Mitral valve blood cyst with regurgitation

A 64-year-old man presented with exertional dyspnoea for 3 months. He had a history of coronary artery disease, which was treated with percutaneous coronary intervention 3 years ago. He was clinically stable under medical treatment. Physical examination revealed a blood pressure of 140/80 mm Hg, heart rate of 96 bpm and 3/6 apical systolic murmur. The lungs were clear to auscultation. Transthoracic echocardiographic examinaton showed a 1.31×1.80 cm rounded cystic mass at the tip of the anterior mitral leaflet causing moderate to severe mitral regurgitation (figures 1 and 2). This was consistent with a blood cyst. Increased left ventricular volumes and global left ventricular hypokinesia were also detected. The patient was referred for coronary angiography. Coronary angiography revealed a significant stenosis in the right coronary artery and obtus marginalis. Percutaneous coronary revascularisation was performed. Control transthoracic echocardiography revealed mild to moderate mitral regurgitation. It was thought that previously detected severe mitral regurgitation resulted from ischaemia. Serial echocardiographic follow-up was advised to the patient.

Blood cysts are congenital benign cardiac masses which were commonly located on the AV valves.[1] Inflammation, anoxia, haemorrhagic diathesis, vagal stimulation, microscobic invaginations of endothelium and alterations during valve development are suspected causes. However, the exact aetiology is unknown. Haemodynamically stable patients should be followed with serial echocardiographic examinations. If the mass interferes with normal cardiac function, it should be resected surgically with or without valvular replacement.[2] As in our case, if there is concominant coronary artery disease, ischaemic mitral regurgitation should be considered before deciding on valvular surgery. Myxoma, thrombus, hydatid cyst, vegetation and other cardiac malignancies should be considered in the differential diagnosis.

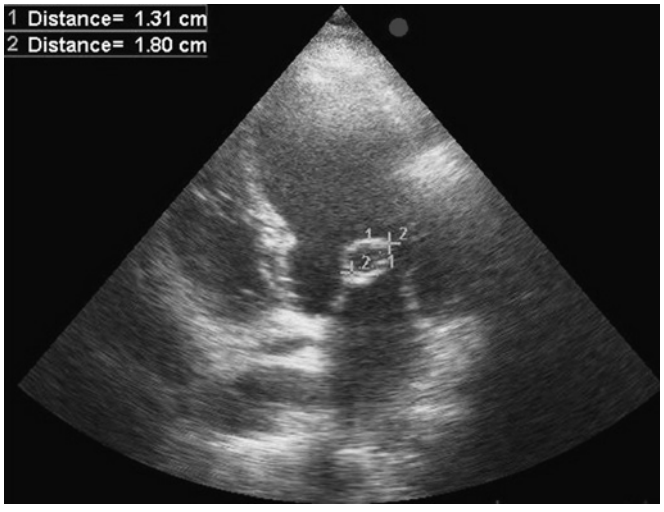

Figure 1 Transthoracic echocardiography of a four-chamber view showing the blood cyst at the tip of the mitral valve.

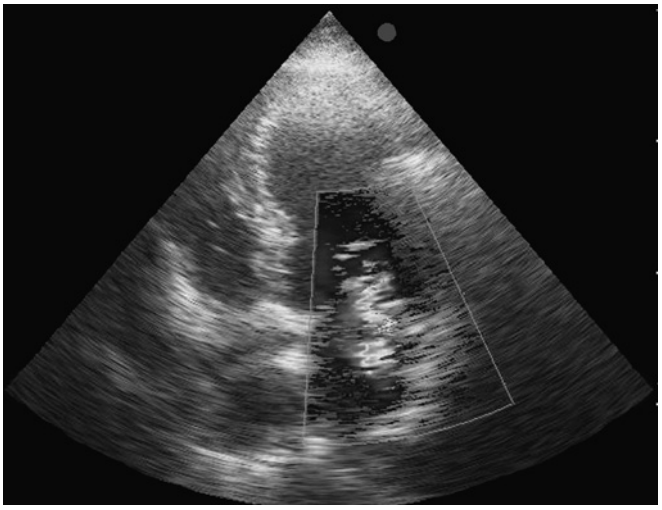

Figure 2 Transthoracic echocardiography of a four-chamber view showing mitral regurgitation.

Sinan Akinci, Umut Celikyurt

Correspondence to Umut Celikyurt; ycelikyurt@gmail.com

Competing interests None.

Provenance and peer review Not commissioned; externally peer reviewed.

Heart Asia 2010:112. doi:10.1136/ha.2010.002162

REFERENCES

1. **Gültekin N,** Küçükateş E, Ersanli M, *et al*. Multiple angiomatous mitral valve cysts leading to floppy mitral valve syndrome. *Arch Turk Soc Cardiol* 2008;**36**:253–5.
2. **Migliore F,** Scarabeo V, Corfini A, *et al*. Microbubbles contrast inside the cyst: a pathognomonic sign of mitral valve blood cyst. *J Cardiovasc Med (Hagerstown)* 2010;**11**:294–6.