

***Welcome to the 4<sup>th</sup>  
European Bifurcation Club  
26-27 September 2008 - PRAGUE***

LOGOS DES SPONSORS

*European Bifurcation Club*



***Stefan Verheye***

## **M-Family Technique**














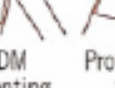






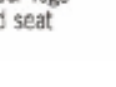


How to perform with Devax or  
Extended Y-Stenting

*European Bifurcation Club*

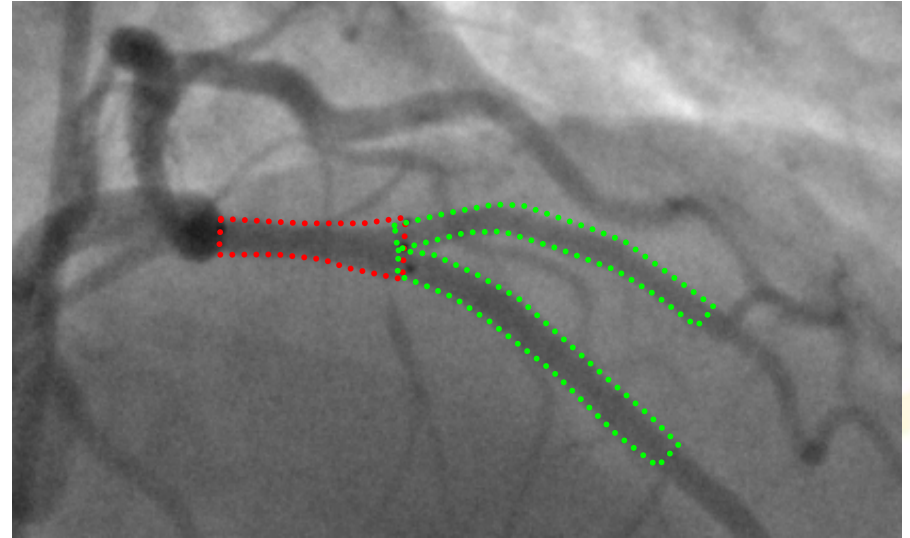
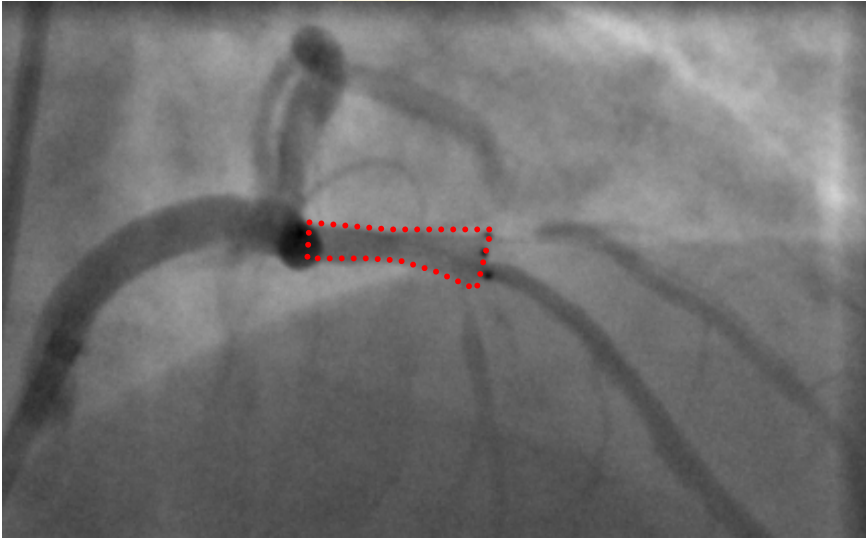


Prague, September 2008

# Conventional Stenting Techniques

	<b>M</b> Main prox. first	<b>A</b> Main Across side first	<b>D</b> Distal first	<b>S</b> Side branch first
1 <sup>st</sup> stent	 PM stenting	 MB stenting across SB	  DM stenting    Provisional SKS	 SB ostial stenting
After balloon	 Skirt	  MB stenting + SB balloon    MB stenting + kissing		  SB minicrush    SB crush
2 stents	  Skirt + DM    Skirt + SB	    Elective T stenting    Internal crush    Culotte    TAP	  V stenting    SKS	   Syst. T Stenting    Minicrush    Crush
3 stents	 Extended V		 Trouser legs and seat	

# Devax-Stenting: Therapeutic Concept



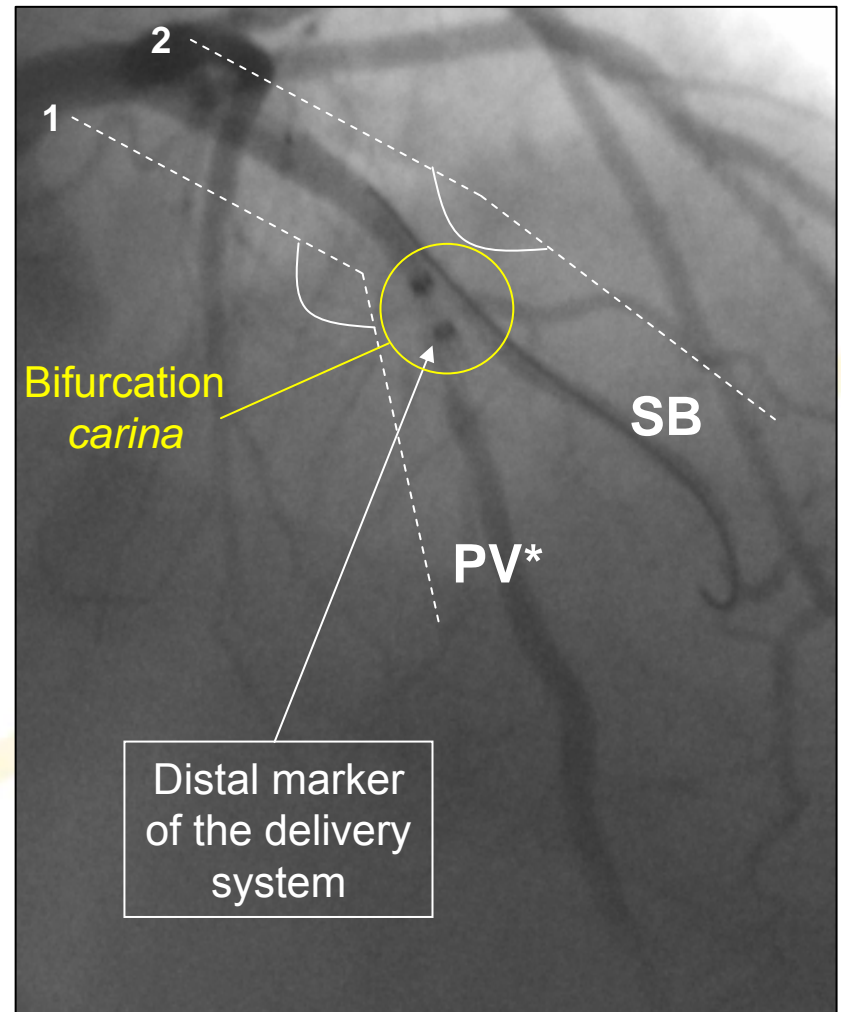
The Axxess Plus approach:

