


# Left main stenting in 2017

DR CHAN KA CHUN ALAN  
QUEEN ELIZABETH HOSPITAL  
HONG KONG SAR

- 
- ▶ The evidence of LM stenting in 2017
  - ▶ Debate of CABG vs PCI for LM
  - ▶ Interventional technique/stenting strategy
  - ▶ Functional and anatomical assessment of Left main lesion

# Case summary

- ▶ 69/M
- ▶ Hyperlipidaemia
- ▶ Effort angina class III with CT coronary angiogram showing severe calcified three vessel disease
- ▶ Echocardiogram showed preserved left ventricular function
- ▶ Coronary angiogram confirmed left main and triple vessel disease
- ▶ CABG was offered but refused by the patient

# ▶ Syntax score 40

2.81

## RISK SCORES

About the STS Risk Calculator

Procedure: CAB Only

---

Risk of Mortality: 0.699%

---

Morbidity or Mortality: 8.625%

---

Long Length of Stay: 2.652%

---

Short Length of Stay: 57.017%

---

Permanent Stroke: 0.985%


---

Prolonged Ventilation: 5.292%

---

DSW Infection: 0.121%

## SYNTAX Score II



*Decision making -between CABG and PCI- guided by the SYNTAX Score II to be endorsed by the Heart Team.*

