


**CLINICAL VIGNETTE**

Giant left atrium mimicking right heart failure

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A 66-year-old woman was treated with mitral and aortic valve replacement by bioprothesis when she was 34 years old. She required a new double Bjork–Shiley valve replacement at 48 years old. At the age of 62, she received an implantable cardioverter/defibrillator. She entered in Hospital by worsening of clinical right heart failure, with the abolition of respiratory murmur in the right mid-to-lower lung, congestive hepatomegaly of 12 cm, sign of ascites and peripheral oedema, with normal valve prosthetic sounds. Chest radiography showed massive cardiomegaly, with cardio thoracic index of 100%. Echocardiography showed a giant left atrium (150 × 120 mm2) and left ventricle ejection fraction of 20%. It did not exist the signs of pulmonary hypertension neither tricuspid regurgitation.

A computed tomographic scan and a Magnetic Resonance of the chest revealed the severe enlargement of the left atrium (Panel A), which measured 152 × 130 mm2 (Panel B), by 160 mm (Panel C), and filled the entire mid and lower right hemithorax, contacting with the right chest wall; the scan also revealed anterior displacement of the right atrium, and a narrowing of the chest inferior vena caval (IVC) (15.7 mm) beneath the orifice of IVC in the right atrium (22.2 mm) (Panel D).

The clinical presentation mimics a right heart failure, but the localized narrowing at the IVC level contributes to venous congestion with hepatomegaly, without the presence of tricuspid regurgitation or increased right atrium pressure. Some historical cases have been misdiagnosed as right pleural effusion, and the attempt to aspirate the fluid was discontinued when bleeding appeared.

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