

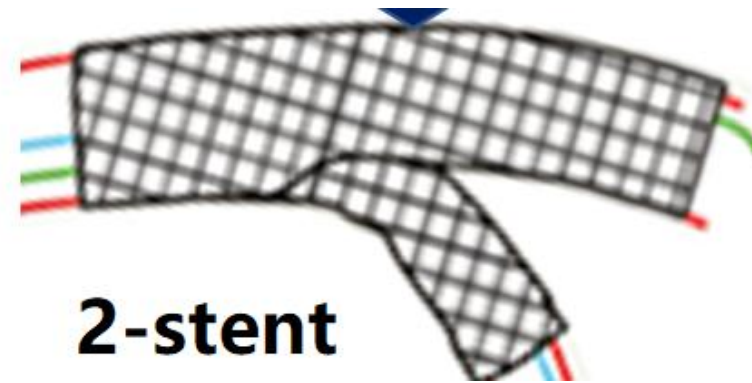
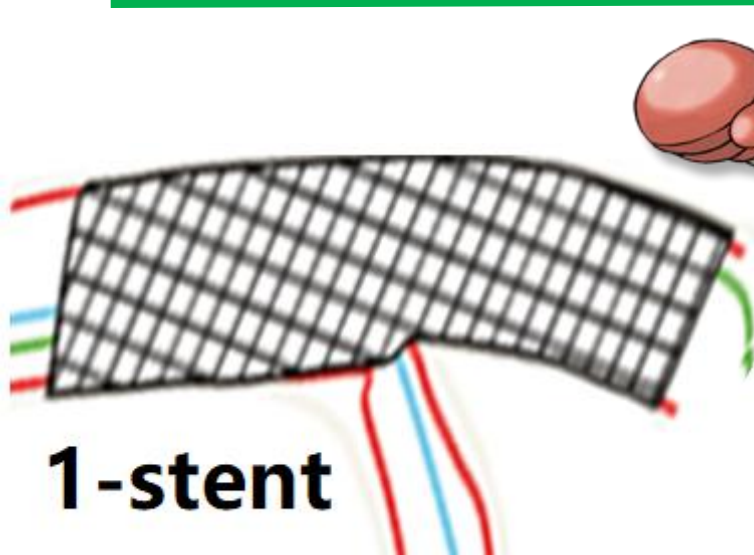
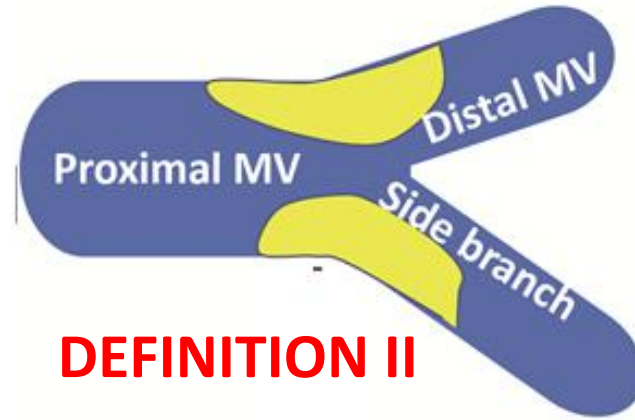
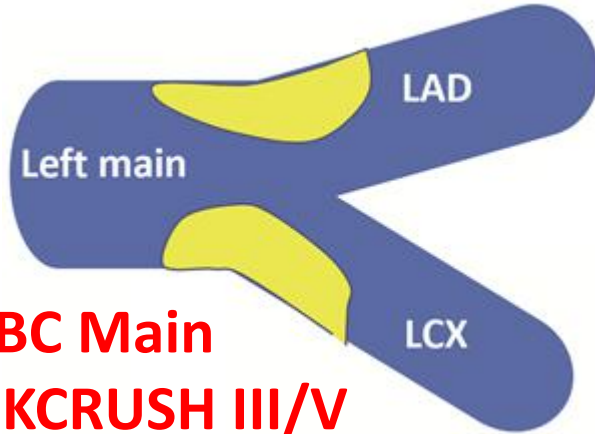
**BIFURCATION
SUMMIT 2021**

