

Cardiac Imaging

Incidental Right Atrial Lipoma: Appearance on Multidetector Computed Tomography Imaging

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A fifty-year-old man was admitted to our department for evaluation of left anterior descending (LAD) artery stent patency by cardiac multidetector computed tomography (MDCT). The patient, whose LAD artery stent had been placed 1 year previously, complained of mild chest pain continuing for 1 month. Pulse and arterial blood pressure were normal. On echocardiography in the outer center, left ventricular hypertrophy, thinning at the left ventricular apex and interventricular septum, and akinesis were observed. On cardiac MDCT, the LAD artery stent was found to be open. Incidentally, a 12 × 10 mm intracavitary homogeneous mass was seen in the right atrium close to the orifice of the superior vena cava (Figure 1). The lesion was well-circumscribed and attached to the interatrial septum. On unenhanced CT images, lesion density was measured to be between -90 and -110 HU (Figure 2). The findings were consistent with a right atrial lipoma arising from the subendocardium. The patient was referred to cardiology and, given the small dimensions of the lesion and the absence of symptoms, follow up was deemed sufficient.

Primary cardiac tumors are very rare, ranging from 0.001% to 0.28% of all tumors; about 75% of them are benign. Lipomas make up about 8% of primary cardiac tumors.^{1,2} The most common type of

benign tumor in children is rhabdomyoma (~20%) and in adults myxoma (~50%). Cardiac lipomas are 50 times less common than myxomas and are usually present in combination with lipomas of other organs.³ They usually arise from the epicardial fat tissue, growing into the pericardial sac. The most frequent intracardiac location is the right atrium, where they can originate from either the atrial septum or the atrial roof. Intracavitary lesions can manifest with dyspnea, embolism, atrial and ventricular arrhythmias secondary to blood flow obstruction, and involvement of the cardiac conduction system.^{3,4} However, they do not usually cause symptoms and are often discovered incidentally. Therefore, cardiac CT reading should not be limited only to coronary arteries, but all surrounding structures should be assessed.

References

- Joaquin MR, Braille DM, Arruda MV, Soares MJ. Right atrial lipoma resection and partial reconstruction using bovine pericardium. *Rev Bras Cir Cardiovasc.* 2009; 24: 239-241.
- Kraemer N, Balzer JC, Schoth F, et al. [Atrial tumors in cardiac MRI]. *Rofo.* 2009; 181: 1038-1049.
- Kitzing B. Cardiac lipoma in a patient with a history of malignant tumors: a case report. *Cases J.* 2008; 1: 41.
- Ceresa F, Calarco G, Franzi E, Patanè F. Right atrial lipoma in patient with Cowden syndrome. *Interact Cardiovasc Thorac Surg.* 2010; 11: 803-804.

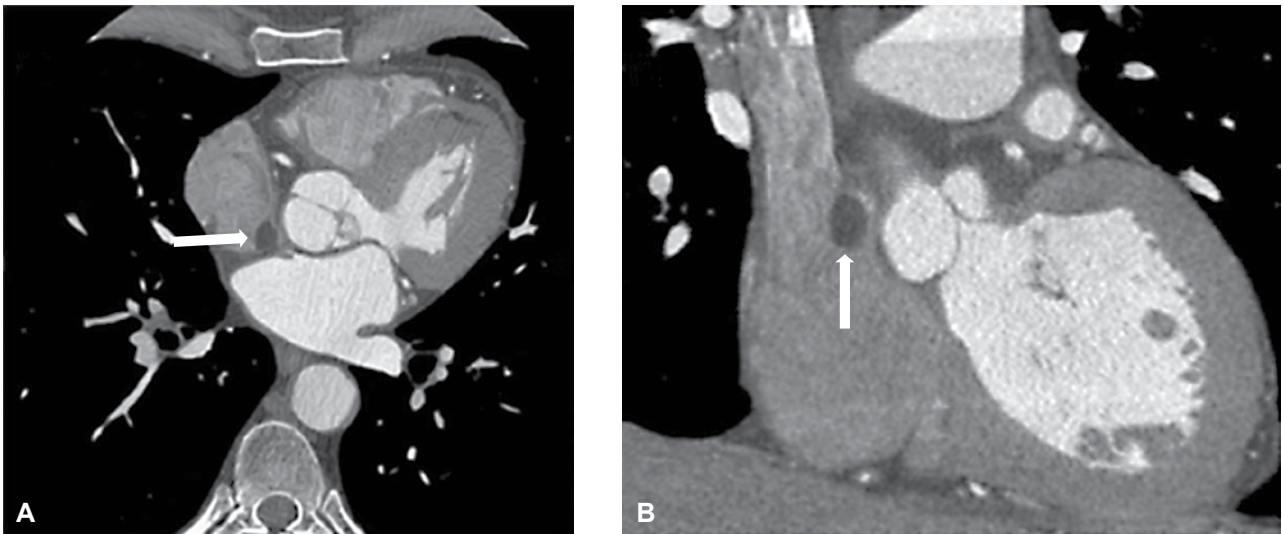


Figure 1. Axial (A) and coronal-oblique (B) cardiac CT images showing an intracavitary homogeneous mass lesion (arrows) close to the orifice of the superior vena cava in the right atrium. The lesion attaches to the interatrial septum.

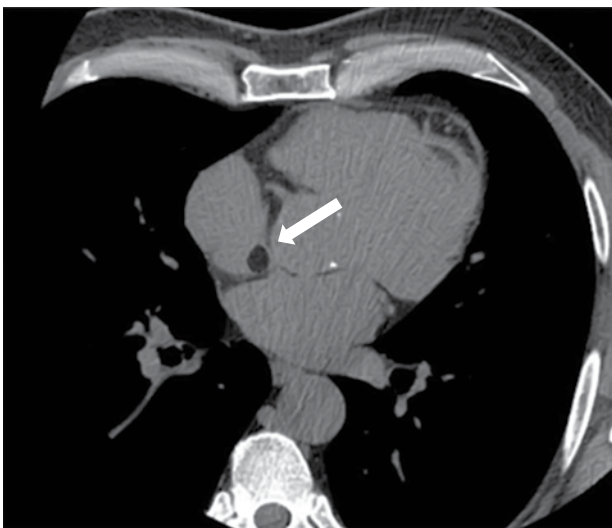


Figure 2. On an unenhanced axial CT image, the lesion density is measured to be between -90 and -110 HU, consistent with lipoma.