

# **COMPLEX PCI in the Elderly**

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**Busan- KOREA, 08 DEC 2018**

# Potential conflicts of interest

Speaker's name: Ho Thuong Dung

I have the following potential conflicts of interest to report:

**Consultant, Institutional grant/research support:**

*Abbott*

*Medtronic*

*Terumo*

*Biotronik*

*Roche*

*AstraZenca*

*Sanofi Synthelabo*

*Boehringer Ingelheim*

# ***CASE N ° 1 – Medical History***

76 years old, Male

- **Cardiovascular risk factors:** HTA, ex-smoker, Hyper-LDL-C
- **Current admission:** NSTEMI
- **Laboratory findings:** hs TnT 534 ng/dL, Creatinin: 150  $\mu$ mol/l; e GFR: 28.12ml/min; Pro-BNP: 746,9 pg/ml
- **ECG:** sinus rhythms, Q wave at DIII, aVF.
- **Physical exam:** Unremarkable
- **Echocardiography:** Normal LV size. LVEF 55%. Mild MR

# Võ Văn L., 2017

## RCA- Coronary Angiogram

A/Prof Ho Thuong Dung, HCM city, VN



# Võ Văn L., 2017

## LCA- Coronary Angiogram

A/Prof Ho Thuong Dung, HCM city, VN



# Our real practice

**SYNTAX SCORE= 37**

- *Some very difficult challenging cases* were sent to cathlab with ***over-Indication for PCI***
- The patients had already ***refused/declined CABG***

**WHAT CAN WE DO?**

# Revascularization for CAD

## *How to decide?*

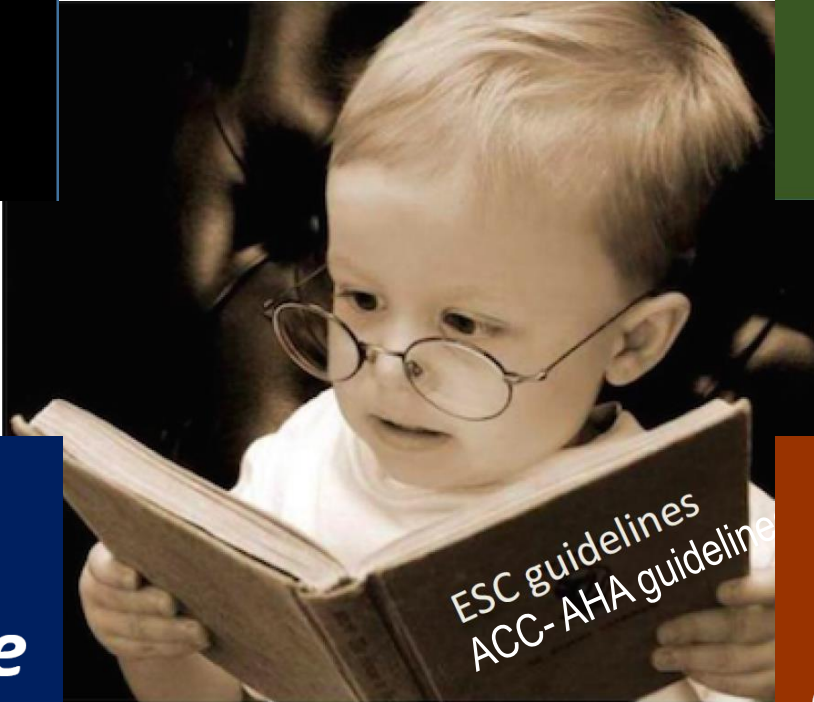
**2018**

*Coronary  
Anatomy*

*Patient  
Preference*

*Local expertise*

*Medical  
Co-morbidities*



# 2018 ESC/EACTS Guidelines on myocardial revascularization

**Type of revascularization in patients with stable coronary artery disease with suitable coronary anatomy for both procedures and low predicted surgical mortality (2)**

Recommendations according to extent of CAD	CABG		PCI	
	Class	Level	Class	Level
<b>Left main CAD</b>				
Left main disease with low SYNTAX score (0-22).	I	A	I	A
Left main disease with intermediate SYNTAX score (23-32).	I	A	IIa	A
Left main disease with high SYNTAX score ( $\geq 33$ ). <sup>a</sup>	I	A	III	B

<sup>a</sup> PCI should be considered, if the patient refuses CABG after adequate counselling by the Heart Team.

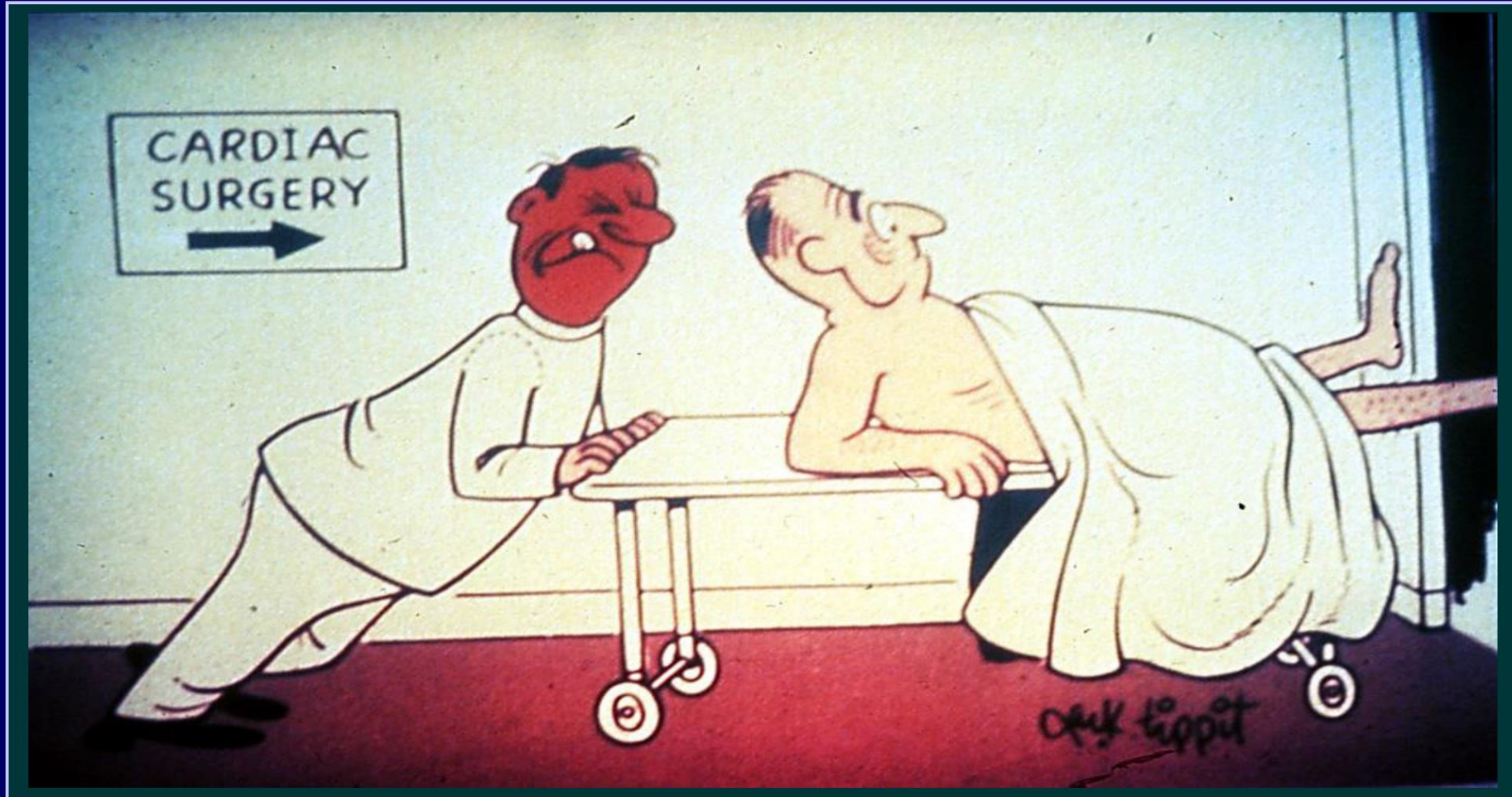
**Class III:** Relative Contraindication !!!



