

# Case of an Acute Dual Plaque Rupture

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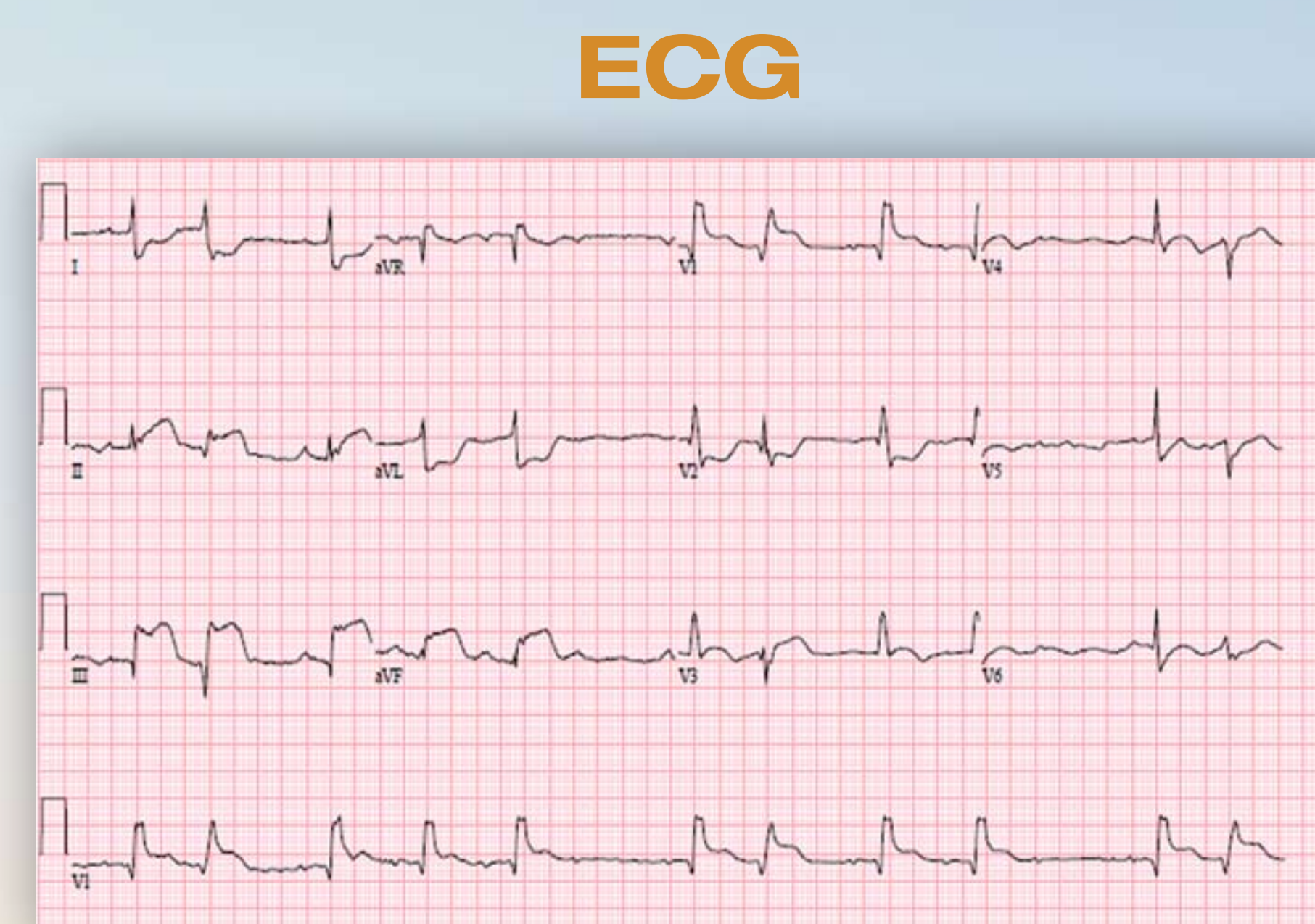
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# Case of an Acute Dual Plaque Rupture

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## Presentation:

- We present a case of a 52 year old gentleman with a history of hypertension who presented to the emergency department with substernal chest pressure and shortness of breath.
- The presenting ECG revealed marked ST-elevation as shown here.