**PCI**

SYNTAX Score II:	35.4
PCI 4 Year Mortality:	10.5 %

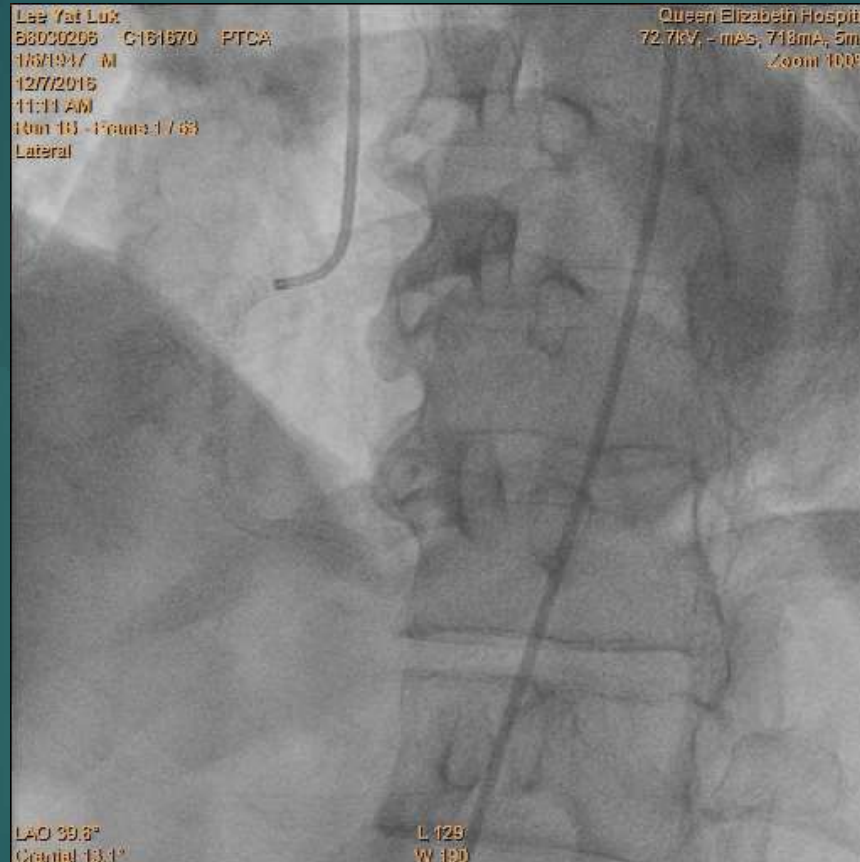
**CABG**

SYNTAX Score II:	34.2
CABG 4 Year Mortality:	9.6 %

