A 16-year-old girl was admitted for breathlessness. Her only medical history was asthma treated with a bronchodilator and steroids. Examination revealed hepatomegaly, lower limb oedema and a soft systolic murmur with loud second heart sound. Chest radiography revealed cardiomegaly with pulmonary congestion, and the electrocardiogram was suggestive of right ventricular hypertrophy (Fig. 1A). Echocardiography showed an abnormal dilated right atrium and right ventricle and an estimated pulmonary artery systolic pressure, on tricuspid regurgitation, of 124 mmHg (supra-systemic pulmonary hypertension) (Fig. 1B). In addition, a thick membrane was noted in the left atrium, separating it into two chambers (Fig. 1B, white arrow). This had an eccentrically placed orifice nearer to the septal margin of the membrane on transesophageal echography (Fig. 1C, white arrow), with a significant diastolic gradient (38 mmHg) (Fig. 1B), causing post-capillary pulmonary hypertension (Supplementary data). A diagnosis of cor triatriatum was made (without atrial septal defect or anomalous pulmonary venous connection) and the findings of pulmonary hypertension were attributed to the restrictive membrane, mimicking mitral stenosis. A decision was made to proceed to surgical resection of the obstructing atrial membrane. The left atrium was divided by a thick, fibromuscular membrane, with a 3 mm eccentrically placed orifice. The membrane was excised completely; the anatomy of the left atrium was inspected and showed no other abnormalities. The patient made an uneventful recovery following surgery; nevertheless, pulmonary hypertension persisted (80 mmHg), and was treated by an endothelin receptor...
Chest radiography revealing a cardiomegaly with pulmonary congestion and ECG suggestive of right ventricular hypertrophy (A). Echocardiography showing a dilated right atrium and right ventricle and a pulmonary hypertension on tricuspid regurgitation (B). TTE showing a membrane in the left atrium (B, white arrow) with an eccentrically placed restrictive orifice on TOE (C, white arrow) responsible of a significant diastolic gradient (38 mmHg) (B).

antagonist (bosentan) and oral anticoagulation. Two years later, pulmonary pressures were normalized and treatment interrupted definitively.

Conflict of interest

None.

Appendix A. Supplementary data