- Implant a stent with the appropriate shape to treat the troublesome anatomy of the bifurcation, then
- Provisionally add subsequent stents to cover the lesion as needed stent “end to end”, rather than “through the side”

# DELIVERY SYSTEM INSERTION AND POSITIONING

The delivery system containing the AXXESS stent is, by rule, inserted in the wire positioned in the most angulated distal branch relative to the proximal segment (or the branch expected to be more difficult to re-wire after AXXESS stent placement: smaller, dissected or more diseased branch)

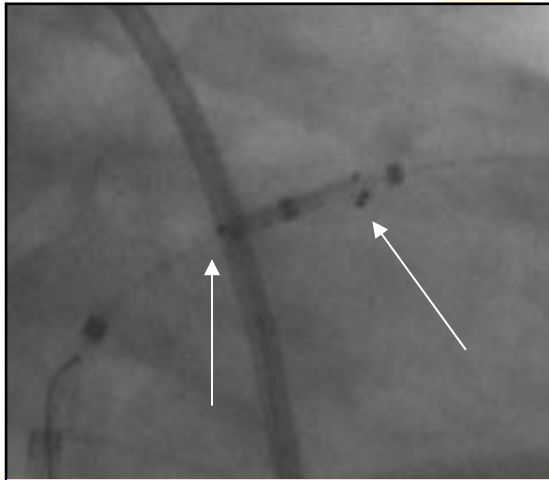
The delivery system is positioned just distal to the bifurcation carina → at this point, the removable sheath that covers the AXXESS stent may be retracted → AXXESS stent deployment is initiated



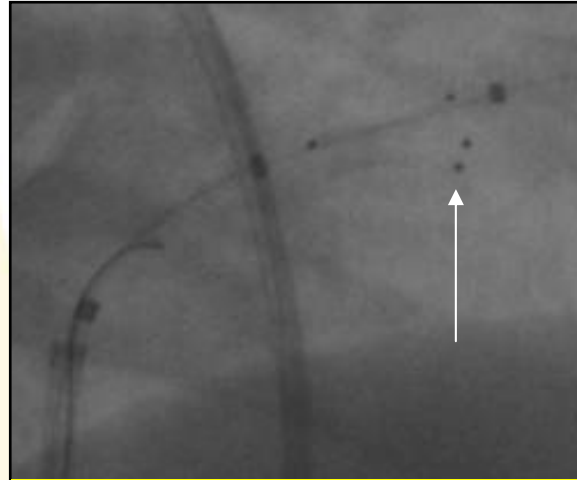
# AXXESS IMPLANT

The AXXESS stent is placed in 3 steps:

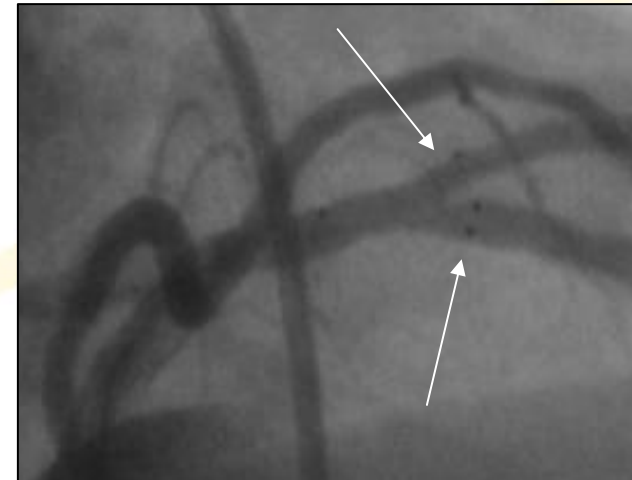
- 1<sup>st</sup> - the sheath is partially retracted enough to expose the 3 markers (approximately 3 mm)
- 2<sup>nd</sup> - the stent is advanced forward to in order to bridge the carina as much as possible
- 3<sup>rd</sup> - the sheath is fully retracted and the stent deployed



Partial Deployment  
Proximal (1) and distal (3)  
markers visible



Advance & Deployment  
Note proximal marker  
position; moved 3-4 mm  
forward; stent completely  
open

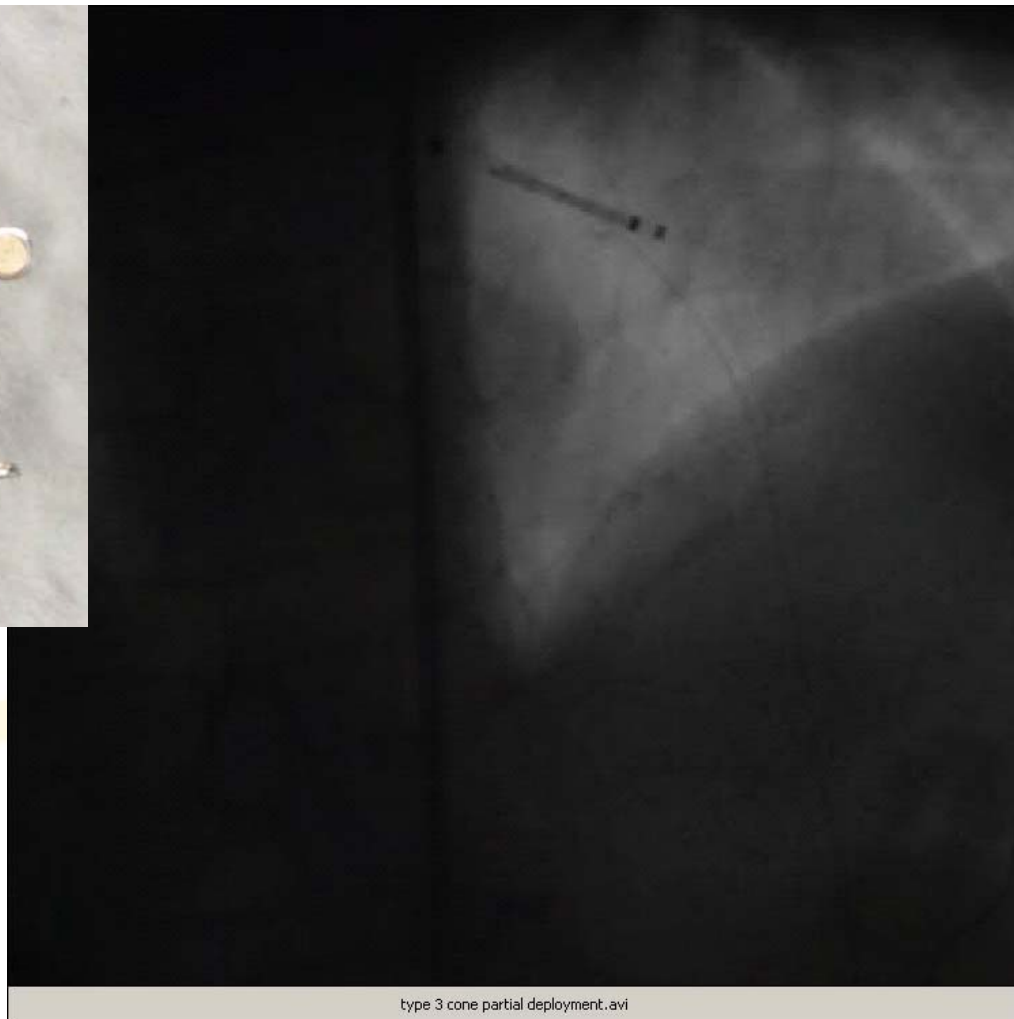
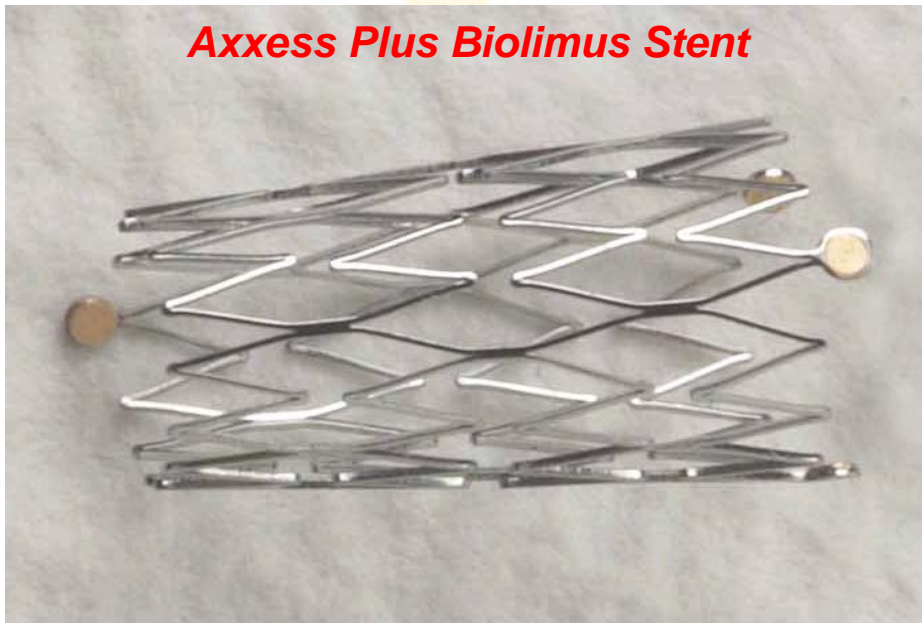


