

For complex bifurcation: Two stents or hybrid?

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Nothing to disclose

February 10-12, 2011

Young Italy

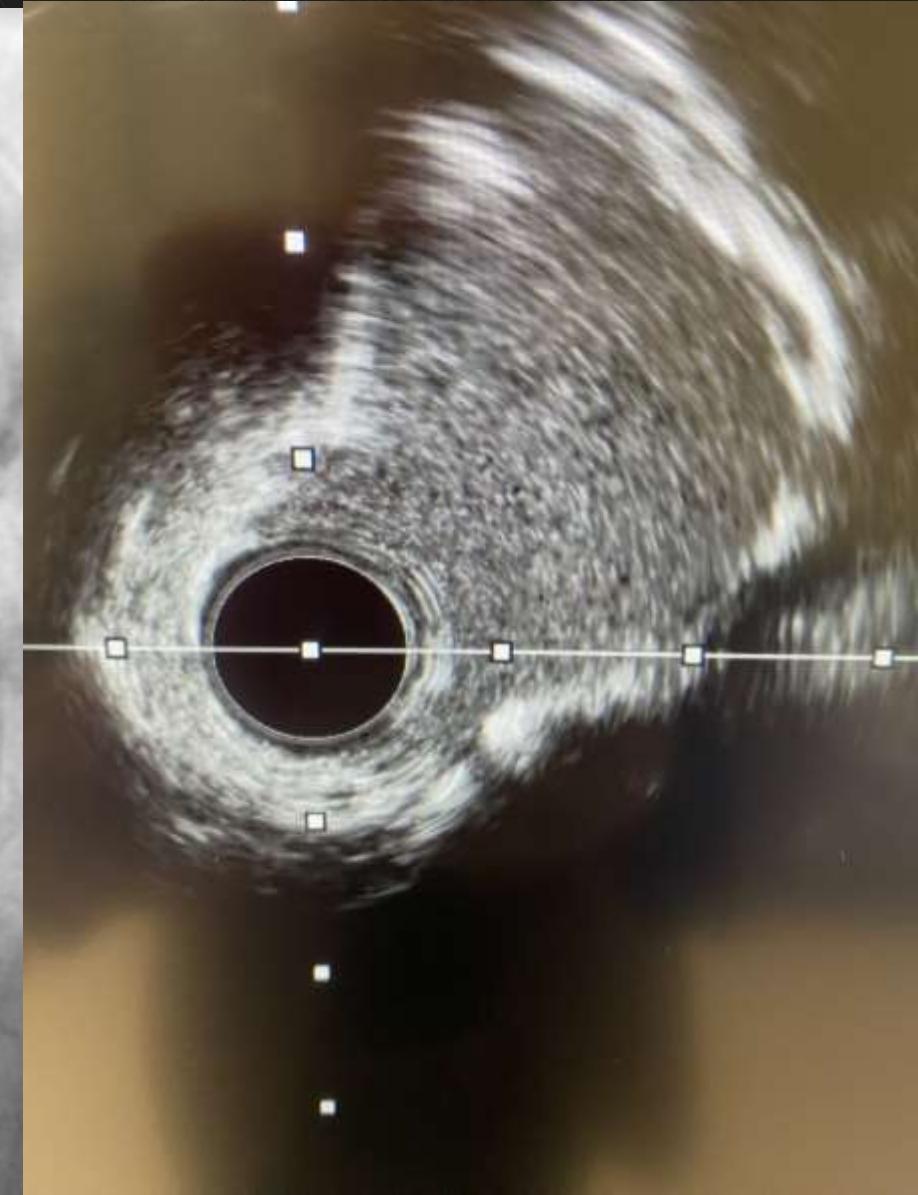
International meeting

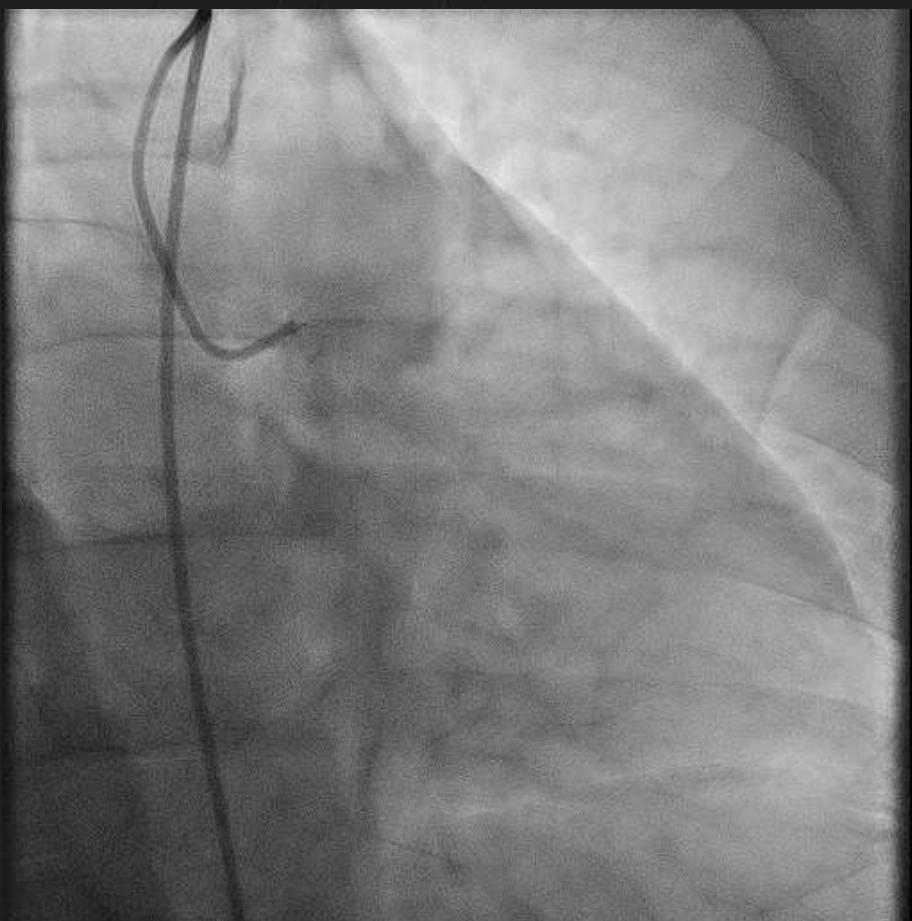


