# Accelerated thrombosis during primary PCI

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## History

- Mr. SW , 52 yr old male
- Chest pain for 2 hours
- Past history includes NSTEMI 2017, DM2 .
- Smoker

## Examination

- Weight 60 kg
- Heart rate- 90/min
- Blood pressure 90/60 mmHg
- lungs were clear

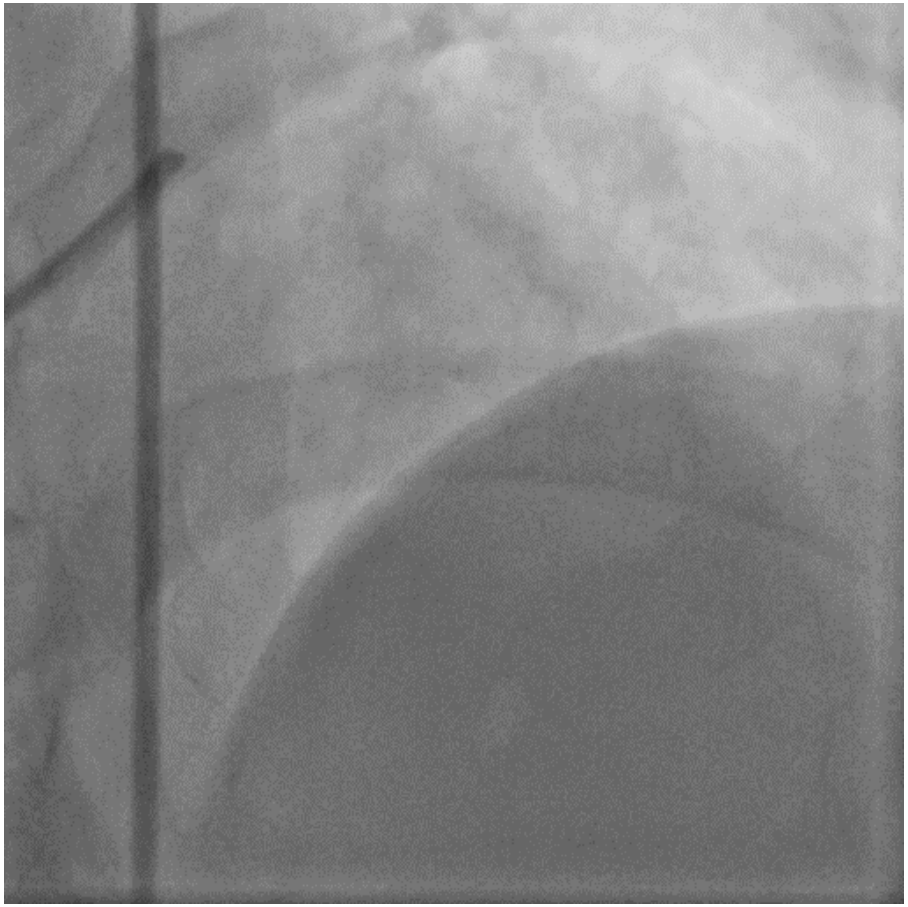
## Investigations

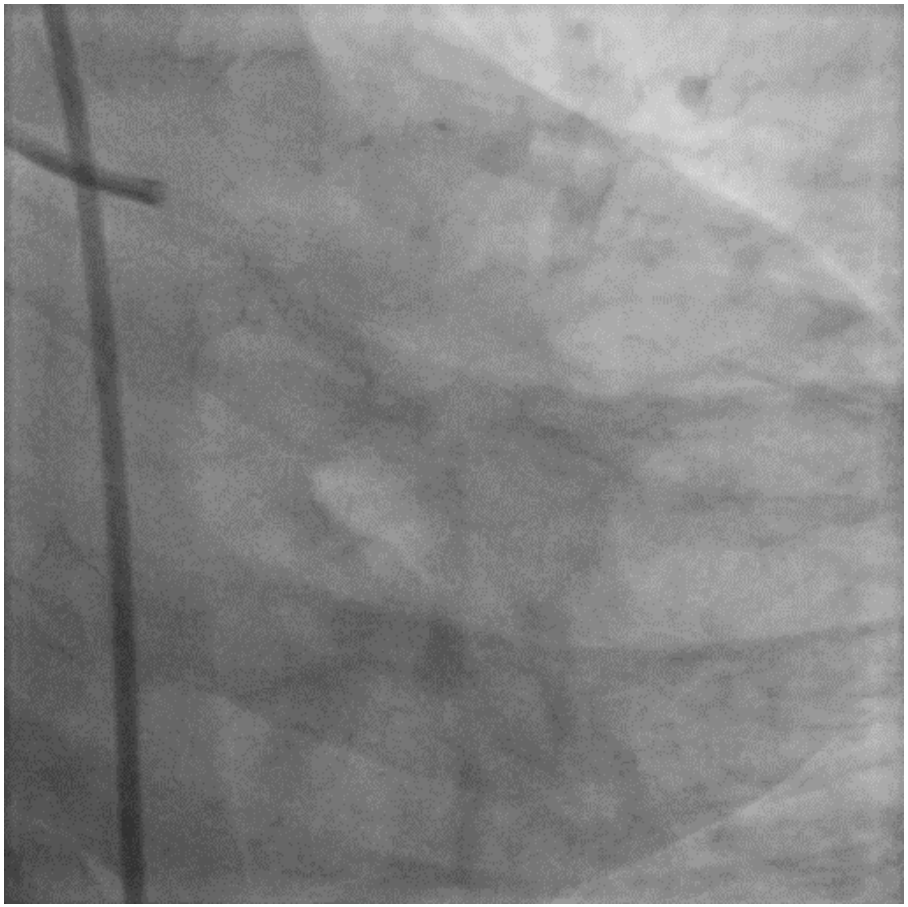
- ECG - ST elevations in V1-V4
- Echo- EF 40%, Anterior wall hypokinetic.
- SE -139/4.5 , Cr - 0.8 mg/dL
- FBC Hb-11.5, WBC-11,000 , Plt-188,000.

