

Seoul, Korea: 25-27 April 2012

Left Main and Bifurcation:  
from accurate diagnosis to treatment

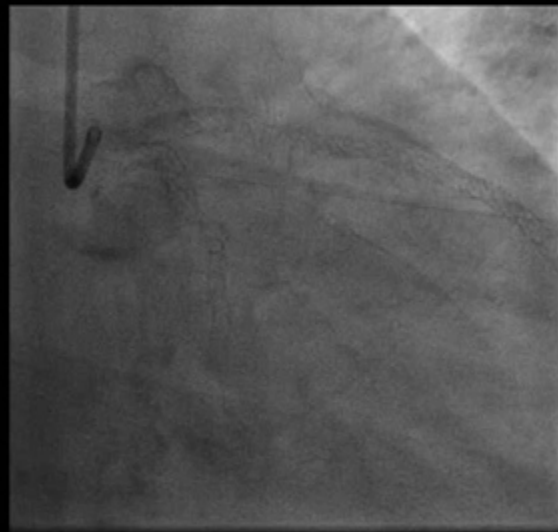
Case: good, bad and ugly in LM  
Bifurcation stenting

Speaker - 12'

**Antonio Colombo**

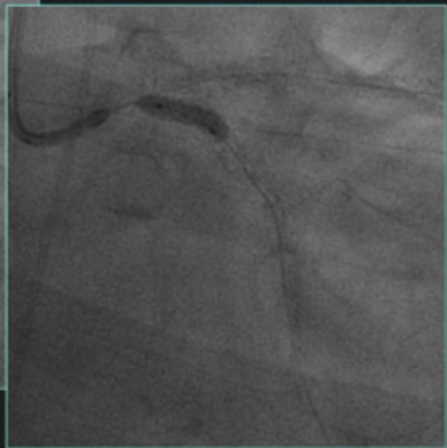
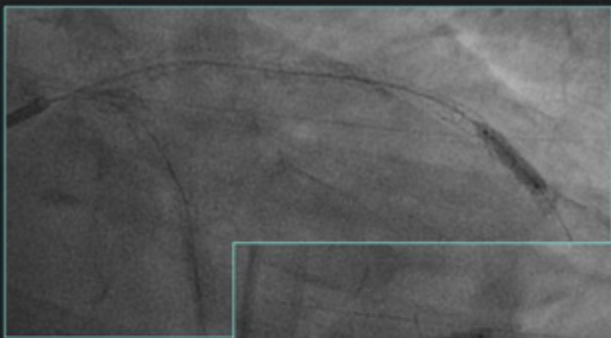
*Centro Cuore Columbus and  
S. Raffaele Scientific Institute, Milan, Italy*

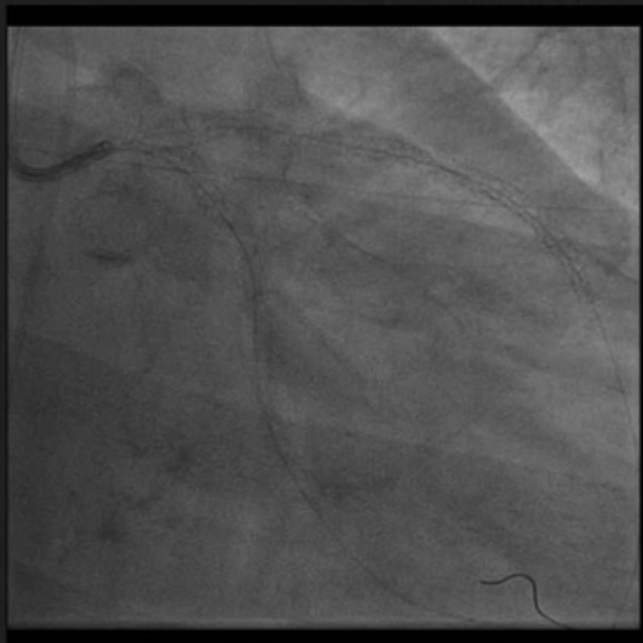
**Prior LM with DES: V technique; 1 time restenosis  
treated 3 month ago with DEB on LAD**



Baseline

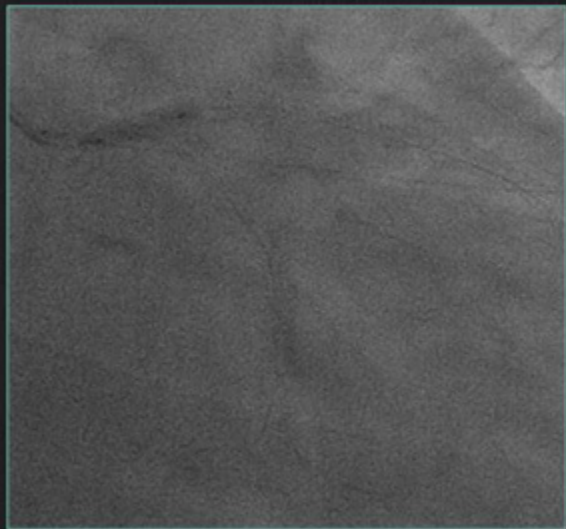
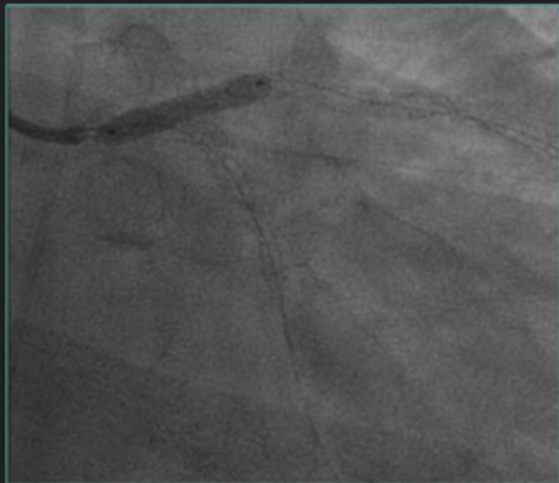
CCC 28322





