Abstract Form

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Project Title:	The Sound of a Tumor Plop, A Case of Left Atrial Myxoma

Research Category (please check one):							
☐	**Original Research**	☒	**Clinical Vignette**	☐	**Quality Improvement**	☐	**Medical Education Innovation**

Abstract

Introduction:
Myxomas are the most common primary cardiac tumors that develop mainly in the heart's atrial chambers. Myxomas represent just one of several potential etiologies for intracardiac masses. They are considered benign tumors; however, urgent work-up and treatment are crucial to improve patient outcomes.

Case description:
A 67-year-old man with no known past medical history presented to the emergency department with an acute onset of dizziness, nausea, and vomiting. On physical exam, vital signs were remarkable for elevated blood pressure of 155/82. A physical exam revealed the patient to be alert and oriented with mild dysarthric speech, decreased range of motion, and slight dysmetria on the left side. The cardiac exam showed regular rate and rhythm with a 2/6 systolic murmur. CT imaging of the brain revealed an old left temporal lobe infarct without acute pathology. Subsequently, the patient was admitted to telemetry for acute stroke management. MRI of the brain showed a recent left cerebellar stroke. Ultrasound of the carotid arteries was negative. TTE showed a large, 2.7 cm (L) x 1.2 cm (W) mobile mass that appeared to be attached to the interatrial septum, which prolapsed through the mitral valve during diastole. There was mild mitral regurgitation. The differential diagnosis included thrombus versus vegetation versus myxoma. Cardiology was consulted, and they noted that the mass was most consistent with myxoma, given its locality. The patient underwent additional evaluations, including blood cultures that were negative for bacterial organisms and ultrasounds of the bilateral lower extremities, which were negative for a DVT. He lacked systemic signs of infection, so there was low suspicion of culture-negative endocarditis. The neurology service was consulted, and it was recommended that anticoagulation be initiated to prevent further embolic events. The patient was discharged home with Cardiology follow-up to help coordinate surgical intervention when medically optimized. The patient obtained a TEE about one week after he was discharged from the hospital. The TEE confirmed a large, 4.3 cm mobile mass in the left atrium, attached by a stalk to the interatrial septum, consistent with a myxoma. The mass prolapsed through the mitral valve during diastole. Cardiothoracic Surgery evaluated him, and he underwent excision of the left atrial tumor on cardiopulmonary bypass with the repair of the atrial septum with a pericardial patch. The mass was confirmed to be a cardiac myxoma. Upon discharge, the plan was for the patient to remain on aspirin for one year following the pericardial patch closure of the atrial septum.

Discussion:
Myxomas may be considered benign; however, they can cause damage due to their potential for embolization. Some studies have found that embolism in patients with cardiac myxomas is associated with tumor appearance, location, and mobility. Surgical resection is the definitive treatment for a myxoma, as medical management, even with anticoagulation therapy, has proven ineffective in preventing embolic events. As in this case, patients may present with an acute stroke related to the presence of the myxoma. Furthermore, differentiating between an atrial myxoma and other cardiac masses can be challenging during an echocardiogram examination. The differential for atrial masses is broad and includes fibroelastoma, primary and secondary tumors, and thrombi. A feature that usually distinguishes them is that myxomas typically have a stalk, a preference for limbus fossa ovalis of the arterial septum for stalk attachment and mobility. As was the case here, putting together clinical presentation, laboratory data, and diagnostic findings is essential in managing intracardiac masses.