Giant right coronary aneurysm untreatable by percutaneous intervention

Aneurisma gigante e intratável percutaneamente da coronária direita

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Received 16 December 2014; accepted 12 February 2015
Available online 21 November 2015

A 62-year-old man went to the emergency room of the nearest hospital to his holiday location due to general malaise and jaw pain of four hours duration and was diagnosed with inferior myocardial infarction (MI). He had suffered an MI four years previously in France, when stents had been implanted in the right coronary and circumflex arteries. Since the center had no facilities for percutaneous coronary intervention (PCI), fibrinolysis was performed within 30 min and he was then transferred to a PCI-capable center. Coronary angiography revealed a giant aneurysm of the mid segment of the right coronary artery involving the proximal portion of the stent, with a recanalized thrombus (Figure 1). PCI to exclude the aneurysm was attempted but it proved impossible to cross the stent with the guide wires employed. The proximal portion of the stent appeared to be occluded, with flow through the side mesh. A further attempt at PCI was made a few days later, which revealed an organized thrombus (Figure 2). The side mesh of the stent was crossed but the balloon could not be advanced (Figure 3). Figure 4 shows the final result.

This case highlights the value of prompt fibrinolysis, which proved to be the ideal treatment. The aneurysm was four times larger than the caliber of the reference vessel, thus meeting the definition of a giant aneurysm. Good flow, inability to treat percutaneously and uncertainty as to its evolution called into question the need for, and appropriate timing of, surgical repair. The patient was discharged under dual antiplatelet therapy and was event-free at six-month follow-up.

* Please cite this article as: Marmelo B, Delgado A, Moreira D, et al. Aneurisma gigante e intratável percutaneamente da coronária direita. Rev Port Cardiol. 2015;34:701–702.

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Figure 1 Giant aneurysm in the mid segment of the right coronary artery, involving the proximal portion of the stent, with a luminal thrombus.
Figure 2  Visualization of an organized thrombus and flow through the stent mesh one week after the acute event.

Figure 3  The guide wire crossed the side mesh of the stent, but the balloon could not be advanced.

Figure 4  Final result.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this investigation.

Confidentiality of data. The authors declare that no patient data appears in this article.

Right to privacy and informed consent. The authors declare that no patient data appears in this article.

Conflicts of interest

The authors have no conflicts of interest to declare.