



Thrombotic LAD Ostium Lesion Treated with  
Balloon Angioplasty and Antithrombotic Therapy  
in Patient with Acute Heart Failure  
due to Recent Myocardial Infarction

Yodogawa Christian Hospital

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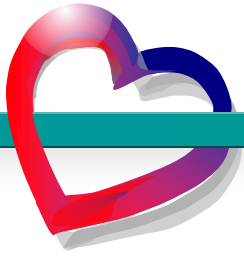
# Case description



- A 69 years old female
- Chest pain was revealed 1 week ago, and her dyspnea was getting worse. She was taken to hospital by ambulance.
- Passed medical history: unremarkable
- BP110/62mmHg, HR112bpm
- SpO2 80% with 15L/min Oxygen.
- Heart sound: no murmur
- Respiratory sound: wheezing and coarse crackle.



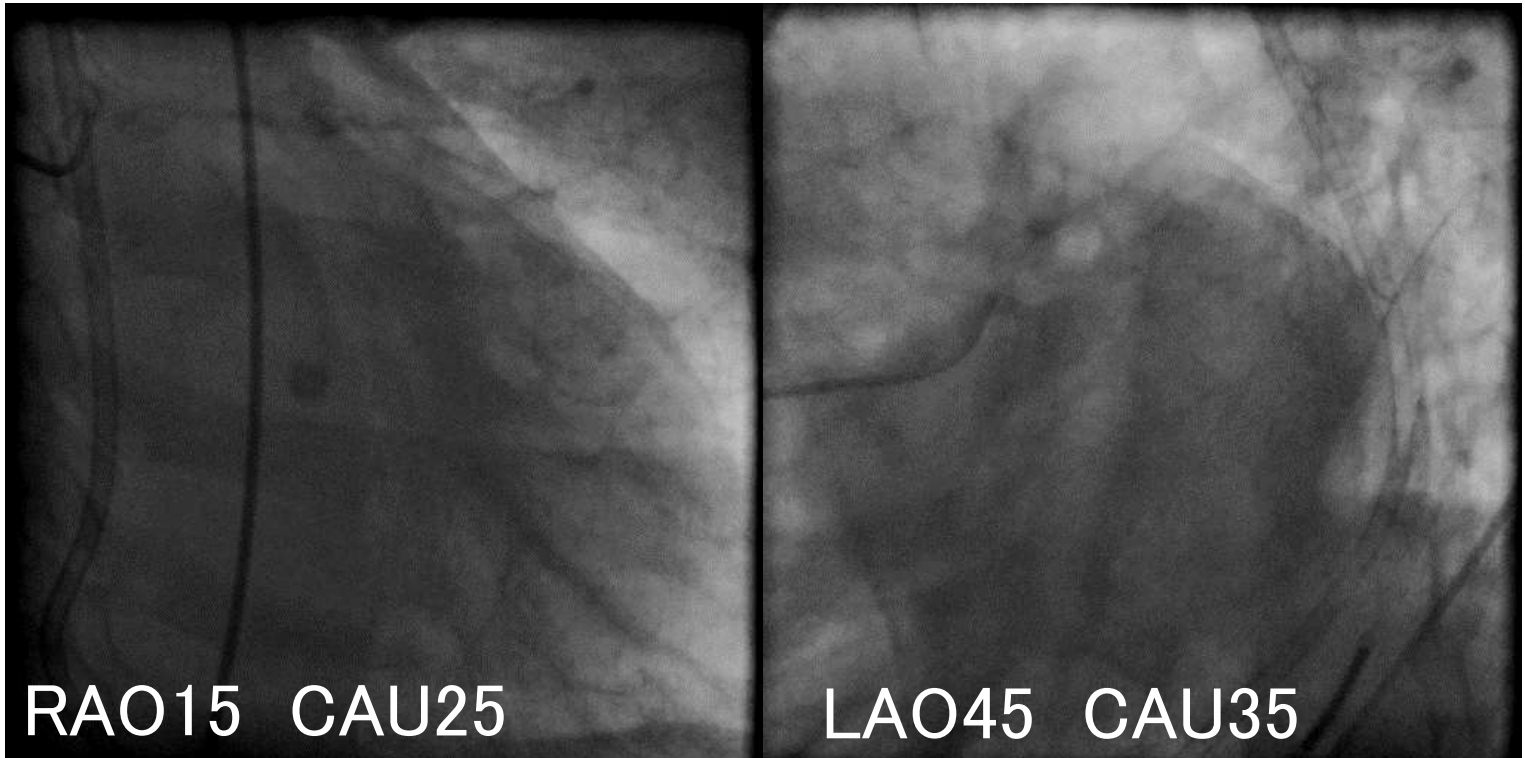
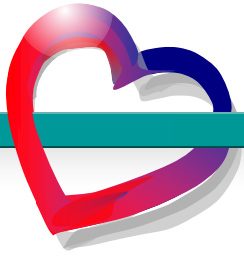
# Case description



- ECG: sinus rhythm, HR115bpm, T wave inversion in V2–5
  - Chest X-ray: heart enlargement and lung congestion
  - Echocardiogram: LVEF 30% with abnormal wall motion in anterior to septal region
  - Cardiac enzyme did not elevated depending on time
- ➔ Diagnosis: Acute decompensated heart failure due to recent myocardial infarction.



