



## PALLIATIVE CARE CASE OF THE MONTH

### “Catatonia or Terminal Delirium?”

by

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**Case:** Ms. X is a 65-year-old woman with a severe cryptogenic CVA three years prior who presented for admission for altered mentation and decreased oral intake. She lives at home under her husband’s devoted care. Before the admission, she was bedbound and mostly non-verbal, though at times she would respond with yes/no answers. Her husband shares that he cherishes the moments when she enjoys chocolate pudding or smiles when she sees flowers. Sometimes she would laugh alongside a comedy show’s ‘live audience.’ Over the week before hospitalization, he saw her withdraw she stopped accepting food, ceased nodding or shaking her head, and seemed locked inside herself.

At the hospital, she is encephalopathic and mute. The initial workup reveals COVID-19 infection, as well as a large fecal impaction. The primary team requested a palliative care consult to discuss code status and the role of artificial nutrition. In conversation, her husband expressed a wish to pursue “everything” that might restore her to the prior baseline at which she could recognize him, enjoy pudding, and laugh together—yet he also wished she avoid undue suffering. He agreed to a time-limited nasogastric feeding tube trial and a do not resuscitate order, recognizing that CPR was unlikely to return her to former functioning.

Bedside examination revealed an awake but nonverbal patient fixating with markedly reduced blink rate and no blink-to-threat. When asked to protrude her tongue, she complied but retained unchewed food. Her right arm, once only mildly paretic, now resisted passive movement so that any attempt to bend it met equal and opposite tone. Noting these psychomotor signs, the palliative team suspected catatonia and suggested a psychiatry consultation. A lorazepam challenge was completed, as well as a series of Bush-Francis Catatonia Rating Scale (BFCRS) assessments, which was ultimately positive for catatonia.<sup>1,2</sup>

**Background:** Catatonia is a neuropsychiatric syndrome characterized by motor and behavioral disturbances—ranging from mutism, posturing, and rigidity to echophenomena and autonomic instability—that can arise not only in primary psychiatric illnesses but also secondary to medical, especially neurological, conditions.<sup>3–11</sup> Although often pictured as the classic stuporous presentation seen in schizophrenia, catatonia is increasingly recognized among medically ill patients; ICU prevalence rates reach up to 23%.<sup>12–14</sup> In seriously ill individuals, catatonia may mimic end-stage decline or, conversely, represent a treatable condition, underscoring the need for palliative care clinicians to recognize it promptly.<sup>3,15,16</sup>

### **Etiology:**

Catatonia, like delirium, is a secondary syndrome. Among seriously ill patients, seizures, autoimmune encephalitis, strokes, metabolic derangements, and drug exposures account for over half of cases.<sup>17</sup> Neurobiologically, catatonia may reflect dopamine depletion, GABAergic hypoactivity, and glutamatergic hyperactivity in basal ganglia circuits, compounded by neuroinflammation and blood–brain barrier dysfunction. One severe, life-threatening subtype of catatonia is malignant catatonia, characterized by classic features such as stupor, rigidity, and mutism, along with fever and marked autonomic instability. This autonomic dysregulation suggests underlying orbitofrontal–hypothalamic dysfunction.<sup>7,18–20</sup>

### Evaluation & Management

#### 1. Screening & Diagnosis

- o Maintain vigilance for catatonia in delirious, psychiatric and medically ill patients, especially those with new or rapidly worsening ‘dementia’ and psychomotor features<sup>15,16,21–26</sup>
- o Use the BFCRS to screen ( $\geq 2$  items,  $\geq 2$  points) and rate symptom severity.<sup>1,2</sup>
- o Perform an “Ativan challenge” (2 mg IV lorazepam); a  $\geq 50\%$  BFCRS reduction confirms catatonia (this typically requires a psychiatric consultation)<sup>1,2</sup>
- o The University of Rochester has useful resources for clinicians looking to improve their administration of the BFCRS, including instructional videos.<sup>1,27</sup>

#### 2. First-Line Treatment

- o Lorazepam 1–4 mg/day (up to 16–24 mg/day) in divided doses; assess response within hours; continue for days to weeks before taper.<sup>6,28,29</sup>
- o Evaluate and treat underlying causes

#### 3. Second-Line Options

- o If partial response or side-effects limit benzodiazepines: add NMDA antagonists (amantadine, memantine).<sup>6,28,29</sup>
- o If no response and catatonia persists: consider ECT—ideally within five days for malignant cases, possibly daily until improvement.<sup>6,15,28–31</sup>

#### 4. Supportive Care

- o Monitor for delirium overlap; balance sedation overlap against symptom relief
- o Address complications of immobility (thromboembolism, pressure injuries)
- o Coordinate interdisciplinary care with psychiatry, neurology, and primary team