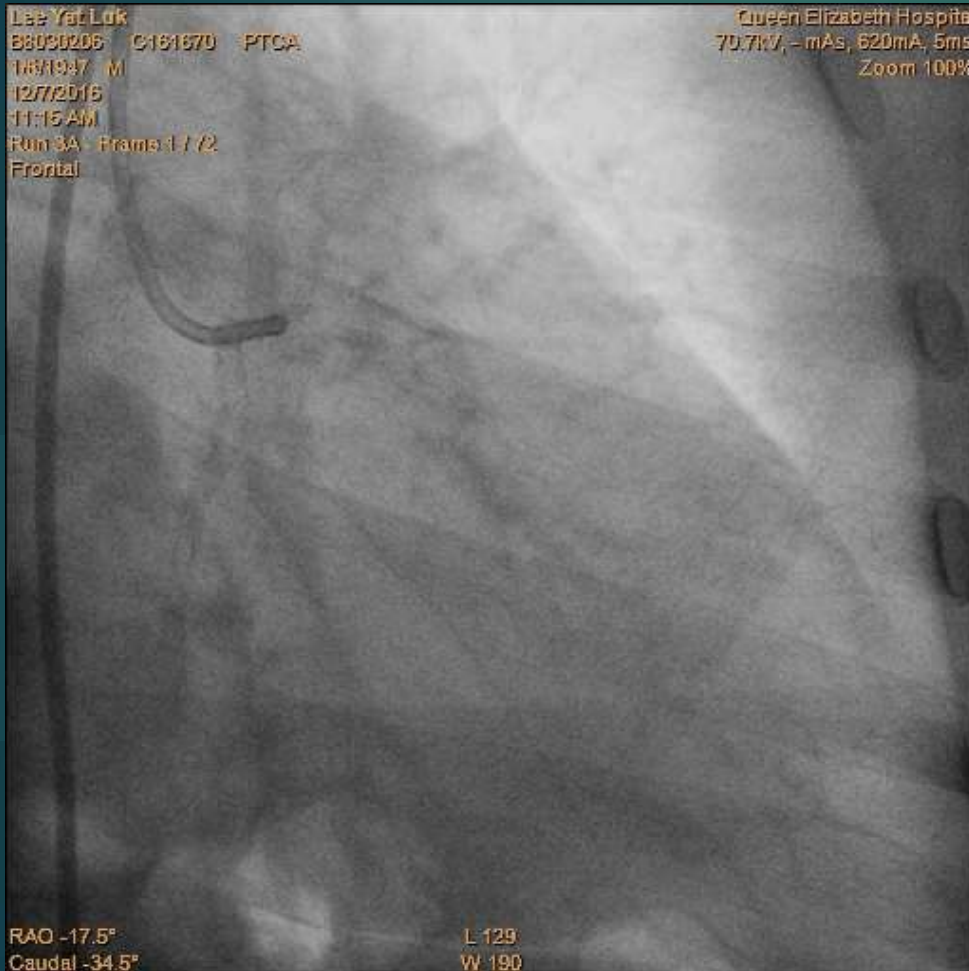
---

*Treatment recommendation* ⓘ: CABG or PCI

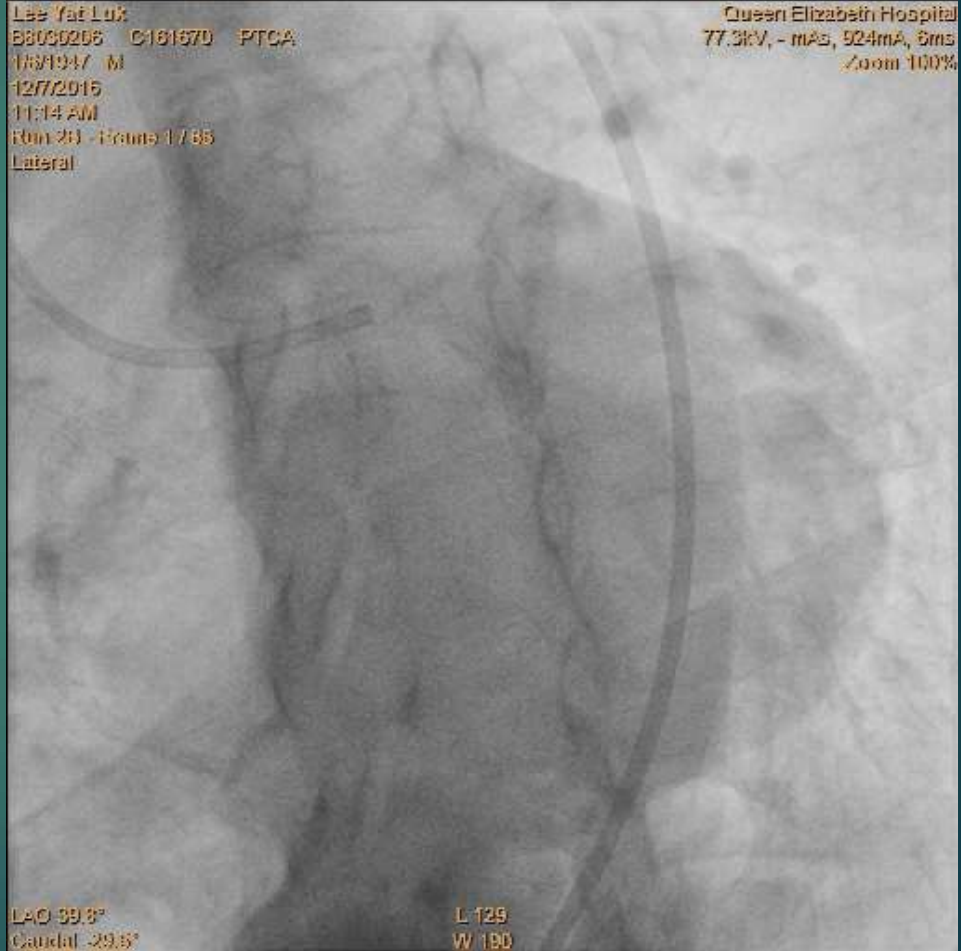
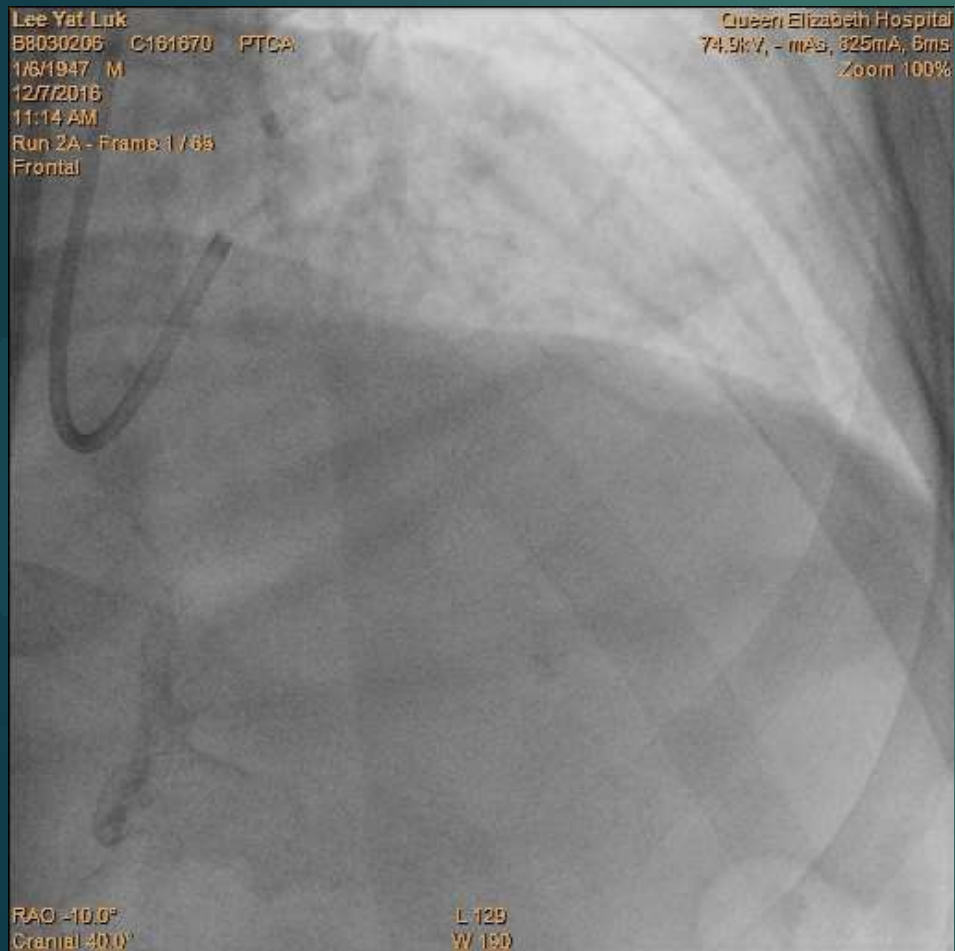
# PCI to RCA with rotablation