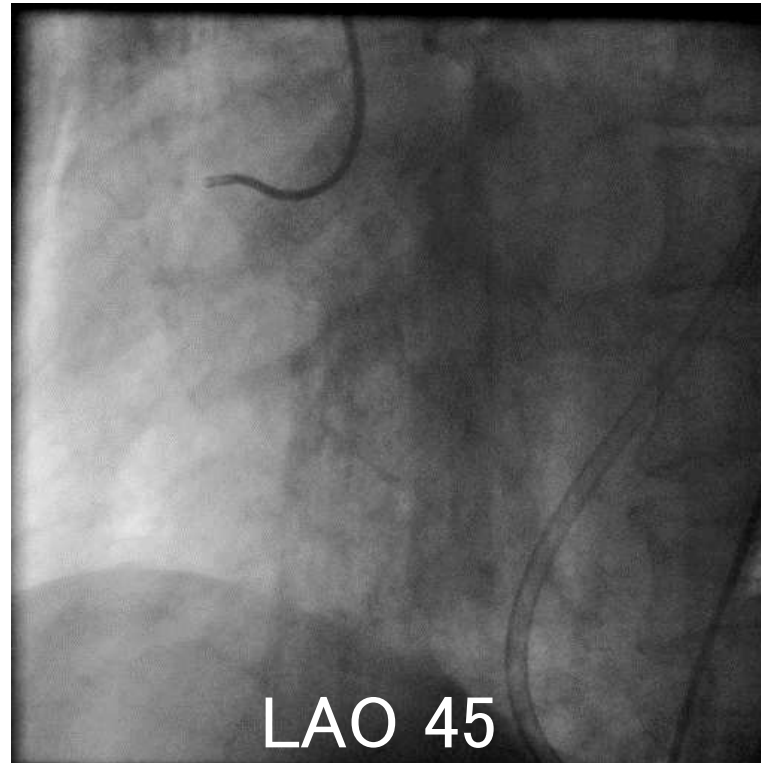
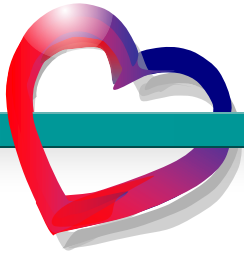
# Coronary Angiogram



Left coronary angiogram showed total occlusion in LAD mid with poor collaterals



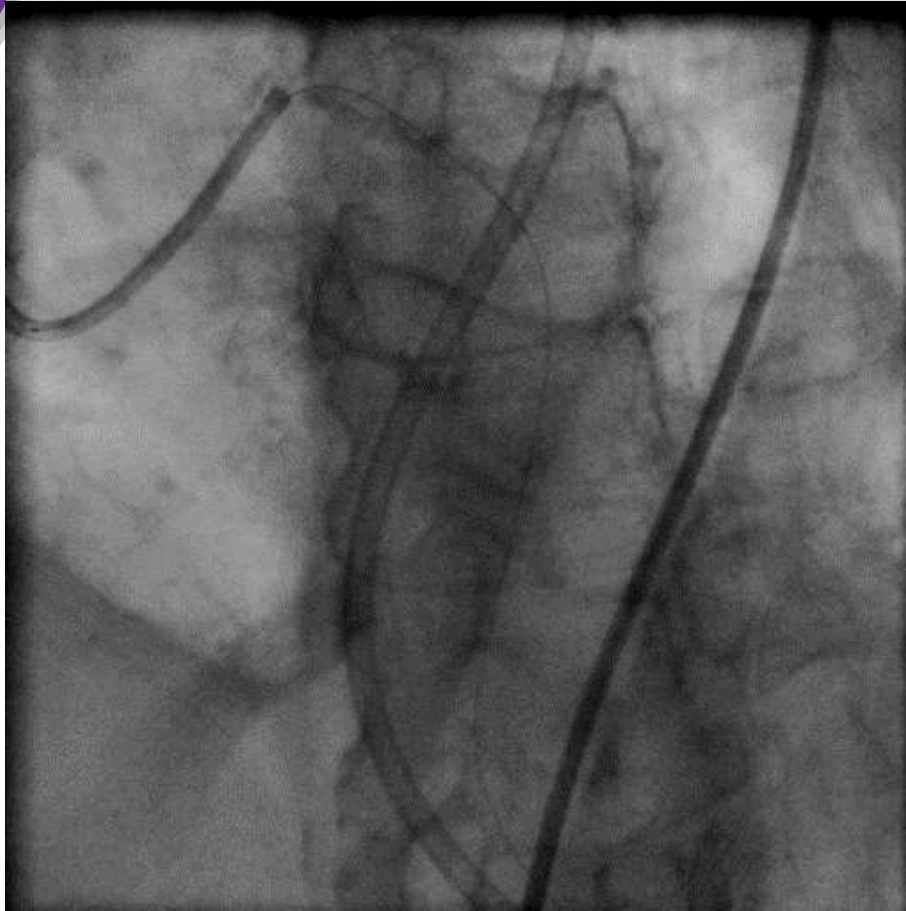
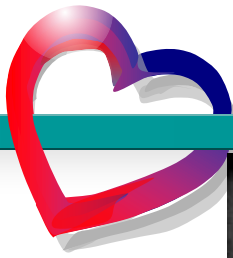
# Coronary Angiogram



