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Cardiology Images

Images in Cardiology: Atrial Myxoma

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Abstract

We present transthoracic echocardiography and intraoperative gross pathology of a huge calcified left atrial myxoma in a 72-year-old woman presenting with progressive dyspnea, fatigue, and concurrent left main stem coronary disease requiring emergency surgical tumor excision and bypass grafting.

Introduction:

Cardiac myxoma(CM) is the most common cardiac tumor accounting for about 50% of the primary cardiac neoplasms and 70% of all cardiac tumors. It is quite rare with an overall incidence of about 0.5 per million per year (1)

The most frequent locations are the left atrium (75%), the right atrium (23%), and only 2% in the ventricles with the commonest attachment site being the fossa ovalis.(2) CM may present with hemodynamic consequences from mitral valve flow obstruction, embolic complications or systemic symptoms like fever, weight loss and fatigue.

Echocardiography is usually the initial diagnostic modality with trans-thoracic echocardiogram having approximately 95% sensitivity for detection of CM while trans-esophageal echocardiogram has 100% sensitivity.(3)

Once diagnosis is established , surgical removal is the standard form of therapy. The median sternotomy, cardiopulmonary bypass, aorta, and bicaval cannulation with or without cardioplegic heart arrest is the standard approach to resection of these tumor. (4)

Case presentation

This is a 72 year old female with no significant past medical history who complained of progressive shortness of breath on exertion accompanied by significant weight loss and fatigue over the last two years. She also manifested paraneoplastic symptoms of restlessness and hyperactivity. The patient was referred for echocardiography at our institute.

Figure (1) shows apical four chamber view demonstrating a large mass in the left atrium with hyperechoic specs suggesting calcification. A diagnosis of left atrial myxoma was established based on location , morphology and attachment to interatrial septum. Patient was referred for emergency surgery after coronary angiography which showed significant left main stem disease. Intraoperatively the tumor was found to be attached to the inferior wall of the intra-atrial septum and extended in the inferior and posterior wall of the left atrium between the posterior mitral annulus and the right inferior pulmonary veins. Tumor excision and two vessel bypass was performed. Histopathology confirmed the diagnosis of atrial myxoma.

Figure (1) Apical four chamber view showing large mass attached to intra-atrial septum.

Figure (2) Postoperative image of excised tumor

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Figure 1: Apical Four-Chamber Echocardiogram Showing Large Calcified Left Atrial Myxoma



Figure 2: Postoperative Gross Specimen of Excised Left Atrial Myxoma