**Left main bifurcation PCI:
Similarity and difference between
DKCRUSH-V **vs.** EBC Main**

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China

I, Dr. Shao-Liang Chen, have nothing to disclose

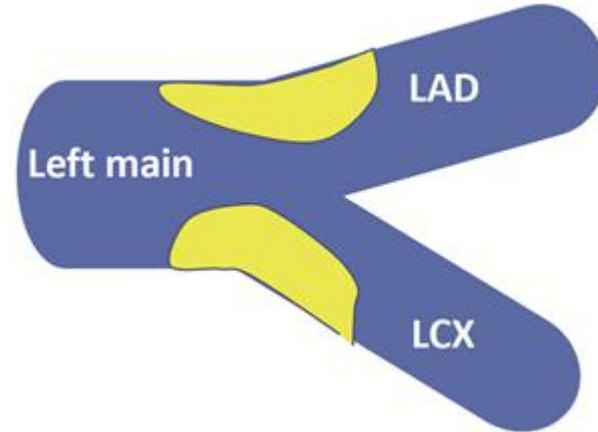
Objectives of studies



Provisional does not means 1-stent

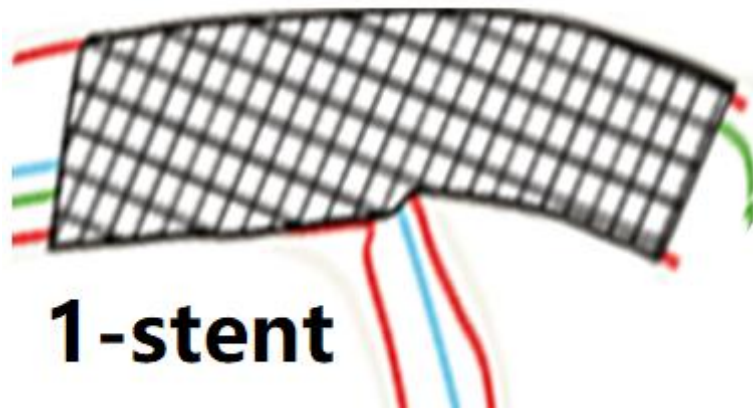
Objectives of studies

EBC Main

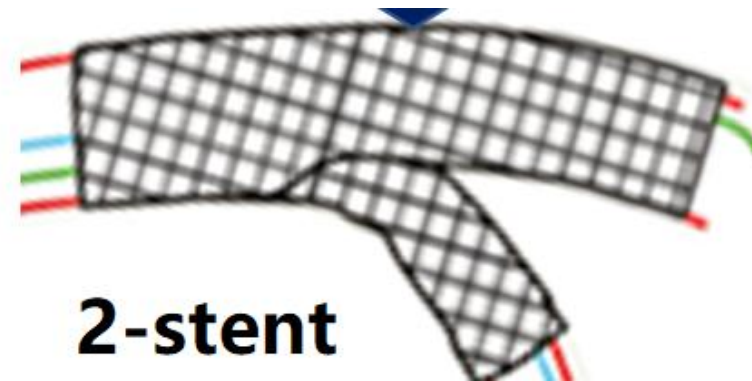


~~DKCRUSH III~~: DK crush vs culotte

DKCRUSH V



1-stent



2-stent

Study inclusion criteria

	EBC Main	DKCRUSH V
Sample size	Estimated 450, Finally 467	Estimated 484; finally 482
SYNTAX scores	<32 scores	No limit
AMI	>72 h	>24 h
CTO	Excluded	Included after opened
Two-stent	T/TAP, culotte, or DK crush	DK crush
Exact two-stent	Culotte: 53%; TAP: 33% DK crush:5%	DK crush: 100%
Primary endpoint at 1-year	Death, MI, TLR; Superiority design	Cardiac death, TVMI, TLR; Superiority design

