

LM Massive Thrombus with Cardiogenic Shock

Do We need IABP ?



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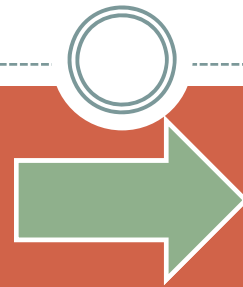
Introduction



- Primary PCI is usually performed with transfemoral acces
- STEMI caused by LM Thrombus is often followed by deteriorated hemodynamic condition like acute heart failure, ventricular arrhythmias and cardiogenic shock
- IABP sometimes needed, to stabilize pts hemodynamic during primary PCI.

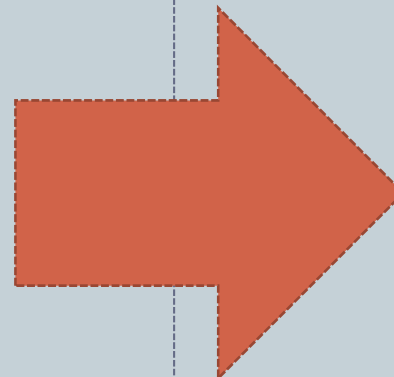
Changes of Guidelines (Recommendations for IABP on Cardiogenic Shock)

**ACC/AHA 2004 & ESC
2008**



**ESC 2012 & ACC/AHA
2013**

 <p>ESC</p>	Class IC
 <p>ACC/AHA</p>	Class IB



 <p>ESC</p>	Class II B
 <p>ACC/AHA</p>	

Van de Werf et al. Eur Heart J 2008;29:2909-2945
Wijns et al. Eur Heart J 2010;31:2501-2555
Antman et al. Circulation 2004;110:82-292

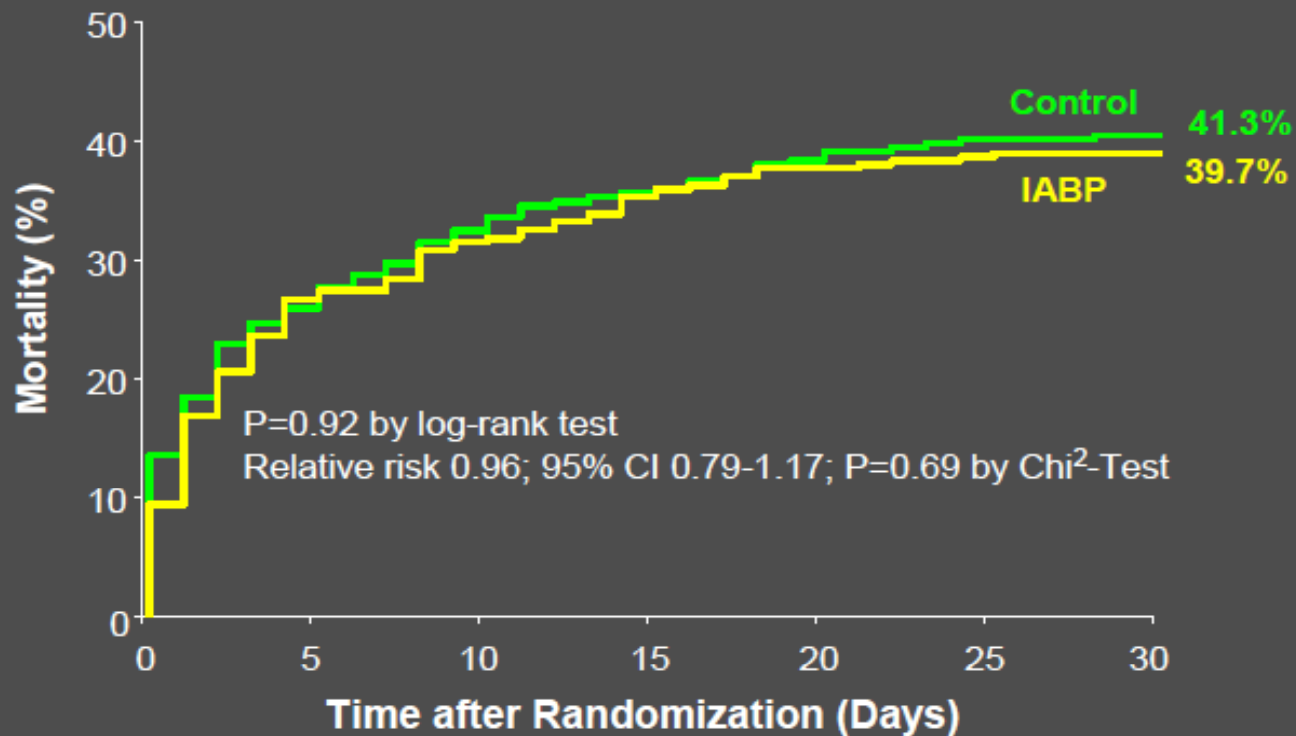
PH Gabriel Steg, et al. European Heart Journal
(2012) 33, 2569–2619
Patrick T. O’Gara, et al. Journal of the American
College of Cardiology Vol. 61, No. 4, 2013

What Recent Evidence Said (Shock II Trial)

Results

Primary Study Endpoint (30-Day Mortality)