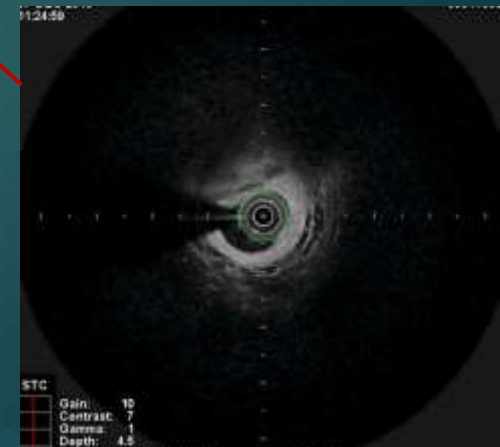
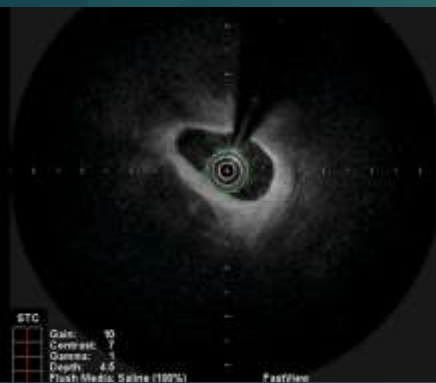
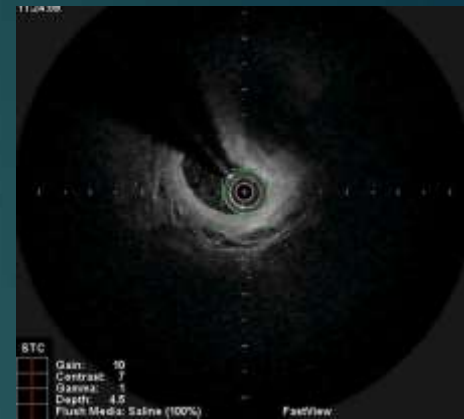
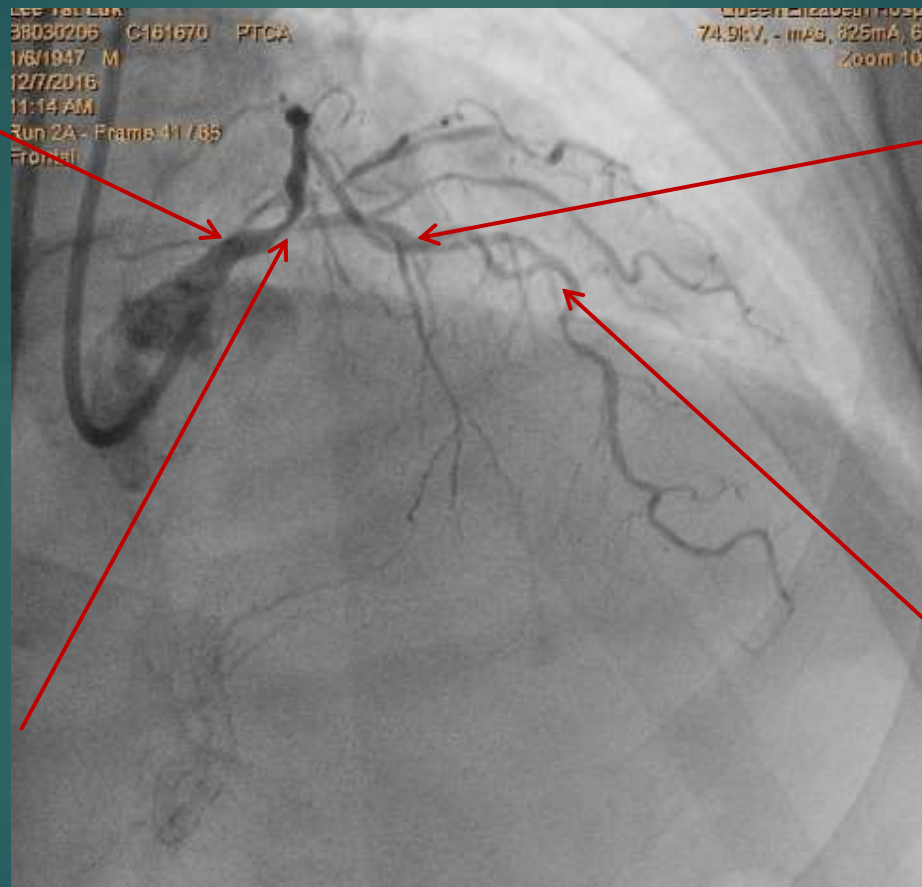
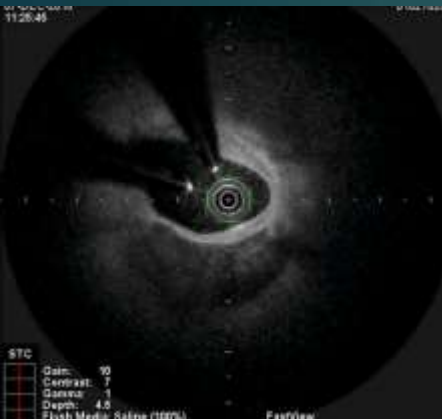
# Stage PCI to LCA



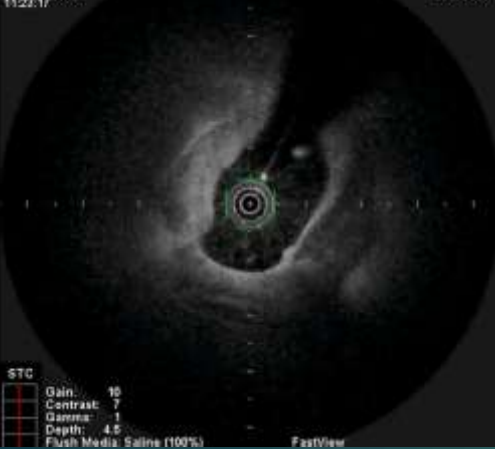
- ▶ 7F RFA
- ▶ XB 3.5 guide
- ▶ LAD/LCX wired
- ▶ OFDI guide PCI