After POBA

# DES: LM to LAD

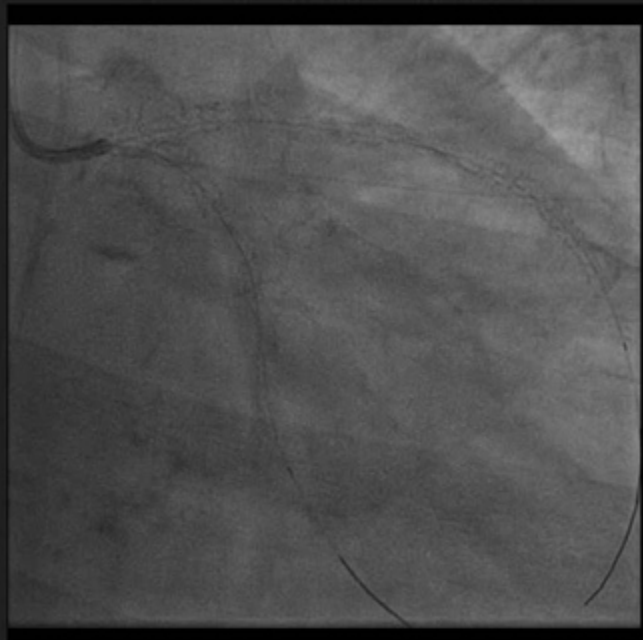


## Following stenting LM/LAD





**Kissing**



**After Kissing**

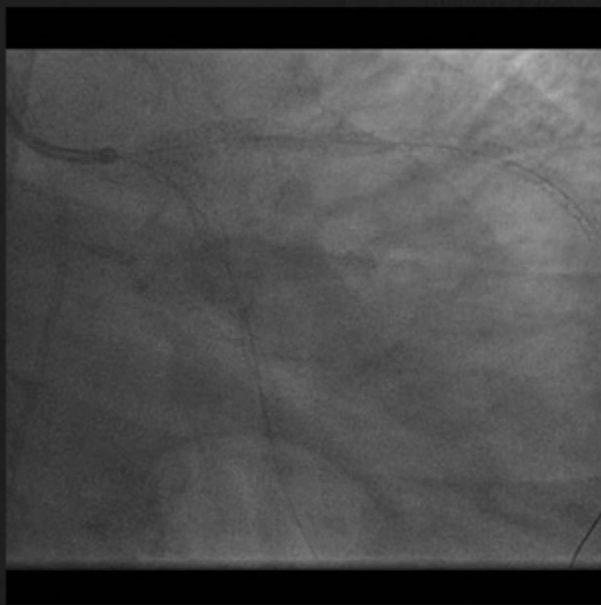


Second Kissing: DEB on  
the LCX, regular balloon  
on LAD



DEB mid LAD

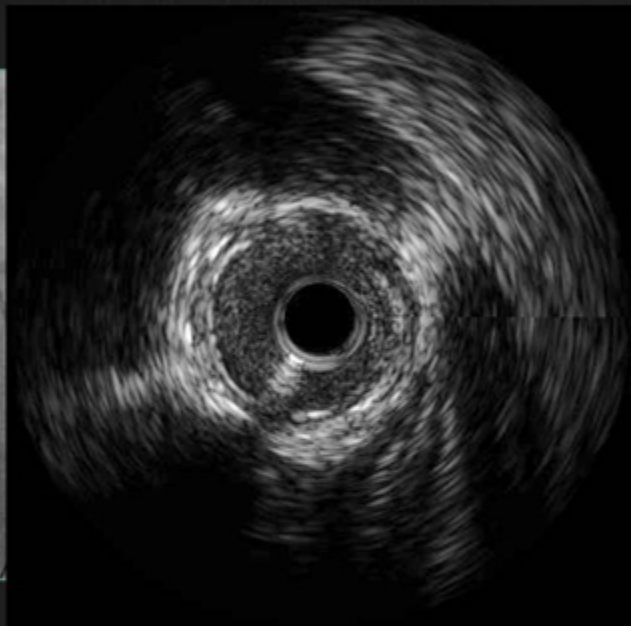




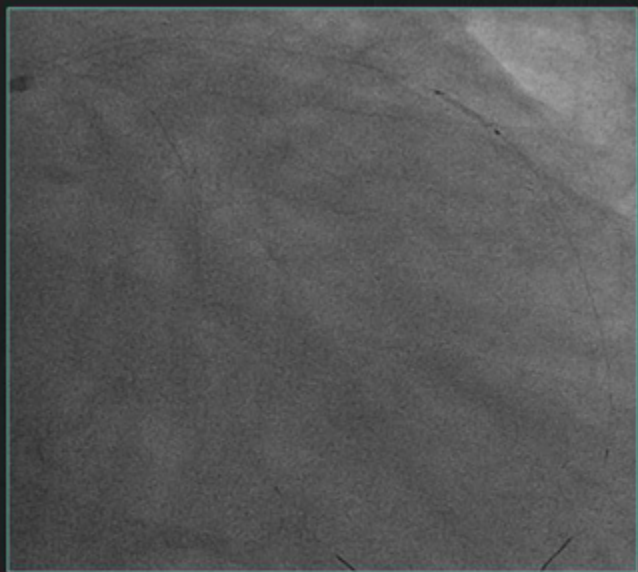
After second kiss LAD/LCx and DEB mid LAD



