THE ANALYSIS OF BODY-SURFACE ELECTROCARDIOGRAM OF DIFFERENT CORONARY SINUS PACING SITES

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Objective To investigate the effect of distal coronary sinus pacing (CSd), middle coronary sinus pacing (CSm) and proximal coronary sinus pacing (CSp) on the atrial activation time, atrioventricular conduction and ventricular activation time by analysing the characteristics of P wave duration maximum, PR interval and QRS duration; and comparing the success rate of different pacing sites.

Methods Fifty two patients after successful radiofrequency catheter ablation (RFCA) were divided into three groups: CSd, CSm and CSp. Recorded the body surface ECG before and after pacing. Each group was measured and compared with the P wave duration maximum, PR interval, QRS duration. Calculated the success rate of each group.

Results Compared with sinus rhythm before pacing, in the three groups of CSd, CSm and CSp, the P wave duration maximum was significantly shorter (p<0.001); the PR interval was significantly prolonged and compared with CSd, the PR interval of CSm and CSp was significantly shorter (p<0.001); the QRS duration has no significant difference (p>0.05). The success rate of CSm group was higher than CSd group and CSp group (p<0.05).

Conclusions Pacing in CSd, CSm and CSp can reduce the P wave duration maximum and atrial activation time; increase the PR interval, make the atrioventricular conduction time longer; there was no effect on QRS duration and ventricular activation time. Among the different CS pacing sites, the success rate in CSm was the highest.