# Planned two-stent strategy for left main bifurcation: When, How and clinical outcomes

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# Contents

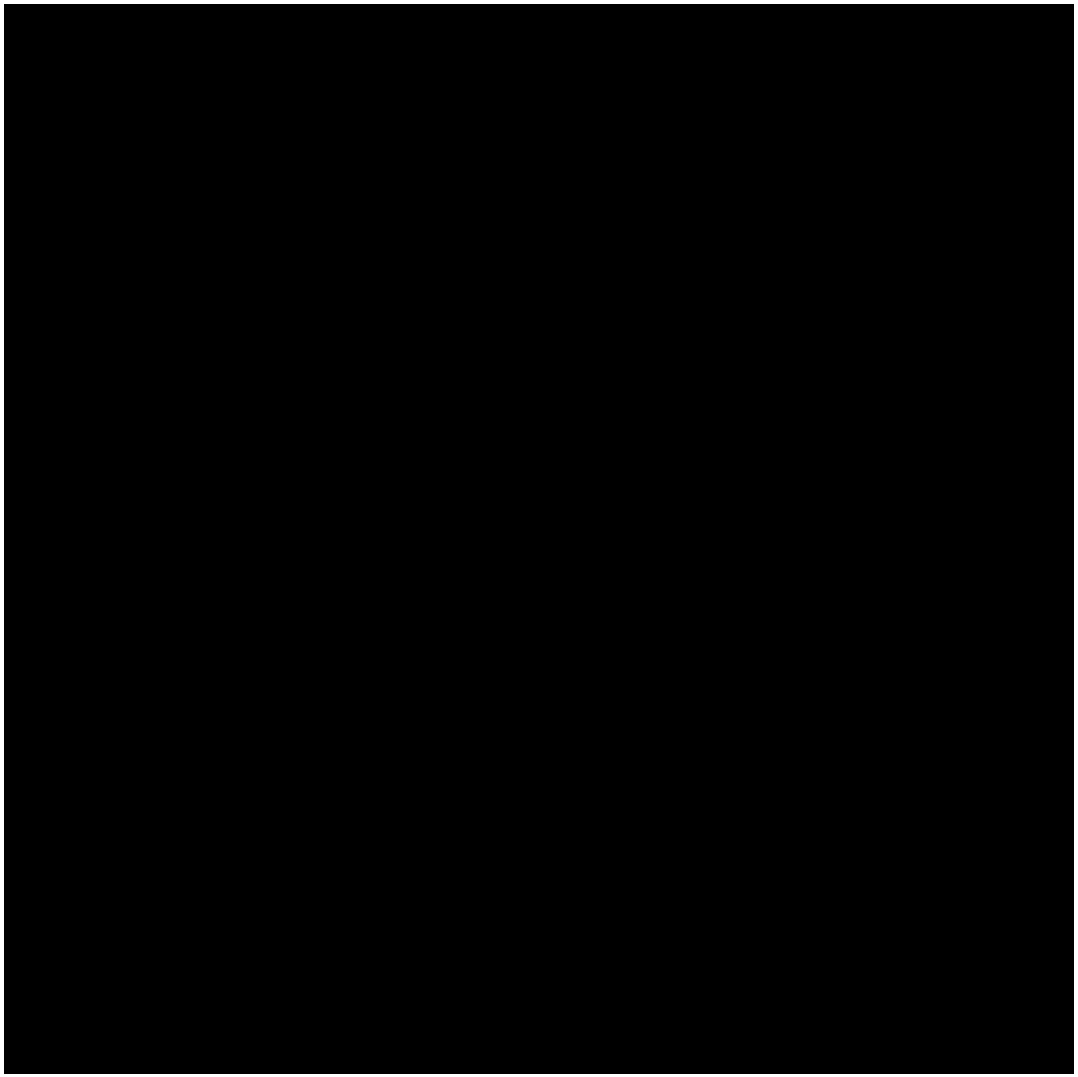
- ◇ When to use 2-stent techniques?
- ◇ How to select 2-stent techniques?
- ◇ Evidence from clinical studies

