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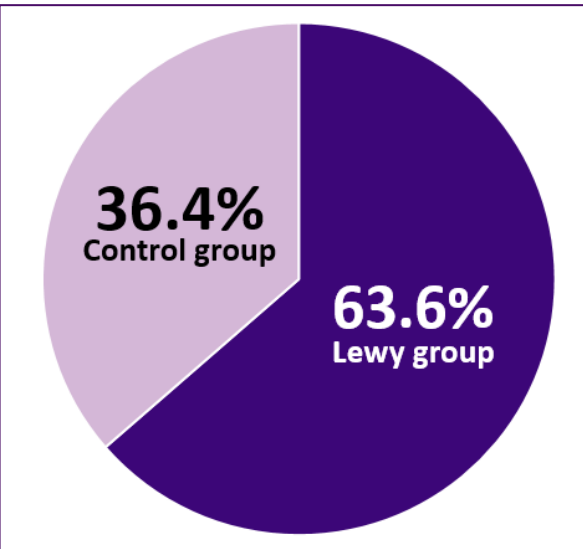
Majority of patients with core symptoms of dementia with Lewy bodies in geriatric settings

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Core symptoms of dementia with Lewy bodies are highly prevalent in geriatric settings, affecting 63.6% of patients and highlighting the need for systematic DLB screening in geriatric care.



Introduction

Dementia with Lewy bodies (DLB) is a major but frequently underdiagnosed neurocognitive disorder. Its diagnosis is based on four core clinical features:^{1,2}

Cognitive fluctuations

Visual hallucinations

Spontaneous parkinsonism

REM sleep behaviour disorder

DLB is strongly associated with geriatric syndromes, including cognitive impairment, falls, urinary disorders, depression, delirium, and polypharmacy.^{3,4,5,6} However, its prevalence in geriatric wards and nursing homes remains poorly documented.⁷

This study aimed to prospectively assess the prevalence of core DLB symptoms in a university geriatric hospital setting.

Methods

PrevaLewy: prospective cross-sectional study conducted at Robertsau Geriatric University Hospital, Strasbourg (CE-2025-66).

Population : N = 165 recruited from :

Nursing home (EHPAD)

Geriatric medicine and rehabilitation (SMR)

Behavioural units (UCC/UHR)

Memory clinic day hospitals

Core DLB symptoms assessed prospectively :

- Parkinsonism (UPDRS-III items),
- Fluctuations (Mayo Clinic scale)
- Hallucinations (PD-associated psychotic symptoms questionnaire)
- RBD questionnaire (adapted from Gjerstad et al. and Postuma et al.)

Methods Comparisons: groups were compared for cognition (MMSE), autonomic/neurosensory symptoms, previous diagnoses, treatments, and available CSF biomarkers, including α -synuclein RT-QulC.

Patients with 0 or 1 core DLB symptom were classified as controls, whereas patients with 2, 3, or 4 core symptoms were classified in the Lewy group.

Results

	Lewy group (N = 105)	Control group (N=60)	Statistic test, P
Age, years	82.9 (8.5)	82.1 (10.0)	U = 2970.500, p = 0.875
Gender, W/M	66/39	36/24	$\chi^2 = 0.132$, p = 0.716
MMSE	18.8 (8.3)	21.8 (6.1)	U = 2890.000, p = 0.047*
Total autonomic and neurosensory disorders (/8) (0/1/2/3/4/5/6/7/8)	4/13/18/28/15/17/6/4/0	13/9/15/11/8/4/0/0	F =20.056, p < 0.001*
Dryness syndrome	55.8% (1 ND)	43.6% (5 ND)	$\chi^2 = 2.120$, p = 0.145
Rhinorrhea	23.1% (1 ND)	18.2% (5 ND)	$\chi^2 = 0.513$, p = 0.474
Constipation	59.6% (1 ND)	42.1% (3 ND)	$\chi^2 = 4.537$, p = 0.033*
Urinary disorders	44.8%	33.9% (4 ND)	$\chi^2 = 1.772$, p = 0.183
Use of protective pads/diapers	68.6%	42.9% (4 ND)	$\chi^2 = 10.032$, p = 0.002*
Olfactory disorders	27.3% (6 ND)	17.9% (4 ND)	$\chi^2 =1.745$, p = 0.187
Taste disorders	21.0% (5 ND)	10.7% (4 ND)	$\chi^2 = 2.657$, p = 0.103
Photophobia	30.1% (2 ND)	12.5% (4 ND)	$\chi^2 = 6.176$, p = 0.013*
Treatment			
Antipsychotic	29.5%	16.6%	$\chi^2 = 3.380$, p = 0.066
Antidepressant	51.4%	36.6%	$\chi^2 = 3.716$, p = 0.156
Benzodiazepine	47.6%	33.3%	$\chi^2 = 3.190$, p = 0.074
Anticholinergic	7.6%	5%	$\chi^2 = 0.575$, p = 0.750
Cholinesterase inhibitor	10.5%	3.3%	$\chi^2 = 2.735$, p = 0.098
Melatonin	41.9%	23.3%	$\chi^2 = 5.777$, p = 0.016*
Dopaminergic	11.4%	3.3%	$\chi^2 = 3.222$, p = 0.073
Antihypertensive	42.8%	56.6% (1 ND)	$\chi^2 = 2.589$, p = 0.108
History of stroke	22.1% (1 ND)	22.0% (1 ND)	$\chi^2 = 0.000$, p = 0.990
Proportion of patients per service Behav/Day Hospital/Med Rehab/Nursing Home	15/24/46/20	2/27/16/15	$\chi^2 = 14.126$, p = 0.003*
Diagnosis of DLB prior the study	29.5%	5%	$\chi^2 = 14.036$, p < 0.001*

Frequency of core DLB symptoms in the Lewy group

Symptom	Patients in Lewy group (%)
Parkinsonism	85.7%
Fluctuations	65.7%
Hallucinations	39.0%
RBD	30.5%

Lewy group prevalence across geriatric settings

Setting	Prevalence (%)
Behavioural units (15/17)	88.2%
SMR (46/62)	74.2%
Nursing home (20/35)	57.1%
Memory clinics (24/51)	47.1%

Characteristics of the Lewy Group and the Control Group

Small biomarker subgroup : α -synuclein RT-QulC supported the clinical classification, with 7/10 positive patients in the Lewy group versus 0/3 in the control group. CSF Alzheimer’s disease biomarkers were frequent in both groups.

Conclusions

This prospective study shows a high prevalence of core DLB symptoms in geriatric settings, with nearly two-thirds of patients classified in the Lewy group. These patients showed a clinically consistent profile, including lower cognition, more autonomic/neurosensory symptoms, and supportive α -synuclein RT-QulC results in a small biomarker subgroup. These findings highlight the need for 1. systematic DLB screening in geriatric patients in order to optimize care and prevent iatrogenic complications by avoiding certain antipsychotics and excessive doses of levodopa; 2. further biomarker-based studies in this population.

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