



A job for unfolded balloon

By

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- 73 year old male
- Previous CABG 16 years ago
- Co-morbidities: Bronchiectasis, chronic kidney disease, Hypertension, Barrett's esophagus.
- CCS 3 angina with poor functional capacity
- Echocardiogram showed normal left ventricular function

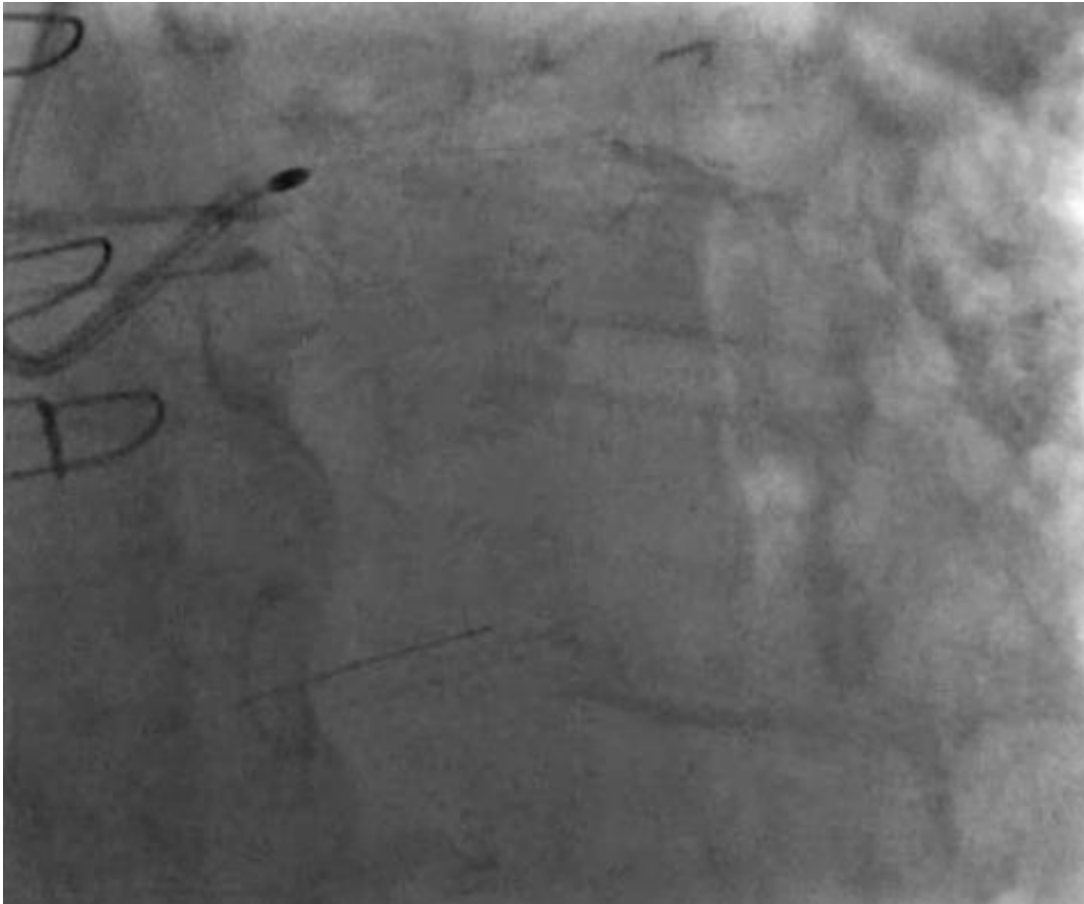
2. Coronary angiogram

- Occluded left anterior descending artery, patent Left internal mammary artery with competitive flow in LAD
- Severe, tortuous and calcific proximal left circumflex disease.
- CTO in distal right coronary artery
- No saphenous venous graft could be visualized

