

Images in Congenital Heart Disease

Divided left atrium

Michael D. Puchalski, Lloyd Tani, Neal Hillman

Department of Pediatrics, Division of Pediatric Cardiology, University of Utah, Salt Lake City, USA

A 7-YEAR-OLD BOY WAS REFERRED FOR evaluation of a new murmur. The history was significant for exercise fatigue that was gradual in onset over the last year, but more pronounced in the most recent months. Physical examination revealed a right ventricular heave, loud single second heart sound, a murmur of tricuspid regurgitation, and a low-frequency short diastolic murmur at the left mid-sternal border. The chest radiograph revealed bilateral pulmonary venous congestion. Electrocardiography showed right ventricular hypertrophy. Echocardiography showed a divided left atrium with a mean gradient of 16 mmHg. In the apical 4-chamber view, a membrane (arrow) can be seen crossing the inflow during diastole (Fig. 1). The arrowhead shows the leaflets of the mitral valve. The peak pressure between the right ventricle and right atrium, as measured by the tricuspid regurgitation jet was 65 mmHg, with a concurrent blood pressure of 80/50. The patient underwent cardiopulmonary bypass to resect the membrane. From the surgeon's view, the membrane is seen (black arrow) via a trans-atrial approach through the right atrium and atrial septum (Fig. 2). This approach provides the best visualization, and gives the opportunity completely to excise the membrane and evaluate the mitral valve following resection. He was extubated on the first postoperative day, and progressed remarkably well, being discharged home on the fourth day. This case illustrates the importance of a good physical examination. Fortunately for this young man, he did not have irreversible pulmonary vascular damage.

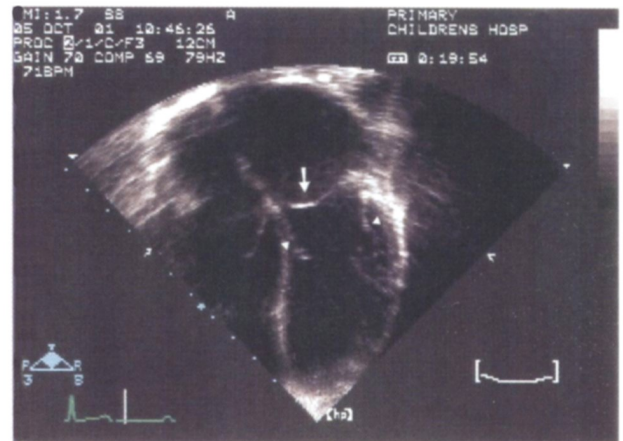


Figure 1.

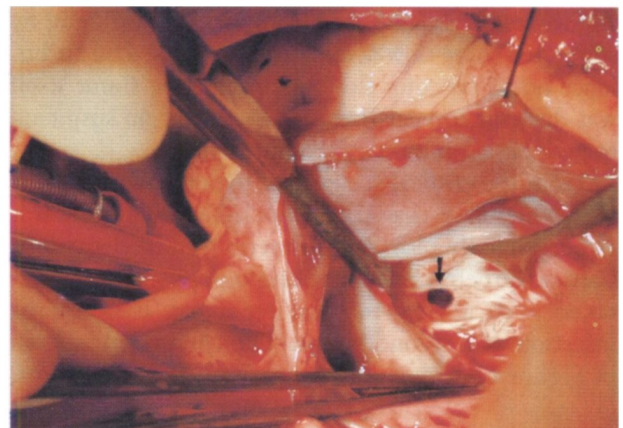


Figure 2.

Correspondence to: Michael D. Puchalski, MD, Division of Cardiology, University of Utah, 100 N. Medical Drive, Salt Lake City, UT 84113, USA. Tel: 801 588 2600; Fax: 801 588 2612; E-mail: pcmpucha@ihc.com

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