IABP
SHOCK II
RANDOMIZED CLINICAL TRIAL



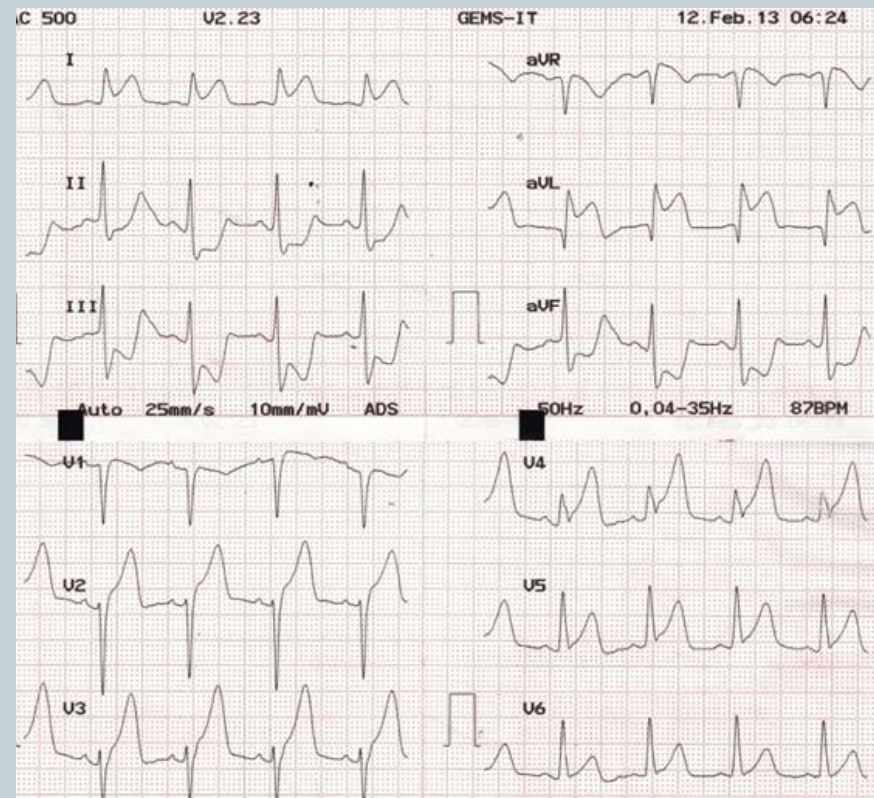
Holger Thiele et al. n engl j med 367;14
october 4, 2012

Case Report

Clinical Presentation

- Male , 51 years old came with presentation of acute chest discomfort 6 hours before admission followed by shortness of breath
- History : Hypertension (+), DM (-), smoking (+)
- There was episode of non sustained VT in ER
- Physical Examination :
BP : 130/80 mmHg , HR : 90 x/mnt, RR : 28x/mnt
Heart : no heart enlargement, no murmur, no extra systole

ECG

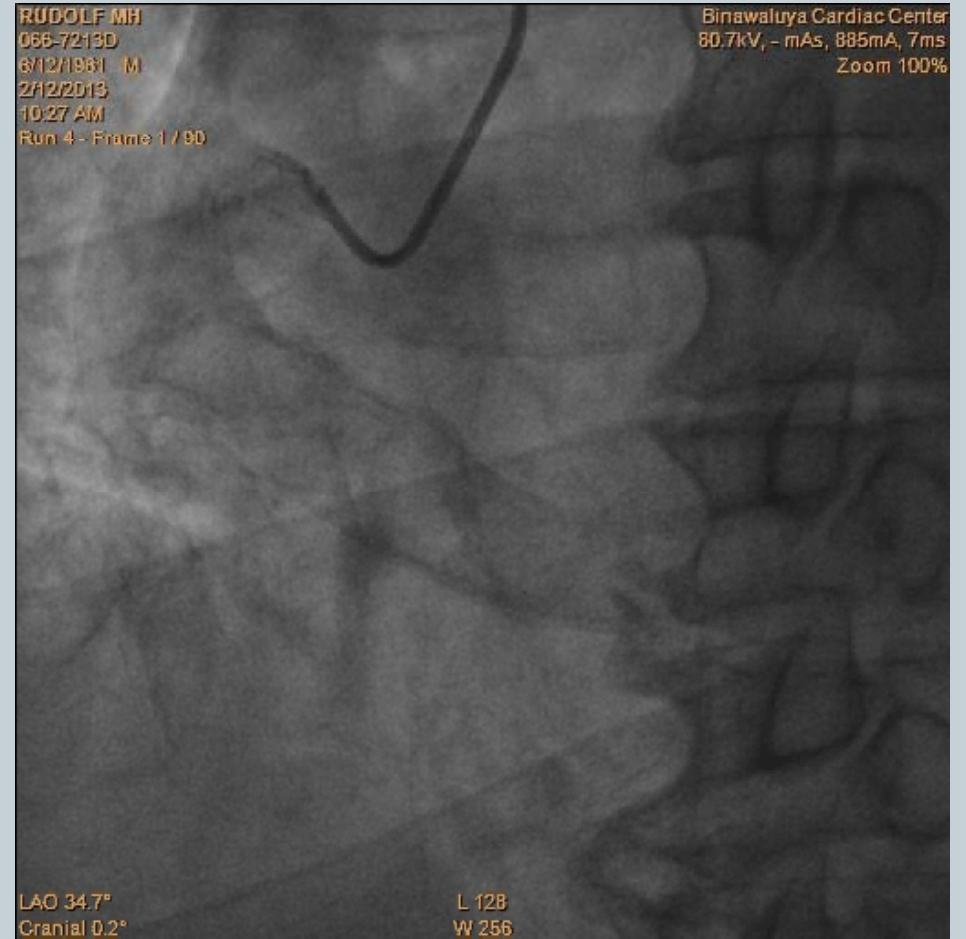
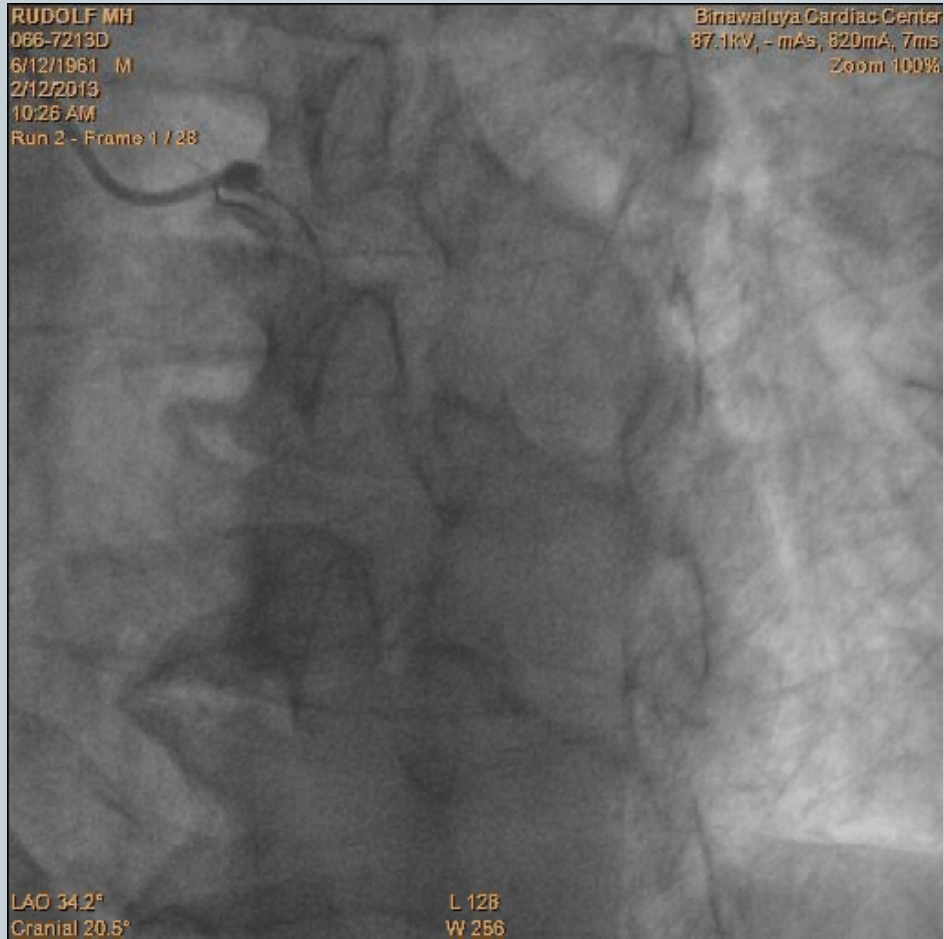