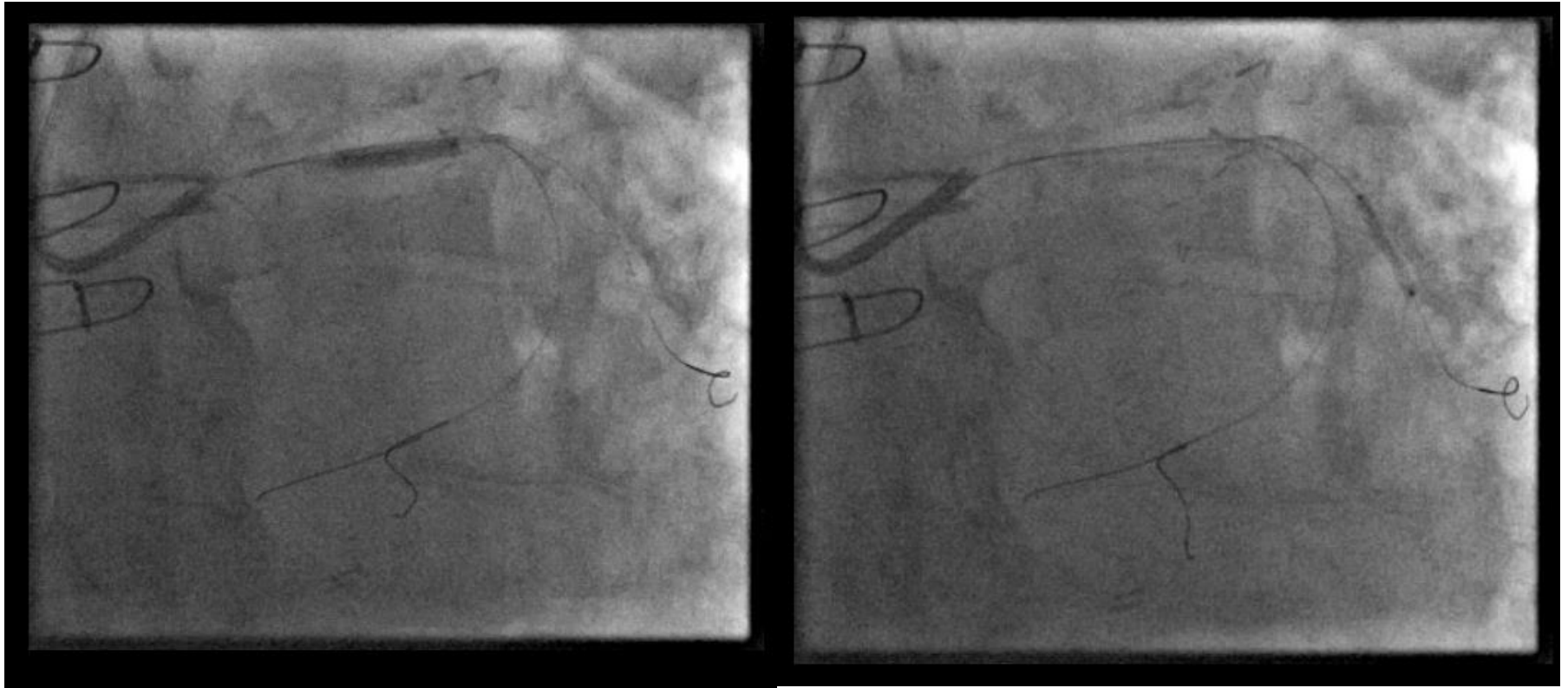


3. LCX angioplasty with rotational atherectomy

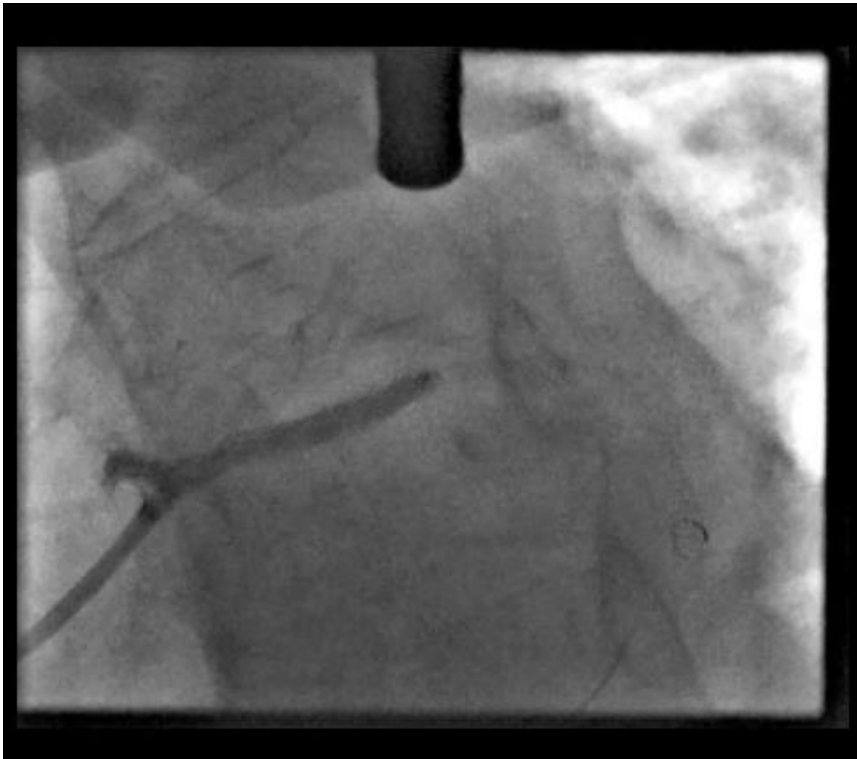
- RRA 6/7 radial sheath, EBU4 7F
- Wiring of circumflex to LPDA with Sion black and Gladius wire, Exchange over turnpike to Rota extra-support
- Rotablation of proximal LCX with 1.25 (A) then 1.75 mm burrs (B).



