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## RELIEF OF COMPLEX LEFT VENTRICULAR OUTFLOW TRACT OBSTRUCTION WITH PULMONARY AUTOGRAFTS

Ulrik Hvass, MD, Didier Chatel, MD, José Calliani, MD, and Yves Pansard, MD, *Paris, France*

Pulmonary autografts harvested with a larger than usual amount of anterior ventricular infundibulum (2 to 3 cm instead of approximately 1 cm) may be used for complete relief of complex left ventricular outflow tract obstructions. The autograft obtained renders prosthetic septal reconstruction unnecessary, as has been reported by Daenen and Gewillig.<sup>1</sup>

We used this technique in two patients, 5 and 6 years of age, who had a diminutive aortic anulus and diffuse subaortic obstructions. One patient had had a transaortic resection 3 years earlier.

The general lines of the operation are those of aortic root replacement with pulmonary autografts.<sup>2</sup> The pulmonary artery is transected at the bifurcation, and then the pulmonary ventricular infundibulum is incised transversely about 3 cm from the pulmonary valve anulus. Excision of the pulmonary root is completed, reducing this distance laterally to the usual 4 to 6 mm. Exposure and enlargement of the interventricular septum is much more comfortable than in the Konno operation.<sup>3</sup> Starting at the intercoronary commissure, the septal incision is continued into the infundibular septum. Because the pulmonary autograft is already larger than the diminutive aortic anulus, the septal opening may be extended 3 to 4 cm, allowing for an efficient enlargement of the left ventricular outflow tract. The septum is augmented with the autograft's larger than usual anterior muscular flap, similar to the

technique reported for aortoventriculoplasties with aortic allografts retaining the anterior mitral leaflet.<sup>4</sup>

Postoperative echocardiograms (follow-up of 6 and 2 months) with Doppler recordings show efficient relief of obstruction with low residual gradients and less than trivial central regurgitation.

The technique has two advantages: First, no prosthetic material is used; a Dacron patch in contact with the autograft exposes leaflets to abrasion.<sup>5</sup> Second, the technique is relatively simple to do.

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