

Long-term results of radiofrequency catheter ablation in patients with Wolff-Parkinson-White syndrome

陳亦仁

Chen YJ;Chen SA;Tai CT;Chiang CE;Lee SH;Chiou CW;Ueng KC;Wen ZC;Yu WC;Huang JL;Feng AN and Chang MS

摘要

Abstract

BACKGROUND: Information about the long-term results of radiofrequency catheter ablation, electrophysiologic characteristics of differently located accessory pathways, and the difference between a single accessory pathway and multiple accessory pathways was limited. **METHODS:** Nine hundred and thirty-one patients with 1016 accessory pathways (APs) received electrophysiologic study and radiofrequency catheter ablation between July 1, 1989 and June 31, 1996. Group 1 included 856 (91.9%) patients with a single AP and Group 2 included 75 (8.1%) patients with multiple APs. The follow-up period was 48 +/- 37 months (range, 2 to 84 months). **RESULTS:** Nine hundred and thirteen patients (98.1%) had successful ablation with a complication rate of 1.5%. In Group 1, left free wall pathways were ablated with fewer radiofrequency pulses, shorter procedure time, shorter radiation exposure time and a lower recurrence rate than those at other locations. Comparisons between Group 1 and Group 2 showed that the latter had higher incidences of antidromic tachycardia (3% vs 13%, $p < 0.05$) and atrial flutter/fibrillation (26% vs 37%, $p < 0.05$). Regarding radiofrequency catheter ablation, Group 2 needed more radiofrequency pulses (8.7 +/- 7.8 vs 5.5 +/- 7.7, $p < 0.001$), longer procedure time (3.3 +/- 1.4 vs 2.1 +/- 1.0 hours, $p < 0.05$) and radiation time (49 +/- 27 vs 29 +/- 19 minutes, $p < 0.001$), and a higher recurrence rate (10.6% vs 3.3%, $p < 0.005$) than those in Group 1. Thirty-six patients (4%) with recurrence had more right-side pathways than those without recurrence. In addition, difficult ablation (longer procedure time, longer radiation time and more radiofrequency pulses) was associated with a higher recurrence rate. **CONCLUSIONS:** These findings demonstrated that a high success rate with a low recurrence and low complication rate of radiofrequency catheter ablation could be achieved in a large population with APs during a long follow-up period.