

Prolonged Stay in the Intensive Care Unit After-Cardiac Operations: Early Results and Late Survival

Shuli Silberman, Daniel Bitran, Rachel Tauber, Daniel Fink, Ofer Merin
Cardiothoracic Surgery, Shaare Zedek Medical Center, Israel

Background:

Prolonged ICU stay is a surrogate for advanced morbidity or perioperative complications, and resource utilization may become an issue. We examined the effect of duration of ICU stay on early outcomes as well as late survival.

Methods:

During 1993-2011 6,385 patients were admitted to the ICU following cardiac surgery. Patients were grouped according to length of stay in the ICU: group I: ≤ 2 days (n=4631; 73%); group II: 3-14 days (n=1423; 22%); group III: >14 days (n=331; 5%). Length of stay in ICU for group III patients was 38 ± 24 days (range 15-160; median 31). Clinical profile and outcomes were compared between groups.

Results:

Patients requiring prolonged ICU stay were older, had greater co-morbidity, and a higher predicted operative mortality ($p < 0.0001$). A larger number underwent non-isolated CABG, had non-elective surgery or reoperation, and had a higher incidence of adverse events as well as increased mortality ($p < 0.0001$). Of the 331 group III patients 60% were discharged: survival of these patients at 1, 3, and 5 years was 78%, 65% and 52%. Operative mortality as well as late survival of discharged patients was directly proportional to duration of ICU stay.

Conclusions:

Current technology enables keeping sick patients alive for extended periods of time. Almost two thirds of patients requiring prolonged ICU leave hospital and of these, 50% do attain 5 year survival. These data support offering full and continued support even for patients requiring very prolonged ICU stay.

