

Optimal target site of catheter ablation for left fascicular tachycardia. Electrophysiological and anatomical considerations.

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It has been speculated that so-called diastolic Purkinje potential (Pd) may reflect the slow conduction zone of reentry circuit of idiopathic left ventricular tachycardia (fascicular tachycardia: FVT), and the Pds have been the target of catheter ablation for the radical cure of FVT. However, since some of the Pds have the bystander nature for this tachycardia, the RF deliveries applied particularly at the basal region of LV have resulted in the failed ablation. At the present, most of the physicians empirically targets on the mid-septal region for catheter ablation where Pds are observed at relatively late diastolic phase and sometimes these are fused with presystolic Purkinje potential (Pp) which commonly has a spiky morphology. Applications on such areas seem to be most effective to eliminate the FVT, however theoretical background of the high success rate of ablation when the RF was applied on such late phase Pds is still lacking. In this review, the electrophysiological features and anatomical substrates of Pd and Pp potentials will be discussed.