Right coronary angiogram showed no significant stenosis and no collateral flow to LAD



# Thrombus aspiration for LAD



Rt.FA

Brite Tip 7Fr XB3.5

SION blue

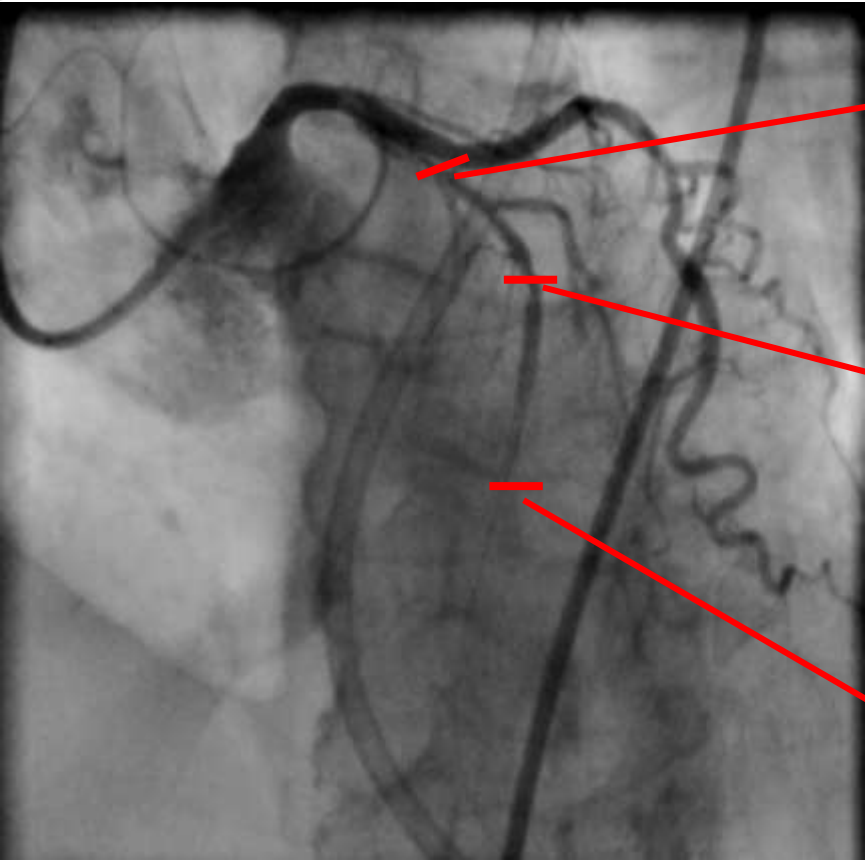
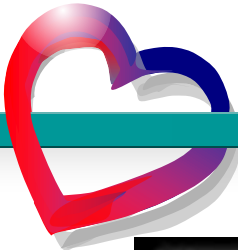
FINECROSS GT

Rebirth Pro2 7Fr

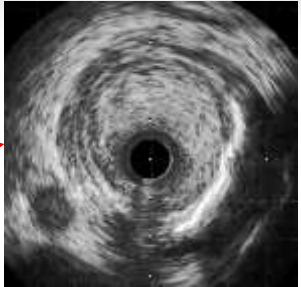
CRA30



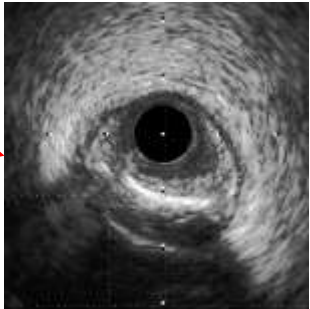
# Pre IVUS for LAD



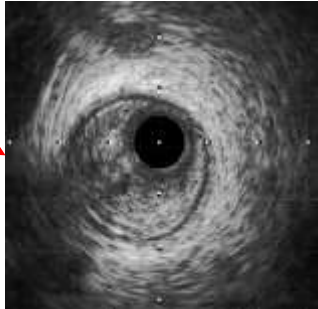
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Thrombus