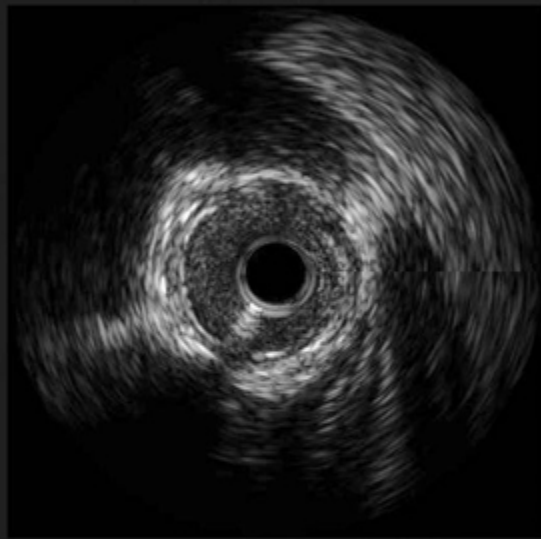
After LAD POBA



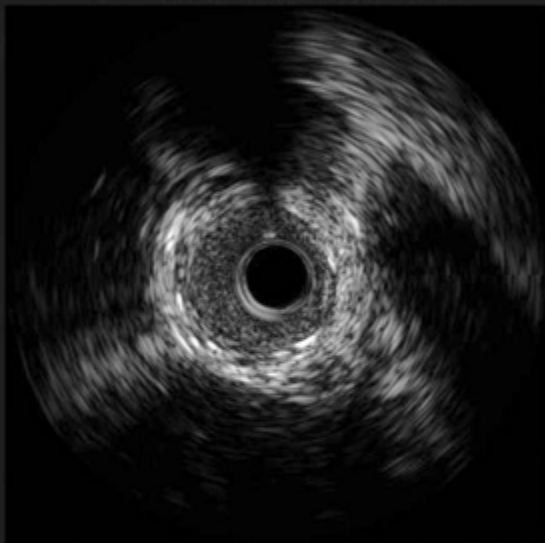
IVUS LAD after POBA  
and DEB mid LAD



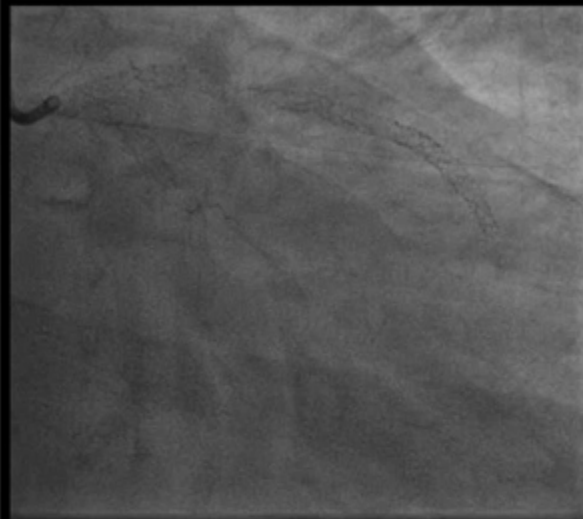
Short DES in mid LAD



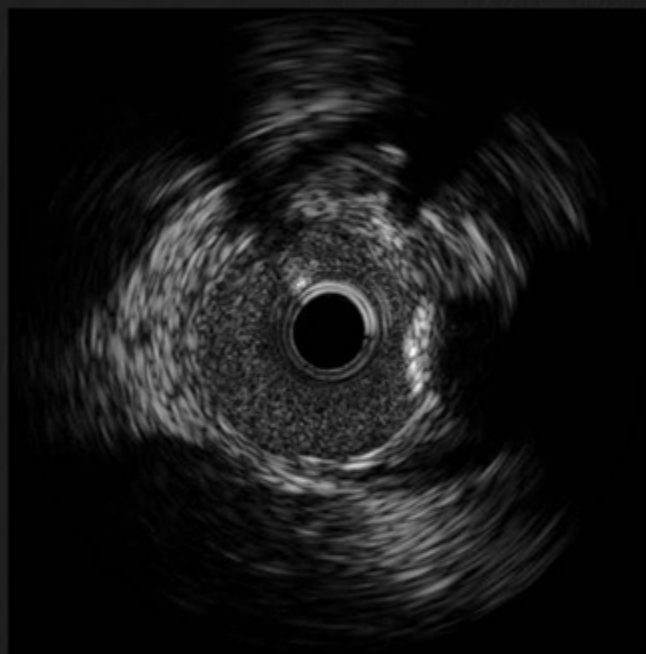
IVUS LAD before  
stent in mid LAD



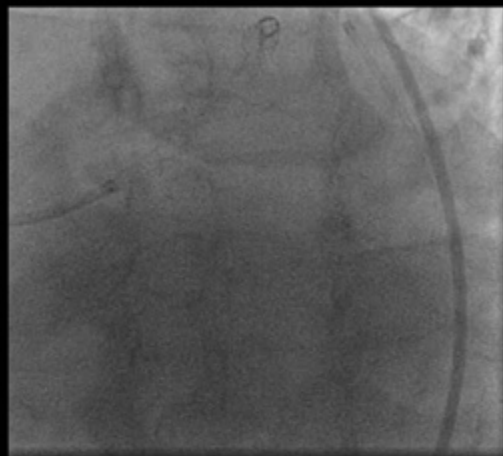
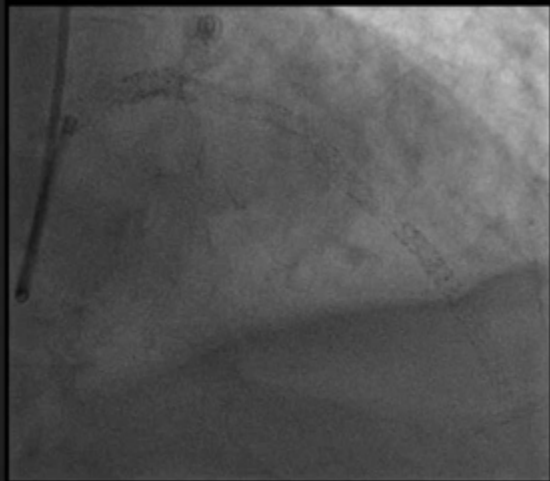
IVUS LAD after  
stent in mid LAD



After short DES in mid LAD



IVUS in LCX



**Final Result**

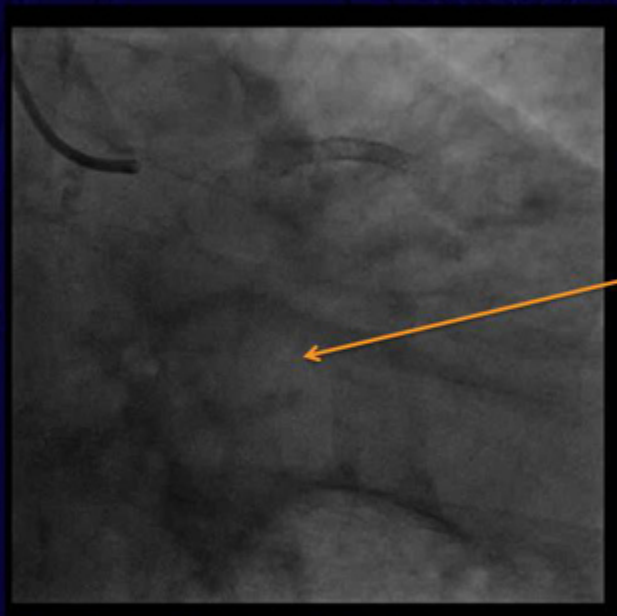


**Final Result**



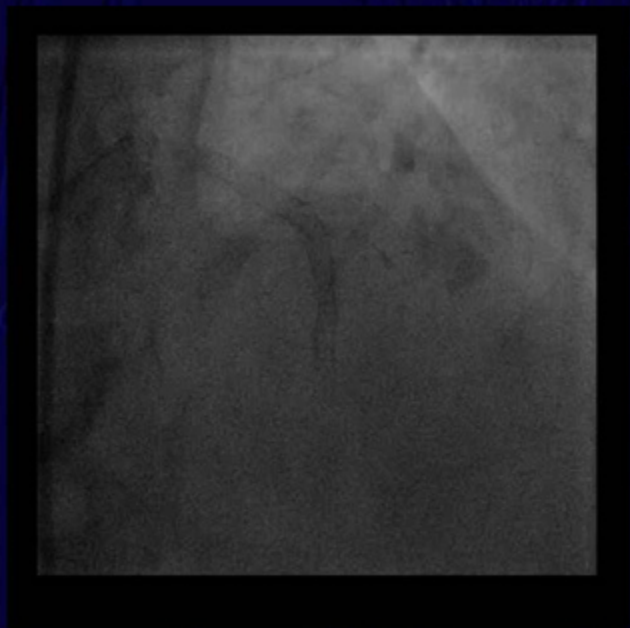
# FFR guided intervention

78 yrs. old  
gentleman  
multiple prior  
interventions  
class 3 angina  
with episodes  
of rest angina



FFR= 0.87

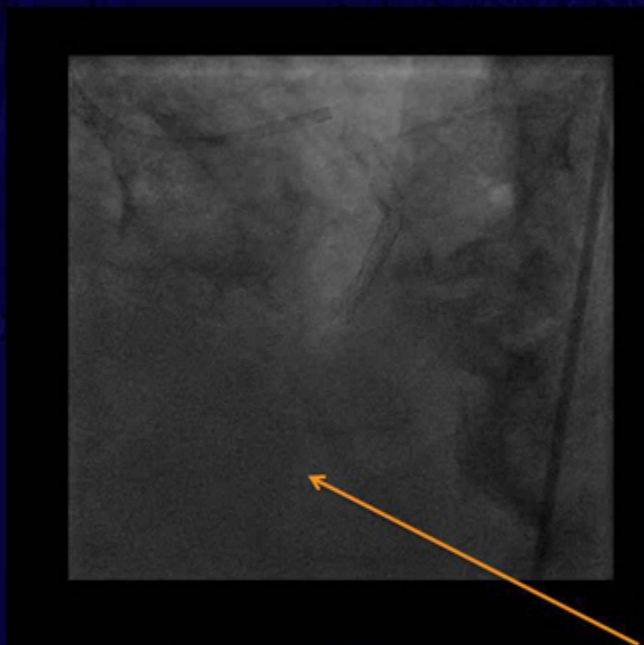
Baseline



Baseline

*international meeting*

HSR 68124

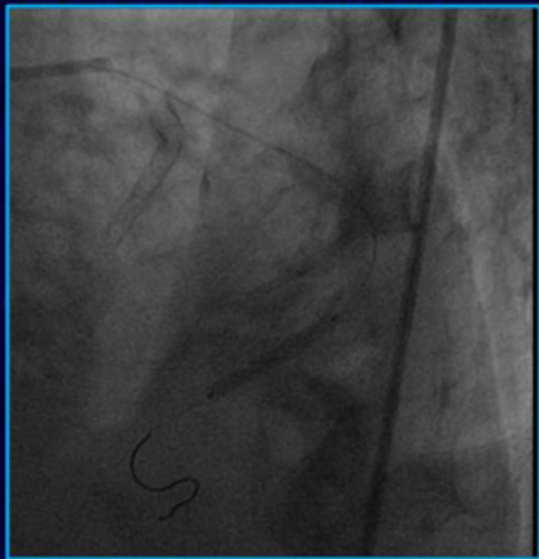
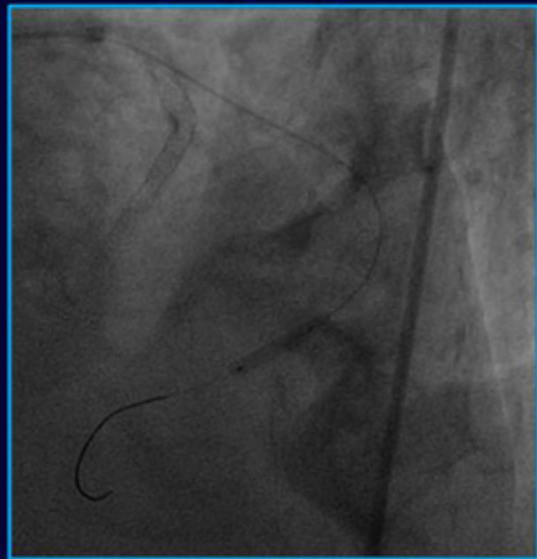


