rx SKB (DEB)
3.5 LAD
3.5 Cx



Example 2 -c: 6m re-restenosis

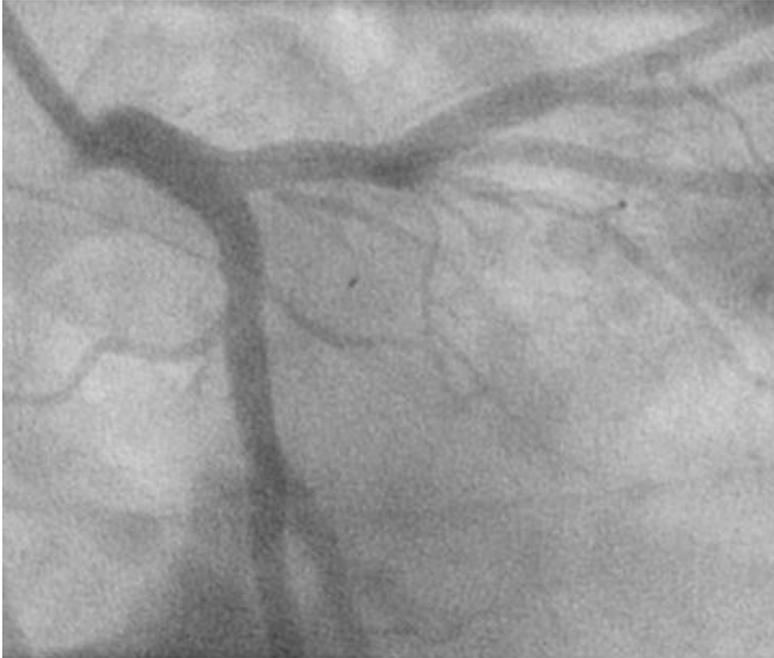


3rd PCI 2009
Rx re-SKS
3.5x23 LAD Promus
3.5x23 Cx Promus



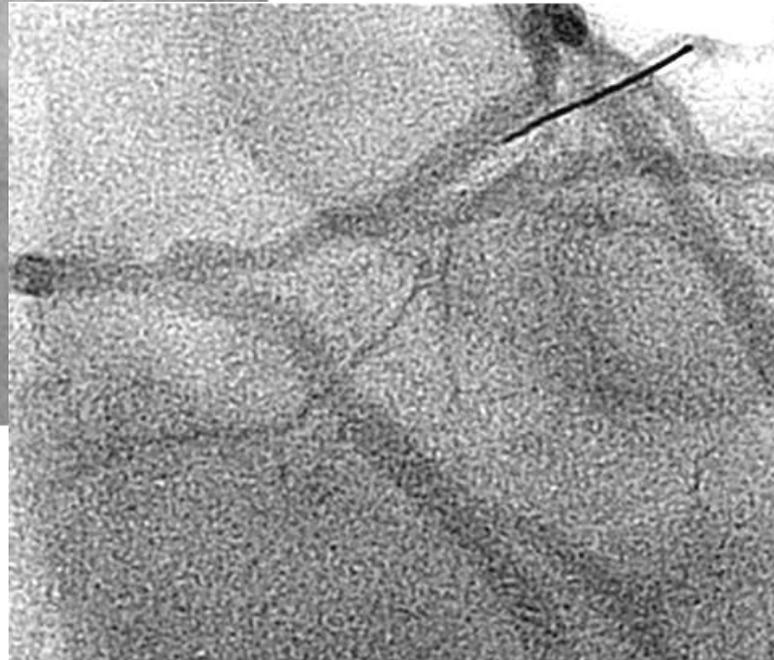
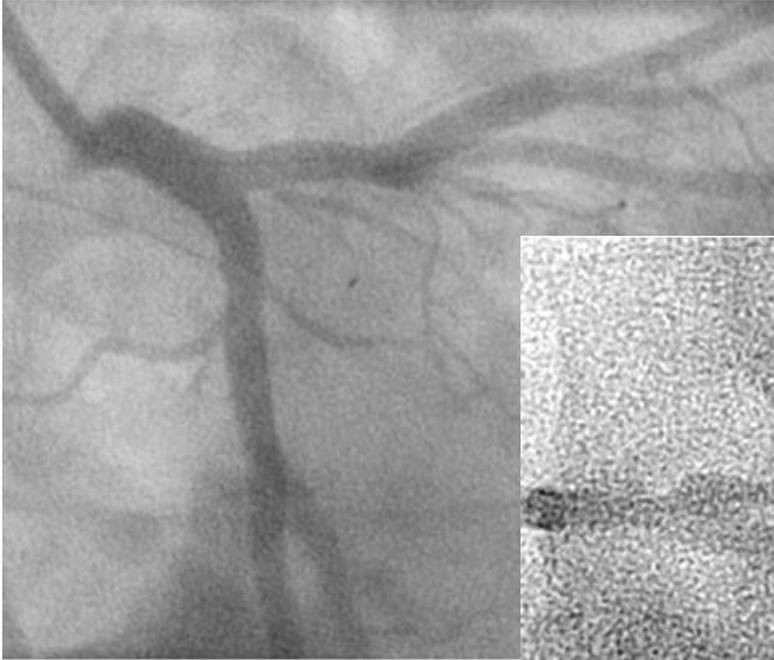