Pre Medication



- **Ticagrelor 180 mg**
- **Aspirin 300 mg**
- **Cordaron 300 mg iv/1 hrs , followed 600 mg/12 hrs**

Diagnostic - Transradial (proximal LM thrombus)

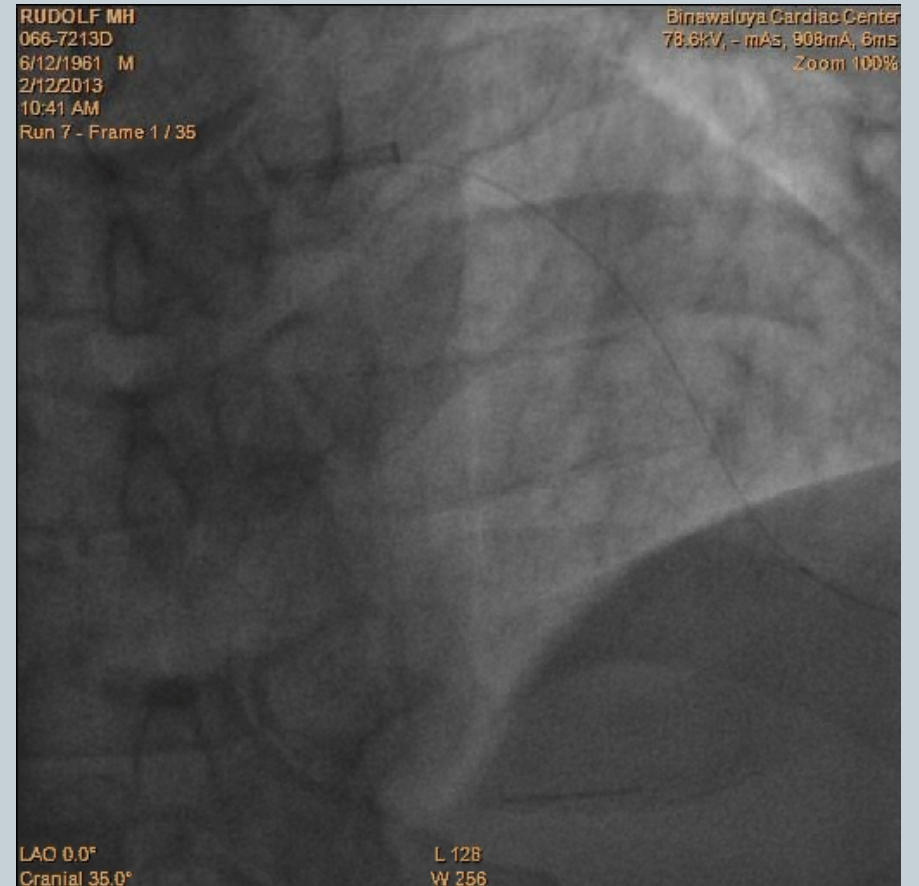
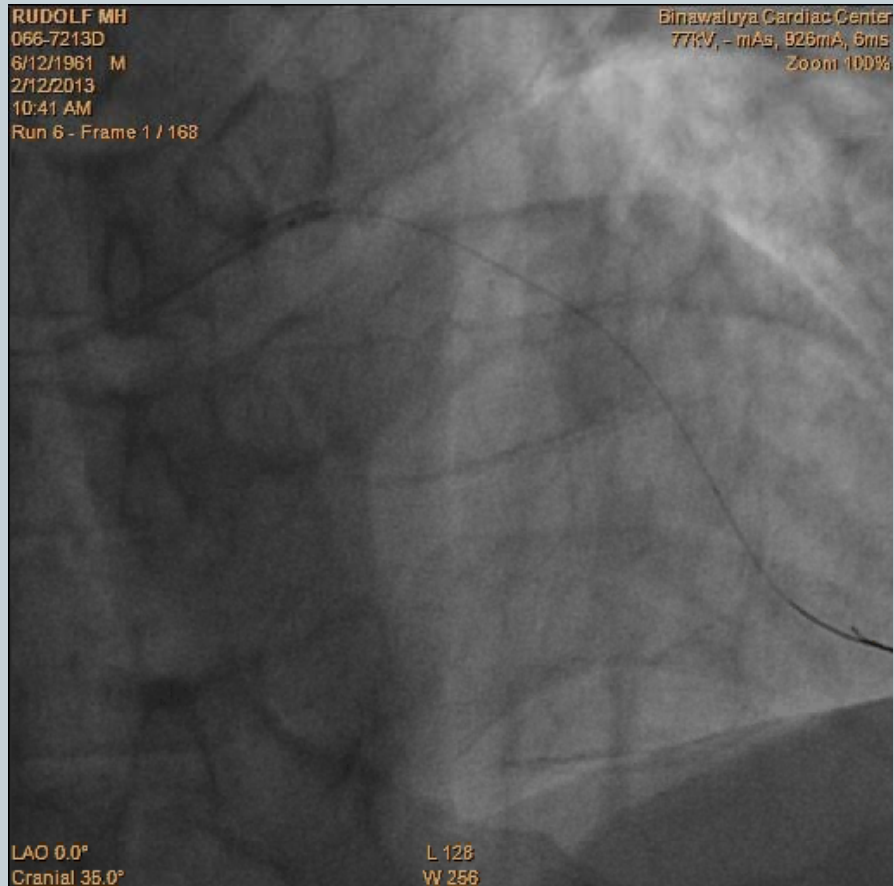