Rotablation 1.5
and 1.75 on
LAD and LCX
Shockwave on
both
and DKCrush

February 10 12, 2011
Ronny Kelly

Final result





Baseline

February 10 12, 2011
Young, Kelly

Results after predilatation of the SB may help to select the final approach

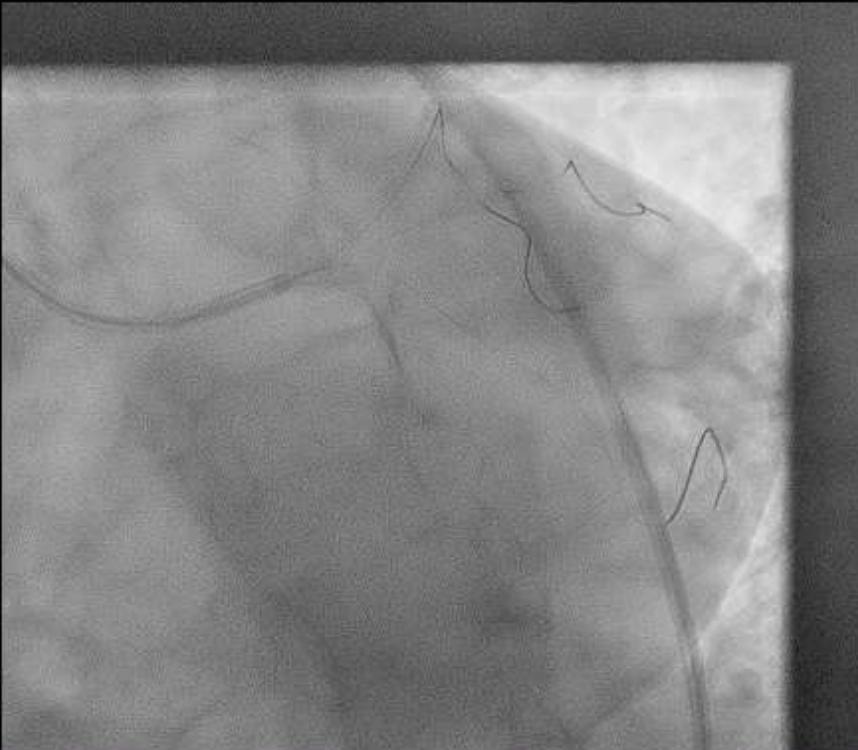


interventional meeting

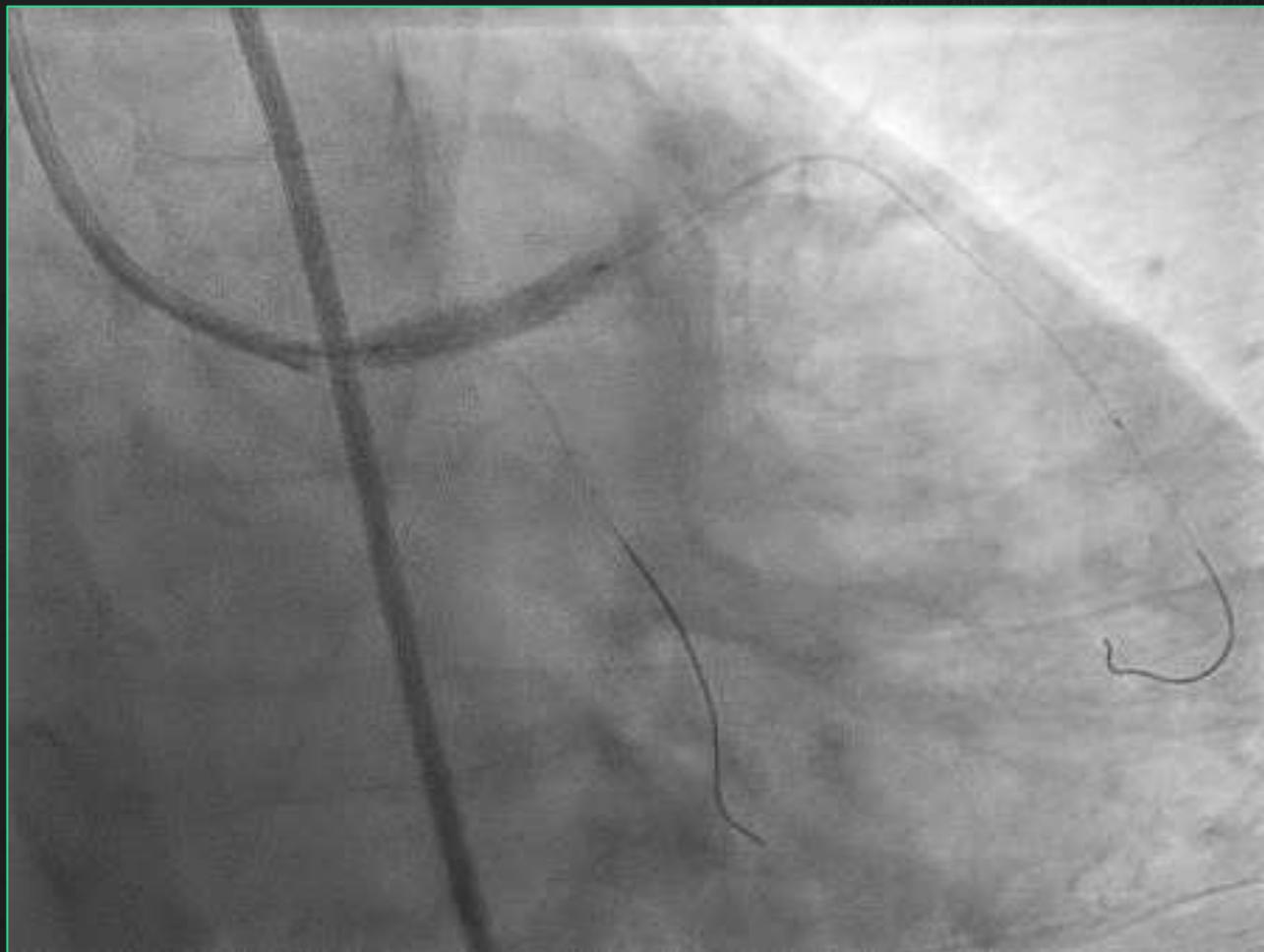


Kissing Balloon 3.0 + 3.0 mm

These steps are important to support further decisions



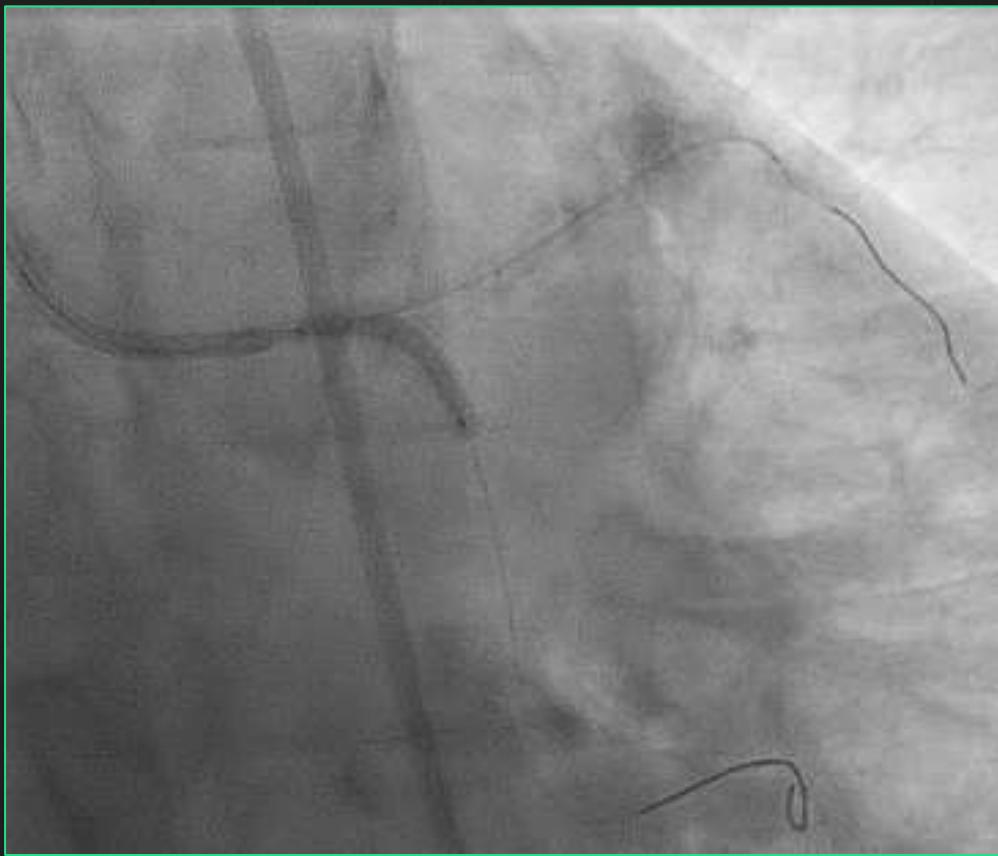
After Kissing Balloon



