

# Letters

## TO THE EDITOR

### Heart Failure and Comorbidities



The timely and well-structured presentation concerning the burden of comorbidities and functional and cognitive impairments in elderly patients with heart failure by Murad et al. (1) and the accompanying thought-provoking editorial by Shaffer and Maurer merit an additional point of concern regarding mortality. The comorbid statistical assessment of factors contributing to greater total mortality risk included diabetes, kidney disease, cerebrovascular disease, depression, impairment of activities of daily living, and cognitive impairment. The comorbidities of hypertension, coronary heart disease, atrial fibrillation, and obstructive pulmonary disease were not associated with mortality (at least, not directly). Noteworthy was the fact that hypertension was the most common comorbidity (82% of patients), a not unexpected fact. We now arrive at the point of possible consternation: hypertension versus cognitive impairment. If it is accepted that antihypertensive drug therapy may have an adverse influence on cognition in “normal” as well as in those patients who already have such dysfunction, the possibility that guideline therapy for hypertension can be contributing to or associated with the increased mortality, as noted in the statistical analysis and conclusion.

The consideration of drug therapy being involved in the causation of increased mortality in the cognitively impaired patients in this study is further confounded by the fact that the drugs used to treat heart failure are the same as those used in treating hypertension: beta-blockers, angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, and hydrochlorothiazide. Therefore, treated hypertension would be the unappreciated catalyst of the association of increased mortality in the patients with cognitive impairment.

Severe forgetfulness in a young woman caused by methylodopa was described 39 years ago (2). Callender et al. (3) reported memory deficits in patients taking nicardipine and propranolol. Two years later, Callender (4) reported that patients on atenolol were

noted to have highly significant impairment of short-term memory. A significant study by Heckbert et al. (5) described the presence of greater cerebral white matter changes on magnetic resonance imaging in patients taking calcium-channel blockers or loop diuretics and correlated these findings with deficits on the Mini-Mental State Examination. Many years of careful clinical observation leads me to conclude that impairment of rapid recall is the most frequently overlooked side effect of all classes of antihypertensive drugs.

As usual, the practicing clinician is faced with a trek through the therapeutic quagmire of who to treat, what to treat, when to treat, and how to treat, all based on guidelines for each particular condition or disease. The patient who will fare best is the one whose physician has appropriately synthesized a therapeutic program which adjusts for the presence of multiple comorbidities. This may at times include the philosophy of “less is more”.

\*Basil M. RuDusky, MD

\*Northeast Cardiovascular Clinic and Research Institute  
15 Public Square  
Wilkes-Barre, Pennsylvania 18701-1702

E-mail: [pmd3@epix.net](mailto:pmd3@epix.net)

<http://dx.doi.org/10.1016/j.jchf.2015.09.008>

Please note: Dr. RuDusky has reported that he has no relationships relevant to the contents of this paper to disclose.

## REFERENCES

1. Murad K, Goff D, Morgan T, et al. Burden of comorbidities and functional and cognitive impairments in elderly patients at the initial diagnosis of heart failure and their impact on total mortality: the Cardiovascular Health Study. *J Am Coll Cardiol HF* 2015;3:542-50.
2. Ghosh SK. Methylodopa and forgetfulness. *Lancet* 1976;1:202-3.
3. Callender JS, Medley IR, Robertson JIS. Psychological effects of nicardipine and propranolol on hypertensive patients. *Br J Clin Pharmacol* 1986; 2678-728.
4. Callender JS. Evaluation of the cerebral effects of antihypertensive medication. *Eur Heart J* 1988;9 Suppl G:59-63.
5. Heckbert SR, Longstreth WT, Psaty BM, et al. The association of antihypertensive agents with white matter findings and with modified Mini-Mental State Examination in older adults. *J Am Geriatr Soc* 1997;45: 1423-33.

## REPLY: Heart Failure and Comorbidities



We thank Dr. RuDusky for his interest in our recent report describing the burden of comorbidities and functional and cognitive impairments in elderly