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ELECTROPHYSIOLOGIC CHARACTERISTICS AND RADIOFREQUENCY CATHETER ABLATION OF ATRIAL TACHYARRHYTHMIAS ORIGINATING FROM THE SUPERIOR VENA CAVAMa Wei, Xu Jing, Lu Fengmin *Tianjin Chest Hospital*

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Objective The purpose of this study was to analyse the clinical and electrophysiological characteristics of paroxysmal atrial fibrillation and atrial tachycardia initiated by ectopies from the superior vena cava and to evaluate the effects of electrical isolation of superior vena cava with radiofrequency catheter ablation. **Methods** 108 atrial tachyarrhythmias patients who underwent catheter ablation participated in the study. 11 patients had atrial tachyarrhythmias initiated by ectopic beats from superior vena cava (7 males, 4 females). Five of them had atrial tachycardia; six of them had atrial fibrillation.

Results The cycle length of the atrial tachycardia was highly variable, ranging between 260 ms and 390 ms. The p-wave of atrial ectopic beats are positive and tall in leads II, III, avF, V1, and negative in leads avR. The four patients can be induced atrial premature beats or atrial tachycardia after isolation circumferential of pulmonary vein in atrial fibrillation. The initiation of the tachyarrhythmias by the ectopies from the superior vena cava. Two of them showed more rapid frequency potential in superior vena cava than other veins. During 1–28 months' follow-up, recurrence was observed in 1 patient.

Conclusions Atrial tachyarrhythmias may originate from superior vena cava and be successfully cured with radiofrequency catheter ablation.