- 17 **Cantley P**, McKinstry B, Macaulay D, *et al*. Atrial fibrillation in general practice: how useful is echocardiography in selection of suitable patients for anticoagulation? *Br J Gen Pract* 1999;**49**:219–20.
- 18 **Jabaudon D**, Sztajzel J, Sievert K, *et al*. Usefulness of ambulatory 7 day ECG monitoring for the detection of atrial fibrillation and flutter after stroke and transient ischaemic attack. *Stroke* 2004;**35**:1647–51.
- 19 **Plummer CJ**, McComb JM, Stop AF. Detection of atrial fibrillation by permanent pacemakers, observations from the STOP AF trial. *Cardiac Electrophys Rev* 2003;**7**:333–40.
- 20 **Barthelemy JC**, Feasson-Gerard S, Garnier P, *et al*. Automatic cardiac event recorders reveal paroxysmal atrial fibrillation after unexplained strokes or transient ischaemic attacks. *Ann Noninvasive Electrocardiol* 2003;**8**:194–9.
- 21 **Kinlay S**, Leitch JW, Neil A, *et al*. Cardiac event recorders yield more diagnoses and are more cost effective than 48-hour Holter monitoring in patients with palpitations. *Ann Intern Med* 1996;**124**:16–20.
- 22 **Defaye P**, Dournaux F, Mouton E. Prevalence of supraventricular arrhythmias from the automated analysis of data stored in the DDD pacemakers of 617 patients: the AIDA study. The AIDA study group. *Pacing Clin Electrophysiol* 1998;**21**:250–5.

IMAGES IN CARDIOLOGY

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Left atrial tachycardia and inferior vena cava thrombotic occlusion complicating atrial fibrillation ablation successfully treated from the right subclavian vein

Fluoroscopic image demonstrating thrombotic occlusion of the inferior vena cava. There is evidence of collateralisation and, although possible to pass a guidewire past the obstruction, passage of a sheath was deemed unsafe.

Wide area pulmonary vein circumferential ablation was performed in the left atrium (LA) via two transseptal punctures from the right femoral vein in a man with persistent atrial fibrillation. Post-procedure, warfarin was re-commenced with full anticoagulation with low molecular weight heparin until the international normalised ratio (INR) was > 2.0 . There were no immediately apparent complications. Three months later he presented in atrial flutter and further catheter ablation was undertaken. Passage of a guidewire into the inferior vena cava (IVC) was difficult and venography demonstrated asymptomatic IVC thrombosis with stenosis and collateralisation (panel A). Access was therefore gained via two sheaths in the right subclavian vein. Transseptal puncture was performed under transoesophageal echocardiographic guidance from this superior approach. The Brockenbrough needle was reshaped to permit a similar angle of entry across the interatrial septum (panel B) to that with a femoral approach. This was performed without complication. Mapping of the LA demonstrated a re-entrant tachycardia. A single radiofrequency lesion resulted in termination of the arrhythmia. The patient remains on warfarin to prevent propagation of his IVC thrombus. Catheter ablation within the LA is increasingly common. Access via one or

Fluoroscopic image showing transseptal puncture being performed under transoesophageal echocardiographic (TOE) guidance. The Brockenbrough needle (arrow) is seen with the TOE probe behind.

more transseptal punctures is required, usually from the femoral approach. As far as we are aware this is the first description of a transseptal puncture from a superior approach for catheter ablation of an LA arrhythmia. When the usual access sites are unavailable it is clearly still possible to perform these procedures safely using alternative approaches.

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