Primary PCI



**GW Pilot 50 toward D1 –
Aspiration with Thrombuster 6 F**

Post Aspiration CAG



Primary PCI



- After first thrombus aspiration, BP was dropped until 48/37 mmHg.

What should we do ?

Set Up for IABP f ?

Or

Continue to do Primary PCI ?

Medications :

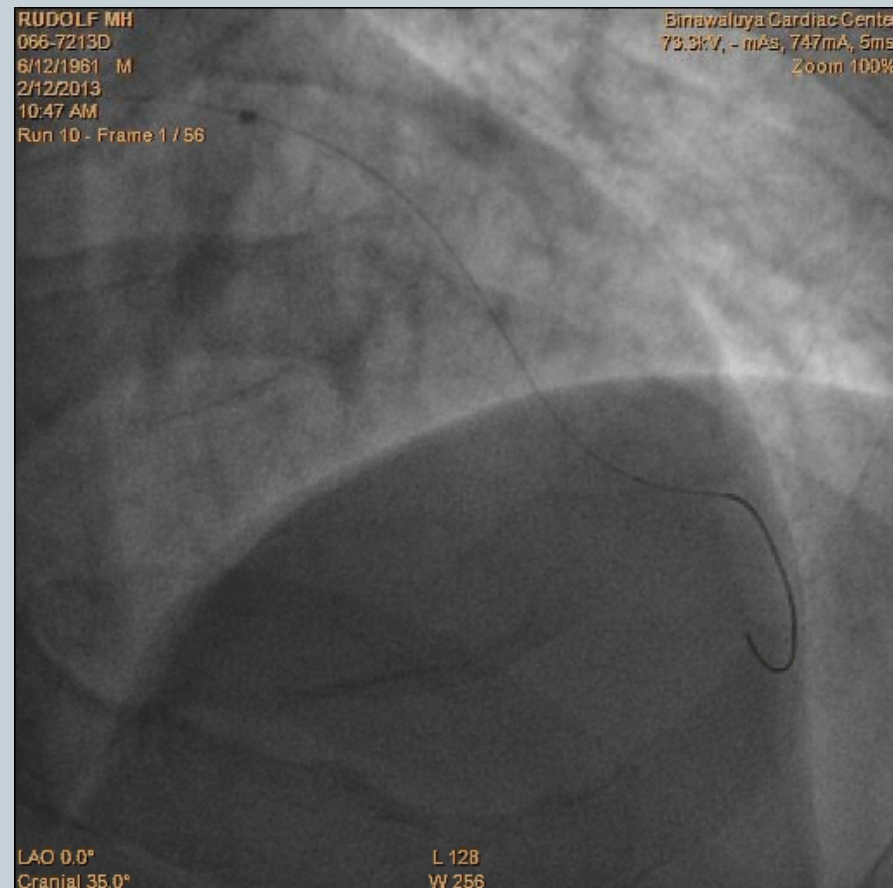
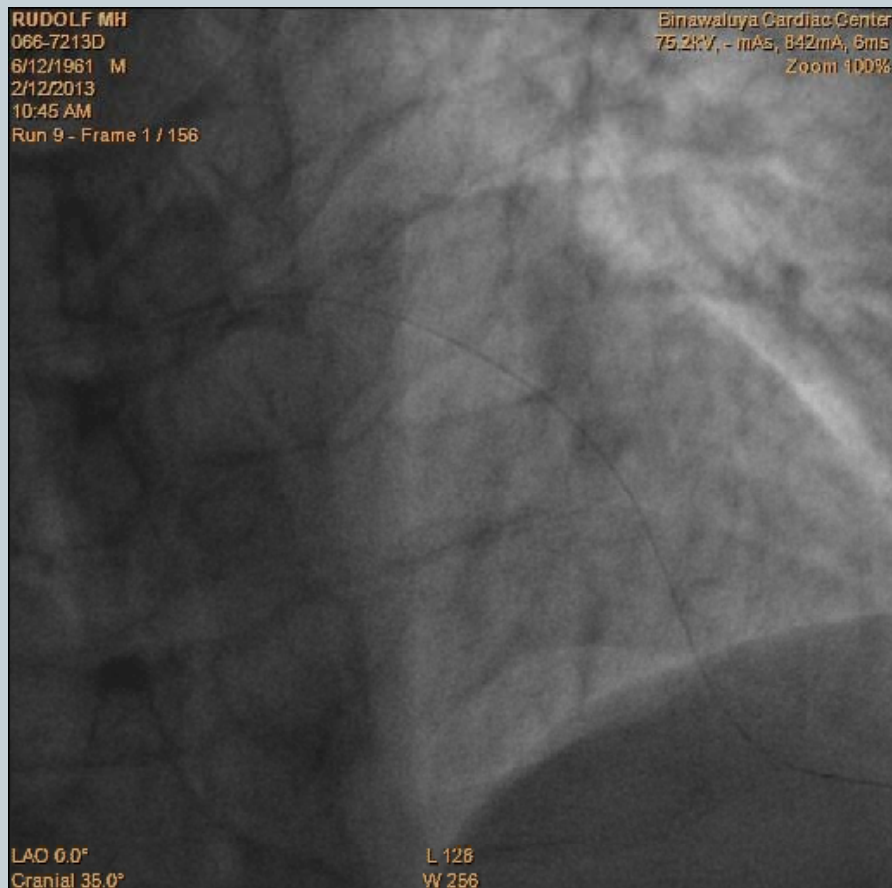
- Norepinefrin 0,2 microgram/kg body weight/minute.
- Dobutamin 10 microgram/kg body weight/minute.
- Furosemide 40 mg i.v
- Integrillin 5 cc , intracoronary