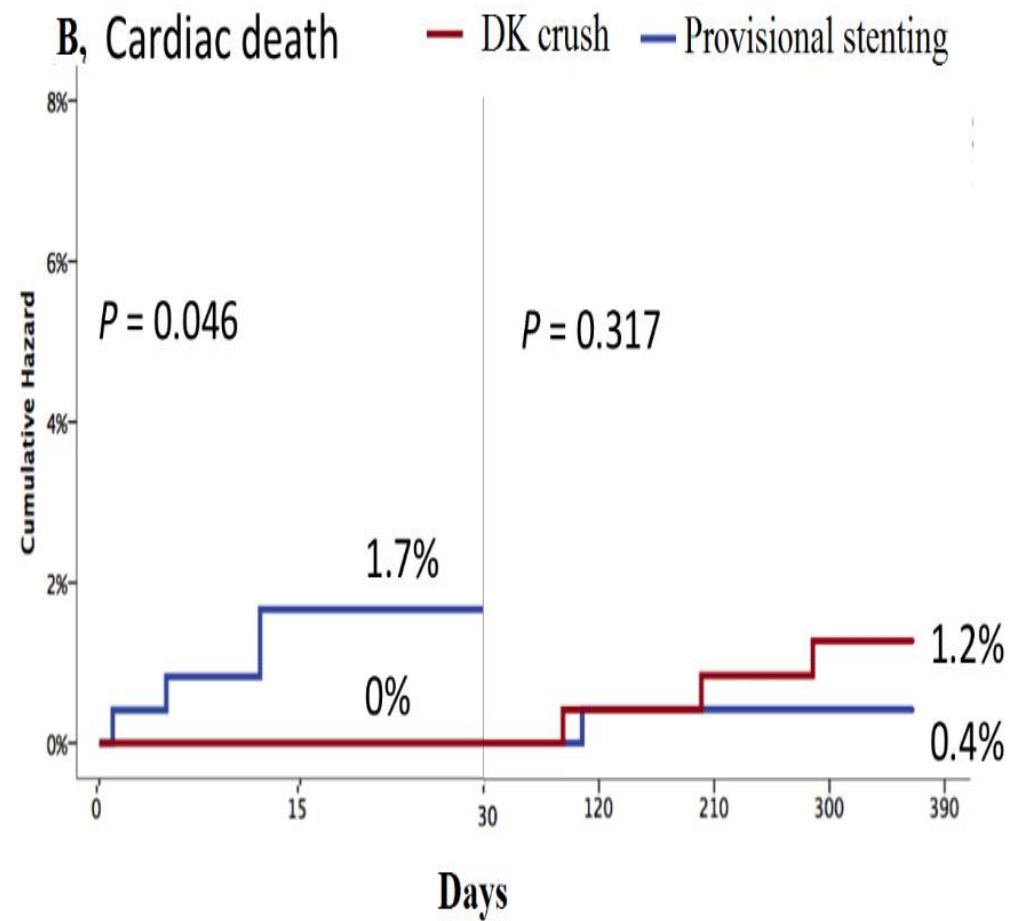
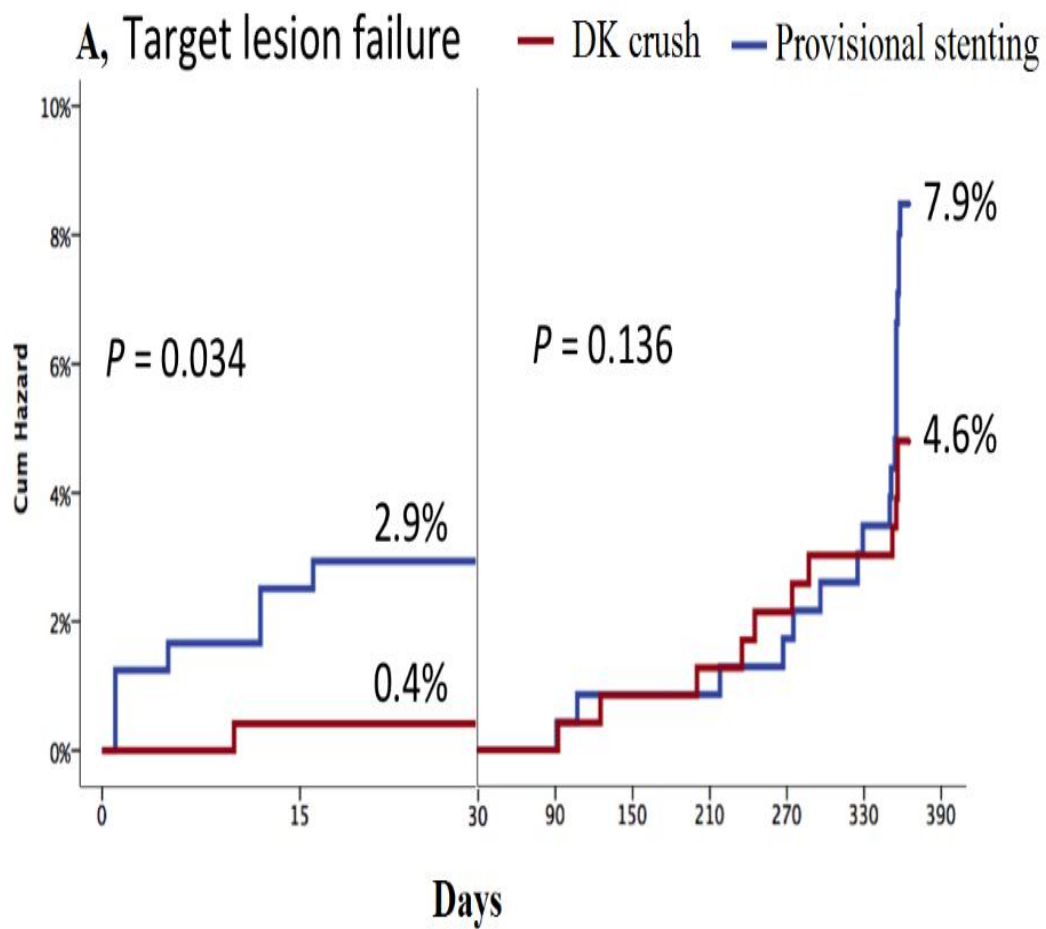
Assumption and lesions specificities

	EBC Main	DKCRUSH V
Primary endpoint at 1-year	25% in two-stent group 14% in provisional group	14% in provisional group 7% in DK crush group
SYNTAX scores	23 scores	31 scores
No.PCI yearly	>150/per operator	>300/per operator, ≥20 LM-PCI
SB lesion length	7 mm	16 mm
Lesion types	Medina 111/011	Medina 111/011
Complexity	Not classified	Complex bifurcations in 31.5%

