Predictors of early readmission or death in elderly patients with heart failure

Stefano Muzzarelli, Gregor Leibundgut, Micha T. Maeder, Hans Rickli, Rolf Handschin, Marc Gutmann, Urs Jeker, Peter Buser, Matthias Pfisterer, Hans-Peter Brunner-La Rocca & TIME-CHF Investigators

BACKGROUND: Contemporary heart failure (HF) patients are elderly and have a high rate of early rehospitalization or death, resulting in a high burden for both the patients and the health care system. Prior studies were focused on younger and less well-characterized patients. We aimed to identify predictors of early hospital readmission and death in elderly patients with HF. METHODS: Patients with chronic HF taking part in the TIME-CHF study (n = 614, age 77 +/- 8 years, 41% female, left ventricular ejection fraction 35% +/- 13%) were evaluated with respect to predictors of hospital readmission or death 30 and 90 days after inclusion. Demographic, clinical, laboratory, echocardiographic, and social variables were obtained at baseline and included in a multivariable logistic regression analysis to identify predictors of early events. RESULTS: The rate of hospital readmission or death was high at 30 (11%) and 90 days (26%). The reason for hospitalization was HF in 33%, other cardiovascular in 32%, and noncardiovascular in 45% of the cases, respectively. Predictors of readmission or death at 30 days were angina, lower systolic blood pressure, anemia, more extensive edema, higher creatinine levels, and dry cough; and at 90 days were coronary artery disease, prior pacemaker implantation, high jugular venous pressure, pulmonary rales, prior abdominal surgery, older age, and depressive symptoms. CONCLUSIONS: Early hospital readmission or death was frequent among elderly HF patients. A very large proportion of readmissions were due to noncardiovascular causes. In addition to clinical signs of HF, comorbidities are important predictors of early events in elderly HF patients.

type                journal paper/review (English)
date of publishing  8-2010
journal title       Am Heart J (160/2)
ISSN electronic     1097-6744
pages               308-14