

Community of practice

for Lewy body dementia

Wednesday 20th March 2024

Community
of practice

for Lewy body dementia

Movement and Motor Symptoms associated with Lewy Body Dementia

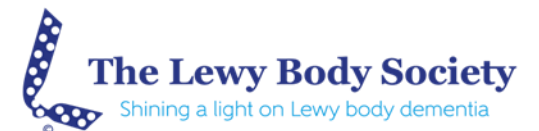
Welcome & housekeeping

**Community
of practice**
for Lewy body dementia

Outline of webinar

1. Welcome to the Community of practice today - Rachael Webb
2. Introduction to Lewy Body Dementia and relevance to movement issues - Allison Bentley
3. Case study
4. Case study Discussion
5. Understanding basal ganglia dysfunction & management of freezing & falls – Fiona Lindop
6. Cognitive strategies – Clare Johnson
7. Questions – Rachael Webb
8. Next steps / feedback questionnaire/plans for next session - Rachael Webb

**Community
of practice**
for Lewy body dementia



Lewy body dementia – background

Parkinson's disease dementia & dementia with Lewy bodies



Cognitive decline and dementia



Fluctuations

minute to minute /
hour by hour variation

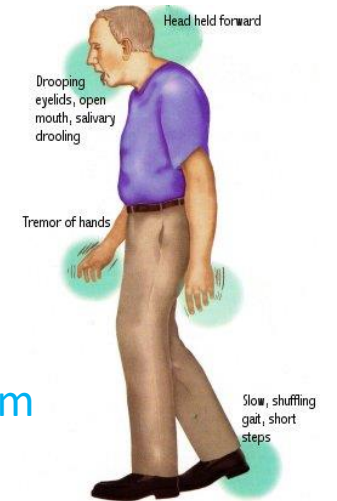
Clinical features



REM Sleep
behaviour
disorder
(RBD)



Parkinsonism



Hallucinations



Lewy body dementia – the ‘one year rule’ ¹

Parkinson’s disease dementia (PDD):

dementia starting 1 year or more **after** well established Parkinson’s disease

Dementia with Lewy bodies (DLB):

dementia that occurs before or at the same time as parkinsonism or within 1 year of onset of motor symptoms

McKeith et al, 2005

**Community
of practice**
for Lewy body dementia



The Lewy Body Society
Shining a light on Lewy body dementia

Features of Lewy body dementia

Features of Lewy body dementia	
Domain	features
Cognitive	Cognitive fluctuations
	Visuospatial and perception
	Verbal and psychomotor initiation
	Visual tracking and attention
Behavioural	Visual hallucinations
	Delusions (eg Capgras or misidentification)
	Depression
	Anxiety
	REM sleep disorder
Movement/Motor	Apathy
	Bradykinesia (slow movement)
	Rigidity -stiffness
	Tremor
	Festinating gait
	Freezing
Autonomic	Postural instability with falls
	Orthostatic hypotension
	Loss of smell
	Constipation
	Urinary incontinence
	Sexual dysfunction
	Sialorrhea

**Community
of practice**
for Lewy body dementia



Adapted from Galvin, 2019 <https://practicalneurology.com/articles/2019-june/lewy-body-dementia-1/pdf>

Differences in motor changes PDD & DLB

Lewy body dementia	
PDD	DLB
Symptoms often begin on only one side of the body	Symptoms may be on both sides of the body.
Rigidity (muscle stiffness)	More rigidity of the torso
Bradykinesia (slow movement)	Bradykinesia
Tremor (typically at rest)	Less tremor, or activating tremor
Postural instability	Earlier balance problems
Initial good response to dopamine replacement therapies such as Levodopa	Less dramatic response to dopamine replacement

Factors affecting mobility

- Motor – slowness and stiffness
- Gait
 - Freezing
 - Shuffling
 - Festinating gait
- Visuospatial ability
- Fluctuations in ability
- Orthostatic hypotension
- Other underlying causes
 - Pain i.e. osteoarthritis
 - Infections
 - Multifactorial falls