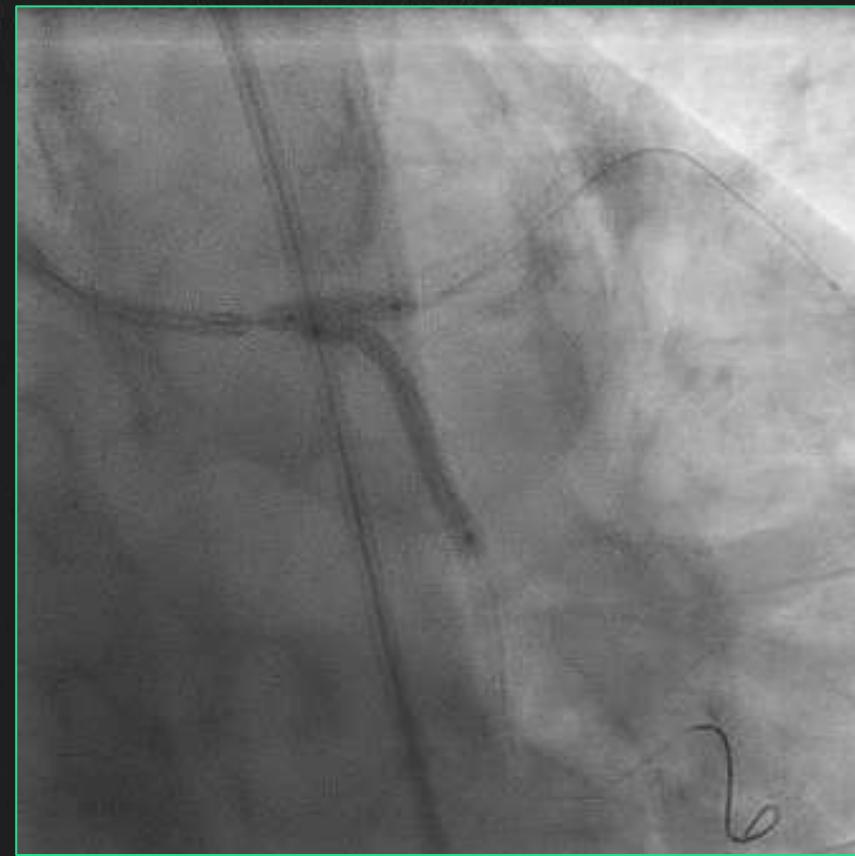
3.5 x 20 mm DES

February 10 12, 2011
Rome, Italy

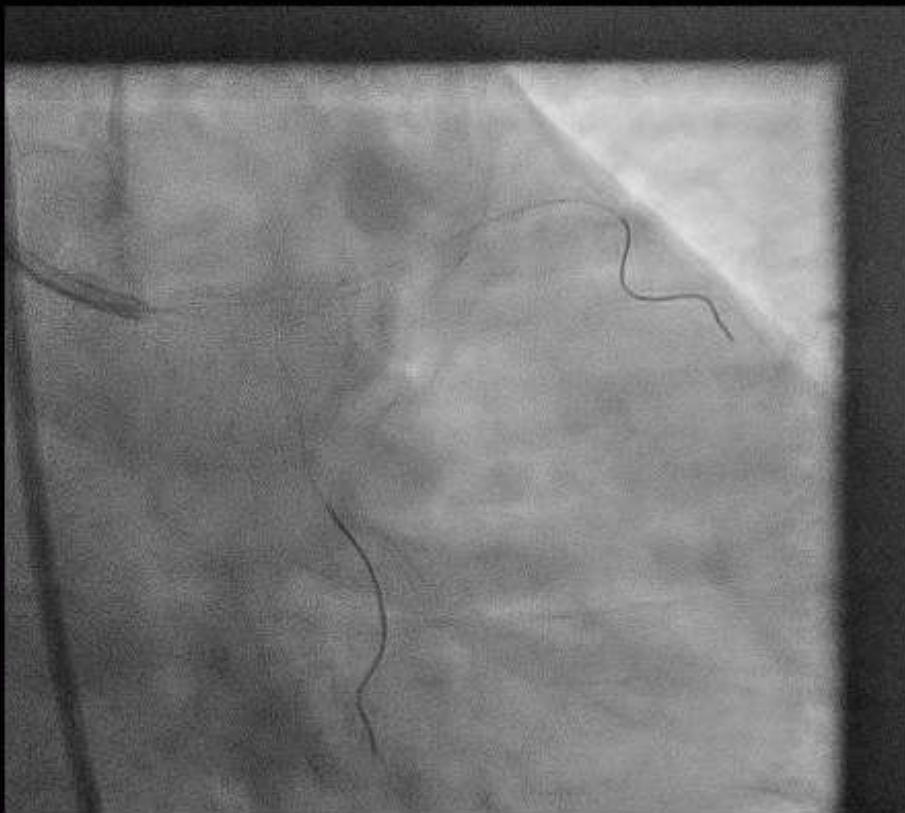
International meeting



POBA 3.0x 20 mm

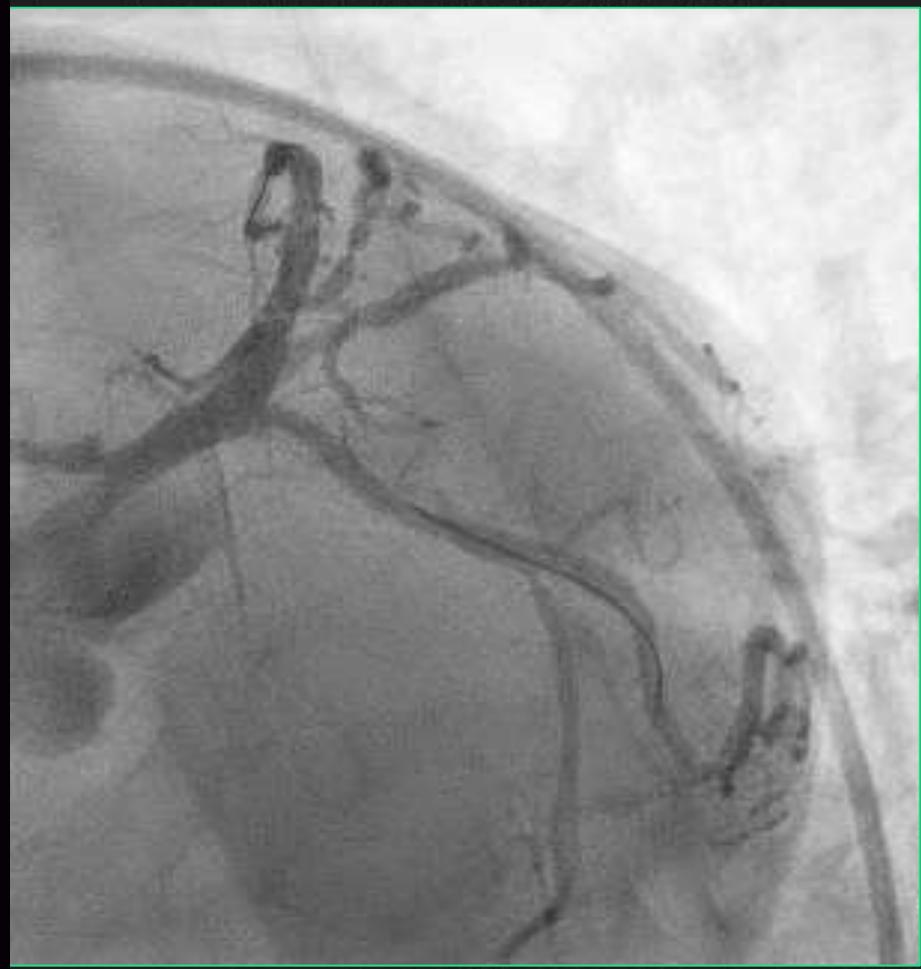
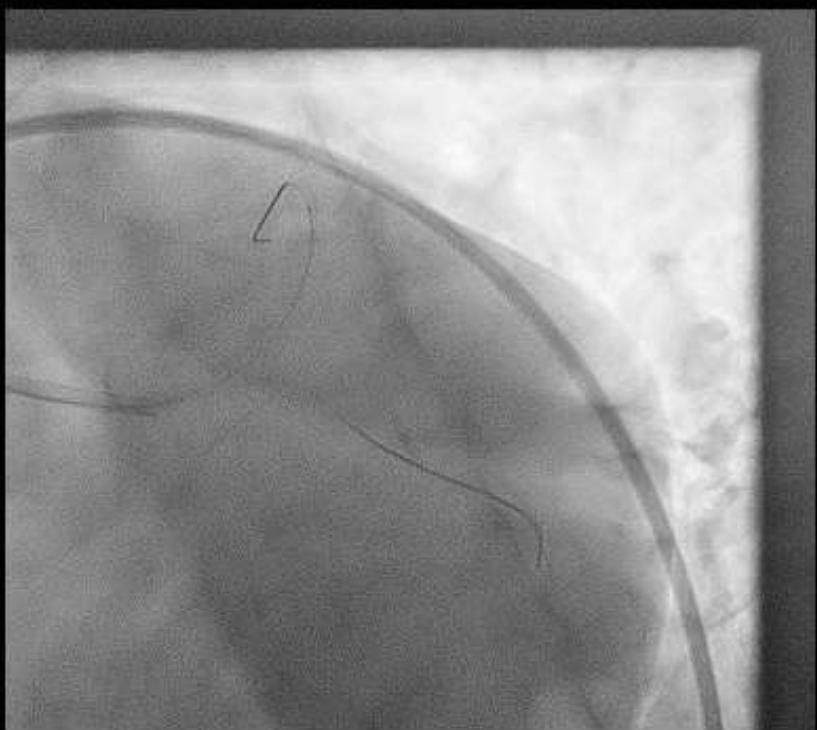