# Patient Preference

A/Prof Ho Thuong Dung, HCM city, VN

## Patient information and consent



1

- Revascularization within 2 weeks if high-risk, otherwise 6 weeks

2

- Operative risk, diabetes and SYNTAX score main contributors

3

- Completeness of revascularization should be prioritized

4

- Heart Team decision-making is crucial

Decision-making for stented PCI based on anatomy AND physiology

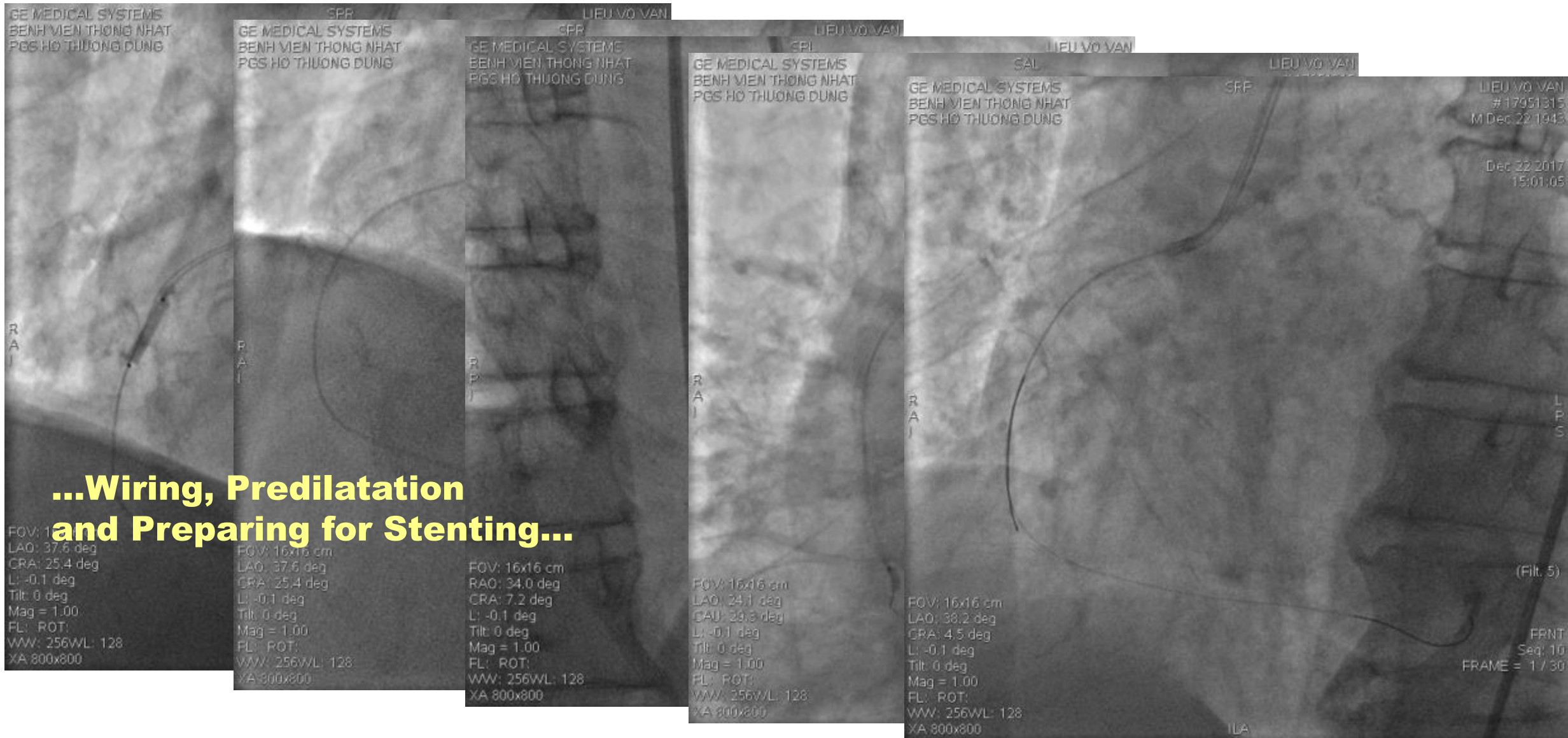
Extent of CAD by SYNTAX score essential for CABG/PCI choices

