

Ventricular Tachycardia Ablation: Current Status

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Ventricular tachycardia (VT) occurs in the diseased heart as well as in the normal heart but it is not always easy to distinguish. Ventricular tachycardias in the morphologically normal ventricle include idiopathic (fascicular) left ventricular tachycardia and out-flow-tract tachycardia from the right ventricular outflow tract (RVOT) or left ventricular outflow tract (LVOT), whereas VT in diseased heart comprises stable and unstable VT in post-infarction ventricle, VT in dilated cardiomyopathy, VT in arrhythmogenic right ventricular cardiomyopathy, and bundle branch re-entry.

Use of endocardial as well as epicardial electroanatomic mapping to define the full extent of myocardial scars helps successful catheter ablation of VT in both ischemic and nonischemic cardiomyopathy. Furthermore, there have been reports of idiopathic ventricular fibrillation (VF) treated successfully by catheter ablation targeting a premature ventricular complex, originating from the Purkinje fiber network, that triggers VF.

In 2006, catheter ablation of VT is a successful primary therapy in normal hearts (>80% success). In diseased hearts, catheter ablation is an important adjuvant to implantable cardioverter defibrillator (ICD) therapy (success around 50%). Randomized studies (ICD versus ICD plus substrate ablation) in ischemic stable VT (VTACH) and ischemic unstable VT (SMS-ICD) are ongoing.

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