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Right ventricular myxoma: An incidental finding on CT chest lung screen

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Description

With the rise in screening modalities, incidental findings increase. We present a case of a computed tomography (CT) chest lung cancer screen that resulted in the diagnosis of a right ventricular (RV) myxoma. Echocardiogram and cardiac magnetic resonance imaging (CMR) led to this diagnosis.

A 57-year-old Caucasian male with a 60-pack year history presented to his primary care provider for an annual exam. CT chest revealed a faint calcification in the RV apex (Figure 1A). In subsequent transthoracic echocardiogram, attached to the RV apex free wall was a 2.4 cm X 1.5 cm heterogeneous mass with central calcification suggestive of RV myxoma (Figure 1B). Cardiac magnetic resonance imaging (CMR) showed minimal rim enhancement of a 2.1 X 2.5 X 1.3 cm centrally calcified mass arising from the free wall of the RV apex consistent with myxoma (Figure 1C and 1D). The patient remained asymptomatic with a normal cardiac exam.

Cardiac tumors remain rare [1]. They can be divided into primary or secondary [1]. Most primary tumors are myxomas found in the atria [2]. Only a small portion originates in the right ventricle [2]. Estimated to be 8% in one review [2]. Most patients will be symptomatic [2]. One study found only 13% of patients were asymptomatic [2].

Echocardiography has long been utilized and cardiac magnetic resonance imaging (CMR) has become a more optimal form of imaging cardiac tumors [3]. Due to the improved resolution of CMR, this imaging modality can lead to definitive diagnoses of cardiac masses [4]. CMR can reliably indicate the extent of tumor and attachment to the cardiac wall [4]. CMR can also characterize the anatomy and tissue features, which can differentiate from other masses such as malignant tumors and cardiac thrombi [3].

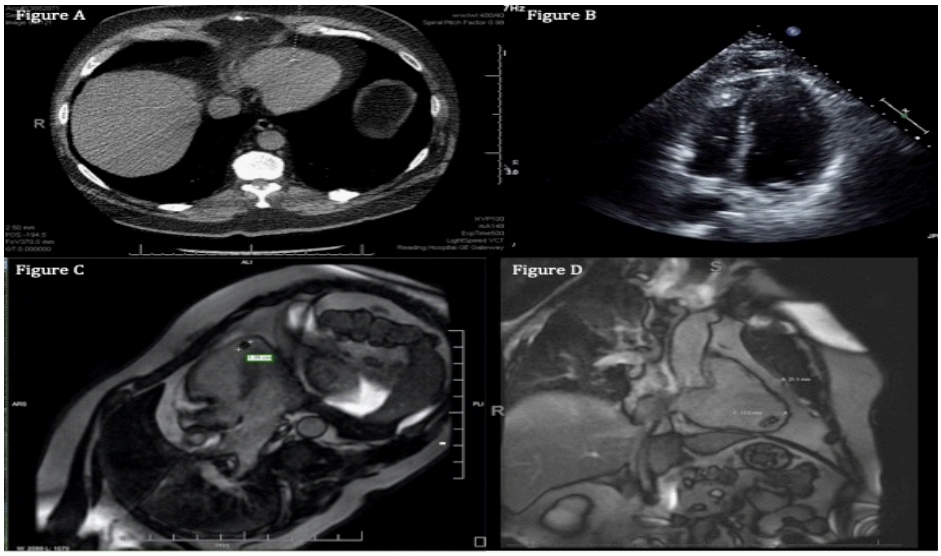

Figure 1: Figure legends for Right ventricular myxoma: an incidental finding on CT chest lung screen.
Figure 1A: CT chest with faint calcification in the RV apex.
Figure 1B: Transthoracic Echocardiogram with a 2.4 cm x 1.5 cm heterogeneous mass with central calcification attached to the RV apex free wall suggestive of RV myxoma.
Figure 1C andD : Cardiac magnetic resonance imaging minimal rim enhancement of a 2.1 X 2.5 X 1.3 cm centrally calcified mass arising from the free wall of the RV apex consistent with myxoma.

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