Learning case: Complication in Coronary Intervention

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1. Access related complications

2. Coronary complications
    1. Acute –Stent thrombosis, intramural haematoma, coronary perforation, cardiac tamponade, No flow, acute vessel closure, dissection, thrombus migration, branch vessel closure, stent loss, failure to deliver stent, under expanded stent, stent distortion, and entrapment of rota burr
    2. Chronic – ISR, LAST, Coronary aneurysm

3. Arrhythmic complications – VT, VF, Asystole, bradycardia, tachycardia, SVT, AF

4. Non coronary complications – Renal failure, acute respiratory distress, seizures, stroke

5. Death

59 yo woman, former smoker
2022: NSTEMI → 3 vessel disease → LIMA-LAD, SVG-LCx, SVG-PDA

ASA 100 mg, bisoprolol 5 mg, rosuvastatin 40 mg, ezetimibe 10 mg, T4 100ug

Normal EF, mild mitral regurgitation

Exertional angina with positive stress test (inferior ischemia), referred for coronary angiography

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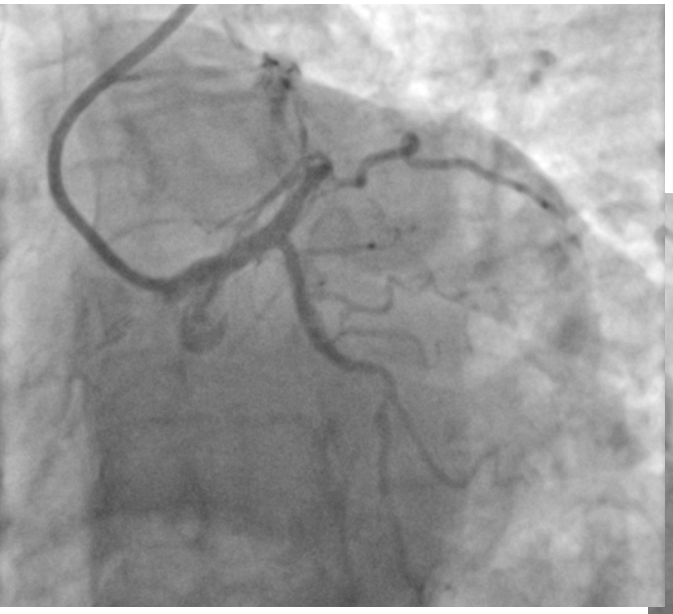
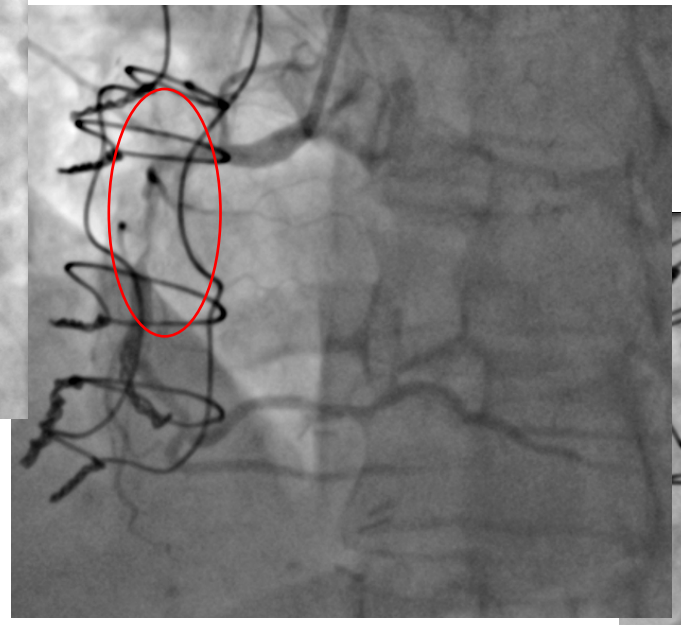
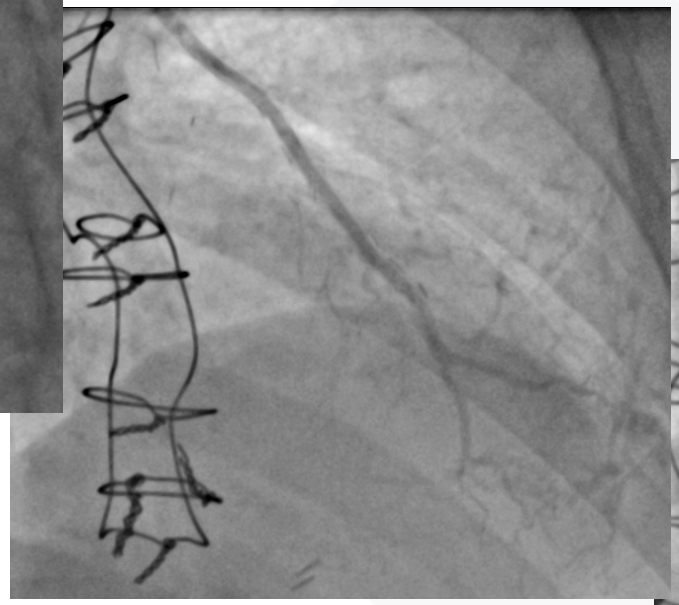
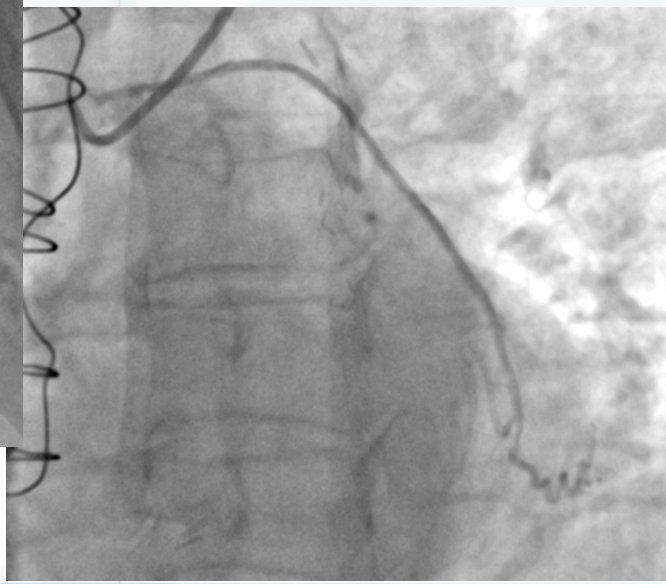
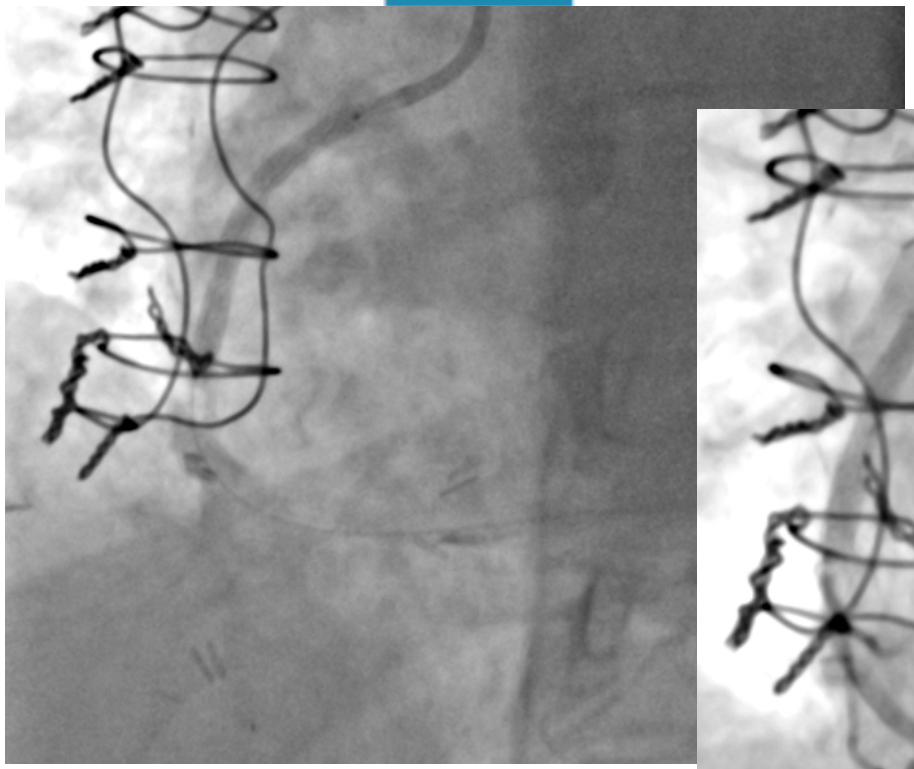
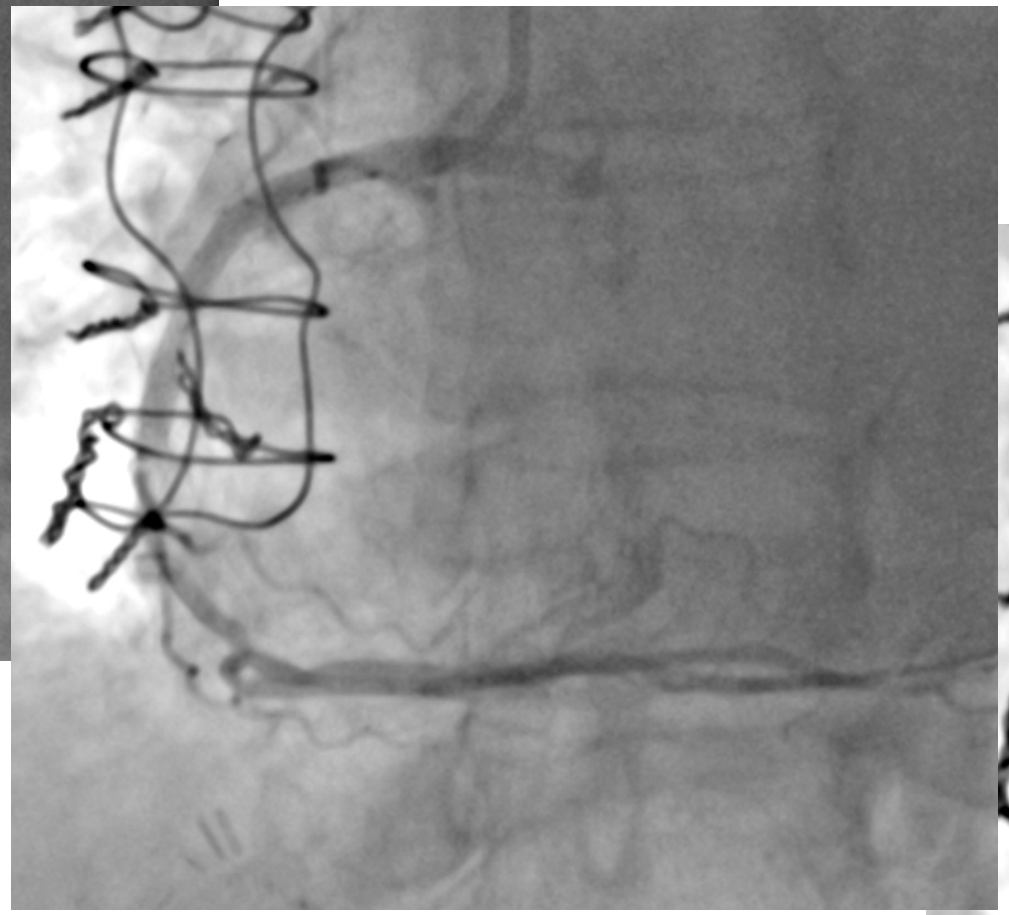




