CARDIAC DEVICE INFECTIONS: GETTING TO THE HEART OF THE MATTER

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PURPOSE OF REVIEW: Use of electrophysiologic devices (permanent cardiac pacemaker and implantable cardioverter/defibrillator) has been increasing. Infection of these cardiac devices is a devastating complication, and medical treatment alone without device removal is often unsuccessful and frequently leads to infection relapse. This article reviews recent publications that address the diagnosis and management of infected electrophysiologic devices. RECENT FINDINGS: Recent studies have shed new light on the incidence, risk factors, management, and outcome of cardiac device infection. Rates of both cardiac device implantation and infection have been increasing, although the rate of increase of cardiac device infection has outdistanced that of implantation and this has had enormous economic and clinical consequences. SUMMARY: The large majority of cardiac device infections are likely due to pocket site contamination at the time of device placement. Hematogenous seeding from a distant focus of infection, particularly due to Staphylococcus aureus, can account for late-onset infection. Although no prospective studies have been conducted to date, management with parenteral antibiotics and complete device removal is the current standard of care. Further study is needed to better define optimal diagnostic and management interventions, particularly in patients with bloodstream infection and no local chest wall or echocardiographic evidence of cardiac device infection.

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