

Impact of Cardiac Resynchronization Therapy (CRT) on The Severity of Mitral Regurgitation in Dilated Cardiomyopathy Patients

*Gehan Magdy, Amr Zaki, Ramzeya Mohamed Abdelwahab, Mohamed Sanhoury.
Cardiology Department, Faculty of Medicine, Alexandria University, Egypt
Corresponding Author: Ramzeya Mohamed Abdelwahab*

ABSTRACT AIM:

Functional Mitral regorge in advanced Heart failure dilated cardiomyopathy patients is a strong predictor to mortality, this arouses studying the impact of Cardiac resynchronization therapy on functional MR in DCM.

METHODS and RESULTS:

This is a prospective observational study of Twenty-five patients with advanced heart failure DCM with sinus rhythm LBBB wide QRS \geq 130 ms with at least moderate MR, subjected to CRT implantation at Alexandria main university Hospital and followed up by Echocardiography after CRT by 1 week and 10 weeks and comparing between improved MR (Group 1) and stable MR group patients (Group 2). FMR improvement was observed in 15 patients (60%) 'Group 1' (p value <0.001) vs 10 patients (40%) show stable MR 'Group 2'. Evidence of early response to CRT was observe red in 9 patients (36%). MR

improvement among responders to CRT was observed in 7 patients (77.8%) and was higher among early echocardiographic responders (48%) than among early clinical responders (40%). MR improvement was significantly associated with percent of reduction in QRS width in surface ECG. (*P* value: 0.026).

CONCLUSION:

CRT improves the degree of severity of functional MR among DCM patients. Improvement of MR severity is significantly associated with baseline QRS width and percent of reduction in QRS width.

KEYWORDS:

DCM, Functional MR, Heart Failure, Cardiac Resynchronization Therapy.

Figure (1): Distribution of the studied cases according to MR improvement after CRT (n = 25)

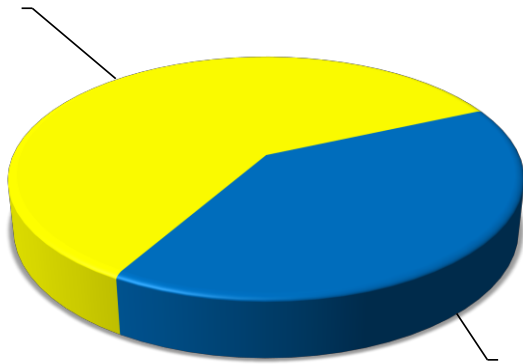


Figure (2): a) Transthoracic Echo, Apical four chamber view color Doppler across mitral valve showing Moderate Eccentric MR before CRT implantation.

b) Transthoracic Echo Apical four chamber view color Doppler across mitral valve showing decrease in severity of MR degree after CRT implantation. (Mild eccentric MR).