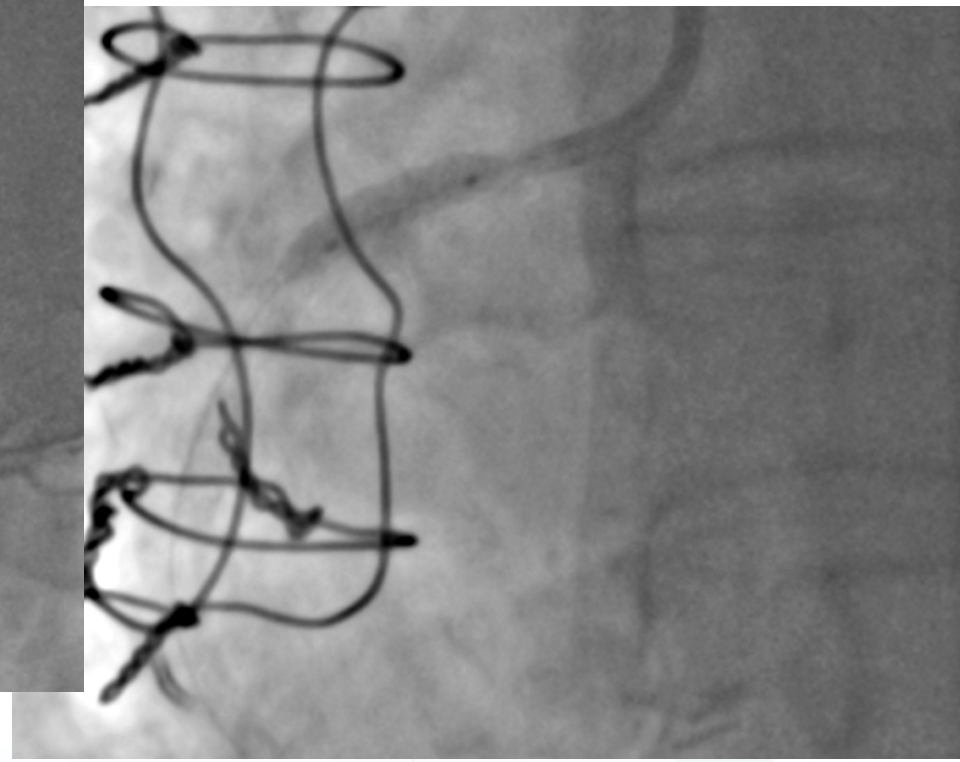




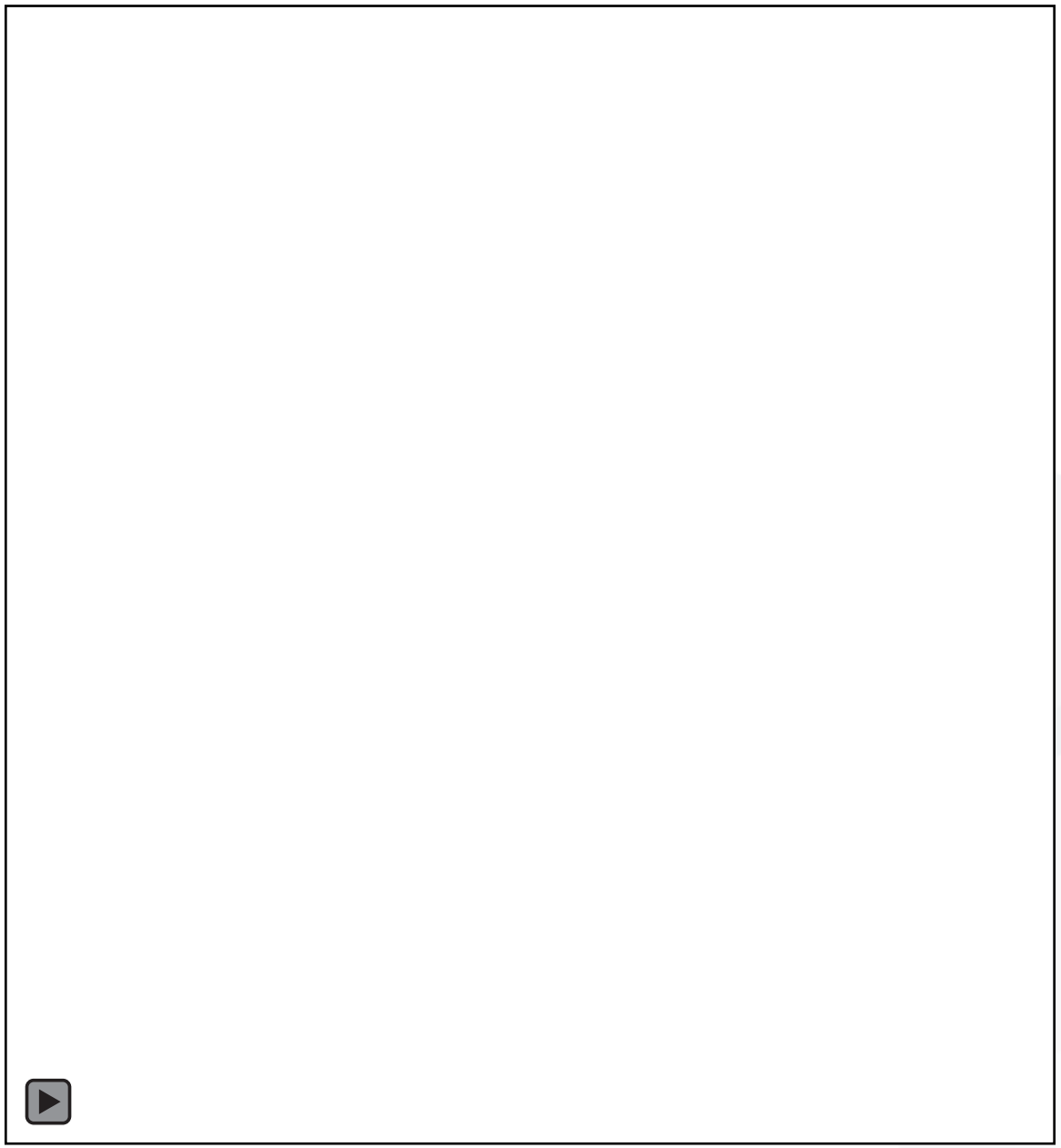


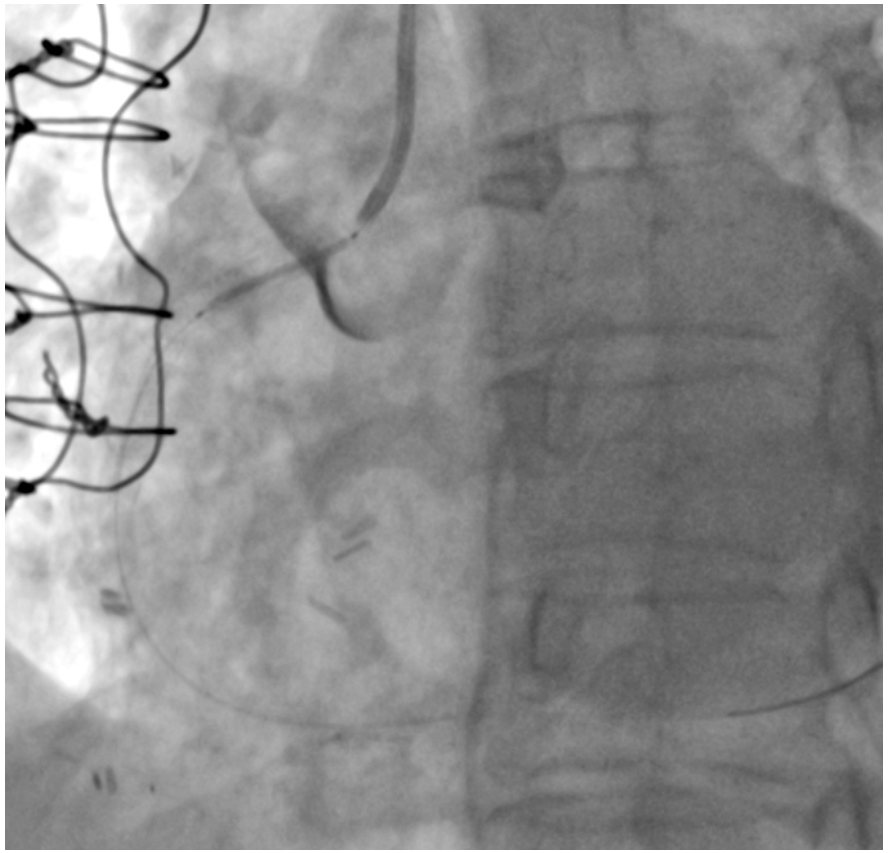


DES 3.0 x 34 mm

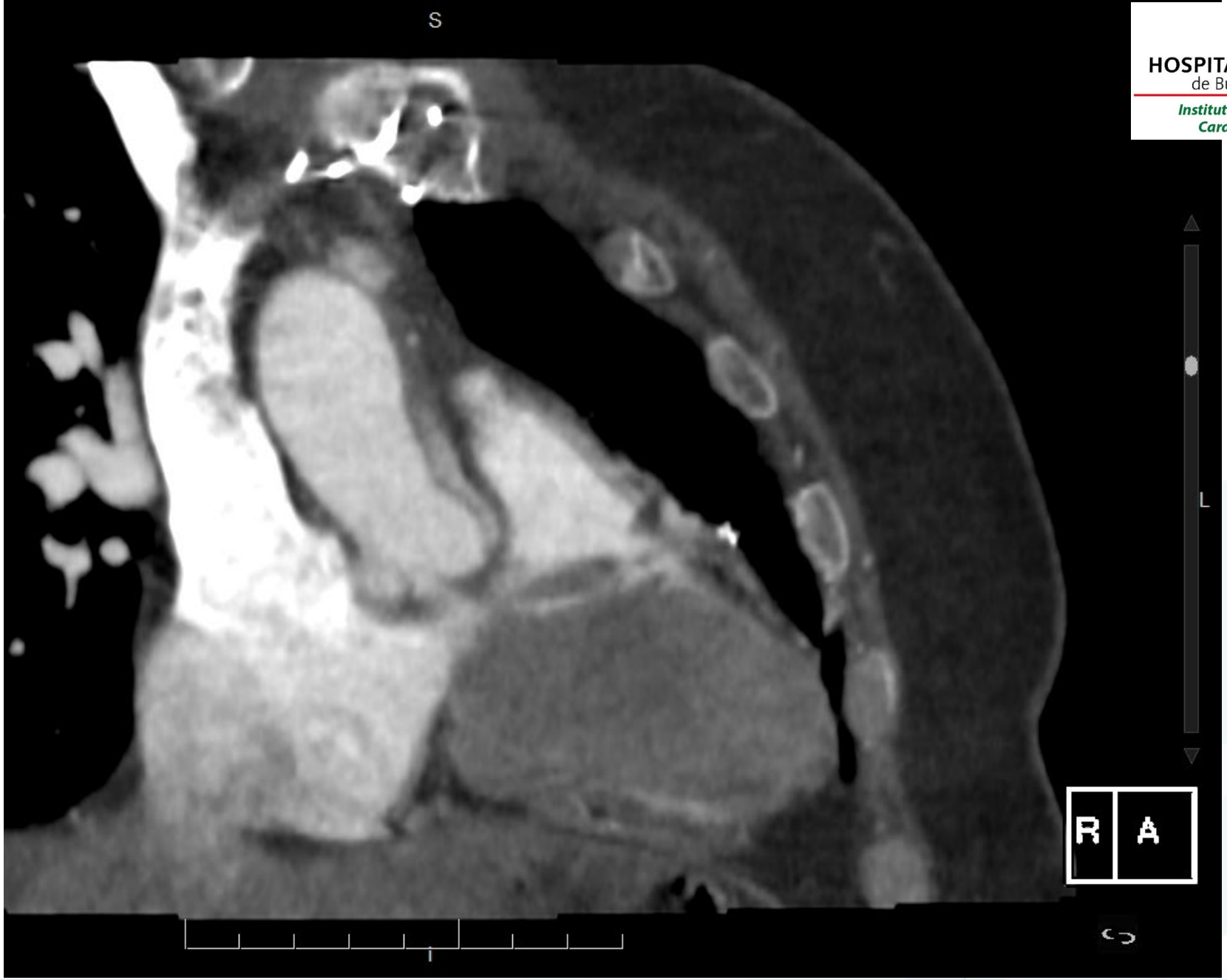


POT 3.5 x 12 mm





- Immediate CTA + 48 hs
- TTE with no regional abnormalities nor valvular regurgitation
- 4 week-FU with CTA: no further growth



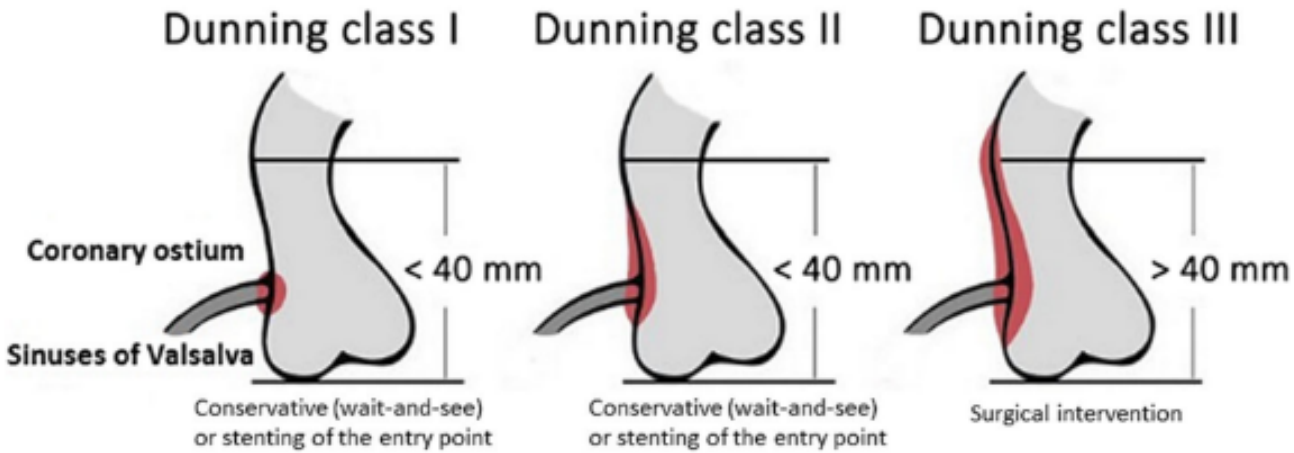
