Electrophysiological characteristics and catheter ablation in patients with paroxysmal supraventricular tachycardia and paroxysmal atrial fibrillation.

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摘要

Abstract

Introduction: Paroxysmal supraventricular tachycardia (PSVT) is often associated with paroxysmal atrial fibrillation (AF). However, the relationship between PSVT and AF is still unclear. The aim of this study was to investigate the clinical and electrophysiological characteristics in patients with PSVT and AF, and to demonstrate the origin of the AF before the radiofrequency (RF) ablation of AF.

Methods and Results: Four hundred and two consecutive patients with paroxysmal AF (338 had a pure PV foci and 64 had a non-PV foci) that underwent RF ablation were included. Twenty-one patients (10 females; mean age 47 ± 18 years) with both PSVT and AF were divided into two groups. Group 1 consisted of 14 patients with inducible atrioventricular nodal reentrant tachycardia (AVNRT) and AF. Group 2 consisted of seven patients with Wolff-Parkinson-White (WPW) syndrome and AF. Patients with non-PV foci of AF had a higher incidence of AVNRT than those with PV foci (11% vs. 2%, P = 0.003). Patients with AF and atypical AVNRT had a higher incidence of AF ectopy from the superior vena cava (SVC) than those with AF and typical AVNRT (86% vs. 14%, P = 0.03). Group 1 patients had smaller left atrial (LA) diameter (36 ± 3 vs. 41 ± 3 mm, P = 0.004) and higher incidence of an SVC origin of AF (50% vs. 0%, P = 0.047) than did those in Group 2.

Conclusion: The SVC AF has a close relationship with AVNRT. The effect of atrial vulnerability and remodeling may differ between AVNRT and WPW syndrome.

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