# How identical is the LM bifurcation

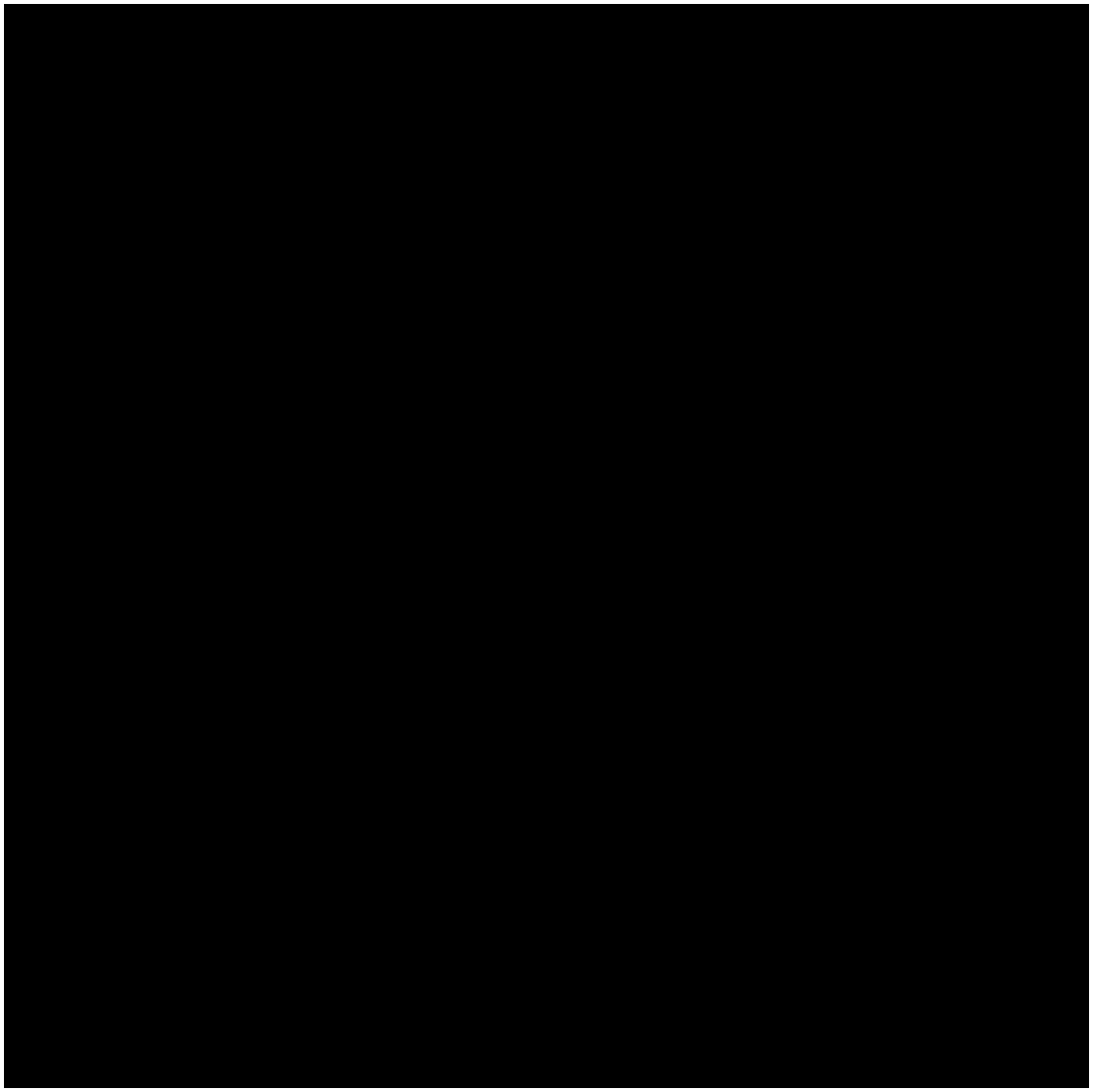
**Large caliber**

**Wider angle**

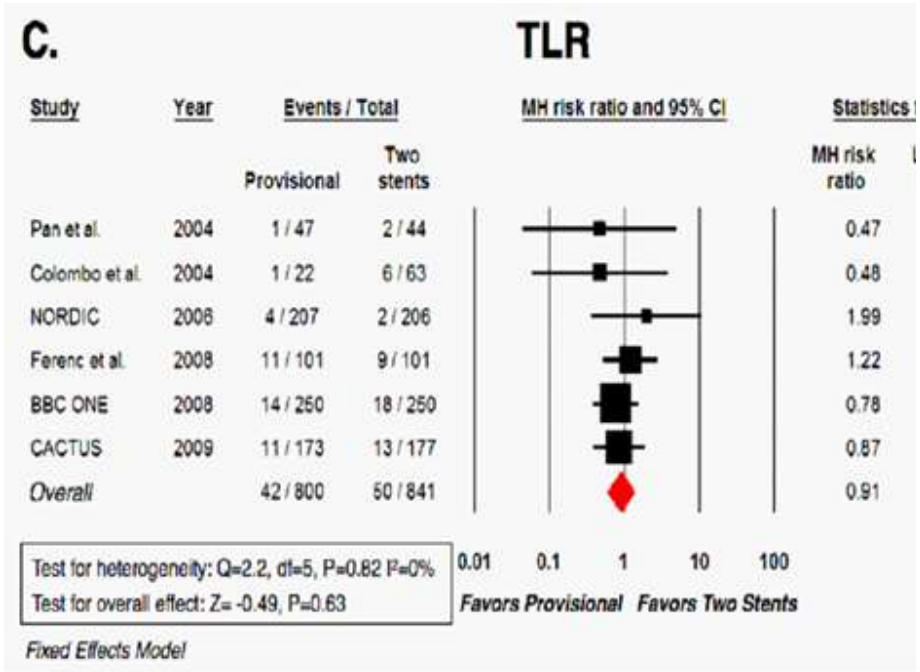
**More 3-VD (~80%)**

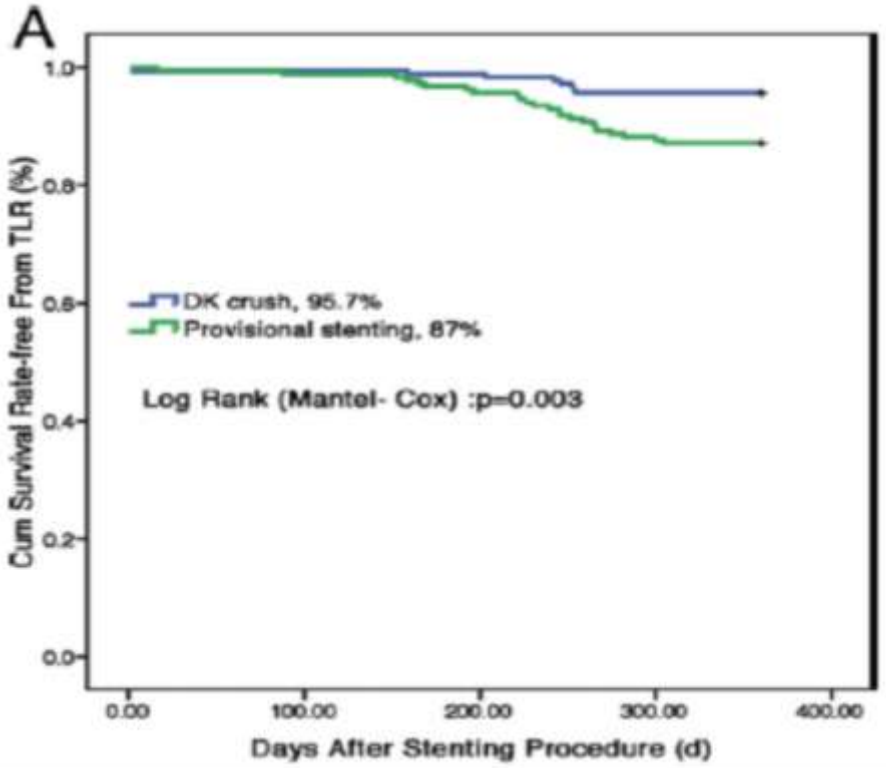


# Overlapping needs IVUS



# Why are thev different?



They are different

- SB plaque burden
- SB lesion length
- No. pts with LM bif.
- No. 2/3-VD
- Calcification

# In general, LM bif. Is more complex

**Question is-how complex is complex?**
**There is an urgent need of a criterion to identify the complexity of LM bifurcation lesions**

<20 55 (26.2) 47 (22.5) 0.241

**Comparison of Double Kissing Crush Versus Culotte Stenting for Unprotected Distal Left Main Bifurcation Lesions**

Results From a Multicenter, Randomized, Prospective DKCRUSH-III Study

# DEFINITIONS study

**1550 patients with true Bif. + SB ≥ 2.5 mm**

**Build a criterion to differentiate simple from complex bifurcation lesions**

**To be tested in another 3660 patients with true bifurcation lesions + SB ≥ 2.5 mm**

**Major criterion for LM bif.**

**SB-DS≥70% with**
**SB lesion ≥ 10mm**

**Any two**

**Minor criteria for LM bif.**

1. **≥Moderate calcif.**
2. **≥2 bif.**
3. **Thrombus-containing**
4. **MV lesion length≥25mm**

