

## IMAGES IN CARDIOLOGY

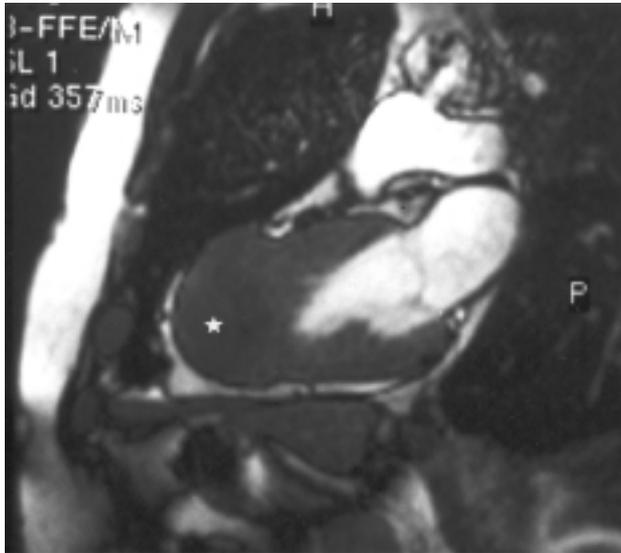


Fig. 1.

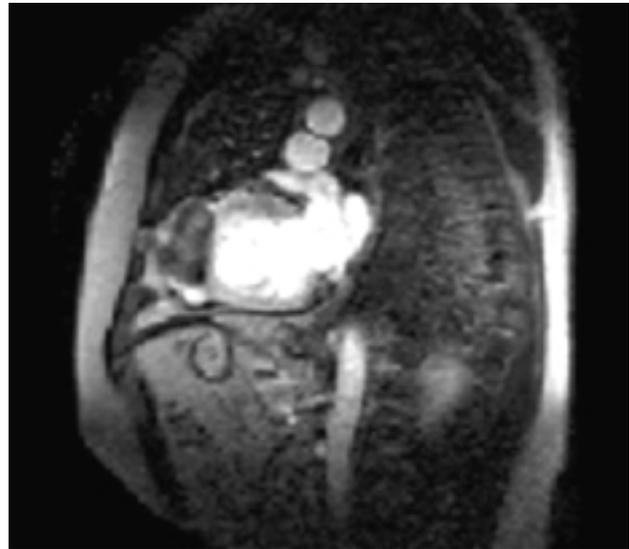


Fig. 2.

### Cardiac Tumor Mimicking Hypertrophic Cardiomyopathy

A 40-year-old man with a history of obesity, smoking and obstructive sleep apnea syndrome was referred for image assessment after routine electrocardiography suggested apical hypertrophy. Due to inadequate ultrasound window, the diagnosis could not be established by echocardiography. Cardiac magnetic resonance (MR) imaging, with and without contrast enhancement, demonstrated a large, homogeneous, well-delimited mass at the apex of the left ventricle that was isointense to muscle on T-1 weighted images (Figure 1). On contrast-enhanced T-2 weighted images, the mass was hypointense on the first-pass study (Figure 2) and strongly enhanced on delayed imaging (Figure 3). A diagnosis of cardiac fibroma was established.

Cardiac fibroma is a rare benign tumor that occurs more often in children than adults. It is large, circumscribed, almost always solitary, and has been related with arrhythmia, sudden death and heart failure. Nonetheless, in almost one-third of cases it is discovered incidentally. It is usually located in the ventricular myocardium and mainly affects the left ventricle anterior wall and the interventricular septum. For this reason it can be mistaken for hypertrophic cardiomyopathy in adults. The increase in elastin and collagen and the resulting decrease in cellularity lead to the homogeneous, hypointense appearance on T2-weighted images and the isointense appearance with respect to adjacent muscle on T1-weighted images. The degree of enhancement after contrast administration varies.

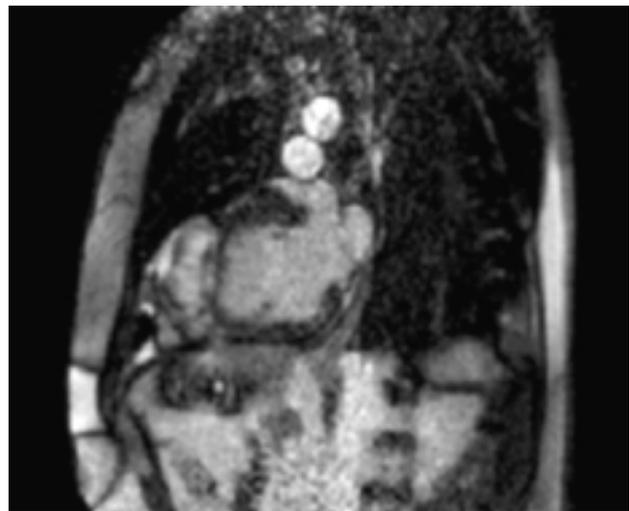


Fig. 3.

Surgery is the recommended treatment in adults. In asymptomatic cases, such as our patient, surgery is advisable only when the mass can be easily resected. Fibroma removal should be performed whenever possible in children because of the higher frequency of malignant arrhythmias.

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