Presence of diabetes is an important decision modifier by itself

Prognostic importance of achieving complete revascularisation

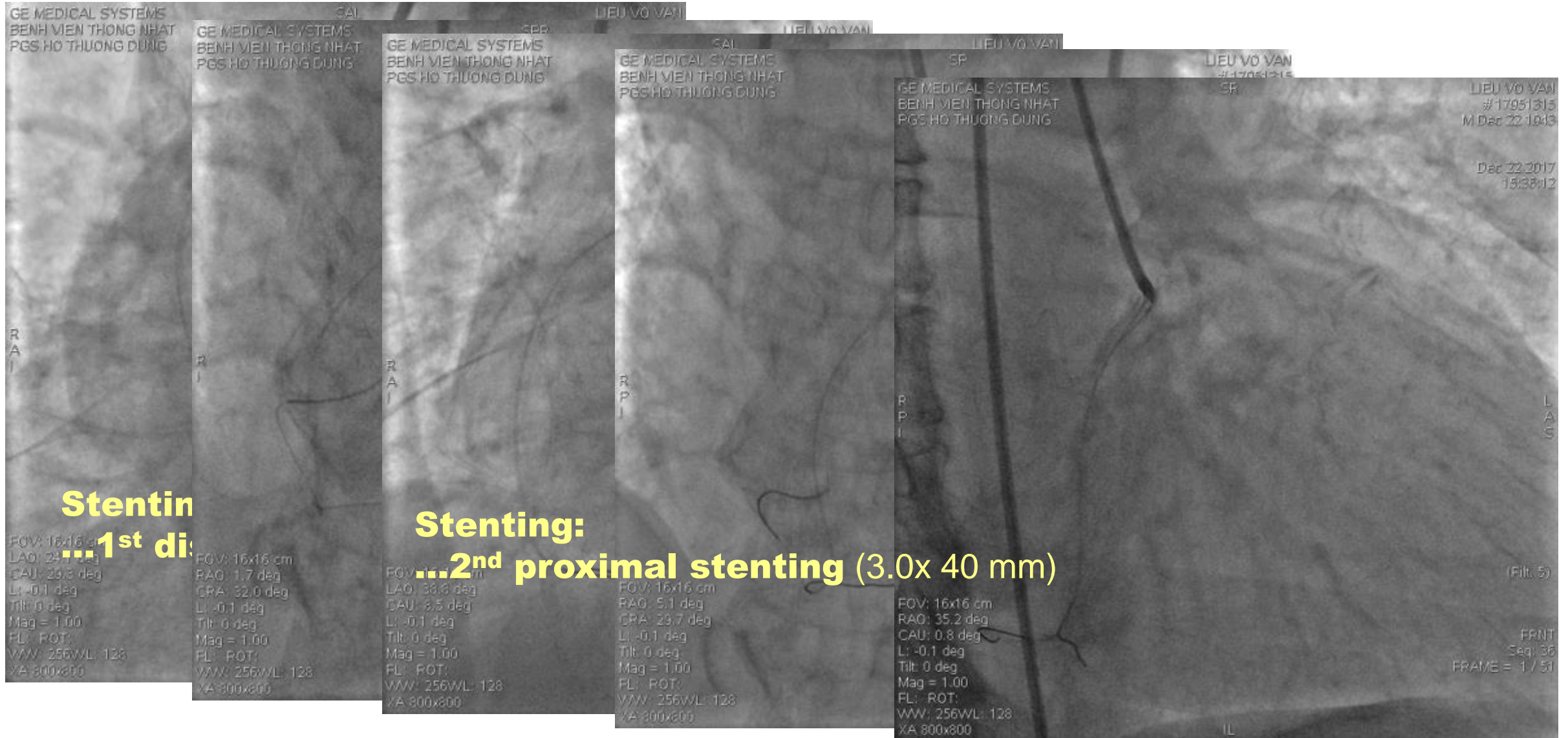
# Võ Văn L., 2017

## RCA- PCI



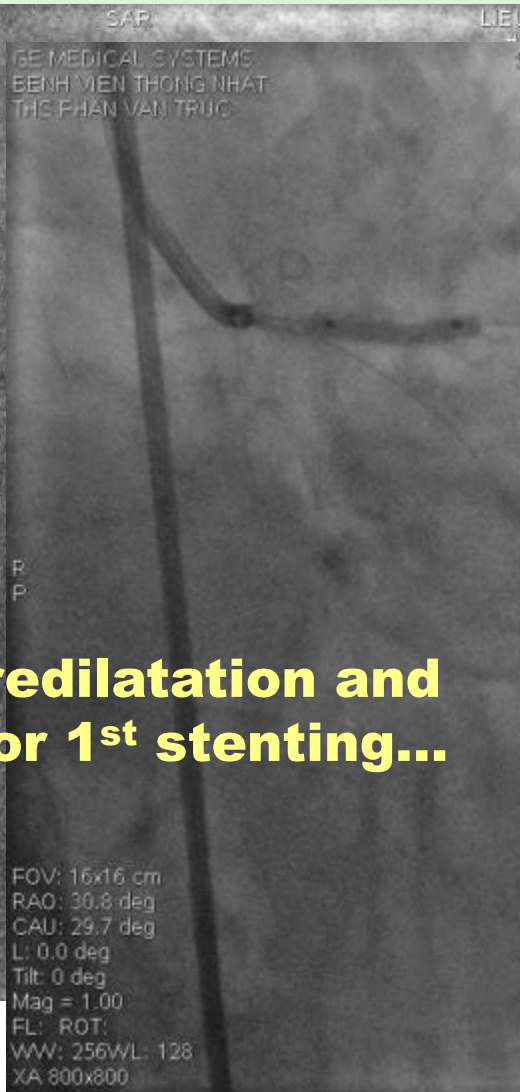
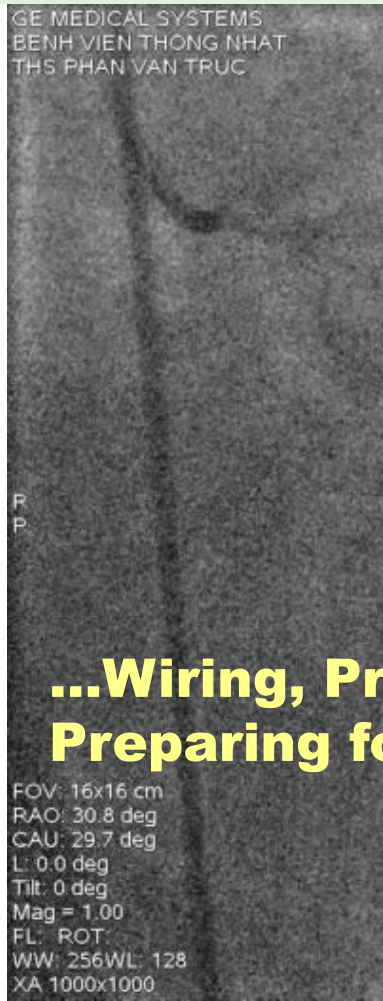
# Võ Văn L., 2017

