

DEVICE THERAPY

Defibrillator-based CRT for heart failure

Cardiac resynchronization therapy (CRT) can restore normal cardiac function in patients with left ventricular dysfunction and an extended QRS duration. The 7-year follow-up of patients with mild heart failure and left bundle branch block who received CRT with a defibrillator (CRT-D) are reported in a new paper and were presented at the ACC 2014 Scientific Sessions.

“Our study is an extended long-term follow-up of the MADIT-CRT study, which was the first clinical trial to show that treatment with CRT using a defibrillator can reduce the risk of heart failure events in patients with mild symptomatic heart failure, left ventricular dysfunction and a prolonged QRS,” explains Ilan Goldenberg of Sheba Medical Center, Tel Hashomer, Israel. “However, possibly owing to the relatively short (median 2.4 yrs) follow-up time of the MADIT-CRT trial the effect of CRT-D on the risk of all-cause mortality was neutral.”

In this study, the investigators analyzed the cumulative all-cause death rate after

7 years in the 1,691 surviving patients from the MADIT-CRT trial. All-cause mortality was 18% for patients with left bundle branch block who received CRT-D compared with 29% in patients who underwent defibrillator therapy (adjusted HR 0.59; 95% CI 0.43–0.80; $P < 0.001$). However, this benefit was not seen in patients with heart failure who did not have left bundle branch block (adjusted HR 1.57; 95% CI 1.03–2.39; $P < 0.001$).

The results of this study highlight that CRT-D can confer a significant long-term survival benefit for patients with mild heart failure, left ventricular dysfunction and left bundle branch block. As Goldenberg concludes, “our findings stress the importance of early intervention with CRT before the development of advanced heart failure symptoms.”

Tim Geach

Original article Goldenberg, I. et al. Survival with cardiac-resynchronization therapy in mild heart failure. *N. Engl. J. Med.* doi:10.1056/NEJMoa140426