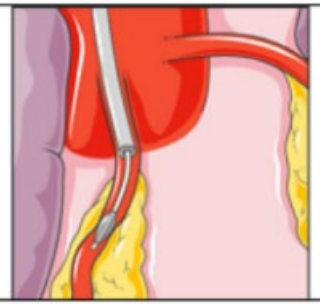


Fig. 1 Classification of aortocoronary dissection based upon the extent of aortic involvement according to Dunning et al. [2] Class I (left), involves only the coronary cusp. Class II (middle), extends up the aortic wall, but remains under 40 mm. Class III (right), contrast media extends over 40 mm up to the aortic wall

Causes	
Catheter manipulation Contrast injection Guidewire Guide catheter extension Balloon/Stent inflation Any combination	

- Most iatrogenic aorto-coronary dissections are seen in RCA procedures because it has fewer smooth muscle cells and matrix type-1 collagen fibrils at the level of the coronary ostium and sino-tubular junction

- It is advocated that immediate stenting of ostial dissection should be done to seal off the entry point of dissection.

- Surgery should be considered in cases of Dunning dissection class III, involvement of branches of aortic arch or contralateral coronary ostium and hemodynamic collapse resulting from cardiac tamponade and acute aortic regurgitation

Don't panic – Don't lose the wire – Seal the entrance - Call for help

Thank you!

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