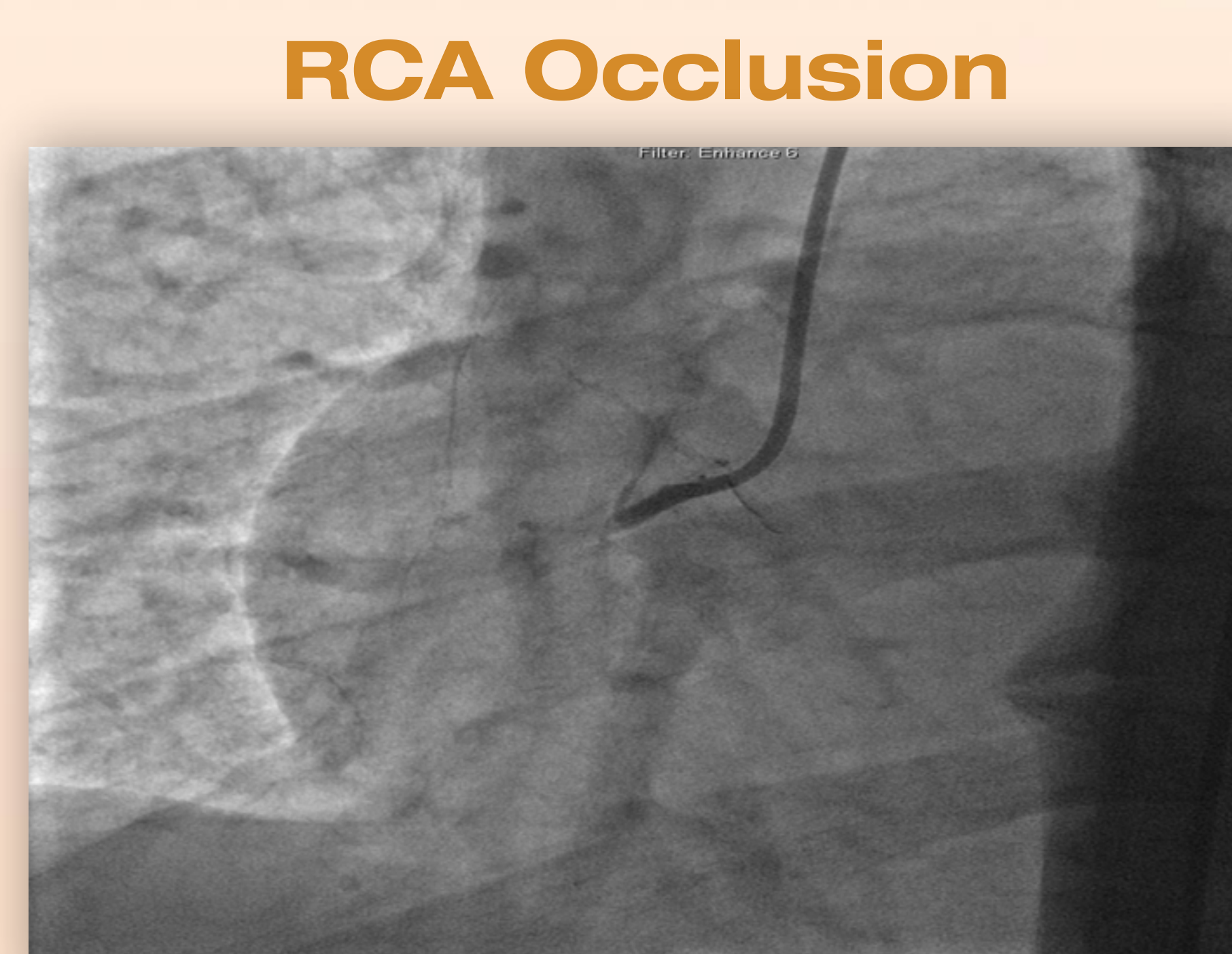


## Treatment Course:

- He received the standard aspirin 324 mg, clopidogrel 600 mg, and a 5,000 unit IV heparin bolus and taken emergently to the catheterization lab.