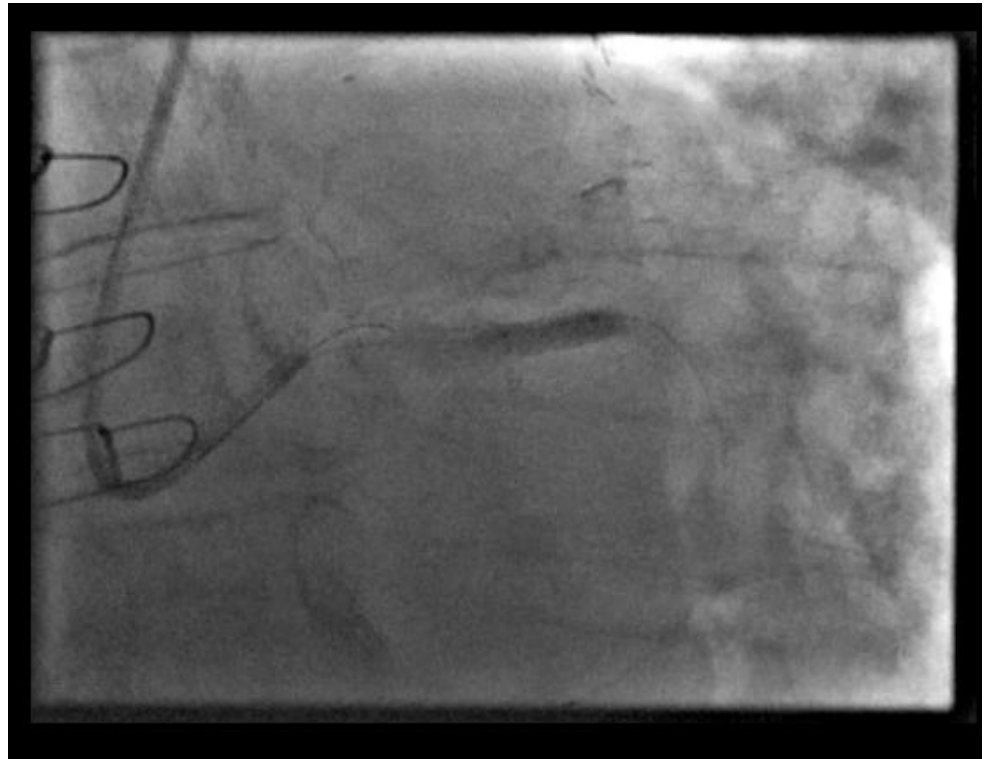
- Dilatation of LCX with 3.5 NC balloon and Om2 with 2.5 NC



