Examination of the Lead Reliability in Right Ventricular Septal Pacing among the Patients with Long-Term Follow-Up

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Purpose: Right ventricular (RV) septal pacing is thought to benefit the left ventricular function. However, it is not performed in all cases because of difficulty in using screw-lead and complication risk. In this study we examined the reliability of the lead among the patients with long-term follow-up. Method and Results: We have performed RV septal pacing on 43 patients from June, 2008 to November, 2010. We analyzed 37 patients of those from whom we could obtain the follow-up data after more than six months (22 males and 15 females, mean age of 78 years old). There were 20 patients with AV block, 12 patients with sick sinus syndrome, 5 patients with bradycardiac atrial fibrillation. Thirty patients were implanted with DDD device and seven with VVI. There is no significant difference in the R-wave amplitude and the lead impedance between at the implantation and at the follow-up after mean of 559 days (12.2 ± 5.1 mV vs. 11.2 ± 6.3 mV, 605 ± 103 ohms vs. 481 ± 95 ohms, respectively). Although there is significant increase of threshold (0.6 ± 0.2 V vs. 0.9 ± 0.7 V, p <0.05), it is not thought to be critical. Conclusion: It is suggested that RV septal pacing may be reliable about stable pacing for long-term period. Keywords: RV septal pacing, lead, threshold