An unexpected spherical mass in the left ventricle accidentally found during abdominal ultrasound

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A 28-year-old female physician with no previous medical history was admitted with a suspicion of a left ventricular (LV) tumor, which had been accidentally detected during a routine abdominal ultrasound. The patient denied any cardiovascular symptoms.

A subcostal view and other projections of trans-thoracic echocardiography (TTE) revealed a highly echogenic well-defined mobile spherical mass (10 × 11 mm) attached to the normokinetic part of the LV at the border of apical and midventricular segments of the inferior wall and the interventricular septum, in close proximity to the posterior-medial papillary muscle (FIGURE 1A–1C and 1E). TTE images were not typical of a thrombus or a parasitic disease; therefore, an LV myxoma was suspected. Because of an unclear type of the tumor and an increased risk of peripheral embolism, the patient underwent surgery and the pathological lesion was resected. Surprisingly, an intraoperative microscopic and histopathological examination revealed rhabdomyoma with typical spider cells. No abnormalities were found during a follow-up TTE performed 12 months after the surgery (FIGURE 1D and 1F). Our patient has remained in good condition.

Intracardiac tumors are usually found accidentally during routine echocardiographic examinations, and sometimes during an abdominal ultrasound in so called subcostal projections showing the LV. Primary cardiac tumors are very rare and most frequently benign, in contrast to secondary metastatic tumors.1 In adults, myxomas and papillary fibroelastomas are the most common tumors found in the left heart. The majority of myxomas (>75%) are located in the left atrium, and they are infrequently found in the LV cavity. Fibroelastoma is usually attached to the aortic or mitral valve.1,2

Cardiac rhabdomyoma is a benign neoplasm most commonly found in children, especially in infants, and it is extremely rare in adults. It is often associated with hamartomatous diseases, mainly with tuberous sclerosis.3

FIGURE 1 Transthoracic echocardiography in a patient with left ventricular (LV) rhabdomyoma before and at 1 year after the surgery: A – an additional spherical mass in the left ventricle (arrow), subcostal view; B – 3-dimensional image of the pathological structure (arrow)
Spherical mass in the left ventricle removal of the lesion should be always considered. In asymptomatic adult patients with rhabdomyoma treated conservatively as well as in all patients after cardiac surgery, a meticulous echocardiographic follow-up is recommended.

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REFERENCES