FLUCTUATING DISTURBANCES IN MEMORY AND BEHAVIOUR ACROSS ACUTE MEDICAL AND PSYCHIATRIC UNITS: DIAGNOSTIC AND MANAGEMENT CHALLENGES OF A COMPLEX CASE

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Introduction

Neuropsychiatric syndromes in older adults often involve mixed organic and functional aetiologies.

This case illustrates diagnostic and management challenges in prolonged cognitive–behavioural disturbance.

Uncertainty persisted despite extensive assessment and multidisciplinary input.

Case History

72-year-old male with prior MCI and possible emerging LBD.

Recurrent admissions over the past year for fluctuating confusion, managed as delirium on a background of MCI.

Later presented with agitation, fluctuating alertness, auditory/visual hallucinations, and grandiose delusions → admitted under Section 2 MHA.

During admission, showed alternating manic psychosis and euthymia, followed by rapid cognitive decline and remission of psychotic symptoms associated with Parkinsonism, myoclonus, and later hypoactive delirium.

Concurrent multifactorial hyponatraemia (SIADH, CKD III, poorly controlled diabetes) complicated the presentation.

Required a 2-month geriatric admission for urosepsis.

On return, presented with time shifting and coarsening of affect, whilst other symptoms resolved.

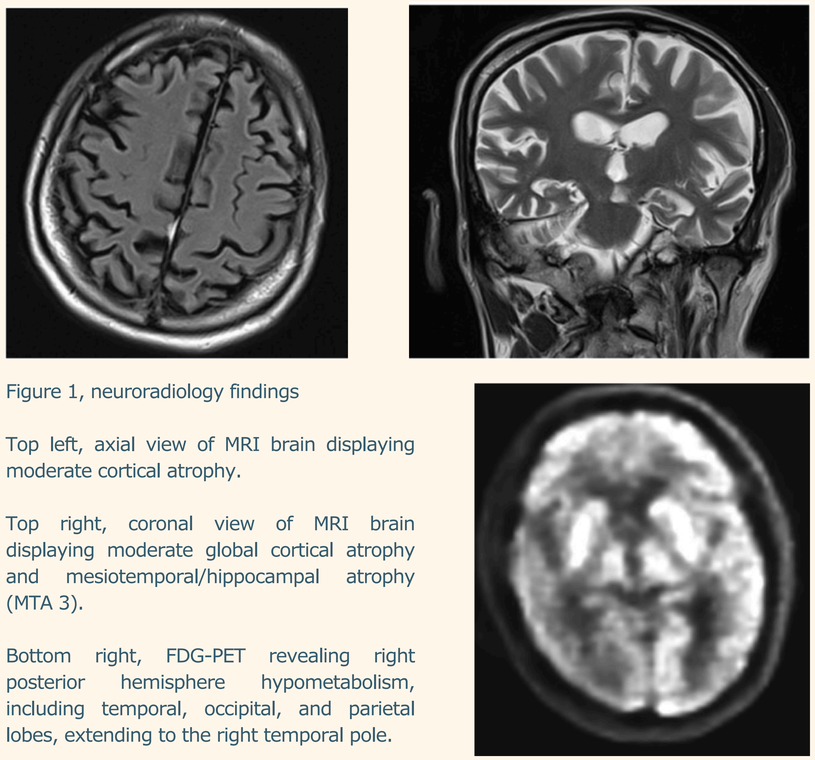

Figure 1, neuroradiology findings

Top left, axial view of MRI brain displaying moderate cortical atrophy.

Top right, coronal view of MRI brain displaying moderate global cortical atrophy and mesiotemporal/hippocampal atrophy (MTA 3).

Bottom right, FDG-PET revealing right posterior hemisphere hypometabolism, including temporal, occipital, and parietal lobes, extending to the right temporal pole.

TIMELINE

AUG 2022
GP referral to memory clinic for confusion

OCT 2022
ACE-III-R of 72/100

FEB 2023
Memory clinic diagnosis of MCI with a possible emerging LBD

JULY 2024
DAT-scan - intact dopaminergic pathways

DEC 2024
Admitted to geriatric medicine for confusion

JAN 2025
Failed discharge, readmitted for ongoing confusion, complex discharge planning

MARCH 2025
Discharged from Geriatrics, who diagnosed dementia and started donepezil

JUNE 2025
Admitted under Section 2 of MHA with florid affective psychosis

JUNE 2025
MRI - ? Alzheimer's pattern

JULY 2025
ACE-III-R of 72/100

AUG 2025
Paraneoplastic/autoimmune encephalitis screen negative

AUG 2025
FDG-PET - suggestive of PCA due to negative DaT-scan

SEP 2025
MRI - no significant progression from prior MRI

SEP 2025
Admitted to COTE for urosepsis, severe hyponatriaemia, hyperglycaemia, hypoactive delirium

NOV 2025
Readmitted to dementia ward. ACE III-R of 35/100

Investigations

Initial ACE-III-R score: 72/100. DaT-scan showed intact dopaminergic pathways, with no radiological evidence of LBD.

On psychiatric admission: MRI revealed moderate cortical and bilateral hippocampal atrophy; repeat ACE-III-R of 72/100, no change since 2022.

Paraneoplastic and autoimmune encephalitis screens were negative.

FDG-PET showed definitive neurodegenerative pathology, with right posterior hemispheric hypometabolism extending to the right temporal pole, not consistent with encephalitis.

Repeat MRI demonstrated no significant atrophic progression.

Most recent ACE-III-R: 35/100.

Management

Donepezil initiated by COTE.

During psychiatric admission, treated with olanzapine, valproate, haloperidol

Psychotic symptoms resolved after discontinuation of donepezil.

Other psychotropics were subsequently stopped as part of SIADH management, falls risk and limited to no efficacy.

Discussion

Clinical picture more consistent with LBD, but negative DAT-scan and inconsistent findings complicated diagnosis.

Literature on DAT-negative LBD is limited, they have a sensitivity of 86%.

With this in mind the FDG-PET suggested PCA, however, visual symptoms were absent; atypical PCA presentations are reported.

FTD with Parkinsonism was considered, as some FTD patients develop Parkinsonism, typically without tremor.

Differential diagnoses remain broad, but our working diagnosis:

'Atypical neurodegenerative dementia not otherwise specified'.

Key Learnings

Cognitive and behavioural fluctuations may overlap diagnostic categories.

Management must prioritise safety, function, and symptom control amidst diagnostic uncertainty.

Dementia is a clinical diagnosis, neuroradiology is helpful but should not be over-relied on.

Maintain vigilance over rarer side effects of donepezil, such as psychosis.

A strong collaboration between psychiatry and medical specialties is essential.

ACE III-R - Addenbrooke's cognitive examination Revised, MCI - mild cognitive impairment, LBD - Lewy body dementia, DaT - dopamine transporter, COTE - care of the elderly, FDG-PET -fludeoxyglucose-18 positron emission tomography, PCA - posterior cortical atrophy, FTD - frontotemporal dementia MTA - medial temporal atrophy score