## Catheterization:

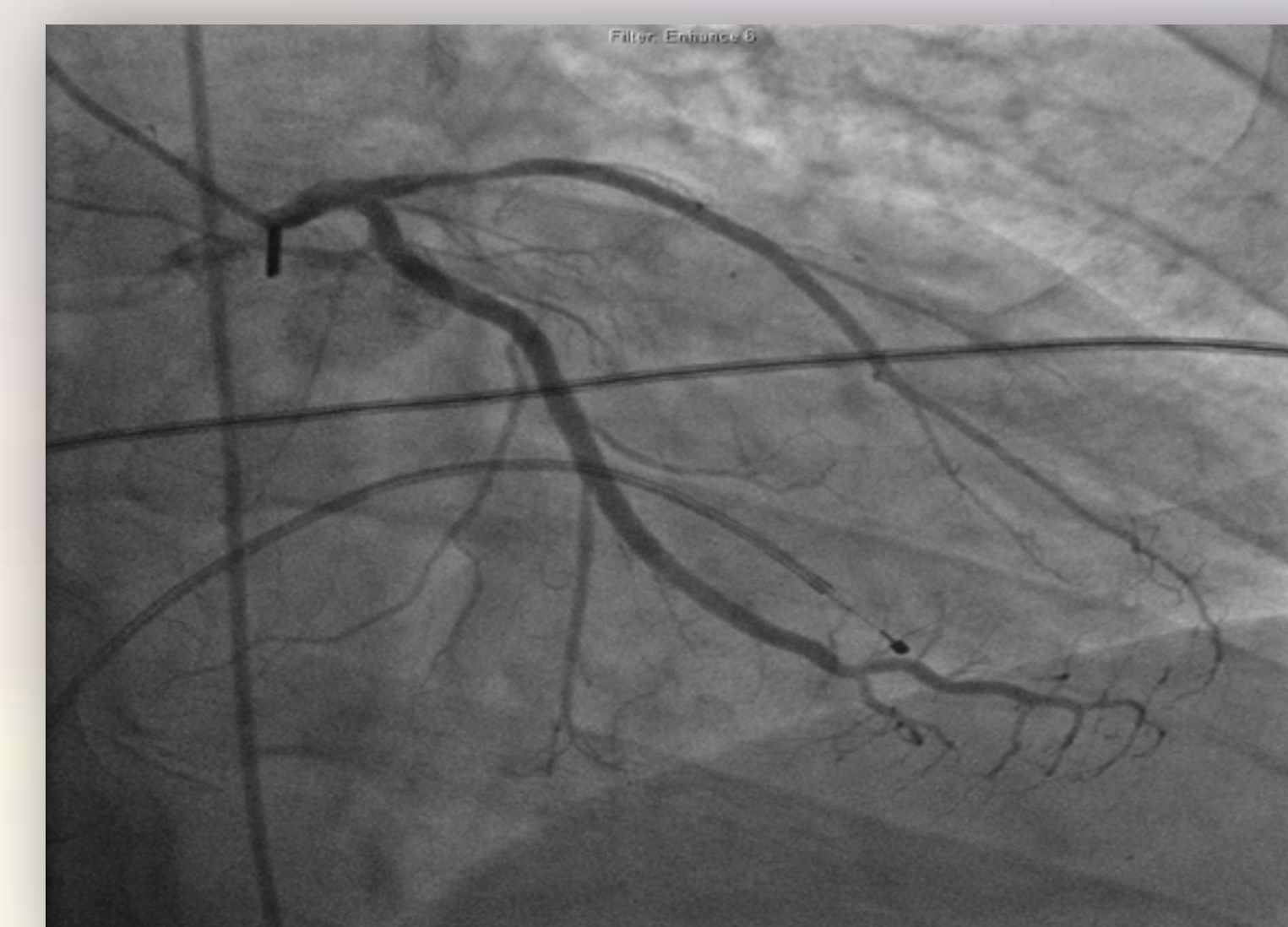
- A right femoral artery approach was utilized.
- Here, vasopressors were initiated for profound hypotension. The RCA was engaged first based on the presenting ECG and revealed a 100% proximal occlusion.
- During the intervention, multiple episodes of ventricular tachycardia/fibrillation occurred requiring ACLS and intubation.



## Catheterization:

- Because of the ongoing hemodynamic instability, the left coronary system was engaged prior to the stent being placed which revealed a 100% occlusion of the proximal LAD.