**Complex LM Bif.**

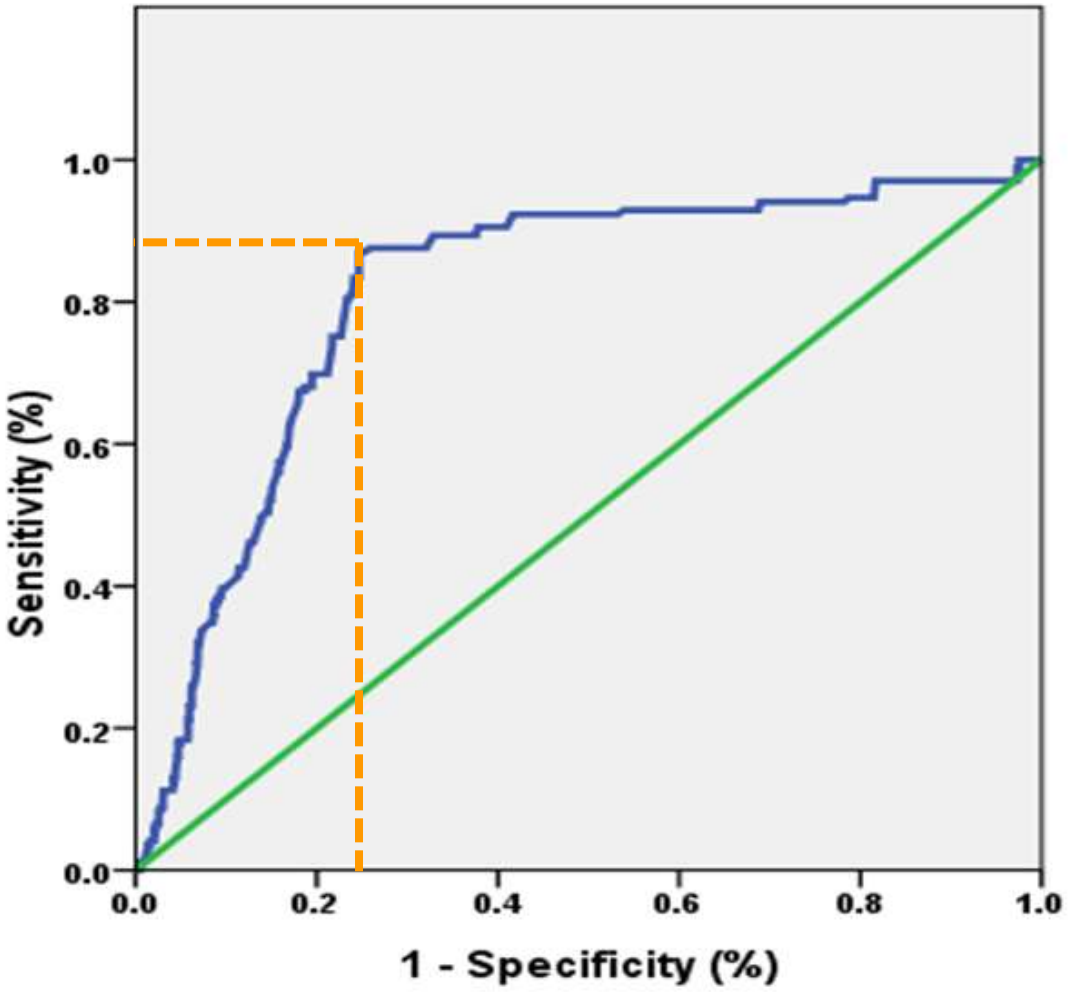
