

Calcified lesion in multi vessel disease in patient presenting with acute STEMI

Nanda Iryuza, MD

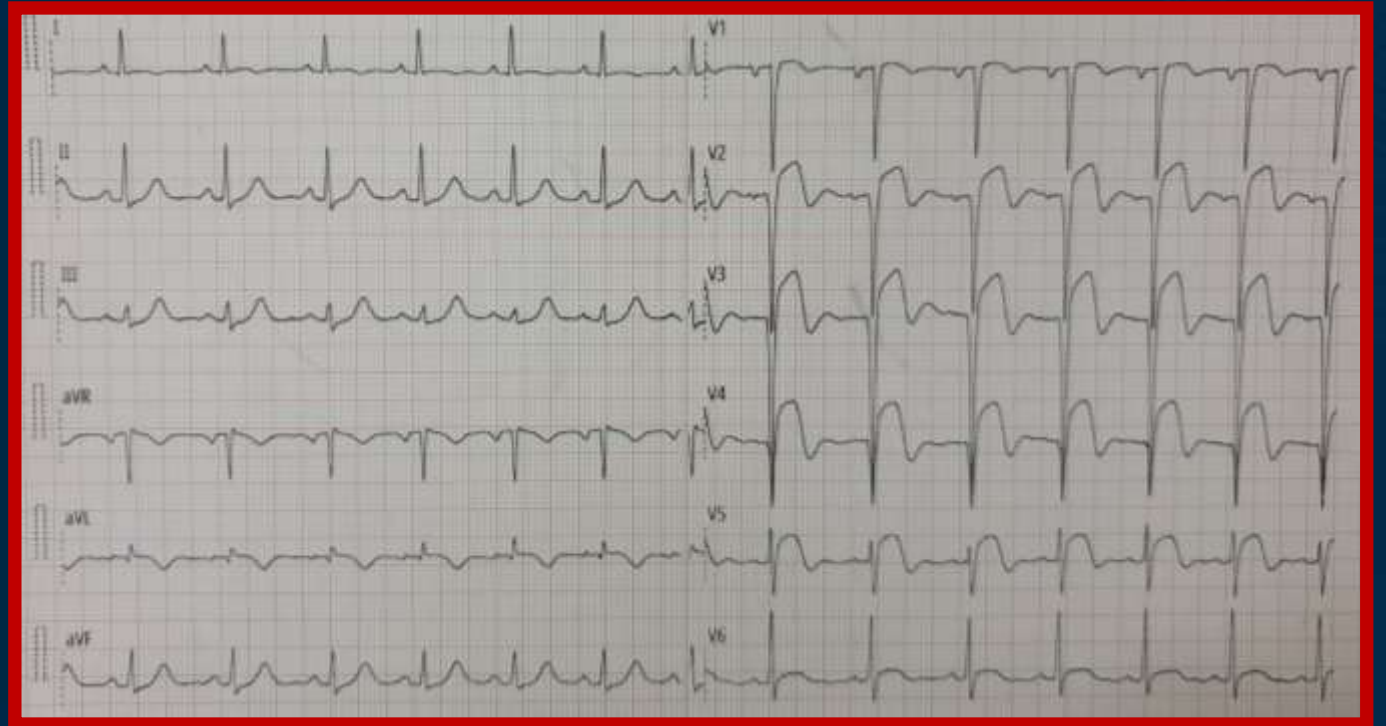
**National Cardiovascular Center Harapan Kita
Jakarta, Indonesia**

Disclosure

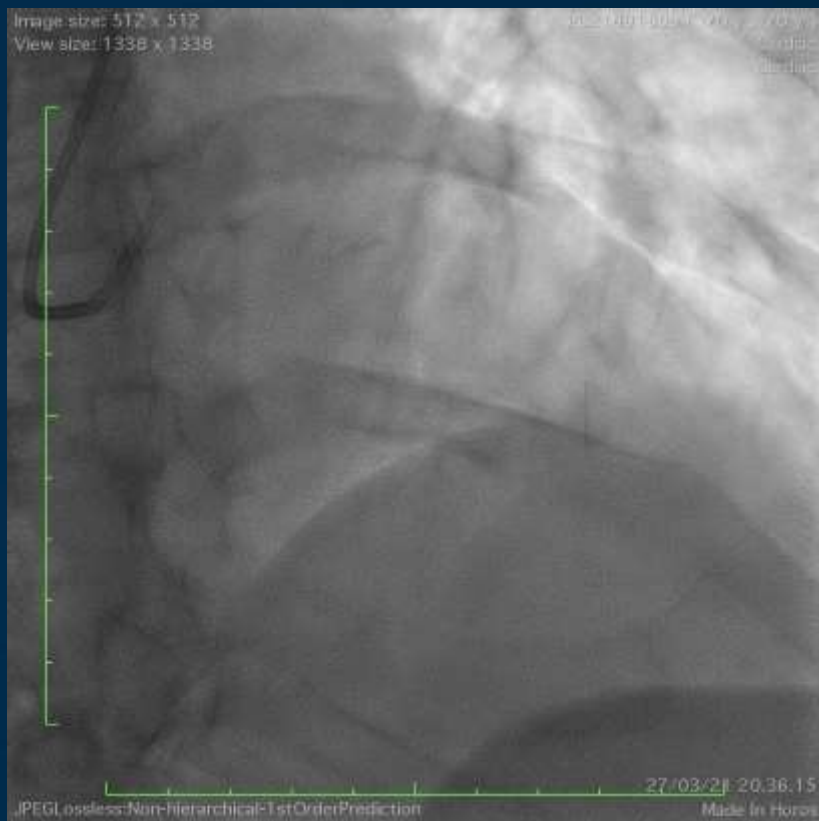
- I do not have any potential conflict of interest

