



Double trouble or Double success **Upfront 2 stent PCI for LM**

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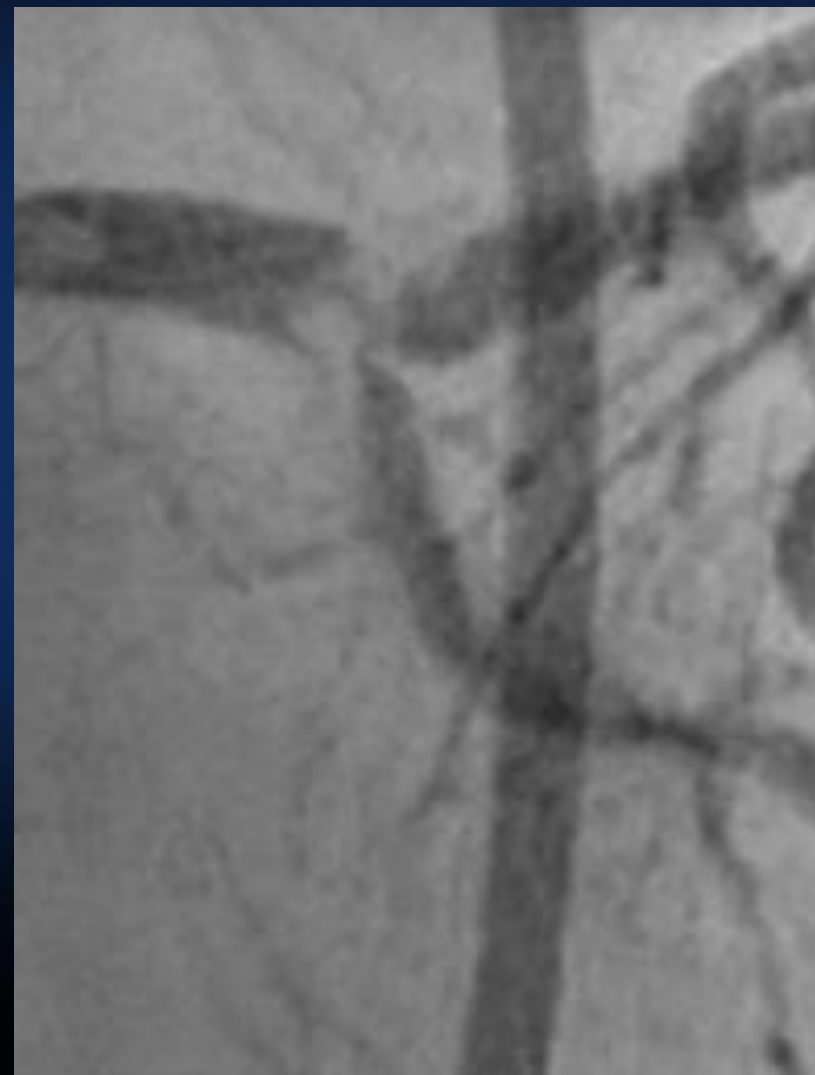
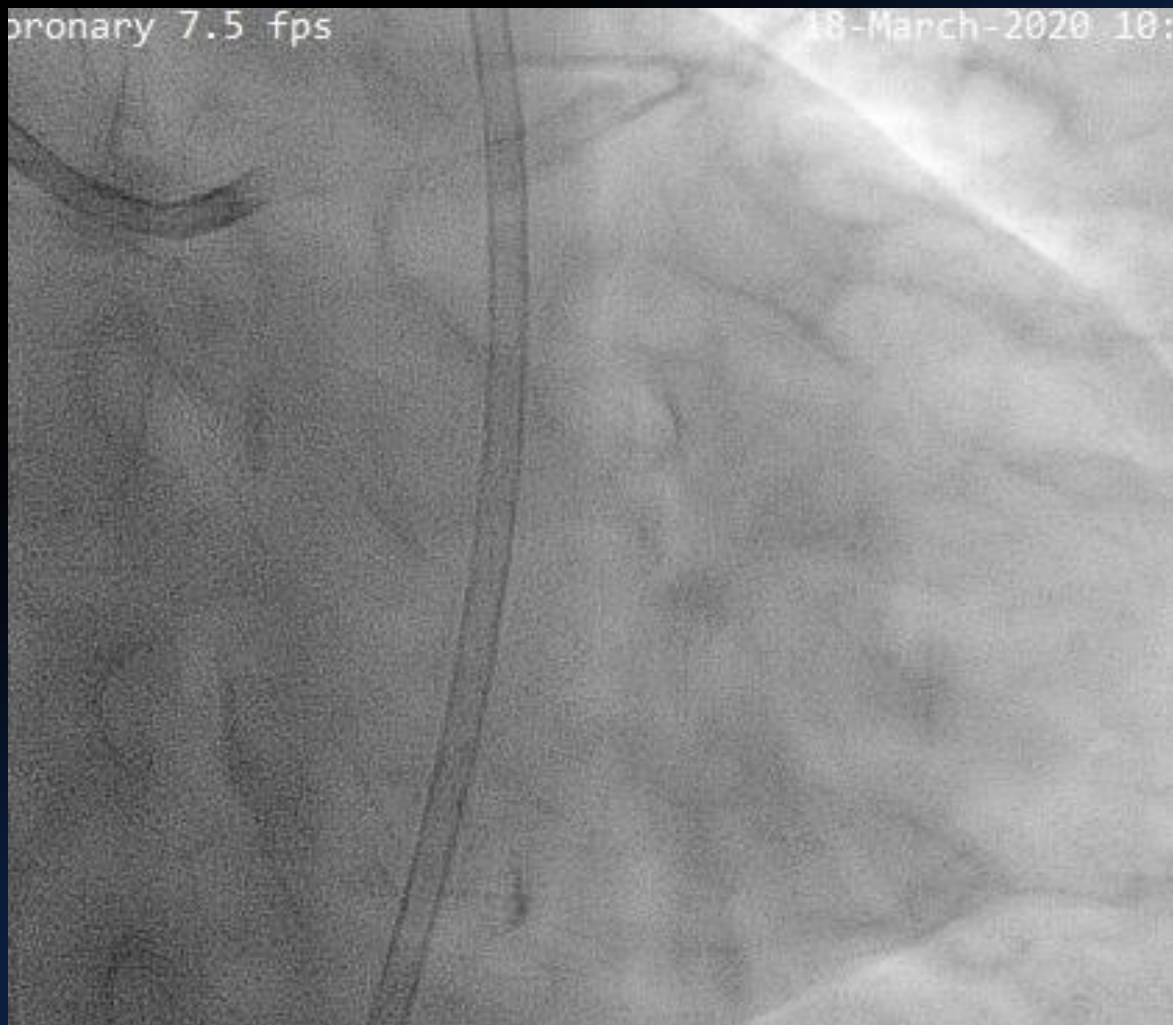
LM Bifurcation PCI

