S6: Junior Research Award Winner: Cognitive impairment and Dementia in Latin American Individuals with Parkinsonism and Parkinson's Disease: A 10/66 Dementia Research Group Study - Jorge Jesus L. Llibre-Guerra, MD

Authors: Llibre-Guerra JJ, Khan N². Arruabarrena MM³*, Kim DJ⁴, Jiang M⁵, Llibre-Rodriguez JJ⁶, Rodriguez-Salgado AM⁷, Acosta I^{8,9}, Sosa AL^{8,9}, Acosta D¹⁰, Jimenez-Velasquez IZ¹¹, Guerra M¹², Salas A¹³, López-Contreras R¹⁴, Dhara Santana¹⁵, Joel Solorzano¹⁶ Jeyachandran C¹⁷, Hesse H¹⁸, Tanner C¹⁹, Prina M²

Affiliations:

- 1. Department of Neurology, Washington University in Saint Louis. Saint Louis, MO 63108
- 2. Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle upon Tyne, United Kingdom
- 3. Department of Cognitive Neurology, Fleni, Buenos Aires, Argentina.
- 4. Health Service and Population Research Department, Institute of Health Service and Population Research Department, Institute of Psychiatry, Psychology, and Neuroscience, King's College London, London, United Kingdom
- 5. Institute of Public Health, Faculty of Biomedical Sciences, Università della Svizzera italiana, Lugano, Switzerland.
- 6. Dementia Research Unit, Medical University of Havana, Havana, Cuba
- 7. Global Brain Health Institute, University of San Francisco California, San Francisco, CA 94117
- 8. Laboratory of the Dementias, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
- 9. National Autonomous University of Mexico, Mexico City, Mexico
- Universidad Nacional Pedro Henriquez Ureña (UNPHU), Internal Medicine Department, Geriatric Section, Santo Domingo, Dominican Republic
- 11. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico
- 12. Instituto de la Memoria Depresion y Enfermedades de Riesgo IMEDER, Lima, Perú
- 13. Medicine Department, Caracas University Hospital, Faculty of Medicine, Universidad Central de Venezuela, Caracas, Venezuela
- 14. Memory Clinic, Neurology Service, Salvadoran Social Security Institute, San Salvador, El Salvador
- 15. Department of Neurology, Hospital Félix María Goico, Santo Domingo, Dominican Republic.
- 16. Department of Medicine, Hospital Antonio Luaces Iralola, Ciego de Avila, Cuba.
- 17. Faculty of Medicine and Health, University of New South Wales, Sydney 1466, Australia.
- 18. Observatorio Covid-19, Universidad Tecnológica Centroamericana, Honduras
- 19. Department of Neurology, Weill Institute for Neurosciences, University of California- San Francisco, San Francisco, CA94117

Background: Limited knowledge exists about the association between Parkinsonism or Parkinson's disease (PD) and cognitive impairment and dementia in Latin America.

Objectives: The study aimed to determine the cross-sectional and prospective associations between Parkinsonism and PD with cognitive impairment and dementia in a large multi-country cohort in Latin America.

Methods: The 10/66 is a prospective, observational cohort study. This population-based cohort study was based in six Latin American countries: Cuba, Dominican Republic, Puerto Rico, Venezuela, Mexico, and Peru. The study includes 12,865 participants from six countries, including residents aged 65 years and living in urban and rural catchment areas. Exposures included diagnosed Parkinsonism and PD defined according to the United Kingdom Parkinson's Disease Society Brain Bank diagnostic criteria. Cognitive impairment was the main outcome measure for cross-sectional analysis and dementia was used to measure the prospective association with the exposures. Logistic regression models were used to explore the association between Parkinsonism/PD with cognitive impairment at baseline. Competing risk models were used to assess the prospective association between Parkinsonism/PD with incident dementia accounting for competing risk of mortality. Individual country analyses were combined via fixed-effect meta-analysis.

Results: At baseline, the prevalence of cognitive impairment in people with Parkinsonism and PD was 30% and 26.2%, respectively. Parkinsonism (OR 2.2 (95%Cl 1.9 - 2.6)) and PD (1.9 (95%Cl 1.4 - 2.4)) were individually

associated with baseline and incident cognitive impairment after accounting for age, sex, and education, after pooling. In competing risk models, the pooled sub- hazard ratios for dementia in the fixed effect metanalysis were $1.5 (95\%CI \ 1.2 - 1.9)$ for parkinsonism and $1.5 (95\%CI \ 1.0 - 2.2)$ for PD.

Conclusions: Parkinsonism and PD were cross-sectionally associated with cognitive impairment and prospectively associated with incident dementia in Latin America. Routine screening for cognitive impairment and dementia with validated tools in PD patients may aid earlier detection of those at greater risk of adverseoutcomes.

S7: Cross cultural perspectives on Holistic approach to promote healthy ageing- Insights from India and Brazil

Authors: Sivakumar Palanimuthu Thangaraju, MD, Shivarama Varambally, Bernardo Viana

Demographic transition and changes in the population structure has contributed to global challenges related to population ageing. World Health Organization (WHO) has proposed global strategy and action plan on ageing and health to address the challenges related to population ageing. Despite the decline in intrinsic capacity, provision of appropriate environmental support can help in improving the functional ability and promoting Healthy ageing. India and Brazil are large countries with rapid population ageing with significant needs and challenges to promote Healthy Ageing. Both countries have significant differences in the cultural and socio-economic factors related to population ageing and rich history of traditional / alternative medicine interventions (such as Yoga and Ayurveda in India). Older adults have multiple comorbidities of physical and mental health issues with many of them seeking treatment from alternative systems of medicine. Holistic approach with integrated care will be helpful in older adults to promote healthy ageing. This symposium will summarize the holistic approach to healthy ageing in the global context with specific focus on the perspectives from India and Brazil. Mental health experts from India and Brazil with expertise in Geriatric Psychiatry and Integrative Medicine will be the presenters for the symposium.

The symposium will have the following presentations

- 1. Holistic approach to Healthy ageing: Global Perspectives: Prof. Sivakumar Palanimuthu Thangaraju, Professor of Psychiatry & Head, Geriatric Psychiatry Unit, Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
- 2. Lifestyle interventions through Integrative medicine to promote Healthy Ageing: Indian Perspective: Prof. Shivarama Varambally, Professor, Department of Psychiatry & Former Head, Department of Integrative Medicine, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
- 3. Scope for Traditional medicine and Holistic approach to Promoting Healthy Ageing in Brazil: Dr Bernardo Viana, Assistant Professor of Psychiatry, School of Medicine, Federal University of Minas Gerais, Belo Horizonte, Brazil

S8: Understanding Dementia, Neurodegenerative Disorders, and neuropsychiatric symptoms in Aging populations from La tin America.

Authors: Daisy Acosta, MD¹, Juan de Jesús Llibre Rodríguez, MD, PhD², Ana Luisa Sosa MD, PhD^{3,4}, Isaac Acosta³, Ivonne Z. Jimenez-Velasquez⁵, Jorge J Llibre Guerra, MD⁶

- 1. Universidad Nacional Pedro Henríquez Ureña (UNPHU), Dominican Republic
- 2. Dementia Research Unit/Medical University of Havana, Havana, Cuba
- 3. Laboratory of Dementias, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
- 4. National Autonomous University of Mexico, Mexico City, Mexico
- 5. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico 00931, USA.
- 6. Department of Neurology, Washington University School of Medicine in St. Louis, MO 63110, USA.