# Baseline angiogram with OCT image

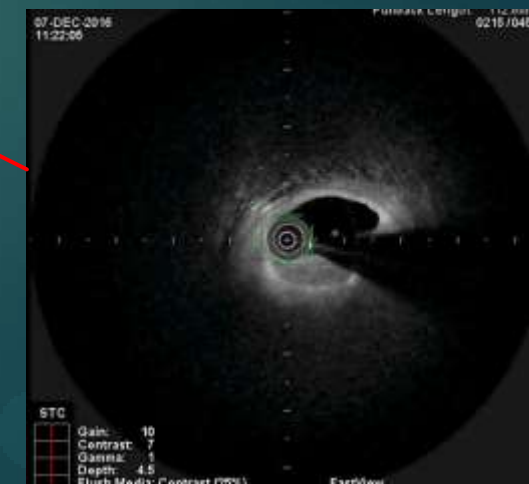
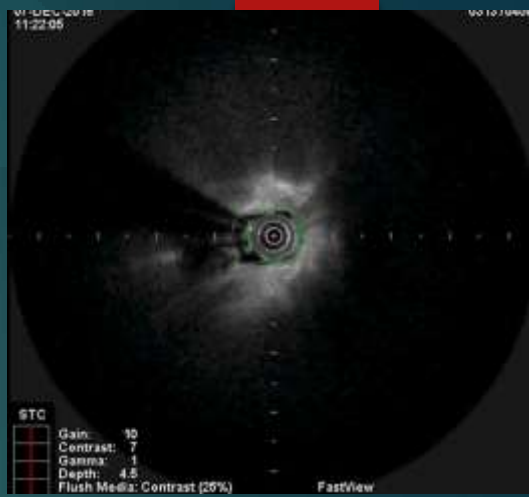
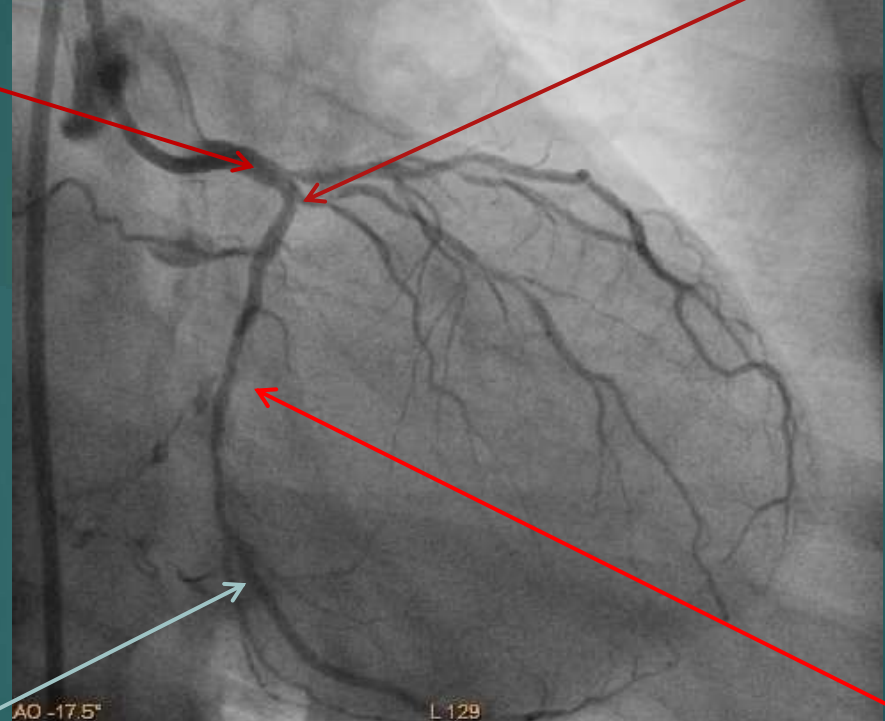






8080206 C161870 PTCA  
18/12/16 M  
27/12/16  
1:15 AM  
Un SA - Frame 43 / 72  
rotal

70.7kV, - mA, 620mA, E  
Zoom 10



# Procedural strategy

- ▶ Diffuse calcified LAD and LCX
- ▶ LMN bifurcation 1,1,1
- ▶ Bifurcation angle close to 90 degree
- ▶ oLAD RVD 3.5mm, distal LAD RVD 2.5mm
- ▶ oLCX MLA 1.72mm<sup>2</sup>, RVD 3mm, distal LCX RVD 2.5mm
- ▶ LMN RVD 4mm