Management of LBD

Identify key problems under domain headings such as cognition, gait, balance and movement, hallucinations, fluctuations, behaviour and mood, sleep, and autonomic system dysfunction

Statistical when problems have high priority for treatment

Discuss benefits and risks of treatment

Be aware that symptom response is variable and that benefits in one might be at the cost of worsening of others

Individual treatments may have global benefits e.g. cholinesterase inhibitors

NEUROPSYCHIATRIC

Psychosis

- May respond to **cholinesterase inhibitors** esp. visual hallucinations
- ▲ Be cautious in the use of antipsychotics

Mood

- Use of social interventions may enhance mood
- No evidence for antidepressants in LBD to treat mood therefore use pragmatically and avoid agents with significant anticholinergic side effects

COGNITIVE

Non-pharmacological

- cognitive stimulation, use of memory aids, increased social interaction and stimulation, and exercise

Pharmacological

- **Cholinesterase inhibitors** first line
- **Memantine** second line

SLEEP

Insomnia

- Use advice on sleep hygiene
- Review all medications that could be affecting sleep
- **Melatonin** may help some
- 2-drugs may have a role but use cautiously

REM-sleep behaviour disorder

- Consider **non-pharmacological** as first line and only treat if troublesome
- **Doxepamine** may help although significant side effects
- **Melatonin** may be alternative

Motor related sleep disturbances

- May be improved with long-acting **dopamine replacement therapies**

AUTONOMIC

Orthostatic hypotension

- **non-pharmacological** management e.g. compression stockings, salt intake
- pharmacological e.g. **fludrocortisone**, **midodrine**
- ✗ **Reduce/avoid exacerbating drugs** e.g. antihypertensives

Constipation

- Stool softeners
- mild **laxatives/suppositories**

Urinary dysfunction

- **Non-pharmacological** first line e.g. pads, shaft catheter etc.
- Avoid centrally acting anticholinergics

Sexual dysfunction

- ✗ **Phosphodiesterase 5 inhibitors** may be considered in men with caution

SIALORRHOEA

- ✗ Anticholinergics should not generally be used
- **Botulinum toxin injections** to salivary glands is an effective treatment

PARKINSONIAN

- **Prolapsed pharmacological treatment of parkinsonism in LBD is levodopa monotherapy**
- Use **minimal dose** needed for benefit
- ✗ **Withdraw any anticholinergic drugs, amantadine, selegiline, dopamine agonists and catechol-O-methyltransferase inhibitors** one at a time

Remember that LBD patients may exhibit exaggerated responses to medications

Severe neuroleptic sensitivity can occur in up to 50% of patients therefore use antipsychotics with a high degree of caution

Review the need for common drugs which can affect brain function under other cause and falls

Minimise anticholinergic burden as this may worsen cognition and behaviour, and counteract cholinesterase inhibitors

Symptom summary

LBD Management Toolkit

Reference guidelines

Taylor et al, 2019, Lancet Neurology

Treatment – motor symptoms

Dementia with Lewy bodies

General Principles

Establish the presence of significant motor difficulties which warrant treatment.
Exclude other factors which may be a cause of a worsening of motor function
Parkinsonian symptoms may be less treatment-responsive in DLB than in Parkinson's disease



The preferred pharmacological treatment of parkinsonism in DLB is levodopa monotherapy.
Use the minimal levodopa dose required for benefit
Start low, and increase dose slowly
Monitor closely for side effects

Physiotherapy to improve gait, balance, power and flexibility.
Decrease the risk of falls.

Occupational therapy assessment and home adaptations to reduce impact of motor difficulties and improve functional independence.

Parkinson's disease dementia

General Principles

PDD patients will usually already have been on one or more anti-parkinsonian agents.

Management decisions typically around dose reduction/cessation or optimization.



Adjustments made with close collaboration with original prescriber
Gradual and systematic simplification of the antiparkinsonian drug regimen to balance neuropsychiatric symptoms vs. motor benefits
Withdraw medical in set order, one at a time

Case Study

Husband (74) David – recently diagnosed with Dementia with Lewy bodies

Wife (70) Linda - primary caregiver – low mood as can't get out and socialise so much now

2 adult children – 1 daughter lives nearby –helps with appointments and shopping and sitting when Linda pops out

David

Says his balance is 'off' can't quite explain it, but feels like his feet stick to the ground. Can occasionally struggle to use downstairs toilet. Has had 2 falls, one of which daughter and son-in-law came and helped pick him up.

