

Real-world Utility of DAT-SPECT in Patients with Lewy Body Dementia in Argentina.

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Background

Lewy body disease (LBD) is one of the leading causes of neurodegenerative dementia in older adults and is characterized by a distinctive combination of cognitive, neuropsychiatric, and motor symptoms. According to the 2017 Dementia with Lewy Bodies Consortium criteria, diagnosis relies on the identification of core clinical features and supportive biomarkers, including dopaminergic imaging. Among these, spontaneous parkinsonism and reduced dopamine transporter (DAT) uptake on SPECT imaging are frequently but not invariably present or co-occurring in the clinical setting. Despite standardized diagnostic criteria, LBD remains underdiagnosed, particularly in Latin America where there is limited access to DAT-SPECT imaging.

Methods

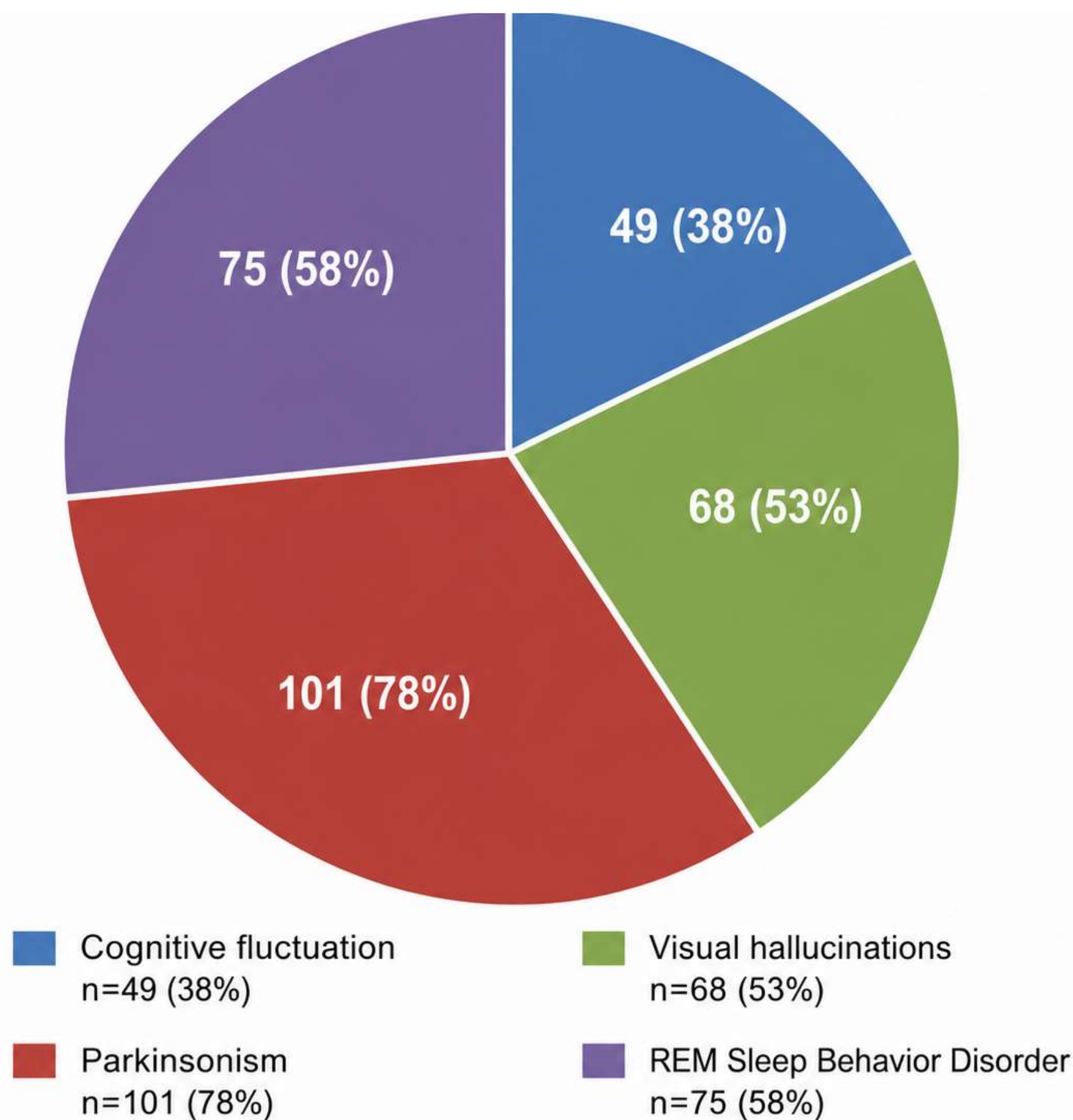
We conducted a cross-sectional observational study in a Neurologic Center in Buenos Aires, Patients diagnosed with LBD or prodromal LBD between 2020 and 2025 were included. All patients fulfilled criteria for probable or possible LBD according to the 2017 LBD Consortium guidelines. Core clinical features—cognitive fluctuations, visual hallucinations, parkinsonism, and rapid eye movement (REM) sleep behavior disorder (RBD)—were systematically assessed. Neurocognitive assessment included standardized measures of global cognition and specific cognitive domains. Dopaminergic imaging was obtained using ⁹⁹Tc-TRODAT-1 SPECT .

We aim to assess the relationship between clinical parkinsonism and DAT-SPECT findings.
We aim to examine diagnostic conversion among abnormal DAT-SPECT patients.

Results

Table 1. General characteristic of LBD/prodromalLBD argentinian cohort.	
Total	n=128
Male	n=87 (68%)
Age at diagnosis	75.8 ± 5.9 (IC 95%: 74,8–76,8; range: 58–90)
Typical amnestic dementia.	n=38 (29%)
Dementia patients	n=92 (71%)
Cognitive prodromal stage	n=36 (28%)
Probable LBD diagnosis	n=108 (84%)
Possible LBD diagnosis	n=20 (15%)

Figure 1. Frequency of core criteria among prodromal and dementia LBD patients. n=128



Key Message

DAT SPECT is most diagnostically useful in suspected LBD patients without parkinsonism or with only one core symptom.

Conclusion

This study characterizes Argentine patients with Lewy body disease according to the 2017 DLB Consortium criteria. DAT-SPECT is particularly useful in patients without parkinsonism or with limited core features, supporting a multimodal diagnostic approach. Given the high rate of suspected Alzheimer’s copathology (38%), systematic assessment of Alzheimer’s biomarkers is important to better define mixed pathologies and improve diagnostic accuracy.

Contact information



- Notes:**
- MIBG Myocardial scintigraphy was not available in our center.
 - Parkinson's disease dementia patients were not included in this study.
 - Plasma biomarkers were recently incorporated into the diagnostic criteria; therefore, data were insufficient at the time of this study.