5. Stenting of proximal circumflex

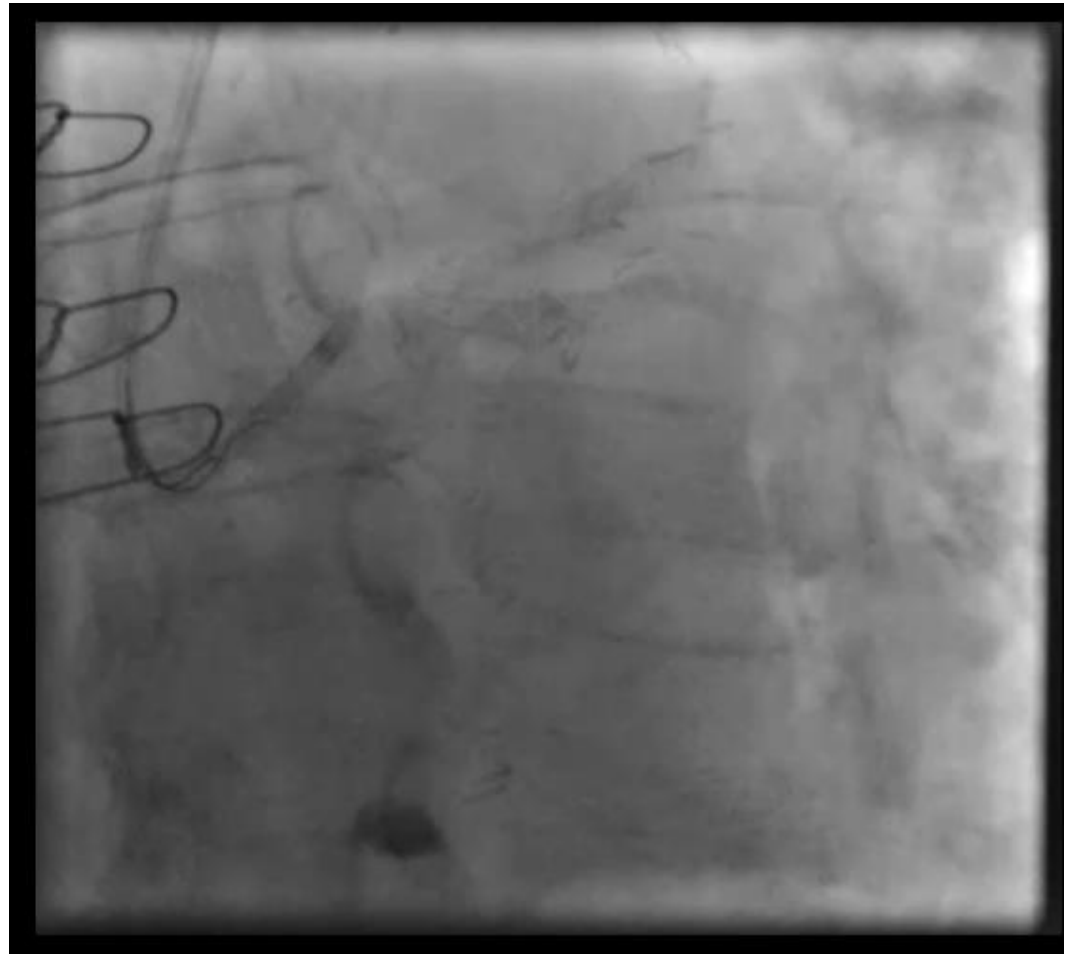
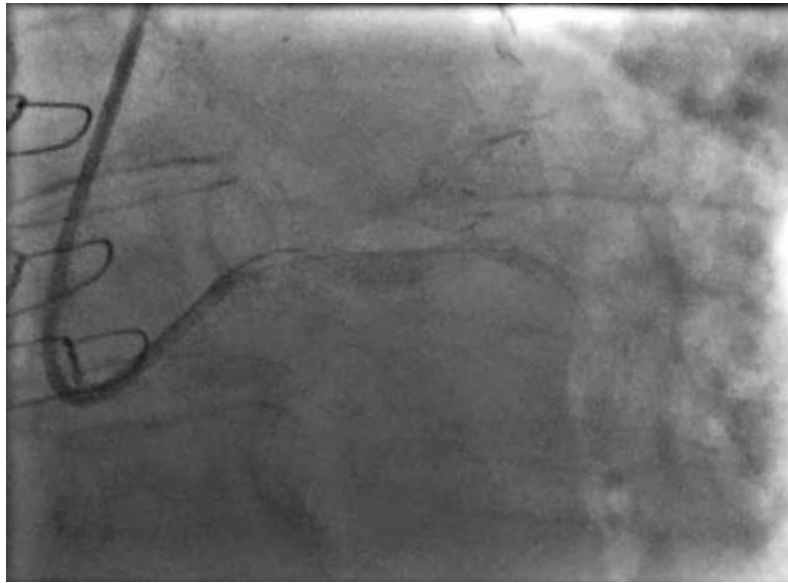


**Stenting of proximal LCX with
4.0X24 Synergy (DES)**



Post dilatation with 4.5 NC balloon.

6. Distal Wire Perforation in circumflex, posterior descending artery



- **No evidence of hemodynamic compromise**
- Echocardiogram mild pericardial rim of fluids, **no evidence of tamponade.**
- A **prolonged inflation of 2.0 mm balloon** distally just at the site of perforation, failed to stop the extravasation.

