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CASE REPORT

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Coronary Artery Myxomatous Embolization

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Introduction

Cardiac myxomas are the most common type of primary cardiac tumor in adults and usually occur in the left atrium. It usually manifests with cardiovascular symptoms, evidence of systemic embolization, or constitutional symptoms. Systemic embolization usually results in neurologic deficits but there have been case reports of coronary artery embolization.

Methods

A previously healthy 56-year-old man was brought to the emergency department after being found unresponsive at home. Upon arrival his vital signs were within normal limits. He responded only to painful stimuli with noted aphasia, weakness in the right upper extremity, and right sided gaze deviation. There was no evidence of intracranial hemorrhage on the initial head CT without contrast, but his EKG showed ST segment elevation in an inferolateral pattern with an elevated initial serum troponin. Patient deemed not a candidate for tPA therapy and underwent emergent coronary angiography that demonstrated evidence of RCA clot that embolized to the distal branches with spontaneous reperfusion. Further imaging showed innumerable bilateral cerebral hemisphere, basal ganglia, and cerebellar small foci of infarcts on MRI brain that were consistent with embolic stroke. Hypokinesis of the inferior and anterolateral walls with mildly depressed left ventricular systolic function (LVEF 45-50%) was shown on transthoracic echocardiography but no visible intracardiac thrombus could be seen even with use of contrast [1-4]. Left atrial thrombus was reported on a CT angiogram of the chest that was done earlier to rule out aortic dissection. This finding was further clarified on a transesophageal echocardiography that reported a 4.4 x 2 cm mobile mass within the left atrium with visible stalk attached to the interatrial septum consistent with left atrial tumor (Figure 1). After a few days of supportive care, patient underwent median sternotomy with resection of left atrial tumor. Surgical pathology confirmed the diagnosis of left atrial myxoma. Patient continued to improve during his hospital stay and was discharged home with arranged follow up.

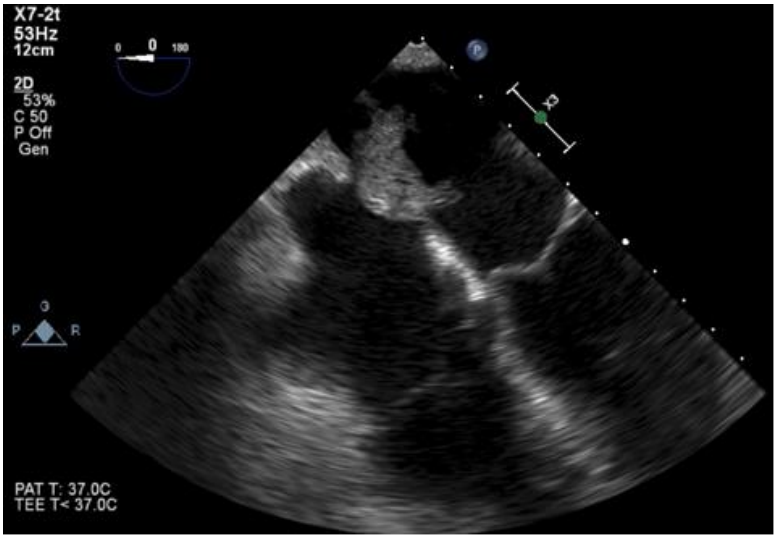

Figure 1. *TEE showing the mobile mass within the left atrium.*

Conclusion

A Coronary artery myxomatous embolization is a rare cause of myocardial infarction, but in the right clinical setting it should be considered on the differential. Evaluation with transthoracic echocardiography usually can identify the tumor, but as shown in this case, a negative study should not rule it out. Once the diagnosis is established, prompt tumor resection is required because of the risk of embolization or cardiovascular complications, including sudden death.

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