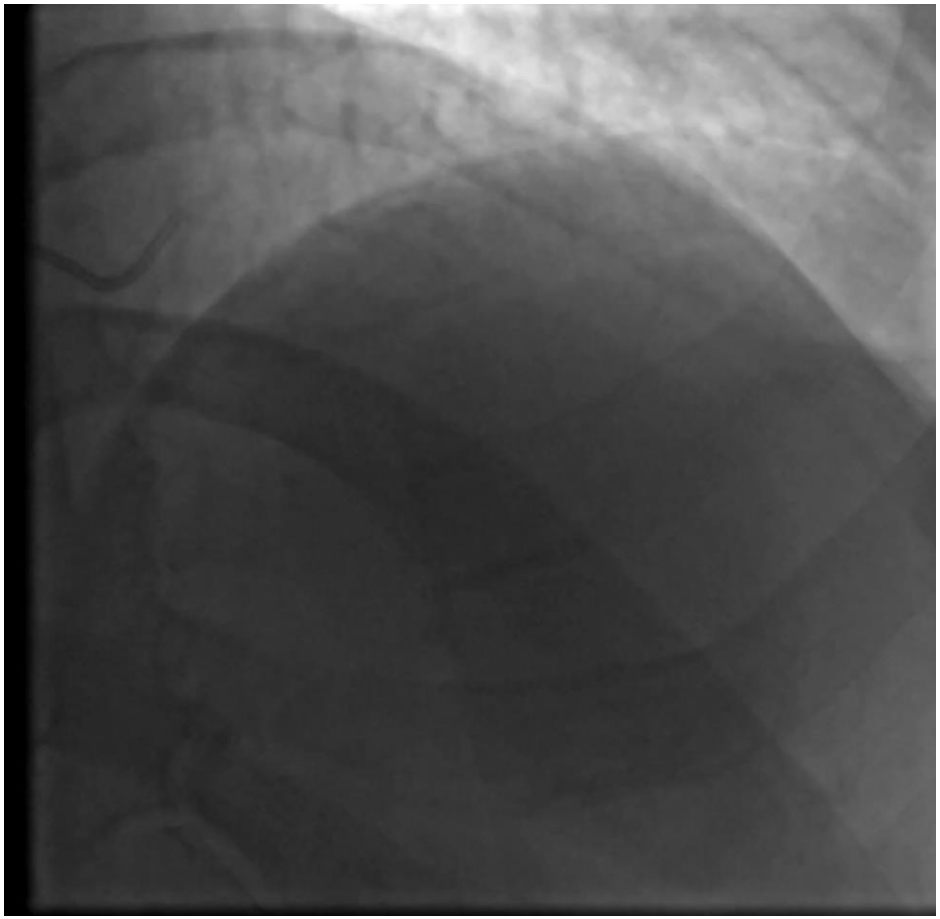
Just a little cough!