Proximal LAD Occlusion



- LAD occlusion in the RAO caudal view

Proximal LAD Occlusion



- Proximal LAD occlusion in the LAO caudal view

LV Gram

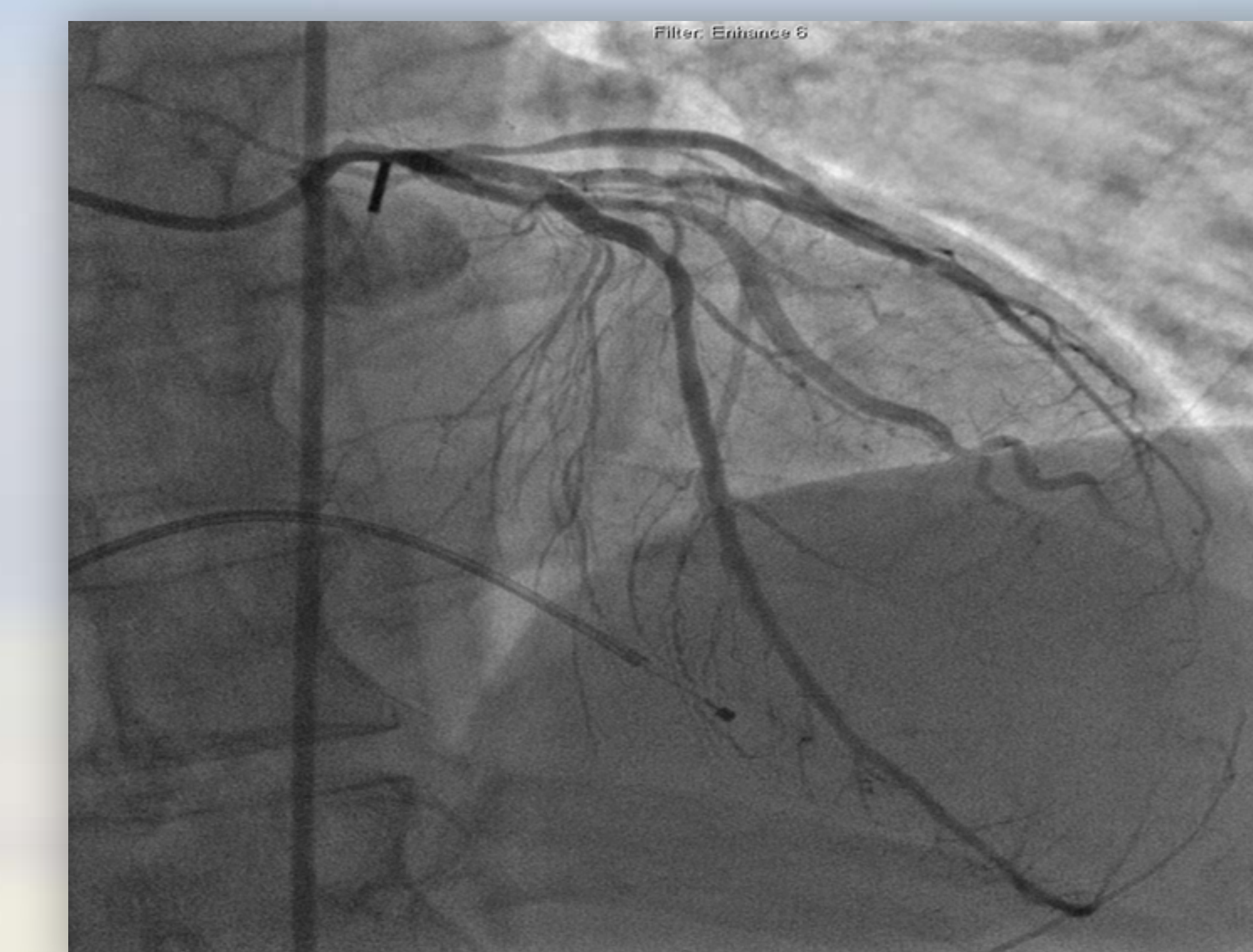


- Left ventriculogram revealing severe anterior and inferior wall akinesis

## Treatment:

- Both the proximal RCA and proximal LAD were successfully reperfused and a bare-metal stent was placed in the RCA and a drug-eluting stent placed to the proximal LAD.
- Both interventions led to a 0% residual stenosis with resultant TIMI 3 flow.

- He was taken to the cardiac ICU in critical condition and discharged from the hospital 1 week later with an external defibrillator for severely depressed LV function and frequent ventricular ectopy.



- LAD after placement of stent with restoration of flow



- RCA after placement of stent showing restoration of flow

## Discussion:

- A simultaneous acute dual-plaque rupture resulting in two coronary arteries being occluded is a rare occurrence. This case demonstrates that proper and timely visualization of all the coronary arteries during an acute myocardial infarction is critical. During an acute myocardial infarction, time to vessel reperfusion is paramount and a delay to visualize other vessels can cause a delay to reperfusion.
- One option is to visualize the presumed non-infarct artery while a balloon and stent are being set-up. This can be done quickly and accurately and would allow for proper decision making. This case demonstrates the importance of the visualization of all the coronary arteries during an acute myocardial infarction.