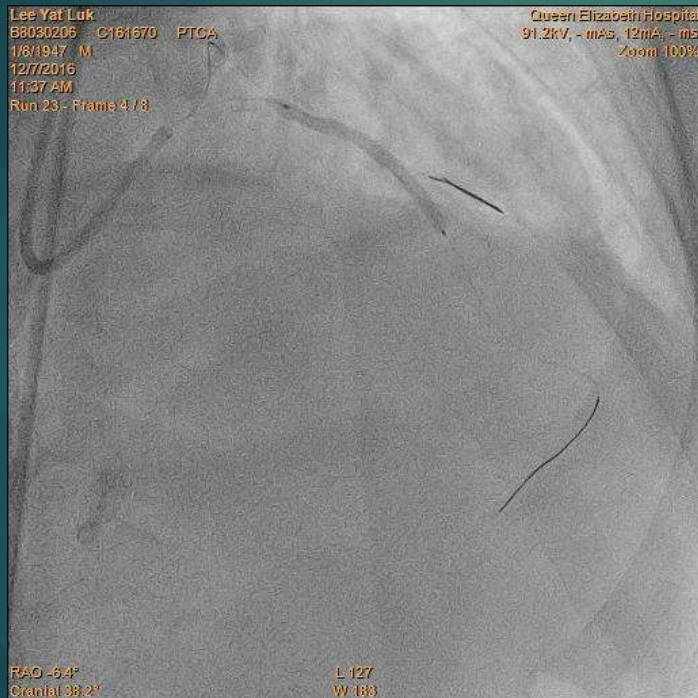
# Stenting technique

- ▶ one stent vs 2 stent?
- ▶ Culotte stenting?
- ▶ DKC stenting?
- ▶ T or TAP stenting?

# culotte stenting decide for left main 1,1,1 lesion

2.5 long DES to mid LAD  
after lesion predilation

2.5 long DES to mid LCx  
after lesion predilation



# Culotte stenting

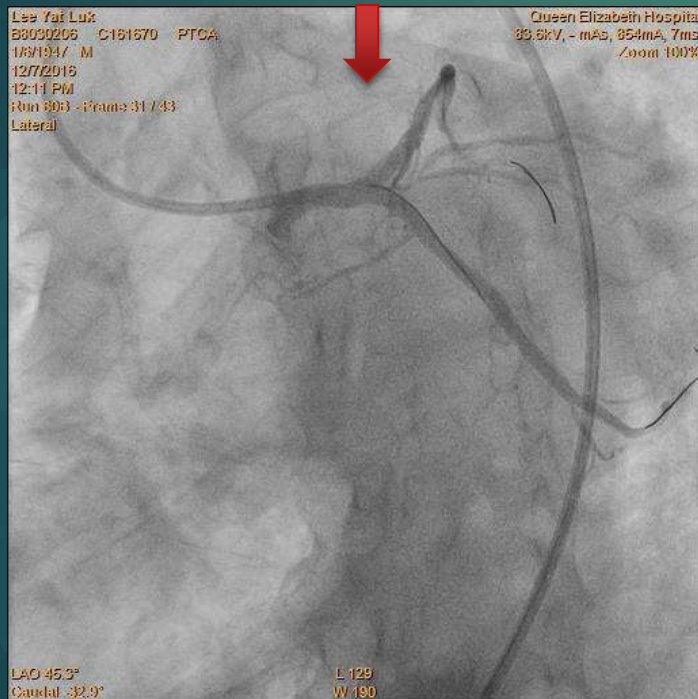
3.0 DES from Left Main to LCX follow by 4.0 Balloon POT ( proximal optimization technique)

2 guidewires exchange and 3.5 DES from Left main to LAD followed by POT with a 4.0 balloon

