

Sleep Disturbance Predicts Increased Hospitalization and Mortality in Patients with Heart Failure

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Background: Sleep disturbance is highly prevalent in patients with heart failure (HF). We sought to prospectively explore the prognostic significance of sleep disturbance on hospitalizations and mortality in patients with HF.

Methods: Patients were recruited from a HF clinic and HF day treatment program. Clinical information was gathered by interview and chart review. Sleep quality was assessed by the Pittsburgh Sleep Quality Index (PSQI). Patients were followed for 18 months. Hospitalizations were analyzed from the hospital data base, and mortality information was obtained from the National Census Bureau.

Results: Sleep disturbance (as defined by PSQI >5) was associated with a significant increase in death or hospitalization over the study period (R=4.545, p= .033). This effect was consistent when controlled for gender, NYHA class, ejection fraction, atrial fibrillation, PA pressure, creatinine, diabetes, COPD, smoking, depression, total daily dose of furosemide, other medications, heart failure etiology, and BMI. Of note, the major effect was seen in patients with NYHA 2 and 3, whereas the mortality/hospitalizations in patients with NYHA 4 was not affected by sleep disturbance. Less than 5 hours of sleep was not associated with an increase in mortality and hospitalizations ($\tilde{N} = .076$, p = .782). Higher scores on the PSQI were not associated with a further increase in mortality.

Conclusions: Self-reported sleep disturbance is associated with an increase in hospitalization or death in HF patients who are NYHA 2-3.