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IMAGE IN CARDIOLOGY

Unruptured sinus of Valsalva aneurysm presenting as NSTEMI

IAM sin elevación del segmento ST causado por aneurisma del seno de Valsalva

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Localized aneurysms of the sinus of Valsalva are extremely rare. They may be congenital or acquired (as a consequence of trauma, degeneration, inflammation or infection).[1]

A 74-year-old man with hypertension, type 2 diabetes mellitus and dyslipidemia, was admitted in the emergency room after an episode of retrosternal chest pain and shortness of breath. Physical exam was unremarkable. The ECG showed ischemic T waves from V1 to V5 and the peak troponin I level was 0.5 ng/ml. He was referred for coronary angiography, which demonstrated as unique pathologic finding left main extrinsic compression from an ovoid-shaped structure with turbulent flow of dye inside (Fig. 1; SVA – sinus of Valsalva aneurysm, LM – left main). Magnetic

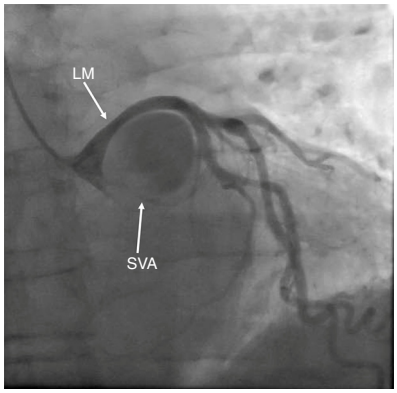

Figure 1 Coronary angiography showing left main extrinsic compression from an ovoid-shaped structure with turbulent flow of dye inside (LM – left main coronary artery; SVA – sinus of Valsalva aneurysm).

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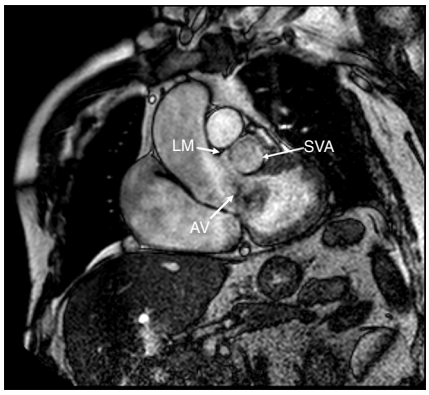

Figure 2 Magnetic resonance imaging confirming the presence of a left Valsalva sinus unruptured aneurysm below the left main, causing extrinsic compression (LM – left main coronary artery; SVA – sinus of Valsalva aneurysm; AV – aortic valve).

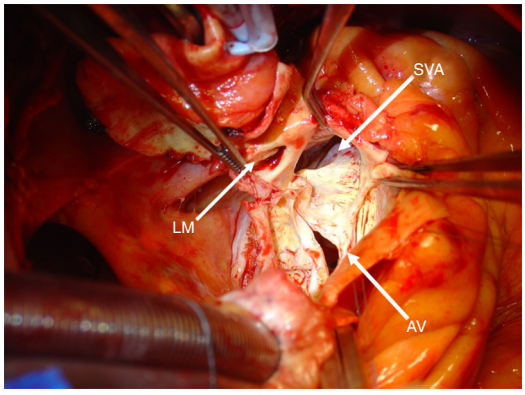

Figure 3 Operative findings revealing a 2.5 cm diameter left aortic sinus aneurysm, just below the left main (LM – left main coronary artery; SVA – sinus of Valsalva aneurysm; AV – aortic valve).

resonance imaging confirmed the presence of a left Valsalva sinus unruptured aneurysm below the left main, causing extrinsic compression (Fig. 2; AV – aortic valve). The ascending aorta was dilated and the aortic valve was bicuspid with mild aortic insufficiency. To avoid future life-threatening ischemic events and the possibility of enlargement and sudden rupture, cardiac surgery was performed. The operative findings revealed a 2.5 cm diameter left aortic sinus aneurysm, just below the left main (Fig. 3). Repair was performed with aortic valve substitution by a bioprothesis and ascending aorta replacement by a dacron graft, with coronary ostium reimplantation. The postsurgical evolution was unremarkable.

Sinus of Valsalva aneurysms may imply high morbidity since they are prone to rupture.[2] We report a clinical case of spontaneous aneurysm with unusual clinical presentation (NSTEMI), which had good outcome as a result of prompt diagnosis and surgery.

Ethical disclosures

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

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

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

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Conflict of interest

The author denies any conflict of interest.

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