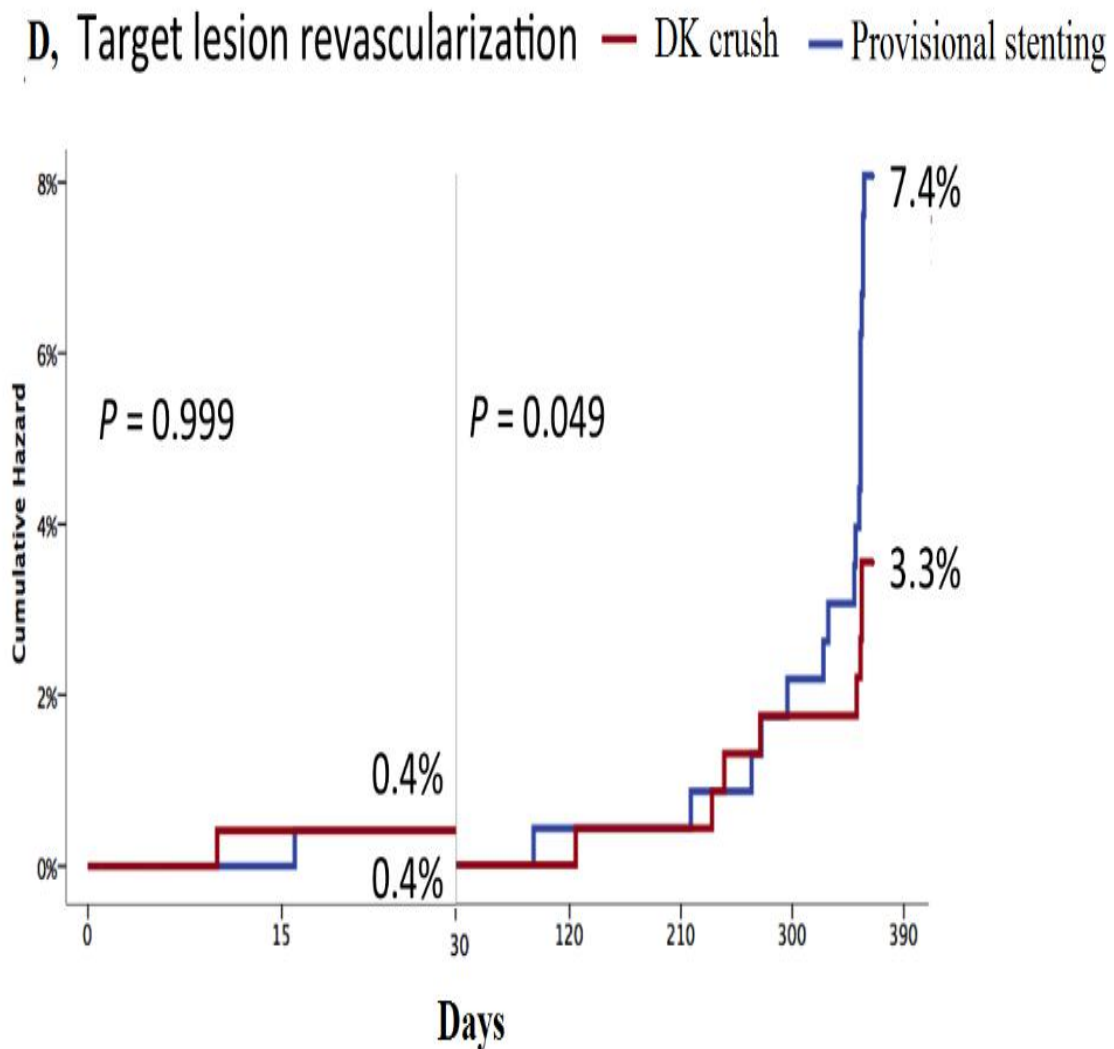
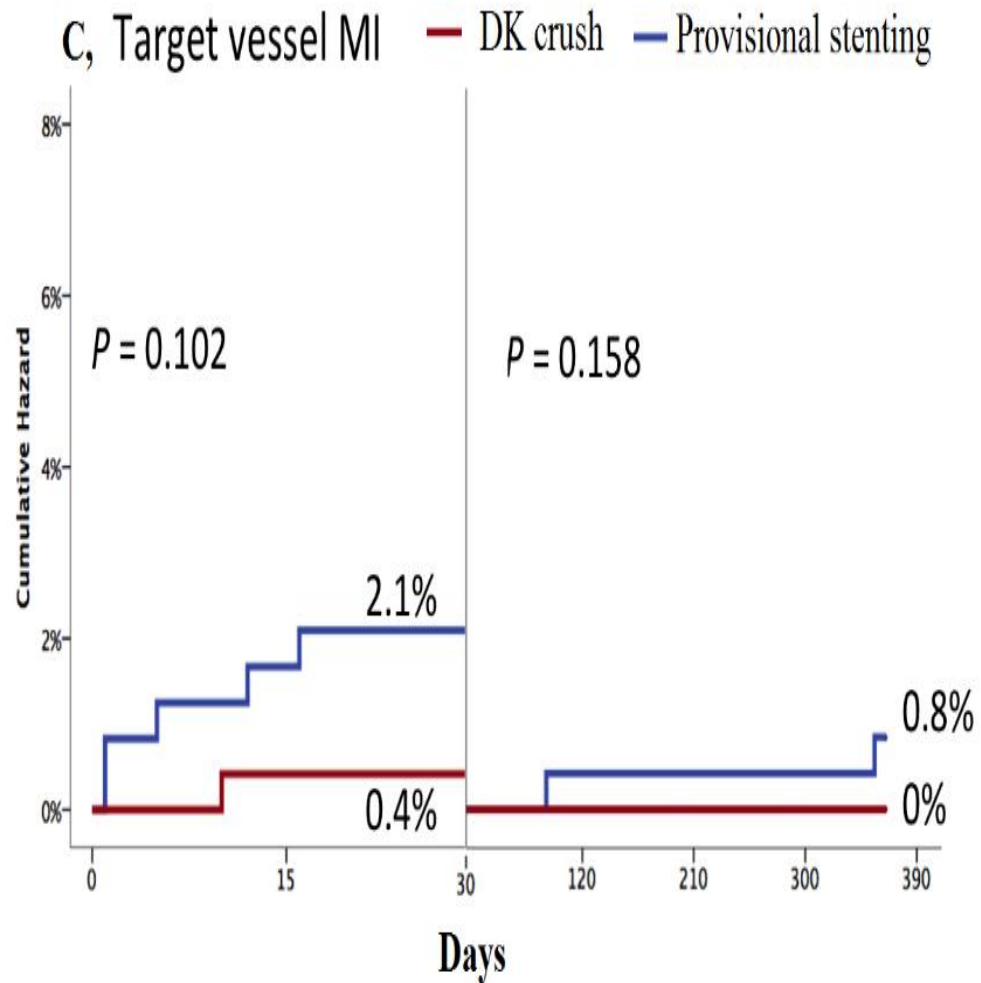
Procedures and outcome

