Left Atrial Myxoma: Echocardiographic and CT Images

Ranjit Meher, Donboklang Lynser*, Taraprasad Tripathy

Radiodiagnosis and Imaging, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong 793018, Meghalaya, India

*Corresponding author: Donboklang Lynser, Radiodiagnosis and Imaging, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong 793018, Meghalaya, India, Tel: 00919774655769; E-mail: bokdlynser@yahoo.co.in

Clinical Presentation

A 29-year-old female was evaluated for repeated attacks of syncope. Echocardiographically, a large, well defined, polypoidal, lobulated hyperechoic mass measuring 4.7 cm × 2.5 cm having a focal area of calcification in a dilated left atrium (Figure 1a). The lesion has a narrow pedicle to interatrial septum near fossa ovalis and seen prolapsing into the left ventricle during atrial systole (Figure 1b). Plain CT thorax revealed a hypodense soft tissue mass with a focal calcification (Figure 2a). On CECT there is minimal enhancement ruling out thrombus (Figure 2b). These features are consistent with left atrial myxoma.

Primary cardiac tumours in adults are rare. Myxoma is the most common cardiac tumour, accounting for 50% of all cases. 75% of cardiac myxomas occur in the left atrium, 20% in right atrium and rest are in ventricles. It can present with embolic phenomena, congestive cardiac failure, chest pain, pulmonary hypertension, syncope, arrhythmia and systemic symptoms such as fever, malaise and weight loss.1

Echocardiographically cardiac myxomas usually present as lobulated, hyperechoic, polypoidal left atrial mass with narrow pedicle to interatrial septum near fossa ovalis.2 14% show coarse or punctate calcification. On CT scan, 95% myxomas are spherical or ovoid, 76% lobular contour and 24% smooth. On CECT chest, 81% myxomas are hypodense, 19% isodense and 67% heterogeneous.3 Cardiac tumour including atrial myxoma must be ruled in patient with repeated attacks of syncope. Echocardiography is the most useful primary imaging tool and CECT is the most efficacious imaging to differentiate myxoma from thrombus.

References

Figure 1a: Echocardiographic images of a 29 year old female presenting with repeated attacks of syncope. Left parasternal view in ventricular systole showing a lobulated, hyperechoic, polypoidal left atrial mass (M) having small focal calcifications (cal) with narrow pedicle attached to the interatrial septum. Note the opening of the aortic valve leaflets (AV) and normal mitral valve (MV) leaflets. LA-left atrium, LV- left ventricle, RV- right ventricle, AO- aortic root.

Figure 1b: Echocardiographic images of a 29 year old female presenting with repeated attacks of syncope. Left parasternal view in atrial systole showing the mass (M) prolapsed through the mitral valve. RV- right ventricle, LA-left atrium, LV- left ventricle, AO- aortic root.
**Figure 2a:** Computed tomographic (CT) cardiac images of a 29 year old female presenting with repeated attacks of syncope. Non-contrast axial CT showing a hypodense mass in the right atrium (RA) having a small focal calcification (Cal). RA-right atrium, RV-right ventricle, LV-left ventricle.

**Figure 2b:** Computed tomographic (CT) cardiac images of a 29 year old female presenting with repeated attacks of syncope. Contrast enhanced axial CT scan showing minimal enhancement of the mass (M). RA-right atrium, RV-right ventricle, LA-left atrium, LV-left ventricle.