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).

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.

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Conflict of interest

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