		EBC Main		DKCRUSH V	
Cross-over to 2-stent		22%		41%	
Reasons for treating SB		TIMI<3, >A dissection, >90% compromise		TIMI <3, >A dissection, >75% compromise	
IVUS use		40%		41%	
Endpoints		Provisional	Two-stent	Provisional	DK crush
Primary		14.7%	17.7%	10.7%	5.0%
Secondary	Death	3%	4.2%	CD: 2.1%	1.2%
	MI	10%	10.1%	TVMI:2.9%	0.4%
	TLR	6.1%	9.3%	7.9%	3.8%
	ST	1.7%	1.3%	3.3%	0.4%

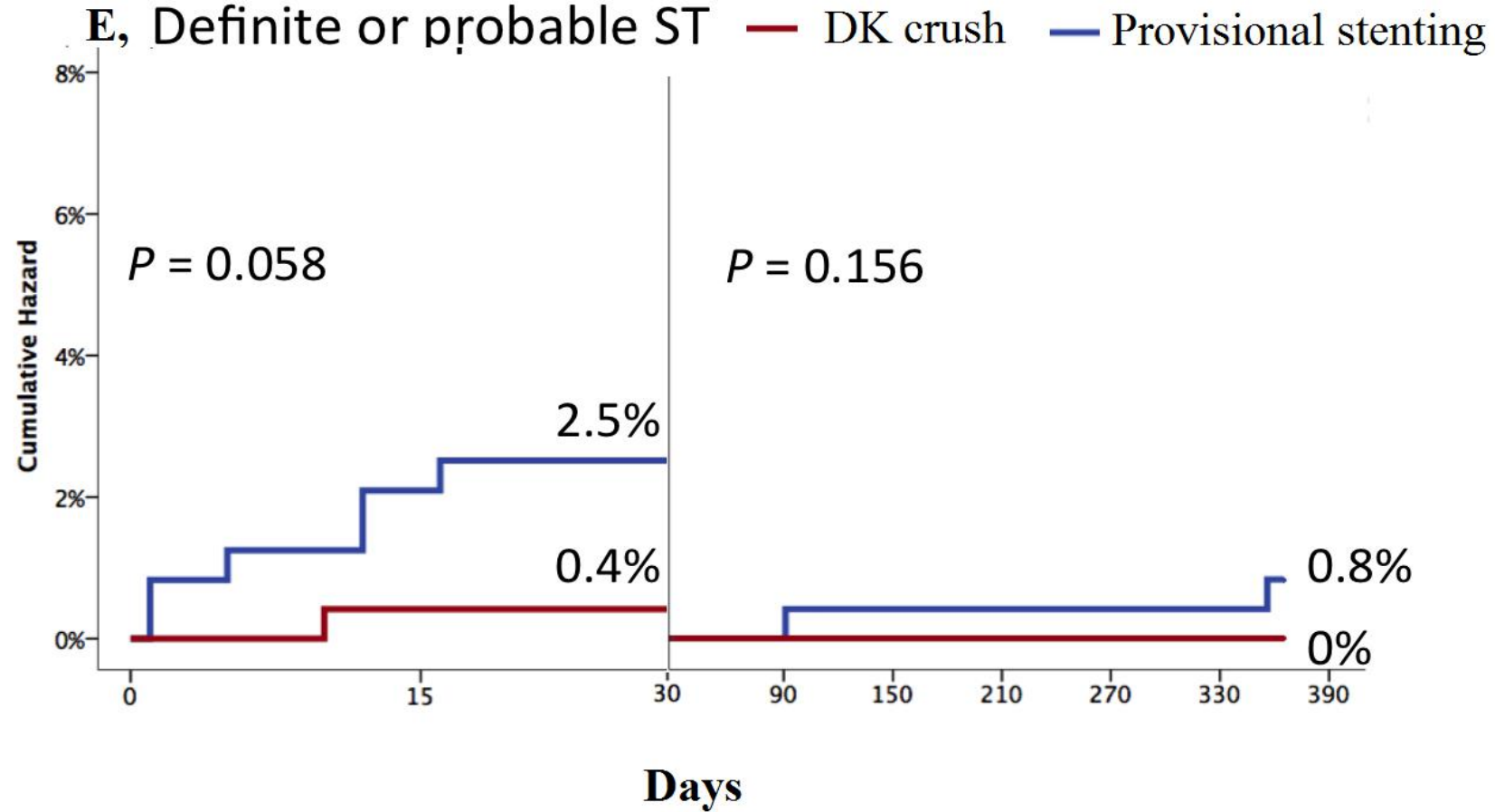
Landmark analysis of DKCRUSH V trial



Landmark analysis of DKCRUSH V trial



Landmark analysis of DKCRUSH V trial



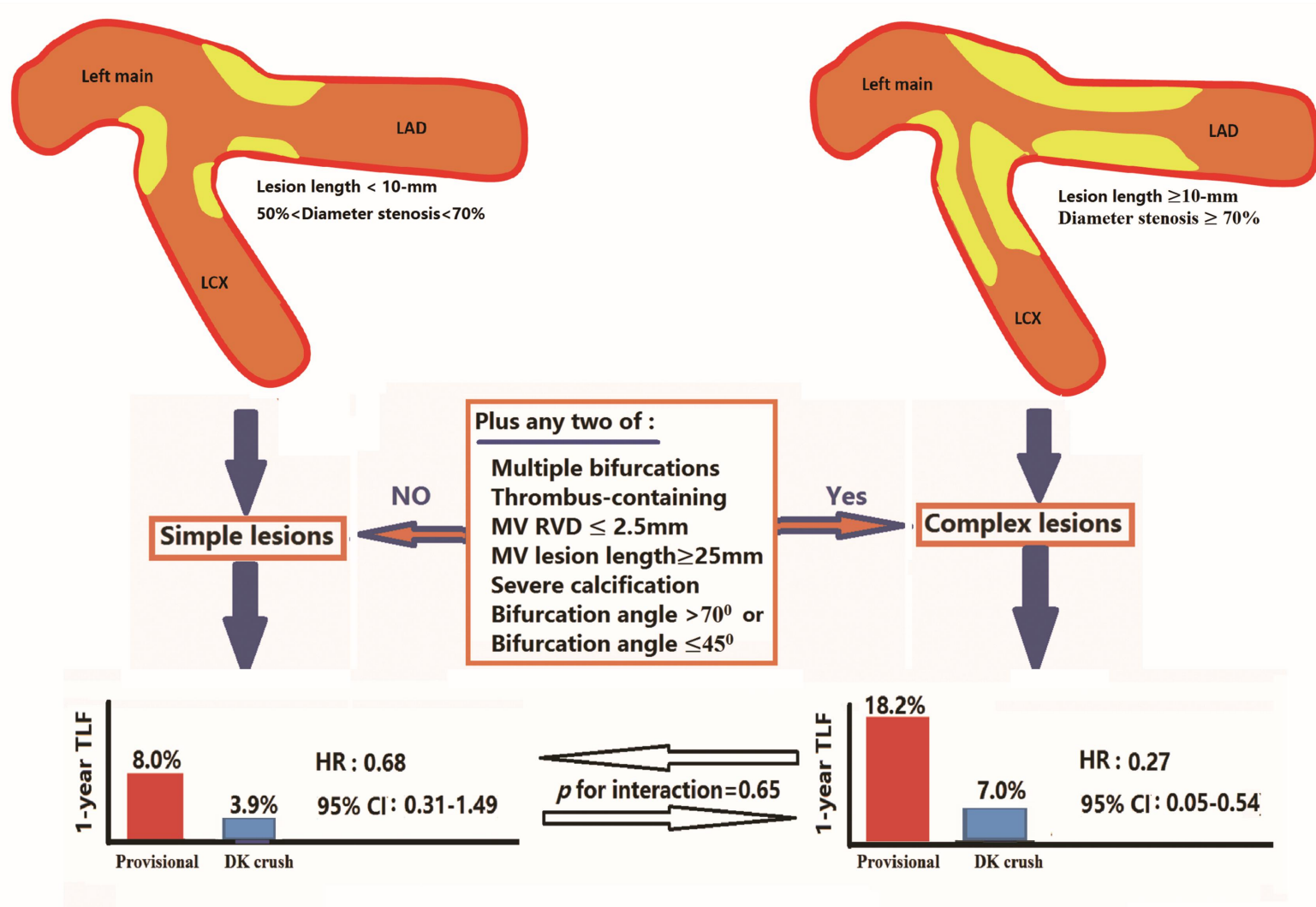
Criticisms on EBC Main trial

- *This was a superiority study with overall neutral results*
 - we could not say one not inferior to another
- *The assumed rates of the primary endpoint were 25 % in the upfront 2-stent group and 14 % in the provisional group*
- *the actually observed rates were 17.7 % vs. 14.7 %, respectively-----*
 - *Firstly, the statistical power thus increased the risk of the type II error (overlooking a true difference between the two groups).*
 - *Secondly, the originally assumed absolute reduction of 11 % may have biased the study towards neutrality by decreasing the sample size.*