Result  
Stent spans bifurcation  
Note distal stent markers  
in BOTH distal branches



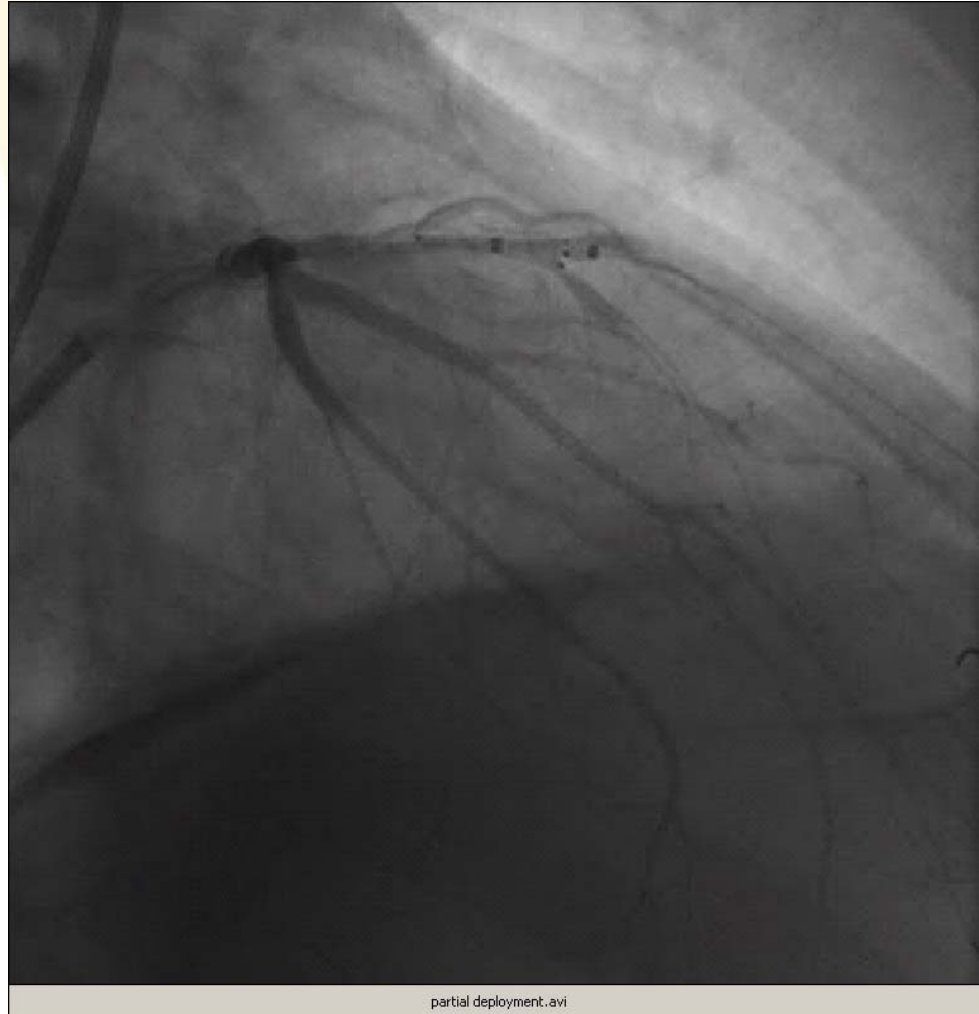
# Devax Stenting

***Axxess Plus Biolimus Stent***



type 3 cone partial deployment.avi

# Devax Stenting





# Devax Stenting

VAN RAEMDONCK GODELIEVE  
Rot: LAO 30  
Ang: Caud 30  
Run Number: 0038  
Reliability: 95 %



