Clinical vignette

Resuscitated sudden cardiac death caused by left main coronary artery compression by an aneurysm of the sinus of Valsalva

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A 49-year-old woman, without known cardiovascular risk factors. Hoarseness of voice caused by a paralysis of left vocal cord. She was admitted to hospital because of acute coronary syndrome, associated to resuscitated cardiac arrest (asystolia documented) without later neurology sequels. Physical examination was anodyne. Echocardiographic study demonstrated a compatible image with a large left sinus of Valsalva aneurysm (SVA) (Panel A) and mild aortic regurgitation. Cardiac catheterization confirmed the presence of left SVA (Panel B) that produced extrinsic compression of the left main coronary artery (Panels C and D). Repair surgery was made by means of closing the aneurysmal orifice with a patch of dacron. Intra-operative echocardiographic control study found severe aortic regurgitation, so valvular replacement with 19 mm mechanical prosthesis and extension of the valve annulus with patch of dacron was performed, associated with bypass with safena vein graft to left coronary artery.

SVA is a very infrequent cardiac anomaly, generally with silent clinical course until it ruptures. Myocardial ischaemia caused by coronary artery compression is unusual. We described the case of a patient diagnosed of left SVA, whose initial clinical manifestation was the appearance of resuscitated sudden cardiac death in the context of an acute coronary syndrome.

Panel A Cross-sectional great vessels level showing aorta (Ao) and SVA.
Panel B Right anterior oblique aortography showing an SVA (black arrows).
Panel C and Panel D Right anterior oblique (C) and cranial left anterior oblique (D) projections showing the extrinsic compression of the left main coronary artery (black arrows).