**LARGE CARDIAC HAMARTOMA: CHARACTERIZATION OF MASS AND MANAGEMENT WITH IMAGING**

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*Background*: Advanced cardiac imaging techniques can assist in characterizing cardiac masses and directing management.

*Case*: An asymptomatic 14-year-old man presented with a 9 x 5 x 6 cm left ventricular mass incidentally discovered during investigation of a flow murmur. Echocardiography showed a large cavernous structure at the postero-apical left ventricle (LV) with systolic expansion and spontaneous echo contrast (Figures A and C), concerning for direct communication with the LV and possible thrombus. Despite the size of the mass, there was no obstructive physiology, and the myocardium appeared normal. Contrast echocardiography revealed late opacification of the mass relative to the LV with slow entry and low density of contrast (Figures B and D), suggesting venous connection to the mass without direct continuity with the LV cavity. Cardiac MRI (Figures E and F) showed increased signal on T1 and T2 weighted images, and rapid enhancement with gadolinium perfusion suggested a highly vascular structure. Contrast echocardiography and CMR imaging were most consistent with a benign vascular lesion, and excluded thrombus within the structure. As a result, expectant management with serial surveillance imaging was undertaken, and the patient remained asymptomatic and mass size unchanged. He died from non-cardiac cause at age 28 and autopsy demonstrated hamartoma of mature cardiac myocytes.

*Conclusion*: Advanced imaging techniques including contrast echocardiography and CMR provide valuable tissue characterization for assessment of cardiac masses, potentially distinguishing benign and malignant etiology and helping exclude thrombus. Accurate imaging techniques saved our patient the risks associated with unnecessary surgery or anticoagulation. The ability to accurately define size serially is essential in guiding expectant management.