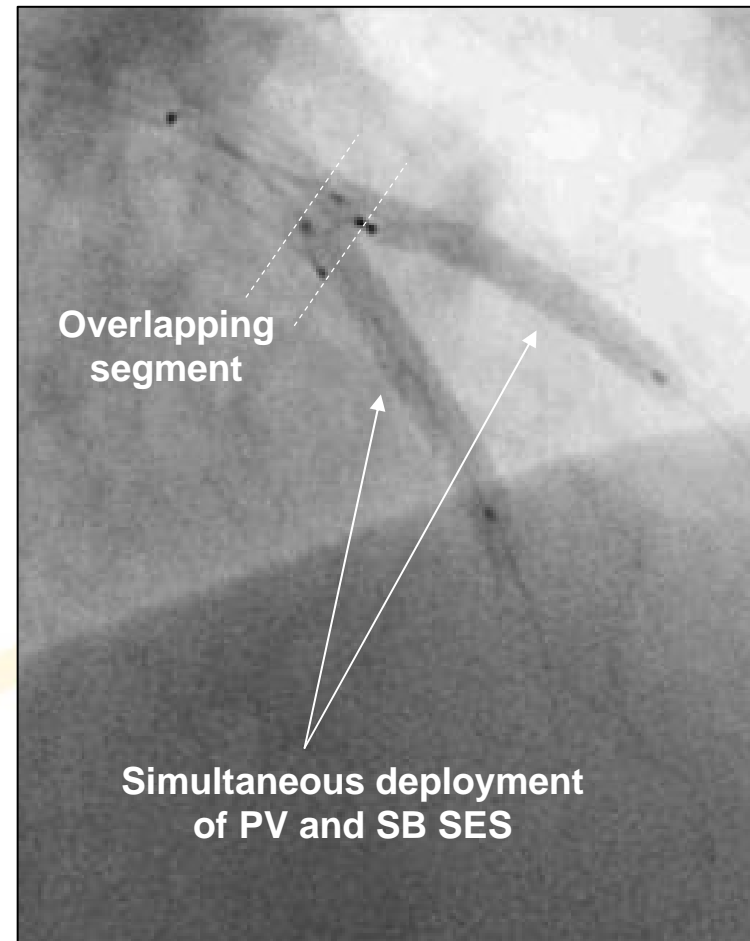
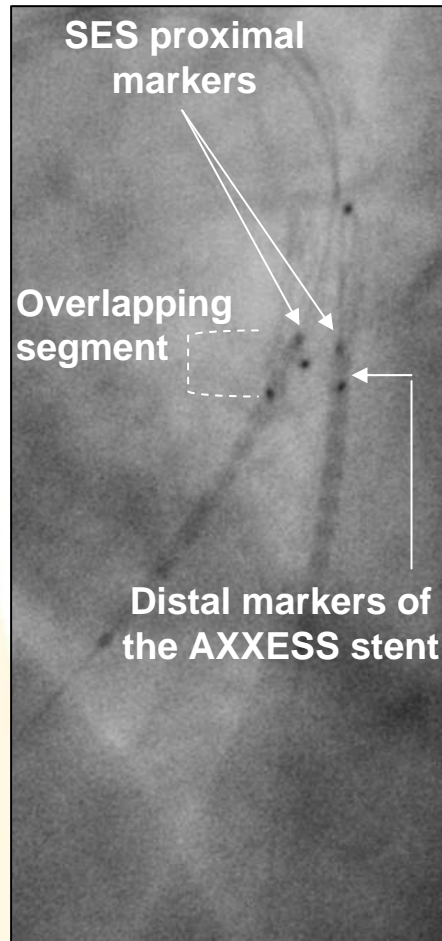
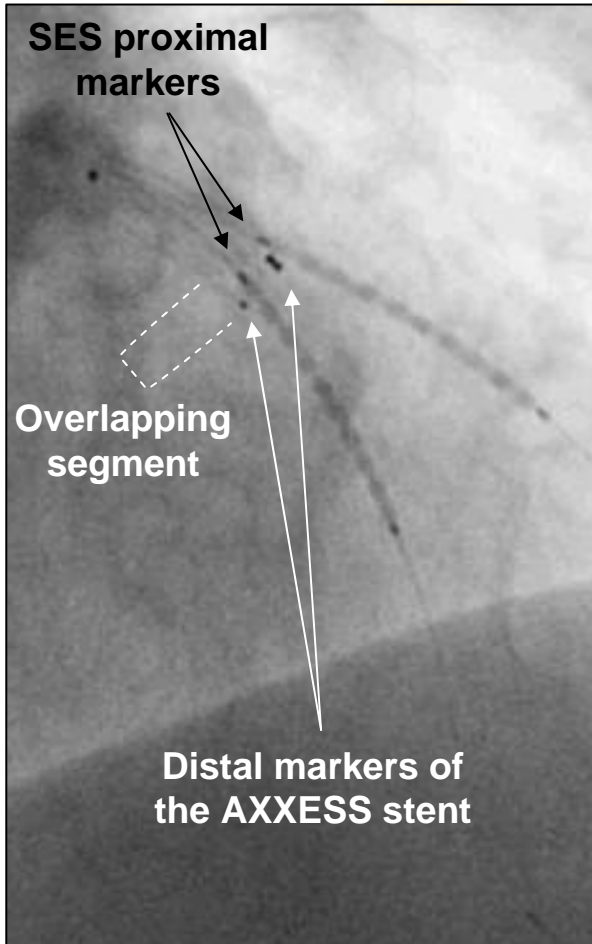
van\_raemdonck2.avi

VAN RAEMDONCK GODELIEVE  
Rot: LAO 40  
Ang: Cran 30  
Run Number: 0039  
Reliability: 95 %

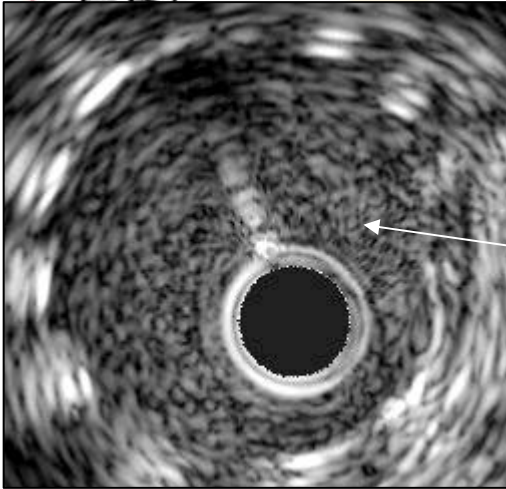


van\_raemdonck3.avi

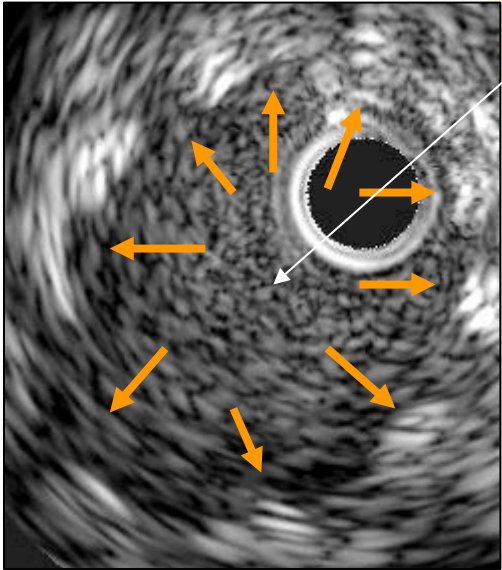
# Additional DES Implantation



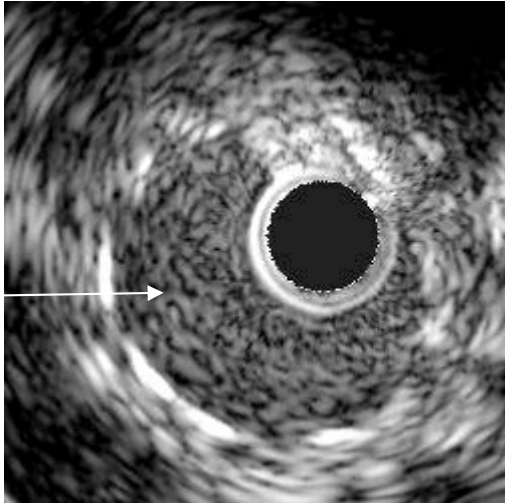
# FINAL IVUS IMAGE



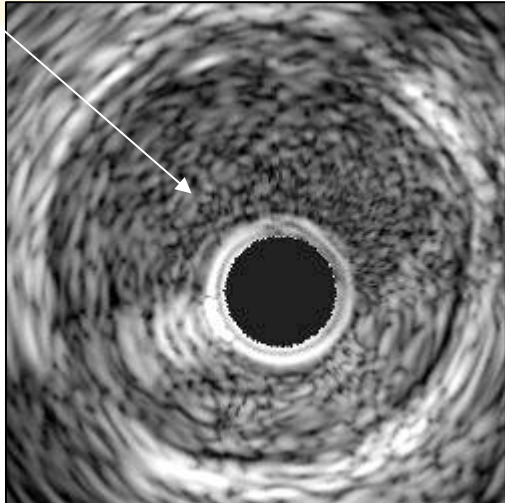
AXCESS STENT MSA



CARINA - OVERLAPPING  
SEGMENT (ARROWS)