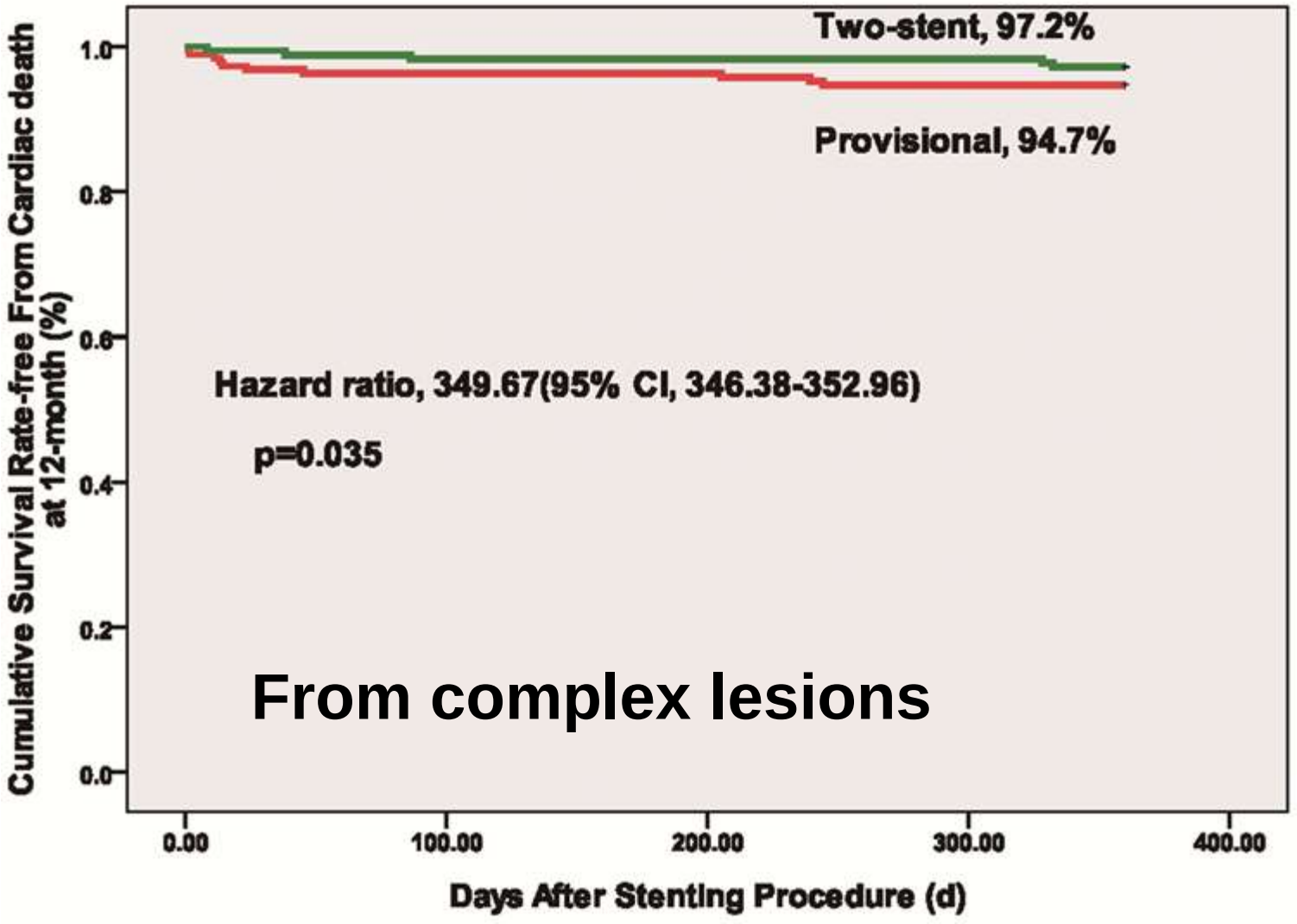



