Mid-Term Clinical Outcomes of Patients Received Leadless Cardiac Pacemaker in a Single Center

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Introduction: Leadless pacemaker (LP) is a new technology that enables us to prevent the lead or pocket related complications such as hematomas, skin erosion. The aim of the present study was to examine the clinical outcomes of patients (pts) who were received the LPs in our hospital.

Methods: We enrolled a total of 18 consecutive pts (11 men, 7 women; 84.1±5.6 years) from September 2017 to December 2018, and examined clinical characteristics and device parameters.

Result: LP implantation procedure was successfully performed in all pts. Pts with chronic fibrillation were 61% (n = 11), pts with brady-tachycardia syndrome were 28% (n = 5), and all pts had a Class I indication for pacing. This study included the following high risk pts; elderly pts (age >85 years) (n = 10, 56%) and pts showing lower body mass index (<20) (n = 4, 22%). During the initial implant procedure, the R-wave amplitude was 7.2±2.4 mV, the capture threshold at 0.24 ms was 0.70±0.4 V and impedance was 595±112.2 Ω. There were no intra-procedural acute major complications. The median follow-up time was 10 months (range 0-14 months), and electrical performance has shown to be stable condition in 16 pts (89%) during this period, however, one patient showed the elevated pacing thresholds and the rapid depletion of the battery due to depend pacing, and one patient died due to unrelated cause during the follow-up time.

Conclusion: LPs have been implanted safely and effectively in our hospital.