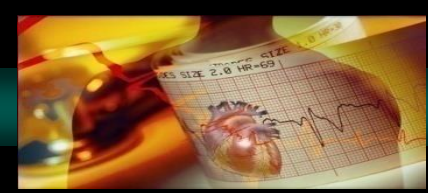
- ▶ Simple LM Bifurcation → Keep it simple
- ▶ Complex LM Bifurcation → Keep it individualized



Not all LM bifurcation lesion is fit for provisional.

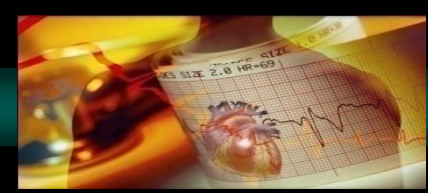
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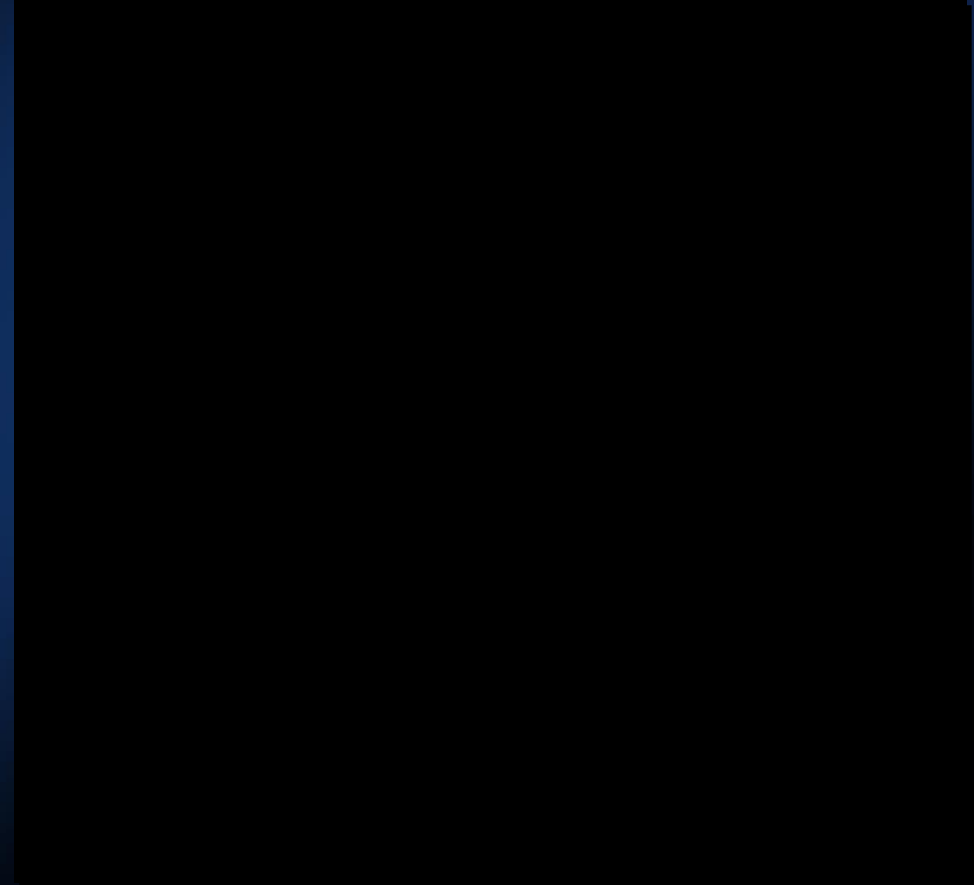
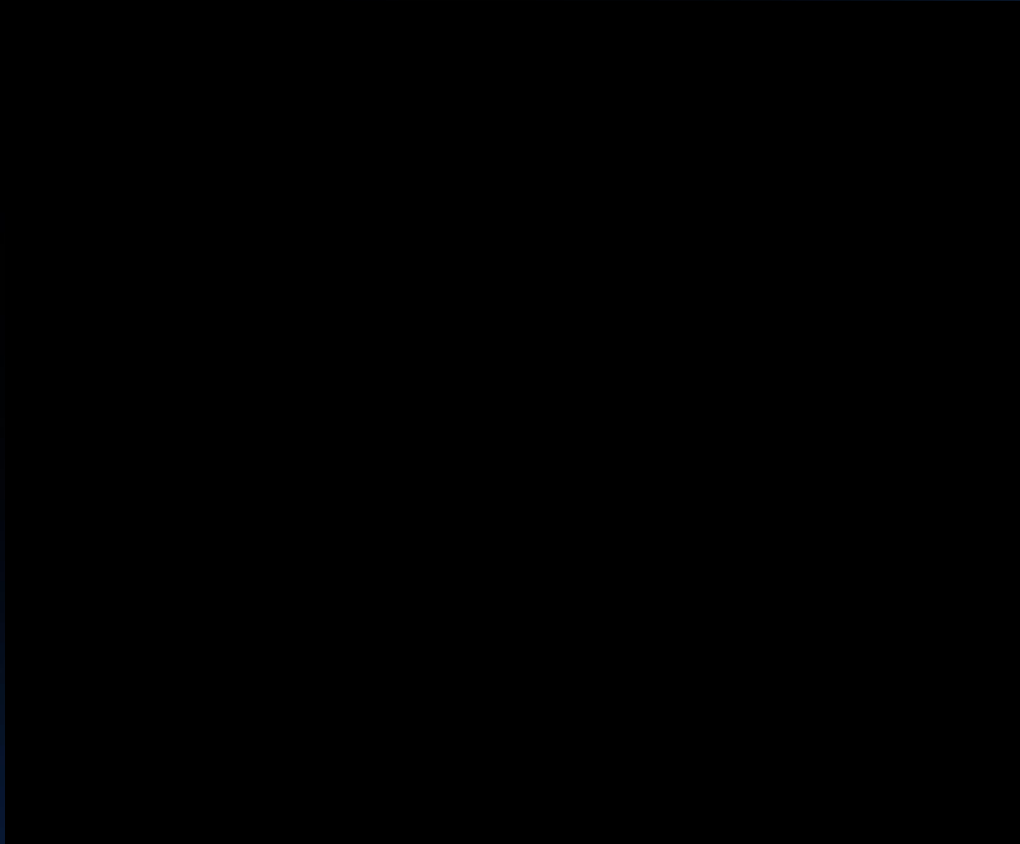
Double Trouble or Double Success ?