9. Diagram showing innovative technique to seal distal wire perforation

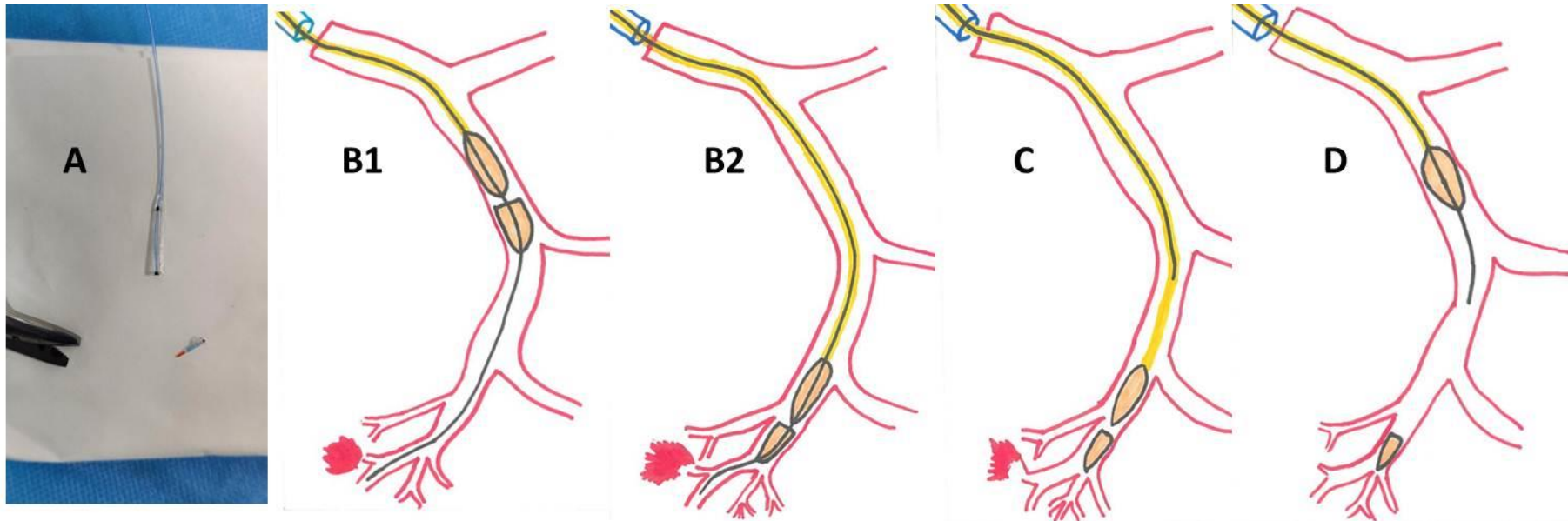


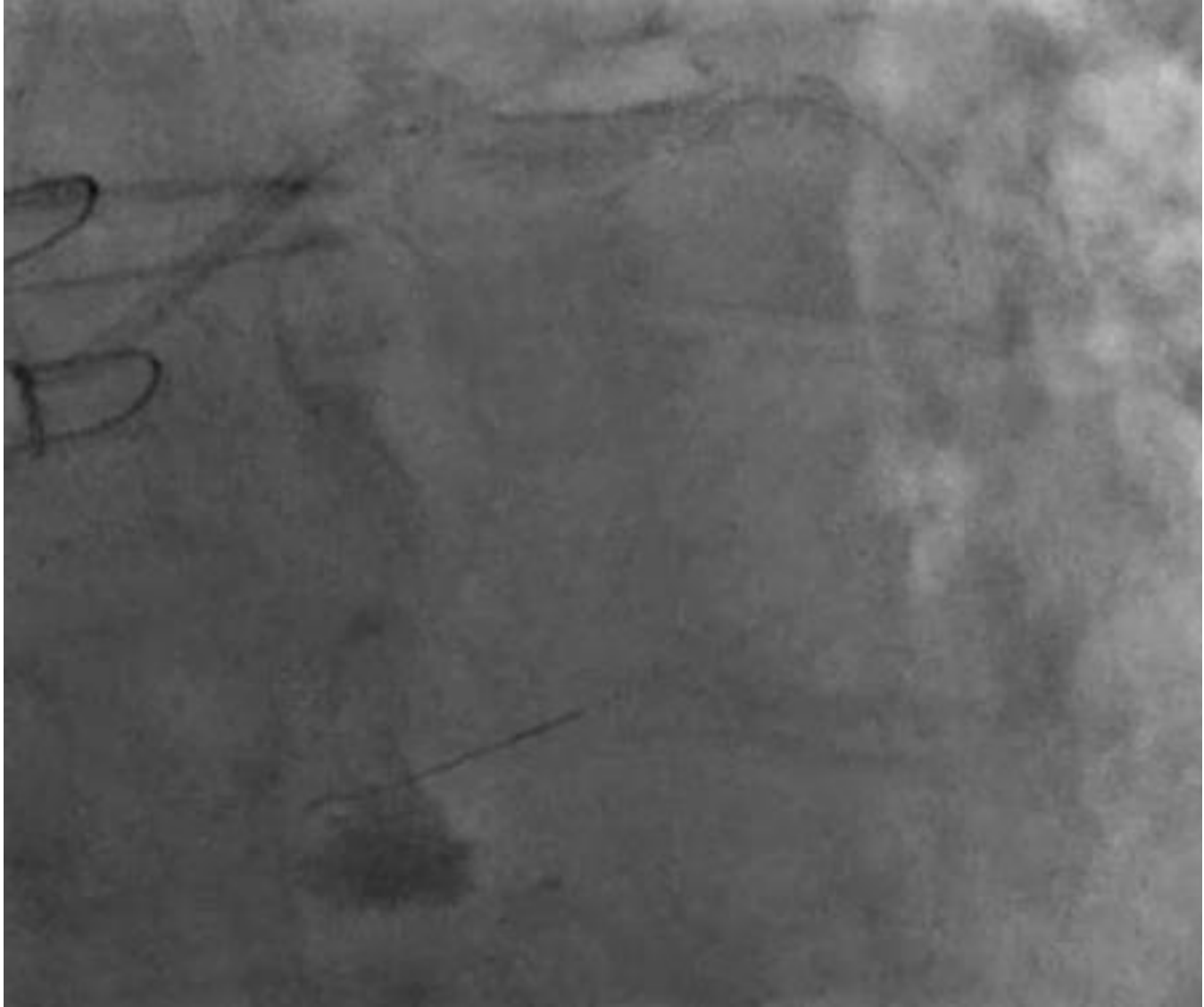