CASE ILLUSTRATION

- Male, 70 y.o
- Acute anterior STEMI onset 8 hours
- Uncontrolled hypertension
- LVEF 40%, anterior segment hypokinetic



PRIMARY PCI

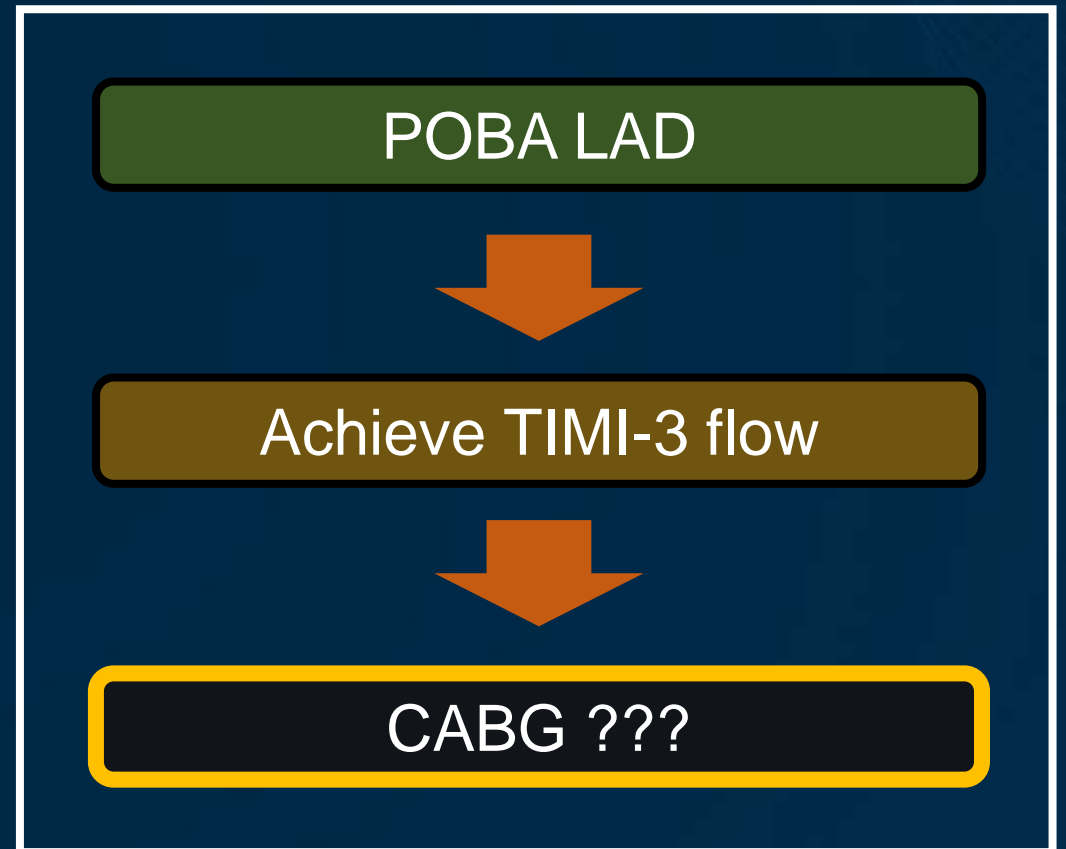


- Grade V thrombus at LAD (total occlusion)
- Multiple LCx stenosis
- Distal RCA stenosis