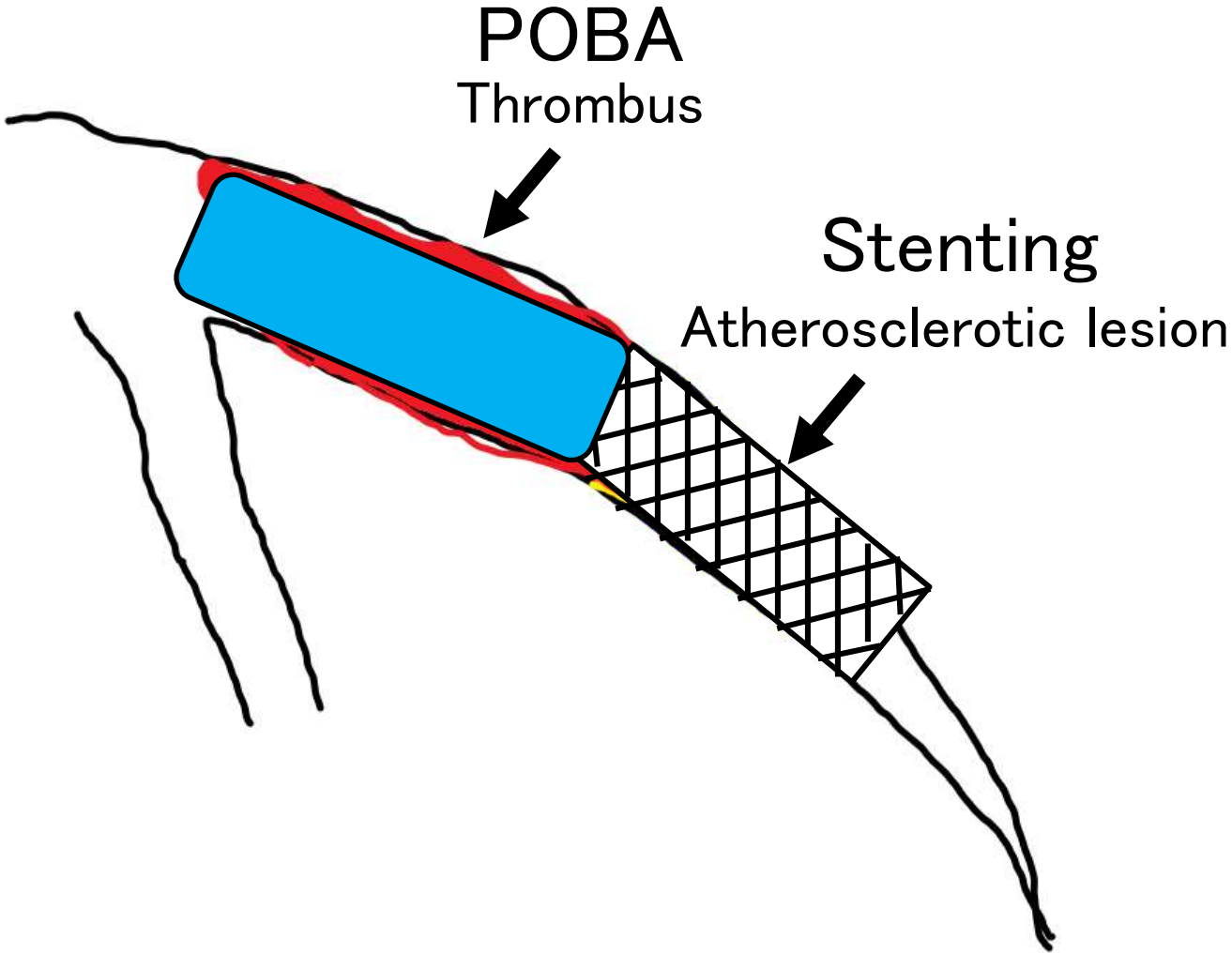
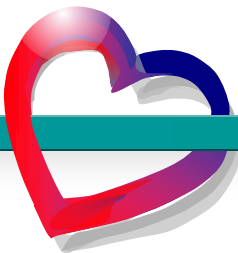
Thrombus+ Athorosclerosis