FFR=0.77

Baseline

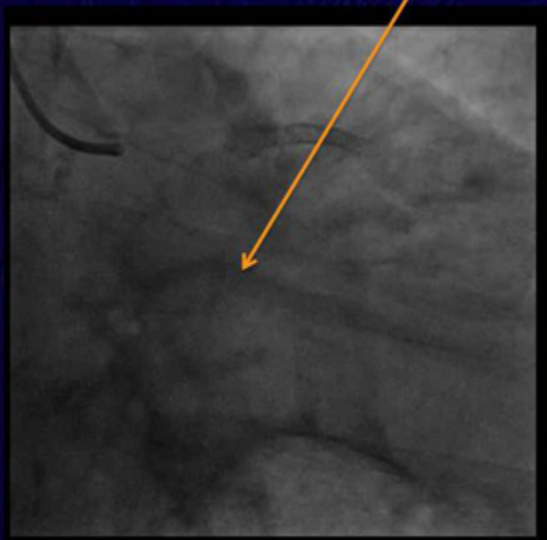
HSR 68124

## Stenting distal LCX lesion

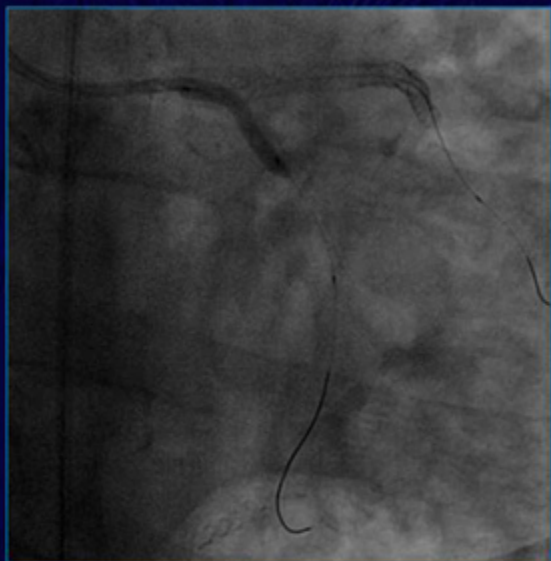
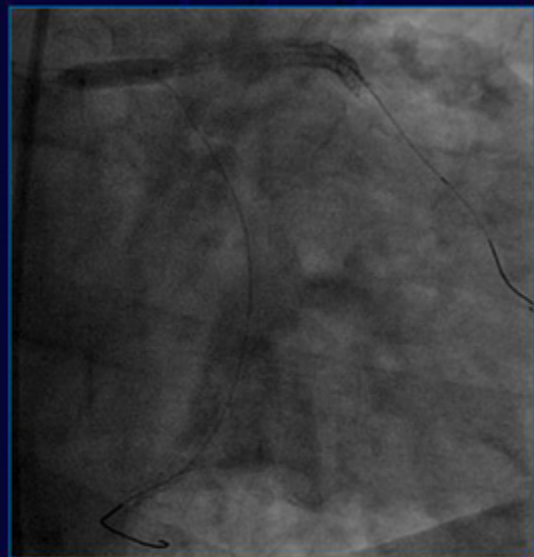


FFR prox. LCX after treatment of  
distal lesion

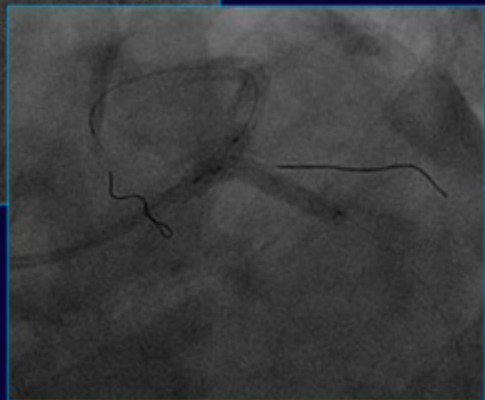
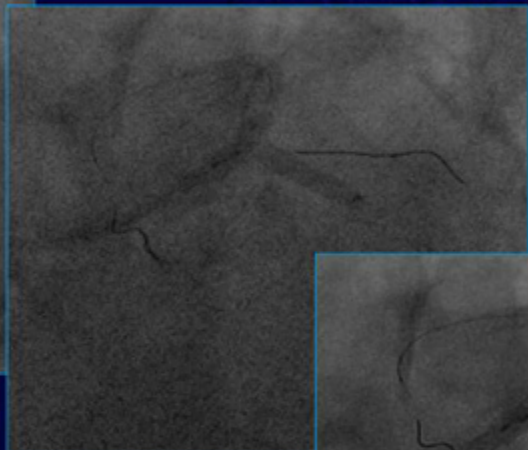
FFR=0.74



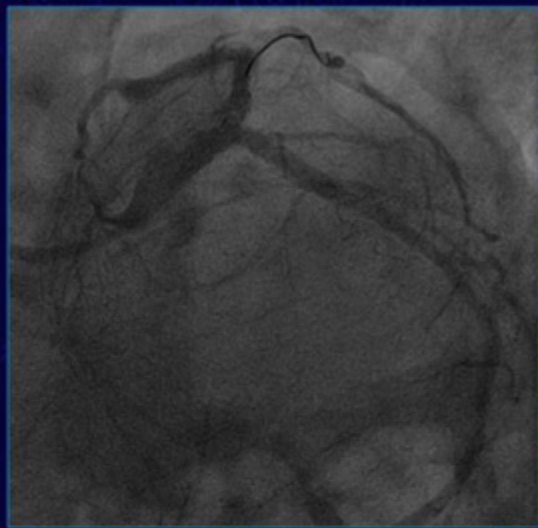
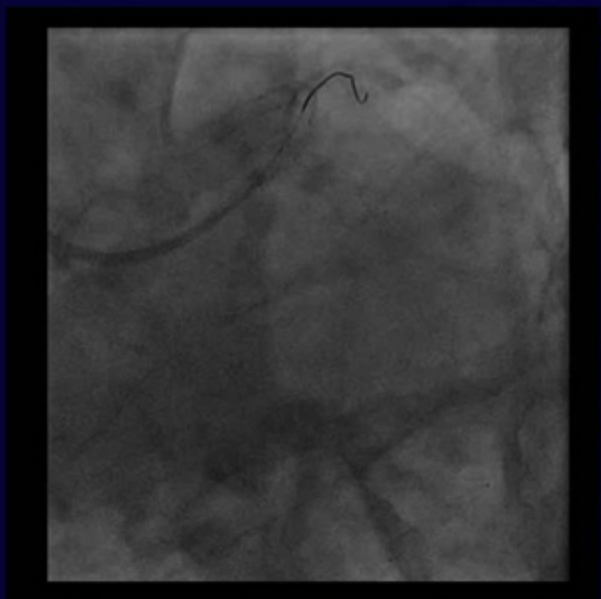
# Treatment of ostial LCx with moderate LM disease



