

Do Different Etiologies of Heart Failure Provide Different Effectiveness of CRT?

Omelchenko, Alexander; Nevzorov, Roman; Porter, Avital; Strasberg, Boris; Golubchiner, Gregory; Kusniec, Haim; Haim, Moti
Rabin Medical Center, Petach Tikva, Israel

Background: Although cardiac resynchronization therapy (CRT) is offered to patients with different etiologies of heart failure, the benefit may not be the same. We evaluated the outcome of patients treated with CRT, according to etiology of dilated cardiomyopathy.

Results: 178 patients, treated with CRT between 2004-2008 were found in the database of Rabin Medical Center. Patients were divided into two groups: "Ischemic cardiomyopathy" (ICMP) group and "Non-Ischemic cardiomyopathy" (NICMP) group. Patients in the ICMP group were older ($69,1 \pm 9,9$ vs. $61,8 \pm 13,4$, $p=0,001$) and had a higher proportion of men ($89,8\%$ vs. 60% , $P<0.001$), and a higher rate of previous MI, PCI and CABG and a higher baseline creatinine level ($1,4 \pm 0,6$ vs. $1,1 \pm 0,4$ in NICMP group, $p<0,001$). There was no difference in baseline NYHA functional status; and baseline echocardiographic parameters, including de-synchronization as assessed by TDI. Medical treatment with ACE inhibitors and beta-blocking agents was similar but use of the aspirin and statins was a more frequent in the ICMP group.

Peri-procedural complication rate was similar in both group, there was no difference in the incidence of appropriate shock between groups. 1-year mortality was significantly higher in the ICMP group (18% vs. 2% , $P=0,005$)(figure 1). The factors, associated with one-year mortality were etiology of cardiomyopathy, NYHA functional class, level of creatinine and urea and level of hemoglobin. After Cox proportional hazards regression Ischemic CMP was no longer an independent predictor of mortality.

Conclusion: Ischemic etiology of cardiomyopathy was associated with significantly higher mortality of patients treated with cardiac re-synchronization therapy. This is explained by the presence of other co-morbid conditions associated with death such as older age of patients in the ICMP group. <IMAGE04>