

Catatonia in Patients with Dementia Admitted to a Geriatric Psychiatry Ward

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ABSTRACT

To determine the frequency and characteristics of catatonia in persons with dementia, all patients admitted to an old age psychiatry ward were screened for catatonia with the Bush-Francis Catatonia Screening Instrument (BFCSI) over a period of 6 months. Thirty-seven patients were admitted, and there were 14 patients with dementia. The rate of catatonia in these patients was 42.8% (6 out of 14). Five out of six of these patients received treatment for catatonia with lorazepam, all achieving complete remission. Catatonia occurred frequently in patients admitted with dementia.

KEYWORDS: Geriatric psychiatry, catatonia, prevalence

INTRODUCTION

Catatonia is a treatable neuropsychiatric disorder characterized by motor, behavioral, and autonomic abnormalities,^[1] which remains underdiagnosed in older adults and those with dementia.^[2,3] In this group, its frequency is unclear, etiology tends to be multifactorial,^[2,3] and there is a greater risk of complications if undiagnosed or untreated.^[2] To ascertain the frequency and clinical characteristics of catatonia in patients with dementia admitted to an acute old age psychiatry ward, we undertook a prospective survey that identified six patients with dementia and catatonia over a 6-month period, using the BFCSI.^[4]

CASE SERIES

We prospectively identified patients with dementia and catatonia admitted to an acute geriatric psychiatry ward over a 6-month period to ascertain the frequency of catatonia, using the BFCSI to aid the clinical assessment.^[4] The survey was approved by our institution. Patients met the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria^[5] for major neurocognitive disorder. Patients in whom two or more catatonic signs were detected were assessed for severity with the Bush-Francis Catatonia Rating Scale (BFCRS).^[4] Catatonia was diagnosed using the DSM-5^[5] and Fink and Taylor criteria.^[6] Data were collected on sociodemographics,

past medical/psychiatric/drug history, clinical findings, treatment, complications/outcome, and investigations. Treatment with lorazepam orally or intramuscularly was initiated in patients who fulfilled diagnostic criteria for catatonia, based on the regime proposed by Rosebush and Mazurek.^[7] Catatonic phenomena were reevaluated regularly using the BFCRS until complete resolution or until day 25. Informed consent for routine clinical treatment was not possible in these patients due to their significant cognitive impairment; treatment was provided within specific English mental health/mental capacity legislation.

Thirty-seven patients were admitted, of which 14 had a diagnosis of dementia. Of these, six patients (2 males/4 females; mean age: 77 years; range: 68–87; Alzheimer-type (4), mixed dementia (1), and vascular dementia (1) [Table 1] presented with two or more signs of catatonia in the BFCSI.^[4] All cases met the DSM-5 and Fink and Taylor diagnostic criteria for catatonia.^[5,6] One patient suffered from comorbid severe depression without psychotic symptoms and another from delirium from a urinary tract infection. Eight patients with

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Table 1: Catatonic sign duration, history, antipsychotic exposure, current diagnoses, and initial behavioral and psychological symptoms in patients with catatonia and dementia

Total days with catatonia	Medical history	Psychiatric history	Antipsychotic exposure at time of diagnosis	Current acute medical diagnosis	Current psychiatric diagnosis	BPSD on admission
>10	Hypertension Hyperlipidemia Carcinoma of the lip	Alzheimer's disease	Risperidone Quetiapine	None	Late-onset Alzheimer's disease	Pacing Physical aggression Reversal of sleep-wake cycle
>10	Hypertension T2DM Hyperlipidemia	Vascular dementia	Quetiapine	None	Vascular dementia	Physical aggression Psychomotor agitation Reduced oral intake
>10	IHD IBS Diverticulitis Hypothyroidism Pulmonary fibrosis	Depression Health anxiety Dementia	None	None	Late-onset Alzheimer's disease Recurrent depressive disorder, current episode severe without psychotic symptoms	Apathy Psychomotor retardation
>10	Hyperlipidemia Atrial fibrillation Diverticulitis Repeated urinary tract infections	Depression Alcohol misuse Alzheimer's disease	Aripiprazole Olanzapine	Urinary tract infection	Young-onset Alzheimer's disease Delirium superimposed on dementia	Psychomotor agitation Physical aggression Pacing Loud vocalizations Resistive to personal care Poor oral intake
<10	Hyperlipidemia	Young-onset Alzheimer's dementia	None	None	Young-onset Alzheimer's disease	Psychomotor agitation Physical aggression Screaming Climbing on furniture/fence
<10	Hypertension T2DM IHD Osteomyelitis of jaw Pacemaker	Mixed dementia	Risperidone	None	Mixed dementia	Psychomotor agitation Physical aggression Climbing on furniture/fence