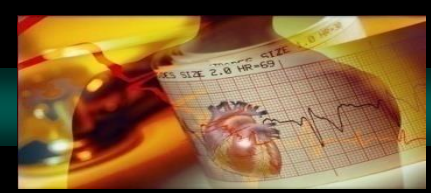
- ▶ If u choose provisional approach **wrongly** → double trouble.
- ▶ If u choose up front two stent **right** → double success.



Wrongly selected provisional approach

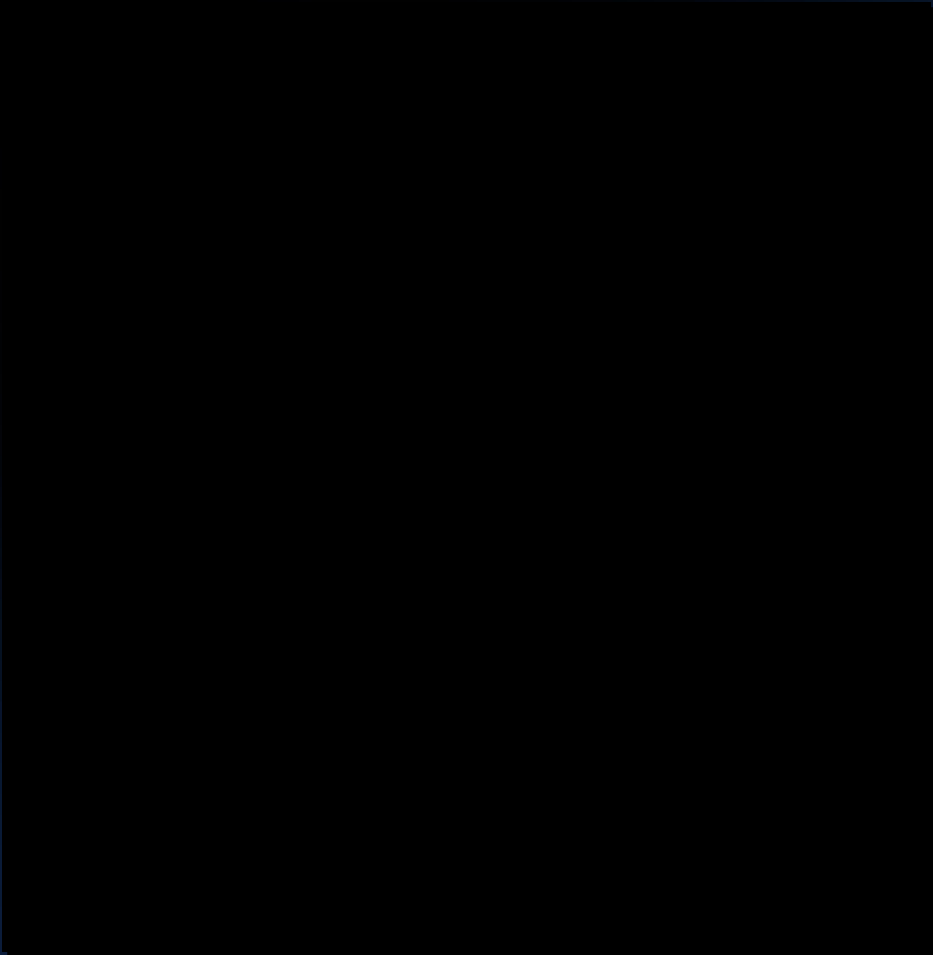
Trouble 1: Closure of Lcx → Wiring of LCx in **stressful mode**