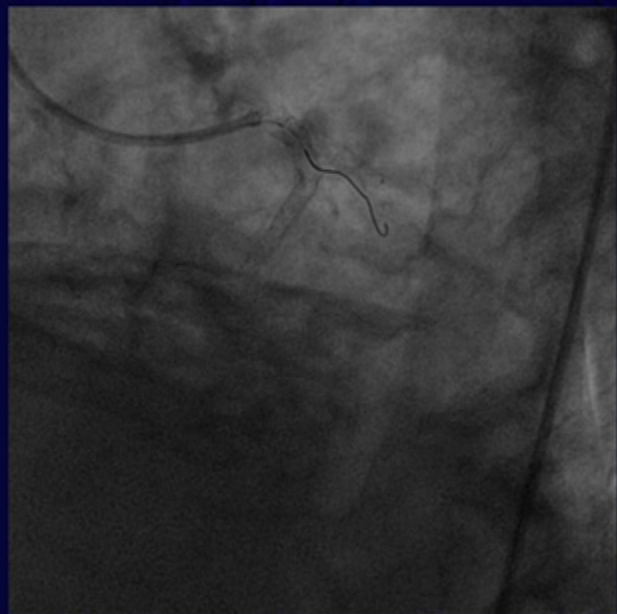
# TAP LM/LCx



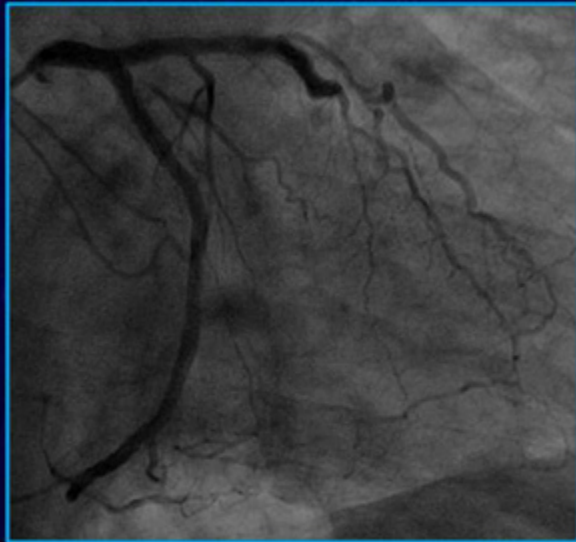
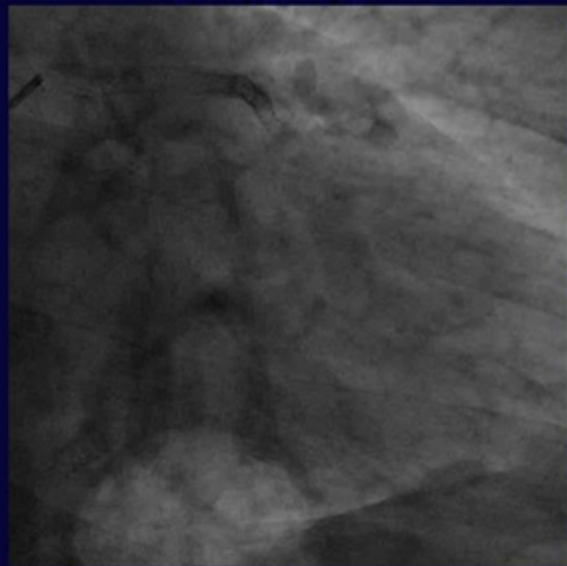




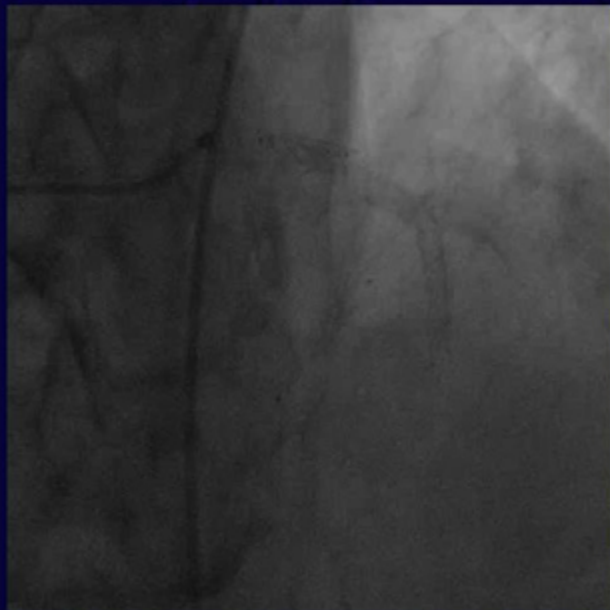




# Final



# Final



# PROBLEMS

## Patient History

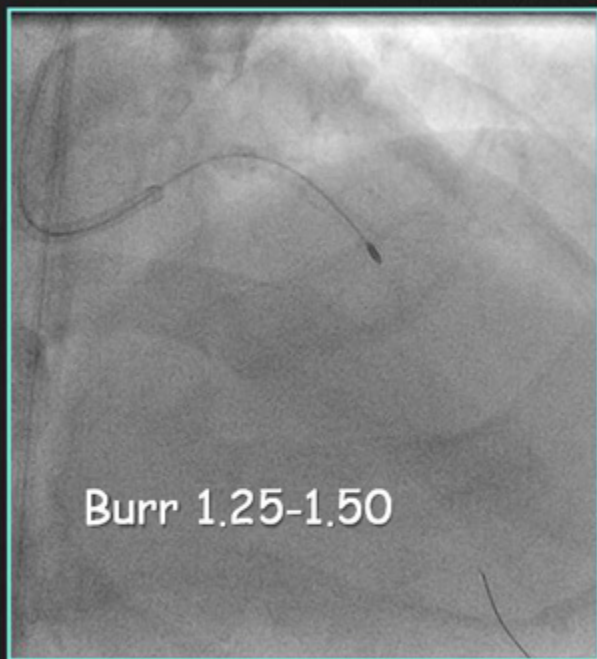
- 71 years old, Male
- Hypercholesterolemia
- Family history
- Hypertension
- LVEF : 50%
- Patient Refused Surgery
- Total Syntax Score 39