## RCA- PCI



# Võ Văn L., 2017

## LM/LCA- PCI

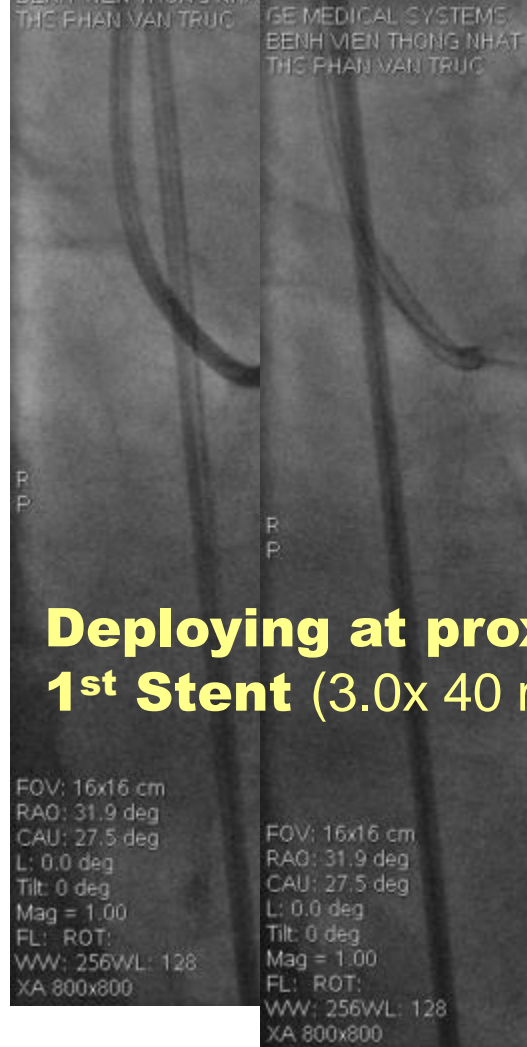


**...Wiring, Predilatation and  
Preparing for 1<sup>st</sup> stenting...**

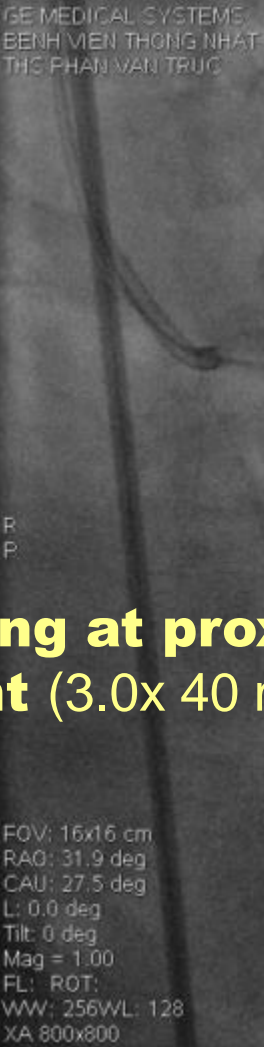
# Võ Văn L., 2017

## LM/LCA- PCI

GE MEDICAL SYSTEMS  
BENH VIEN THONG NHAT  
THS PHAN VAN TRUC



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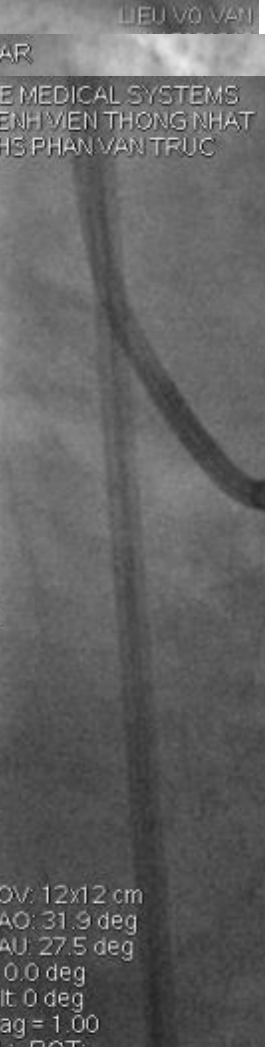
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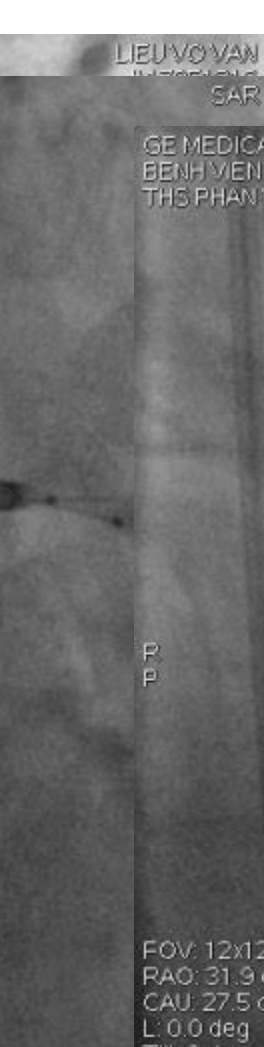
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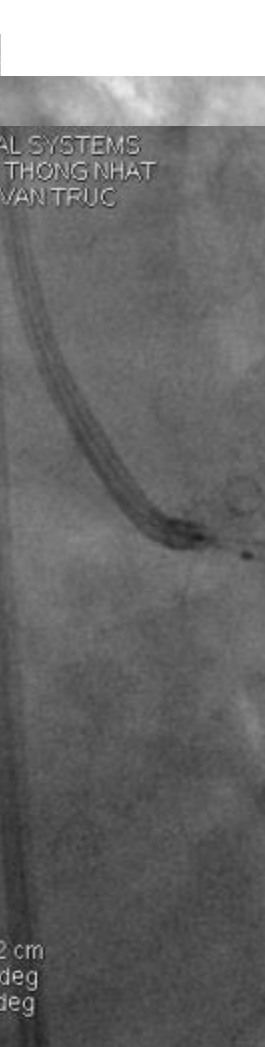
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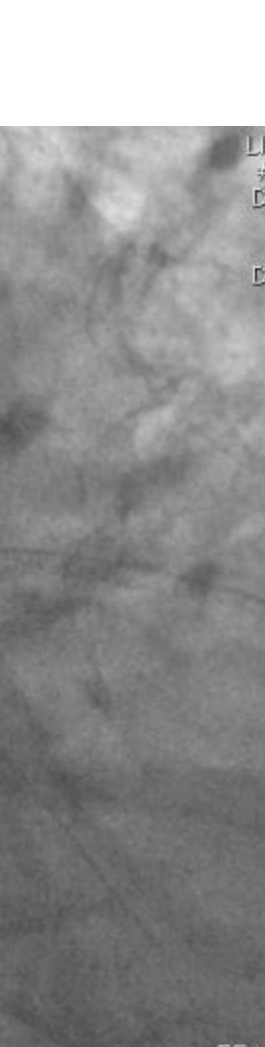
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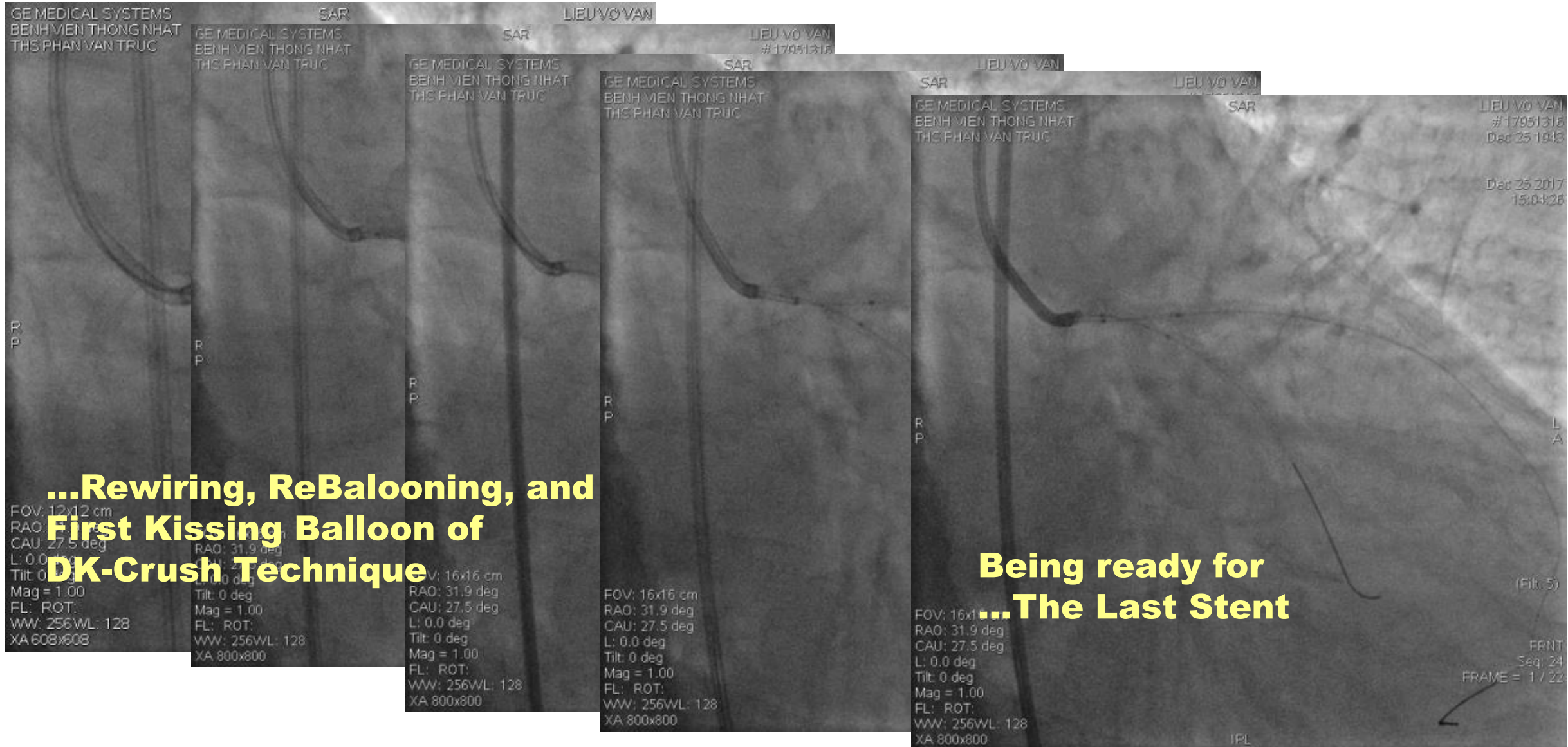


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# Võ Văn L., 2017

## LM/LCA- PCI



# Võ Văn L., 2017

## LM/LCA- PCI

GE MEDICAL SYSTEMS  
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THS PHAN VAN TRUC

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**Positioning for  
The Last Stent**

**(3.5x16 mm)  
At LM-ostio/prox LAD...**

FOV: 12x12 cm  
RAO: 27.5 deg  
CAU: 27.5 deg  
L: 0.0 deg  
Tilt: 0 deg  
Mag = 1.00  
FL: ROT:  
WW: 256WL: 128  
XA 608x608

FOV: 12x12 cm  
LAO: 20.7 deg  
L: 0.0 deg  
Tilt: 0 deg  
Mag = 1.00  
FL: ROT:  
WW: 256WL: 128  
XA 608x608

FOV: 12x12 cm  
LAO: 48.5 deg  
CAU: 29.6 deg  
L: 0.0 deg  
Tilt: 0 deg  
Mag = 1.00  
FL: ROT:  
WW: 256WL: 128  
XA 608x608

FOV: 12x12 cm  
RAO: 34.0 deg  
CAU: 28.7 deg  
L: 0.0 deg  
Tilt: 0 deg  
Mag = 1.00  
FL: ROT:  
WW: 256WL: 128  
XA 608x608

**Deploying  
At LM-ost**

FOV: 16x16 cm  
RAO: 36.7 deg  
CAU: 25.3 deg  
L: 0.0 deg  
Tilt: 0 deg  
Mag = 1.00  
FL: ROT:  
WW: 256WL: 128  
XA 800x800

**The Last Stent...  
DK-Crush Technique**

(Flt: 5)

