

# Images in cardiovascular medicine

## A rare left ventricular mass: intramuscular hemangioma of the left ventricle

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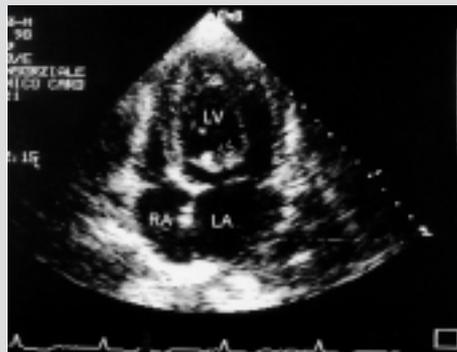
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A 46-year-old woman presented with a history of moderate-exertion dyspnea lasting 1 year. Over the last 3 months she had developed moderate hypertension, several episodes of palpitations and weakness. On physical examination she had a mid-systolic murmur at the apex of the heart and over the precordium. Transthoracic (Fig. 1) and transesophageal echocardiography (Fig. 2) revealed an ovular mass, which was confirmed in two different planes at magnetic nuclear resonance imaging (Fig. 3).

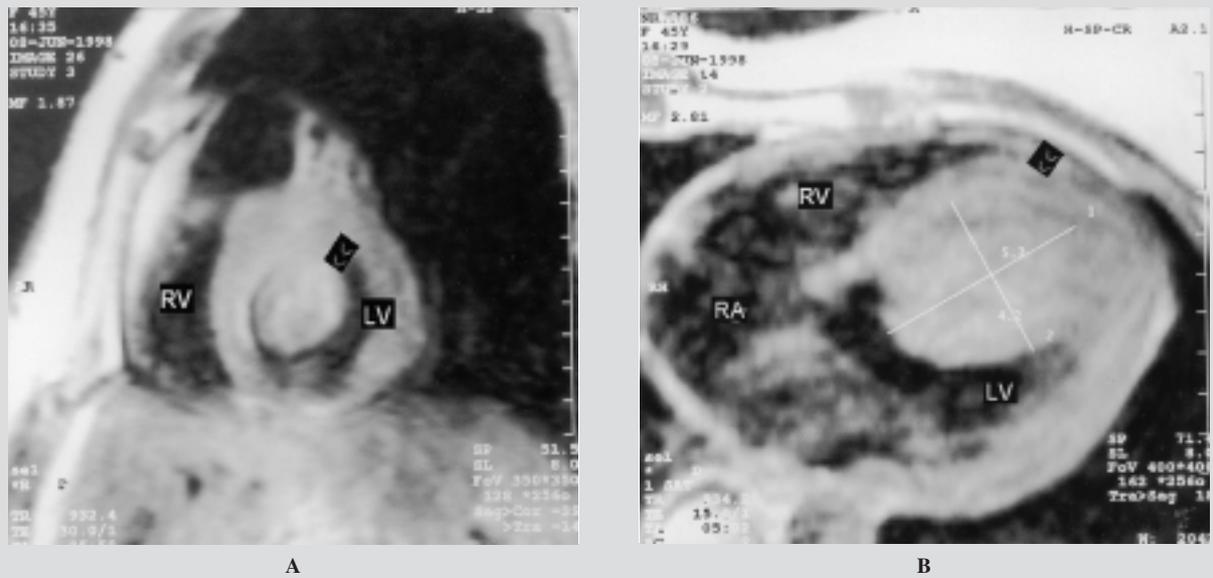
The patient was submitted to surgery during which the region of interest was approached through an oblique aortotomy incision. The mass appeared sessile, was filled with blood and was located within the anterior papillary muscle and the lateral wall. A significant reduction of the mass was obtained by needle aspiration. The remaining tissue was then surgically excised. At histology (Fig. 4) the final diagnosis was intramuscular hemangioma of the left ventricle.



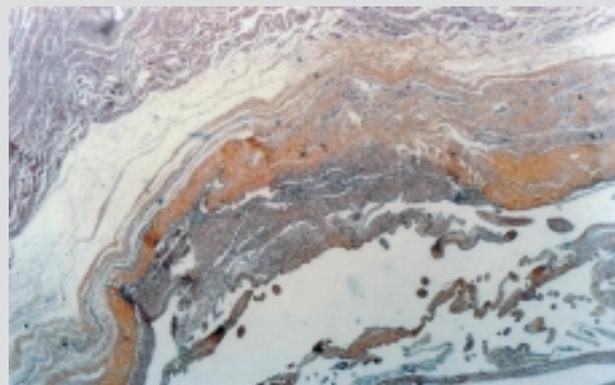
**Figure 1.** Transthoracic echocardiography, 4-chamber view showing an ovular mass, 4.5 × 5 cm in diameter (arrows), apparently encapsulated and with small calcifications. LA = left atrium; LV = left ventricle; RA = right atrium.



**Figure 2.** Transesophageal echocardiography, modified 2-chamber view confirming the ovular mass (arrows), apparently encapsulated and with small calcifications. It appeared to be attached to the medial segment of the anterolateral wall of the left ventricle. Abbreviations as in figure 1.



**Figure 3.** Preoperative magnetic nuclear resonance images, acquired in the short-axis plane through the middle of the ventricles (A) and in the transverse plane (B). The echocardiographic findings were confirmed. On this type of image the flowing blood within the chambers of the heart produces little or no signal, resulting in high contrast between the blood and myocardium. RV = right ventricle. Other abbreviations as in figure 1.



**Figure 4.** Histology of the ventricular mass, 600 $\times$  magnification: differently shaped vascular channels and consisting of capillaries, arterioles, and venules, intermingled with myocardial fibers may be seen. These vessels were often ectatic and with papillary projections into the lumen. Tortuous arterioles were visible in the deep intramuscular areas of the mass.