

Poster

Infective Endocarditis of an Implantable Cardiac Device with Complete Extraction and Epicardial Pacemaker Implantation: A Challenge in a Resource-Limited Setting

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Infective endocarditis (IE) is a common condition with an estimated annual incidence of 7–15 cases per 100,000 individuals, varying according to diagnostic criteria and population studied. Infection at the pacemaker pocket site associated with complete extrusion of the pacemaker generator is a rare and usually late complication. Recent studies indicate that IE related to implantable electronic cardiac devices is more frequent after reoperations, including isolated pulse generator replacements. We report the case of a 72-year-old Black male, known hypertensive, with a history of VVI pacemaker implantation for complete atrioventricular block in 2010 (DDDR device unavailable at that time; pacemaker-dependent), and generator replacement in December 2023. He had multiple previous hospitalizations for pocket infections, suture dehiscence, and generator protrusion. He presented again to the emergency department with reinfection of the pocket, purulent discharge, and complete generator extrusion. Laboratory evaluation revealed unremarkable hemogram, creatinine 5.76 mg/dL, urea 137.78 mg/dL; blood cultures were negative. ECG showed ventricular pacing at 60 bpm. Transthoracic echocardiography revealed vegetations on the posterior leaflet of the tricuspid valve, associated valvular fibrosis, and vegetations around the pacemaker leads. Transesophageal echocardiography confirmed vegetations on the tricuspid valve leaflet and catheter leads. Antibiotic therapy with vancomycin, gentamicin, and rifampicin was initiated. Following completion of the antibiotic course, cardiac surgery was performed, including excision of vegetations, removal of the entire pacemaker system, concomitant tricuspid valve repair with posterior leaflet resection and valve area reduction. A new DDDR pacemaker with epicardial leads and an intra-abdominal generator was implanted without complications. Postoperatively, hemodialysis was initiated due to renal failure. The patient progressed satisfactorily and is currently stable under follow-up in cardiology and pacing outpatient clinics. IE associated with implantable electronic cardiac devices is a condition with high morbidity and mortality, often difficult to diagnose, and increasingly prevalent due to the growing number of device indications and implants, which are often essential for managing heart failure and arrhythmias. This case illustrates the severity of these infections in pacemaker-dependent patients and underscores the

importance of complete surgical management, with total system extraction and epicardial implantation, demonstrating that favorable outcomes are achievable even in resource-limited settings.

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