

**Spontaneous transition of 2:1 atrioventricular block
to 1:1 atrioventricular conduction during
atrioventricular nodal reentrant tachycardia: evidence
supporting the intra-hisian or infra-hisian area as the
site of block.**

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摘要

Abstract

INTRODUCTION: The incidence of spontaneous transition of 2:1 AV block to 1:1 AV conduction during AV nodal reentrant tachycardia has not been well reported. Among previous studies, controversy also existed about the site of the 2:1 AV block during AV nodal reentrant tachycardia. **METHODS AND RESULTS:** In patients with 2:1 AV block during AV nodal reentrant tachycardia, the incidence of spontaneous transition of 2:1 AV block to 1:1 AV conduction and change of electrophysiologic properties during spontaneous transition were analyzed. Among the 20 patients with 2:1 AV block during AV nodal reentrant tachycardia, a His-bundle potential was absent in blocked beats during 2:1 AV block in 8 patients, and the maximal amplitude of the His-bundle potential in the blocked beats was the same as that in the conducted beats in 4 patients and was significantly smaller than that in the conducted beats in 8 patients (0.49 ± 0.25 mV vs 0.16 ± 0.07 mV, $P = 0.007$). Spontaneous transition of 2:1 AV block to 1:1 AV conduction occurred in 15 (75%) of 20 patients with 2:1 AV block during AV nodal reentrant tachycardia. Spontaneous transition of 2:1 AV block to 1:1 AV conduction was associated with transient right and/or left bundle branch block. The 1:1 AV conduction with transient bundle branch block was associated with significant His-ventricular (HV) interval prolongation (66 ± 19 ms) compared with 2:1 AV block (44 ± 6 ms, $P < 0.01$) and 1:1 AV conduction without bundle branch block (43 ± 6 ms, $P < 0.01$). **CONCLUSION:** The 2:1 AV block during AV nodal reentrant tachycardia is functional; the level of block is demonstrated to be within or below the His bundle in a majority of

patients with 2:1 AV block during AV nodal reentrant tachycardia, and a minority are possibly high in the junction between the AV node and His bundle.