DCB on LCX
3.5 mm POBA on LAD



Final Result

interventional medicine



Final Result

Baseline



Final post DCB



interventional meeting

1 year FU

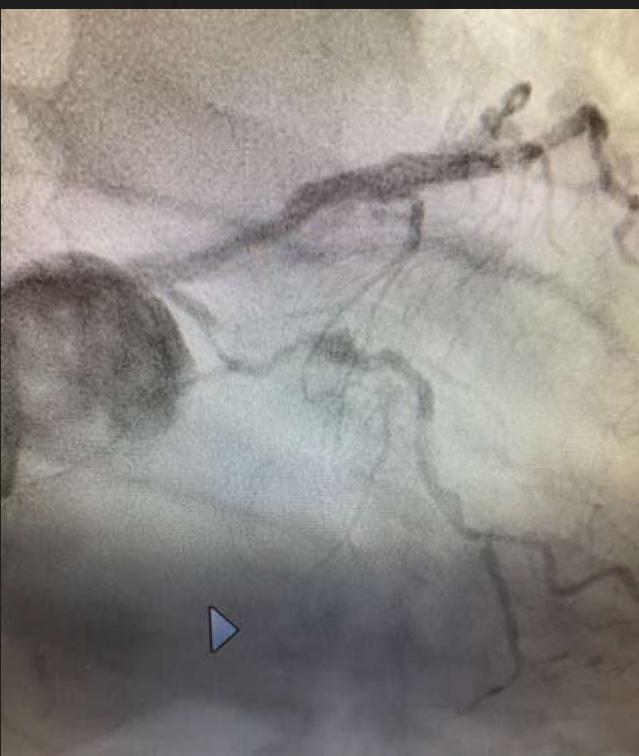


1 year FU

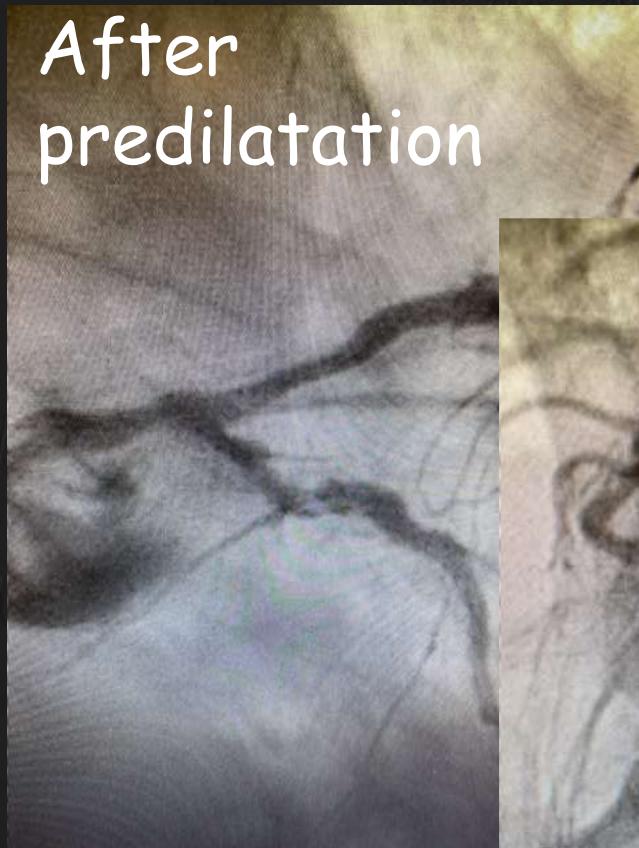


To simplify the procedure

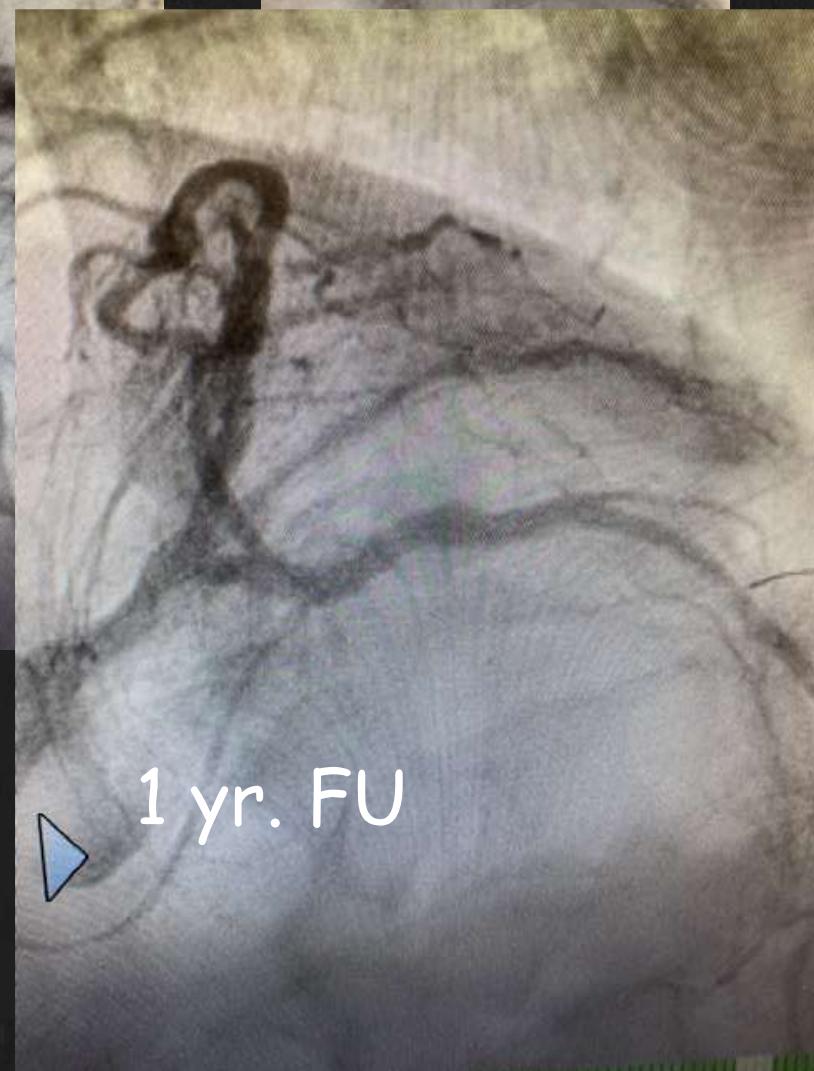
Baseline