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## Special Considerations for Palliative Care Providers

### 1. Quality of Life

Catatonia, a serious illness in its own right, robs patients and families of connection and dignity. Catatonic patients in qualitative studies describe experiencing overwhelming ‘fear.’ Treating catatonia can restore communication and improve quality of life.<sup>32-34</sup>

### 2. Delirium Overlap

Catatonia and delirium frequently co-occur. A  $\geq 50\%$  drop in BFCRS score after 2 mg IV lorazepam (“Ativan challenge”) reliably distinguishes catatonia and supports treatment with benzodiazepines—despite the need to balance sedation risks.<sup>23,25,30</sup>

### 3. Benzodiazepines in Older Adults

Geriatric patients face higher catatonia risk and greater sensitivity to sedatives. Lower dose lorazepam (1–2 mg/day) typically alleviates symptoms with fewer side effects.<sup>30</sup> When benzodiazepines prove inadequate or poorly tolerated, NMDA antagonists (amantadine, memantine) offer a second line option.<sup>6,28,29,35</sup>

### 4. Role of ECT

ECT can be lifesaving in refractory or malignant catatonia, rapidly reversing symptoms and clarifying underlying diagnoses (effectively distinguishing catatonia and “pseudodelirium” from end-stage dementia)—even in seriously ill patients—but access is often hindered by comorbidities, prognosis concerns, and consent limitations.<sup>6,15,28,29,31,36</sup>

### 5. Prognostication

Left untreated, catatonia—especially the malignant subtype—carries high morbidity and mortality.<sup>13,15,23</sup> Early benzodiazepine responders improve within hours to days, though relapses occur, while prompt ECT (ideally within five days) greatly boosts survival.<sup>15,23,25,30,31</sup> In palliative care, distinguishing treatable catatonia from irreversible decline prevents misguided end of life decisions, while also enabling teams to accurately gauge the prognosis of any coexisting, non-reversible conditions.<sup>15</sup>

Like delirium, catatonia can signal the presence or progression of irreversible underlying or comorbid disease—such as cancer or stroke—yet the catatonia itself often remains treatable. Even when the underlying illness cannot be reversed, easing catatonic symptoms can restore patient agency, improve comfort, and facilitate meaningful interactions at the end of life.<sup>15</sup>

### 6. Avoiding Harmful Agents

Antipsychotics worsen catatonia by blocking dopamine and should be avoided. Instead, prioritize lorazepam or NMDA antagonists to relieve distressing psychomotor symptoms.<sup>3</sup>

### 7. Distinguishing from Terminal Delirium

Although catatonia and terminal delirium may overlap in dying patients, it’s essential to exclude reversible catatonia before attributing altered mentation to delirium alone in this setting. Neuromuscular findings on the BFCRS—rigidity, gegenhalten, waxy flexibility, and other motor signs—strongly suggest catatonia and support a benzodiazepine trial while advising against dopamine-blocking agents.<sup>3,15,16</sup>

### Case Conclusion:

Over the ensuing days, the palliative care, neurology, and psychiatry teams worked closely with Ms. X and her husband. Following the positive lorazepam challenge, Ms. X became noticeably more at ease, less rigid, and once even said ‘yes’ when asked by her husband if she loved him. When an unexpected IV-lorazepam shortage forced a brief hold, her mental status and motor symptoms sharply worsened—only to improve again once a liquid formulation was reinstated, confirming the reversibility of her catatonic symptoms. Despite the observed improvements, she never fully regained her pre-illness baseline. ECT was considered but ultimately deemed too high risk given her extensive cerebrovascular history, and an exhaustive evaluation did not discover any further reversible causes (including repeat neuroimaging and EEG). Upon revisiting goals of care, Ms. X’s husband shared that a future life without small joys—chocolate pudding, recognizing familiar faces—wouldn’t meet her standards for quality. We transitioned to comfort-only care: removing the nasogastric tube in favor of gentle “comfort feeds,” continuing liquid lorazepam for symptom relief, avoiding antipsychotics, and arranging discharge to home hospice.

### Summary:

Catatonia often goes unrecognized in seriously ill patients but can often be reversed—and even when it cannot, identifying it is crucial for preserving quality of life. In our patient, who had chronic neurologic injury with sudden worsening of movement and behavior, a bedside BFCRS assessment and positive lorazepam challenge revealed superimposed catatonia. Carefully dosed benzodiazepines improved ability to engage, eased her distress, honored her husband’s wish to treat any reversible causes, and even allowed her to affirm her love for him in her final days.

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