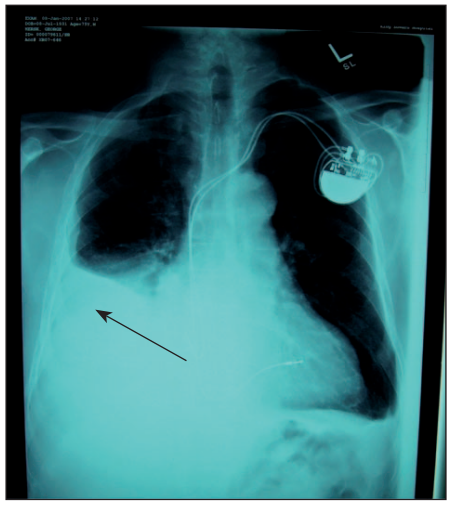
Dressler's syndrome post-pacemaker insertion

Introduction

Dressler's syndrome is a rare complication of permanent pacemaker insertion and typically presents with pericarditis, or less frequently with a serositis involving the pleura and resulting in pleural effusions (Balwinder et al, 1999). Physicians responsible for the management of patients with pacemakers, outwith a specialist centre, should be aware of the diagnosis and treatment.

Dressler's syndrome is characteristically associated with pericarditis, following an acute myocardial infarction or post-pericardotomy (Dressler, 1959). Patients typically complain of pericardial pain, fever and arthralgia. A pericardial rub may be heard on auscultation, but is sometimes absent, and there may be laboratory evidence of acute inflammation with an elevated erythrocyte sedimentation rate and C-reactive protein. Less frequently the syndrome is seen post-pacemaker insertion and may also be associated with pleural effusions (Martinek et al, 2006). The onset of Dressler's syndrome may be in the acute setting or weeks after the procedure, and patients may present with recurrent symptoms and signs, over months and even years.

Figure 1. Chest X-ray of this patient showing large right pleural effusion.

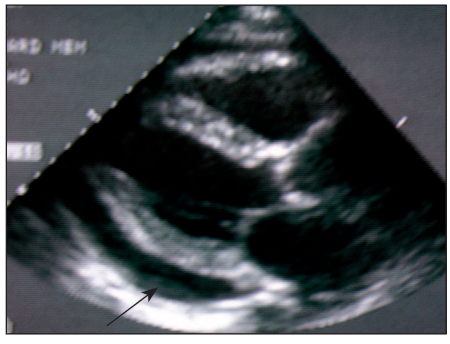


Discussion

Dressler's syndrome is a rare complication of permanent pacemaker insertion and typically presents with symptoms and signs of acute pericarditis, or less frequently with pleural effusion, as the dominant feature (Sasaki et al, 2001). Its recognition is particularly important in a district hospital, where experience with pacemaker follow up may be limited.

The initial presentation may be in the first few days after the procedure, or in the ensuing weeks and months, and may have a recurrent pattern (Elinav and Leibowitz, 2002). Although some patients may require pericardial or pleurocentesis, particularly if there is evidence of tamponade, the majority will respond to treatment with corticosteroids or other anti-inflammatory drugs, and repositioning of the pacemaker leads is rarely necessary. BJHM

Figure 2. Pericardial effusion.



Case Report

A 75-year-old man underwent placement of a dual-chamber pacemaker for symptomatic sinus node disease in a tertiary referral centre. Three days after the procedure, he presented to the emergency department in the same hospital with right-sided, pleuritic chest pain and a diagnosis of pulmonary embolus was considered, although excluded by investigations which included spiral computed tomography and d-dimer. He was discharged, only to return the next day with increasing dyspnoea, and a transthoracic echo confirmed the clinical diagnosis of a significant pericardial effusion with early signs of tamponade physiology. In the operating room 700 ml of blood-stained fluid was aspirated and the patient's symptoms improved dramatically. Chest X-ray and pacemaker interrogation did not necessitate re-positioning of the pacemaker leads.

One month later he returned to his local hospital complaining of increasing dyspnoea and a chest X-ray (*Figure 1*) demonstrated a large right pleural effusion and a smaller effusion on the left. There was a moderate pericardial effusion without tamponade (*Figure 2*). The larger of the pleural effusions was aspirated with improvement in the patient's symptoms, but recurrence of the fluid, persistent symptoms, a low grade fever and a high erythrocyte sedimentation rate, led to consideration of Dressler's syndrome. The patient was commenced on prednisolone 60 mg daily and both his symptoms and the pleural effusion resolved.

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Martinek M, Bohm G, Nesser HJ (2006) Pneumopericardium followed by pericardial effusion after thoracic trauma and pacemaker implantation. *Herz* **31:** 592–3

Sasaki A, Kobayashi H, Okubo T, Namatame Y, Yamashina A (2001) Repeated postpericardiotomy syndrome following temporary transvenous pacemaker insertion and surgical pericardiotomy. *Jpn Circ J* **65:** 343–4

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