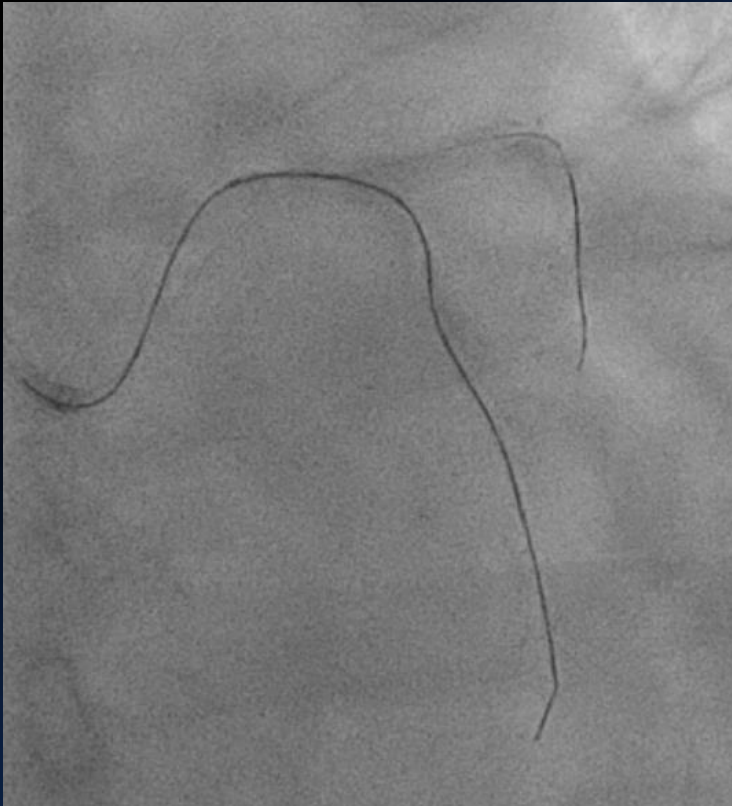
Wrongly selected provisional approach

Trouble 1: Closure of Lcx → Wiring of LCx in stressful mode

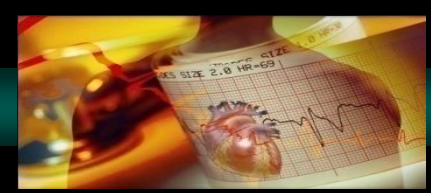


Wrongly selected provisional approach

Trouble 1: Closure of Lcx → Wiring of LCx in stressful mode



Pt struggle and lose everything.



Wrongly selected provisional approach

Trouble 1: Closure of Lcx → Wiring of LCx in stressful mode



Wrongly selected provisional approach

DKCRUSH V Primary and Secondary Endpoints

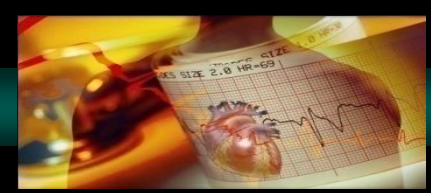
	DK crush (N=240)	Provisional (N=242)	P value
Primary endpoint components at 1 year			
- Cardiac death	1.2	2.1	0.48
- Target vessel MI	0.4	2.9	0.03
- TLR	3.8	7.9	0.06
Secondary endpoints at 1 year			
- All-cause death	2.9	2.1	0.58
- Any revascularization	5.4	7.9	0.32
- Angina	4.5	9.3	0.06
Primary endpoint components at 30 days			
- Cardiac death	0	1.7	0.046
- Target vessel MI	0.4	1.7	0.10
- TLR	0.4	0.4	1.00
Stent thrombosis (def/prob)			
- 30 days	0.4	2.5	0.06
- 1 year	0.4	3.3	0.02