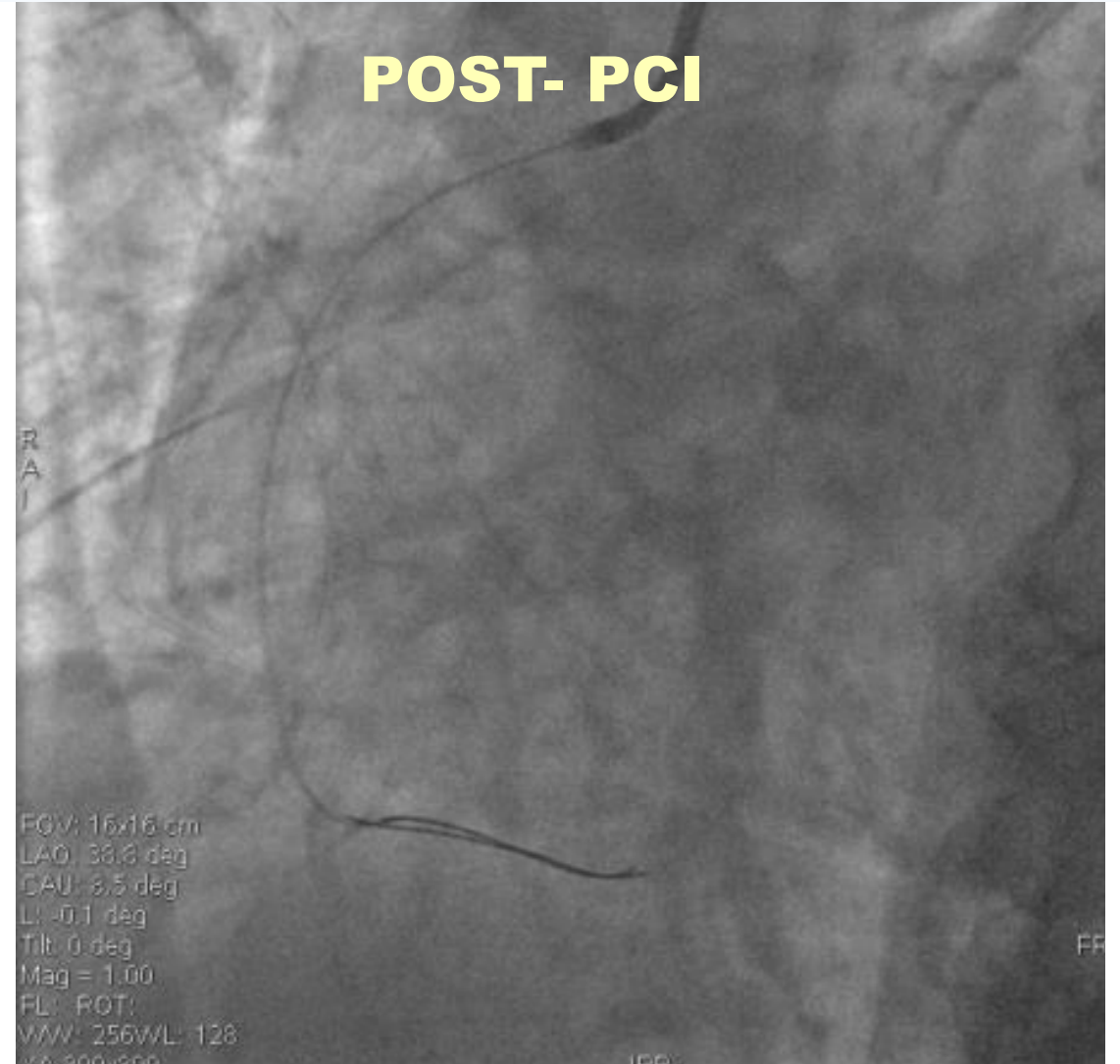
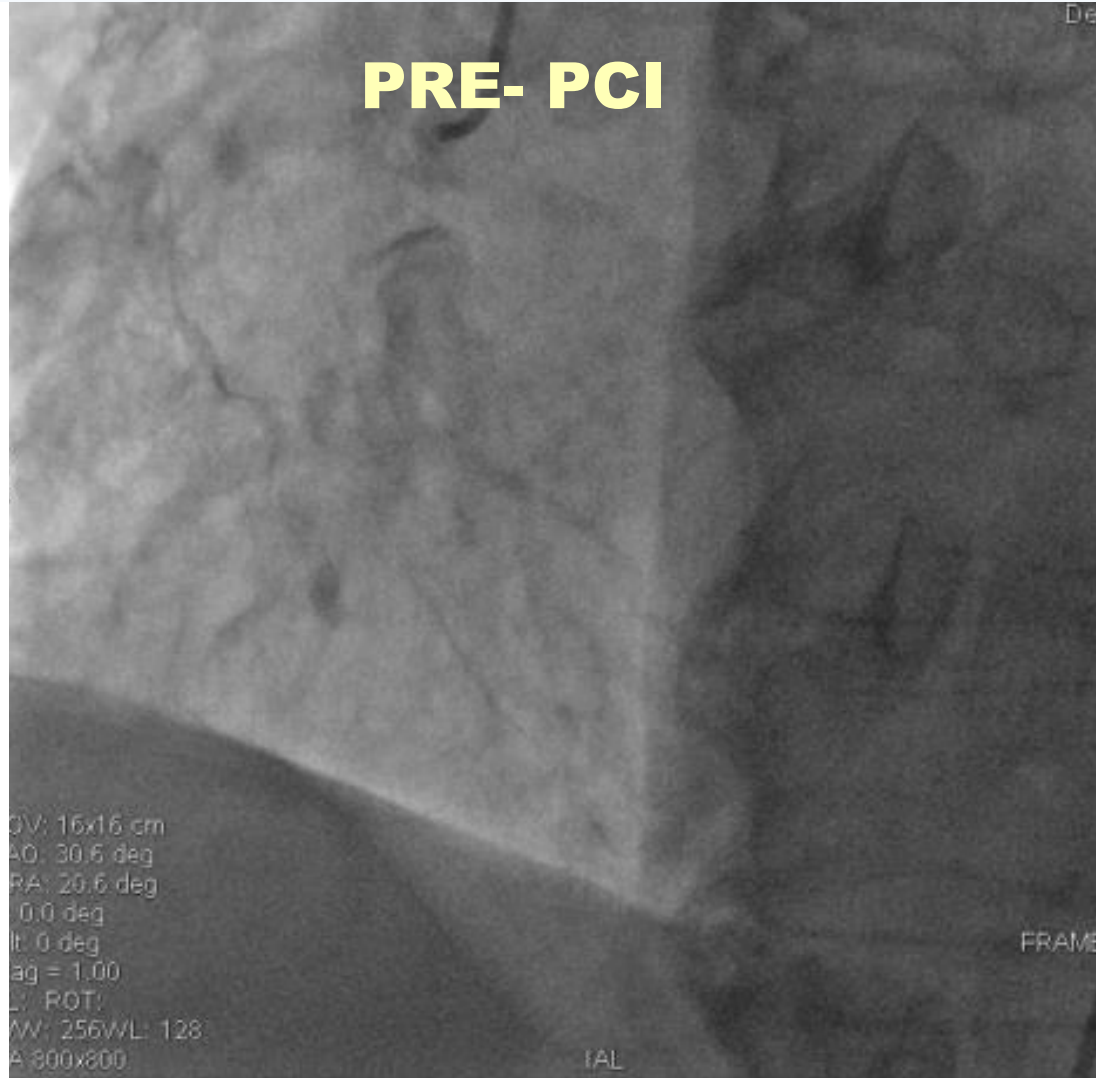
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