There was many residual thrombus after first Aspiration



Second Thrombus Aspiration GW still in D1

Evaluation

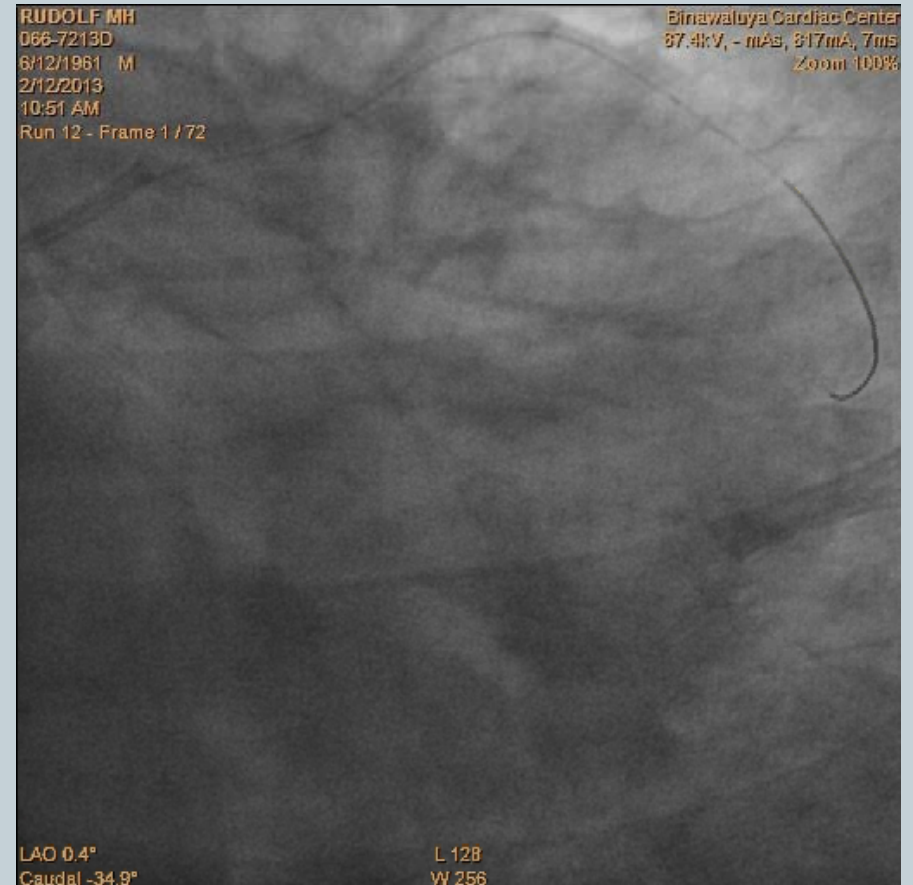
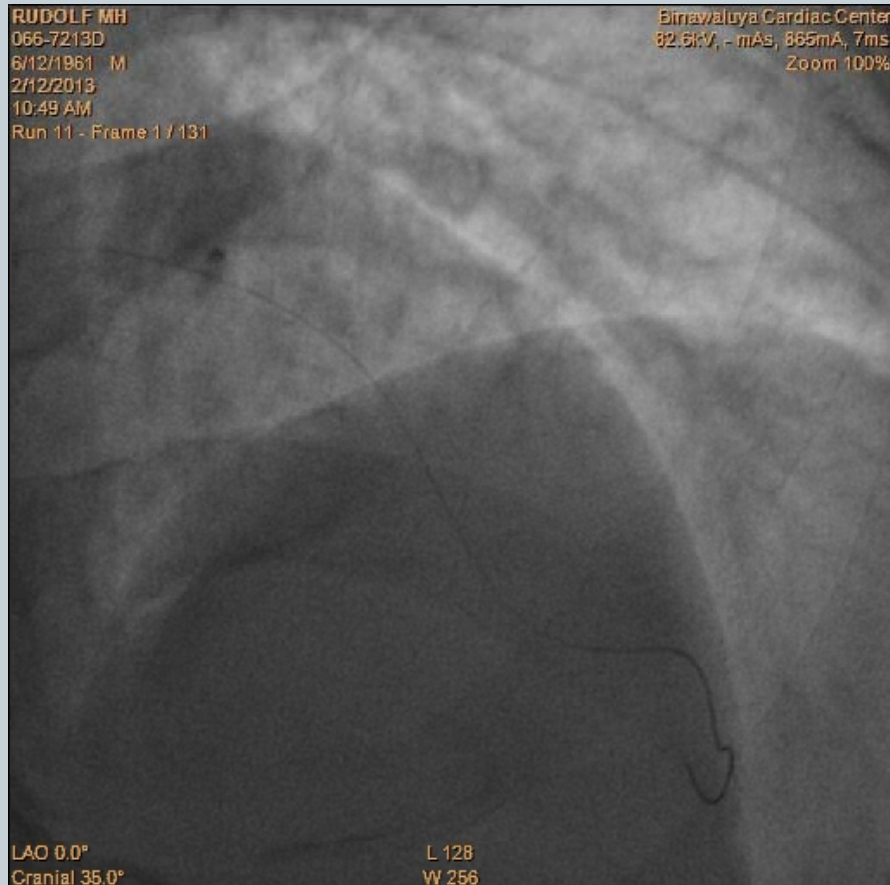


