

The Effect of Optimal Cardiac Resynchronization Therapy Pacing Rate in Non-Ischemic Heart Failure Patients on The Quality of Life and Echocardiographic Findings

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ABSTRACT

BACKGROUND

Cardiac resynchronization therapy (CRT) has become an important treatment strategy for a select group of heart failure (HF) patients; few studies have examined the optimal basal atrial pacing rate and its impact on long-term outcome in CRT patients.

OBJECTIVE

The aim of this study is to investigate the short-term impact of 70- bpm versus 80-bpm basal atrial pacing rates programming on the quality of life and echocardiography in 30 CRT patients.

METHODS

30 CRT patients were divided to two groups and programmed to 70 – 80 bpm basal atrial pacing rates respectively for 6 months with comparing the effect of each programming on the quality of life using Minnesota heart failure questionnaire and

echocardiographic findings (EF, LVEDD, LVESD, LVEDV, LVESV).

RESULTS

There was a highly significant difference between both groups as group 2 (with basal heart rate=80) had higher MFHQ after the programming with mean=67.2 ±9.1 vs group 1 (with basal heart rate =70) with mean 50.6 ±8.3 (P-value<0.001). also, there was no significant effect of the programming on NYHA of group I (P-value=0.301) but, the programming increase the NYHA of group II significantly (P-value=0.014). The programming didn't affect the (EF, LVEDD, LVESD, LVEDV, LVESV) of both groups significantly (p-value=0.916, 0.786 for both groups).

CONCLUSION

The lower basal atrial pacing rate the better quality of life and the lower NYHA class.

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