5ª Reunião Anual da APIC

SPONTANEOUS LEFT CORONARY ARTERY DISSECTION

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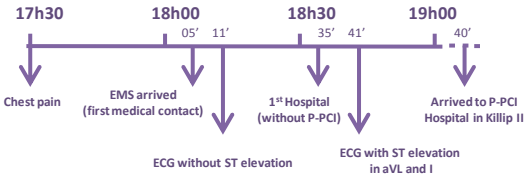
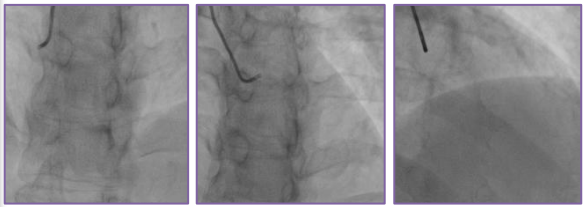
Case report

- 35 year old female
- Smoker
- Medicated with oral contraceptive

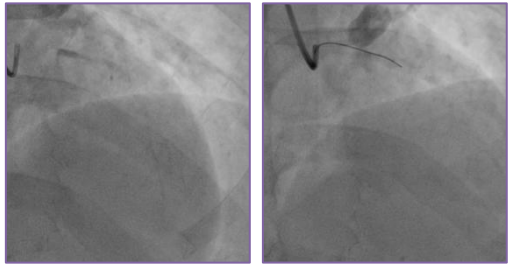


Coronary angiography

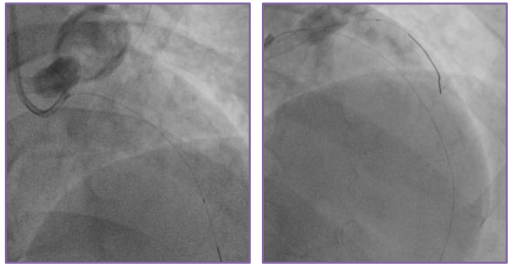


- Normal and dominant right coronary artery
- Long dissection extending from the left main to the mid segment of the LAD
- Large thrombus on the distal left main and proximal LAD
- The patient was getting worse with hemodynamic compromise
- It was decided to administer 10 mg of tenecteplase intracoronary and IIb/IIIa inhibitors

Percutaneous coronary intervention

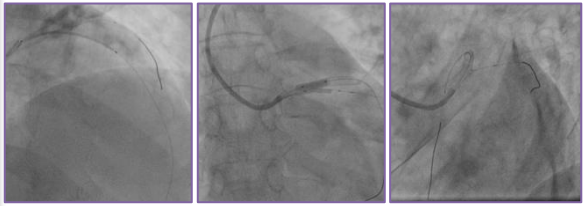


- Marked dissolution of thrombus was seen a few minutes later, but LAD was still occluded.
- BMW wire was attempted to cross the LAD without success (progression through the false lumen); the wire was removed from the LAD and crossed to the circumflex, which was not dissected



- The BMW wire was then gently backed up to the distal left main and advanced apparently through the true lumen of the LAD, initially without reperfusion
- Suddenly, the "body" of the wire collapsed the false lumen with immediate reperfusion
- After reperfusion, the patient had 5 episodes of ventricular fibrillation.

Percutaneous coronary intervention



- A second BMW protection wire was crossed in the circumflex artery
- A drug eluting stent 3.5 x 38 mm was implanted from the ostium of the left main to the mid segment of LAD
- After doing Proximal Optimization Technique, the wires were recrossed and a kissing-balloon was performed using 2.25 x 15 mm balloon on the circumflex and 3.0 x 12 mm on the LAD.
- The final result was excellent with no residual lesion and TIMI 3 flow in all branches
- The patient had severe LV dysfunction (EF 30%) and in the 30-day follow-up the echocardiogram showed LV function improvement with EF of 45%

Conclusion

- "In general, a conservative approach avoiding revascularization for stable SCAD patients is advocated by most experts. However, PCI or CABG may be required in patients with ongoing ischemia or critical anatomy involvement (eg, left main)."

  Fernando Alfonso *et al*, Circulation Journal, 2014

- "If a pronounced dissection persists in a major vessel (left main artery, multiple vessel, or complex vessel) or in SCAD causing marked epicardial coronary flow impairment and/or ongoing ischemia, coronary artery bypass grafting should be considered to be the best choice to restore myocardial perfusion."

  Ye Xin-He *et al*, American Journal of Emergency Medicine, 2013

- "In STEMI patients with a large thrombus burden and failed manual aspiration, administration of low dose intracoronary thrombolysis is safe and reduces thrombus burden, as a result improving in epicardial flow and myocardial reperfusion".

  Boscarelli D *et al*, Eur Heart J Acute Cardiovasc Care, 2014