Third Thrombus aspiration



Third Aspiration – GW still in D1

Evaluation





- **BP was rised up to 90/60**

Medications :

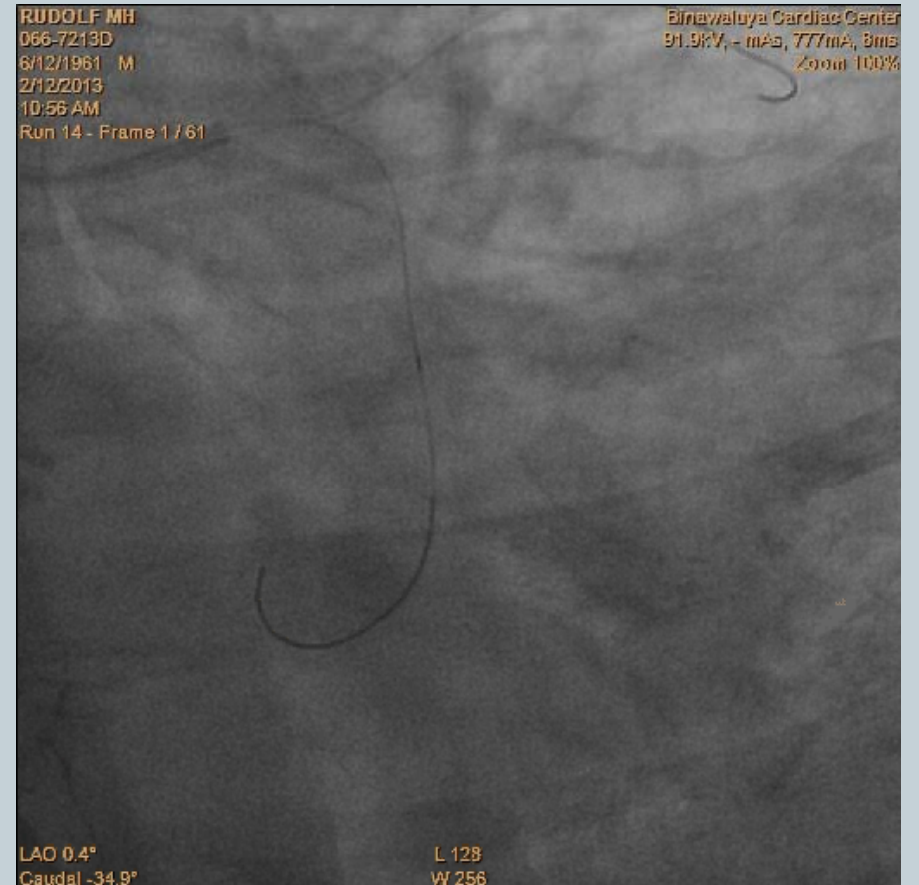
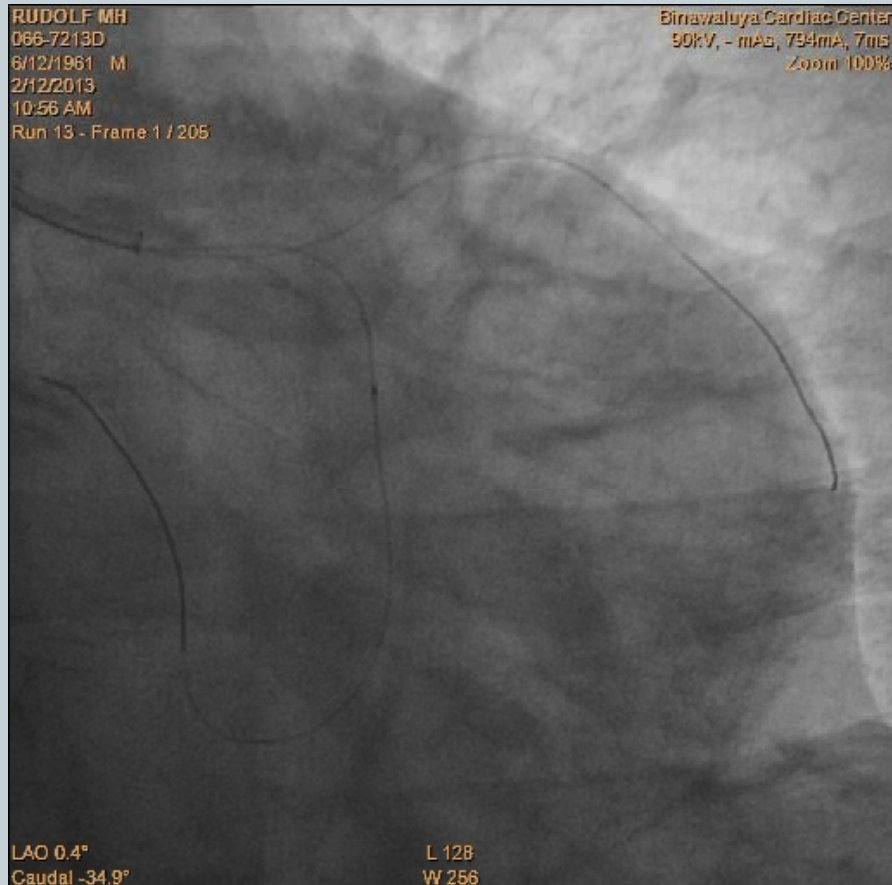
- **Additional 3 cc of integrilin intracoroner, followed by maintenanace dose i.v**
-