## Pre treatment

- Aspirin 300mg and Clopidogrel 300 mg

# Coronary Angiogram





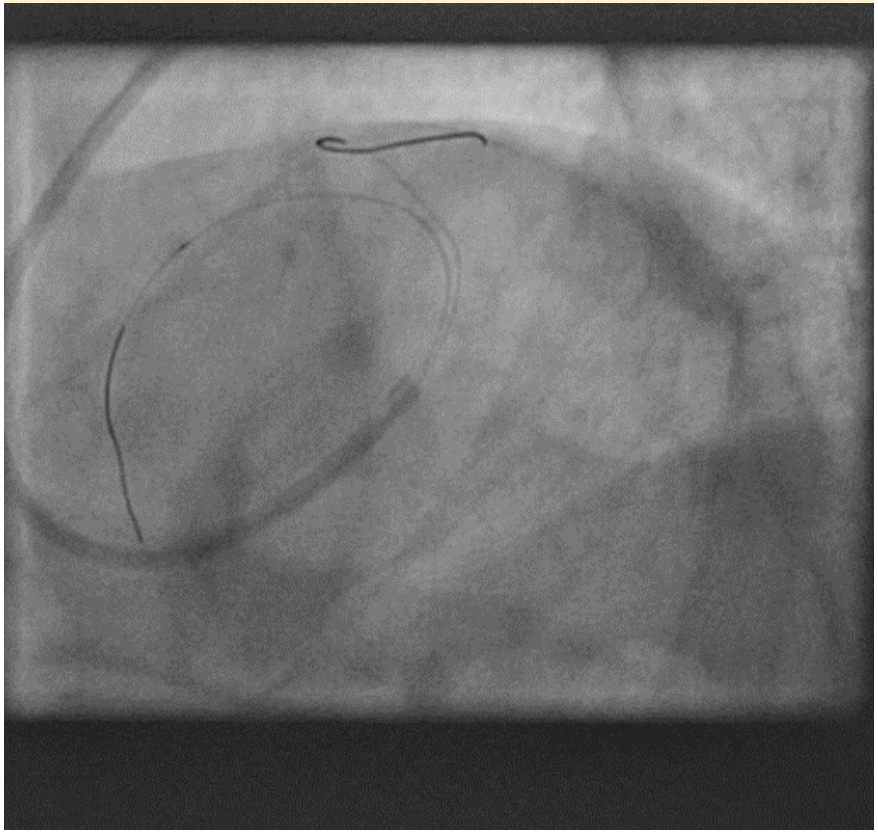
**RCA**

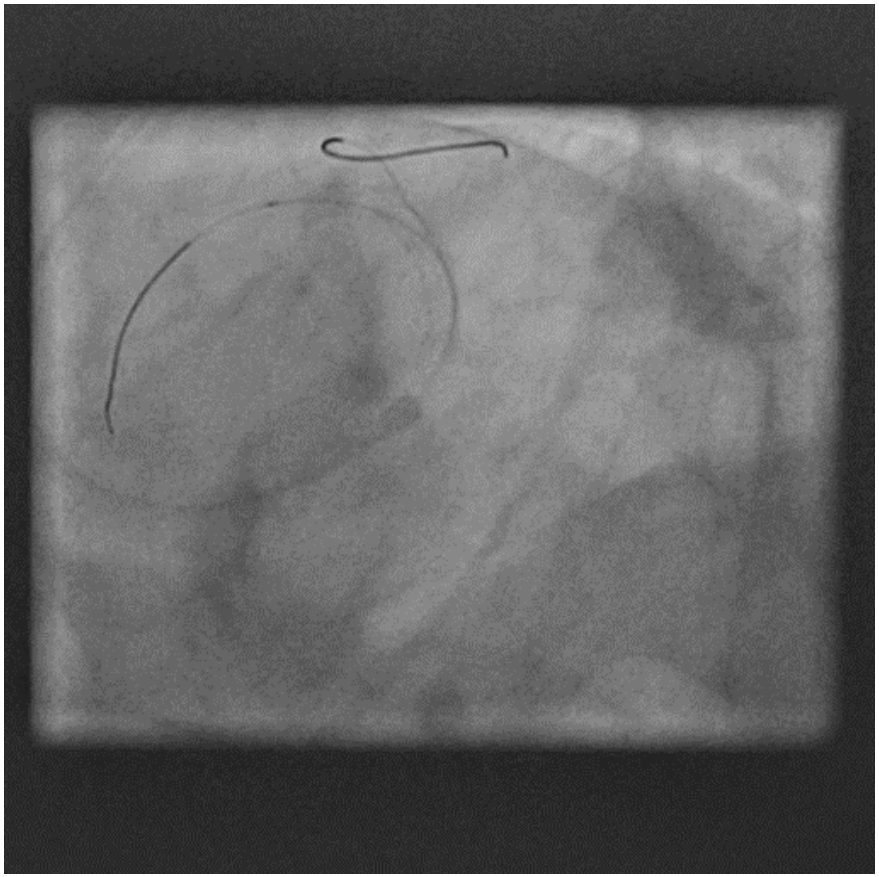
Dominant.

