3. Bonham-Carter RE, Capriles M, Noe Y. Total anomalous pulmonary venous drainage: a clinical and anatomical study of 75 children. Br Heart J 1969;31:45.
4. Gathaman GE, Nadas AS. Total anomalous pulmonary venous connection. Circulation 1970;42:143-54.
5. Lucas RV, Lock JE, Tandon R, Edwards JE. Gross and histologic anatomy of total anomalous pulmonary venous connections. Am J Cardiol 1988;62:292-300.
6. Dupuis C, Charaf LAC, Breviere GM, Abou P, Remy-Jardin M, Helmius G. The "adult" form of the scimitar syndrome. Am J Cardiol 1992; 70:502-7.
7. Freedom RM, Culham JAG, Rowe RD. Left atrial to coronary sinus fenestration (partially unroofed coronary sinus): morphological and angiocardiographic observations. Br Heart J 1981;46:63-8.
8. Mantini E, Grondin CM, Lillehei CW, Edwards JE. Congenital anomalies involving the coronary sinus. Circulation 1966;33:317-27.

Percutaneous balloon dilatation of cor triatriatum sinister

Prafulla Kerkar, DM, Amit Vora, DM,
Hema Kulkarni, DM, Dhiraj Narula, MD,
Venkat Goyal, MD, and Bharat Dalvi, DM
Bombay, India

Cor triatriatum sinister is a rare congenital anomaly that consists of an abnormal fibromuscular membrane that subdivides the left atrium (LA) into (1) a posterosuperior accessory chamber or the proximal LA (PLA) and (2) an anteroinferior chamber or the distal LA (DLA). The DLA is the true LA; it contains the atrial appendage and is connected to the mitral orifice. In its classic form, the PLA receives all of the pulmonary veins; communication with the DLA is accomplished by way of one or more fenestrations in the membrane. The extent of the communication determines the degree of pulmonary venous obstruction present. Depending on the severity of obstruction, cor triatriatum may manifest itself from infancy to adulthood.[1] We report a patient with cor triatriatum sinister who was successfully treated with percutaneous balloon dilatation of the obstructing membrane. To our knowledge this is the first case report of successful nonsurgical percutaneous transluminal correction of this rare entity.

A 16-year-old girl had progressive dyspnea for 3 years. On clinical examination she was comfortable at rest, and there was no cyanosis. Cardiac examination revealed a left precordial prominence, a loud first heart sound, a narrowly split second heart sound with a loud pulmonic component, and a variable apical mid diastolic murmur. The chest radiograph showed moderate cardiomegaly with a cardiothoracic ratio of 0.55. The left atrium was enlarged, and there were signs of pulmonary venous hypertension. The electrocardiogram revealed sinus rhythm, a mean QRS axis of +100 degrees in the frontal plane, left atrial enlargement, and right ventricular hypertrophy. A provisional diagnosis of rheumatic mitral stenosis with significant pulmonary hypertension was made. However, transthoracic cross-sectional echocardiography showed a normal mitral valve with a fibrous membrane separating the LA into proximal and distal chambers. A small eccentric defect in the membrane was adjacent to the wall of the aortic root. The defect was near the interatrial septum. Color flow mapping showed a high-velocity (2.2 m/sec) turbulent jet through the defect directed toward the mitral valve. The diagnosis of classical cor triatriatum sinister was confirmed by cardiac catheterization and angiography (Table I, Fig. 1). The patient elected to have percutaneous balloon dilatation of the membrane by the transseptal approach at a second stage.

After informed consent was obtained, access to the high-pressure PLA was achieved by the standard trans-

From the Department of Cardiology, K.E.M. Hospital, Parel.
Reprint requests: Amit Vora, DM, Department of Cardiology, K.E.M. Hospital, Parel, Bombay 400012, India.

Am Heart J 1996;132:888-91.

0002-8703/96/$5.00 + 0 **4/4/71992**

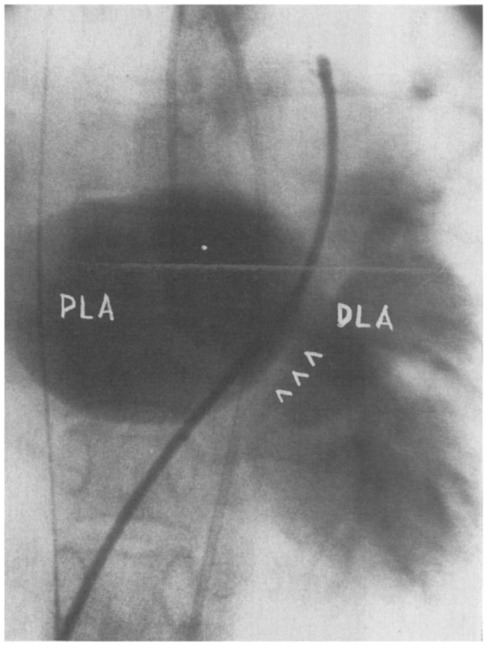

Fig. 1. Pulmonary artery angiogram during levo phase shows dilated PLA chamber and membrane in posteroanterior view. *Arrows,* Inferior margin of membrane.

Table I. Hemodynamics before and after dilatation of cor triatriatum

	Before dilatation (mm Hg)	*After dilatation (mm Hg)*
Proximal LA	40/44/36	18/16/16
Left ventricular end-diastolic pressure	2	12
Aorta	110/66	118/80
Pulmonary artery	92/48	36/16