- of oxygen breathing in heavy exercise. *Acta Physiol Scand* 1958;43:365-78.
- 28 Kozlowski S, Rasmussen B, Wilkoff WG. The effect of high oxygen tensions on ventilation during severe exercise. *Acta Physiol Scand* 1971;81:385-95.
 - 29 Chronos N, Adams L, Guz A. Effect of hyperoxia and hypoxia on exercise-induced breathlessness in normal subjects. *Clin Sci* 1988;74:531-7.
 - 30 Moore DP, Weston AR, Hughes JMB, Oakley CM, Cleland JGF. Effects of increased oxygen concentrations on exercise performance in chronic heart failure. *Lancet* 1992;339:950-3.
 - 31 Floras JS. Clinical aspects of sympathetic activation and parasympathetic withdrawal in heart failure. *J Am Coll Cardiol* 1993;22(suppl A):72A-84A.
 - 32 Wilson JR, Mancini DM, Ferraro N, Egler J. Effect of dichloroacetate on the exercise performance of patients with heart failure. *J Am Coll Cardiol* 1988;12:1464-9.
 - 33 Guyton AC. Transport of oxygen and carbon dioxide in the blood and body fluids. In: *Textbook of medical physiology*. 8th ed. Philadelphia: WB Saunders, 1991:433-53.
 - 34 Webb RK, Ralston AC, Runciman WB. Potential errors in pulse oximetry. Effects of changes in saturation and signal quality. *Anaesthesia* 1991;46:207-12.

IMAGES IN CARDIOLOGY

Echocardiographic diagnosis of a subvalvar aortic membrane

A 14 year old boy with an aortic systolic murmur complained of progressive shortness of breath on exertion over one year. Transthoracic echocardiography four years earlier had shown an aortic outflow gradient of 26 mm Hg. A repeat echocardiogram showed left ventricular hypertrophy and a gradient of 90 mm Hg across the aortic valve. He underwent cardiac catheterisation and was found to have a gradient of 60 mm Hg below the level of the aortic valve with no gradient at valve level. A repeat echocardiogram identified a subvalvar aortic membrane. He is now awaiting surgery to resect the membrane.

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