Trouble 2

1 stent thrombosis in upfront 2 stent
6 stent thrombosis in provisional arm

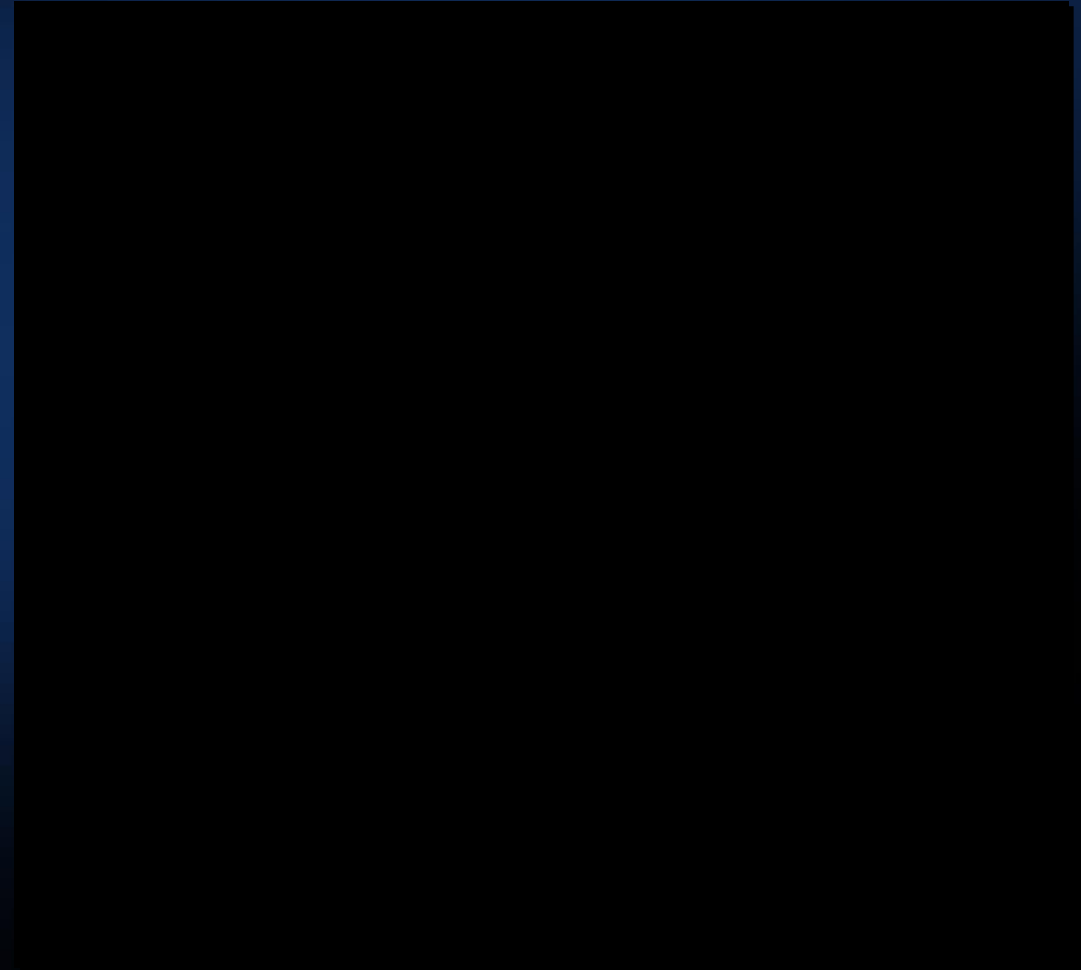
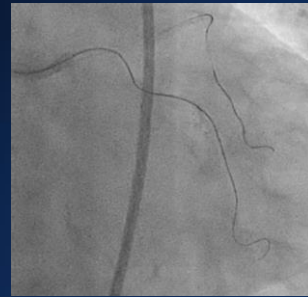
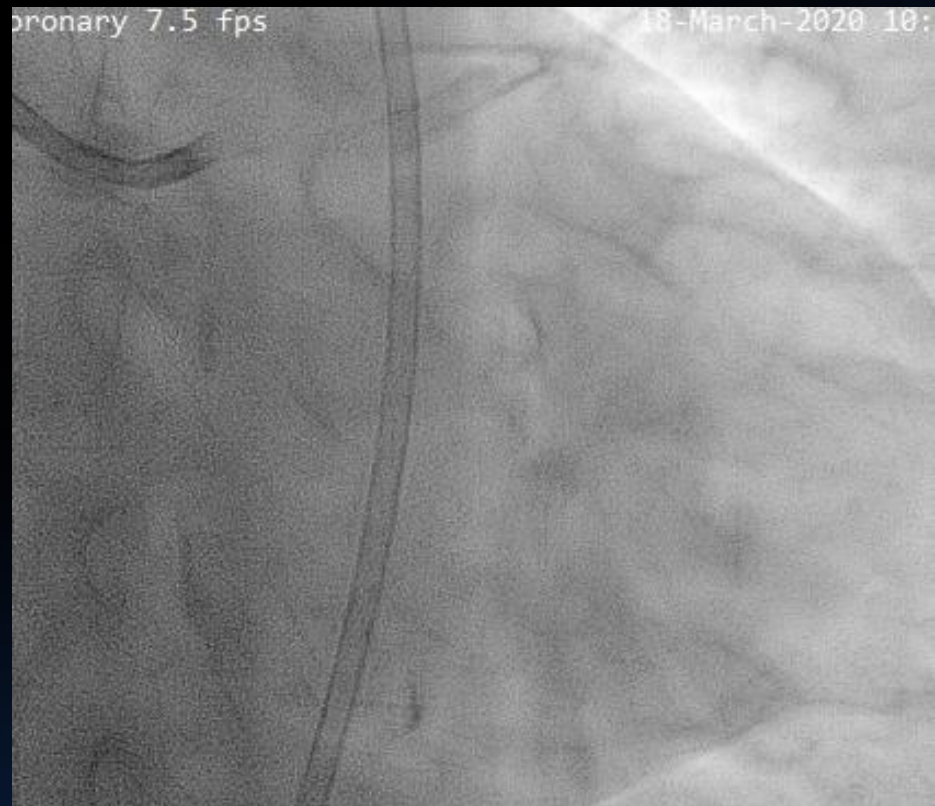
All 6 cases were failed provisional
and switched to 2 stents