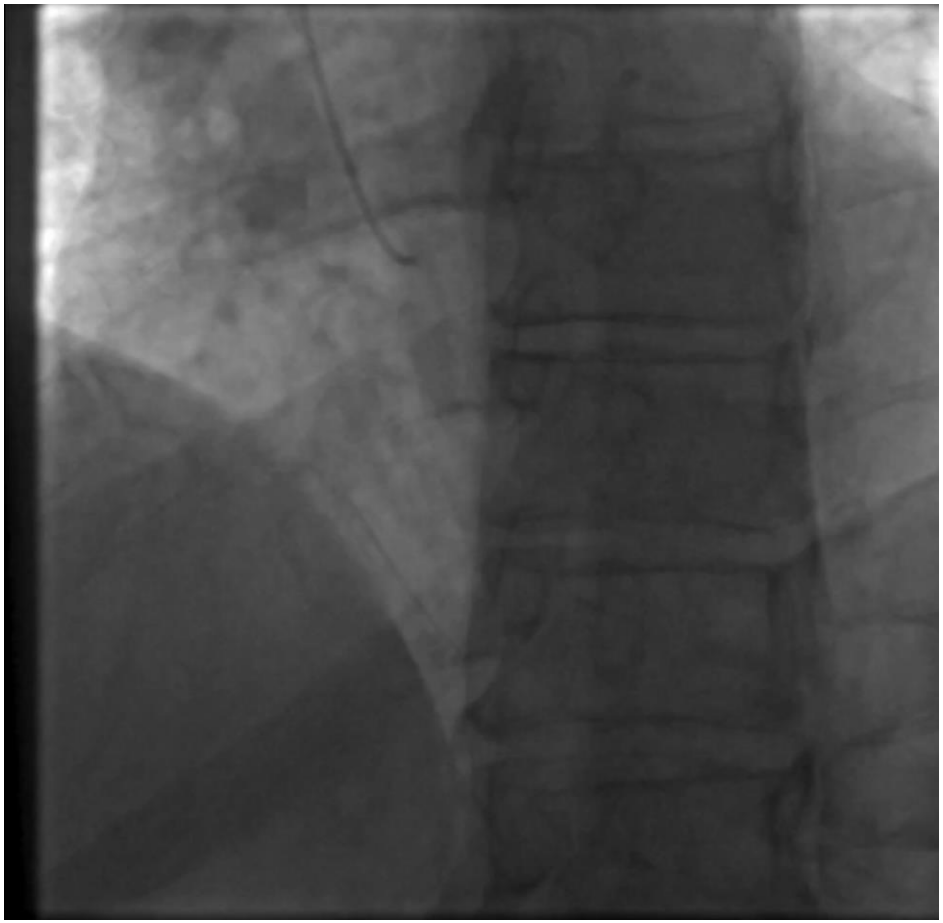
Stent dislodgement in right coronary artery
NSTEMI

Patient History

- 68 y/o gentleman
- No significant past medical history
- Presented with chest pain
- No ECG changes but positive high sensitivity troponin with upgoing vector
- Proceeded to diagnostic angiogram

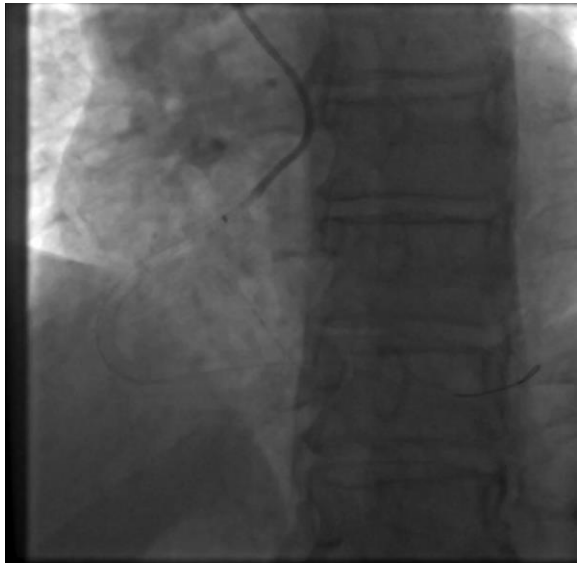
Diagnostic angiogram

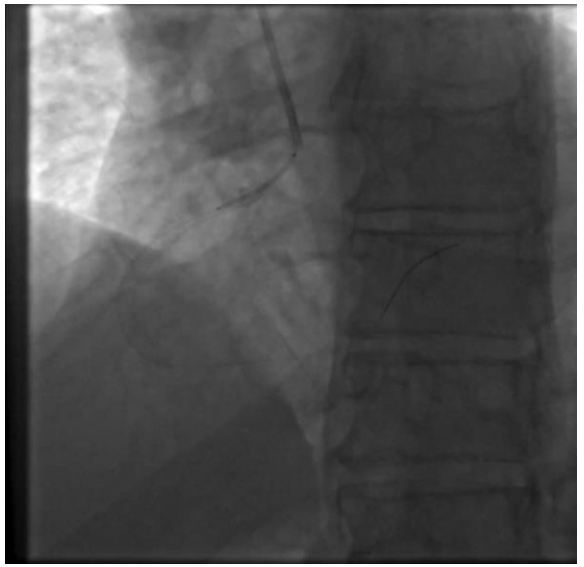




Intervention

- AL1 guide catheter and Sion Blue wire
- 3.0 x 12 Emerge lesion preparation
- 4.0 x 48 Synergy to mid right coronary artery
- Subsequent 4.0 x 20 Synergy to proximal RCA
- 4.0 x 12 NC Emerge to post dilate, facilitated by 6F guideliner
- As 4.0 x 20 Synergy deployed ostially, paitent coughed!!