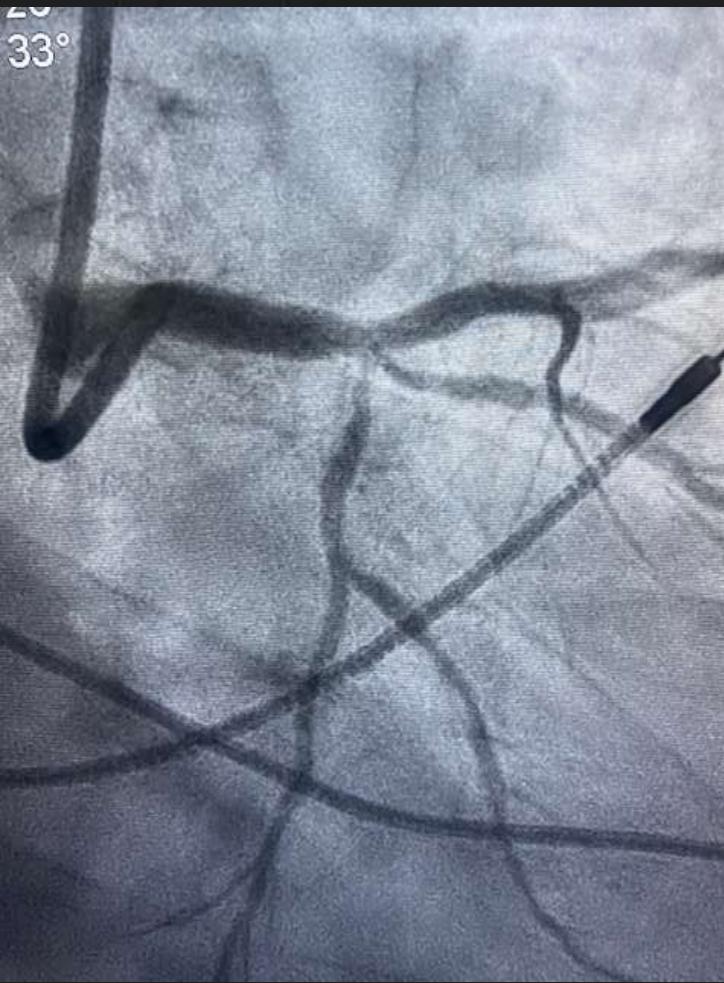
After
predilatation



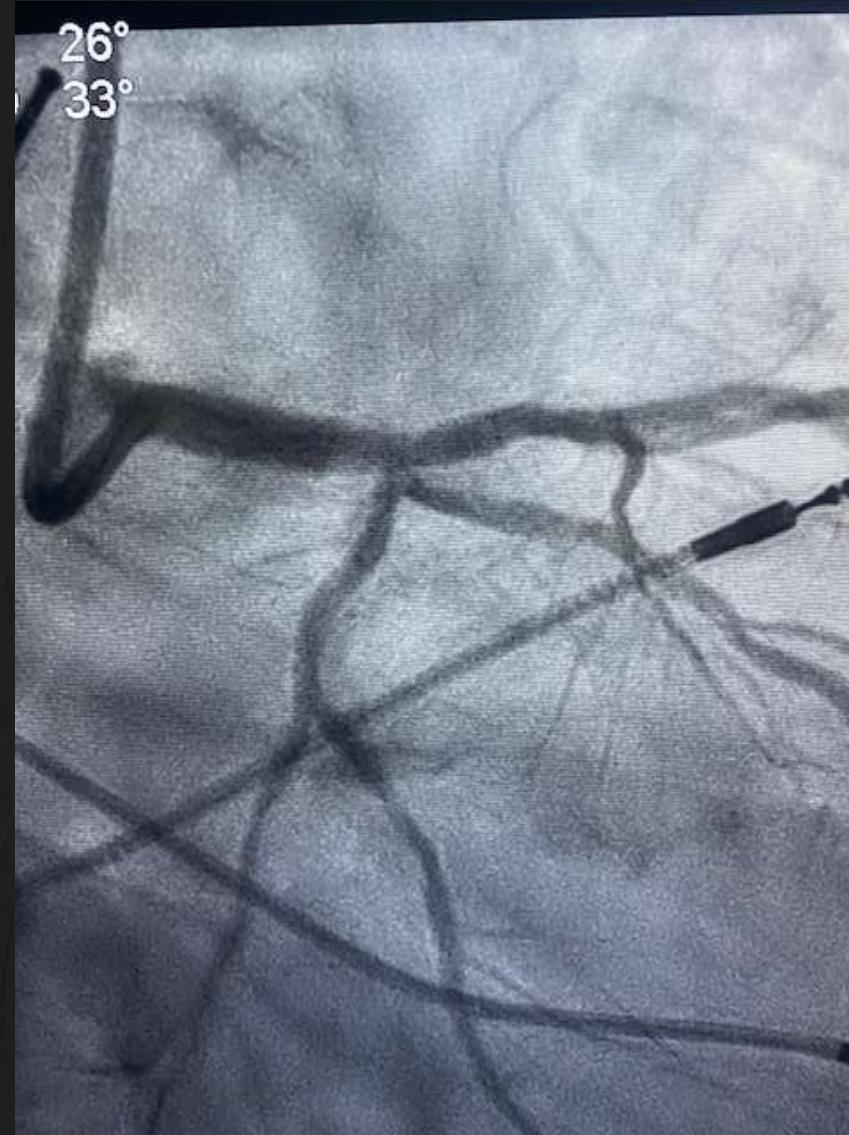
DCB



To simplify the procedure



international meeting



interventional meeting

Image size: 512 x 512
View size: 1454 x 1101
WL: 128 WW: 256

193/2021 | Image size: 512 x 512
Cardiac -- Left Coronary View size: 1454 x 1101
2021 WL: 128 WW: 256