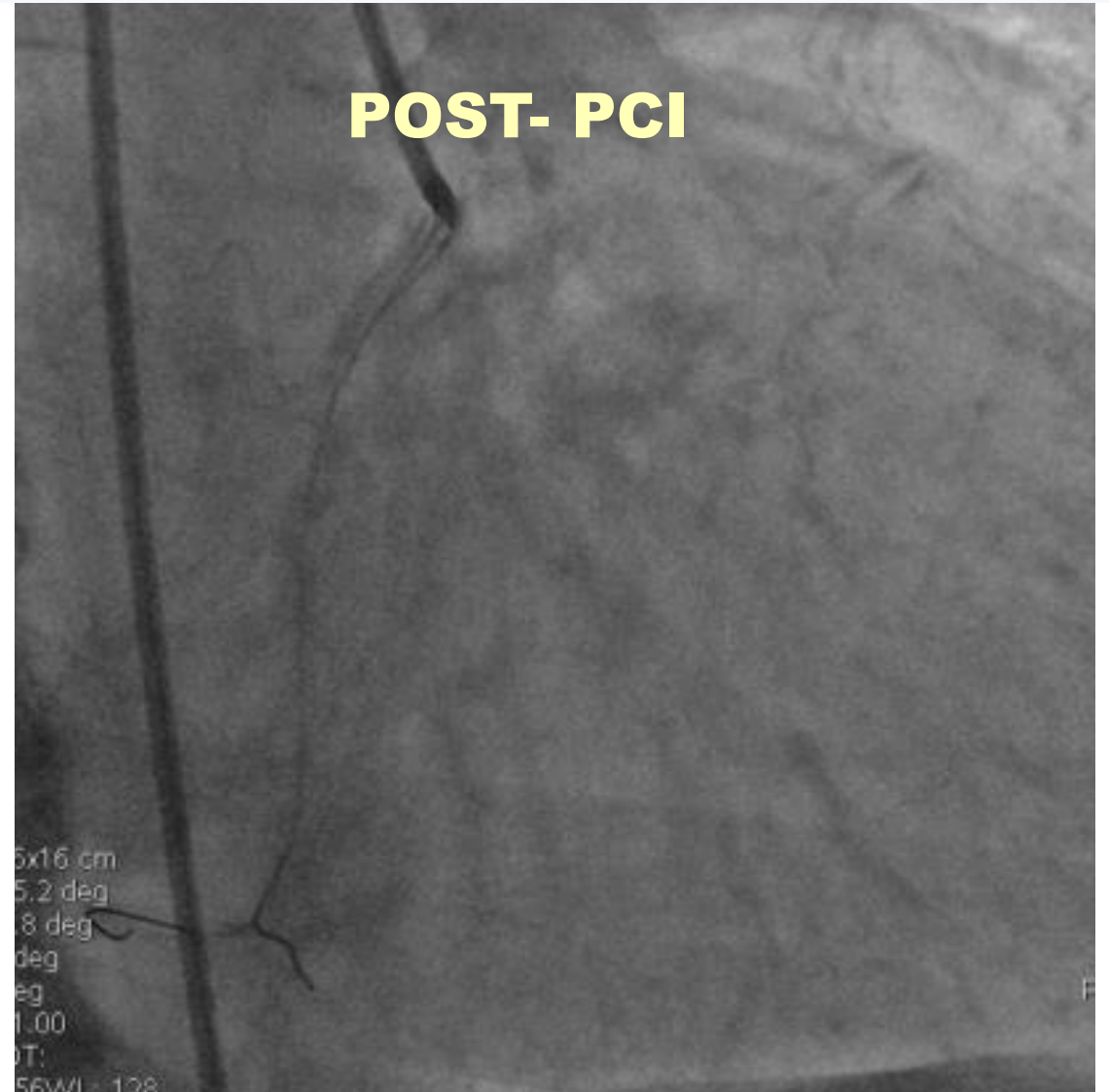
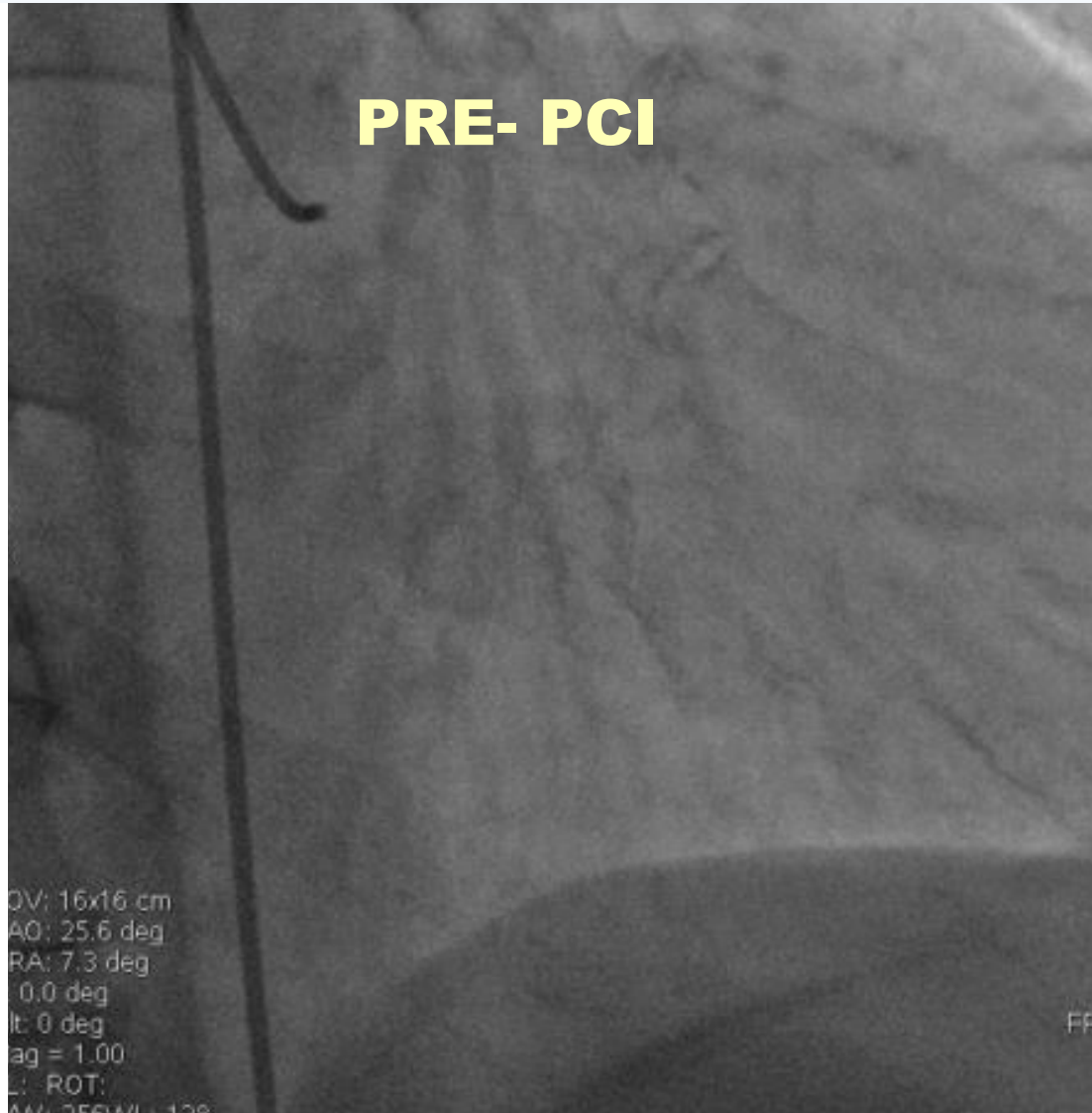
**Võ Văn L., 2017**