What would you do next?

- Situation: partially deployed 4.0 x 20 Synergy stent with balloon inflated to 4 atm (~3.5 mm), protruding 10 mm into aorta
- Options:
  - ❖ Deploy -> not favored as may be very technically challenging to re-engage RCA, pass further stents and complete revascularization
  - ❖ Snare and removal femorally
  - ❖ Remove radially

Femoral approach:

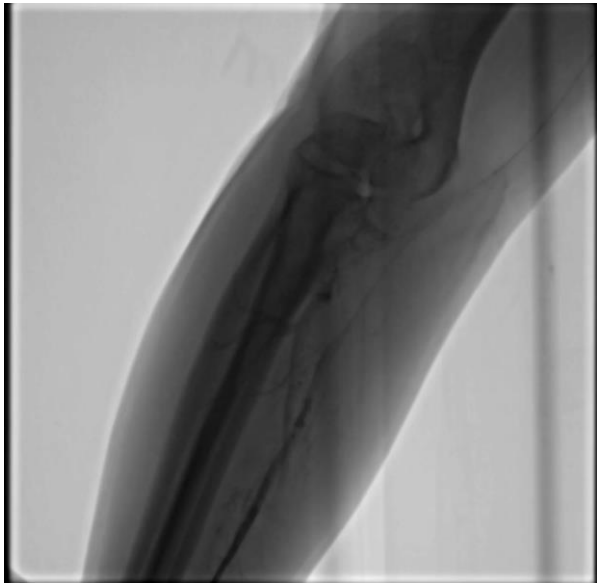
- ❖ Size of artery not a limitation
- ❖ Can insert large sheath if necessary
- ❖ But requires assistance of a second operator to ensure control of wire/ballon/stent/guide not lost

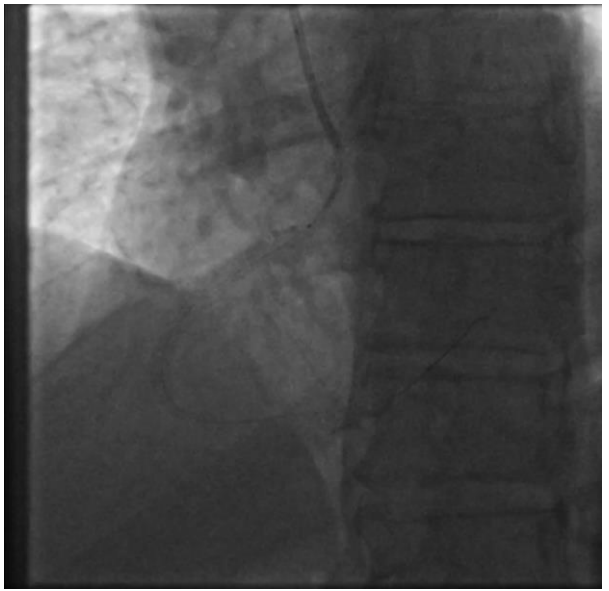
Radial approach:

- ❖ Single operator approach feasable
- ❖ Can deploy stent in artery if extraction not possible
- ❖ BUT diameter of artery limits size of sheath and may encounter intense vessel wall spasm as system is withdrawn