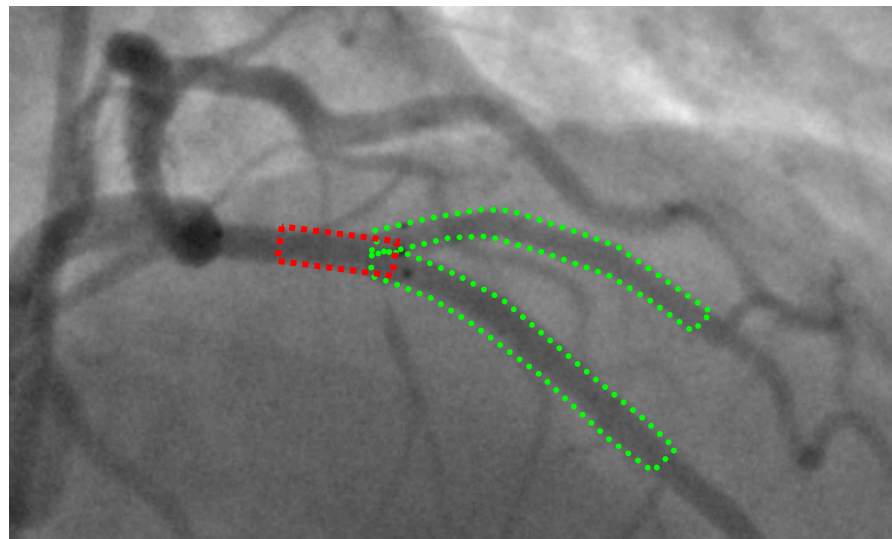
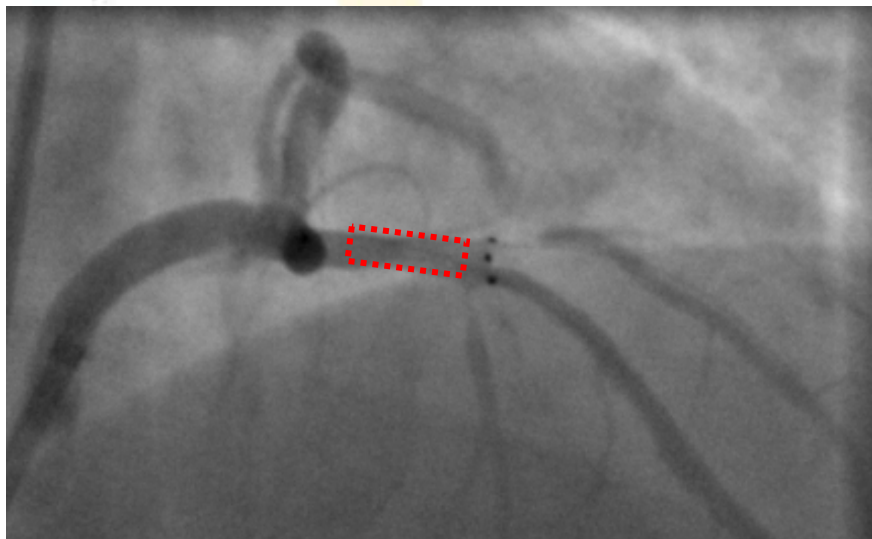


SB OSTIUM MSA



SB DISTAL REFERENCE

# Extended Y-Stenting

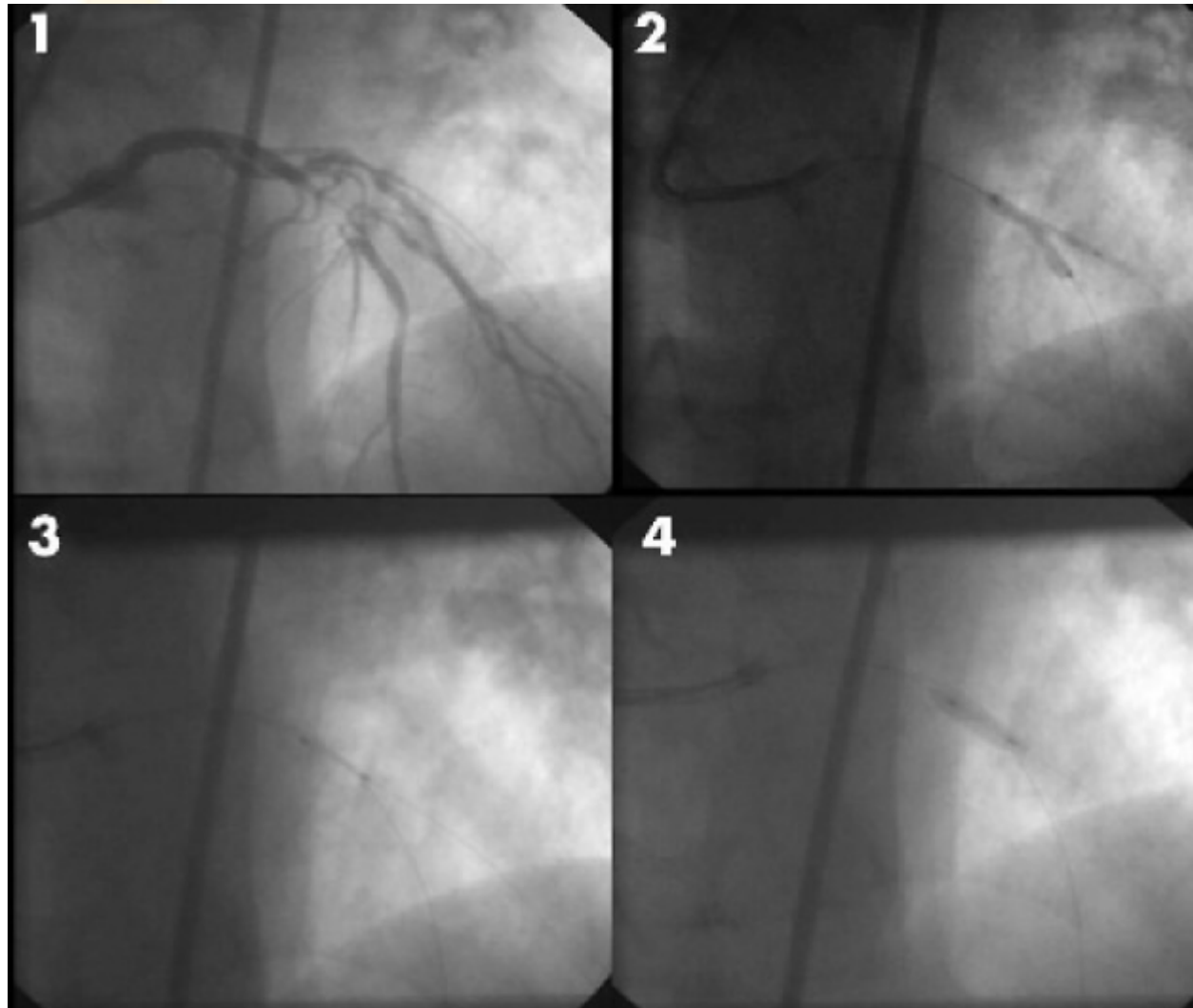


The Extended Y-Stenting approach:

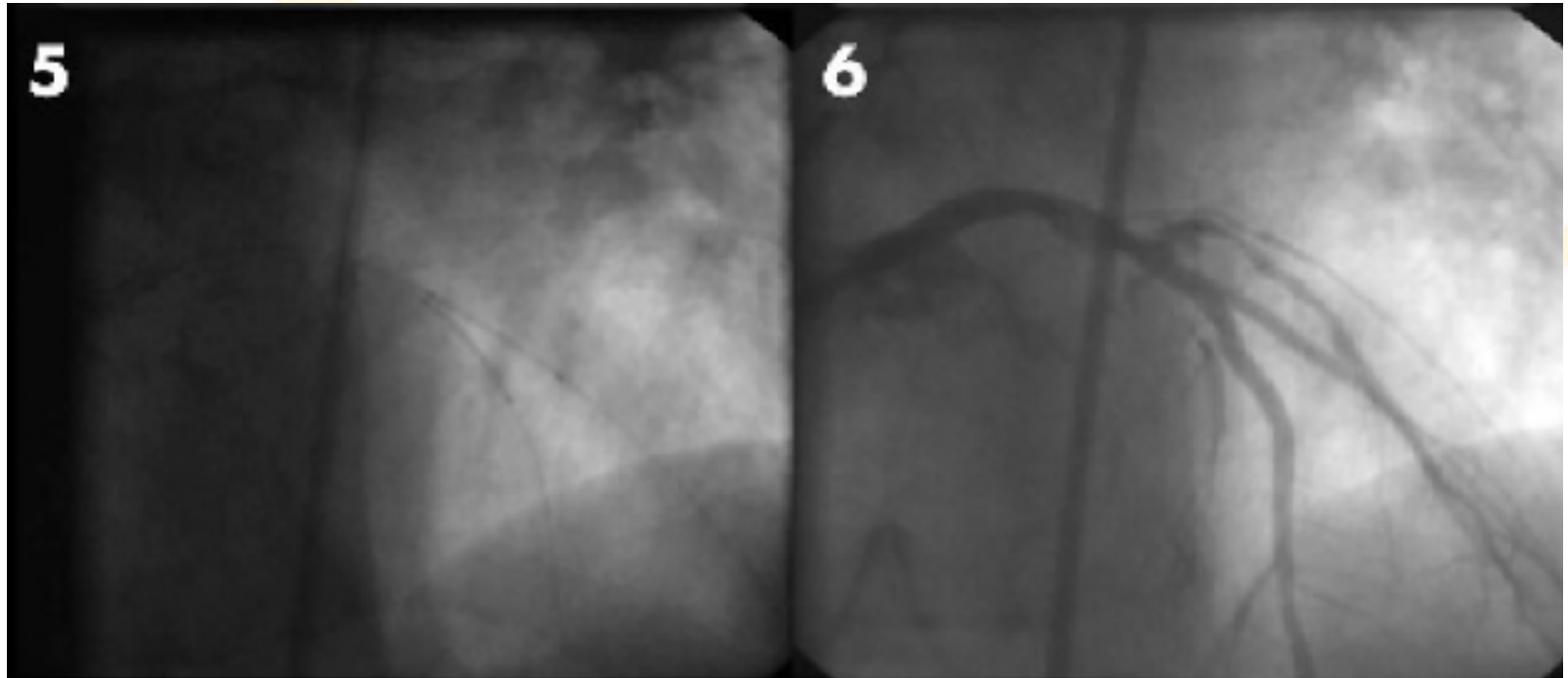
- Implant a stent proximal to the bifurcation, then
- Provisionally add subsequent stents to cover the lesion as needed stent “end to end”, rather than “through the side”