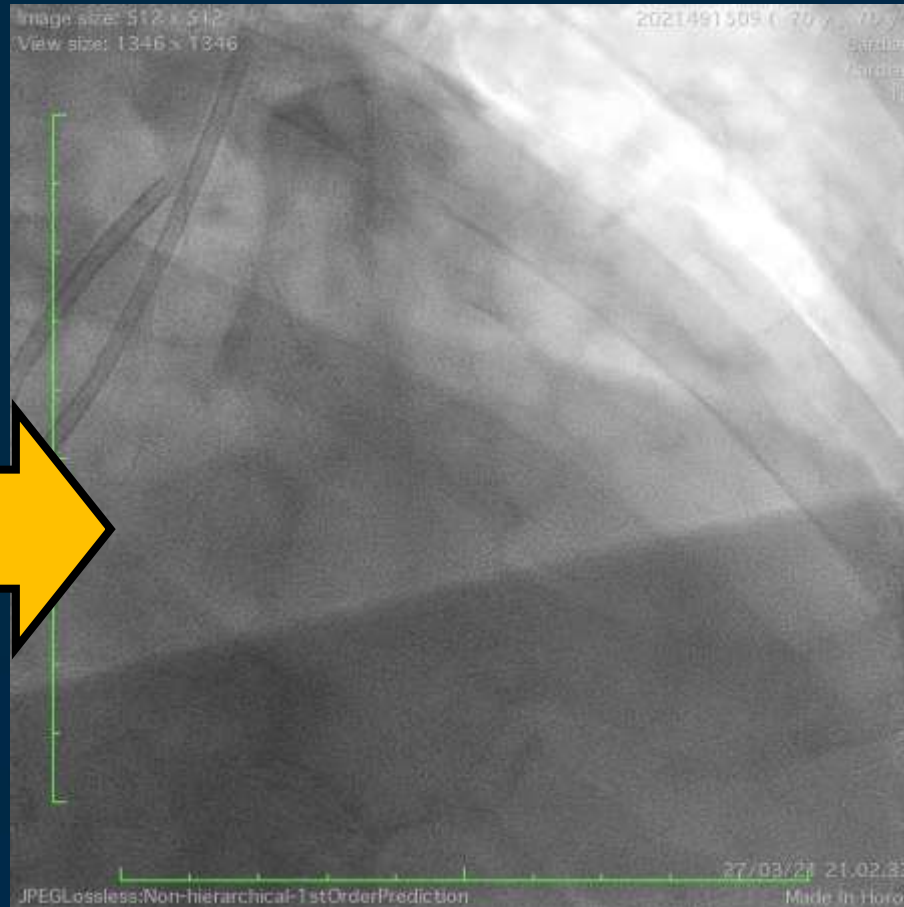
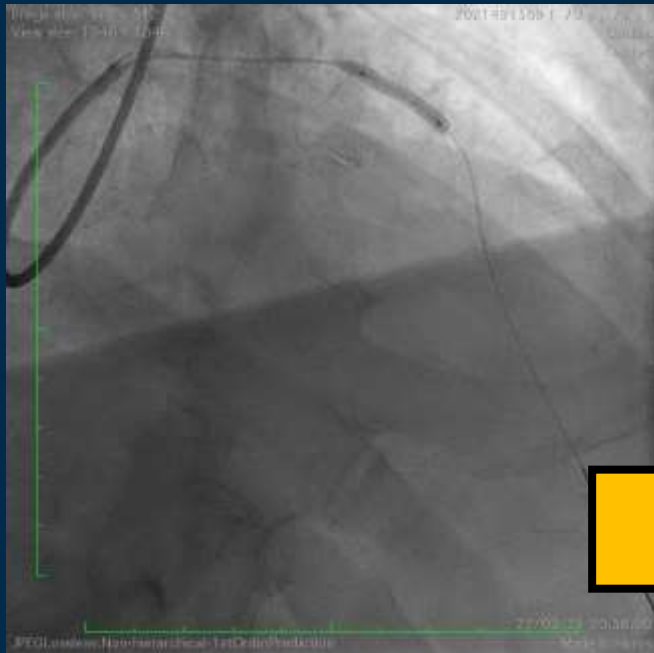
CLINICAL DATA & ANGIOGRAPHIC REFERENCE

- Acute anterior STEMI
- Culprit lesion : LAD
- Multi vessel disease
- Syntax score : 24

PCI PLAN :