Upfront 2 stent is better than 2 stent after failed provisional!!
3 yrs result: Definite or probable ST rate 0.4% vs 4.1%



Correctly selected up front 2 stent approach

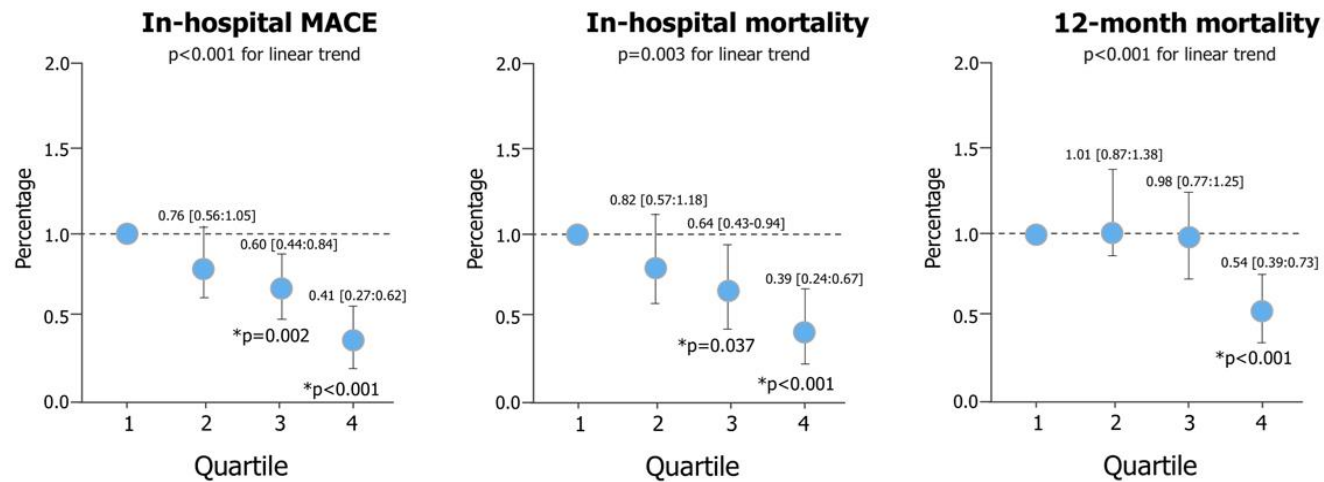
- ▶ **Success 1 : Gain your experience: wiring, stenting and imaging**



What is the most important factor for good outcome in left main PCI?

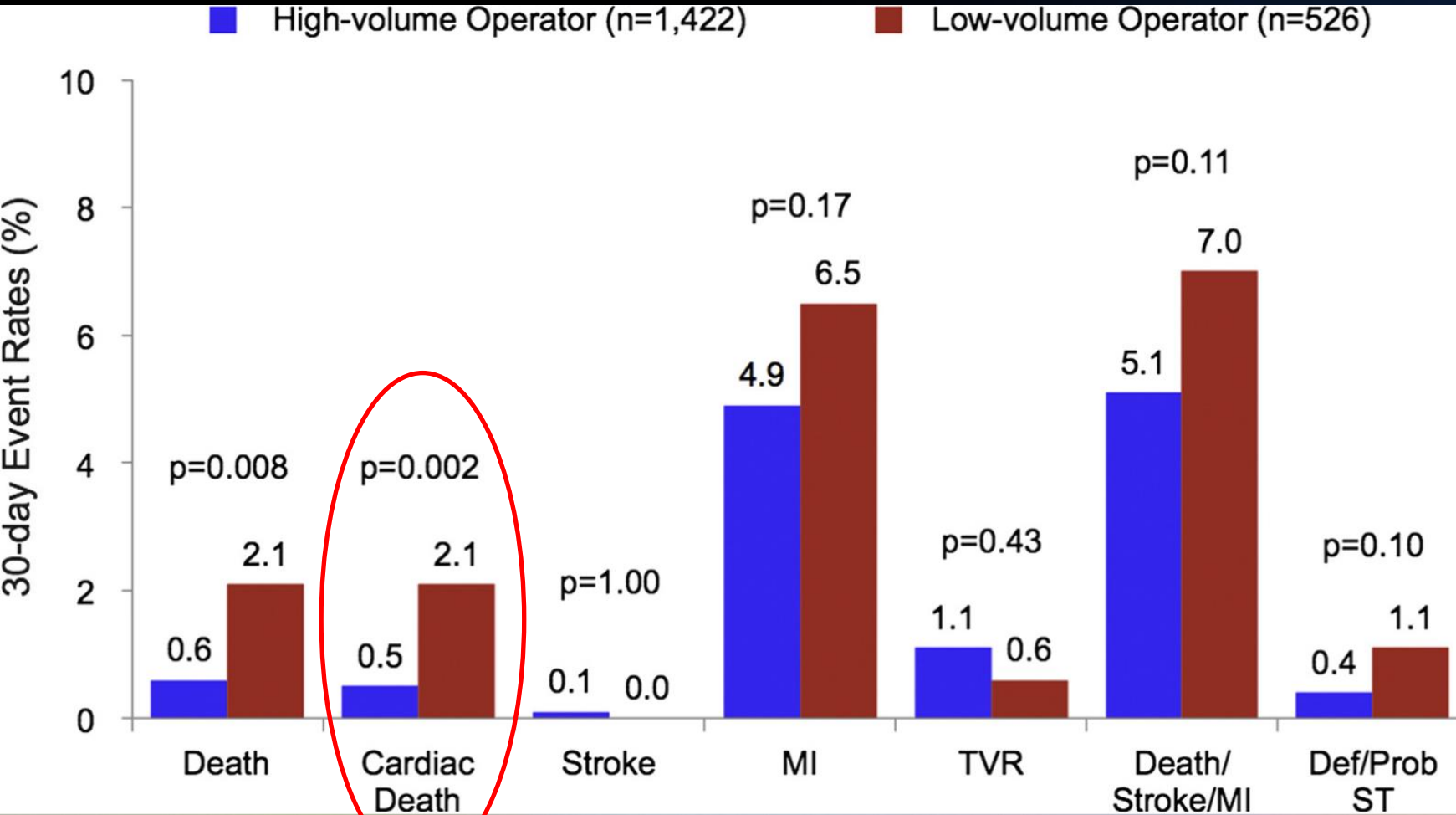
- ▶ ?IVUS vs OCT
- ▶ ?DK Crush vs DK culotte vs provisional
- ▶ **Operator experience**

