Ablation of left ventricular epicardial outflow tract tachycardia from the distal great cardiac vein

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Abstract:

The purpose of this study was to examine the feasibility and safety of ablation of idiopathic outflow tract ventricular tachycardia (OTVT) from the distal ramifications of the coronary sinus (CS). A significant minority of patients presenting with idiopathic OTVT have an epicardial focus, the standard approach to which involves ablation from within one of the aortic valve cusps (AVCs). We describe the successful ablation of idiopathic epicardial OTVT from within the CS in the distal great cardiac vein (GCV). Ablation from the distal GCV was performed in 5 patients with idiopathic OTVT who had unfavorable mapping, in some cases unsuccessful ablation from various endocardial and epicardial sites including the AVCs, and in 1 patient via the direct epicardial approach. An electroanatomic mapping system (Carto) was used in 3 patients, and conventional mapping was performed in 2 patients, and in 3 patients cryothermal ablation was performed. In all patients, the first ablation lesion in the GCV successfully eliminated the arrhythmia. All patients have remained free of VT after a mean follow-up of 24 (7 to 44) months. There were no immediate or long-term complications. Idiopathic epicardial OTVT can be successfully ablated from the distal GCV, and should be seen as an alternative to ablation from the aortic valve cusps.