*Final Result, Post-PCI* Coronary Angiogram



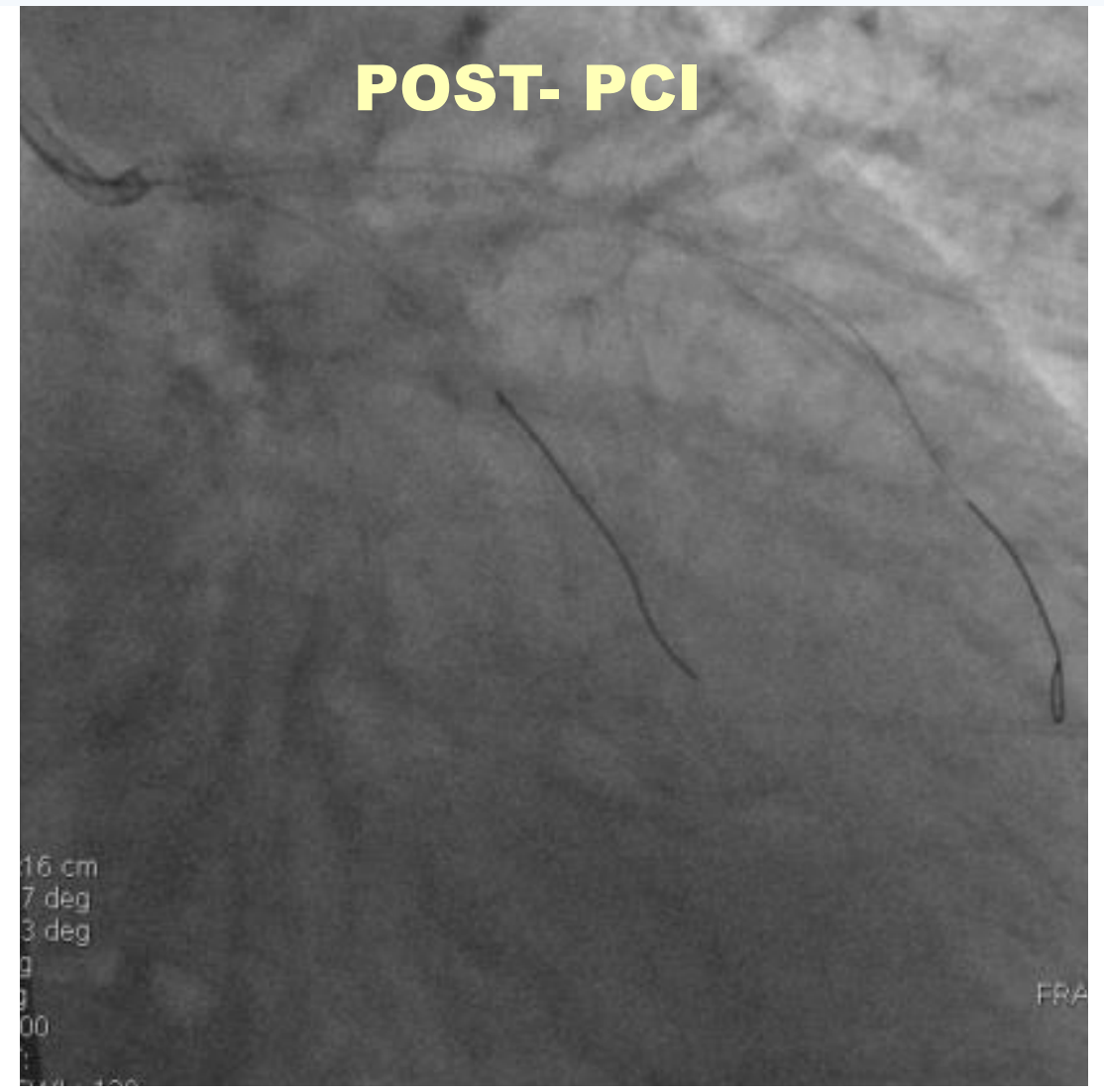
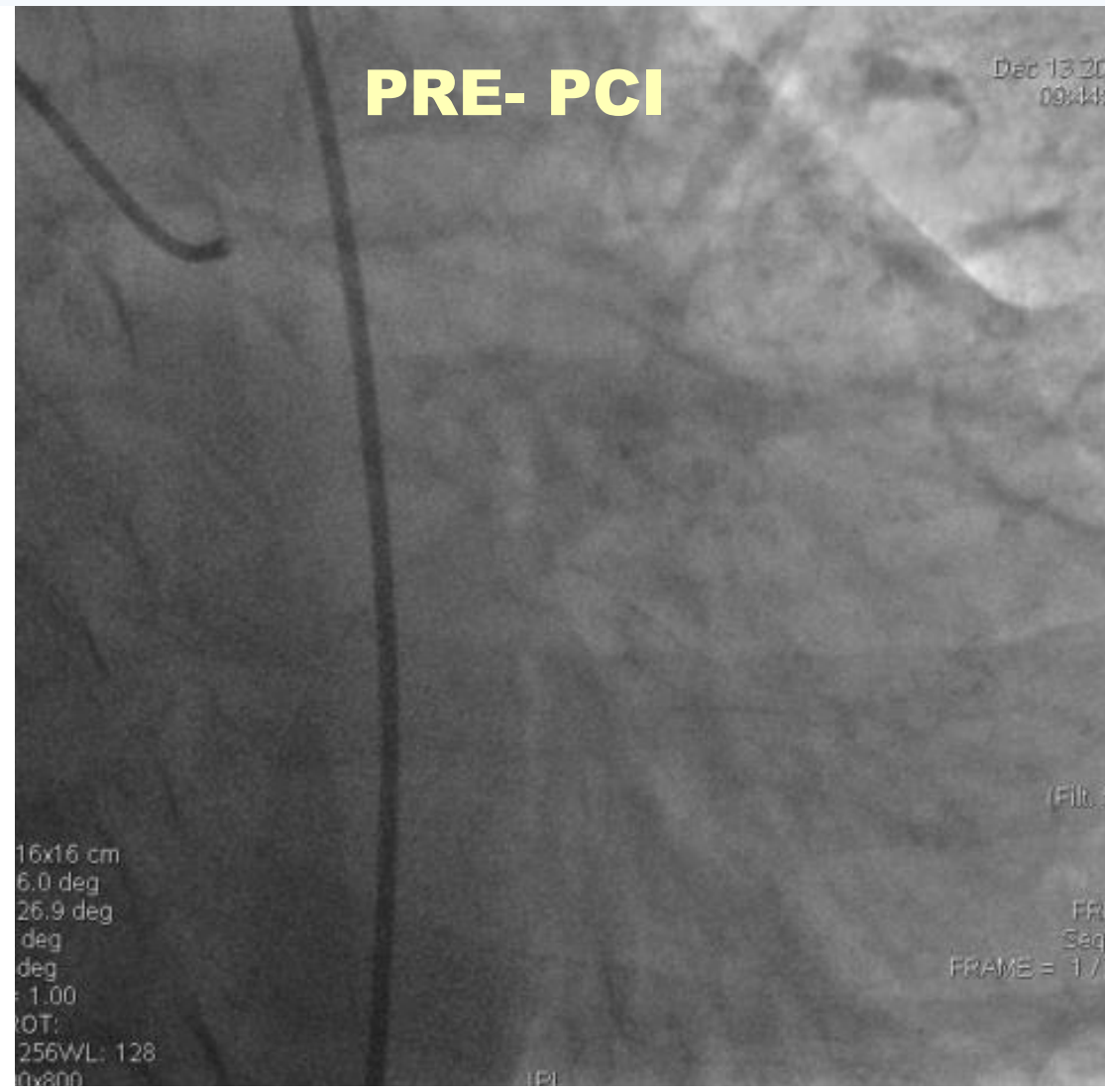
**Võ Văn L., 2017**