Operator volume and adjusted clinical outcomes after uLMS-PCI in England and Wales 2012-2014



* comparison vs. Q1

Reproducible data



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ELSEVIER

Clinical Research
Coronary

Impact of Operator Experience and Volume on Outcomes After Left Main Coronary Artery Percutaneous Coronary Intervention

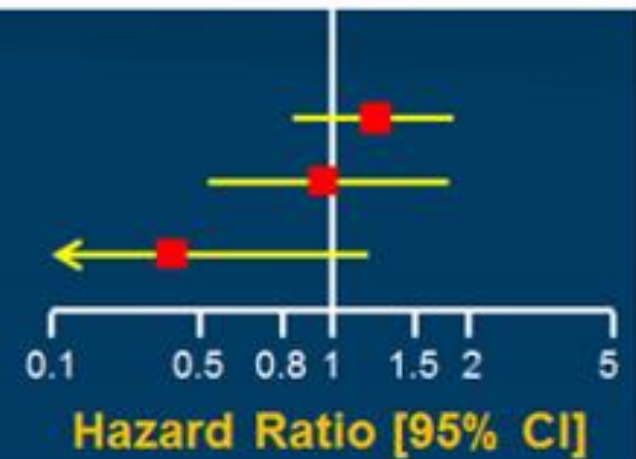
Bo Xu MBBS^a, Björn Redfors MD, PhD^{b,c}, Yuejin Yang MD^a, Shubin Qiao MD^a, Yongjian Wu MD^a, Jilin Chen MD^a, Haibo Liu MD^a, Jue Chen MD^a, Liang Xu MSc^a, Yanyan Zhao BS^a, Changdong Guan MSc^a, Runlin Gao MD^a, Philippe Généreux MD^{b,d,e,f}



Success 1 : Gain your experience

Geographic location

- North America	15.5%	12.4%	1.22 [0.82, 1.82]
- Europe	15.5%	15.6%	0.95 [0.69, 1.29]
- Other	9.5%	22.2%	0.37 [0.08, 1.20]



(Excel Trial subgroup analysis)



Correctly selected up front 2 stent approach

Success 2: Reduction in cost

- ▶ Cath lab time
- ▶ Use of MCS e.g. impella
- ▶ Prolonged CCU care and heart failure clinic
- ▶ Legal