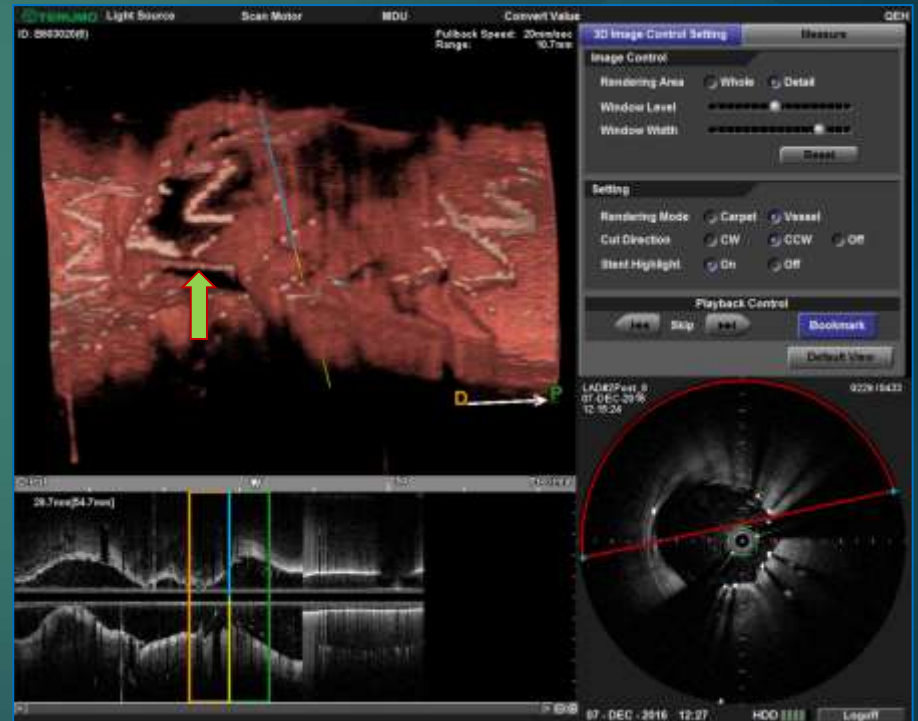




# Distal cell crossing



# Confirmed by 3D OCT

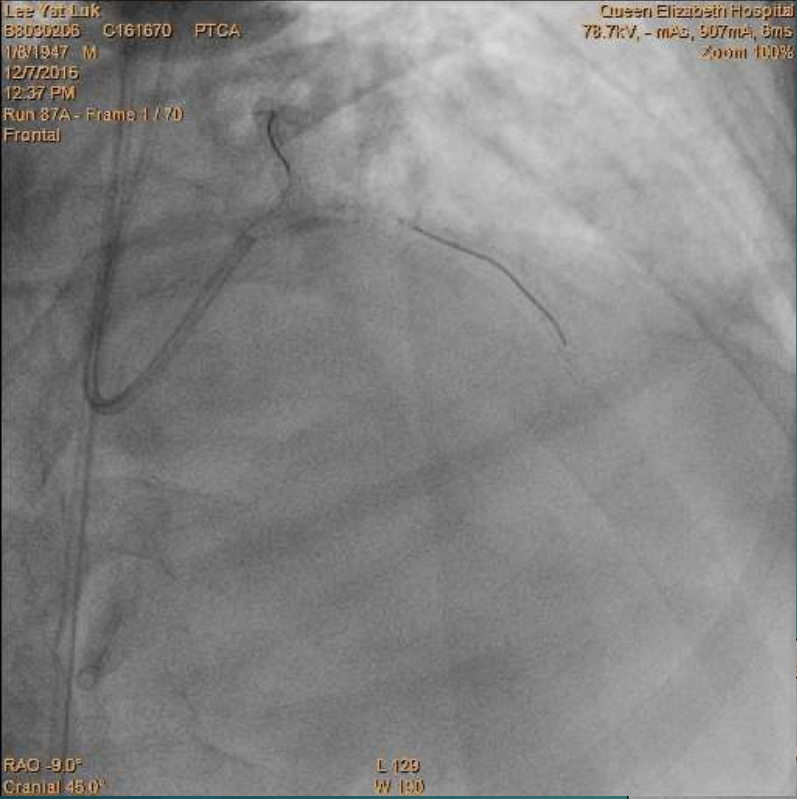


Kissing balloon inflation with 3.5 and 3.0 non compliant balloon



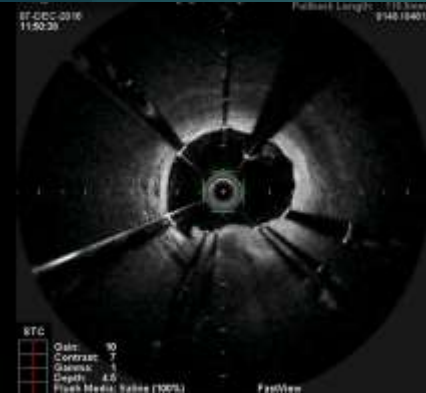
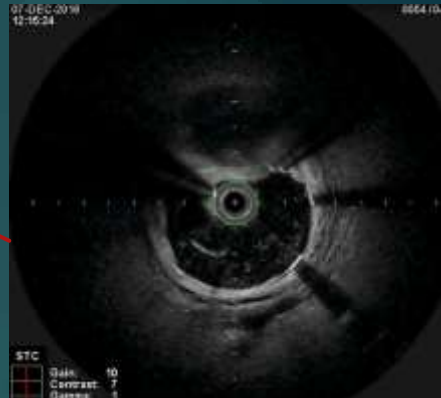
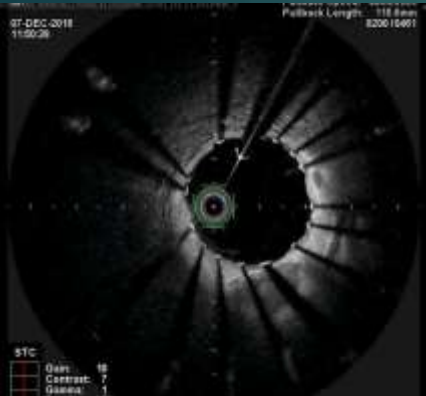
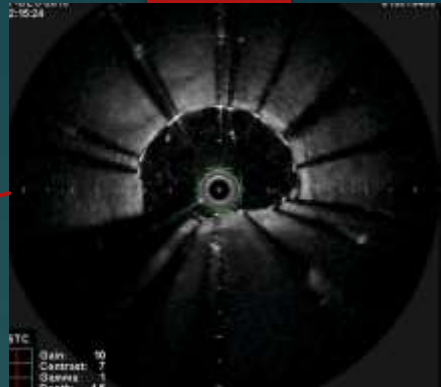
