

## Heart Failure and Cognitive Impairment: Relationships with Mortality

To the Editor:

We read the article by Dodson et al<sup>1</sup> with interest. The authors evaluated how often the nurse assessment of cognitive impairment at hospitalization was documented by the physician at the time of discharge in a cohort of elderly patients hospitalized for heart failure. Subsequently, the authors analyzed the association of cognitive impairment with 6-month mortality or readmission.

We have a number of concerns about the internal and external validity of this study.

A high prevalence of cognitive impairment has been documented in elderly patients hospitalized with heart failure.<sup>2</sup> Although acute and fluctuating cognitive impairment is frequently observed on hospitalization and usually improves with treatment of the underlying causes, the associated cognitive deficits may persist beyond hospital discharge. One of the reasons that could explain the lower rate of documentation of cognitive impairment by the physician in the study of Dodson et al<sup>1</sup> is that a proportion of patients acutely evaluated by the nursing personnel at hospitalization had improved after therapy for heart failure, and only patients remaining significantly impaired at discharge were documented. A comparison between evaluations of cognitive impairment by nurses and physicians would be more informative when performed close to or at the same time point, that is, discharge.

In multivariable analysis, the association between cognitive impairment and mortality or rehospitalization was evaluated correcting for variables that differed between the groups with and without cognitive impairment (group's age, race, kidney disease, and aldosterone receptor antagonist use). Quantitative risk presentation of several (other)

potential confounding variables for survival, not only those different by cognitive status, would be crucial to understand their relative contribution to the prognosis and avoid biased conclusions. For readers, a supplemental table including the hazard ratios, 95% confidence intervals, and degree of significance of each potential confounding variable is strongly needed.

The authors do not report on the prevalence of atrial fibrillation, which often occurs in association with heart failure. Several studies and a recent meta-analysis of the literature showed that atrial fibrillation is significantly associated with cognitive impairment and dementia.<sup>3</sup> We believe that the prevalence and distribution of atrial fibrillation should be reported to appreciate fully the association between heart failure and cognitive impairment and the relationship of the latter with mortality.

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## References

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