193/2021 (76 y, 76 y)
Cardiac -- Left Coronary 15 ips Medium
2021030110110623



Zoom: 284% Angle: 0
Im: 1/60
JPEGLossless:Non-hierarchical-1stOrderPrediction

01/06/2021 | Zoom: 284% Angle: 0
Im: 42/60
JPEGLossless:Non-hierarchical-1stOrderPrediction

01/06/2021, 12:46:33
Made in Osirix

Predialatation

Image size: 512 x 512
View size: 1404 x 1404
WL: 128 WW: 256

193/2021 (76 y , 76 y) 512 x 512
Cardiac -- Left Coronary 15 fps Normal | 1404 x 1404
2021060110110623 W: 256
25

193/2021 (76 y , 76 y) 512 x 512
Cardiac -- Left Coronary 15 fps Normal | 1404 x 1404
2021060110110623 WL: 128 WW: 256
23

193/2021 (76 y , 76 y) 512 x 512
Cardiac -- Left Coronary 15 fps Normal | 1404 x 1404
2021060110110623
27



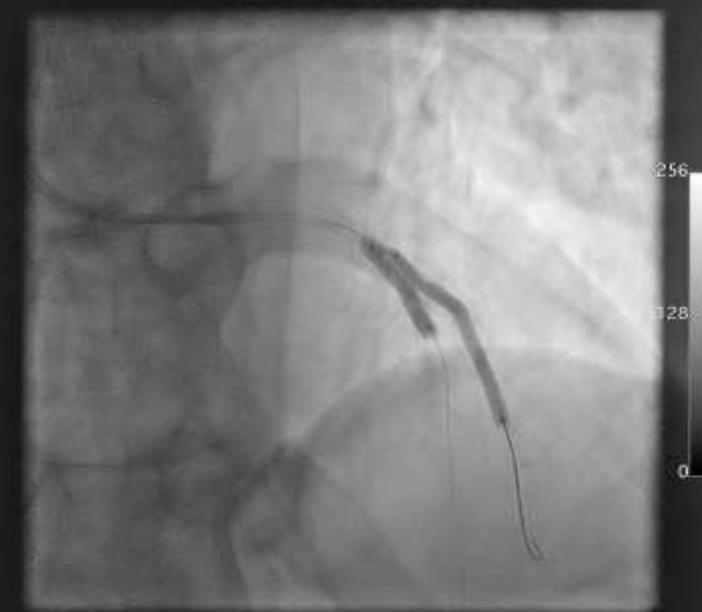
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WL: 128 WW: 256

193/2021 (76 y , 76 y)
Cardiac -- Left Coronary 15 fps Normal
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40



Zoom: 274% Angle: 0
Im: 1/18 JPEGLossless:Non-hierarchical-1stOrderPrediction 01/06/2021

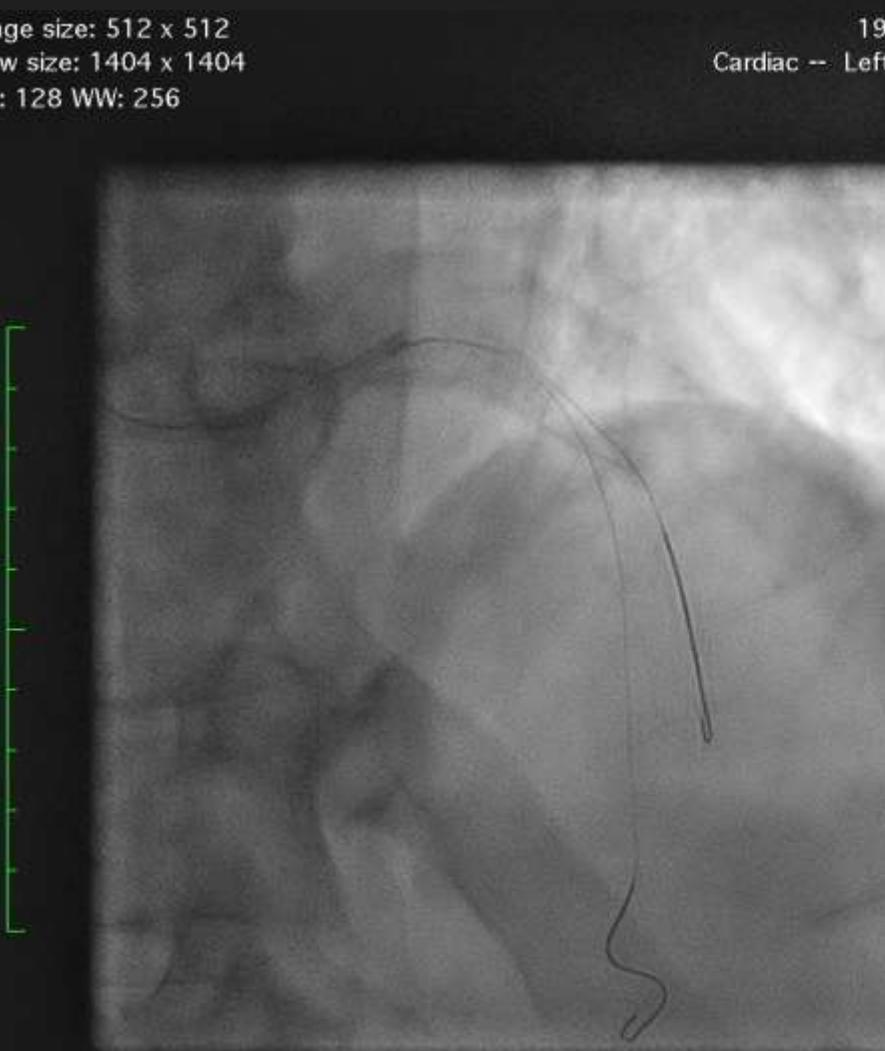
01/06/2021, 13:23:15
Made in OsiriX



Zoom: 274% Angle: 0
Im: 1/18 JPEGLossless:Non-hierarchical-1stOrderPrediction 01/06/2021, 13:41:28
Made in OsiriX

