Giant left atrium in a young patient with previously undetected rheumatic valve disease

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A 26-year-old West-African woman presented at the emergency room with dyspnoea and atypical chest pain. The electrocardiogram showed atrial fibrillation with average ventricular rate of 105 b.p.m. Chest radiogram (Panel A) showed marked cardiomegaly with a cardiothoracic ratio of 0.88. Transthoracic echocardiography revealed a giant left atrium associated with severe mitral regurgitation (Panel B, four-chamber view—systolic still frame shows the wide flow convergence area on the ventricular side and large vena contracta) and moderate-to-severe mitral stenosis (Panel C, four-chamber view—diastolic still frame shows the wide flow convergence area on the atrial side) caused by previously undiagnosed rheumatic disease (see Supplementary material online, Video A—2D colour echocardiogram, four-chamber view).

The patient underwent uneventful mitral valve replacement with a mechanical prosthesis and additional tricuspid repair. Sixty-four-row computed tomography was performed few days after surgery to exclude the clinical suspicion of pulmonary embolism, which was in fact excluded, and collaterally well depicted the markedly dilated (14 × 13 cm) left atrium (Panel D, coronal and sagittal views). Three-dimensional volume-rendering (Panel E) well illustrates the severe dilatation of the left atrium in comparison with the normal volume of the left ventricle (see Supplementary material online, Video B—64-row CT scan 3D rotating volume-rendering). In Southern Europe, with the recent surge of migration from Africa, we are experiencing a revival of illnesses that we thought confined to the past, such as rheumatic heart disease.

Supplementary material is available at European Heart Journal online.