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# Images in cardiovascular medicine

## Combined aortic and pulmonary stenosis in a 79-year-old man

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A 79-year-old previously healthy man was found to have severe aortic stenosis following a syncopal episode 1 month prior to admission to our Unit. Diagnosis was made clinically and confirmed by transthoracic two-dimensional echocardiogram which showed a peak transaortic gradient of 72 mmHg, mild aortic regurgitation, left ventricular hypertrophy, and a moderately reduced left ventricular ejection fraction. Fibrosis of the pulmonary valve cusps was also observed with a peak transvalvular gradient of 45 mmHg. Coronary angiography showed normal coronary arteries. Right heart catheterization confirmed the transpulmonary gradient; dye injection showed a thickened and immobile pulmonary valve with moderate post-stenotic dilation of the pulmonary trunk.

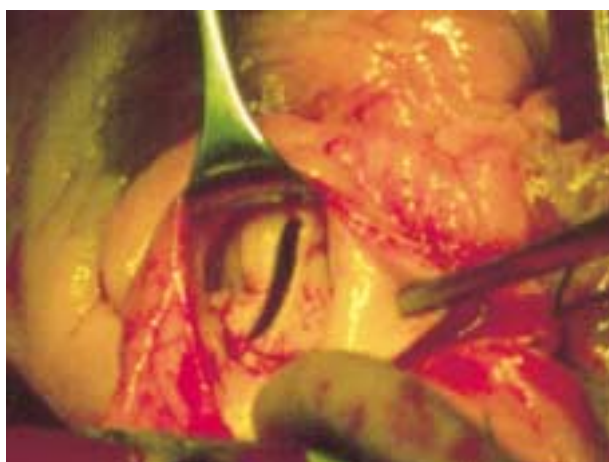
At operation a severely calcified aortic valve was replaced with a porcine bioprosthesis. The pulmonary trunk was then opened longitudinally exposing the dome-shaped

valve with a central opening and fused commissures, the typical features of a congenital pulmonary valve stenosis. The opening of the commissures resulted in adequate enlargement of the valve through which a 21 mm Hegar dilator could be easily passed. The procedure was uneventful and the patient discharged after 7 days.

The prognosis of patients with pulmonary stenosis who have reached adulthood without symptoms is good<sup>1</sup>. We present the unusual combination of aortic and pulmonary stenosis in an elderly patient. Pulmonary stenosis was diagnosed only during evaluation of severe, symptomatic calcific aortic stenosis.

### Reference

1. Johnson LW, Grossman W, Dalen JE, et al. Pulmonic stenosis in the adult: long-term follow-up. *N Engl J Med* 1972; 287: 1159-63.



**Figure 1.** Intraoperative view of the dome-shaped stenotic pulmonary valve.