Thrombus

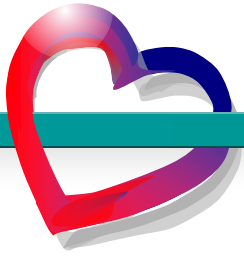


# Our strategy





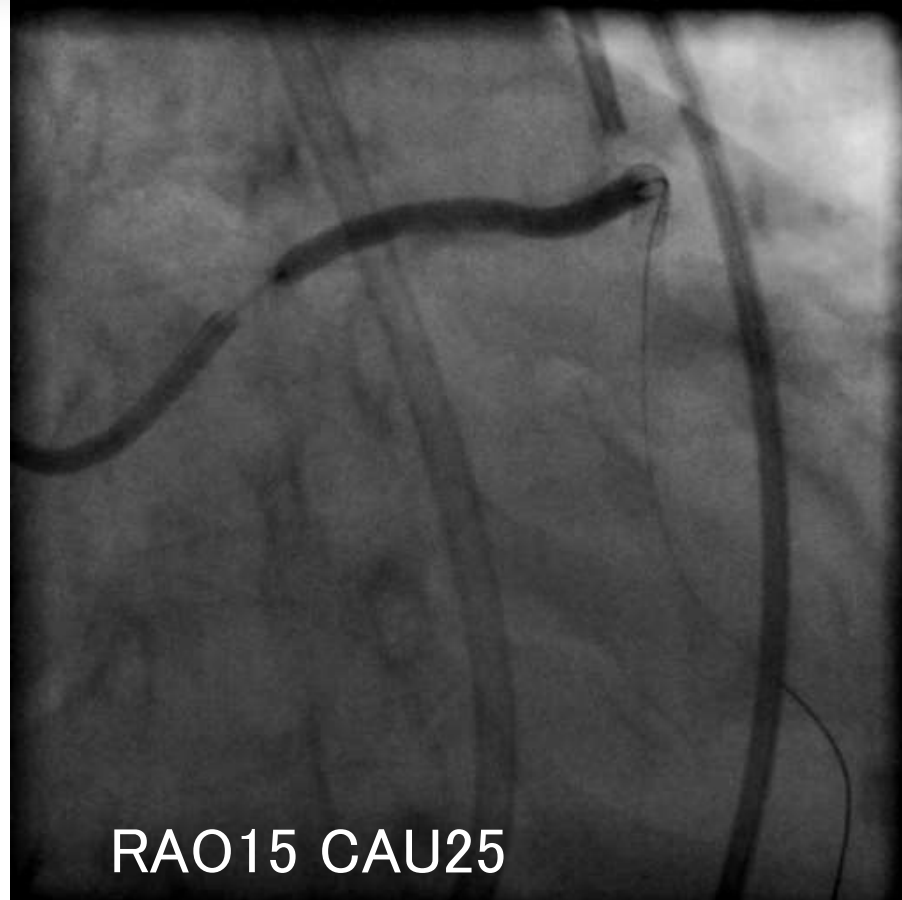
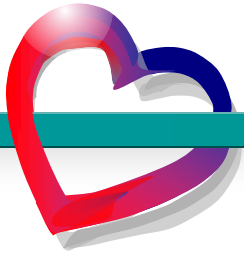
# Stenting for LAD distal



Resolute Onix 3.0 × 38mm



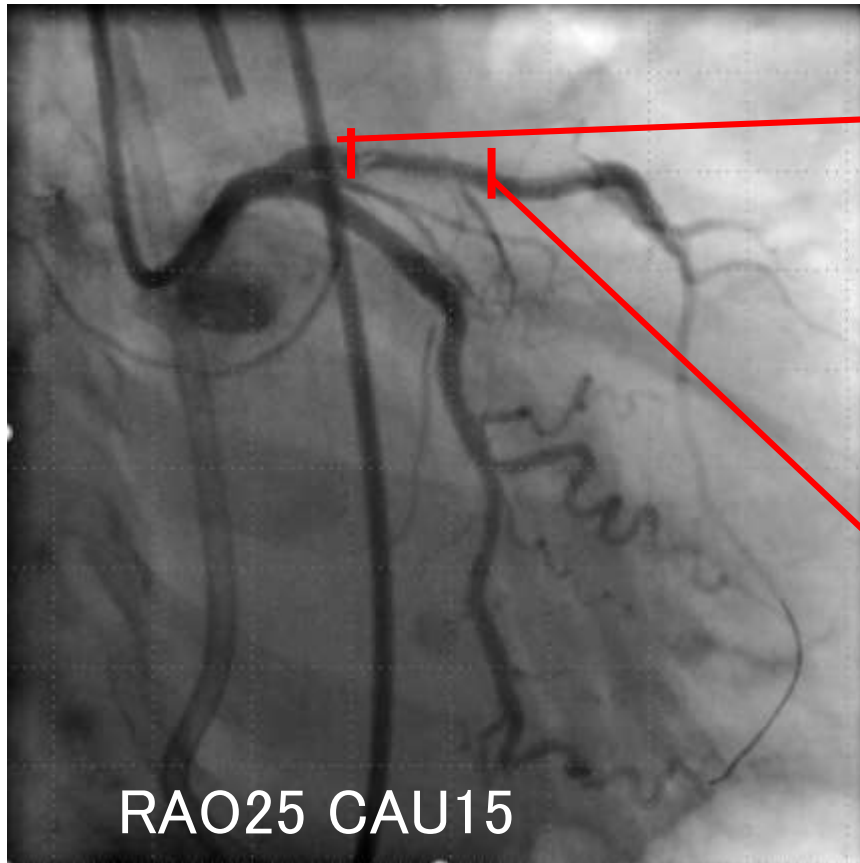
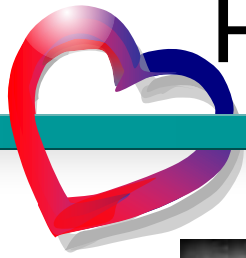
# POBA for LAD proximal



Resolute Onix 3.0 × 38mm  
(Stent balloon)



