

The Different Mechanisms Between Late and Very Late Recurrences of Atrial Fibrillation in Patients Undergoing a Repeated Catheter Ablation

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摘要

Abstract

Introduction: The mechanisms of late (<1 year after the ablation) and very late (>1 year after the ablation) recurrences of paroxysmal atrial fibrillation (AF) after catheter ablation have not been reported. Methods and Results: Fifty consecutive patients undergoing a repeated electrophysiologic study to investigate the recurrence of paroxysmal AF after the first ablation were included. Group 1 consisted of 12 patients with very late (26 簣 13 months) and group 2 consisted of 38 patients with late (3 簣 3 months) recurrence of paroxysmal AF. In the baseline study, group 1 had a lower incidence of AF foci from the pulmonary veins (PVs) (67% vs 92%, $P = 0.048$) and a higher incidence of AF foci from the right atrium (50% vs 13%, $P = 0.014$) than group 2. In the repeated study, group 1 had a higher incidence of AF foci from the right atrium (67% vs 3%, $P < 0.001$) and a lower incidence of AF foci from the left atrium (50% vs 97%, $P < 0.001$), including a lower incidence of AF foci from the PVs (50% vs 79%, $P = 0.07$) and from the left atrial free wall (0% vs 29%, $P = 0.046$) than group 2. Furthermore, most of these AF foci (64% of group 1, 65% of group 2) were from the previously targeted foci. Conclusion: The right atrial foci played an important role in the very late recurrence of AF, whereas the left atrial foci (the majority were PVs) were the major origin of the late recurrence of AF after the catheter ablation of paroxysmal AF.