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Images in Cardiology: Subvalvular Pulmonic Stenosis

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FIG. 1 Hemodynamic tracing of pullback from the pulmonary artery (PA) to the right ventricle (RV) demonstrating a gradient of 125 mmHg across the right ventricular outflow tract. The left ventricular (LV) pressure tracing is shown for comparison (III = lead III).

A 46-year-old Hispanic woman with a history of a childhood murmur and longstanding dyspnea on exertion presented with shortness of breath at rest. She was transferred to our institution for evaluation of suspected pulmonic stenosis. The pulmonic valve was poorly visualized by transthoracic echocardiogram; however, pulse wave Doppler revealed a gradient of >100 mmHg across the right ventricular outflow tract (RVOT), suggesting pulmonic or subpulmonic stenosis. Hemodynamic tracings from right and left heart catheterization demonstrated a gradient of 125 mmHg across the RVOT (Fig.

FIG. 2 Right ventriculography in the right anterior oblique view revealed significant subpulmonic stenosis (arrow).

1). Pulmonary artery angiography revealed an angiographically normal pulmonary artery. Right ventriculography revealed significant subpulmonic stenosis (Fig. 2). The patient underwent surgical debridement of the infundibular hypertrophy and pathology revealed hypertrophied myocytes, focal fiber disarray, and focal fibrosis. The patient reported marked improvement of symptoms postoperatively and repeat echocardiogram revealed no residual obstruction.