Radiofrequency catheter ablation of slow pathway in 760 patients with atrioventricular nodal reentrant tachycardia--long-term results

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摘要

Abstract

BACKGROUND: Although selective radiofrequency catheter ablation of the slow atrioventricular (AV) nodal pathway has provided a curative therapy for patients with AV nodal reentrant tachycardia, information about the long-term result of radiofrequency catheter ablation in patients with different types of AV nodal reentrant tachycardia was not available. This study was to investigate the long-term effect of selective slow pathway ablation in a large group of consecutive patients with AV nodal reentrant tachycardia. METHODS: From December 1990 to June 1996, 760 consecutive patients with clinically documented AV nodal reentrant tachycardia received radiofrequency catheter ablation of antegrade and/or retrograde slow AV nodal pathway at this electrophysiologic laboratory. The data of electrophysiologic characteristics and long-term follow-up were collected. The success rate, complication rate and recurrence rate were analyzed. RESULTS: There were 669 slow-fast form AV nodal reentrant tachycardia, 27 fast-slow form AV nodal reentrant tachycardia, 13 variant form AV nodal reentrant tachycardia, and 51 multiple forms of AV nodal reentrant tachycardia. The electrophysiologic characteristics were different among these four groups. However, radiofrequency catheter ablation attained a 99% success rate in all the four groups with different types of tachycardia. There were 5 accidental injuries to AV conduction. Three of the 5 patients needed implantation of pacemakers. During the follow-up period, there were 14 (1.8%) recurrence of AV nodal reentrant tachycardia. All of the 14 patients had a successful second ablation without recurrence. CONCLUSIONS: This study demonstrated that radiofrequency catheter ablation of slow pathway was a highly effective treatment modality for patients with various types of AV nodal reentrant tachycardia. Furthermore, the incidence of complication rate and recurrence rate were low in an experienced center