# Extended Y-Stenting

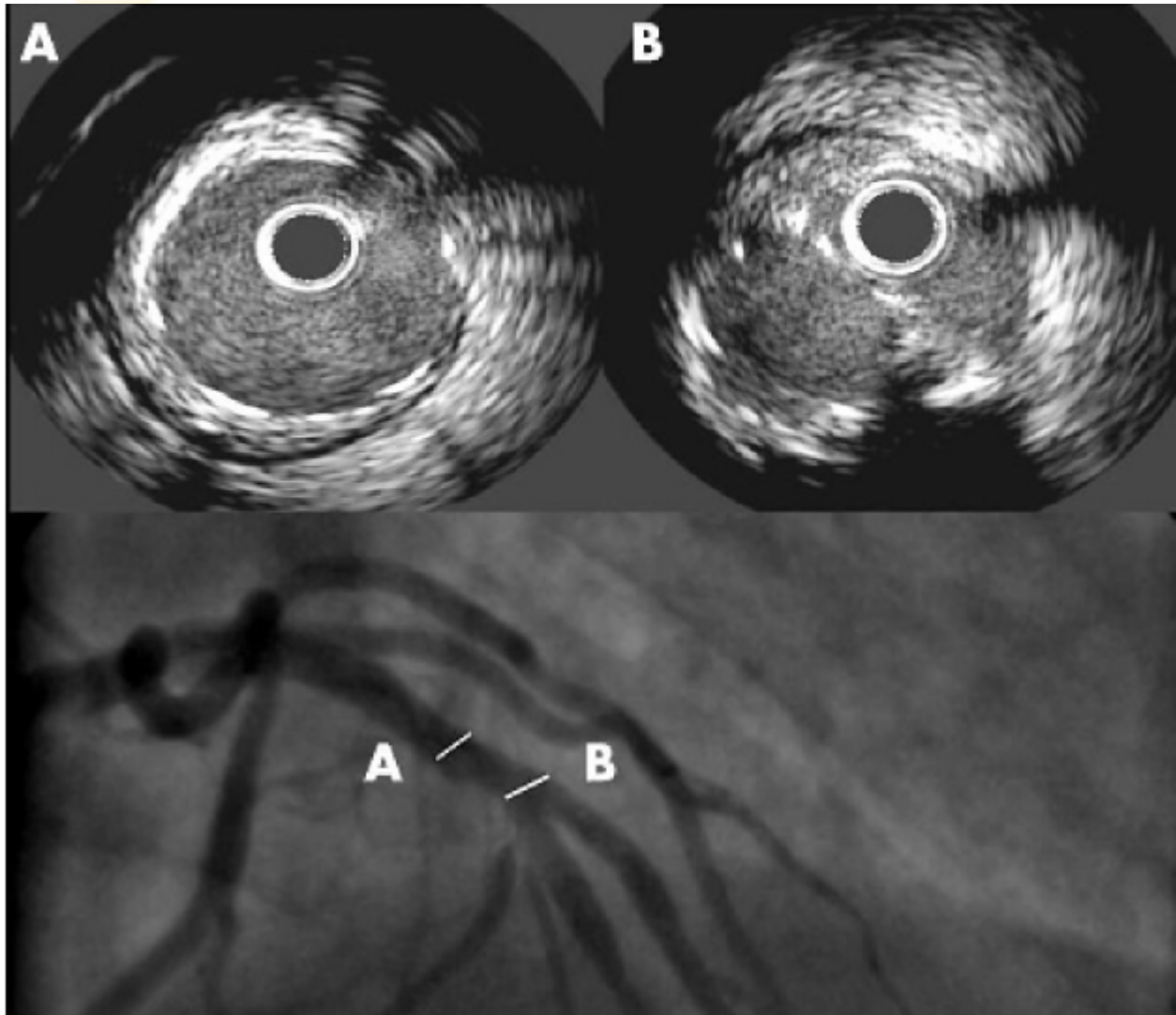


# Extended Y-Stenting



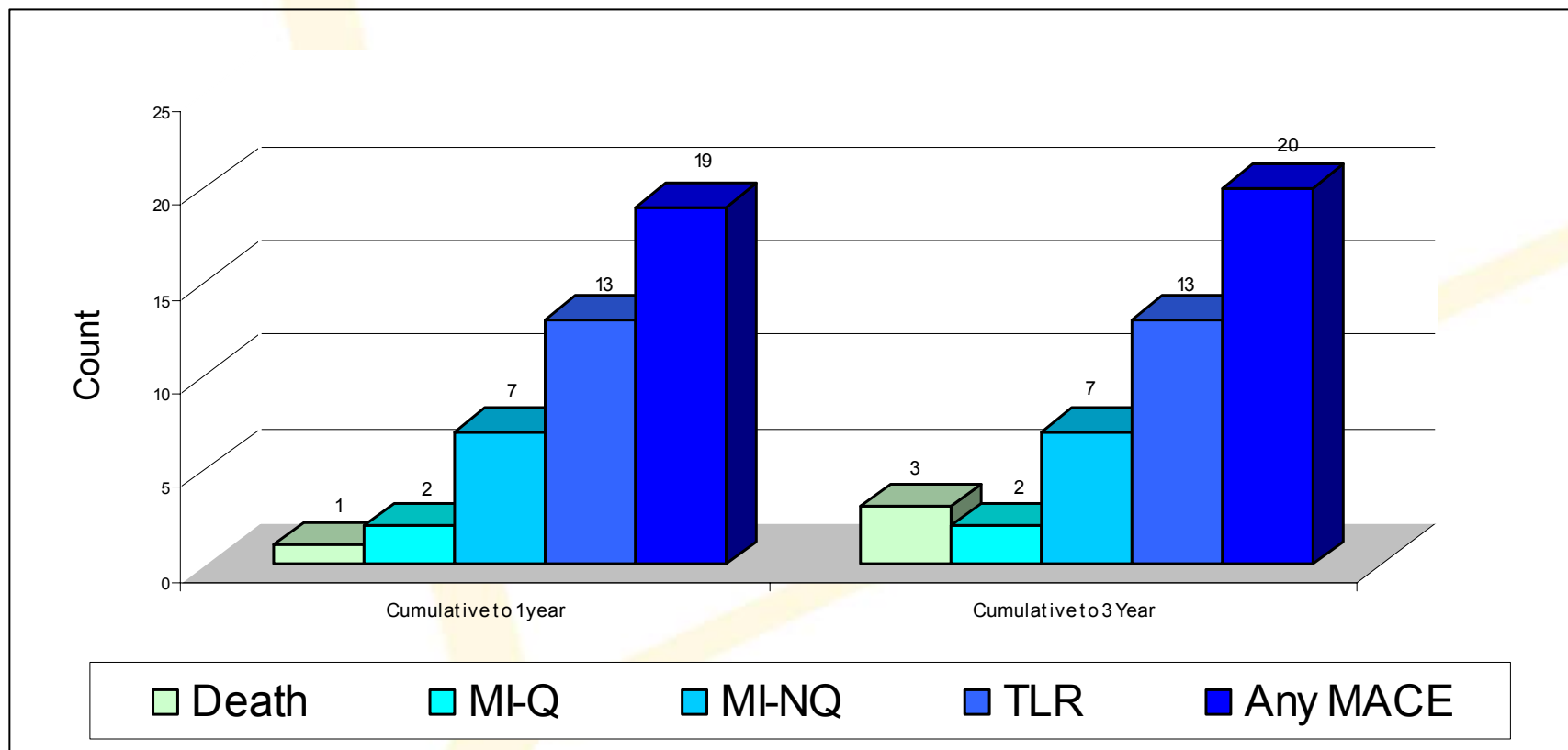


# Extended Y-Stenting





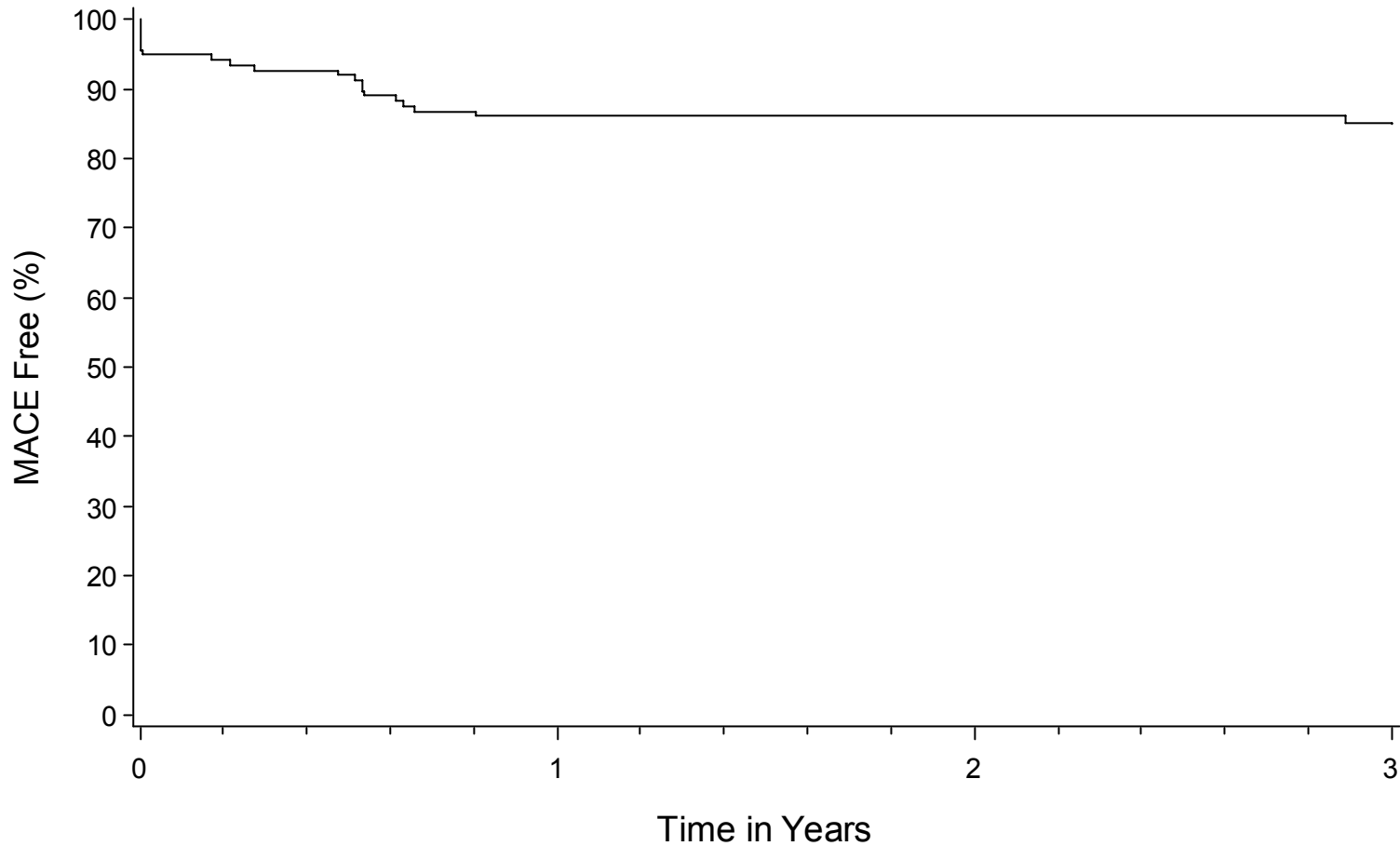
# 1-3 Year Follow Up AXXESS PLUS Trial



Cumulative Major Adverse Cardiac Events at 1 and 3 years  
COUNT by event



# 3 Year Kaplan Meier Curve Event Free Survival AXXESS PLUS Trial





## ***Extended Y stenting, n=55 Single Center***

Clinical follow up	17 – 49 m
CAG follow up at 6-8 months	n = 40
MACE at 1 year	9.1 %
Death, all-cause, at 1 year	0
Binary ISR (50%) – main branch	2.5%
side branch	10%



## ***Extended Y stenting, n=55*** ***Single Center***

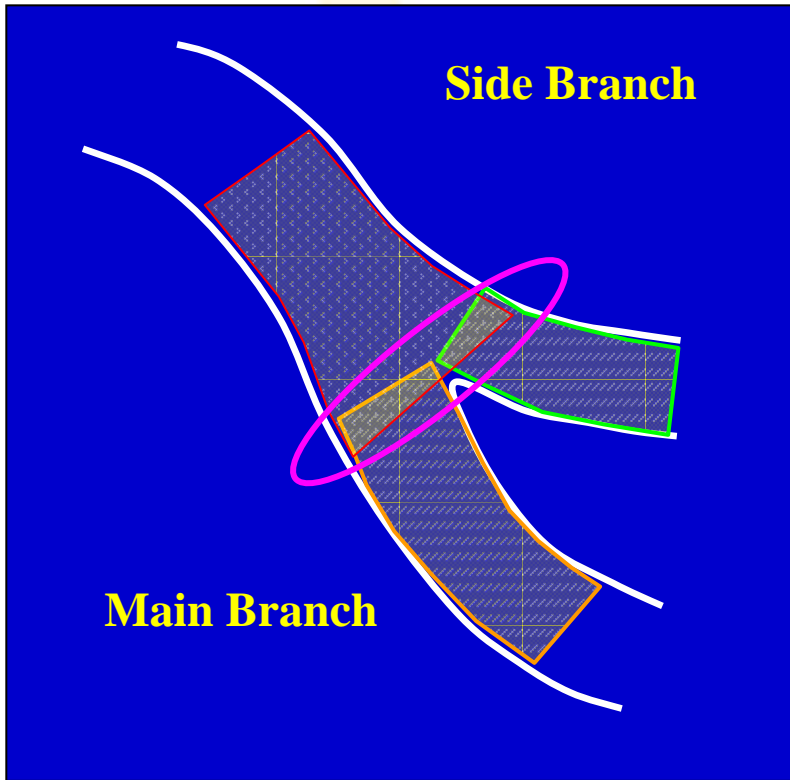