moderate mid segment disease

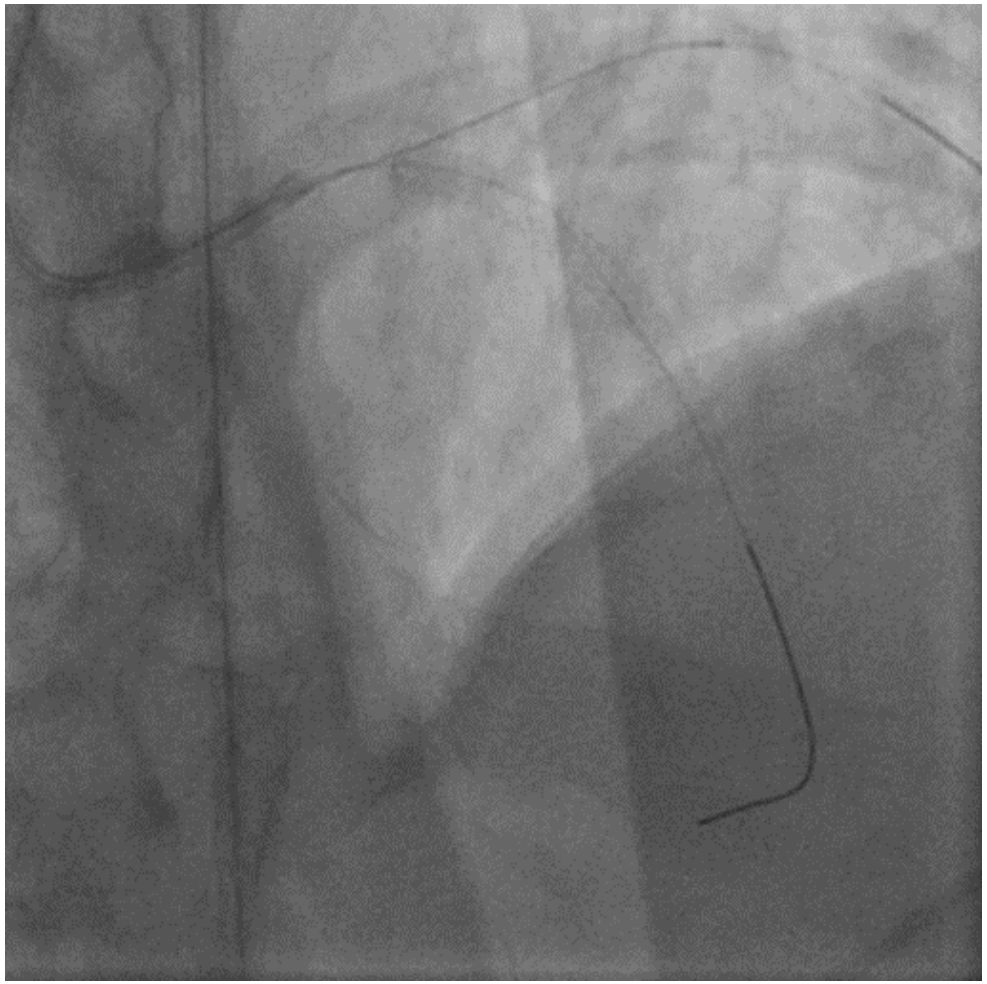
# Primary PCI to LAD

- Right femoral access
- UF Heparin IV 6000u
- XB3.0 guiding catheter
- Sion blue guide wires to LAD and D1
- Pre dilated with 2x10 NC PTCA ballon
- Xience Prime 3.0x38 mm deployed at 12 atm
- Post dilated 3.25 x 9 at 12-18 atm





