



Image in cardiology

Calcium plunger extraction with the Penumbra system in type 5 infarction

Extracción con émbolo de calcio con el sistema Penumbra en infarto tipo 5

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Fig. 1

Acute myocardial infarction corresponds to the necrosis of myocardial cells due to an obstruction in the coronary arteries, the main aetiology is a ruptured or eroded atherosclerotic plaque, although it may be related to aortic valve replacement surgeries in < 0.5% of cases. In most cases, this situation is life-threatening if myocardial circulation is not quickly restored, which would end up triggering cardiogenic shock and death.

We present a case of acute coronary syndrome with ST elevation type 5 secondary to coronary obstruction due to calcium embolus migration after aortic valve surgery and calcium spicule removal after successful Penumbra (MEDSTEN, Mexico) mechanical thromboaspiration (mechanical suction device activated by electric pump as opposed to aspiration using a Pronto vacuum bottle), the data were obtained directly from the clinical record and the signed informed consent of the patient (on file).

In a 62-year-old male without ischaemic heart disease, only critical aortic stenosis, aortic valve replacement surgery was performed with ST bi-disc mechanical prosthetic valve (St. Jude Medical, United States). During the immediate postoperative period on arrival at recovery (< 2 h) ST elevation was documented in the anterior face, emergency coronary angiography was performed with evidence of obstruction of the anterior descending artery (LAD) (Fig. 1A, arrow), secondary to embolic migration of calcium spicules evidenced after thromboaspiration (Fig. 1B) with the Penumbra system less than 2 h postoperatively, high success rate in < 4 h due to fresh thrombus, intravascular ultrasound was performed without evidence of plaques (Fig. 1C), the stable patient was discharged from the hospital.

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Authors' contributions

All authors worked actively in all phases of the study.

Conflicts of interest

No conflicts of interest.

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