POBA LAD



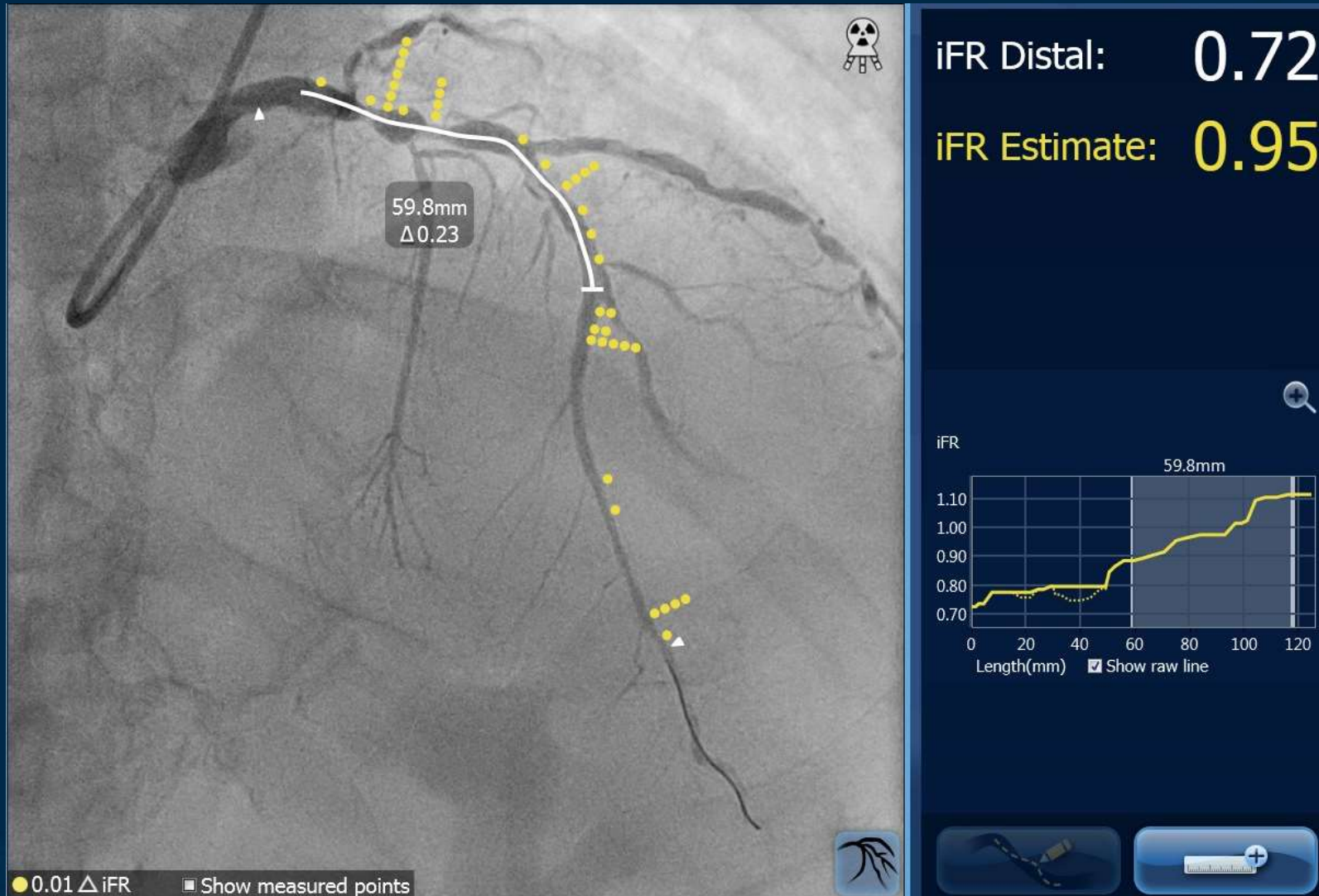
SC Balloon
2.5 x 15 mm

- TIMI 3 flow achieved
- Angiographically **calcified** proximal LAD
- **Stop and defer** the procedure
- Offer the patient for CABG