SKS Restenosis: example 3



1st PCI: SKS final result 2005
3.5x20 Taxus LAD
3.5x20 Taxus Cx

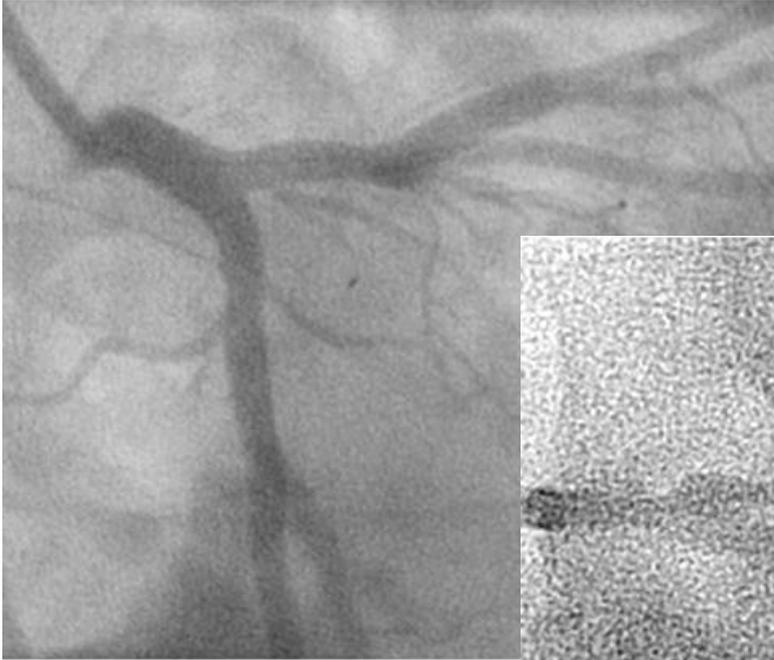
SKS Restenosis: example 3



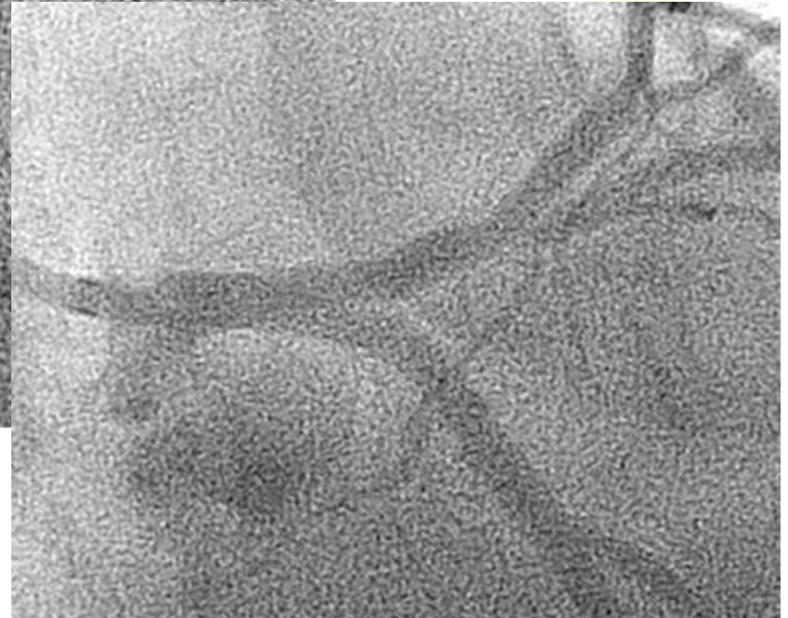
