

Giant Right Atrium Secondary to Mitral Stenosis

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Case presentation

A 59-year-old Hispanic lady with history of rheumatic fever and chronic atrial fibrillation presented to the emergency department with severe dyspnea. Seventeen years prior to this presentation, she had undergone re-do mitral valve replacement, and tricuspid annuloplasty. The patient's chest radiograph revealed massively dilated right chambers of the heart (**Figure 1**). An electrocardiogram showed right axis deviation, atrial fibrillation with a controlled heart rate of 70 beats per minute. A chest computed tomography (CT) scan revealed a gigantic right atrium measuring approximately 12 cm in its largest diameter (**Figure 2**).

These images are relevant because this reveals one of the few cases of massively dilated right atrium, despite previous mitral valve replacement and tricuspid annuloplasty. Other etiologies of a dilated right atrium in patient with dyspnea in the ED and intensive care unit (ICU) include: chronic obstructive pulmonary disease, tricuspid valvular stenosis, severe mitral valvular pathology with pulmonary hypertension, chronic pulmonary emboli, and untreated congenital heart disease.

Key words: Right atrium, tricuspid valve, anuloplasty, mitral valve replacement, cardiomegaly

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Figure 1. Chest Radiograph Reveals Massive Cardiomegaly, with Significant Enlargement of Right Heart Chambers



Figure 2. CT Scan of Chest Shows a Massively-Dilated Right Atrium and Enlargement of the Left Atrium