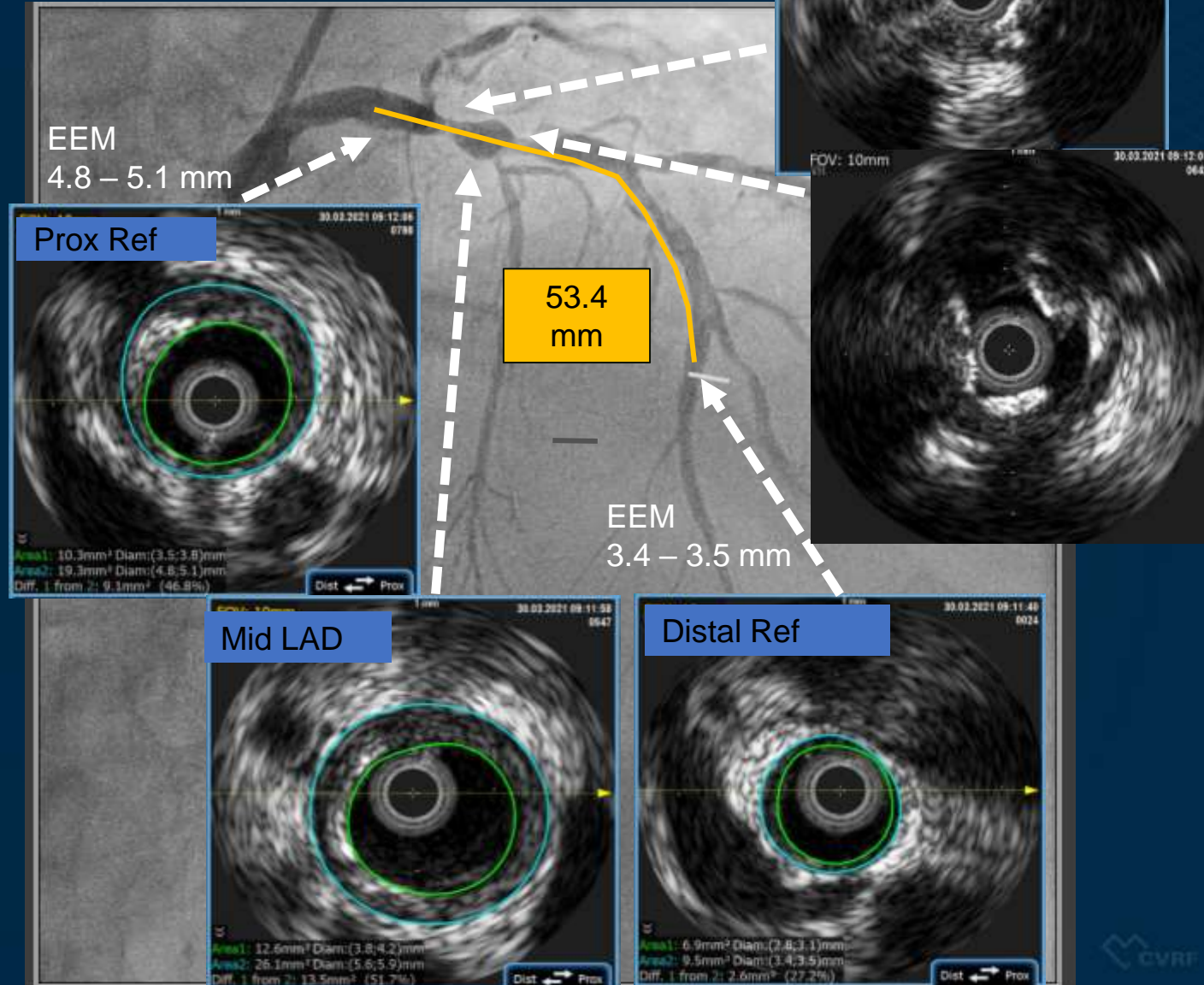
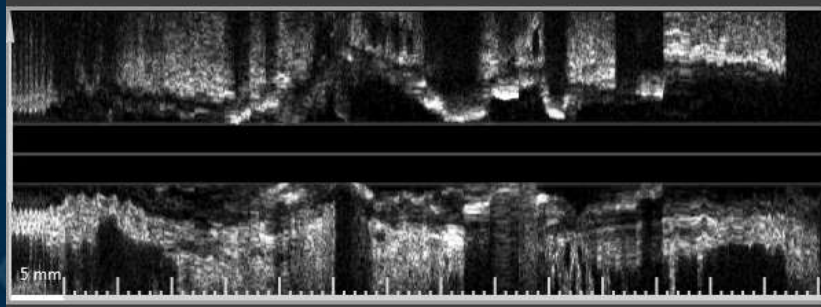
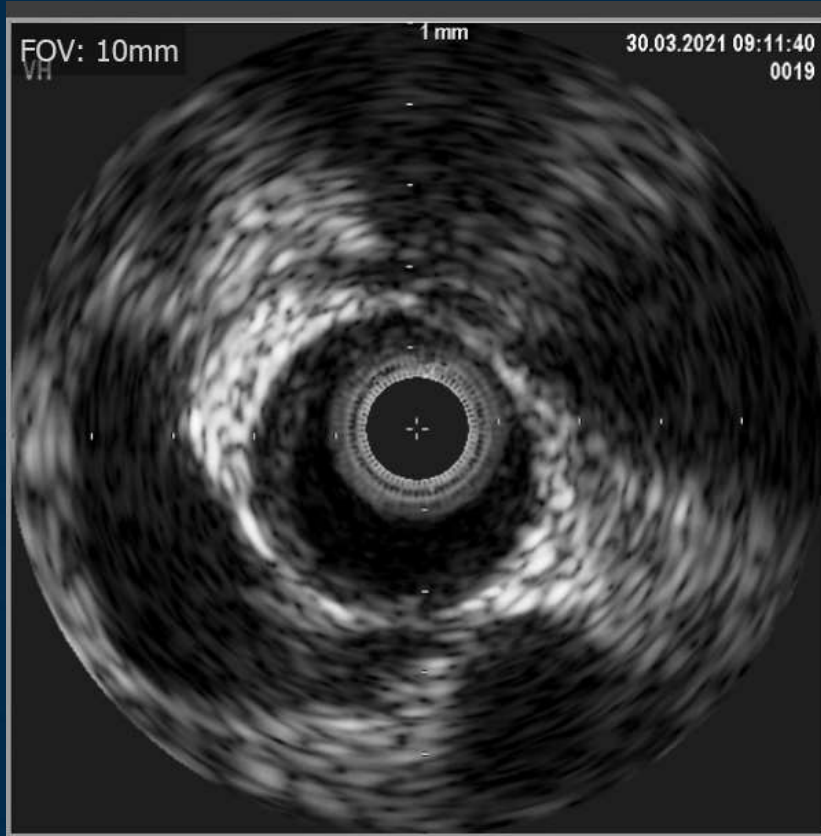
WHAT'S NEXT ???

