Evaluating Frailty in Older Adults with Multiple Sclerosis: Baseline Characteristics from the Aging with MS Clinic

Authors: Mara Bahri¹, Joseph Miller², Kristi Epstein², Erin Stevens³, Ashley E. Rosko⁴, F. Schumacher⁵, Sarita Maturu², Yinan Zhang²

¹College of Medicine, The Ohio State University Wexner Medical Center, Columbus, OH ²Department of Neurology, The Ohio State University Wexner Medical Center, Columbus, OH

³Department of Internal Medicine, Division of Palliative Medicine, The James Comprehensive Cancer Center, The Ohio State University Wexner Medical Center, Columbus, OH

⁴Department of Internal Medicine, Division of Hematology, The James Comprehensive Cancer Center, The Ohio State University, Columbus, OH

⁵College of Public Health, The Ohio State University, Columbus, OH

Abstract:

Background: The prevalence of older adults with MS is increasing. This population faces unique challenges due to the intersection of MS-related disability and age-related health changes. Older adults are at risk for developing frailty, resulting in decreased function and vulnerability to stressors. The Clinical Frailty Score, commonly used in geriatric assessments, is not routinely assessed in people with MS and may offer valuable insights into disease outcomes in older adults with MS.

Objectives: The ongoing study aims to evaluate frailty's association with clinical outcomes in older adults with MS such as physical function, MS phenotype, and quality of life.

Methods: Participants (aged 60+) attending the Aging with MS Multidisciplinary Clinic at The Ohio State University were evaluated using the Clinical Frailty Scale score. A comprehensive geriatric assessment was performed for each participant in addition to clinical MS outcome measurements.

Results: Baseline data were collected from 36 participants attending the Aging with MS Multidisciplinary Clinic at The Ohio State University. Among these participants, those with RRMS had a median Clinical Frailty Scale score of 4 (IQR 2.25-4), while PPMS and SPMS patients showed higher scores with medians of 5 and 6, respectively. The Charlson Comorbidity Index was highest in PPMS patients, with a median score of 4 (IQR 2-4), followed by SPMS (median 3) and RRMS (median 2). In terms of disability, Expanded Disability Status Scale (EDSS) scores indicated greater impairment in PPMS (median 6.5) and SPMS (median 6.0) groups compared to RRMS (median 3.5). Physical function, assessed by the 25-Foot Walk Test (T25FW), revealed that SPMS patients exhibited the

most mobility impairment with a median time of 10.68 seconds (IQR 8.59-18.02), followed by PPMS at 9.96 seconds (IQR 6.52-10.90) and RRMS at 6.00 seconds (IQR 5.35-9.33).

Conclusions: Frailty is common in older adults with MS and may be a useful metric to assess overall function status. The ongoing study will determine association between frailty and clinical outcomes in older adults with MS.