Fasciular VT

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Fascicular ventricular tachycardia (VT) is the most common form of idiopathic left VT. Zipes et al. identified the characteristic diagnostic triad: (1) induction with atrial pacing, (2) right bundle branch block (RBBB) and a left-axis configuration, and (3) manifestation in patients without structural heart disease. Fascicular VT was classified into three subtypes : (1) left posterior fascicular (LPF) VT (most common), whose QRS morphology exhibits an RBBB configuration and a superior axis; (2) left anterior fascicular VT, whose QRS morphology exhibits an RBBB configuration and right-axis deviation; and (3) upper septal fascicular VT, whose QRS morphology exhibits a narrow QRS configuration and normal or right-axis deviation. The mechanism of verapamil-sensitive left VT is reentry, because it can be induced, entrained, and terminated by ventricle or atrial stimulation. P1 represents the activation potential in the distal portion of the specialized Purkinje tissue; P2 represents the activation of the left posterior fascicle or Purkinje fiber near the left posterior fascicle. P1 is a critical potential in the circuit of the verapamil sensitive LPF VT and suggested the presence of a macroreentry circuit involving the normal Purkinje system and abnormal Purkinje tissue with decremental properties and verapamil sensitivity. Because the diastolic potential (P1) has been proven to be a critical potential in the VT circuit, this potential can be targeted to cure the tachycardia. Any P1 in the VT circuit can be targeted for catheter ablation.

RF catheter ablation may be considered a potential first-line therapy for patients with idiopathic VT, because these VTs can be eliminated by ablation in a high percentage of patients. Any P1 in the VT circuit can be targeted for catheter ablation. Ablation target would be the apical third of the septum, to avoid the creation of LBB block or atrioventricular block.