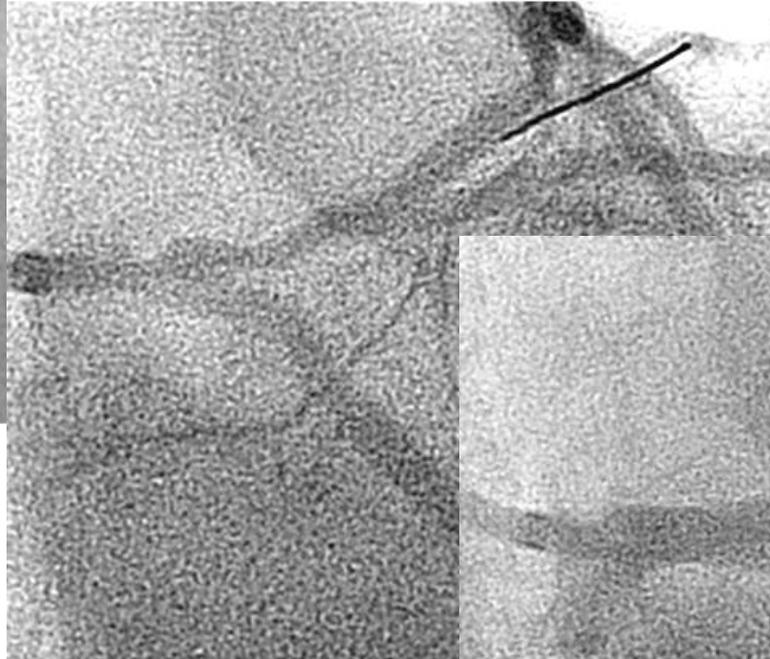
8m restenosis



SKS Restenosis: example 3



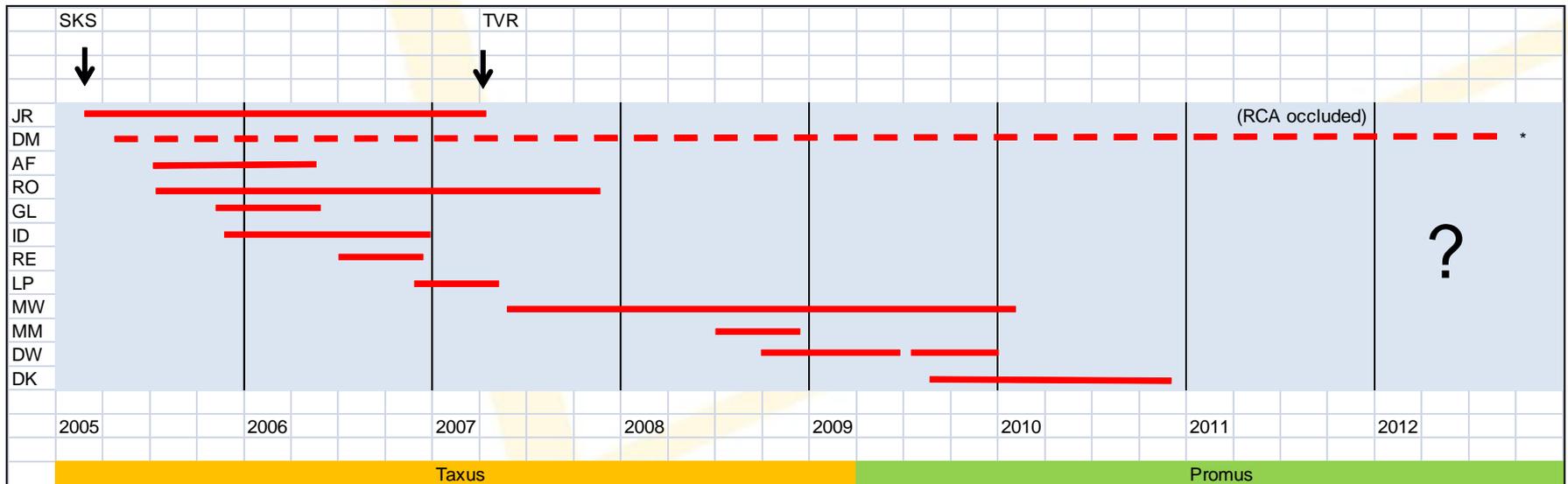
2006 Re-SKS
3.5x24 Taxus LAD
3.5x24 Taxus Cx