DCB in each
branch
and kiss

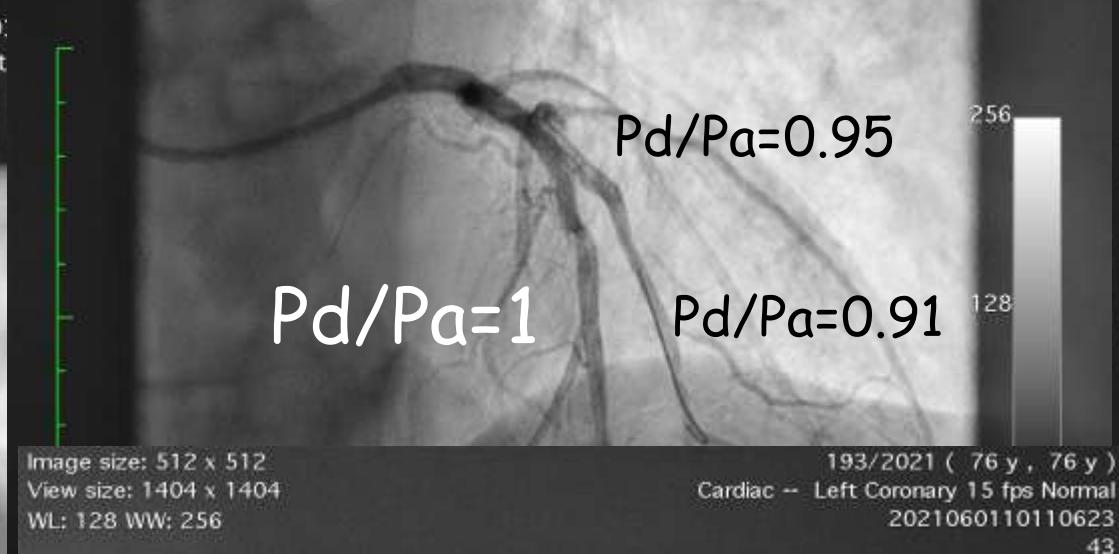
Image size: 512 x 512
View size: 1404 x 1404
WL: 128 WW: 256



Zoom: 274% Angle: 0

Im: 1/52

JPEGLossless:Non-hierarchical-1stOrderPrediction



How I perform bifurcation PCI in “MOST” Medina 1.1.1

- Predilatation of MB and SB
- Kissing balloon
- Evaluation of the result, consider cutting balloon on SB if result is suboptimal
- DES on MB unless the result is stent like
- Kissing balloon
- If SB lumen is adequate: DCB on SB and balloon on MB
- If SB lumen is inadequate or occlusive dissection on SB: DES on SB with T technique

PEPCAD V registry (EUROINTERVENTION, 2011) a prospective, multicentre, single arm 28 patients DCB (Sequent Please) inflation in both branches followed by BMS implantation in the MB alone (4 patients received bailout stenting of SB). Nine-month binary restenosis of 3.8% and 7.7% in the MB and SB respectively. Late lumen loss (LLL) 0.38 ± 0.46 mm in the MB and 0.21 ± 0.48 mm in the SB. There were also two episodes of ST.

J Herrador, J Interv. Cardiol. 2013); 50+50 pts. DCB vs POBA on SB; LLL 0.09 ± 0.4

Schulz et al. (Clin Res Cardiol 2014) reported the use of a DCB-only strategy (SQP or Falcon) in 39 consecutive patients with de novo bifurcation lesions. Stent implantation in 4 pts. At 4 months angio FU, TLR 7.7%

BIOLUX-I (S. Worhley Cardiov. Rev. Medicine 2015); 35 pts. LLL 0.10 ± 0.43 , no restenosis.

DEBSIDE (J. Berland, EuroIntervention 2015); 52 pts. LLL -0.04 ± 0.34 , no restenosis.

Babilon Trial; López Mínguez JR et al EuroIntervention 2014

Multicenter randomized trial (108 pts) with the SQP DCB+BMS versus DES implantation in the MB and provisional SB stenting with the T-stent technique, all SB treated with DCB

SB bailout stenting was 7.8% (DCB+BMS) vs. 8.9% (DES)

SB, LLL was respectively 0.04 ± 0.76 and 0.03 ± 0.51 ($p = 0.98$).

TLR at 24 months was 15.4% DCB group vs. 3.6% DES group, $p=0.045$).

MB restenosis was significantly higher in the DCB+BMS group (13.5% vs. 1.8%; $p=0.027$ in DES),

SB restenosis was not significantly different (5.8% vs. 3.6%, $p = 0.67$)

A drug-eluting Balloon for the treatment of coronary bifurcation lesions in the side branch: a prospective multicenter randomized (BEYOND) clinical trial in China

2020

Quan-Min Jing¹, Xin Zhao¹, Ya-Ling Han¹, Ling-Ling Gao², Yang Zheng³, Zhan-Quan Li⁴, Ping Yang⁵, Hong-Liang Cong⁶, Chuan-Yu Gao⁷, Tie-Min Jiang⁸, Hui Li⁹, Jun-Xia Li¹⁰, Dong-Mei Wang¹¹, Geng Wang¹, Zhan-Chun Cong¹, Zhong Zhang¹²

222 pts all with DES on MB randomized to SB with PCB

RESULTS: less LLL and less restenosis compared to POBA

Main limitation: the SB lesion was focal

The randomized study Gao JACC 2024 evaluated DCB on SB in "simple bifurcations" with a reduction in MI (?)

We suggest to evaluate DCB in complex bifurcations



DCB availability should lower the need of SB stenting

Take away messages

The SB is the decision maker

Some bifurcations when the SB is 3 mm or larger, with disease extending for more than 10 mm, with calcium may require 2 DES as intention to treat

Except for these rare bifurcations (Very complex), I suggest SB dilatation, kissing balloon and the
DECISION: DES on MB and DCB on SB; DCB on both; DES on both

Most bifurcations with very focal SB disease require simple POBA with kissing balloon on the SB or just Keep it Open approach