VALUE OF IBUTILIDE FOR CONVERSION OF PERSISTENT ATRIAL FIBRILLATION

Tian Xiaochen, Wang Yinman First Affiliated Hospital Of Dalian Medical University, Dalian, China

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Background Ibutilide is particularly effective in rapid termination of recent-onset arrhythmias with few adverse effects. The aim of this study was to investigate the effectiveness and safety of ibutilide for cardioversion of persistent atrial fibrillation during radiofrequency ablation and the factors affected conversion.

Methods Sixteen patients including 14 males and 2 females with persistent atrial fibrillation, all patients underwent circumferential pulmonary vein ablation guided by a Carto three-dimensional mapping system, in addition, linear ablation at the top of the left atrium and the isthmus of mitral valves and complex fractionated atrial electrogram (CAFE) ablation was performed. All patients were either atrial fibrillation or atrial flutter, the patients were treated with intravenous injection of 1 mg ibutilide in 10 min. In case of sinus rhythm (SR) restoration or the adverse reactions such as ventricular tachycardia, intravenous injection should be stopped. Observation cardioversion rate within 30 min and adverse reactions within 4 h. 16 patients were divided into a conversion group and a non-conversion group according to whether AF was converted to sinus rhythm within 30 min after administration.

Results There were no significant differences in gender, age, body mass index, left atrium and left ventricular function between the two groups. 10 patients (62.50%) converted to SR after ibutilide injection. The average conversion time was (13.80±7.64) min. Compared with the conversion group, patients in the non-conversion group had a markedly enlarged SCAR area ratio (31.02±6.76)% versus (25.35±1.06) (p=0.00). Ibutilide significantly prolonged the average wavelength of the AF wave (0.39±0.21) s versus (0.51±0.08) s (p=0.00). 30 after minutes ibutilide treatment, the QT interval significantly prolonged (0.59±0.21) s versus (0.51±0.08) s (p=0.00). CONCLUSION: Ibutilide is highly effective and safe, no cases of serious arrhythmias or other adverse reactions were found.