BPSD: Behavioral and psychological symptoms in dementia, T2DM: Type 2 diabetes mellitus, IHD: Ischemic heart disease, IBS: Irritable bowel syndrome

dementia did not have catatonia (5 female/3 male; mean age 77.4 years; range: 65–90). The rate of catatonia in patients with dementia was 42.8%. They presented with four to eight catatonic signs (mean 5.7). The mean total severity score on the BFCRS was 16.3 (range: 9–27). Half of the patients presented with the retarded-stuporous variety of catatonia. All six patients underwent a brain computed tomography scan which demonstrated cortical atrophy. One case presented with a left-sided lacunar infarct in the internal capsule and a larger left parieto-occipital lesion plus more diffuse subcortical ischemia. The only relevant biochemical parameter found was a raised creatine kinase of 1083 IU/L (25–200) in one patient, attributed to the effects of catatonia and its duration (other cardiac enzymes and

electrocardiogram were normal). Its values rapidly normalized with treatment for catatonia. Four patients were on antipsychotic drugs at the time of admission. Dosages of antipsychotics were modest, and they were all discontinued immediately on admission. The severity of dementia was moderate to severe in four and moderate in two patients. Two patients scored 53/100 and 54/100 in the Addenbrooke's Cognitive Examination-III.^[8] The rest were too impaired to be tested.

Five patients received treatment with lorazepam. Four patients received regular and then reducing doses of oral lorazepam (dosages up to 2 mg/day), and one patient received first oral lorazepam and later oral clonazepam (0.75–2.25 mg/day) due to additional

challenging behavior not fully responsive to lorazepam and then in reducing doses. One patient was treated with sodium valproate (400 mg bd orally) due to mild and nondistressing catatonic symptoms, high risk of falls, and other challenging behaviors. None of the patients treated with lorazepam presented with any adverse events.

Five patients treated with lorazepam achieved a complete remission from catatonia within 3–22 days. The patient treated with sodium valproate achieved a partial remission. Nursing and other interventions to ensure good hydration, food intake, and mobilization were also implemented.

No complications arising from catatonia were observed except in one case as explained.

In addition to treatment for catatonia, patients received treatment for dementia and associated challenging behaviors with the following drugs, alone or in combination: donepezil, sodium valproate, citalopram, mirtazapine, memantine, and trazodone. All patients were on medications for physical health problems, ranging from antihypertensives, aspirin, and statins to oral antidiabetics, iron, and proton-pump inhibitors.

All patients were eventually discharged to community settings. There was no recurrence of catatonia in any of them.

DISCUSSION

Catatonia occurred in 42.8% of patients with dementia admitted to an acute geriatric psychiatry ward over 6 months. The systematic use of the BFCSI could explain this high frequency of catatonia. Etiology appeared to be multifactorial, including structural brain disease (degenerative and vascular) due to dementia, and subsequent accrual of cognitive impairment; the presence of one or more chronic vascular risk factors; the occurrence of delirium secondary to a urine infection and a depressive episode; and exposure to antipsychotic drugs before admission in four out of six patients. There were no major complications in any patient, and it is possible that the early diagnosis of catatonia could have

contributed to this. All patients who received standard treatment for catatonia with lorazepam achieved remission, and there were no recurrences.

The descriptive clinical design, the small number of cases, and the short duration of follow-up are the limitations of this survey, and its prospective design and use of a standardized catatonia scale are their relative strengths.

The early detection and treatment of catatonia in dementia can lead to significant symptomatic improvement, and this may help prevent potentially serious complications.^[2,3] Clinicians should be aware of catatonia as a diagnostic possibility in this patient group and look for it proactively.

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Conflicts of interest

There are no conflicts of interest.

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