

The electrophysiologic characteristics of atrioventricular nodal reentry tachycardia with eccentric retrograde activation

謝敏雄

**Ong MG;Lee PC;Tai CT;Lin YJ;Hsieh MH;Chen YJ;Lee
KT;Tsao HM;Kuo JY;Chang SL;Chen S**

摘要

Abstract

Background

The occurrence of eccentric retrograde atrial activation has been demonstrated to be from 6 to 8% in patients with atrioventricular nodal reentrant tachycardia (AVNRT) by several previous reports. However, most of those reports were limited by the absence of coronary sinus venography to confirm if the retrograde activation was truly left sided. The purposes of this study were to 1) determine the incidence of left sided retrograde atrial activation in our center, 2) determine the specific electrophysiologic characteristics of eccentric and concentric atrial activation and 3) determine the outcome of radiofrequency catheter ablation for AVNRT with eccentric retrograde atrial activation.

Methods

From November 2001 to July 2004, 290 consecutive patients with AVNRT who underwent an electrophysiologic study and radiofrequency ablation were included. Group 1 consisted of AVNRT patients with eccentric retrograde atrial activation; group 2 consisted of AVNRT patients with concentric retrograde atrial activation. The electrophysiologic characteristics of the group 1 and group 2 patients were then compared.

Results

The incidence of AVNRT with eccentric retrograde activation confirmed by CS venography was 6.5%. There were more females and atypical AVNRT in patients with retrograde eccentric conduction. There was more VA block after ablation and tachycardia induction by right ventricular pacing/extrastimuli in eccentric rather than

concentric retrograde atrial activation. A shorter antegrade fast functional refractory period of the AV node was demonstrated in the atypical eccentric group as compared to the atypical concentric group.

Conclusion

This study demonstrated the different electrophysiologic characteristics between the AVNRT patients with eccentric and concentric retrograde atrial activation. Successful ablation sites were similar to the standard RA ablation sites in patients with retrograde eccentric conduction.