Baseline

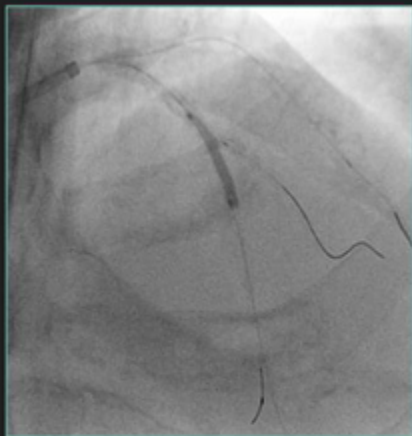


**Baseline**

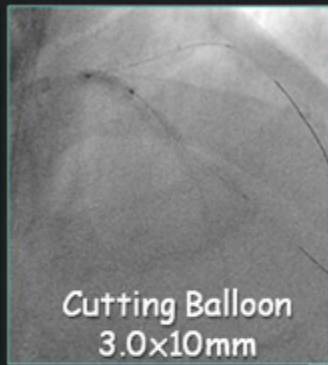


Rotablator Mid-

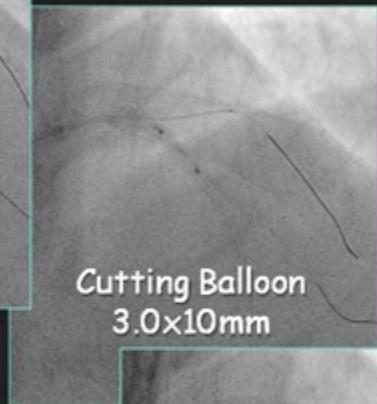




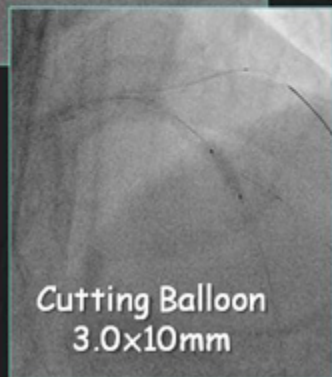
Maverick  
2.0x20mm



Cutting Balloon  
3.0x10mm

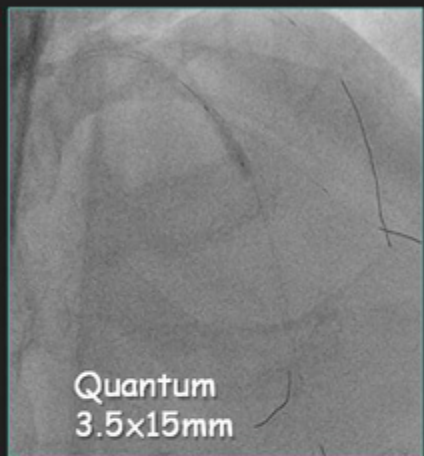


Cutting Balloon  
3.0x10mm



Cutting Balloon  
3.0x10mm

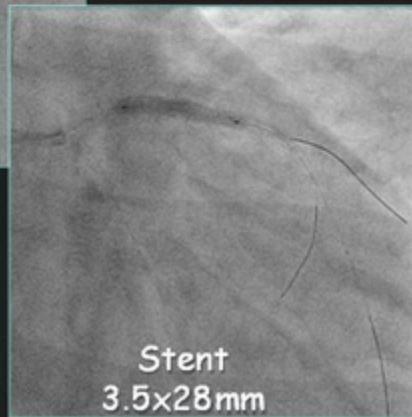
## Lesion preparation



**LAD Pre-dilatation**

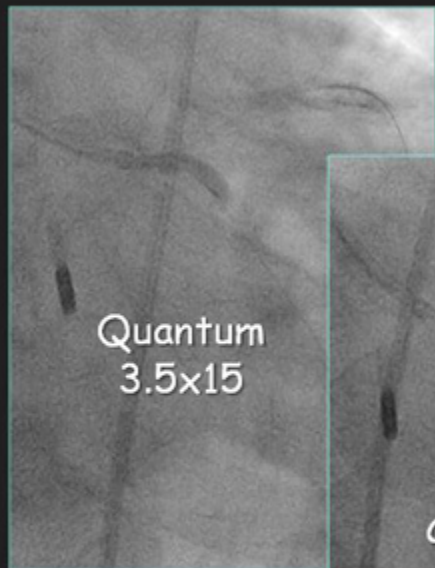


**LAD Stent**

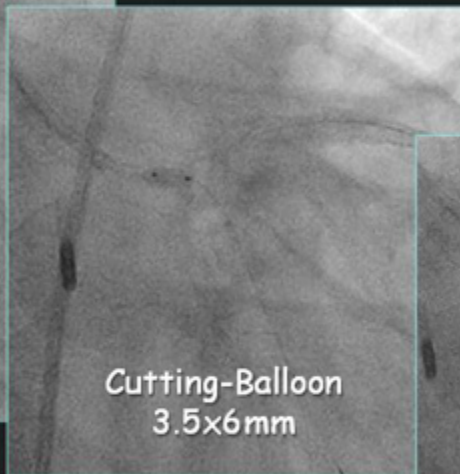




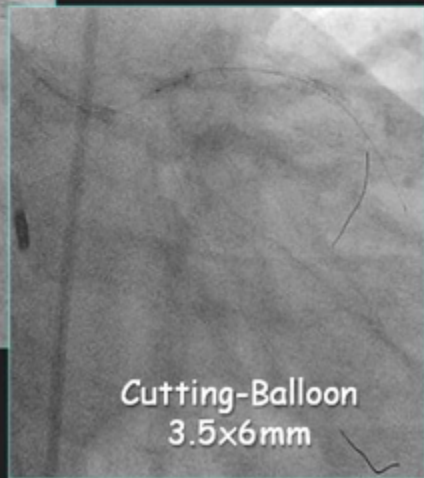
After LAD Stent



Quantum  
3.5x15



Cutting-Balloon  
3.5x6mm



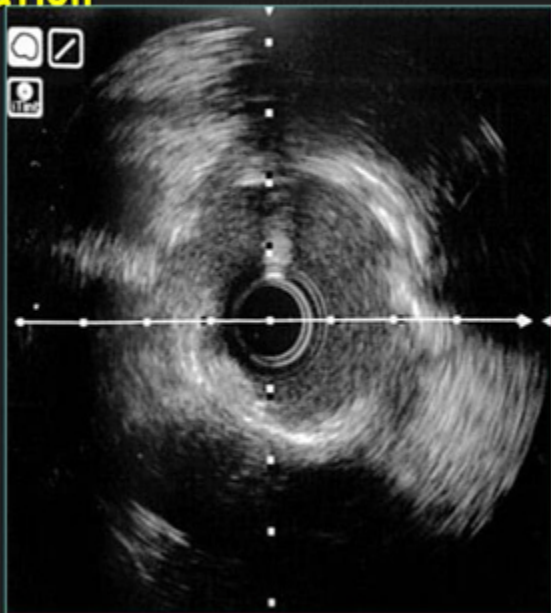
Cutting-Balloon  
3.5x6mm

**LM-LCX  
predilatation**

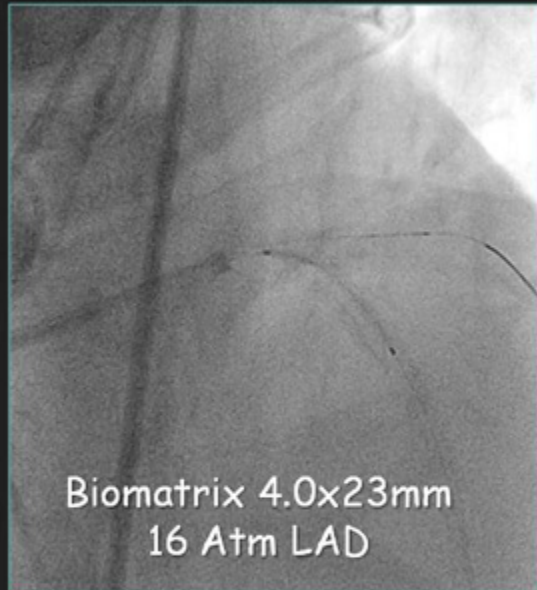
## IVUS evaluation



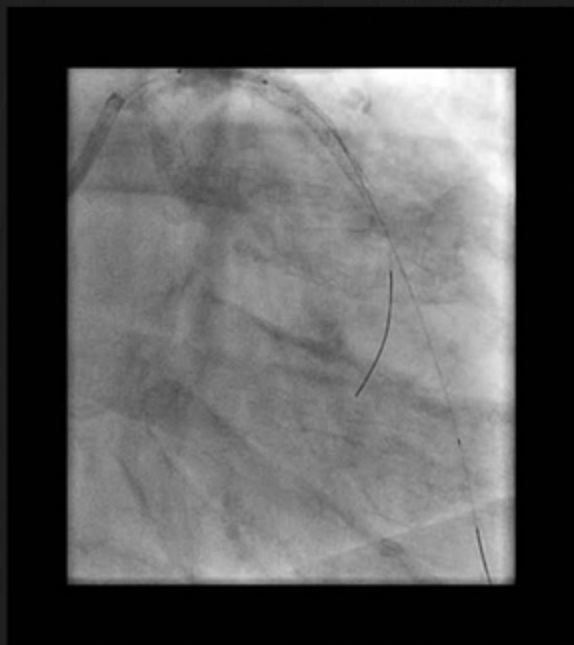