**Figure 1. Analysis of predictive value of new stratification by ROC analysis**

# One-year results



# Conclusion 1

Two-stent techniques are used for complex bifurcation lesions

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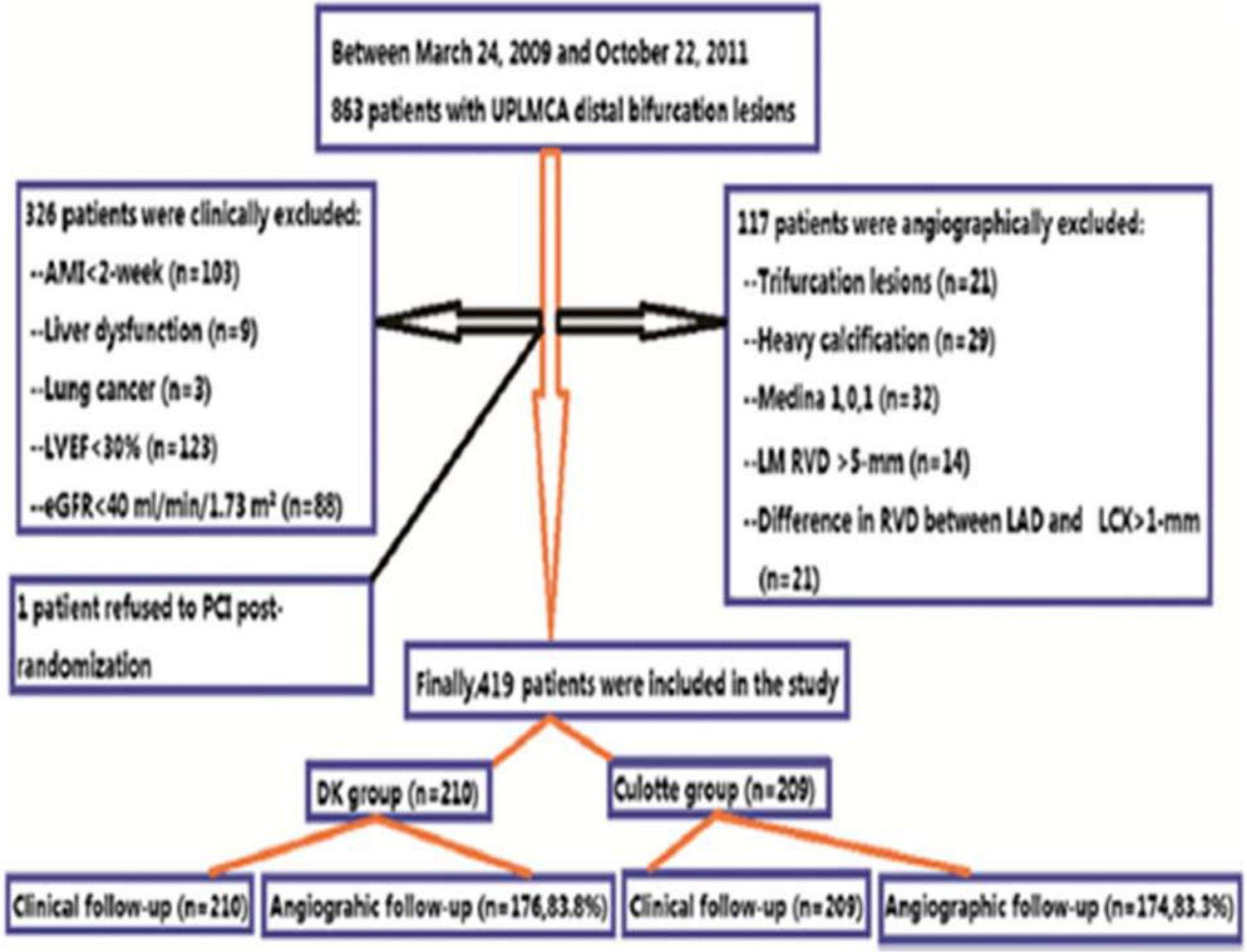
# Clinical studies analyzing two-stent approach for LM Bif.