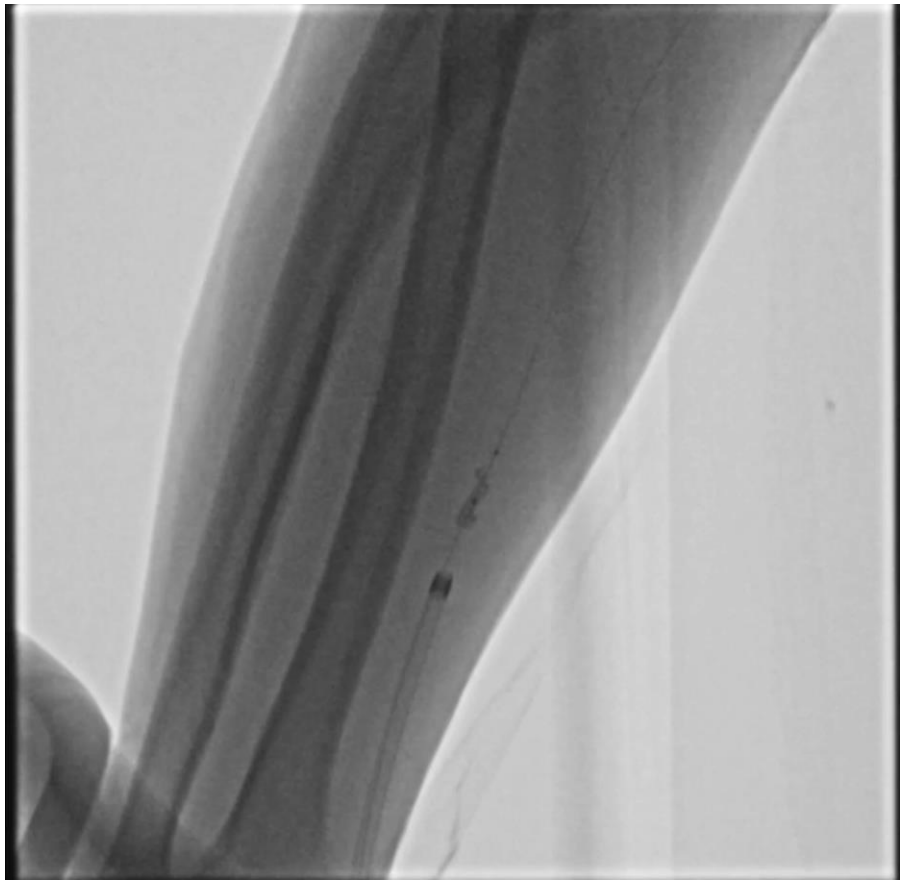
Actual Management

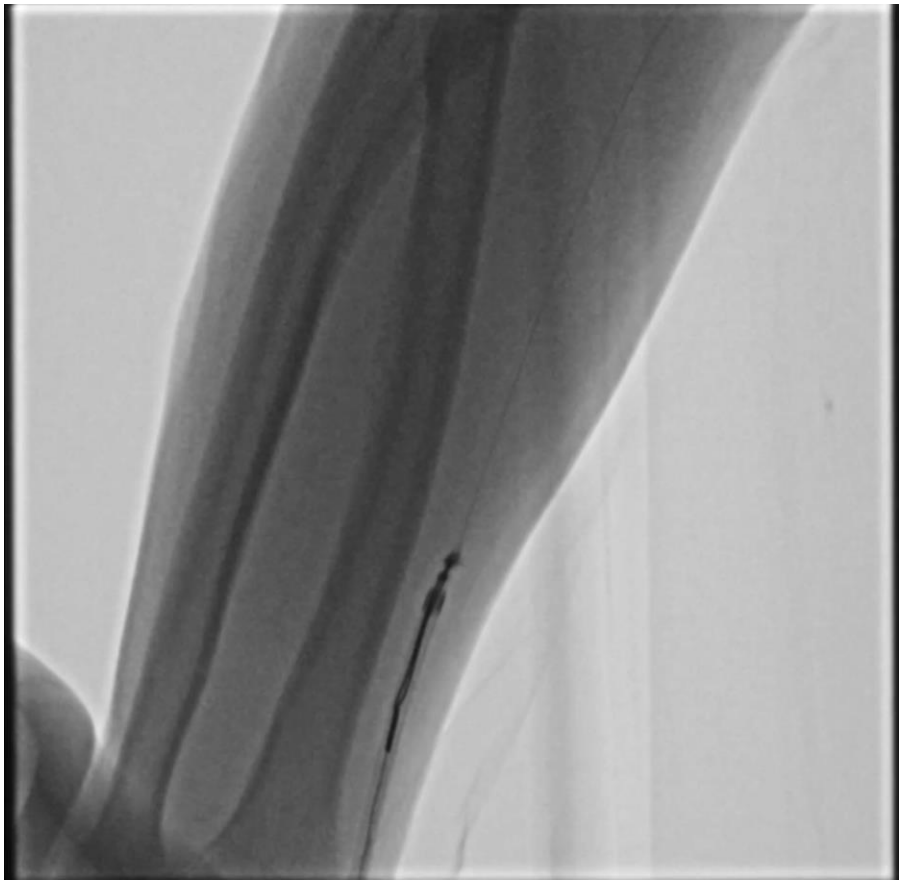
- Elected to attempt to remove via radial given:
  - ❖Operator's experience with large bore access (7.5 sheathless guides) in bilateral radial CTO approach
  - ❖No second operator available
  - ❖Large arm vessels (radial, brachial) by check angiogram
- Stent withdrawn to level of aorta
- Passed relatively freely into subclavian and axillary artery
- More difficult course in distal radial ->stent architecture had become deformed