SKS TVR (for symptoms)

- 12/178 patients [6.7%] (including 1 twice)
- Follow-up 65m (IQR 37 – 63m)
- 12 month rate 6/178 [3.3%]
- Timings:

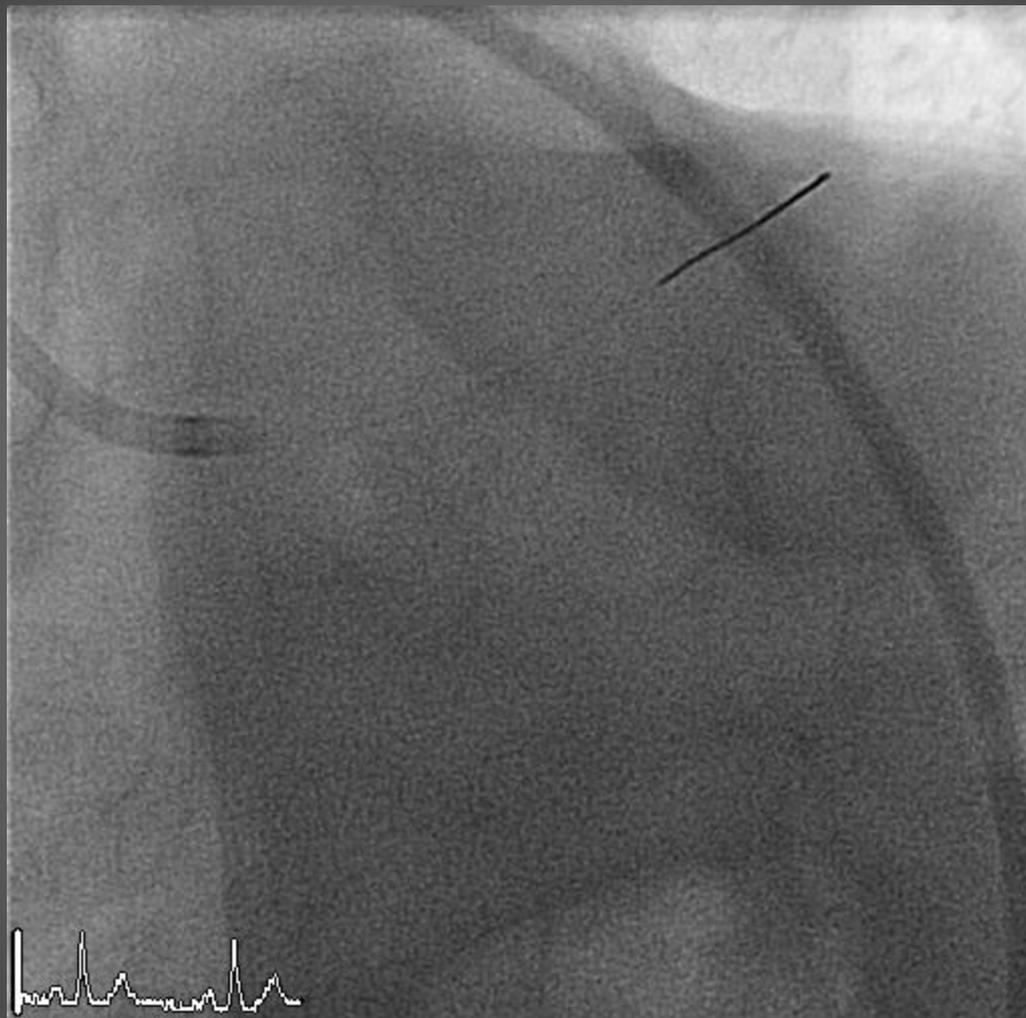




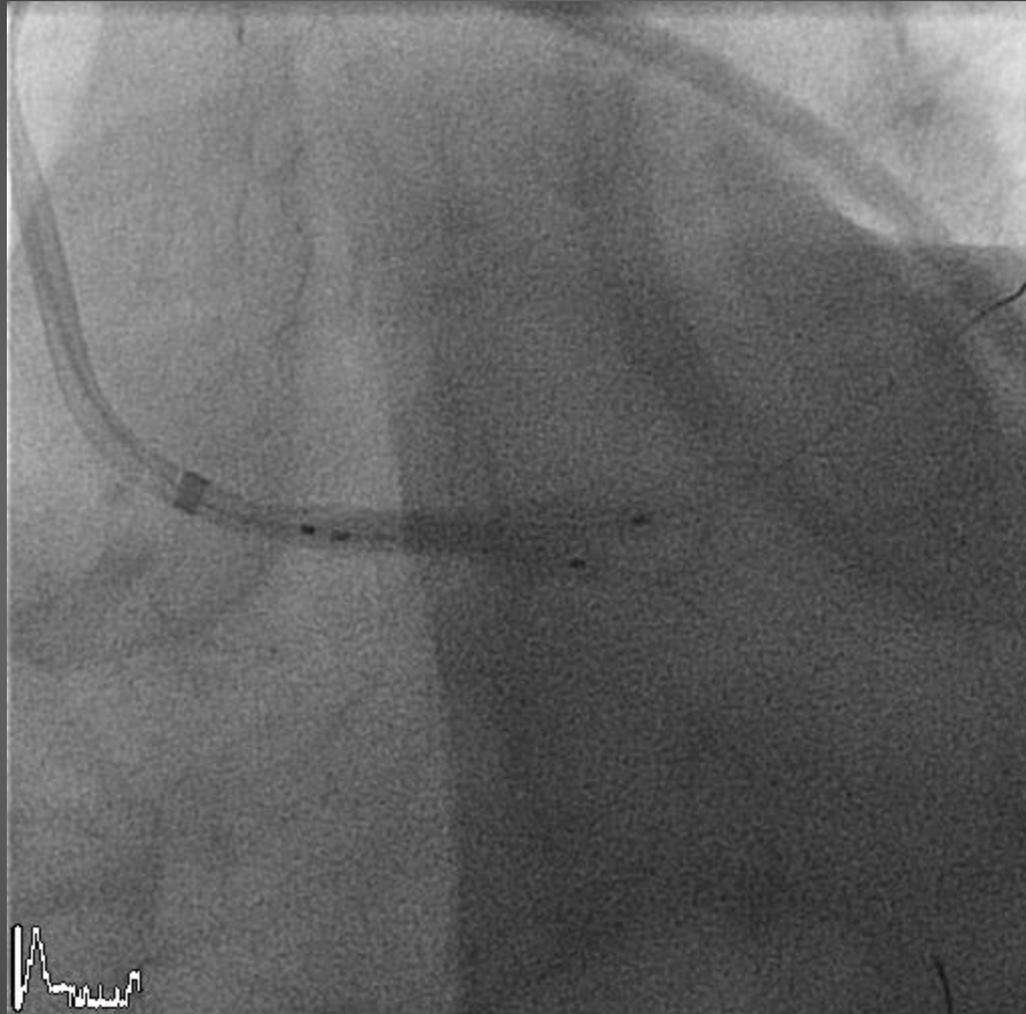
SKS TVR (for symptoms) Technicalities

- Originally Taxus in 11/12 cases
- 11 Rx re-PCI (including 1 SKB then SKS)
(4 SKB, 2 SKB/S, 5 SKS, 1 single stent)
- 1 CABG*
- Sites: LMS-LAD 7/11, LMS-Cx 10/11
 - Bifurcation: 8/11 (1 unknown)
- Re-PCI excellent results in all (except the 1 SKB)