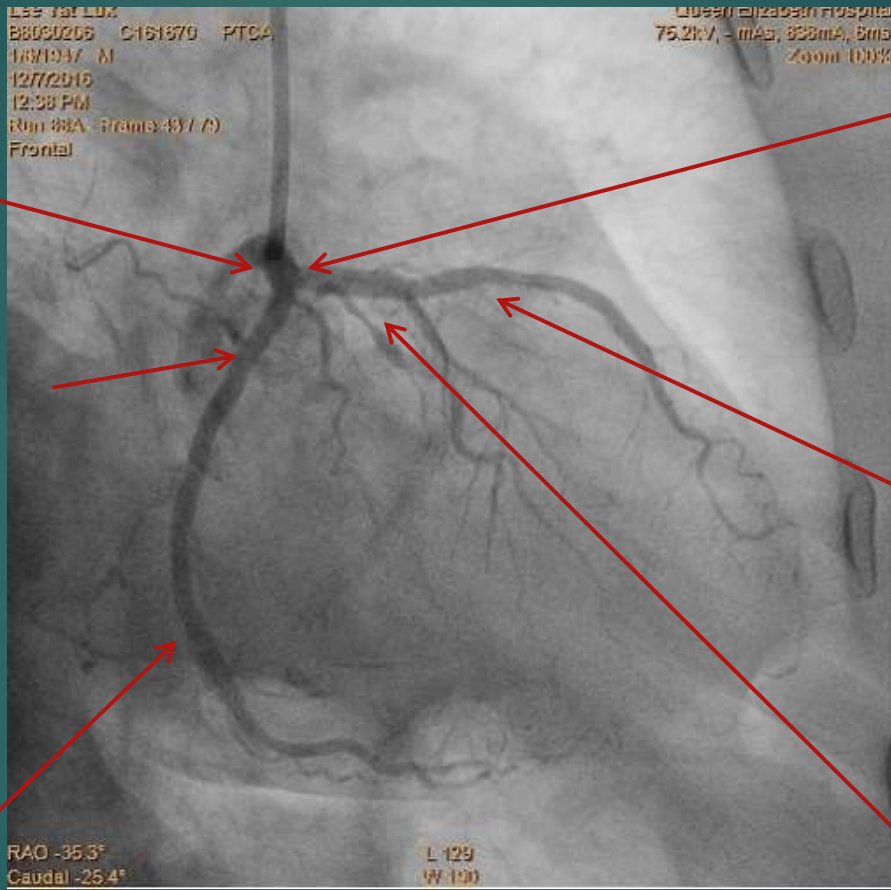
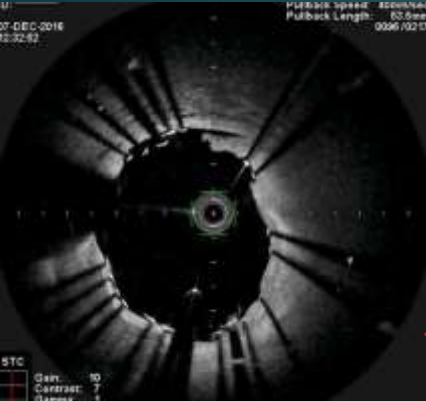
POT with a 4.0 non compliant balloon







# Finishing angiogram/OCT run



# summary

- ▶ Complex LM bifurcation lesion was treated
- ▶ 2 stent technique with culotte stenting strategy was chosen
- ▶ Intracoronary imaging was used to optimize PCI outcome