- Patient's preference : Refused CABG
- Our concern & plan :
 - Angiographically LAD calcification
 - Good lesion preparation for LAD PCI
 - IVUS & iFR – guided PCI

iFR LAD



PRE – PCI IVUS LAD



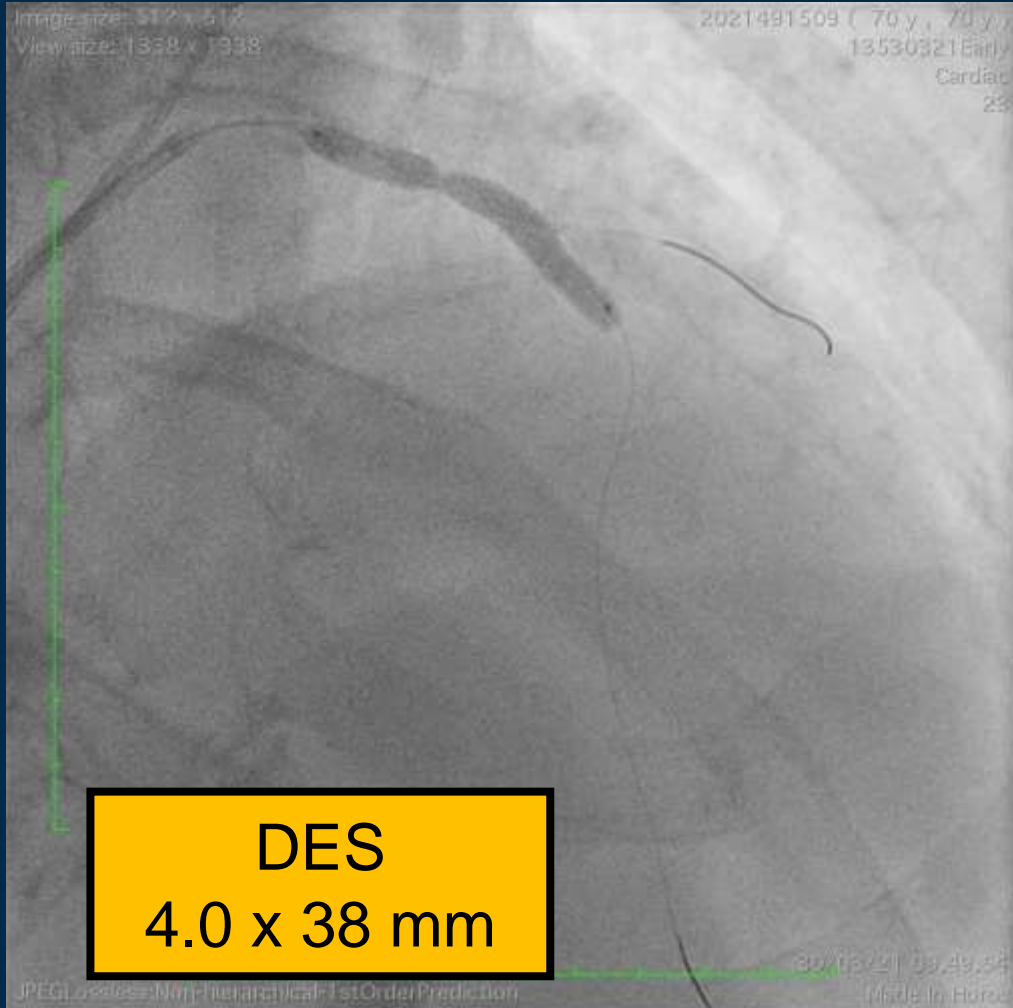
LESION PREPARATION



NC Scoring balloon 3.0 x 15 mm
(20 atm max)



