An Unusual Cardiomegaly: The Giant Left Atrium

DANIELE BERTOLI, M.D., GIANSAVATORE FILORIZZO, M.D.

Department of Cardiology, S. Bartolomeo Hospital, Sarzana, Italy

FIG. 1 Frontal chest roentgenogram.

A 68-year-old man was admitted for congestive heart failure. His clinical history was hypertension with chronic atrial fibrillation and cardiomegaly at the age of 44 years; complete atrioventricular block diagnosed six years later and treated with VVI pacemaker implantation; symptoms of heart failure at the age of 65 years diagnosed as restrictive cardiomyopathy in a first hospital, whereas a second hospital referred to mitral prolapse. The frontal chest roentgenogram, performed in supine position on admission, is shown in Figure 1. Cardiothoracic ratio was 0.96. Echocardiography revealed an enormously dilated left atrium (Fig. 2). Its orthogonal dimensions were $17 \times 17 \times 15$ cm with a volume of about 2.1 liters.

The left ventricle was not enlarged. Systolic function was normal with moderate, symmetric wall hypertrophy. The mitral anulus was dilated but no signs of leaflet prolapse were

Fig. 2 Echocardiography. End-systolic frames from apical window. (A) Four-chamber view, (B) two-chamber view. LV = left ventricle, LA = left atrium, RV = right ventricle, RA = right atrium.

present. At color Doppler examination moderate regurgitation was evident, as was moderate tricuspid insufficiency.

The patient refused invasive diagnostic tests and survived on medical treatment for two years until he died from refractory heart failure; his systolic left ventricular function was still preserved. A definite diagnosis was never possible.

Mild to moderate left atrium enlargement is a common finding in both hypertensive left ventricular hypertrophy and restrictive cardiomyopathy, especially in the presence of chronic atrial fibrillation; nevertheless, very rarely does it become the predominant morphologic feature of the disease as was the case in this patient.

Address for reprints:

Daniele Bertoli, M.D.
Department of Cardiology
S. Bartolomeo Hospital
Via Paci 1
19038 Sarzana (SP), Italy

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Reference

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