# Post procedure IVUS for LAD



RAO25 CAU15



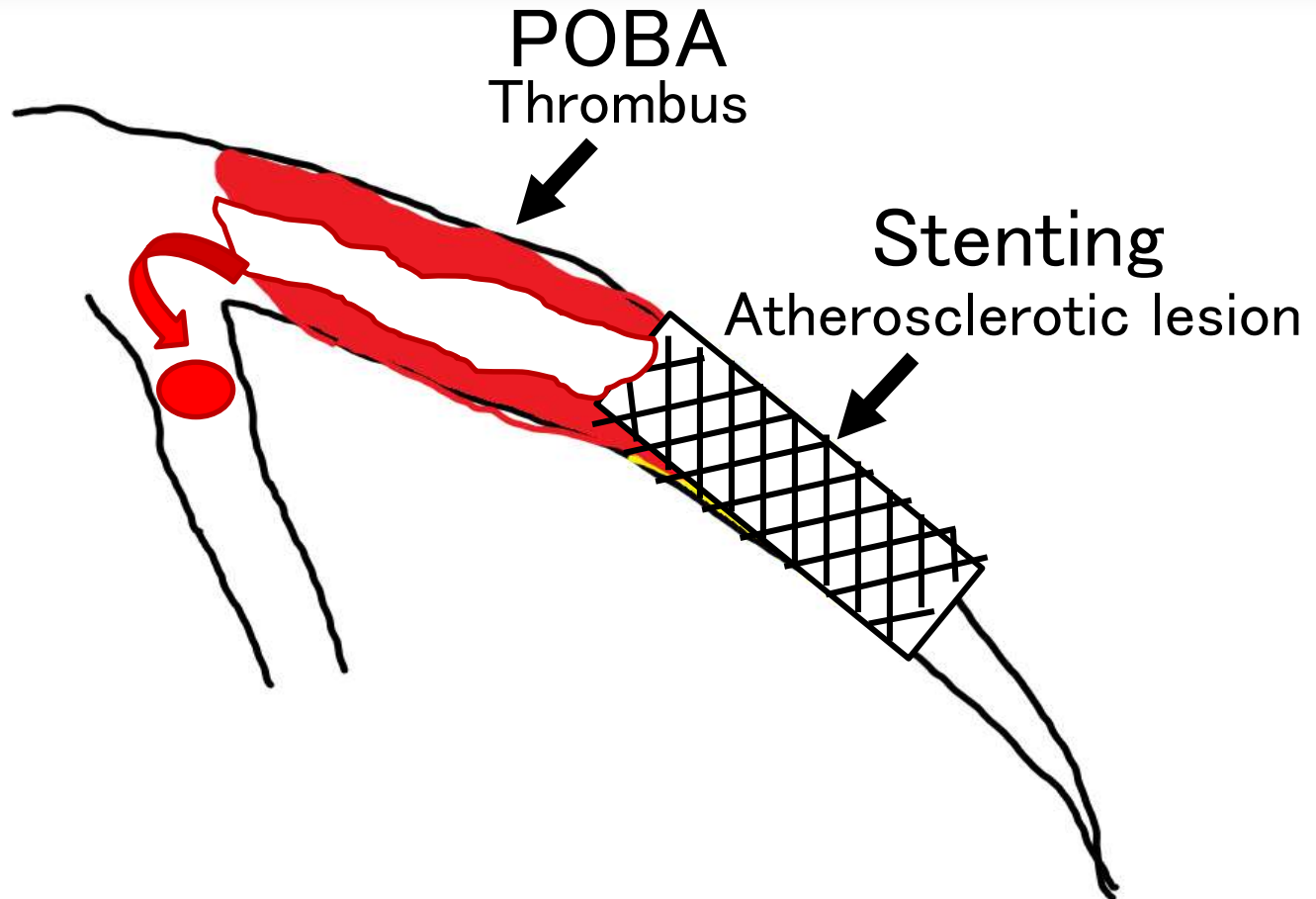
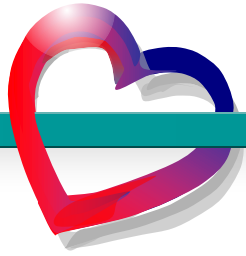
Thrombus was remain  
to LAD ostium  
Lumen gain was acceptable