### Angiography in TLR/TVR patients (n=6)

Side branch stent thrombosis n=3

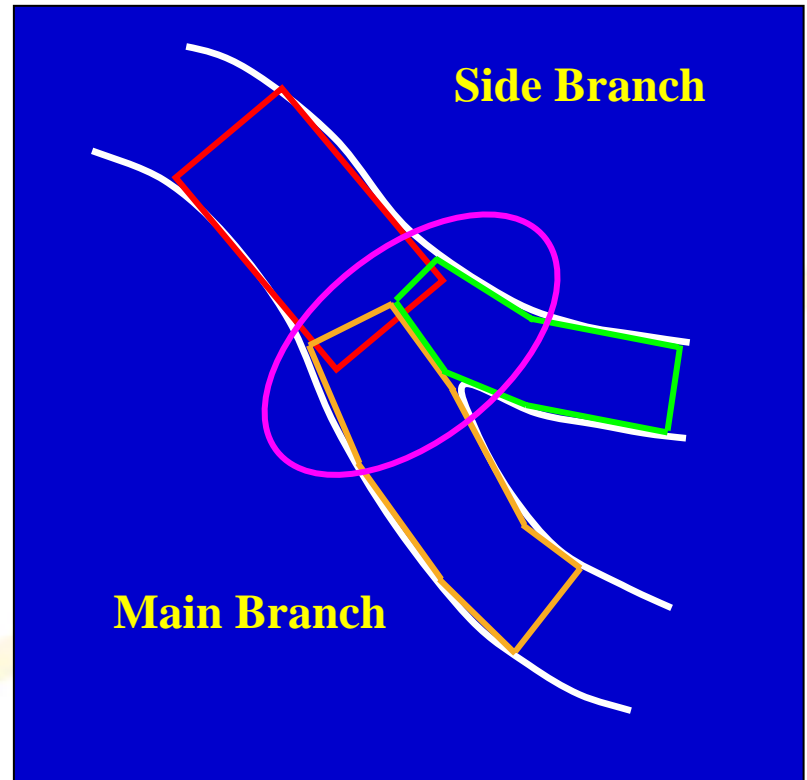
Side branch ISR n=1

Proximal stent edge re-stenosis n=2

# M-Family Stenting



**Devax-Stenting**



**“Extended Y”-Stenting**





# M-Stent Situations

- Case Selection
  - Large side branches
  - Diffuse disease
  - Significant diameter changes between proximal PV and distal PV or SB
- Advantages:
  - Maintains SB access and removes risk of SB occlusion
  - Removes risk of proximal dissection
  - Maximum treatment flexibility for complex anatomy
- Disadvantages
  - Stent number
  - Requires high precision placement
  - Proximal stent too distal or too proximal to carina