



PALLIATIVE CARE CASE OF THE MONTH

“A Patient Behaving Very Strangely”

by

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Case: A 65 year-old teacher was admitted to UPMC with abnormal behavior. He was living in another city when he was diagnosed with metastatic gastric adenocarcinoma in June 2017. In July, his family noted abnormal behavior such as saying things that did not make sense, repeating himself, picking up the phone but not making phone calls. He appeared anxious and would frequently say he had something to tell people, but would then say nothing. He was seen putting shaving cream on his face and then not shaving and refusing to leave his apartment. In September, an examining physician reported him “squirming in his chair, making very long eye contact, reaching with his hands to my arm and legs, continuously moving.”

Discussion: Catatonia is a condition characterized by reflexive, non-volitional alterations in behavior, motor activity and speech. It fluctuates over time, and may range from marked hypo-activity (immobility, stupor, mutism) to non-directed hyperactivity (repetitive, purposeless movement and speech).¹ The biological basis of catatonia is not fully understood, but is thought related to dopamine and GABA hypo-activity and glutamate hyperactivity. While perceived as rare, catatonia was diagnosed in 8.9% of 112 consecutive patients >65 y.o. referred to the psychiatry service in a general medicine hospital.²

Catatonia is commonly associated with pre-existing psychiatric disorders such as bipolar disorder, depression, and schizophrenia. However, it can be seen in patients without mental illness, and any medical condition that causes delirium may cause catatonia. It is associated with various neurological conditions, including epilepsy, brain injury, stroke, and Creutzfeldt-Jakob disease. Medications such as neuroleptics and withdrawal of benzodiazepines can induce catatonia. It may be associated with a paraneoplastic encephalitis, which, given the patient’s cancer, was felt to be the cause in this case. The best-documented cases are anti-NMDA receptor encephalitis related to ovarian teratoma, though there are case reports of catatonia associated with teratoma of the mediastinum, small-cell lung cancer (SCLC), Hodgkin’s lymphoma, neuroblastoma, breast cancer, and germ-cell tumor of the testes.³

Catatonia is defined by three or more of the following signs, clustered into four domains.⁴ Individuals with catatonia may experience any combination of these features, typically with daily fluctuations in severity and presentation, and often with paroxysmal increases.

Decreased Activity

- Mutism: Decreased speech production or volume (not necessarily fully mute)
- Stupor: Minimal responsiveness, staring gaze
- Immobility: Marked slowing of movement, muscles and posture often appear rigid

Unusual Positioning

- Posturing: Spontaneous positioning against gravity
- Catalepsy: Maintenance of an abnormal position with passive repositioning
- Waxy Flexibility: Slight but even resistance to positioning by examiner

Abnormal Behaviors

- Mannerism: Unusual behaviors as part of a purposeful action (e.g. ambulating on one foot)
- Stereotypy: Repetitive, frequent, non-goal directed movements
- Grimacing: Exaggerated facial expressions

Paroxysmal Hyperactivity

- Excitement: Purposeless agitation
- Echolalia: Mimicking of examiner’s speech
- Echopraxia: Mimicking of examiner’s movements

Distinguishing catatonia from delirium can be challenging, particularly because up to 1/3 of patients with delirium have features of catatonia.⁵ The determination is important as treatment with lorazepam often improves catatonia, while dopamine-blockers that are commonly used in delirium worsen the condition and can lead to life-threatening malignant catatonia. Features favoring catatonia include: posturing, increased motor tone, mutism, repetitious and mimicking speech, and repetitive movements. Features favoring delirium include disorientation, inability to attend, disorganized thinking, hallucinations, impaired short-term memory, altered sleep-wake cycle without the motoric features that are commonly seen in catatonia.

Malignant catatonia reflects a progression of the syndrome to a life-threatening state. Symptoms include rigidity, posturing, confusion, fever, autonomic instability, with tachycardia, labile blood pressure, tachypnea and diaphoresis. Neuroleptic malignant syndrome is considered to be a highly malignant catatonia, caused by exposure to dopamine antagonist agents. Rapid diagnosis and treatment with benzodiazepines and/or electroconvulsive therapy are essential to prevent death.

Treatment: When in doubt, clinicians should consult neurology or psychiatry to discern catatonia from other medical or psychiatric imitators. As with delirium, evaluate for precipitating medical conditions and discontinue neuroleptics and other dopamine blocking medications.^{1&3}

Benzodiazepines are the first line of treatment. Lorazepam 1-2 mg IV can lead to rapid, albeit transient, improvement. If successful, repeated doses are often needed and a standing order of lorazepam 1-2 mg IV q 6-8 hour should be considered. Doses of 16-20 mg per day may be needed. Only 50-70% of patients with non-malignant catatonia respond to lorazepam.

Personal details in the case published have been altered to protect patient privacy.

For palliative care consultations please contact the Supportive and Palliative Care programs at PUH/MUH, 647-7243, pager # 8511, Shadyside, 647-7243, pager # 8513, Perioperative/Trauma Pain, 647-7243, pager # 7246, UPCI Cancer Pain Service, pager 644 -1724, Interventional Pain 784-4000, Magee Women’s Hospital, pager 412-647-7243 pager # 8510, VA Palliative Care Program, 688-6178, pager # 296. Hillman Outpatient: 412-692-4724. For ethics consultations at UPMC Presbyterian-Montefiore and Children’s pager 958-3844.

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(Treatment Continued)

Non-responders should be treated with electroconvulsive therapy, which results in improvement in 85-90% of cases. In resistant cases, there are case reports of response to memantine.⁷

Malignant catatonia requires treatment in an ICU. Lorazepam is still first line treatment, but the response rate is only 40% and ECT is often required. In one series, 11/13 patients survived with ECT, while only 1/5 survived without ECT. Dopaminergic medications such as amantadine and bromocriptine may also be helpful.

Case Outcome:

He was admitted to a hospital and diagnosed with catatonia. He did not improve with a trial of lorazepam, but did respond to treatment with ECT. When symptoms recurred a few days later, he was started on memantine, and, per family, this resulted in marked improvement. He was discharged on lorazepam and memantine. However, his symptoms reoccurred two months later and he was readmitted to UPMC. An extensive work up revealed no other causes for his catatonia and he improved on lorazepam and memantine and was scheduled for follow-up with medical oncology.

References:

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