Prox LAD - No  
Stent



Prox LAD - Stent



**Mini-Crush**



Rupture



**PTFE 4.0x16mm  
10 Atm**



**After PTFE  
Stent**

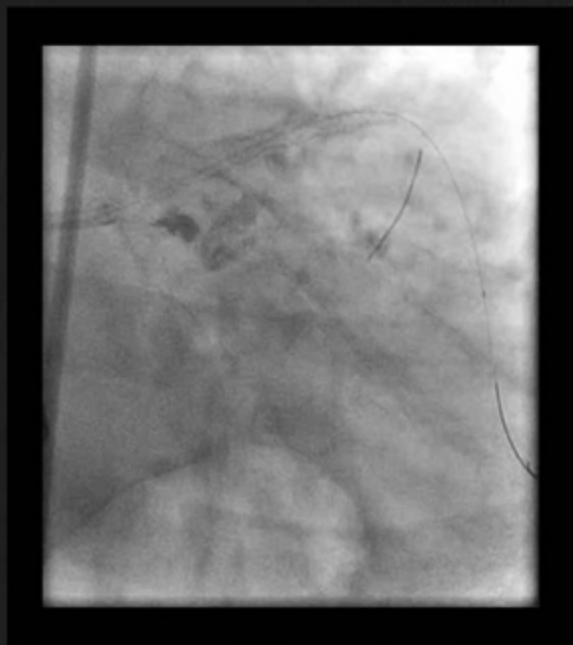




**Positioning PTFE**  
**4.0x16mm**  
**10 Atm**



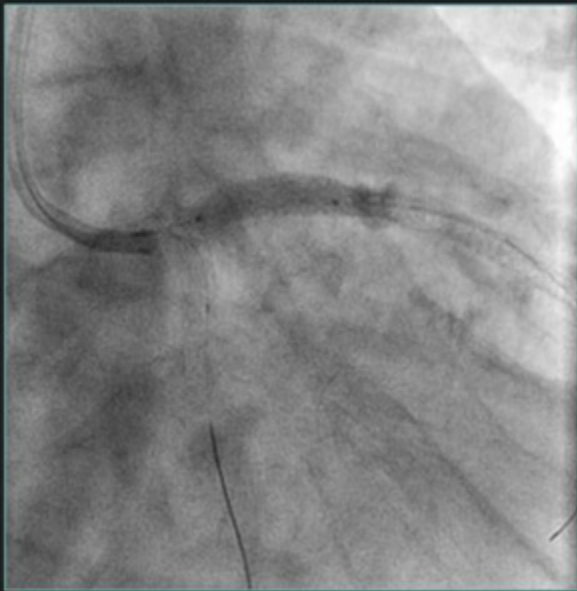
**After PTFE**  
**Stent**







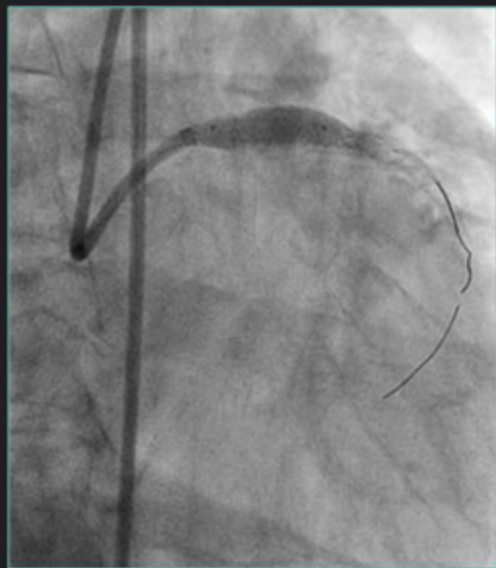
**Second PTFE Stent  
on LAD**



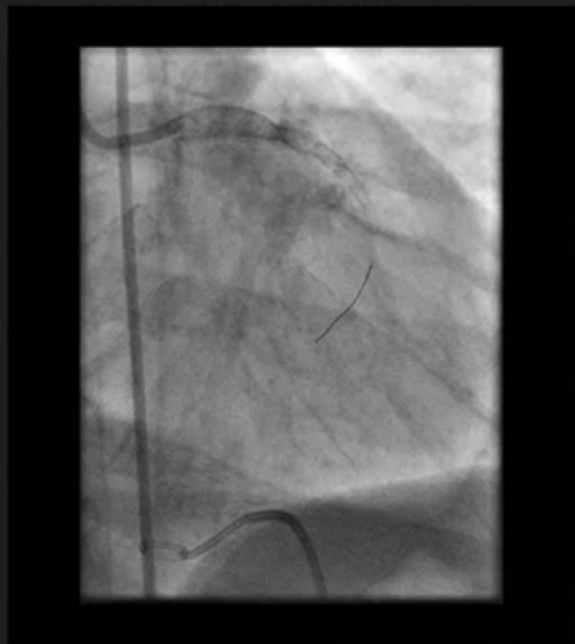
**Post-dilatation  
PTFE Stent**



After Second PTFE  
Stent on LAD



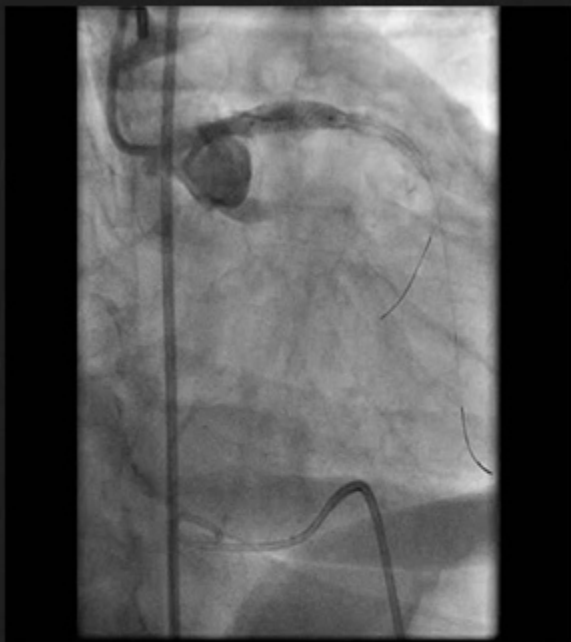
**Third PTFE Stent**



**After Third PTFE  
Stent**



After Third PTFE  
Stent

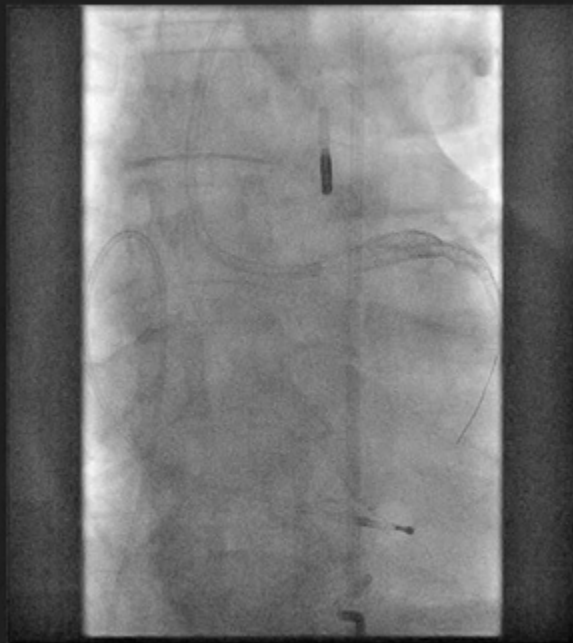


PTFE from LAD into LM excluding LCX





**Gaining access to LCX**



Opening toward LCX

## Summary of actions since rupture

4 mm 16 mm covered stent 14 atm.

