

incompetence following ductal occlusion are needed. The factors to be considered would include the size of the duct, continuous blood pressure monitoring, and direct measurements of systemic vascular resistance.

- 1 Yoshida K, Yoshikawa J, Shakudo M, Akasaka T, Jyo Y, Takao S, *et al.* Color Doppler evaluation of valvular regurgitation in normal subjects. *Circulation* 1988;78:840-8.
- 2 Mattos SdaS, Severi R, Cavalcanti CV, Freire M da F, Filho

DB. Valvar regurgitation in normal children: is it clinically significant? *Cardiol Young* 1992;2:291-7.

- 3 Brand A, Dollberg S, Keren A. The prevalence of valvular regurgitation in children with structurally normal hearts: A colour Doppler echocardiographic study. *Am Heart J* 1992;123:177-80.
- 4 Kostucki W, Vandebosche J, Friart A, Englert M. Pulsed Doppler regurgitant flow patterns of normal valves. *Am J Cardiol* 1986;58:309-13.
- 5 Ward JB, Sholler GF. Aortic run-off in children with arterial shunts or persistent arterial duct—characteristics of flow detected by Doppler techniques in the descending aorta. *Cardiol Young* 1995;5:51-5.

## STAMPS IN CARDIOLOGY

### Christiaan Neethling Barnard (1922–)

South Africa issued a set of two stamps in 1969 to commemorate the first heart transplant and the 47th South African Medical Association Congress. The 2½ cent stamp depicts Professor Barnard and the Groote Schuur Hospital (A). A further stamp celebrating this event was issued in May 1991 as part of a four stamp series marking South African achievements between 1961 and 1991 (B). Christiaan Barnard also appears on the Paraguayan stamp from 1968 (C).

Christiaan Neethling Barnard performed the first human heart transplant at the Groote Schuur Hospital, Cape Town on 3 December 1967. Louis Washkansky, a 53 year old man, received the heart of a 25 year old woman and he lived for 18 days after the operation. His sec-

ond patient was a dentist, Dr Philip Blaiberg, who received a transplant on 2 January 1968. He lived for one year and seven months and was the first good medium term survivor. Although surgeons around the world followed Barnard's lead the results generally were dismal with 60% dead by the eighth postoperative day. This led to a moratorium on the procedure until cyclosporin transformed the scene when its value was established by R Y Calne in 1979 and was first used in heart transplantation in the early 1980s. This compound is a fungal metabolite which was discovered in a soil sample by Sandoz as a result of their search for new antibiotics. Although its antimicrobial activity was poor they had a far-sighted screening programme for other effects and this showed its value in immunosuppression. That important soil sample was not found by accident. Sandoz employees were asked to bring back soil samples from wherever they went on holiday or work and this one came from a desolate highland plateau in southern Norway called the Hardanger Vidde. Dr Norman Shumway of Stanford and Palo Alto is honoured as the surgeon who did the most, by means of long and careful research, to ensure that cardiac transplantation became the success that it now is. To date there have been about 25 000 heart transplants and the survival rate, usually with good quality of life, of 65% at five years and 50% at 10 years is encouraging.

M K DAVIES  
A HOLLMAN



(A)



(B)



(C)