

Case of giant left atrium from congestive heart failure

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DESCRIPTION

A 79-year-old woman with a history of diastolic heart failure, pulmonary hypertension and rheumatic heart disease status-post mitral valve replacement presented with worsening shortness of breath and exercise tolerance for 1 month. Her exercise tolerance had decreased from 5 city blocks to several feet, while her weight had increased from 174 pounds to 187 pounds. On examination, she was unable to lay flat, her jugular venous pressure was 15 cm, C and V waves were positive, she had a mechanical S1, 4/6 holosystolic murmur, 1/4 diastolic murmur, displaced point of maximal impulse, right ventricular heave, a pulsatile liver and 2+ pitting oedema in her lower extremities. Echocardiogram revealed an ejection fraction 55%, E/E' 21 and a left atrial diameter of 11 cm (figure 1). A prior CT scan of her chest showed massive cardiomegaly with collapse of the right lower and right middle lobe due to compression from the heart (figure 2). It also demonstrated rheumatic calcifications of the posterior left atrium.

During her hospital course, she developed acute hypoxic respiratory failure and required intubation. She was diuresed with high dose intravenous furosemide with symptom improvement and extubated on hospital day 3.

Our patient presented with classic symptoms of heart failure and was noted to have biatrial enlargement with a measurement of 11 cm in diameter of the left atrium. Giant left atrium (GLA), defined as a left atrium larger than 8 cm, is a rare condition that has a reported incidence of 0.3%.¹ The aetiology of GLA is usually rheumatic heart disease, which is a rare occurrence in the USA with a reported

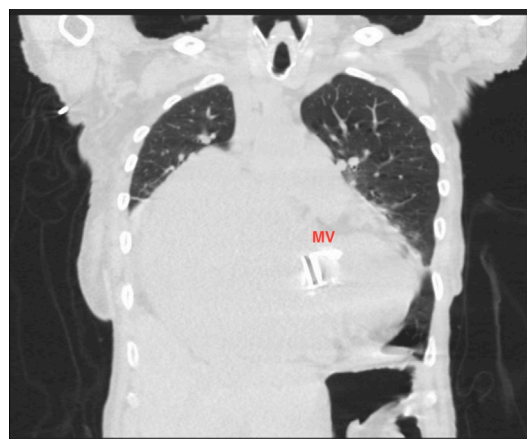


Figure 2 A coronal view of a CT chest demonstrating massive cardiomegaly with collapse of the right lower and right middle lobe.

incidence of 0.3 per 1000 persons.² Patients with GLA almost always have concomitant severe mitral regurgitation, atrial fibrillation and dysphagia.³

Learning points

- ▶ Giant left atrium (GLA) is defined as a left atrium larger than 8 cm and has a reported incidence of 0.3%.
- ▶ The most common aetiology of GLA is rheumatic heart disease.

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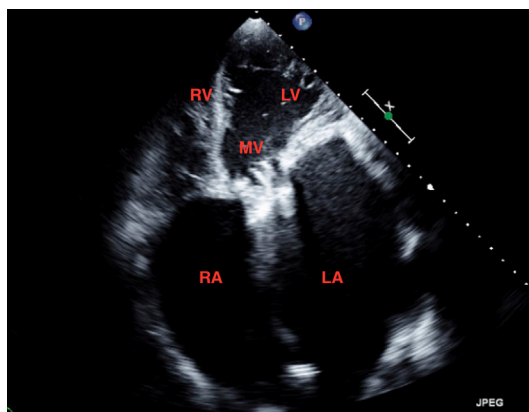


Figure 1 A four-chamber view on a transthoracic echocardiogram demonstrating biatrial enlargement.



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