Management of Cardiogenic Shock Secondary to a Left Main Trifurcation Lesion

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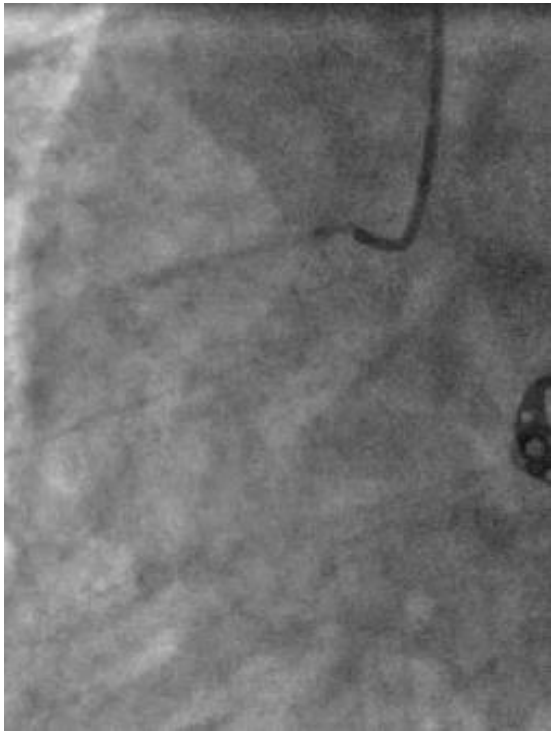
Presentation

- 65 year old male
- Self-presented to ED with a 10 hour history of central chest pain at rest
- Bedside Echocardiogram:
  - Severe LV dysfunction: 20%
  - Anteroseptal akinesis

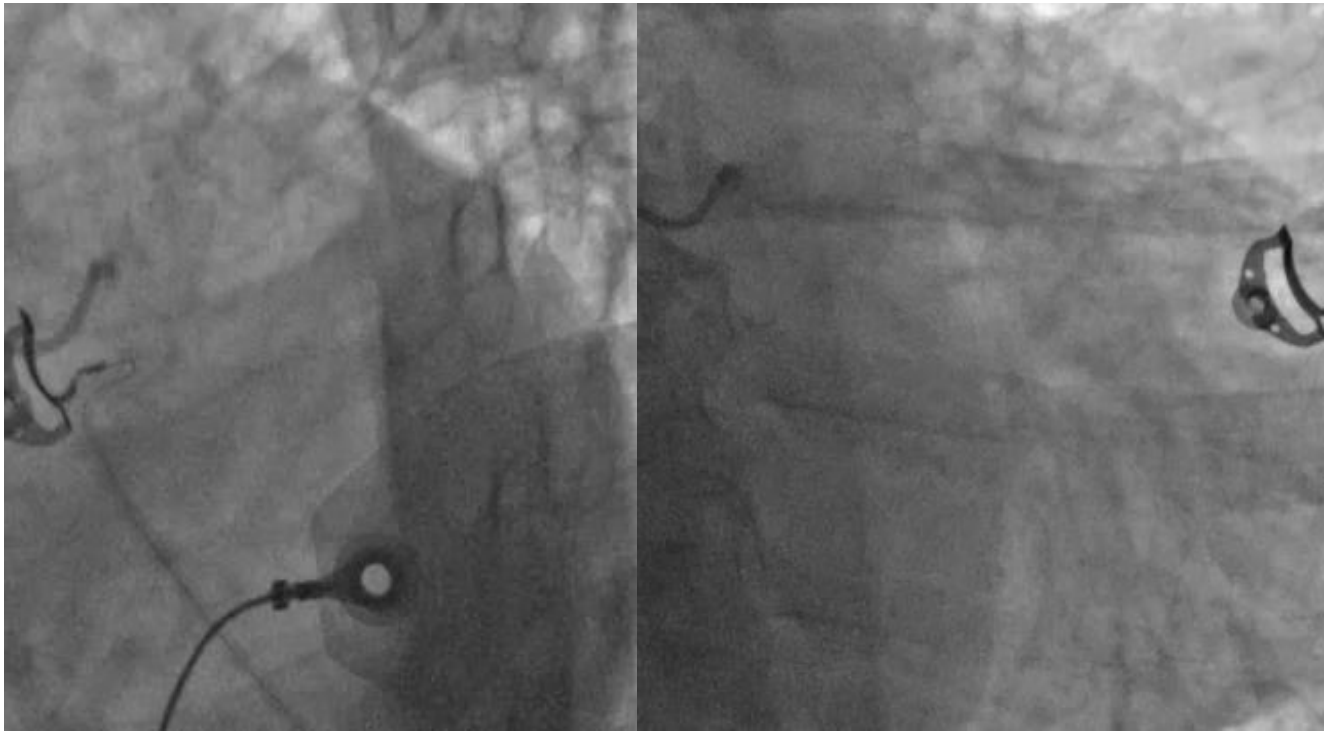
- Past Medical History
  - NSTEMI 1998 treated conservatively
  - Severe peripheral arterial disease with bilateral femoral occlusion
  - Heavy smoker, 40/day, 120 pack year