# Acute thrombotic occlusion .

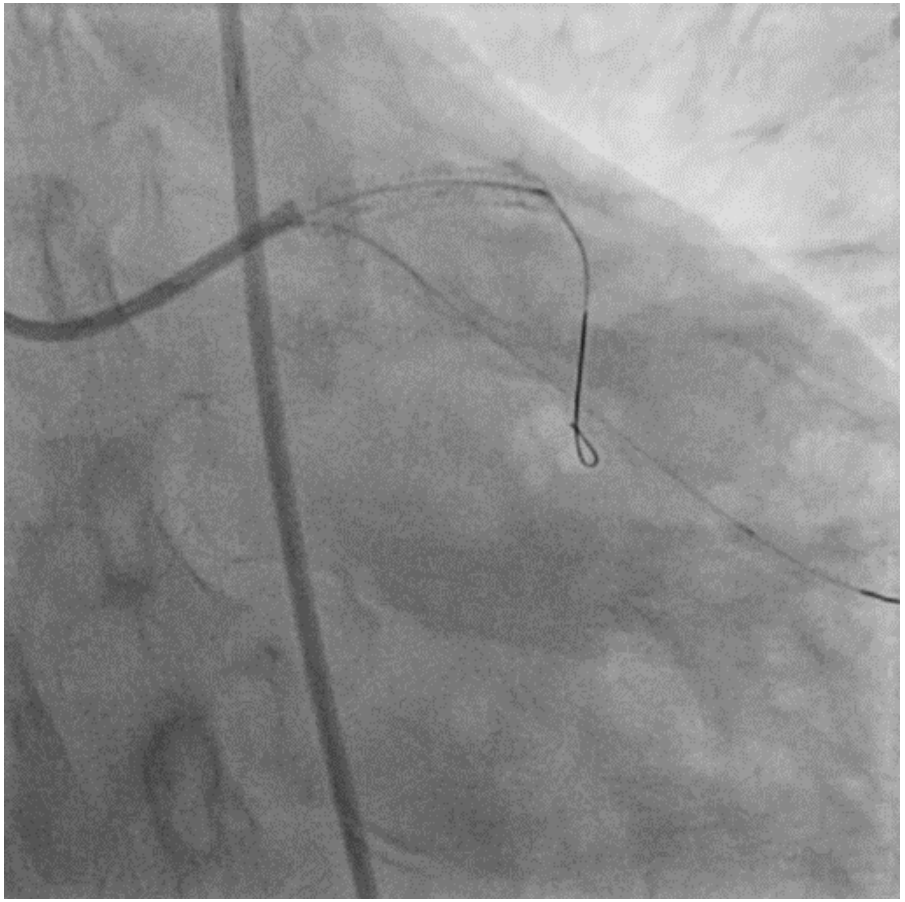


What would you do next?

## What did I do ?

- ACT was 322
- Abciximab 10 mg IC .
- Reloaded with Ticagrelor 180 mg.
- multiple attempts were made for clot aspiration of LCX and LAD .
- multiple balloon dilatations of LAD, LCX and LMCA .
- intubated and ventilated.
- attempted to maintain blood pressure with noradrenalin infusion and multiple ephedrine boluses.

# in spite of all efforts, accelerated thrombus formation progressed… !



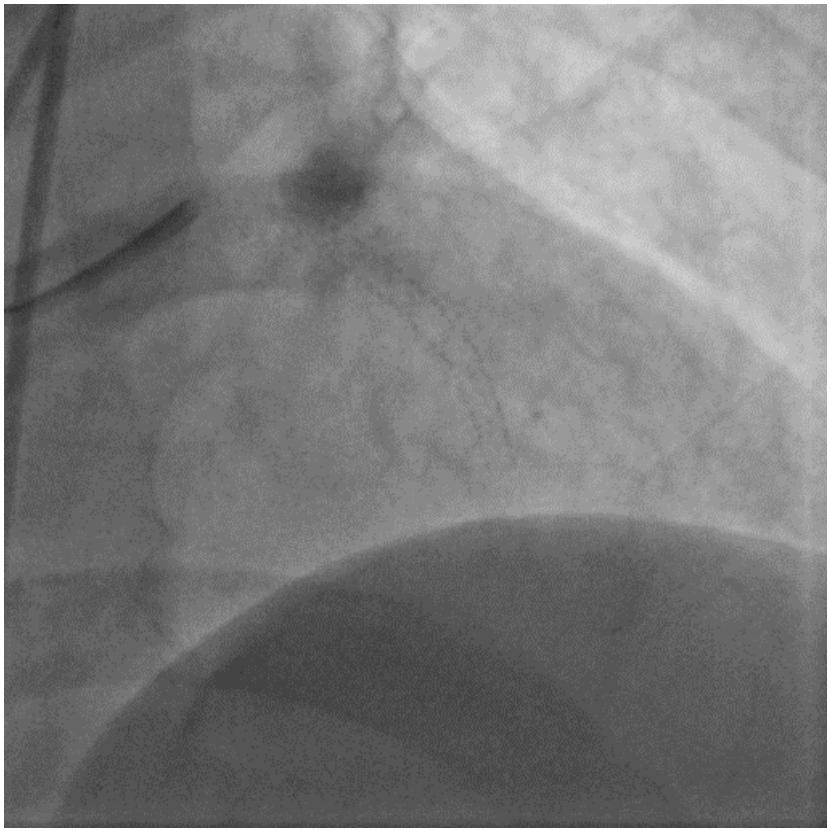
What would you do next?

