

Improved Clinical Outcome in Patients Followed in a Hospital-Based Heart Failure Center

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Background: Patients with heart failure (HF) have a poor prognosis. Heart failure centers (HFC) may improve prognosis. We evaluated this at a HFC operating in a tertiary referral hospital during the last three years.

Objectives: To evaluate the clinical outcome of patients with HF treated at the HFC of Hadassah University Hospital, Jerusalem.

Methods: We evaluated all patients followed at the HFC with HF for clinical outcome. Principles governing the management of the patients included specialized nurse supervised implementation of care and careful implementation of all management guidelines.

Results: 330 patients were included and followed at the HFC. Mean age was 72 ± 1 and 58% were in New York Heart Association (NYHA) class III-IV. 58% had reduced left ventricular function. 54% had ischemic heart disease, 74% hypertension, 44% diabetes, 79% hyperlipidemia and 27% had atrial fibrillation. Mean creatinine was 138 ± 7 $\mu\text{mol/L}$ and mean hemoglobin 11.9 ± 0.1 g/dL.

The median follow-up was 792 days (Inter-quartile range 760 to 823 days). The estimated cumulative survival rate at 1 and 2 years was $87 \pm 2\%$ and $79 \pm 2\%$ respectively. Survival was influenced by NYHA class (Log rank $P < 0.01$). The estimated cumulative survival rate at 1 year and 2 years were $91 \pm 2\%$ and $88 \pm 3\%$ in NYHA I-II and $84 \pm 3\%$ and $73 \pm 4\%$ in NYHA III-IV.

Comparing to a similar HF control group from the same hospital before the establishment of the HFC (N=362), demonstrated an improved 2-year survival rate in the HFC: $79 \pm 2\%$ vs $55 \pm 3\%$, $P < 0.001$, Figure 1. Cox regression analysis after adjustment for significant predictors demonstrated that treatment in the HFC was a significant predictor of increased survival (Hazard ratio 0.52, 95% confidence interval 0.37-0.73, $P < 0.0001$).

Conclusions: Survival rates of patients followed in a tertiary hospital HFC, including those with severe chronic heart failure, were better than a comparable control group. HFC should be part of the standard treatment of patients with symptomatic HF.

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