ADVANCING IN THE ANALYSIS OF DISABILITY IN COGNITIVELY IMPAIRED OLDER ADULTS

To the Editor:

We read with interest the innovative paper by Leveille and colleagues (1) discussing a new taxonomy of disability based on the most frequent self-reported symptoms. We agree with the authors that chronic disability in the older population has a multifactorial nature and it is difficult to ascertain a single cause. However, participants with moderate-to-severe cognitive impairment were not considered in the study, in this way excluding a large proportion of elderly persons from the benefits of this critical discussion.

In cognitively impaired older patients, symptoms are not easily detected and physicians must employ objective tools for evaluation through single tasks, such as the Tinetti scale for balance and gait. The analysis of these two domains might be useful in advancing in the understanding of the mechanisms underlying disability in cognitively impaired older adults. We want to contribute on this topic with personal data concerning the different determinants of balance and gait.

Among 998 consecutive patients admitted to a Geriatric Evaluation and Rehabilitation Unit, we considered 229 cognitively impaired participants (75.1% female; mean age 80.2 ± 7.4 years; Mini-Mental State Exam 15.2 ± 5.1) with severe mobility dysfunction (Tinetti score 6.7 ± 6.0). Functional recovery, after 33.4 ± 13.8 days of in-hospital rehabilitation, was measured as the difference in Tinetti score between discharge and admission.

In a multiple linear regression model, age (beta: -.26; p < .003), depressive symptoms (Geriatric Depression Scale [GDS]: -.19; p = .01), Parkinson’s disease (beta: -.26; p = .002), hypertension (.23; p = .008), diabetes (-.21; p = .02), and malignancies (beta: -.20; p = .02) were predictive of recovery for balance (adjusted R² = .29; p = .000). On the contrary, age (beta: -.42; p = .001), depressive symptoms (GDS -.19; p = .05), Parkinson’s disease (-.32; p = .009), stroke (-.17; p = .05), peripheral artery diseases (-.24; p = .03), and comorbidity (geriatric index of comorbidity = -.19; p = .05) were predictive of recovery for gait (adjusted R² = .38; p = .000). In the literature, the Tinetti score is often used as a global score (2). However, our data suggest different determinants for balance and gait, whose separate analysis may help in the identification of the causes of disability. This approach may also help in the planning of rehabilitation programs utilizing a mix of specific and objective measures of disability.

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