Aspiration Thrombus in LCx



Aspiration thrombus in LCx

Evaluation

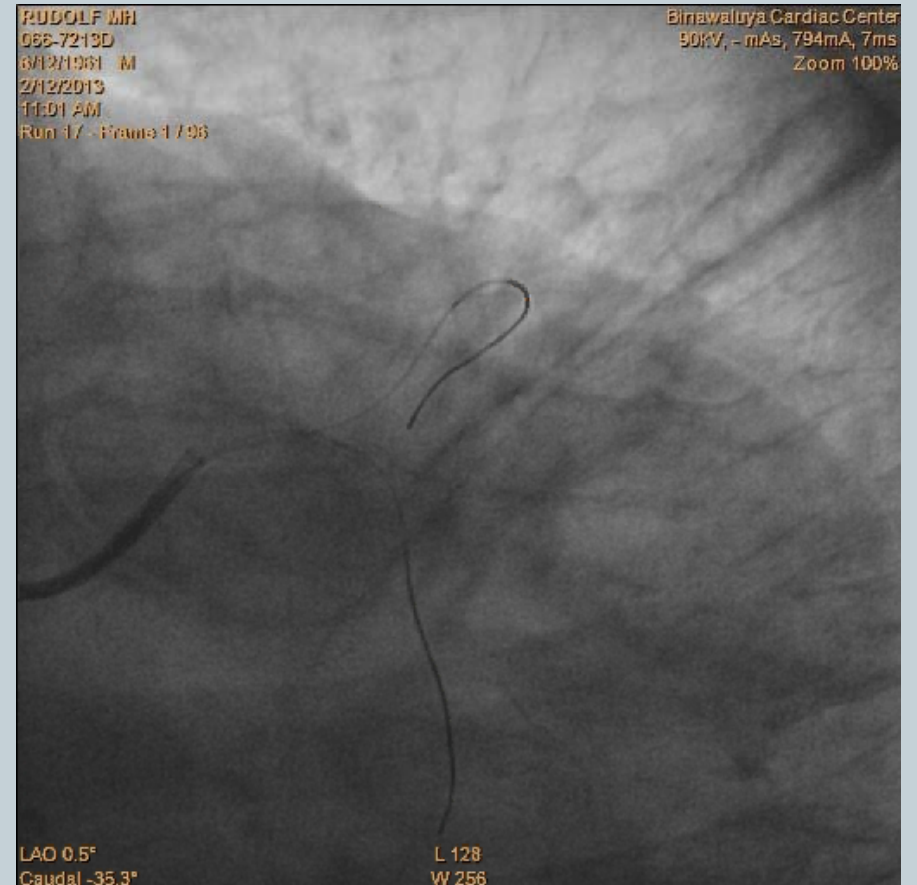
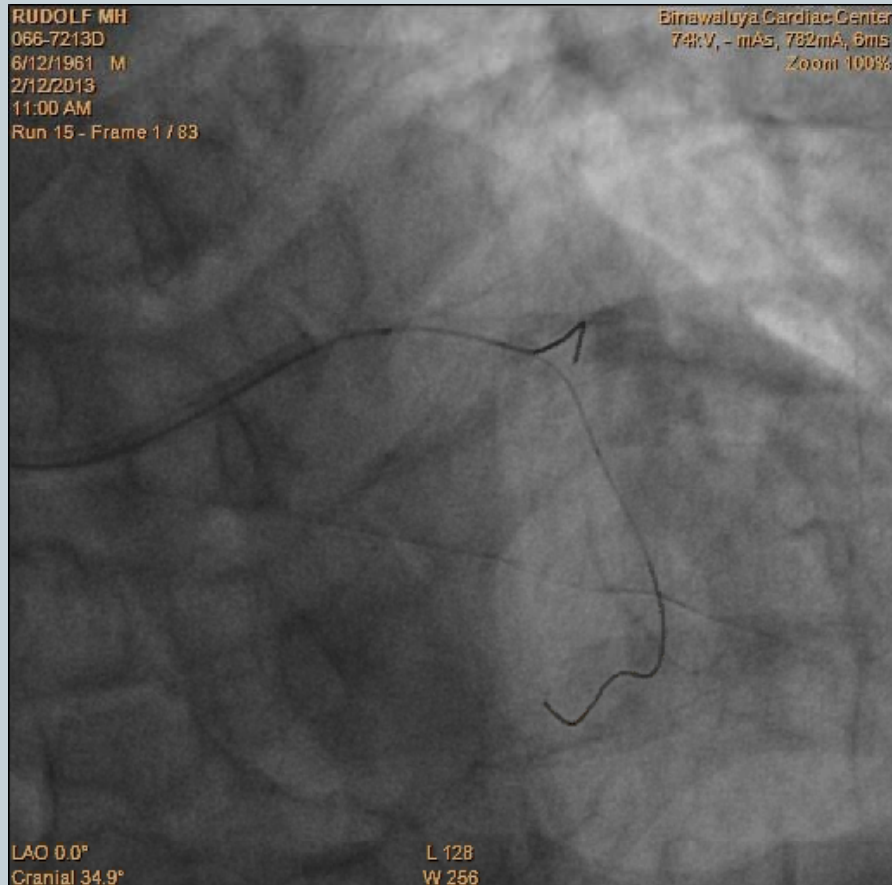


