

Safety and Potential Benefits of Supportive Day Care Service for Advanced Heart Failure Patients

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Background:

Improved diagnosis and treatment options including pharmacological, electrophysiological and surgical means, led to a declined mortality from acute heart disease and a simultaneous increase in the proportion of patients with Chronic Advanced Heart Failure (CAHF). CAHF is associated with excessive hospitalizations and poor prognosis.

Objectives:

To examine the impact of a single center heart failure day care service on clinical cardiovascular and non-cardiovascular events as well as patient safety.

Methods:

We retrospectively studied all patients admitted to the heart failure day care service at the Sheba Medical Center between 10/2005 and 5/2012.

Results:

Study population comprised 245 patients (207 men and 38 women), mean age of 69.9 ± 10.6 years. Most patients had systolic HF, mean left ventricular ejection fraction of $27\% \pm 13$, predominantly of ischemic etiology (64.5%). Mean treatment period was 514 ± 489 days. Treatment included intravenous diuretic combinations (99%), low dose (≤ 5 mcg/kg/min) dobutamine (56%), and low dose (≤ 3 mcg/kg/min) dopamine (27%). Additionally, most patients (88%) were treated with beta blockers, 78% by angiotensin converting enzyme inhibitors (ACE-I)/angiotensin receptor blockers while 13% needed dialysis treatment. Hospitalization rate was 2.3 per patient per follow up. On a mean clinical follow up of 5 ± 3 years, 139 patients (57%) died, 46% during the first year, thereafter a decrease in annual mortality was observed (31%); the most frequent cause of death (58%) being heart failure exacerbation. Factors associated with improved survival included younger age, better renal function, body mass index > 30 kg/m², as well as laboratories values including ferrous, high-density lipoproteins, thyroid stimulating hormone, C-reactive protein and vitamin B12. ACE-I, beta blockers and aldactone were more common in the survivors.

Conclusions:

The present study demonstrates the potential benefits and safety of a supportive day care service for CAHF patients and further defines patients who might benefit from such an ambulatory therapeutic program.