

- 12 Stanbridge RDeL, Cohen A, Hadjinicolaou L, Al-Katoubi A. Early experience with minimal invasive coronary artery bypass grafting [abstract]. *Heart* 1996;75(Suppl 1):P69.
- 13 Cooley DA. Limited access myocardial revascularization. *Tex Heart Inst J* 1996;23:81-4.
- 14 Acuff TE, Landreneau RJ, Griffith BP, Mack MJ. Minimally invasive coronary artery bypass grafting. *Ann Thorac Surg* 1996;61:135-7.
- 15 Treasure T. Discussion of reference 3. *Eur J Cardiothorac Surg* 1990;4:507.
- 16 Messmer BJ. Coronary surgery without extracorporeal circulation: benefit or extra risk for the patient? *Eur J Cardiothorac Surg* 1990;4:509.
- 17 Kirklin JK, Westaby S, Blackstone EH, Kirklin JW, Chenoweth DE, Pacifico AD. Complement and the damaging effects of cardiopulmonary bypass. *J Thorac Cardiovasc Surg* 1983;86:845-57.
- 18 Westaby W. Coronary surgery without cardiopulmonary bypass. *Br Heart J* 1995;73:203-5.
- 19 Smith PCL, Treasure T, Newman SP, Joseph P, Ell PJ, Schneidau A, et al. Cerebral consequences of cardiopulmonary bypass. *Lancet* 1986;i:823-5.
- 20 Angelini GD, Wilde P, Salerno TA, Calafiore AM. Integrated left small thoractomy and angioplasty for multivessel coronary artery revascularisation. *Lancet* 1996;347:757-8.
- 21 Majeed AW, Troy G, Nicholl JP, Smythe A, Reed MWR, Stoddard CJ, et al. Randomised, prospective, single-blind comparison of laparoscopic versus small-incision cholecystectomy. *Lancet* 1996;347:989-94.
- 22 Westaby S, Benetti FJ. Less invasive coronary surgery: consensus from the Oxford meeting. *Ann Thorac Surg* 1996;62:924-31.
- 23 Kumar P, Treasure T. Coronary artery bypass graft trials. *Br J Hosp Med* 1996;56:33-6.
- 24 Horton R. Surgical research or comic opera: questions, but few answers. *Lancet* 1996;347:984-5.

## IMAGES IN CARDIOLOGY

### Aneurysm of the left coronary artery bifurcation



A 51 year old male with congestive heart failure (NYHA class II-III) presented with rapidly progressive dyspnoea two days after the onset of angina pectoris. On clinical examination he was in cardiogenic shock. ECG showed a subacute anterior myocardial infarction. Chest radiographs revealed an enlarged heart and a cardiogenic pulmonary oedema. Transoesophageal echocardiography showed dilatation of all cardiac cavities, an akinetic anterior wall and apex, a decreased left ventricular ejection fraction, moderate mitral valve regurgitation, and a 37 mm large aneurysm of the bifurcation of the left coronary artery. Coronary angiography revealed thrombotic occlusion of the left anterior descending artery at the level of the aneurysm, a normal circumflex artery, and a 90% stenosis of the right coronary artery. In spite of treatment with catecholamine, the low output state persisted and the patient died from congestive heart failure a few days after admission. Dissection of the coronary arteries showed a 3 × 4 cm aneurysm of the bifurcation of the left coronary artery; the exact aetiology of this aneurysm remains unknown.

M MAGGIORINI  
J SCHNEIDER  
R JENNI