

Objectives: Studies in PD have traditionally focused on motor features, however, interest in non-motor manifestations has increased resulting in improved knowledge regarding the prognosis of the disease. Although several studies have explored the incidence of dementia in PD cohorts, these studies have been conducted mainly in reference centers in high-income countries (HIC). In this study we aimed to analyze the prevalence of cognitive impairment in people with parkinsonism and PD and its association with incident dementia in a population-based study, of elderly from six Latin American countries.

Methods: This report consists of the analysis of data from a follow-up of 12,865 elderly people aged 65 years or older, carried out by 10/66 Dementia Research Group. Residents of urban and rural areas, from six low and middle-income countries (Cuba, Dominican Republic, Puerto Rico, Venezuela, Mexico and Peru). Exposures include parkinsonism and PD defined according to the UK Parkinson's Disease Society Brain Bank diagnostic criteria. Cognitive impairment was the main exposure and dementia was measured through the dementia diagnosis algorithm from 10/66 DRG.

Results: At baseline, the overall prevalence of cognitive impairment was 14% ($n = 1,581$), in people with parkinsonism and PD, it was of 30.0% and 26.2%, respectively. Parkinsonism and PD were individually associated with prevalent and incident dementia after controlling for age, sex, and education. The pooled odds ratios from a fixed-effects meta-analysis were 2.2 (95% CI: 1.9–2.6) for parkinsonism and 1.9 (95% CI: 1.4–2.4) for PD. Regarding incident dementia, the pooled sub-Hazard ratio estimated using a competing risk model was 1.5 (95% CI: 1.2–1.9) for parkinsonism and 1.5 (95% CI: 1.0–2.2) for PD.

Conclusions: Parkinsonism and PD were associated cross-sectionally with the presence of cognitive impairment, and prospectively with incident dementia in elderly people in the community population of Latin America studied. Systematic screening for cognitive impairment and dementia with valid tools in PD patients may help with earlier detection of those at highest risk for adverse outcomes. Identifying modifiable risk factors could potentially lead to efficient interventions even in advanced stages of PD.

Keywords: cognitive impairment, incident dementia, parkinsonism, parkinsonism plus dementia, Latin Americans

3 - Prevalence and impact of neuropsychiatric symptoms in normal aging and neurodegenerative syndromes: A population-based study from 6 Latin America centers. (Isaac Acosta)

Authors: Isaac Acosta^{1,2}, Ana M. Rodriguez Salgado³, Dani J. Kim⁴, Jennifer Zitser⁵, Ana Luisa Sosa^{1,2}, Daisy Acosta⁶, Ivonne Z. Jimenez-Velasquez⁷, Mariella Guerra⁸, Aquiles Salas⁹, Adolfo Valvuerdi¹⁰, Juan C. Llibre-Guerra¹¹, Christine Jeyachandran¹², Ricardo López Contreras¹³, Heike Hesse¹⁴, Caroline Tanner¹⁵, Juan J. Llibre Rodriguez¹⁶, Matthew Prina^{4,17}, Jorge J. Llibre-Guerra¹⁸, for the 1066 Dementia Research Group.

1. Laboratory of Dementias, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
2. National Autonomous University of Mexico, Mexico City, Mexico
3. Global Brain Health Institute, University of San Francisco California, San Francisco, California, USA
4. Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK
5. Department of Neurology, Movement Disorders Unit, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel
6. Universidad Nacional Pedro Henriquez Ureña (UNPHU), Internal Medicine Department, Geriatric Section, Santo Domingo, Dominican Republic
7. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico
8. Instituto de la Memoria Depresion y Enfermedades de Riesgo IMEDER, Lima, Perú
9. Medicine Department, Caracas University Hospital, Faculty of Medicine, Universidad Central de Venezuela, Caracas, Venezuela
10. Medical University of Matanzas, Matanzas, Cuba

11. Department of Neurology, Hospital de Salamanca, Salamanca, Spain
12. Faculty of Medicine and Health, University of New South Wales, Sydney, Australia
13. Memory Clinic, Neurology Service, Salvadoran Social Security Institute, San Salvador, El Salvador
14. Universidad Tecnológica Centroamericana, Tegucigalpa, Honduras
15. Department of Neurology, Weill Institute for Neurosciences, University of California-San Francisco, San Francisco, California, USA
16. Facultad de Medicina Finlay-Albarran, Medical University of Havana, Havana, Cuba
17. Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle, UK
18. Department of Neurology, Washington University School of Medicine in St. Louis, St. Louis, Missouri, USA

Objectives: Because of the continued transition to older populations, various strategies have been developed to estimate the social impact and burden of health care. Regarding mental health, a strategy in the elderly is the measurement of neuropsychiatric symptoms (NPS), these include a wide range of behavioral and psychological manifestations. These are more frequent in the presence of some diseases, such as neurodegenerative syndromes, among which dementias and Parkinson's disease (PD) stand out. The present study seeks to analyze the frequency of NPS, its relationship with the presence or absence of neurodegenerative syndromes and some characteristics of the elderly and caregivers.

Methods: This is an analysis of data from 12,865 elderly people evaluated within the protocols of the Dementia Research Group 10/66 in 6 Latin American countries (Cuba, Dominican Republic, Puerto Rico, Mexico, Venezuela and Peru). The presence or absence of parkinsonism, dementia and parkinsonism plus dementia (PDD) was identified through previously validated and published Methods. The NPS were assessed using the 12-symptom questionnaire version of the Neuropsychiatric Inventory. Other characteristics such as age, sex and education, in patients and caregivers; socioeconomic status, disability and comorbidities in the elderly; relationship with the elderly, needs and care-burden were assessed in caregivers.

Results: The most frequent symptoms were depression and sleep disorders in the four groups (without non-NDS neurodegenerative syndromes, parkinsonism, dementia and PDD, ranging from 23% to 49%. About a third of the elderly with parkinsonism, half of those with dementia, and 3 out of 5 of the elderly with PDD had 3 or more NPS. The odds ratios (OR) of each NPS measure by multivariate logistic regression models shown OR from 1.4 to 1.9 in the presence of parkinsonism; between 1.7 and 9.3 in the presence of dementia; and between 1.9 and 10.2 in the presence of PDD.

Conclusions: From a clinical and public mental health perspective, it is necessary to implement systematic Methods for NPS screening, as well as develop support strategies for families and caregivers, mainly of those with neurodegenerative syndromes.

Keywords: neuropsychiatric symptoms, dementias, parkinsonism, parkinsonism-dementia, Latin-American

4 - Dementia in Latin America – Social determinants of health and genetic ancestry. (Jorge J Llibre Guerra)

Authors: Jorge J Llibre-Guerra¹, Miao Jiang², Isaac Acosta^{3,4}, Ana Luisa Sosa^{3,4}, Daisy Acosta⁵, Ivonne Z. Jimenez-Velasquez⁶, Mariella Guerra⁷, Aquiles Salas⁸, Ana M Rodriguez Salgado⁹, Juan C Llibre-Guerra¹⁰, Nedelys Díaz Sánchez¹¹, Matthew Prina¹², Alan Renton¹³, Emiliano Albanese², Jennifer S. Yokoyama^{14,15}, Juan J. Llibre Rodriguez¹¹, for the 1066 Dementia Research Group.