Safety and Stability of Right Ventricular Septal Pacing Compared with Right Ventricular Apex Pacing in Our Hospital

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Background: Right ventricular septal (RVS) pacing is an alternative to right ventricular apical (RVA) pacing, but long term lead safety and stability of RVS sometimes differ in each hospital. Methods and Results: A total of 32 patients undergoing single or dual-chamber pacemaker implantation were included in this study. The right ventricular lead was implanted on the septum in 12 patients and in the apex in 20. Ventricular amplitude, pacing threshold and lead impedance were measured twice a year after the implantation in both group, and were compared respectively. There were no major perioperative complications in both group. There was no significant difference of ventricular amplitude and lead impedance in both group, but pacing threshold of RVS group was significantly higher at six months after the implantation than at the postoperative period. Pacing threshold showed no significant difference between RVS group and RVA group at the postoperative period, but at six and 12 months after the implantation, that of RVS group was significantly higher than RVA group. Conclusion: RVS pacing is a safety available method compared with RVA pacing. Pacing threshold of RVS group tends to increase after the implantation, but stabilizes within a year. Keywords: ventricular septal pacing, stability