Giant left atrium

Aurícula izquierda gigante

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A 64-year-old man with history of severe mitral regurgitation due to posterior leaflet prolapse and rupture of chordae tendineae, who underwent surgical treatment (Alfieri's technique) seven years earlier, presented to the clinic after dropping out follow-up, with symptoms of heart failure at slight effort (New York Heart Association functional class II). Physical examination revealed loud arrhythmic heart sounds, mitral holosystolic murmur, blood pressure of 125/65 mmHg, mild jugular vein enlargement, hepatomegaly of 1-2 cm, and absence of lower limb edema. An electro-cardiogram showed atrial fibrillation with acceptable ventricular response, 92 beats per minute. Transthoracic echocardiography (Video, supplementary material), revealed a mildly dilated left ventricle of 60 mm at end-diastole (Panel A, parasternal long axis view); ejection fraction was normal (55-60%), massive bialtrial enlargement, with a giant left atrium measuring almost 14 cm (Panels B and C, short parasternal axis and subxifoid view, respectively [Ao, aorta; LA, left atrium; PA, pulmonary artery; RA, right atrium; RV, right ventricle]), severe mitral regurgitation (Panel D, apical 4-chamber view) and moderate tricuspid regurgitation and pulmonary hypertension. The patient was referred for mitral valve replacement. Our case is interesting as such a huge left atrium is uncommon. The Journal of Tehran University Heart Center shows the largest ever reported (20 × 22 cm) since it is increasingly rare to find atria of these dimensions due to improved treatments for childhood infections (group A beta-hemolytic streptococcus), better diagnostic techniques and increased access to medical care. There are a number of therapeutic approaches for mitral regurgitation including pharmacological treatment, percutaneous repair (Mitra-Clip) and surgery (valve repair or replacement), which will be chosen depending on severity and origin (primary or secondary). Transcatheter neo-chords implantation, indirect annuloplasty with devices implanted in the coronary sinus or by radio-frequency-ring remodeling, and percutaneous mitral valve implantation, are still in development stage.