## DKCRUSH-III

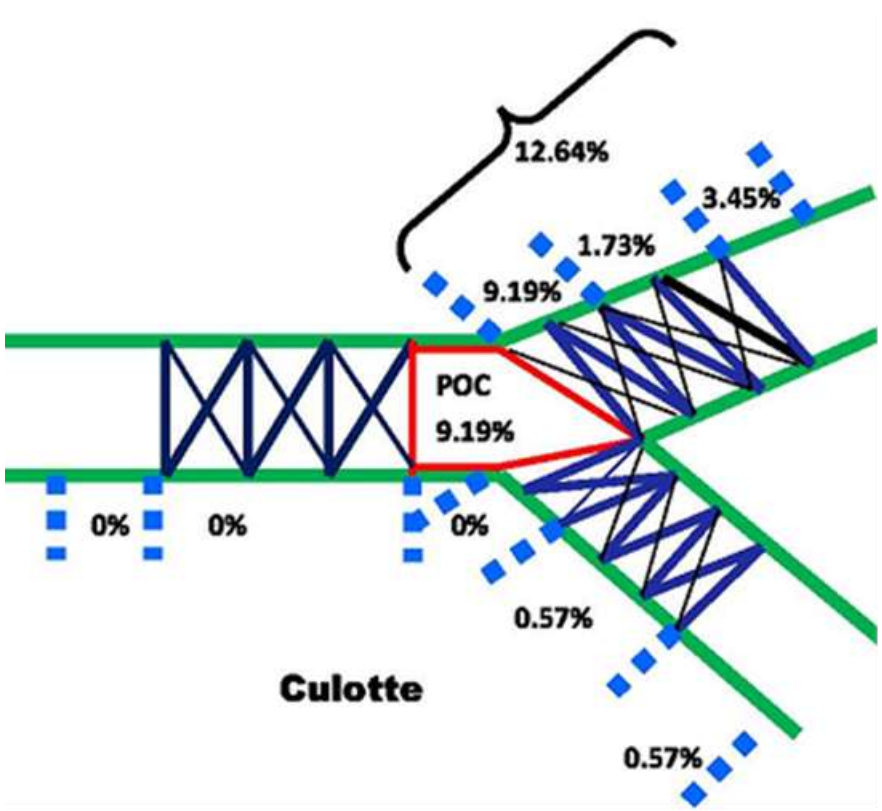
RCT
DK vs culotte
1-year F/U

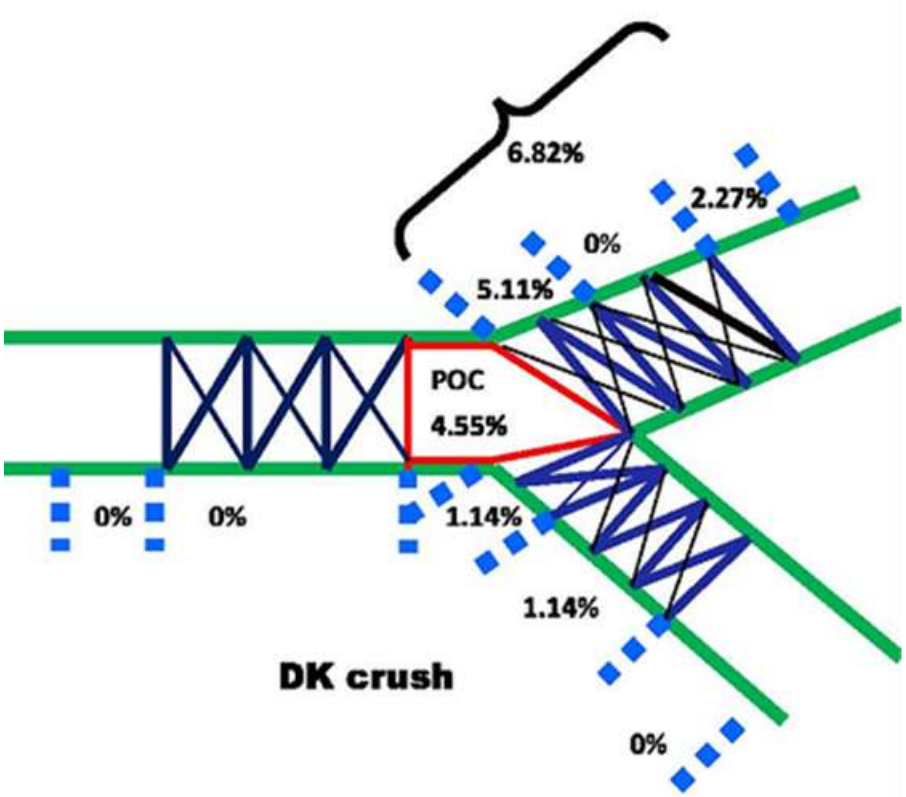
## ISAR-Left main

RCT
Cypher vs Taxus
9-month F/U

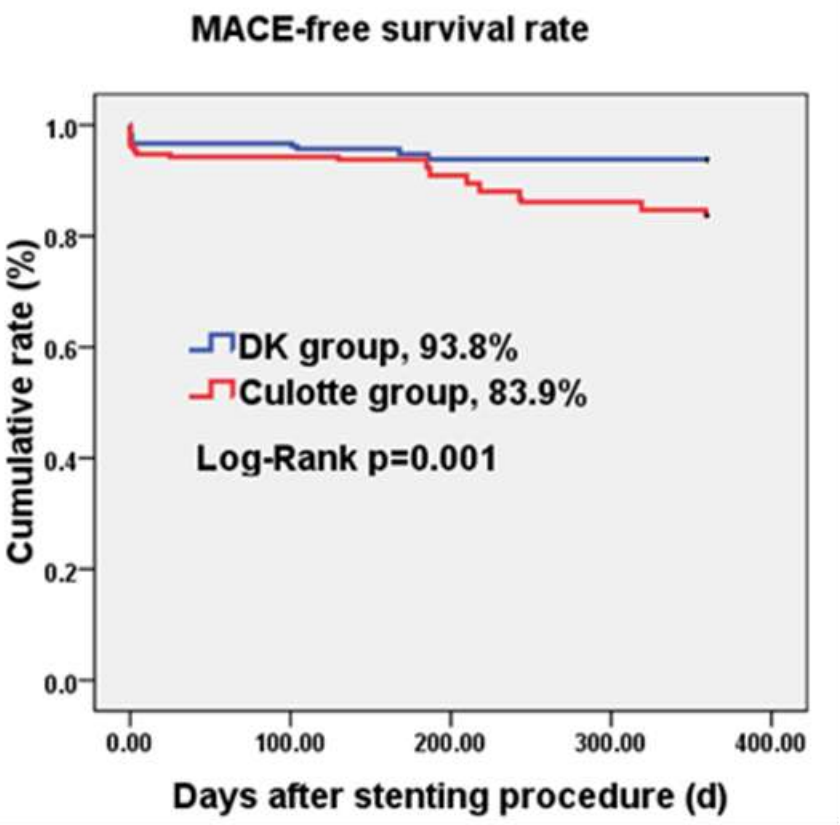

Between March 24, 2009 and October 22, 2011
863 patients with UPLMCA distal bifurcation lesions
326 patients were clinically excluded:
--AMI<2-week (n=103)
--Liver dysfunction (n=9)
--Lung cancer (n=3)
--LVEF<30% (n=123)
--eGFR<40 ml/min/1.73 m² (n=88)
117 patients were angiographically excluded:
--Trifurcation lesions (n=21)
--Heavy calcification (n=29)
--Medina 1,0,1 (n=32)
--LM RVD >5-mm (n=14)
