

Treatment with enhanced external counterpulsation improves cognitive functions in chronic heart failure patients

To the Editor,

I read the article entitled "Treatment with enhanced external counterpulsation improves cognitive functions in chronic heart failure patients" by Kozdağ et al.^[1] They concluded that enhanced external counterpulsation was associated with improvement in all domains of cognitive function except verbal and visual memory tests.

Cognitive impairment (CI) is prevalent in heart failure (HF), with ranges from 30-80% depending on the measures used and the characteristics of the HF sample studied. It should be noted that in HF, CI is not due solely to cerebral hypoperfusion and dysfunction of the autonomic nervous system. Vascular damage such as white matter lesions can be seen secondary to diabetes, hypertension and atrial fibrillation. Note also that HF is already highly comorbid with cerebrovascular disease. The other comorbid disease states include anemia, sleep apnea and depression.^[2,3] Depression is common in patients with HF as well as those who are cognitively impaired. Likewise, some studies have shown that depression may have a negative impact on neuropsychological tests results.^[3] Another possible explanation for CI in HF is poor medication adherence. It is well known that most HF patients know their medications by color and shape rather than by name or indication. CI is usually associated with the HF duration. In one review, a significant decline in cognitive function was noted among patients with HF followed up for more than one year.^[4]

There is no suitable standard measurement instrument to assess CI in HF. Because cognitive tests are very time-consuming, screening HF patients for CI can be challenging in our daily clinical practice.

The most important limitation of the previous and

current studies is the selective inclusion of persons with low left ventricular ejection fraction (LVEF), despite the fact that >50% of HF admissions are for patients with preserved systolic function.^[5] Further, LVEF is associated with poor performance on assessments of memory, psychomotor speed, and executive function.^[6]

In conclusion, CI is particularly common in HF. Since it exerts significant effects on quality of life, disability, morbidity, and mortality among patients with HF, health professionals should recognize the importance of early identification and management of patients at risk of CI and become familiar with the assessment of cognitive performance in their routine clinical practice.

Sincerely,

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