Aspiration Thrombus until mid of LAD



Aspiration Thrombus

Final Result



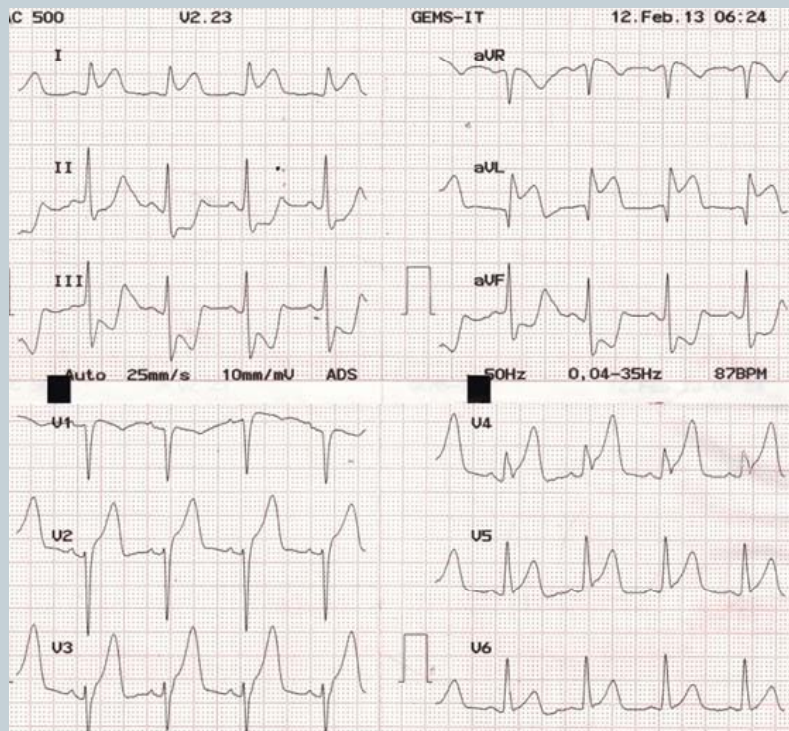
After Procedure



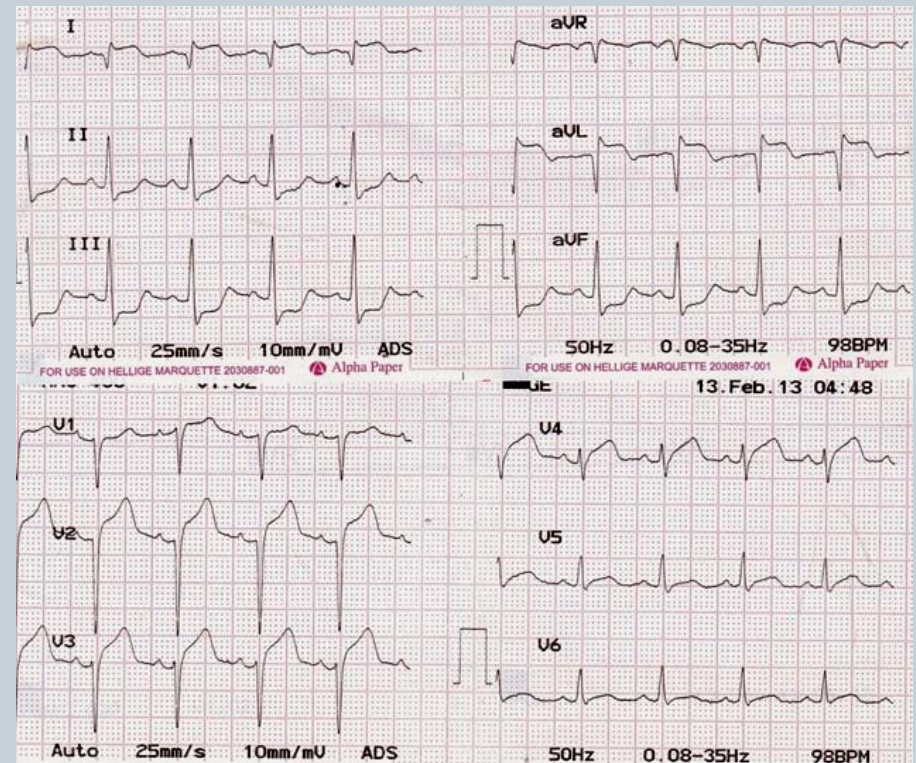
- **BP has risen up to 102/68 mmHg,**
- **Chest discomfort has relieved**
- **Symptom of dyspnea has relieved too**

ECG Post Procedure (ST segment resolution in I and AVL)

ECG Pre Procedure



ECG Post Procedure



Follow Up



- **Pts discharged after 5 days.**
- **Discharge medications :**
 - Aspirin 2 x 100 mg
 - Ticagrelor 2 x 90 mg
 - Atorvastatin 1 x 40 mg
 - Valsartan 2 x 160 mg
 - Furosemide 2x 40 mg
 - Spinorolacton 1 x 25 mg

Take home Message



- **Primary PCI can be performed by transradial acces**
- **Preparation of IABP need more significant time, early reperfusion is more mandatory**
- **Acute heart failure and or shock cardiogenic are often happened, because of reperfusion injury, that can be stabilize with medications .**
- **Some times, if there are no significant stenosis, PPCI can be done with thrombus aspiration only, no need for stenting .**