

Case Diagnosis

A 66-year-old woman was admitted to an inpatient rehabilitation facility with a diagnosis of stroke. The patient eventually developed symptoms consistent with catatonia leading to marked functional decline

Case Description

A 66-year-old woman who presented to the acute hospital with dysarthria and right hemiparesis was found to have an acute left lacunar stroke involving the posterior frontal corona radiata. During her inpatient rehabilitation stay, she developed worsening right hemiparesis, dysarthria, verbal output, response to external stimuli, and overall participation in therapy. Workup including CT of the head, MRI of the brain, EEG, medication evaluation, and metabolic panel were unremarkable. After a trial of lorazepam showed some initial improvement, a catatonic etiology seemed consistent. Patient was then trialed on amantadine which produced considerable functional improvement, supporting the diagnosis of catatonia.

References:

1. Bhati MT, et al. Clinical manifestations, diagnosis, and empirical treatments for catatonia. *Psychiatry (Edgmont)*. 2007;4(3):46-52.
2. Peralta V, et al. Motor features in psychotic disorders. II. Development of diagnostic criteria for catatonia. *Schizophr Res*. 2001;47:117-126
3. Rasmussen SL, et al. Catatonia: our current understanding of its diagnosis, treatment and pathophysiology. *World J Psychiatry*. 2016;6(4):391-398.
4. Ungvari GS, et al. Benzodiazepines in the treatment of catatonic syndrome. *Acta Psychiatrica Scand*. 1994;89:285-288.

Diagnosis	Features Similar to Catatonia	Distinguishing Features
Non-catatonic stupor	Immobility, unresponsiveness, mutism, altered mental status	Clear precipitating cause (e.g., head trauma, anoxia, drug intoxication)
Encephalopathy	Acute onset, bizarre behavior, altered mental status	Typically occurs in the context of medical illness, reversible with treatment of underlying medical condition
Stroke	Acute onset, may present with immobility, mutism, and/or altered mental status	History of cerebrovascular disease, focal neurological signs, CT/MRI findings
Stiff-Person syndrome	Immobility, posturing	Stiffness and spasms precipitated by surprise
Parkinson's disease	Immobility, altered mental status, comorbid affective disorder	Symptoms improved with dopamine agonists and anticholinergics, cogwheel rigidity
Locked-in syndrome	Immobility, mutism	Complete paralysis with preserved vertical eye movements and blinking, associated with lesions in pons and cerebral peduncles
Malignant hyperthermia	Immobility, mutism, altered mental status, autonomic nervous system instability	Hyperthermia secondary to inhalation anesthetics, autosomal dominant, diagnosed with muscle biopsy
Status epilepticus	Immobility, mutism, altered mental status, bizarre behavior	Epileptiform activity in EEG
Autistic disorder	Mutism, immobility, echo-like behavior	Chronic with onset in childhood
Severe obsessive-compulsive	Repetitive echo-like behavior, comorbid affective disorder	Anxiety, awareness of compulsive behavior

Table 1: Clinical conditions that can mimic catatonia.¹

Discussion

After a medication trial, improvements included the initiation of tasks, participation in therapies, verbal understanding, and level of assistance for daily activities. Following a stroke, a catatonic presentation has been reported to occur, although relatively uncommon. The typical symptoms of catatonia include mutism, stupor, catalepsy, unresponsiveness to external stimuli, posturing, agitation, stereotypy, echolalia, and echopraxia.² The pathophysiology of catatonia is not well understood. There is some relation to cerebral structures, and studies along with functional imaging have shown correlation between hypoperfusion in the basal ganglia, frontal, temporal and parietal lobes with catatonic syndrome.³ Diagnosis and treatment initially include a lorazepam challenge looking for rapid improvement. Other first line medications include zolpidem and amantadine.^{3,4}

Conclusion

This report highlights a case of catatonia in the stroke rehabilitation setting. Initially thought to be a new stroke, functional improvement was noted after trialing medications used for catatonia. Psychiatrists should be cognizant of catatonia as a possible sequela of a stroke and be aware of overlapping similarities in presentation to aid in a patient's neurological, emotional and functional recovery.