Giant thrombosed aneurysm of the right coronary artery

Anévrisme géant thrombosé de l’artère coronaire droite

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Received 17 February 2012; received in revised form 21 March 2012; accepted 23 March 2012

Available online 20 December 2012

KEYWORDS
Aneurysm; Coronary angiography; Cardiac computed tomography; Magnetic resonance imaging

MOTS CLÉS
Anévrisme ; Angiographie coronaire ; Scanner cardiaque ; Imagerie par résonance magnétique nucléaire

A 79-year-old man with a history of hypertension and dyslipidaemia was referred to our department with an anteroseptopical ST-segment elevation myocardial infarction. Coronary angiography revealed a thin, thrombosed right coronary artery associated with a calcified paracardiac mass (Fig. 1A and B; Video 1). Furthermore, this examination showed acute thrombotic occlusion of the left descending coronary artery. The patient underwent angioplasty of the left descending coronary artery (Fig. 1C; Video 2). Collateral vessels from the left coronary system were seen retrogradely filling the posterior descending artery, indicating total occlusion of the right coronary artery (Fig. 1D; Video 2). The mass was also seen on chest X-ray (Fig. 2E). Echocardiography depicted an echodense mass in the right cavities of the heart and was poorly contributive. Thus, cardiac magnetic resonance imaging (MRI) and computed tomography (CT) were performed for further characterization of this mass. Cardiac CT, including three-dimensional volume-rendered images, demonstrated the presence of a bilobed formation located in the atrioventricular groove. This mass presented peripheral eggshell calcification and central macrocalcification (Fig. 3F and G). MRI confirmed a heterogeneous mass of 6 × 4 cm in the atrioventricular sulcus, which was unfilled on first-pass images. MRI also demonstrated delayed enhancement in the wall of the aneurysm, suggestive of fibrosis and potentially inflammation (Fig. 3H and I). Giant aneurysms are rare, with a reported prevalence of 0.02%. Thrombosis may be a potential complication. Surgical intervention was not considered in this case because...
**Figure 1.** Coronary angiography (A and B) showing a thin and thrombosed right coronary artery associated with a calcified paracardiac mass. This examination showed acute thrombotic occlusion of the left descending coronary artery. The patient underwent angioplasty of the left descending coronary artery (C). Collateral vessels from the left coronary system were seen retrogradely filling the posterior descending artery, indicating total occlusion of the right coronary artery (D).

**Figure 2.** Chest X-ray (E) showing a calcified mass located in the anterior mediastinum.
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**Figure 3.** Thoracic computed tomography axial (F) and three-dimensional volume-rendered (G) images confirmed the presence of a bilobed formation located in the atrioventricular groove. This mass presented peripheral eggshell calcification and central macrocalcification. A short-axis first-pass T1-weighted multishot gradient-echo echo-planar sequence (H) showed that the mass was completely unfilled. Short-axis (I) three-dimensional phase-sensitive inversion recovery sequences demonstrated delayed enhancement in the wall of the aneurysm, suggestive of fibrosis and potentially inflammation.

The aneurysm, probably caused by atherosclerosis, was completely thrombosed without compressive effects on the right heart.

**Disclosure of interest**

The authors declare that they have no conflicts of interest concerning this article.

**Appendix A. Supplementary data**

Supplementary data associated with this article can be found, in the online version, at [http://dx.doi.org/10.1016/j.acvd.2012.03.007](http://dx.doi.org/10.1016/j.acvd.2012.03.007).