Coronary angiogram

CTO right coronary artery



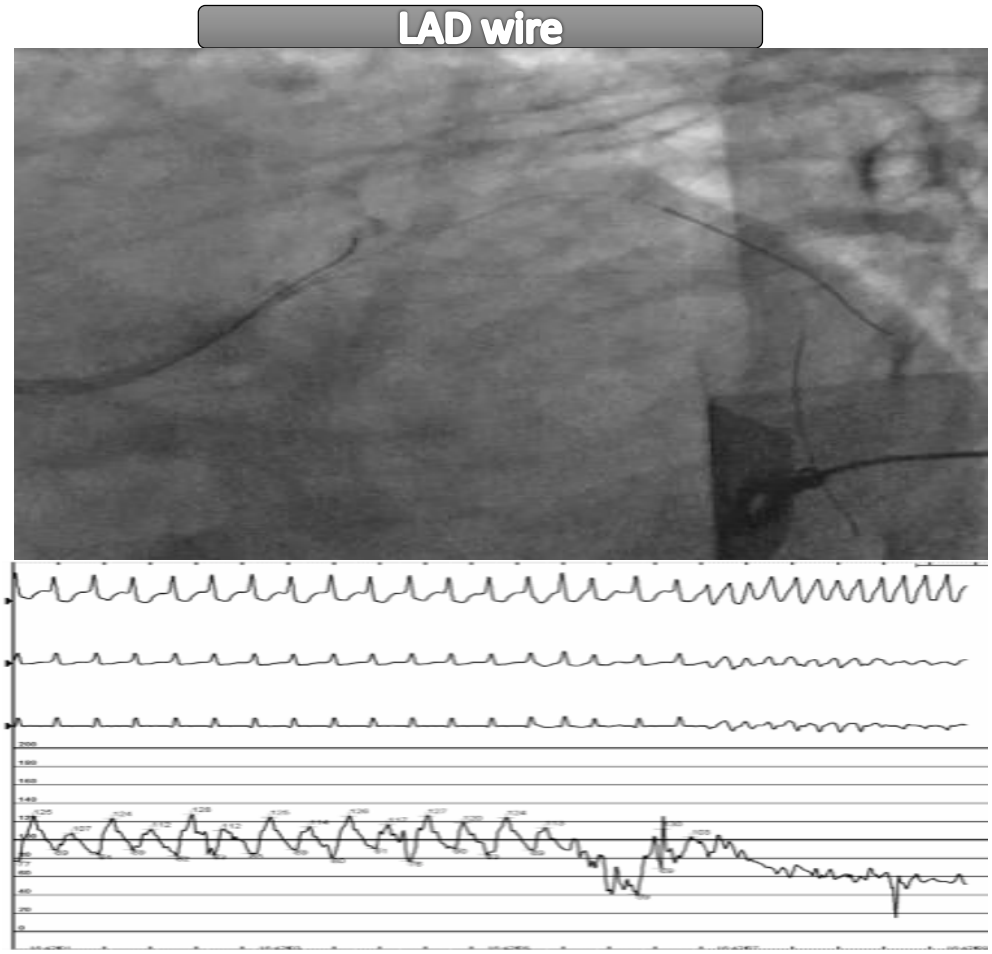
Left main trifurcation lesion with ramus



