- the Southampton heart integrated care project (SHIP). The SHIP Collaborative Group. *BMJ* 1999;**318**:706–11.
- 36 **Galbreath AD**, Krasuski RA, Smith B, *et al.* Long-term healthcare and cost outcomes of disease management in a large, randomized, community-based population with heart failure. *Circulation* 2004;**110**:3518–26.
 - 37 **McAlister FA**, Murphy NF, Simpson CR, *et al.* Influence of socioeconomic deprivation on the primary care burden and treatment of patients with a diagnosis of heart failure in general practice in Scotland: population based study. *BMJ* 2004;**328**:1110.
 - 38 **Komajda M**, Follath F, Swedberg K, *et al.* The EuroHeart Failure survey programme: A survey on the quality of care among patients with heart failure in Europe. Part 2: Treatment. *Eur Heart J* 2003;**24**:464–74.
 - 39 **Ekman I**, Andersson B, Ehnfors M, *et al.* Feasibility of a nurse-monitored, outpatient-care programme for elderly patients with moderate-to-severe, chronic heart failure. *Eur Heart J* 1998;**19**:1254–60.
 - 40 **Mejert M**, Kahan T, Persson H, *et al.* Limited long term effects of a management programme for heart failure. *Heart* 2004;**90**:1010–5.
 - 41 **Doughty RN**, Wright SP, Pearl A, *et al.* Randomized, controlled trial of integrated heart failure management: The Auckland Heart Failure Management Study. *Eur Heart J* 2002;**23**:139–46.
 - 42 **Stromberg A**, Martensson J, Fridlund B, *et al.* Nurse-led heart failure clinics in Sweden. *Eur J Heart Fail* 2001;**3**:139–44.
 - 43 **Krumholz HMM**, AHA/ACC Conference. Evaluating quality of care for patients with heart failure. *Circulation* 2000;**101**:e122–40.

IMAGES IN CARDIOLOGY

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Severe coronary luminal narrowing ascribed to aortic intramural haematoma after valve surgery

A 63-year-old man underwent an aortic valve replacement (Carbomedics Top Hat No 23) for a severe aortic stenosis. A tricuspid annuloplasty and closure of an ostium secundum atrial septal defect were also performed. The preoperative electrocardiogram showed a left bundle branch block. There were no significant alterations in the coronary

angiogram. A dominant right coronary artery was seen. While the patient was coming off the pump he presented severe haemodynamic instability and diffuse ST segment alterations (panel A). Transoesophageal echocardiography showed severe right ventricular dysfunction. Systolic blood pressure with inotropic drugs was 65 mm Hg. The angiogram

showed luminal narrowing of the ostium of the right coronary artery (arrow) with aortic wall deformation (panel B) and a double-border spot (panel C) on the aortic wall. These abnormalities were ascribed to the indentation caused by a periprosthetic intramural haematoma. No “flap” was detected in the aortography. To widen the coronary lumen and to avoid progression of the haematoma, which might lead to potential occlusion of the ostium, a non-drug-eluting stent with a diameter of 4.0 mm and length of 15 mm was implanted. The blood pressure and electrocardiographic changes improved (panel D) after stent implantation and the patient was successfully extubated 8 hours later.

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