DES DEPLOYMENT & POST-DILATATION



DES
4.0 x 38 mm



DES
3.0 x 18 mm



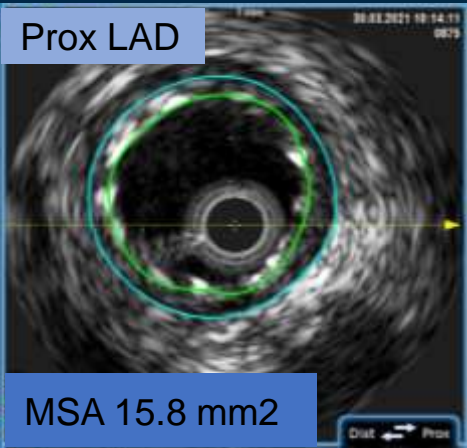
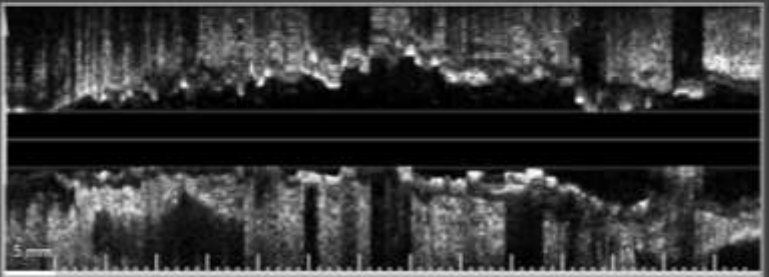
NCB
4.5 x 15 mm
(max 22 atm)