--Difference in RVD between LAD and LCX>1-mm (n=21)
1 patient refused to PCI post-randomization
Finally 419 patients were included in the study
DK group (n=210)
Culotte group (n=209)
Clinical follow-up (n=210)
Angiograhic follow-up (n=176,83.8%)
Clinical follow-up (n=209)
Angiographic follow-up (n=174,83.3%)

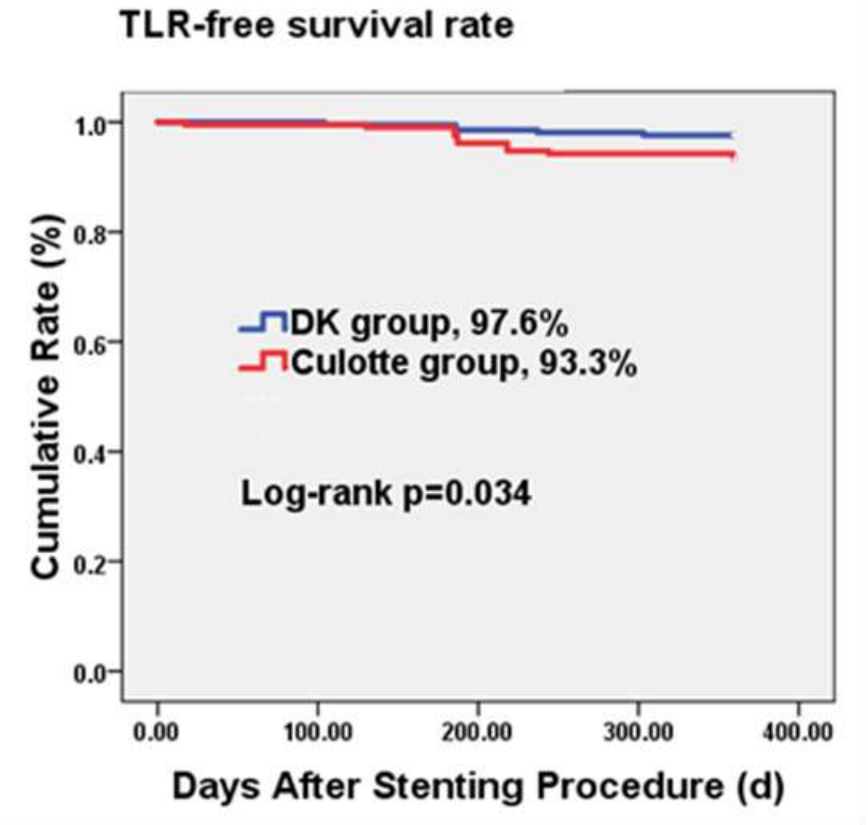
# Location and frequency of ISR



# One-year results



# Answer to “how to”….

1. **"Crush died in England and reappeared in China as DK-CRUSH. I do love this tech! " (Colombo).**

   **My best from Rome.**

   **Claudio M.**

**2. DK crush and T are my favorites**

Thanks for your attention!