Quantum 3.5 mm 15 mm 18 atm.

4 mm 16 mm covered stent 16 atm.

Maverick 4 mm 20 mm 10 atm.

6 mm 15 mm covered stent 15 atm.

6 mm 15 mm covered stent 16 atm.

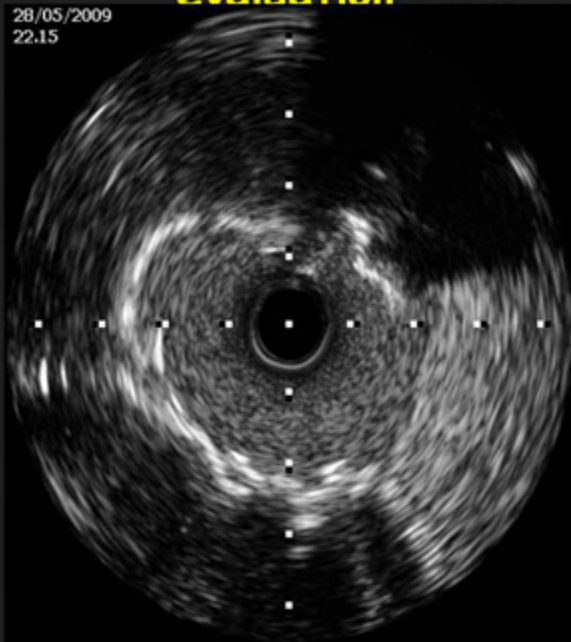
4 mm 19 mm covered stent 15 atm.

3.5 mm 19 mm covered stent 16 atm.

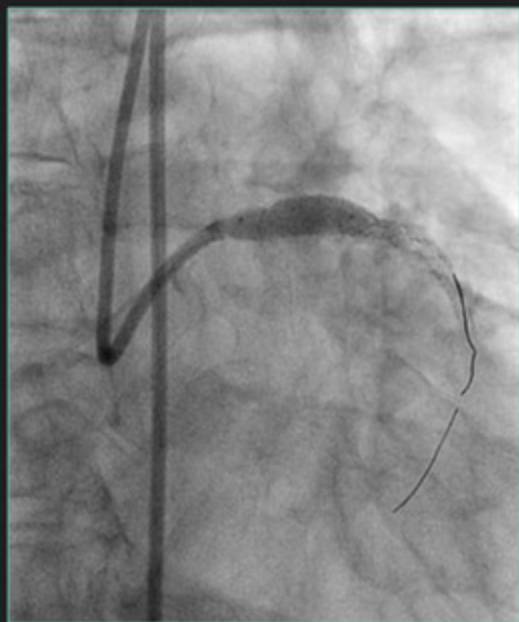
# IVUS evaluation

28/05/2009

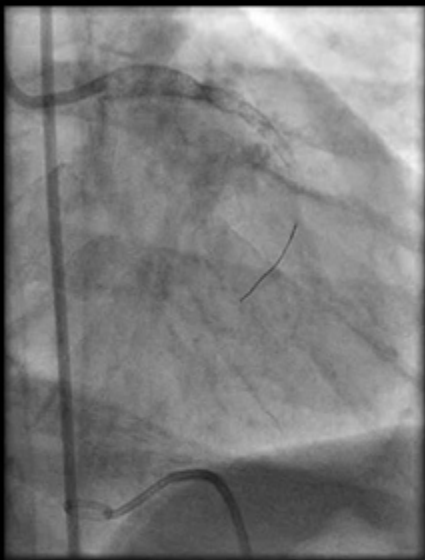
22.15



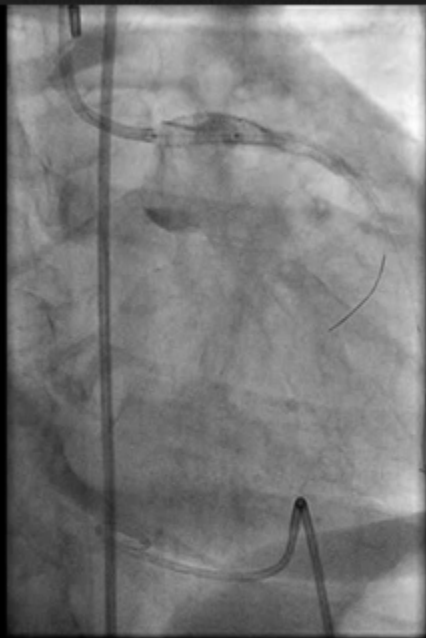
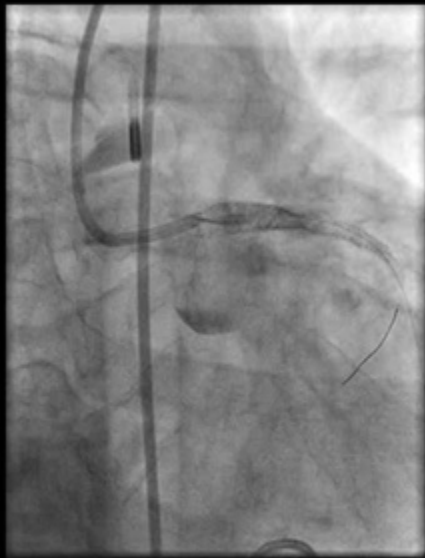
IVUS cine run

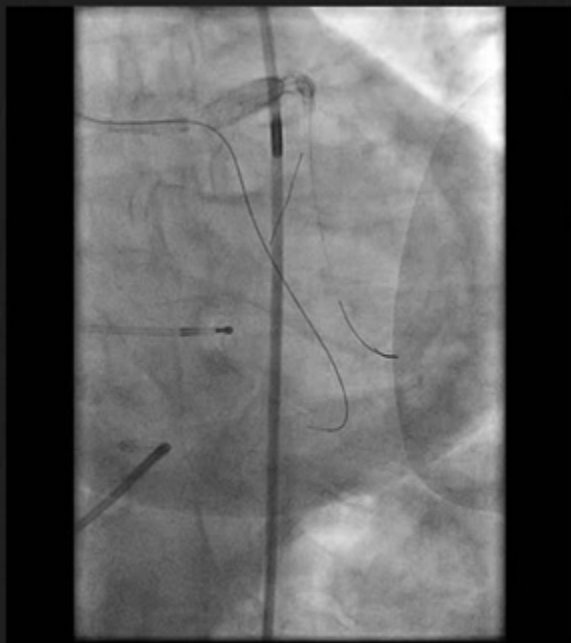


**Total of 6 PTFE (4.0-5.0-  
6.0x16mm ) implanted on LM-LAD**



**After multiple  
PTFE Stent**





**Cardiac Arrest**



Unsuccessful surgical sealing of prox. LAD with tissue glue