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STAGES OF MILD COGNITIVE IMPAIRMENT AND ALZHEIMER'S DISEASE CAN BE DIFFERENTIATED BY DECLINES IN TIMED UP AND GO TEST: A SYSTEMATIC REVIEW AND META-ANALYSIS

Felipe de Oliveira Silva (orcid:0000-0002-1457-0480)1, José Vinícius Ferreira1, Jéssica Plácido1, Daniel Chagas2, Jomilto Praxedes2, Carla Guimarães3, Luiz Alberto Batista2, Valeska Marinho1, Jerson Laks4, Andrea Camaz Deslandes1

[1]Institute of Psychiatry (Universidade Federal do Rio de Janeiro, BR)
[2]Physical Education and Sports Institute (Universidade do Estado do Rio de Janeiro, BR)
[3]Technology National Institute, BR
[4]Post Graduation Program in Translacional Biomedicine (Universidade do Grande Rio, BR)

Abstract

Motor dysfunction increases in the moderate and severe stages of dementia. However, there is still no consensus on changes in mobility during its early stages. This meta-analysis aimed to measure the level of single-task functional mobility in older subjects with mild cognitive impairment (MCI) and/or Alzheimer's disease (AD). In a search of the PubMed, ISI Web of Knowledge, and Scopus databases, 2,728 articles were identified. At the end of the selection, a total of 18 studies were included in the meta-analysis. Functional mobility was investigated using the timed up and go (TUG) test in all studies. When compared to healthy elderly (HE) adults, the following mean differences (MD) in seconds were found for the investigated subgroups: no amnestic MCI (MD = 0.26; CI95% = -0.77, 1.29), amnestic MCI (MD = 0.86; CI95% = -0.02, 1.73), very mild AD (MD = 1.32; CI95% = 0.63, 2.02), mild AD (MD = 2.43; CI95% = 1.84, 3.01), mild-moderate AD (MD = 3.01; CI95% = 2.47, 3.55), and mild-severe AD (MD = 4.51; CI95% = 1.14, 7.88); for the groups, the following MD were found: MCI (MD = 0.97; CI95% = 0.51, 1.44) and AD (MD = 2.66; CI95% = 2.16, 3.15). These results suggest a transition period in motor capacity between healthy aging and dementia, wherein functional mobility analysis in a single-task (TUG) can contribute to the diagnosis and staging of predementia states and AD.

Keywords—*Alzheimer's disease, elderly, mild cognitive impairment,mobility.*

Biography:

Prof. Felipe de Oliveira Silva is a PhD student in Mental Health, with CAPES scholarship at the Institute of Psychiatry, Federal University of Rio de Janeiro, and has completed his Master degree in Exercise and Sports Science, with FAPERJ scholarship at the Institute of Physical Education and Sports, Rio de Janeiro State University (IEFD / UERJ). He is a Specialist in Human Performance Sciences (CPH / UFRJ), and Researcher at the Exercise Neuroscience Laboratory (LaNEx / UFRJ). He has published articles about the effect of exercise on mental health, such as motor biomarkers in dementia and neuropsychiatric disorders in the elderly.

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