Stent was expand optimally  
Large protrusion was not observed



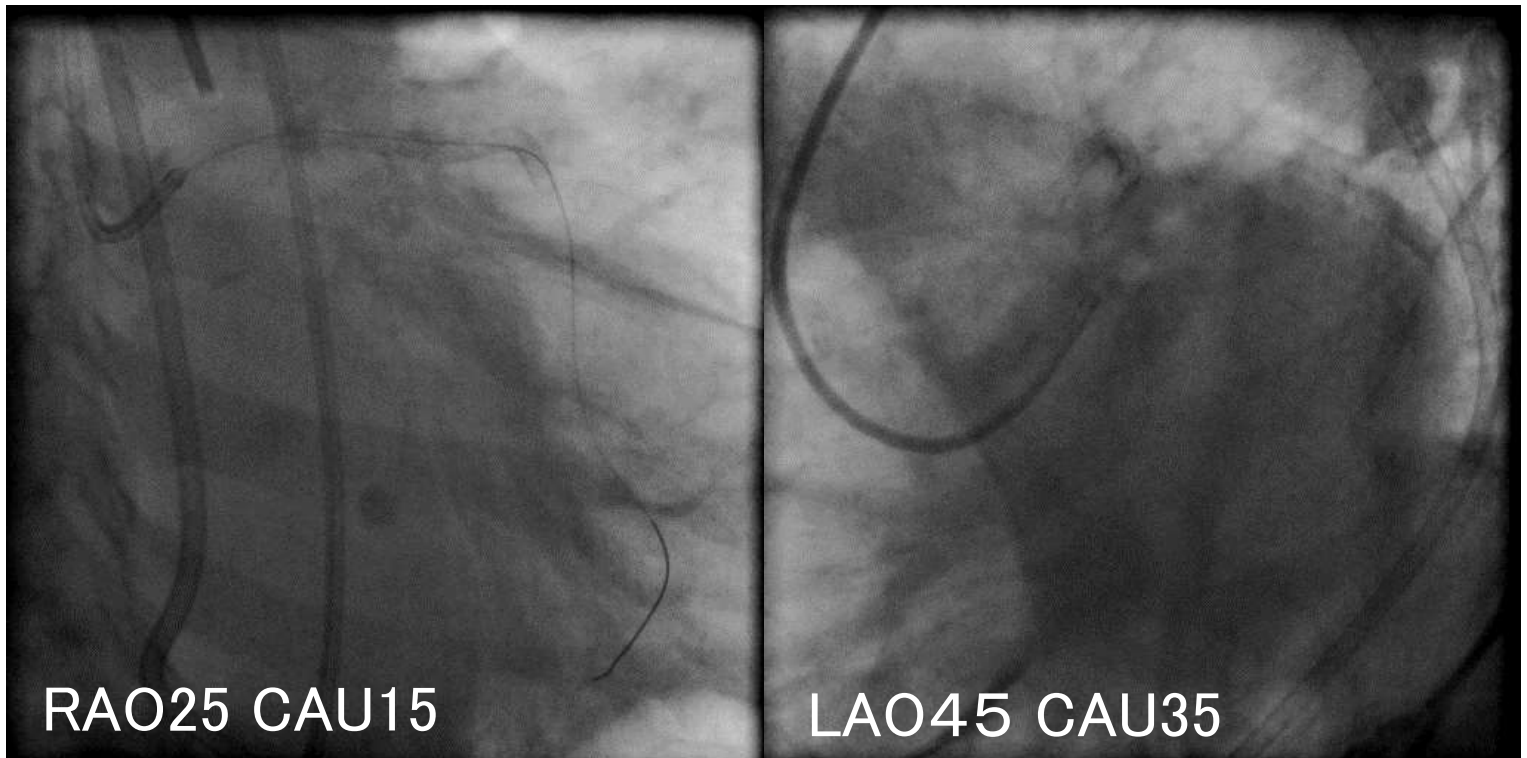
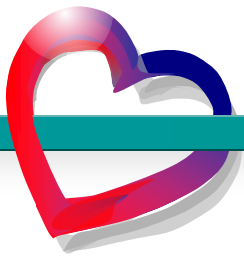
# Our Strategy



We were worried about if we stent all lesions, LAD proximal thrombus move to LCX and getting heart condition worse  
We decided to finish procedure



