PJ2-073  A Case of ICD Shock Lead Dislocation Which Was Discovered Early by Using a Remote Monitoring System

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Introduction: There are many reports that show remote monitoring system is useful. We succeeded in early discovery of shock lead dislocation of implantable cardioverter defibrillators (ICDs) by remote monitoring system. Case Report: 58 years old male presented with heart failure, non-sustained ventricular tachycardia (nsVT) and paroxysmal atrial fibrillation. Ejection Fraction was 25% by echocardiography, and Electrocardiograph shows nsVT repeatedly. There was an indication of ICDs implantation. A single lead VVI-ICD (Lumax540VR-T Biotronik, Germany) was implanted using a pentapolar and screw-in fixation lead (Linox Smart SD 65/18, Biotronik). Intraoperative pacing threshold was 0.4V at 0.5ms, pacing lead impedance 664Ω, R wave potential 12mV and slew rate 4V/s. Predischarge ICD interrogation revealed regular values for pacing threshold (0.6V at 0.4ms), electrode impedance (556Ω), and R wave amplitude (>12mV). After discharge, we started remote monitoring, and followed up every four months in outpatient clinic, and every two months with IEGM of remote monitoring system. An alerts was sent showing the R-wave potential was 2.0 mV 45 days after discharge. We contacted the patient and the chest Xray showed dislocation of the ICDs lead. We re-admitted the patient and performed ICD lead fixation again. Conclusion: Remote monitoring allowed the early and reliable detection of ICD lead failure without requiring patient intervention. Keywords: ICD, remote monitoring