Criticisms on EBC Main trial

- *Only 85% of patients had appropriate cardiac enzyme measurement, which may have implications for the assessment of periprocedural MI, a component of the primary endpoint.*
- *Higher 1-year adverse event rate for simple LM bifurcation lesions*
 - SYNTAX score 23; --SB lesion length 7mm;*
- *Lower experience of some operators in complex LM PCI*
- *Formal requirements in terms of experience with LM PCI in general and planned 2-stent techniques in particular, were not reported in the EBC Main trial, whereas in the DK-Crush V trial, only operators who had performed 3-5 adjudicated DK Crush procedures were allowed enroll patients*

Similarity between EBC Main and DKCRUSH V

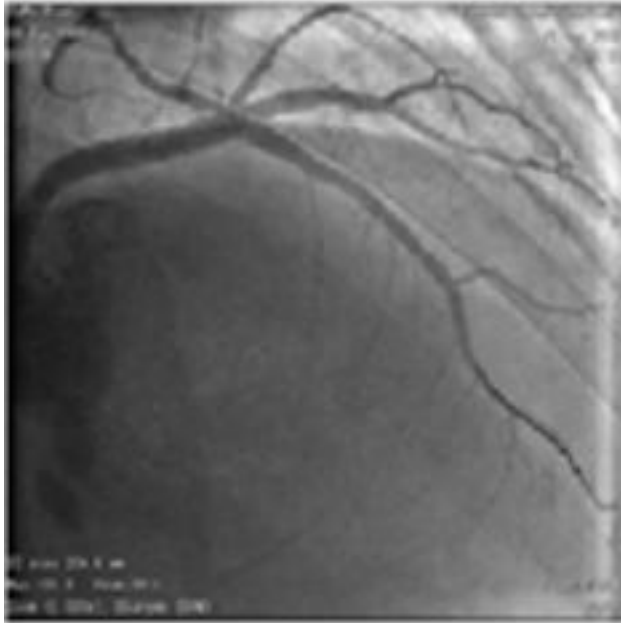


CENTRAL ILLUSTRATION

Threats by EBC Main trial

- *EBC Main trial was a superiority design, which showed neutral results*
- *Provisional strategy that entailed a 2nd stent in at least 22% cross-over versus an upfront 2-stent strategy that comprised Culotte and T/TAP technique in 86% of patients*
- *There may not be side branches in the sense of clinical unimportance when treating left main disease*
- *This trial and the comments raised in the paper could be very risky--
-- stimulate interventional cardiologists to pursue the stepwise provisional single stent strategy in the majority of patients presenting with complex lesions affecting the distal LM.*

