dependent ventriculoatrial conduction were demonstrated to exist by EP study and the atrio-ventricular reentrant tachycardia with the earliest atrial activated site located were induced. When pacing with slow rate in RVA, there were no ventriculoatrial conduction by AP; when pacing with fast rate, there were internal ventriculoatrial conduction by AP and when pacing with faster rate, there were 1:1 ventriculoatrial conduction by AP. Ablation were identified during rapid rate ventricular pacing and a successful ablation was attained in every patient.

**Conclusion** Rapid rate dependent conduction of left concealed atrioventricular accessory pathway is existent and it can also induce atrioventricular reentrant tachycardia. We should pay attention to it avoiding missed diagnosis.

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**THE ANALYSIS OF CAUSE AND INCIDENCE OF NONRESPONSE AFTER CARDIAC RESYNCHRONISATION THERAPY**

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**Introduction** The aim of this study was to observe the incidence of CRT nonresponse in our center and investigate the possible reasons to lead to CRT nonresponse.

**Methods** 112 patients with CRT implantation were included in this study. There were 33 with ischaemic heart disease and 79 with non-ischaemic heart disease, 23 patients with permanent atrial fibrillation, 59 in NYHA class III and 53 in class IV. Patients were followed up more than 1 year. CRT response was defined as the improvement in NYHA class of ≥1 grade and 6-min walk test (6-MWT) of ≥25% and/or the increase of left ventricular ejection fraction (LVEF) of ≥15%.

**Results** The all mortality was 11.61%, the reasons of death were due to heart failure aggravation in 3 patients, sudden death in 4, acute myocardial infarction in 2 and noncardiac death in 4. 82 patients had a positive CRT response, but the other 30 patients (26.79%) were nonresponse to CRT including 9 patients (8.04%) with no improvement in NYHA class, 6-MWT and LVEF. 21 patients (18.75%) did not have any improvement in LVEF but with significant improvement in NYHA class and 6-MWT. Among nonresponders 5 patients died for heart failure aggravation. The basal data before CRT implantation were comparable between CRT response group and nonresponse group (p>0.05). The age, gender, narrow QRS duration before CRT and increased QRS duration after CRT did not impact in CRT response (p>0.05). Permanent atrial fibrillation (AF) did not lead to CRT nonresponse, among them the incidence of nonresponse was not more than in patients without AF (17.59% vs 25.84%, p>0.05). There was also no relation between different RV pacing leads position and the incidence of CRT nonresponse (27.06% in RV apex leads vs 25.93% in RV septum, p>0.05). There were 6 patients with right bundle branch block (RBBB), 5 of them had nonresponse to CRT (83.33%, p<0.01). The patients with non-ischaemic heart disease had higher incidence than patients with ischaemic heart disease (32.05% vs 14.71%, p<0.05). LV lead positions can impact CRT response. The incidence of CRT nonresponse was 23.08% in lateral marginal, 22.22% in posterolateral vein, 38.10% in middle cardiac vein and 75% in great cardiac vein (p<0.01).

**Conclusions** The incidence of CRT nonresponse was higher in patients with non-ischaemic heart disease than with ischaemic heart disease since coronary angioplasty had been completed in the criminal vessels. Although QRS duration was obviously wider in RBBB, the incidence of CRT nonresponse was still significant increase. LV pacing lead positions was the crucial factor to response of CRT.