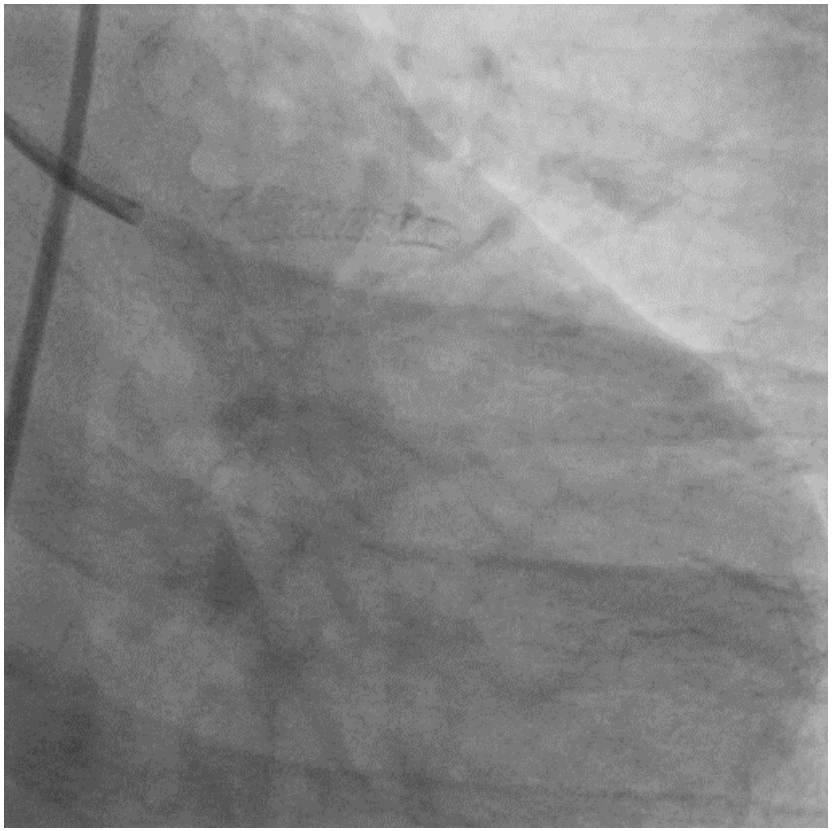
What did I do?

- tenectaplace IC were given through aspiration catheter .
- Contrary to available literature, full IV dose ( 30 mg ) of TNK was divided and delivered to Mid LCX (15mg) and Mid LAD (15mg) .
- IABP

# Miracles does happen…!

- Patient blood pressure improved gradually.
- Patient was Extubated in 2 days .
- Noradrenalin infusion tailed off and IABP tailed off after 3 days.
- Sc Enoxaparin continued for 7 days.
- No bleeding complications!





- IVUS run detected Mild under deployment of LAD stent which was corrected with 3.25 re-dilatation .

- There was no evidence of LAD stent mal apposition , fracture , distortion or residual thrombi.

- LCX Stented with 2.5*18 mm Xience prime DES and Post dilated with 2.75 .

- Patient discharged on day10.

# Discussion

- Malignant thrombosis during PCI is rare in current era of drug eluted stents , better antiplatelet and antithrombotic medications with improved PCI hard ware.
- It is  lethal complication with very high mortality rate and post survival complications .
- Heparin , GB11b111a inhibitors, balloon dilatation, thrombus aspiration and thrombectomy  are accepted  treatment modalities.
- Tenectaplace is not intended for routine intra coronary injection. How ever it has been used in cases with high thrombus burden in acute MI setting and this case proved that it could be life saving as a bail out strategy.
- We used high dose of IC TNK ,to give the maximum benefit to dying patient, but optimum dose has to be discussed. Fortunately our patient has not developed any bleeding complications which is not uncommon with multiple antithrombotic agents and thrombolytics.