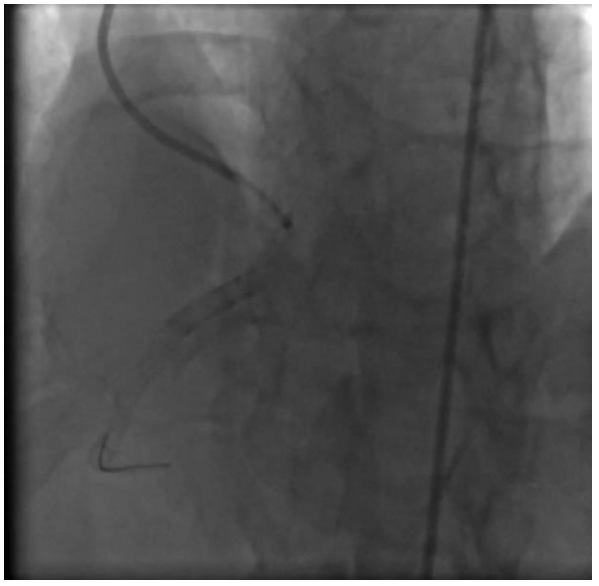
Further management

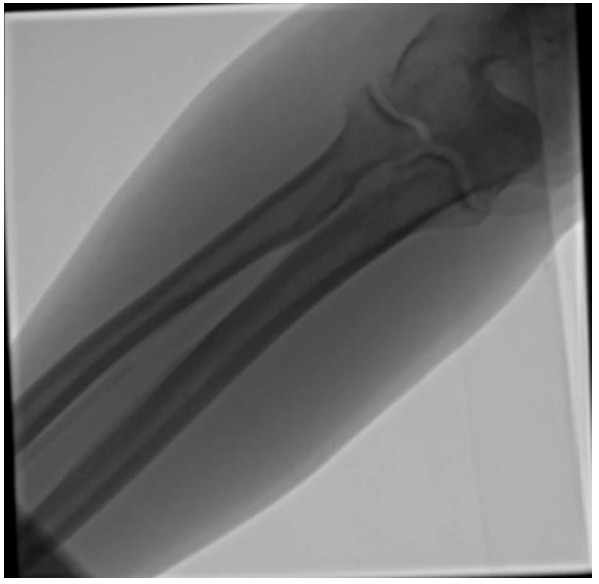




Further management

- Initially tried to mobilise stent with a 2.0 x 12 Emerge -> unsuccessful
- Trialled 7.5 F sheathless guide but unable to capture
- Upscaled to 8F system
- Amplatz gooseneck snare kit used to remove the crimped stent
- Fentanyl, midazolam and nitrates given to minimize spams
- Closed with TR band
- No arterial injury
- Completed PCI via femoral approach





Key Learning Points

- Always maintain wire beyond stent to ensure control!
- Assistance of an experienced 2nd operator when available!
- Awareness of vascular system (size and morphology of forearm vessels) essential in deciding to attempt radial removal
- Fentanyl, midazolam and nitrates key to minimizing spasm when withdrawing equipment through radial route
- Careful follow up to ensure no long-term effects to arterial system/assess for possibility of radial artery occlusion