Clinical vignette

doi:10.1093/eurheartj/ehm120

Left ventricular pseudoaneurysm as a late complication of mitral annuloplasty

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A 59-year-old hypertensive male, 1 year after uncomplicated mitral annuloplasty for regurgitation with MAZE procedure, with a history of chronic obstructive pulmonary disease and repeated pulmonary embolism, returned to our intensive care unit for a transient episode of dyspnoea and chest pain, which quickly subsided on treatment.

Echocardiography revealed a bizarre pulsating sac in the usual transverse sinus localization between the left atrium, the ascending aorta, and the pulmonary artery (Panels A and B). We diagnosed a left ventricular (LV) pseudoaneurysm 50 mm in length, with a narrow orifice in the subaortic region of the LV outflow tract, adjacent to the mitral annuloplastic ring (Panel C). The dual-source computer tomography added information on the size and spatial orientation of the pseudoaneurysm (Panel D). The coronary angiogram was normal. The patient was referred to surgery, and a 3 mm entry of the pseudoaneurysm was successfully closed by a stitch.

This accidentally discovered LV pseudoaneurysm originating from the aorto-mitral junction was a rare late complication of mitral annuloplasty with an asymptomatic progressive course.

Panel A. Transoesophageal long axis, arrow at the pseudoaneurysm entry in the LV outflow tract.
Panel B. Short-axis view, pseudoaneurysm (PSA) adjacent to the left (l) and non-coronary (n) aortic valve cusps.
Panel C. Flow into the pseudoaneurysm at systole.
Panel D. Two-dimensional multiplanar reconstruction clearly depicts pseudoaneurysm (PSA) between the left atrium (LA), the ascending aorta (AA), and the pulmonary artery (PA).

See online supplementary material for movie clips of depicted echocardiographic images at European Heart Journal online.

This article was supported by the grant NR/8306-5 from the Internal Grant Agency, Ministry of Health, Prague, Czech Republic.