Figure F: Steps of distal wire perforation sealing with a balloon remnant:

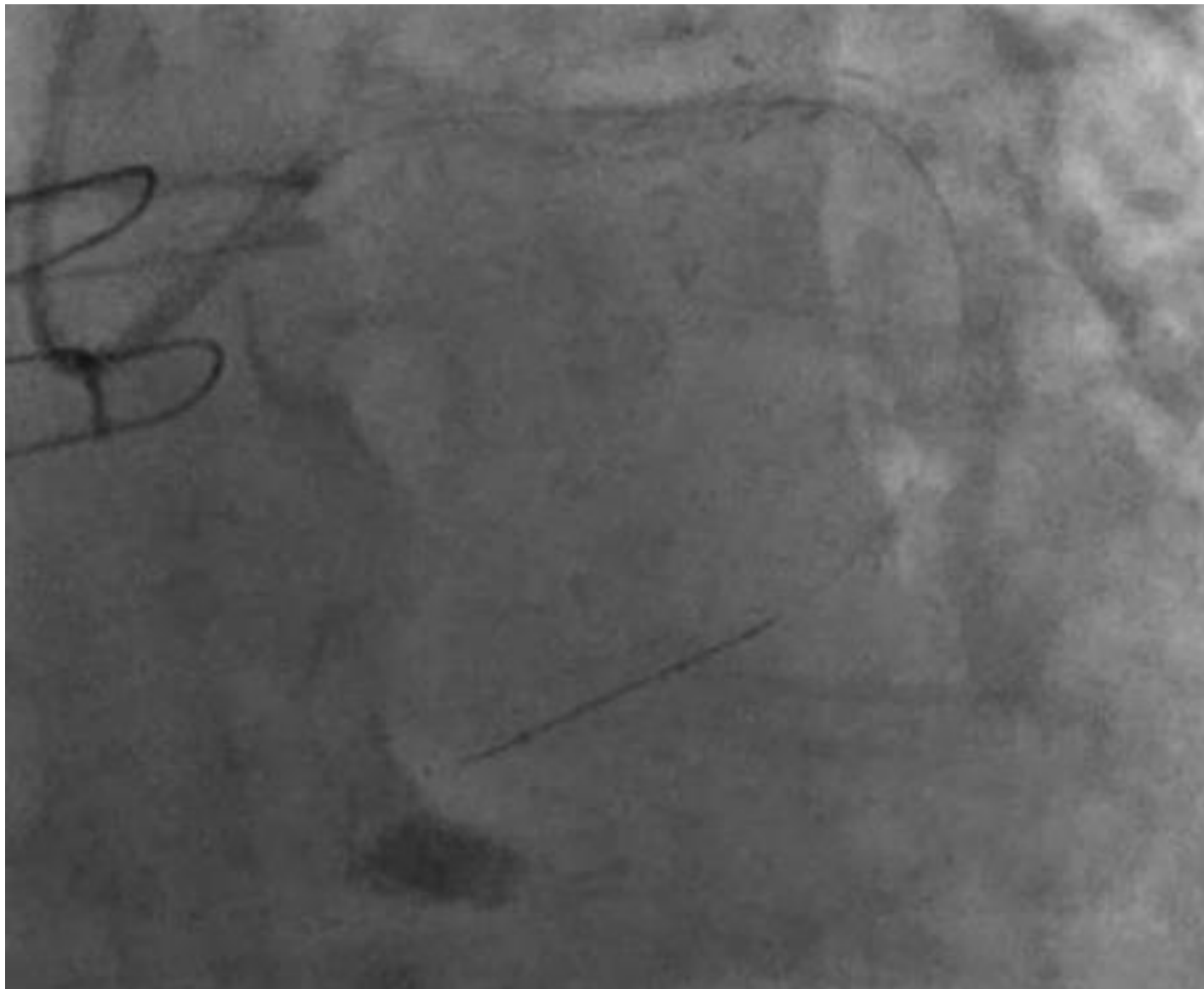
A: Distal half of already used balloon is cut with scissor.