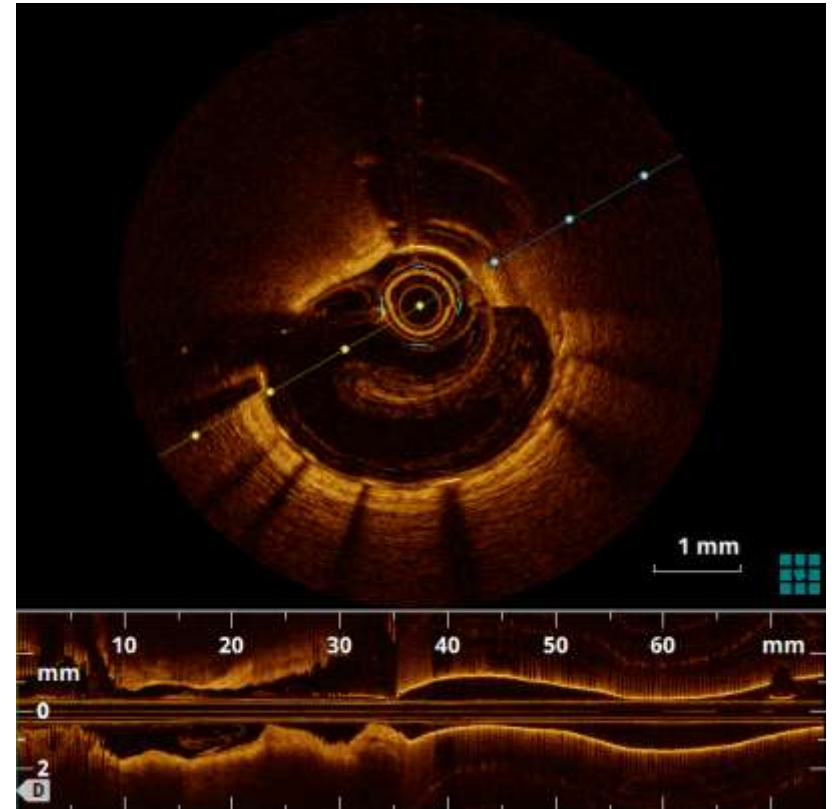
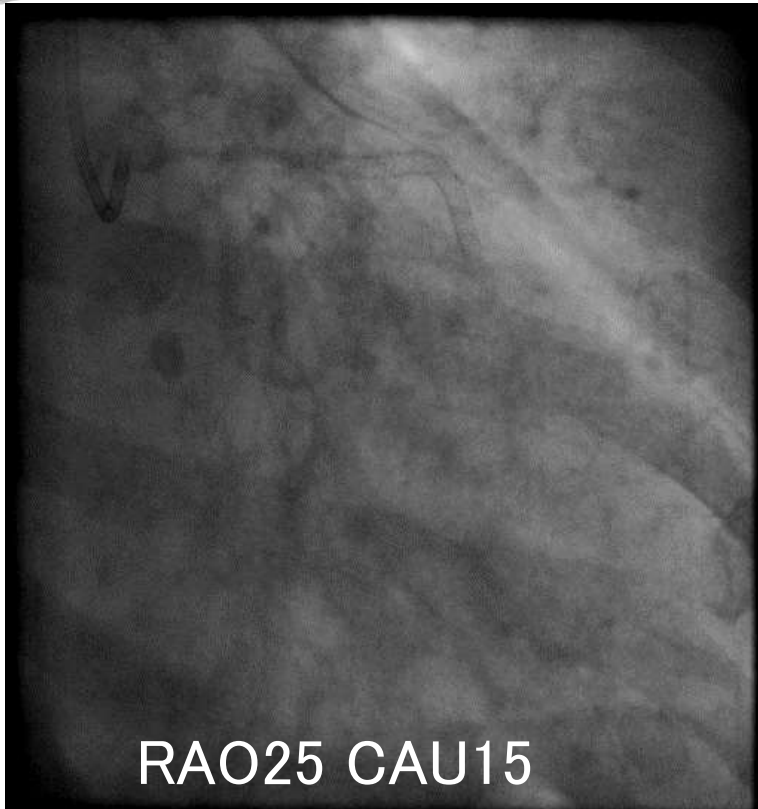
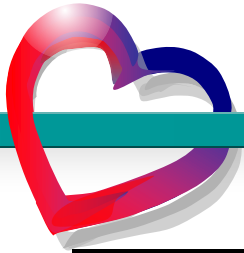
# PCI final angiogram



Remain thrombus at LAD proximal  
Flow limitation was not observed



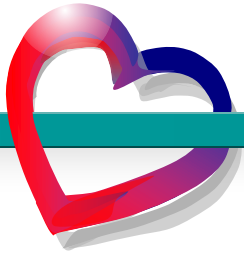
# CAG 2weeks later



Thrombus was disappeared with angiography and OCT



# How to treat thrombus rich AMI ?



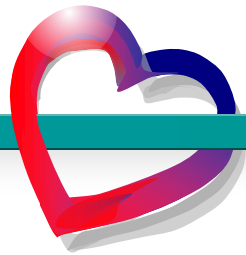
Thrombolytic therapy ?

Intervention to the lesion

Only POBA ?

Stenting ?





# Thrombolytic therapy for AMI

Conventionally, thrombolytic therapy was mainly performed as reperfusion therapy, but currently PCI is mainstream

Thrombolytic therapy is more effective than PCI

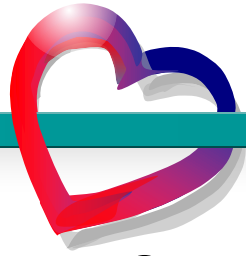
- Within 3 hours of onset
- PCI is delayed by 60 minutes or more within 12 hours of onset

➔ Probably, it may not work effectively if organic stenosis and flow limitation remain





# POBA for AMI



- ▶ Complication after treatment is myocardial infarction 3–5%  
Emergency bypass surgery 3–7%  
mortality rate 0–2%
  - ▶ Restenosis tends to occur within 6 months, 48%
  - ▶ The onset of acute occlusion is median 27 minutes
  - ▶ Vascular occlusion is observed due to extensive coronary dissection, intracoronary thrombosis, or both.
- ➔ It is important not to leave flow limitation

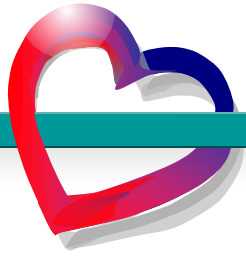
Ganesh N, Int J Car & Hear (2017); 1 (2): 36-39.

Lincoff AM et al, J am Coll Cardiol (1992); 19 (5): 926-935.

Nobuyoshi M, et al, J Am Coll Cardiol (1988); 12 (3):616-623.



# Conclusion



- ▶ We performed POBA and antithrombic therapy for thrombotic lesion with acute heart failure due to recent myocardial infarction
- ▶ This strategy was effective without worsening heart failure and the thrombus was disappeared two weeks later
- ▶ POBA and antithrombic combination strategy may be useful to avoid the complication with thrombus