In Summary—more similarities than differences



**TAP Stenting
Kissing inflation**



**7 days later
AMI**

Further study----

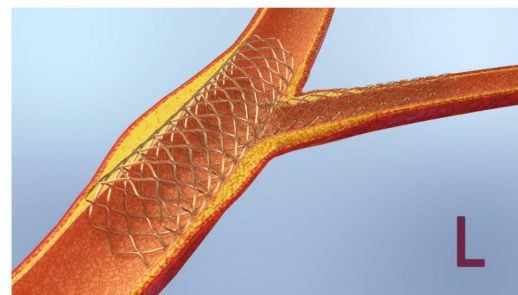
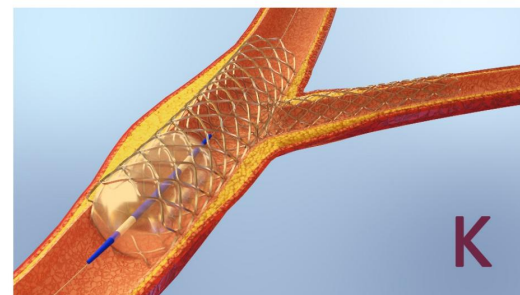
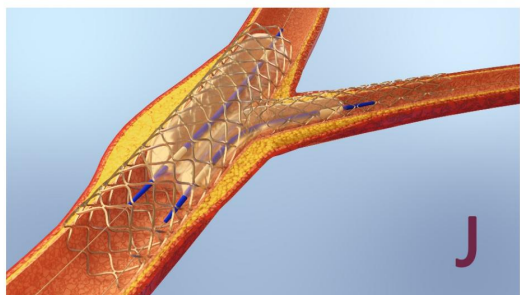
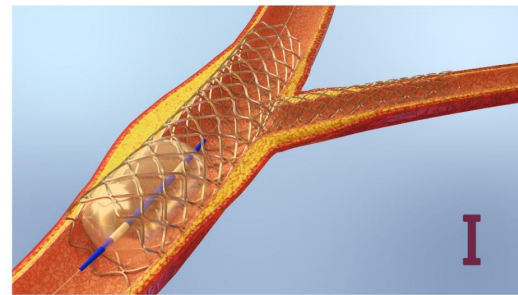
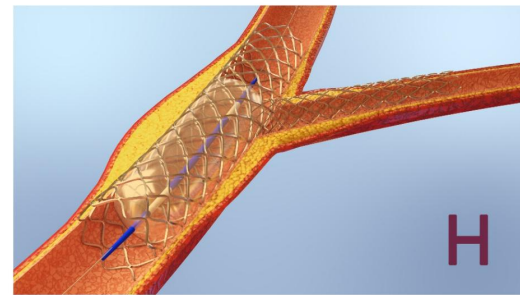
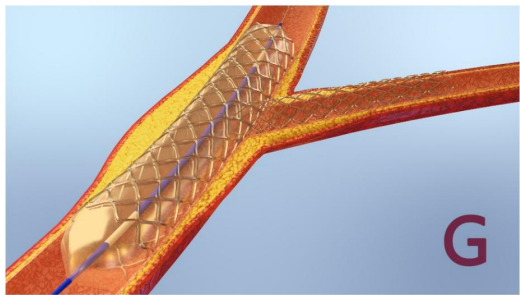
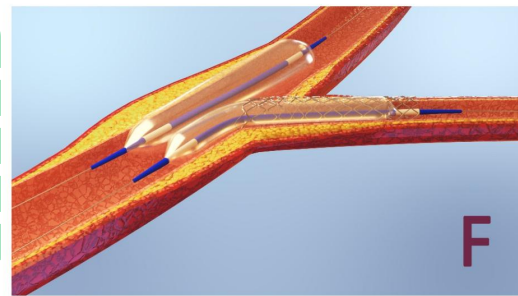
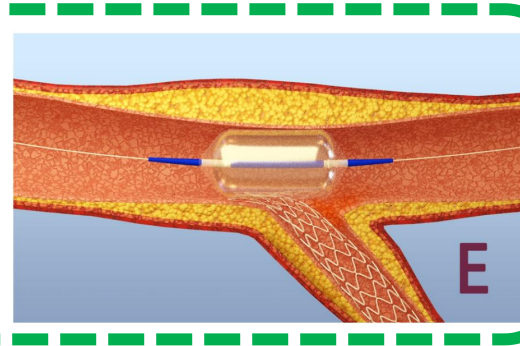
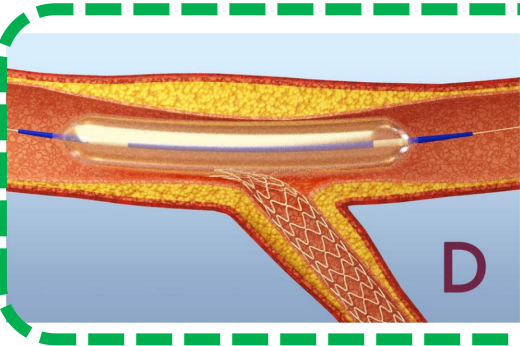
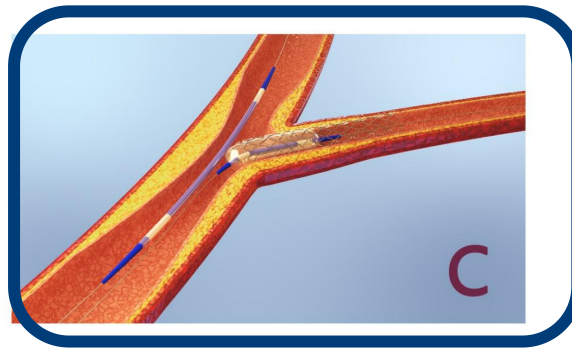
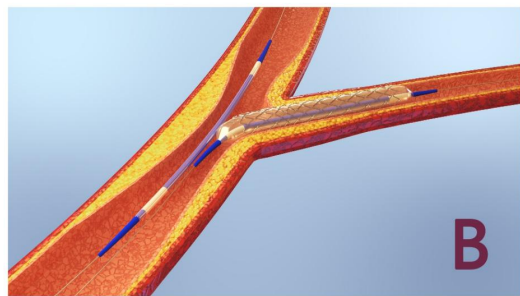
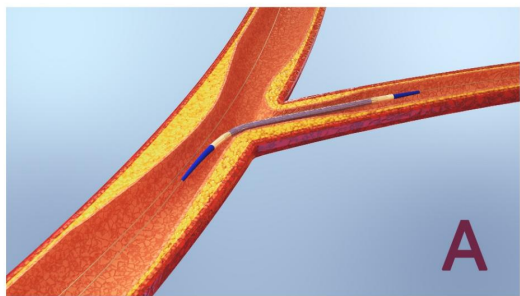
LM bifurcation lesions

Medina 111/011

Simple pattern by DEFINITION criteria

Provisional vs. DK crush

1-year TLF



**Never forget
IVUS/OCT guidance**

Thanks for your attention!