POST – PCI IVUS LAD

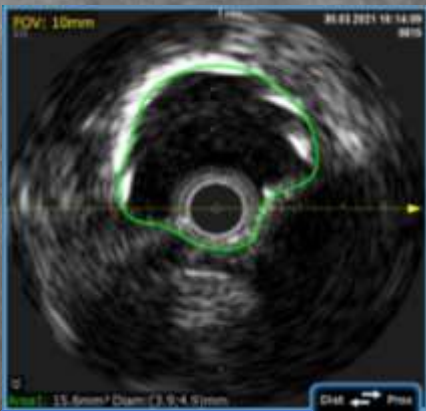
No medial dissection

Well apposed stents

Well expanded stents



MSA 15.8 mm²



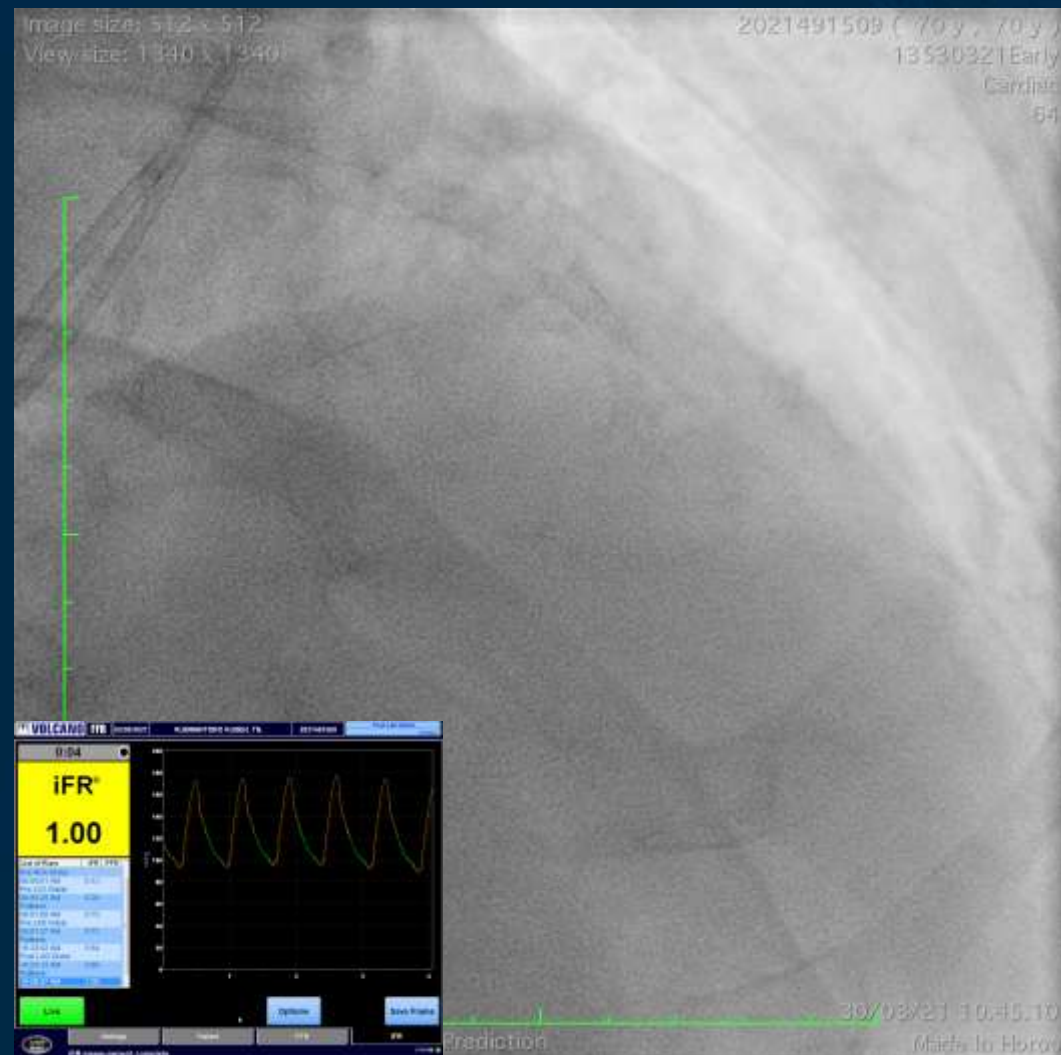
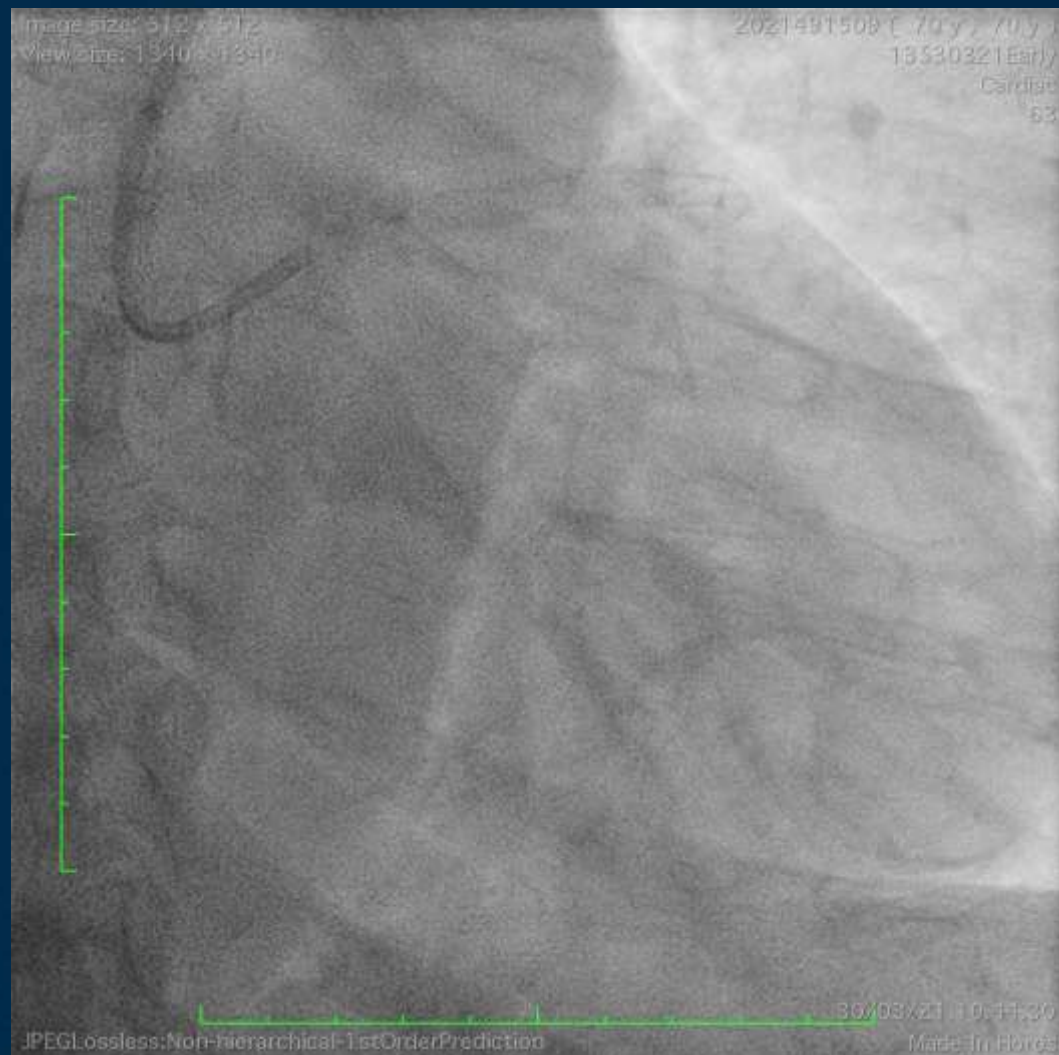
MSA 15.6 mm²



MSA 7.3 mm²

MSA 7.3 mm²
Diameter 3.0 – 3.1 mm

FINAL ANGIO



CONCLUSION

- Calcified lesion in the setting of ACS is always challenging especially in MVD
- Intra vascular imaging is essential to deal with MVD and calcified lesion
- It is safe to defer the procedure in ACS as long as the culprit lesion's flow restored (TIMI 3)
- Defer the procedure for better next procedure planning → minimizing **MACE**

Mistakes using Angiographic Coronary Evaluation