*Final Result, Post-PCI* Coronary Angiogram



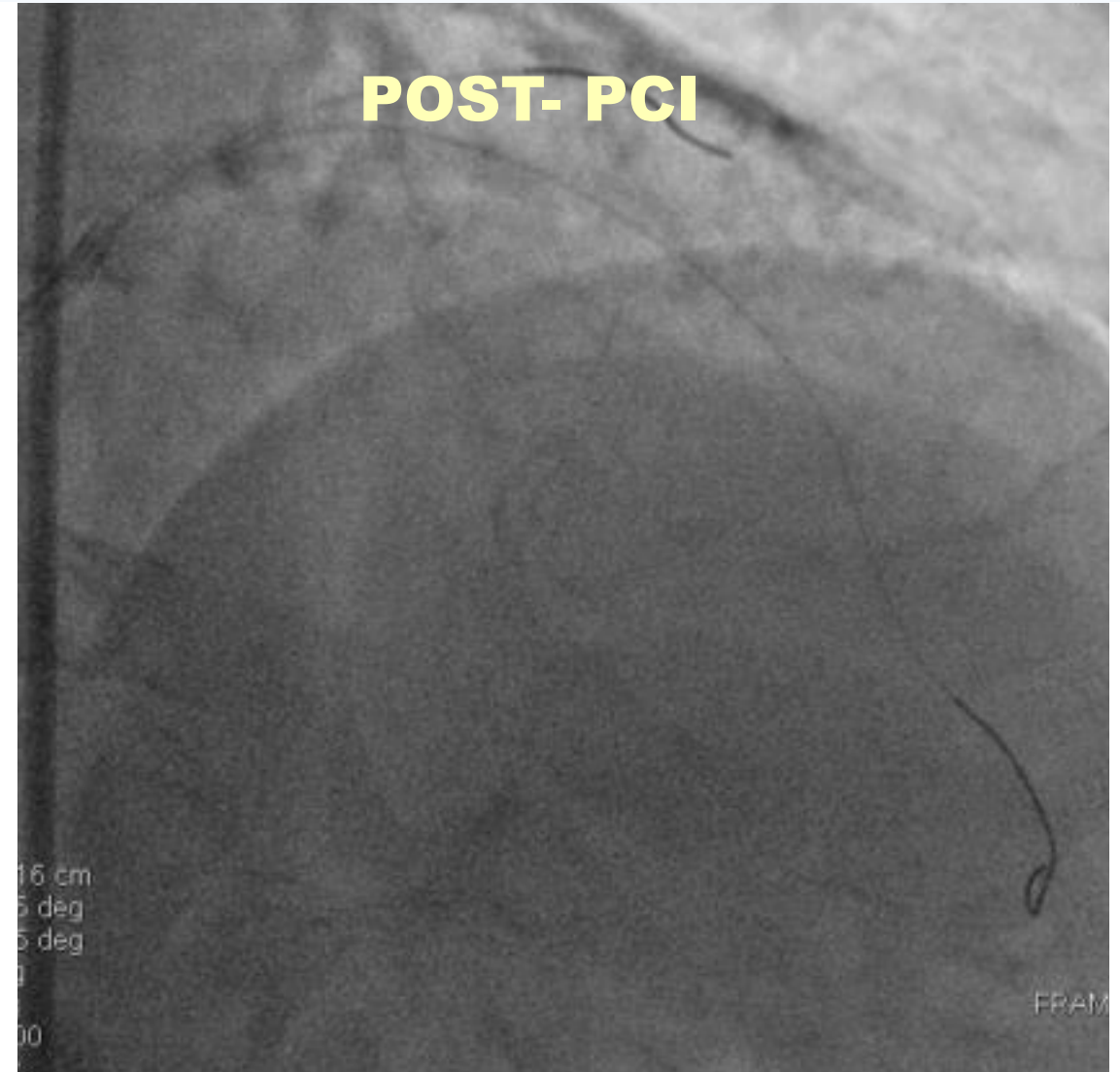
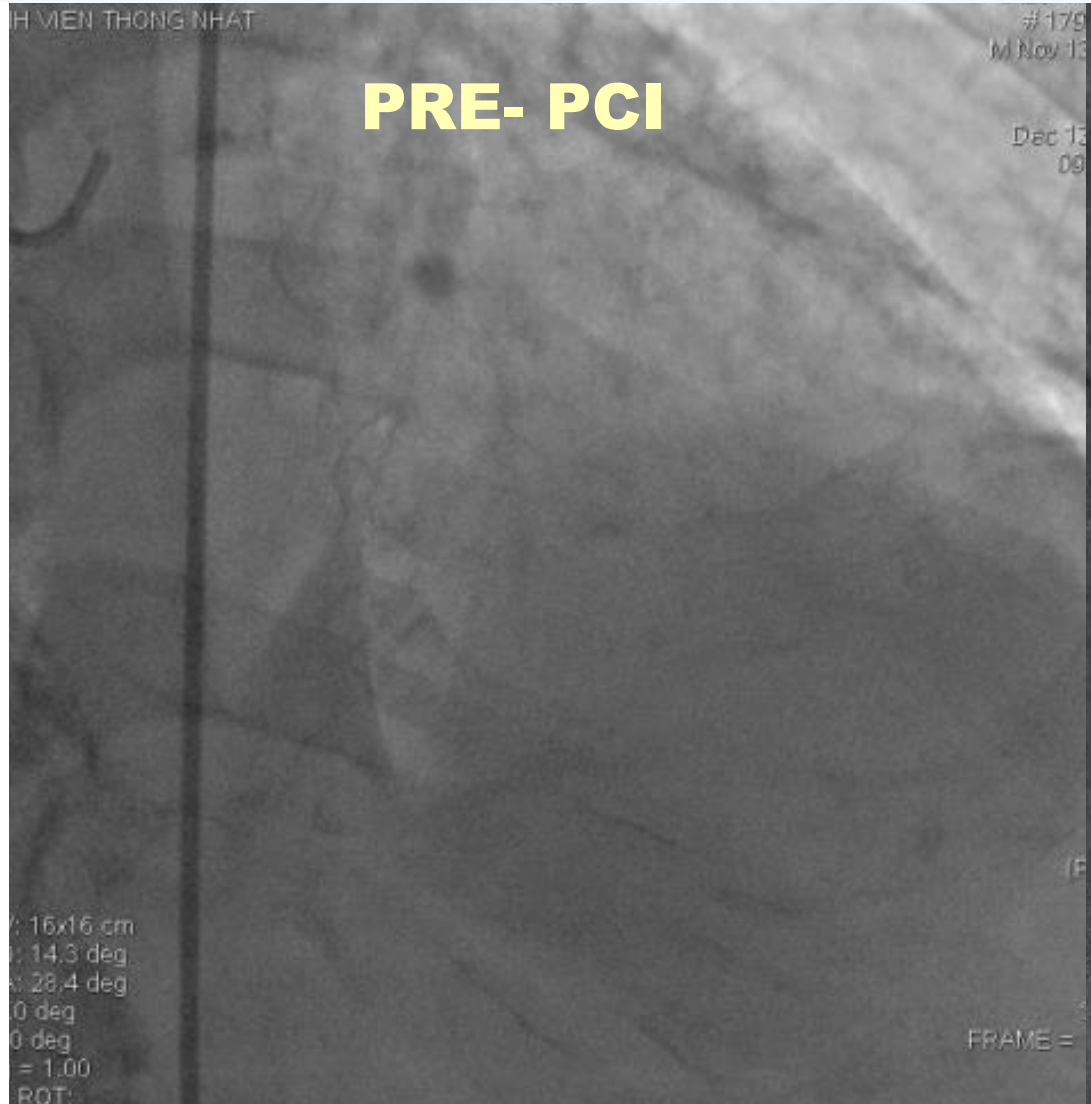
**Võ Văn L., 2017**

*Final Result, Post-PCI* Coronary Angiogram



**Võ Văn L., 2017**

*Final Result,* **Post-PCI** Coronary Angiogram



# CONCLUSIONS

- **Aging process** have accumulative effects on CV system, particularly on CAD.
- **CAD in the Elderly often being very severe:** *type C, bifurcation, LM, TVD, CTO...with calcified, diffuse, tortuous lesions*
- **Interventionist should choose the strategy of PCI on the individual basis:** Coronary Anatomy; Patient Preference; Experience; Medical Co-morbidities
- **Some complex cases with “Over-Indication”** is still well done with **complete revascularization**
- **DK-Crush** seems to be *a suitable 2-stent techniques* for revascularization of very complicated LM in the Elderly

**HUE City**

**Thank you for your attention!**