B1,2: The cut balloon is mounted on to the wire in the perforated vessel and pushed with other intact balloon to the distal vessel.

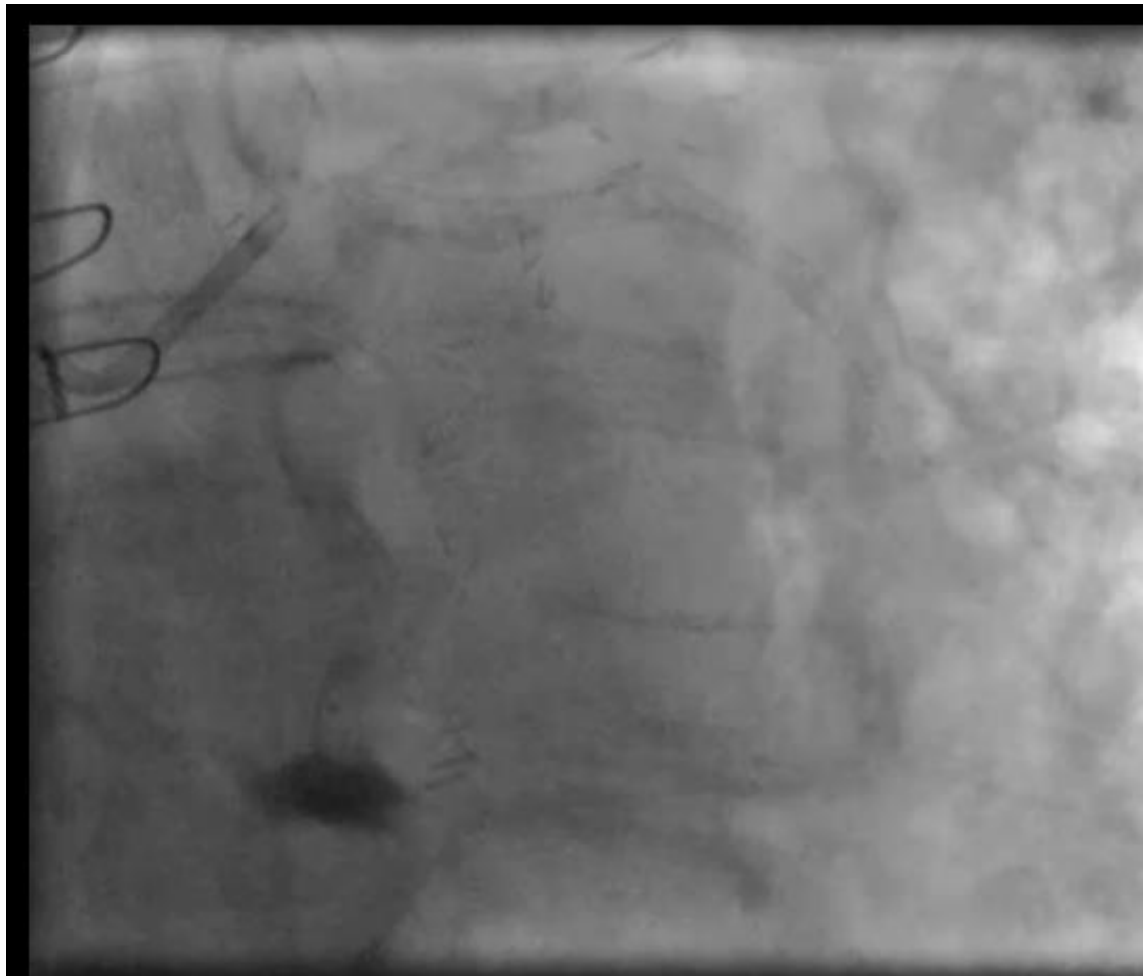
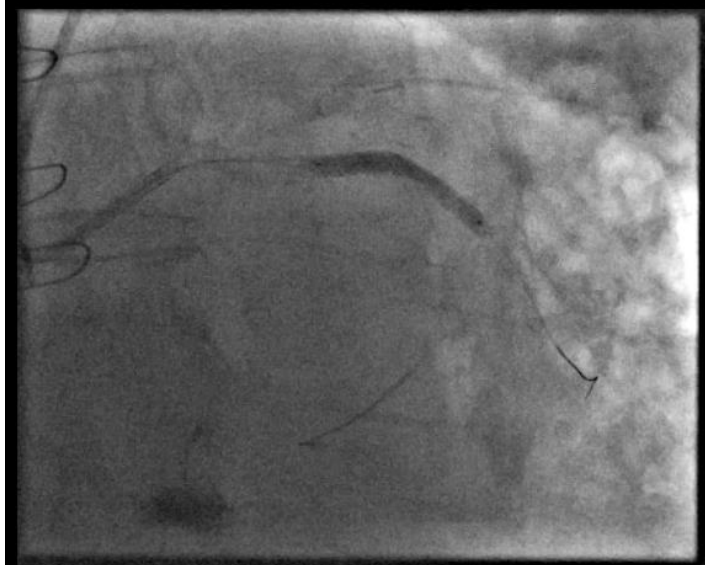
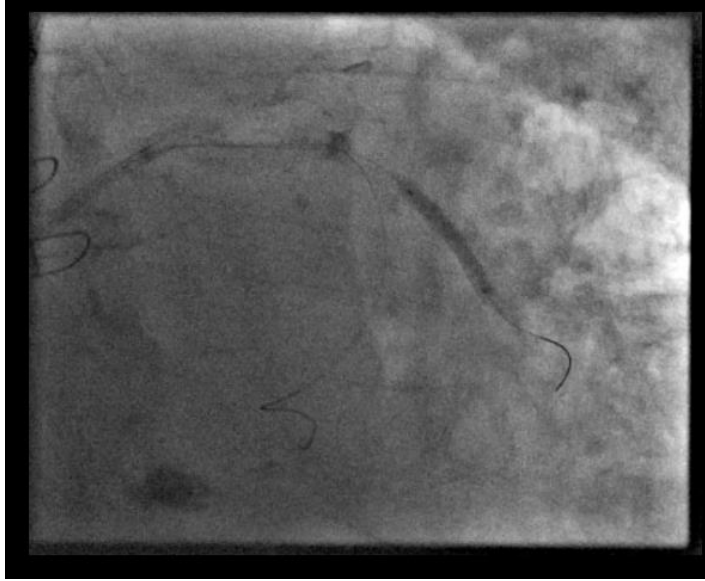
C: Withdrawal of the wire making the cut balloon embolized into the distal vessel while the other intact balloon is still over the wire.

D: Withdrawal of the wire and the pushing balloon along with leaving the cut balloon in the distal vessel.





10. Stenting of OM



- Avoidance of perforation is crucial; wire de-escalation, meticulous wire control particularly hydrophilic ones.
- Immediate detection and management are paramount.
- Universal algorithmic approach then specific management when needed with embolisation using fat, thrombus, coils, or other particles.
- Balloon remnant is readily available and can be used effectively (delivered cautiously) for sealing distal wire perforation.