Clinical deterioration

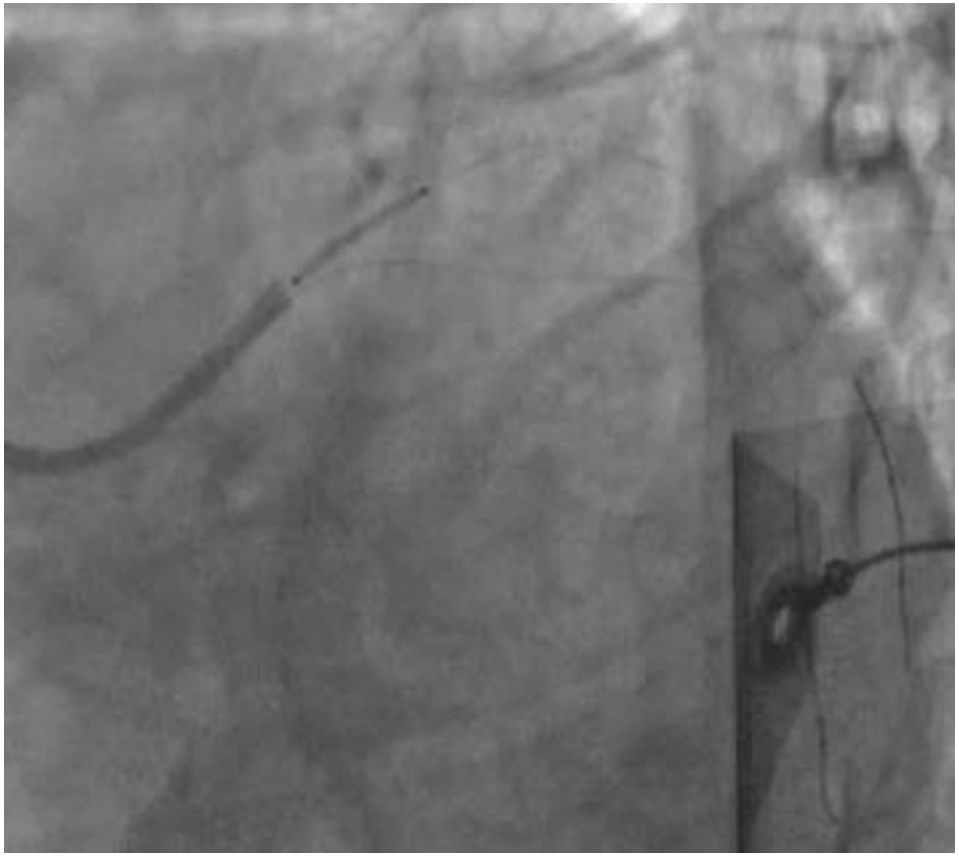
- While on table discussing patient with Cardiothoracic's patient became tachypneic, hypotensive and developed marked shortness of breath
  - O2 88%
  - BP 73/40mmHg
- Upsized to 7 french sheath
- Anesthetics involvement
  - Patient intubated
  - Bolused with noradrenaline
  - Bolused with IV furosemide