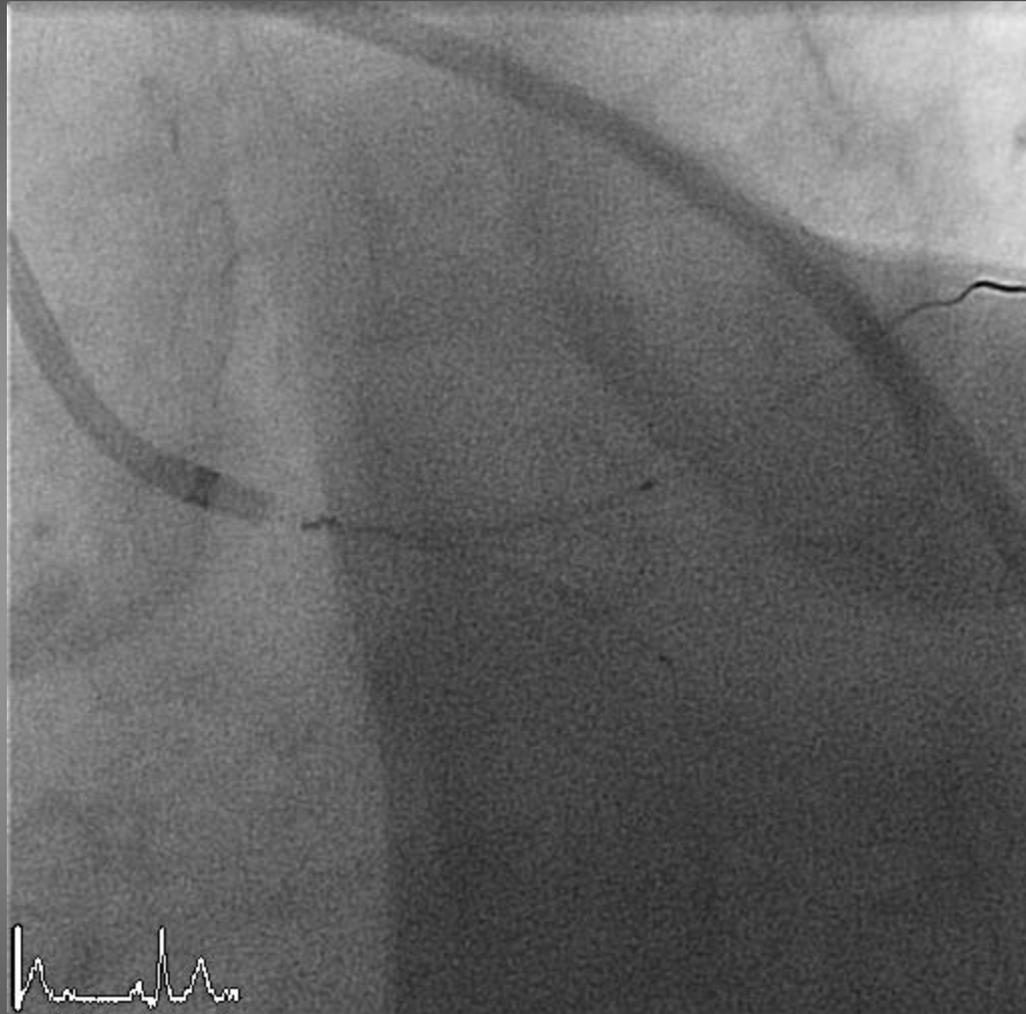
SKS restenosis: how to treat



Predilate SKB



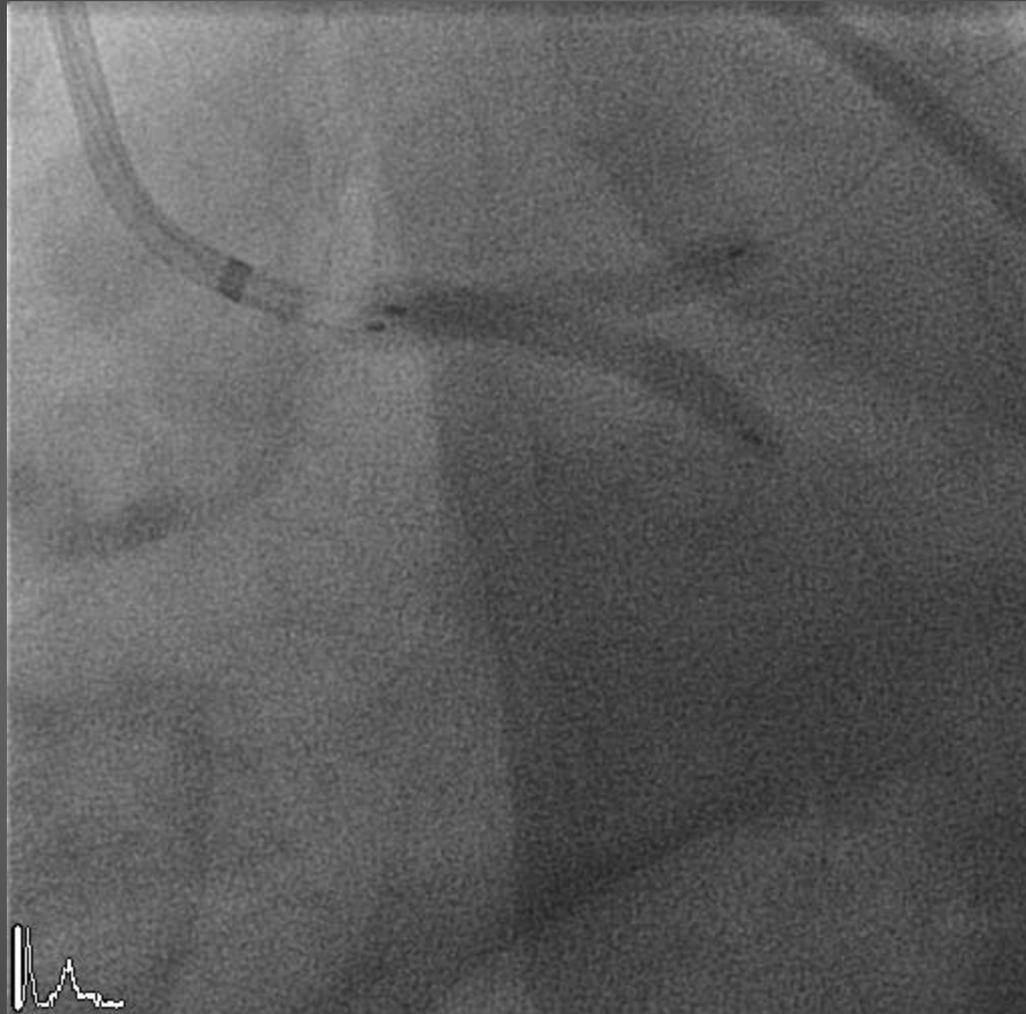
Position - spider



Position – LAO cranial



SKS (2 views)



Result





SKS Restenosis: conclusions

- Remnant from early experience (Taxus?)
- Clinical re-presentation uncommon (3% at 12m)
- Getting rarer – 3rd generation DES?
- Either barrel; usually near/at bifurcation
- Easy to treat with re-PCI
- Big catheter, predil HP
- Rx re-SKS (DES)
- Increase size +0.5/+0.5mm