The Electrophysiological Characteristics of Slow/Fast Atrioventricular Nodal Reentrant Tachycardia with Left Posterior Nodal Extension

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Introduction: In some slow/fast AVNRT patients, the left posterior nodal extension (LPNE) may form a part of antegrade slow pathway (SP) and ablation in the CS is necessary to eliminate the tachycardia. Methods and Results: We investigated electrophysiological properties of antegrade SP in 62 consecutive slow/fast AVNRT patients. In 10 patients (16.1%), ablation in the CS was necessary to eliminate the tachycardia (CS group), whereas ablation only at the conventional SP area was effective in other patients (83.9%, SP group). In CS group, AVNRT were induced with second AH jump-up phenomenon (N=6) and atrial double response (N=4) whereas, AVNRT were induced with single jump-up phenomenon in all of SP group patients. During AVNRT, there were no significant differences in tachycardia cycle length, AH and HA interval between the two groups. AH interval just before tachycardia induction (AH-t) was significantly longer in CS group than SP group (482±103 ms vs. 310±57 ms, p<0.01). An AH-t of 375ms led to a sensitivity of 80% and a specificity of 84% for supposing that antegrade SP locates in CS. Conclusion: In slow/fast AVNRT patients, the long AH-t suggests that the LPNE participates the tachycardia initiation and ablation in the CS can eliminate the tachycardia. Keywords: AVNRT, LPNE, ablation