Development of Ventricular Fibrillation



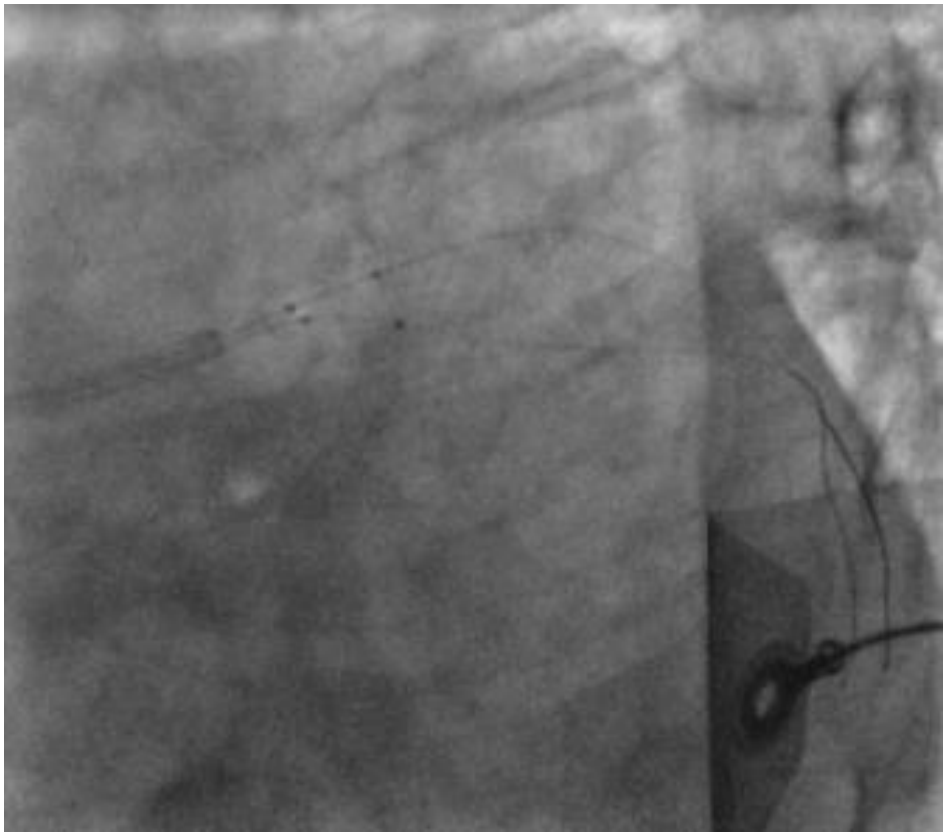
- BMW to RI and LCx
- hypotension & VF attempting to pass BMW to LAD
  - 2 VF Required 2 shocks
  - BMW to LAD abandoned
  - No further VF

Solution: PCI Left Main to Ramus Intermedius



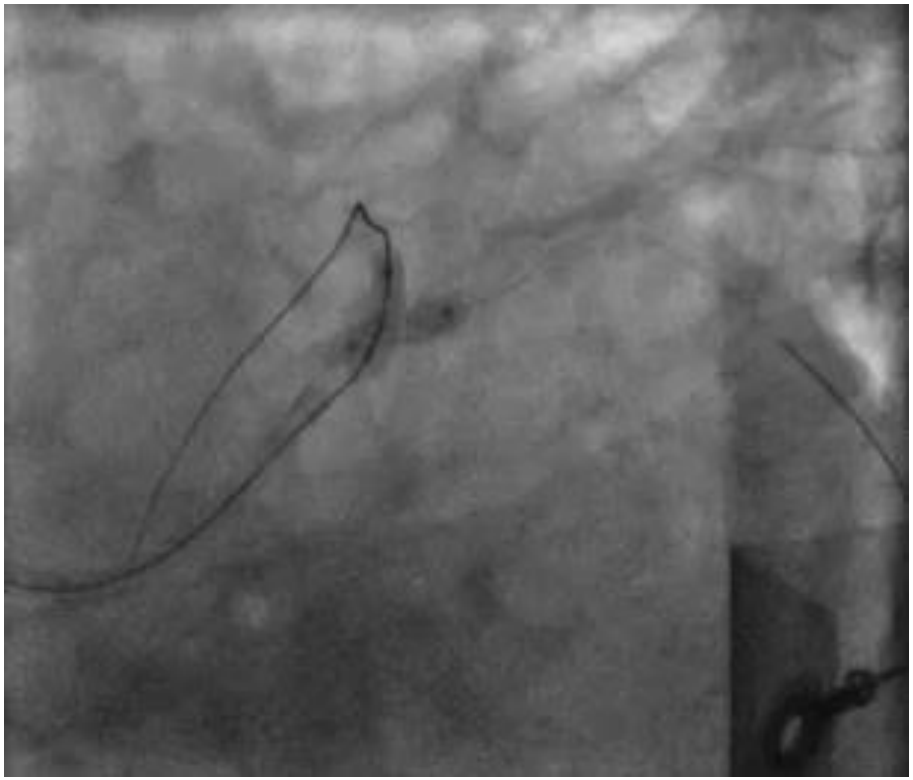
- 2.5 x 12mm SC LM to RI to 18atm
- Synergy 3.5 x 16mm to 16 atm
- Blood pressure stabilized
  - 153/111
- Started on nordarenaline infusion
  - No further boluses needed on table to maintain BP