Linda

Worried about leaving him on his own, constantly monitoring David. Says he seems to get stuck sometimes. Bought him a stick but David is reluctant to use it.

**Community
of practice**
for Lewy body dementia

 **The Lewy Body Society**
Shining a light on Lewy body dementia

Case Study - Reflections

As a professional supporting this family:

- What advice might you offer to the person with dementia?
- What advice might you offer to the family caregiver (s) ?
- What other actions might you take?
- What resources are you aware of that may be helpful ?

Type any comments, own experience, and tips in the Chat box

**Community
of practice**
for Lewy body dementia

Understanding Role of Basal Ganglia

Dysfunction

- Impaired performance of well-learned motor skills and movement sequences
- Difficulty in performing 2 or more well-learned tasks simultaneously
- Difficulty in shifting motor and cognitive sets
- Increased time required for mental processing
- Dysexecutive Function



**Community
of practice**
for Lewy body dementia

Principles of Intervention, Cues & Strategies

- Engage conscious attention
- Train dual tasking where appropriate but avoid where risk is high
- Teach strategies – including cues
 - For motor and cognitive function
 - To manage dual tasking
- Internal Cue less likely to be suitable in LBD
- External cues:
 - Attention
 - Environment
 - Visual Cues
 - Auditory cues
 - Sensory cues
- Strategies – bed/chair
 - Break down into component parts



**Community
of practice**
for Lewy body dementia

Management of Freezing of Gait & Falls



Freezing of Gait

- Assessment – when/why
 - Turning
 - Doorways
 - Gait initiation failure
 - Destination
 - Open runway
- Choice of cue
- Adjustment of environment
- Care-giver advice & support

Falls

- Assessment – when/why
 - 3-step falls predictor (Paul et al 2013)
- Avoidance of dual task
 - Assess with dual task timed up and go
- Would walking aid help/hinder?
- Consider posture
- Exercises –
strength/balance/activity

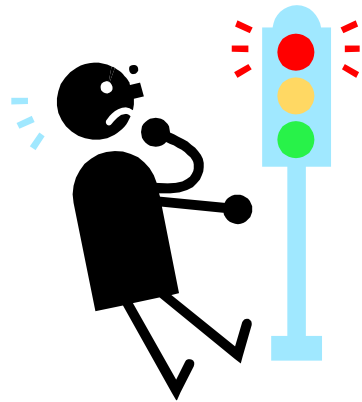


**Community
of practice**
for Lewy body dementia

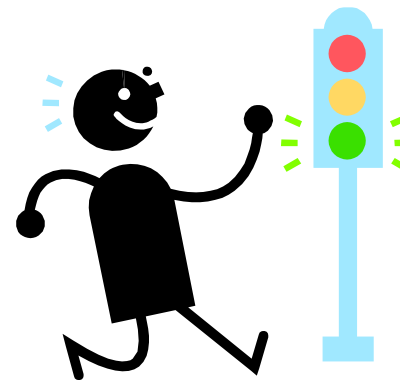


Cognitive Strategies

- Educate carer on cognitive strategies
- Break activities into components.
- Increase attention & concentration.



- STOP
- THINK
- PLAN
- DO



**Community
of practice**
for Lewy body dementia



Video Part 1

**Community
of practice**
for Lewy body dementia



Video Part 2

**Community
of practice**
for Lewy body dementia

Further Treatment Strategies

- Advice on preventing quick progress of decline
- Routine management
- Diet
- Tips for carers
- Memory strategies
- Cognitive Stimulation

**Community
of practice**
for Lewy body dementia

Next steps

- Complete our short survey on how you found the session today
- Meeting 4 later in 2024 – date to be arranged – check the website
- We're working on the resources for the Lewy body website
- Sign up for information about future webinars at lewybody@dementiauk.org

**Community
of practice**
for Lewy body dementia

