

Letter to the Editor

Cardiac perforation of the right ventricle: A rare complication of pacemaker implantation. The importance of a collaborative vision of a multi-disciplinary treatment team



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The use of implantable cardiac devices has increased in the last 30 years. The evolution of devices in serious cardiac rhythm pathology management has led progressively to the development of devices for the treatment of bradycardia, ventricular arrhythmia, and heart failure and for the prevention of sudden cardiac arrest leading to delivery of pacemakers, implantable cardioverter defibrillators (ICD) and cardiac resynchronization therapy (CRT) plus ICD (CRT-D) [1–22] and to the recent subcutaneous implantable cardioverter-defibrillator (S-ICD) [23–25]. Infectious complications leading also to endocarditis [1,8, 26–33] and noninfectious complications [9,21,23,34–37] often necessitating removal [1,2,8,37–43] affect patients' wellbeing also leading to the increase of psychological difficulties [44–50]. In addition, the emerging scenario of concomitant problems and diseases [51–71], the progressively younger implanted population and the increase in device and procedure complexity have raised the risk of system component structural failures [51–72]. Cardiac perforation of the right ventricle (RV) is a rare but potentially life-threatening complication [73,74] in a young woman undergoing pacemaker implantation. Closer link between all health care system operators should be seen as an achievable goal for patient's safety and encouragement. We describe the case of a cardiac perforation of the right ventricle (RV) in a young woman

undergoing single-chamber VVI pacemaker implantation with active fixation in the right ventricle apex. After pacemaker implantation the patient complained of chest pain. A chest X-ray (Fig. 1 Panel A) and a computed tomography (Fig. 1 Panels B, C, D and E) revealed a cardiac perforation of the right ventricle (RV) and a heart surgery intervention was performed successfully through a full sternotomy (See Fig. 2). This case focuses on the cardiac perforation of the right ventricle (RV) as a rare but potentially life-threatening complication of pacemaker implantation and on the importance of a collaborative vision of a multi-disciplinary treatment team.

Conflict of interest

None declared.

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The authors of this manuscript have certified that they adhere to the statement of ethical publishing as appears in International Journal of Cardiology.

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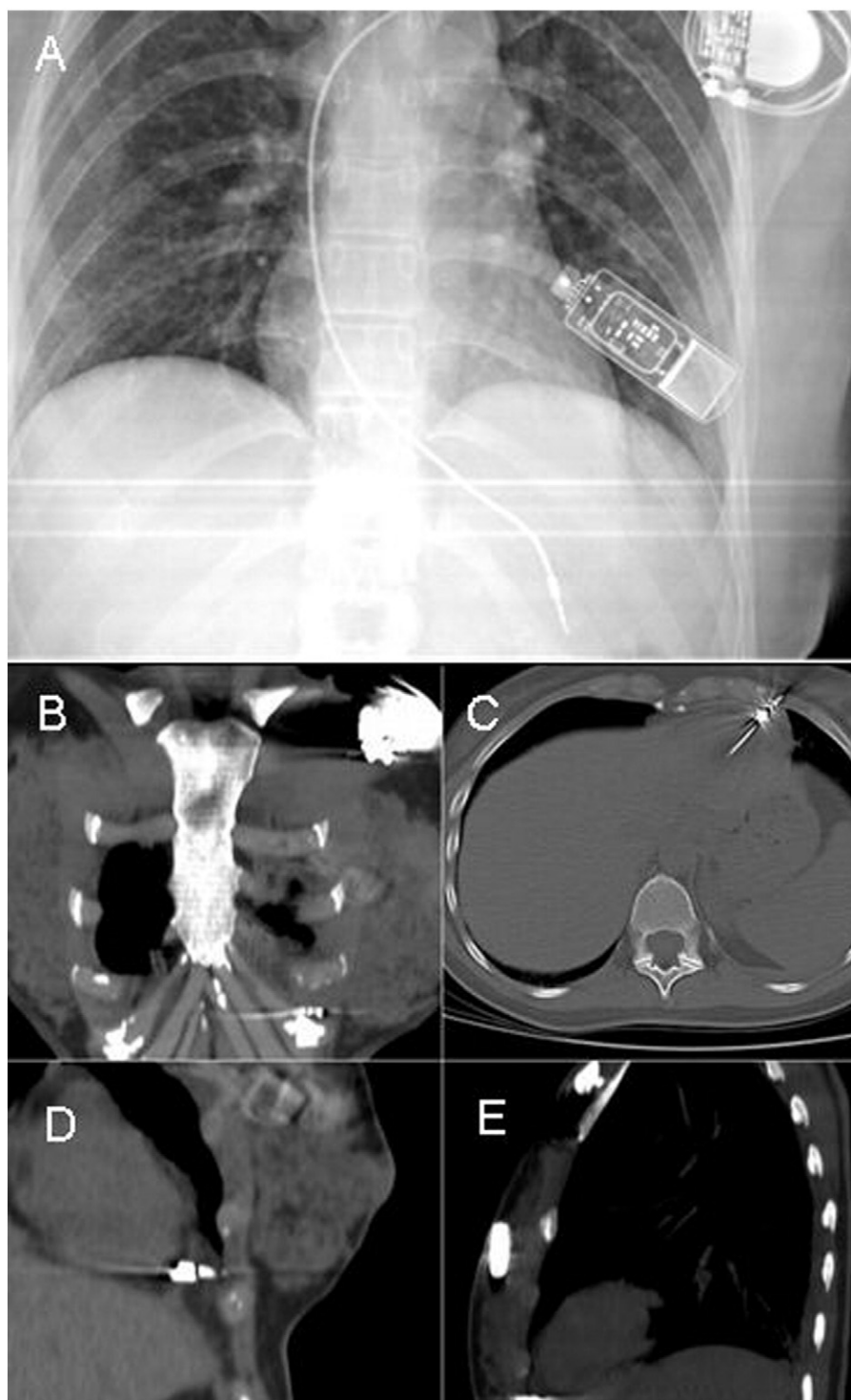


Fig. 1. A chest X-ray (Panel A) and a computed tomography (Panels B, C, D and E) revealed a cardiac perforation of the right ventricle.

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