Coronary angioplasty: kissing balloons



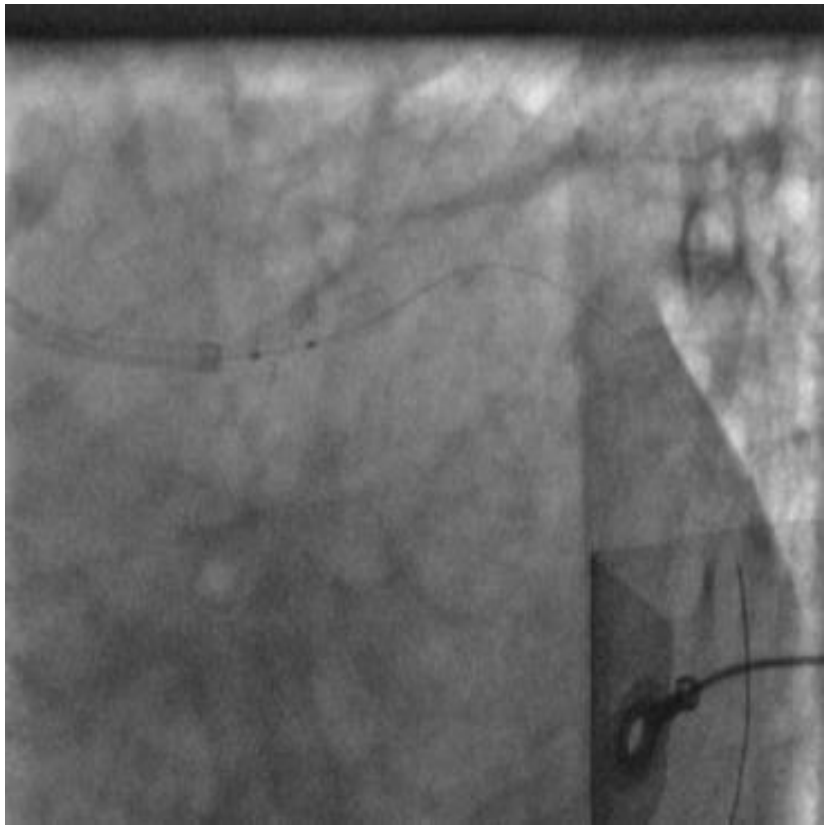
- Left circumflex:
  - 2.0 x 12mm semi compliant balloon, to 12 atm
- Kissing Balloons: RI and LCx
  - 3.5 x 12mm RI to 14atm
  - 2.5 x 12mm LCx to 12 atm

Coronary angioplasty: left anterior descending



- Proximal LAD lesion crossed with fielder XTA guide wire
- Proximal LAD predilated with 2.5 x 10mm semi-compliant balloon to 16 atm
- Kissing balloons
  - LAD 3.0 x 10mm to 16atm
  - RI 3.5 x 12mm to 14atm

Final Result



- POT left main 4.0 x 8mm to 12atm
  - TIMI III flow
- Rest of admission uncomplicated
  - Extubated 24hrs post procedure
  - Weaned off inotropes after 36hrs
  - No further Chest pain
- Follow-up Echocardiogram
  - severely reduced LVEF (20%)
  - anteroseptal akinesis
- Discharged day 10 post-PCI,
  - follow-up heart failure titration

Points for discussion

- In complex disease keep it simple
  - PCI left main to ramus intermedius stabilized patient
- Planned for Cardiac MRI to assess for viability of Left anterior descending region
  - +/- further stenting to Left anterior descending region