Late Presenting Permanent Pacemaker Associated Infection

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Introduction: Permanent pacemakers (PPMs) implantation for the prevention and treatment of various cardiac rhythm disturbances are increasingly used worldwide. Infection in a permanently implanted PM is a serious complication. It may occur either as a surgical site infection (SSI), occurring within 1 year after implantation, or as late-onset lead endocarditis. This report illustrates a case of late onset exit site infection occurring 2 years after PPM implantation.

Methods: A case report

Result: A 76 years old male presented with erosion at the pocket site of the PPM implantation. He had slight fever two weeks before, with unremarkable sign of infection, followed by inflammation and erosion on the right side of his upper chest wall. A dual chamber rate-adaptive pacemaker (DDDR) was implanted 2 years ago subcutaneously by an experienced physician. Three months after his PPM implantation he had three episodes of stroke and unable to communicate effectively afterwards. He was then treated with oral anticoagulant (Rivaroxaban), and had no more episode of stroke. He had no prior sign or symptoms of any infection for the past two years, and showed no deterioration of his health condition. He has no history of diabetes, and not taken any medications that would suppress his immune system. His white blood cell count was 5100/mm³, blood culture was negative, lab tests were relatively normal, and there was no clinical evidence for endocarditis. Surgical tissue debridement was performed and staphylococcus aureus grew in its culture, suggesting a contamination. Pocket infection being regarded as the primary diagnosis, and he was then treated with intravenous antibiotics.

Conclusion: Even though no apparent signs and symptoms of any infections related to PPM implantation for the past two years after surgery, the potential for development of pocket infection was still possible. Age related infection after PPM implantation despite of other possible risk factors could be the case of this patient.