

The important role of pulmonary vein carina ablation as an adjunct to circumferential pulmonary vein isolation.

陳亦仁

Udyavar AR;Chang SL;Tai CT;Lin YJ;Lo LW;Tuan TC;Tsao HM;Hsieh MH;Hu YF;Chiang SJ;Chen YJ;Wongcharoen W;Higa S;Ueng KC;Chen SA.

摘要

Abstract

Objectives and Background: The success rate of achieving electrical isolation by circumferential pulmonary vein ablation (CPVA) varies from 32% to 88%. We carried out ablation at the pulmonary vein carina to evaluate the elimination rates of the pulmonary vein potentials (PVPs) after one round of CPVA had failed to eliminate all the PVPs in the patients with atrial fibrillation (AF).

Methods: Ninety-seven patients (75 males; mean age: 50 ± 12 years; 15 with persistent AF and 82 with paroxysmal AF) who underwent catheter ablation were analyzed. All patients underwent one round of CPVA with PVP elimination as the endpoint. The electrophysiology tracings were then analyzed to look for the presence of any gaps that were subsequently targeted by radiofrequency ablation. The patients in whom the PVPs still persisted underwent ablation at the pulmonary vein carina and the success rate of the PVP elimination was studied. The patients were followed up for a mean duration of 12.9 ± 8.2 months.

Results: One hundred ninety-four ipsilateral pulmonary veins in 97 patients were subjected to CPVA with successful elimination of the PVPs in 110 ipsilateral pulmonary veins (success rate of 56.7%). A carina ablation was carried out in the remaining 84 ipsilateral pulmonary vein pairs harboring PVPs. Elimination of the PVPs was achieved in all the remaining ipsilateral pulmonary veins after the carina ablation.

Conclusion: Considering the limited efficacy of CPVA in eliminating the PVPs, pulmonary vein carina ablation is advisable to substantially increase the PVP elimination rate.