- ▶ ***Don't forget the increased stent thrombosis rate**



Correctly selected + performed up front 2 stent approach

▶ Success 3: Full revascularization with low rSyntax

ompression - not intended for diagnosis



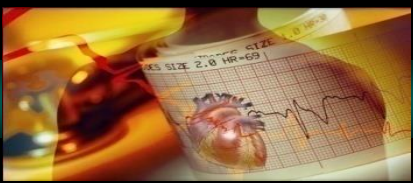
mpression - not intended for diagnosis



▶ Elective Left main up front 2 stent

- < 1% mortality & DK Crush V = 5% TLR in 3yrs

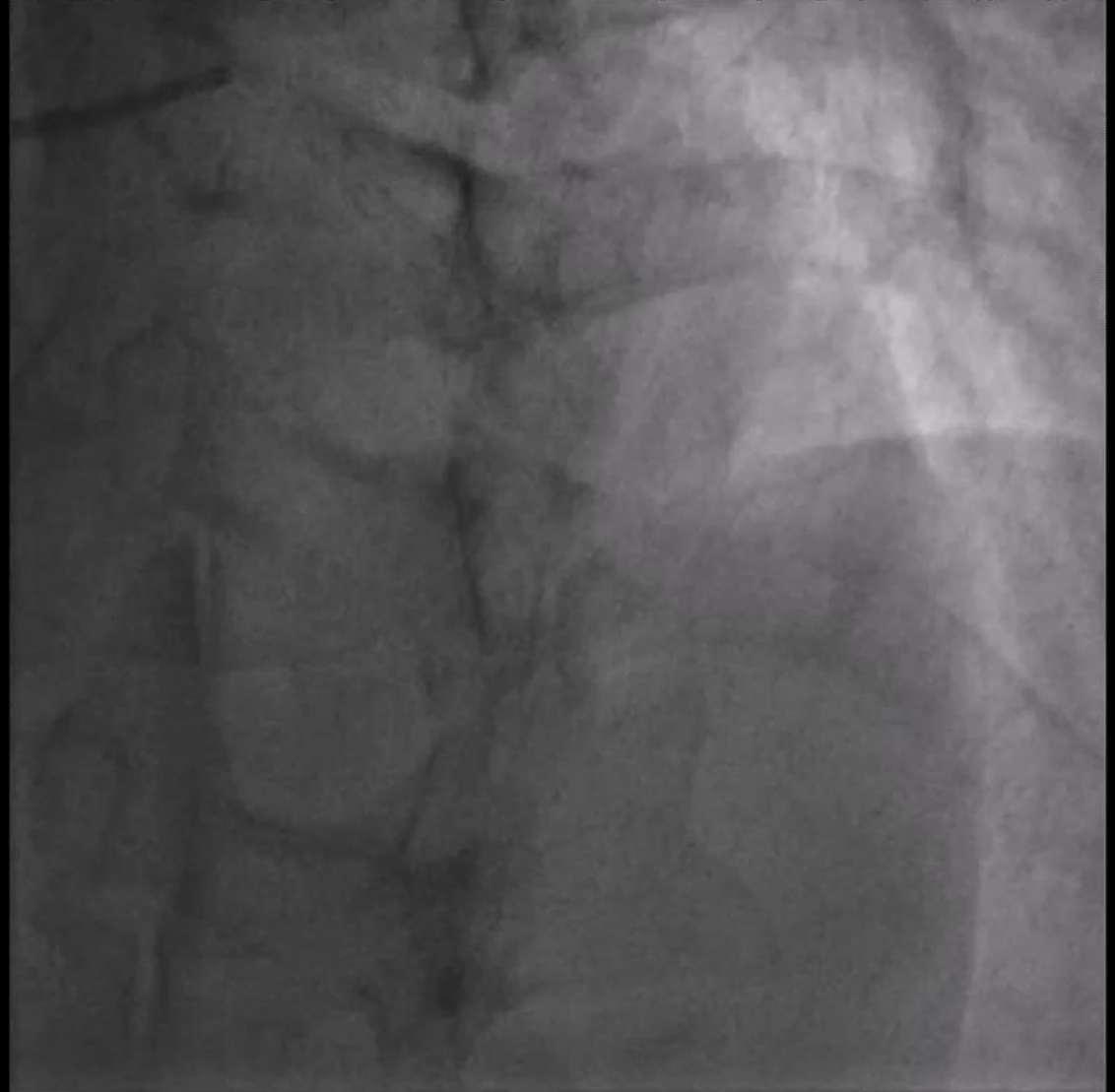
12 months follow up coro



Lossy Compression - not intended for diagnosis



Lossy Compression - not intended for diagnosis

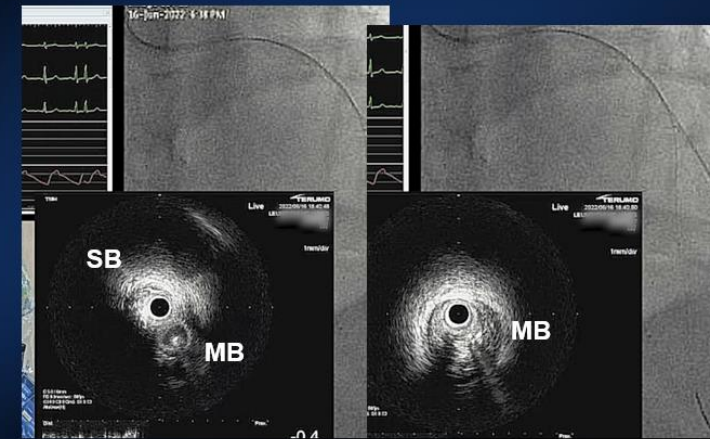


Not all LM bifurcation lesion is fit for provisional.

▶ How to access ?

1. Risk of LCx closure
2. Significance of LCx
3. Complexity of patient
4. Competence of operator

- ▶ Definition II Study
- ▶ Experience and gut feeling
- ▶ IVUS and OCT can help



SB ostium 90% stenosis

MB proximal plaque burden 90%

□ Remark:

- Threshold of upfront 2 stent is a **spectrum!**

LCx = strategy
LAD = prognosis



Conclusion

One Right decision in upfront 2 stent LM PCI

- ▶ Avoid the **double trouble** of provisional
 - Lcx closure
 - Increased ST rate
- ▶ Enjoy the **double +/- triple success** of up front 2 stents
 - Gain experience
 - Cost reduction
 - Full revascularization (TLR 5% in 3 yrs DK Crush V)