Incidental Finding of a Cardiac Mass on Abdominal CT Scan

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A 21-year-old woman presented to our hospital with symptoms of nausea, vomiting, abdominal pain, and fever. She underwent abdominal computed tomography (CT) to evaluate the abdominal pain, and a mass was discovered incidentally at the left ventricular cardiac apex. She denied any cardiac symptoms.

Further evaluation through cardiac magnetic resonance imaging (CMR) showed a large, well-encapsulated intramuscular mass in the left ventricle apex measuring up to 2 cm x 3 cm (Figures A, B). Tissue characterization revealed that the mass was isointense to myocardium on T1-weighted images (Figure C) and hypointense on T2-weighted images (Figure D). On late gadolinium-enhanced (LGE) images, there was marked hyperenhancement, which was characteristic of a cardiac fibroma (Figures E, F).

Cardiac fibromas are benign primary tumors composed of fibroblasts and a large amount of collagen. These uncommon tumors are primarily found in the pediatric population, and their prevalence among adults is rare.[1,2] Mainly located in the ventricular septum or left ventricular wall (intramural),[3] these tumors have much extracellular space for gadolinium accumulation, resulting in intense enhancement on CMR LGE images. A cardiac fibroma may lead to congestive heart failure or invade conduction tissue and cause ventricular arrhythmias.[4] Surgical resection is indicated in symptomatic patients.

Our patient remains asymptomatic and is monitored closely for symptoms. Repeat CMR imaging at 6 months demonstrated no change of the mass, suggesting that the lesion is benign.

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