Intracardiac blood cyst: rare finding in a complex congenital heart lesion
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Intracardiac blood cysts are rare congenital malformations located in the endocardium of semilunar or atrioventricular valves. Patients are mostly asymptomatic and diagnosed in the paediatric age, particularly in the first months. Appearance in adults is extremely rare. We report on a 28-year-old female with a complex congenital heart defect (congenitally corrected transposition with ventricle septum defect and pulmonary stenosis). At the age of 3, she had a Rastelli-type operation. Eight years later, a stenotic conduit to the pulmonary artery (PA) had to be replaced by a homograft.

On admission, transthoracic echocardiography showed a systolic peak gradient between the left ventricle and PA of 50 mmHg and an unclear structure at the basis of the mitral valve (MV). Transoesophageal echocardiography demonstrated a cystic liquid tumour attached to the posterior MV leaflet with a diameter of 1.9 cm (Panel A; Supplementary material online, Movie 1 and Movie 2). During diastole, the tumour prolapsed into the MV ostium causing a mean diastolic inflow gradient of 4 mmHg. This situation did not allow for the initially planned catheter intervention. Diagnostic catheterization (Panel B) confirmed the echo findings. After surgical opening of the right atrium (Panel C), a blood filled cystic tumour attached to the posterior MV leaflet was found. Panel D shows the opened cyst. To our knowledge, only one other case of a de novo formation of a blood cyst after cardiac surgery is reported in the literature.

Panels: Asterisk indicates blood cyst; arrow, attachment of the blood cyst to the mitral valve; RA, right atrium; LV, left ventricle.

Supplementary material
Supplementary material is available at European Heart Journal online.

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