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# The Shocking Time It Takes to Initiate ECT: A Clinically and Legally Complicated Case of Catatonia

**To the Editor:** Malignant catatonia is a life-threatening form of catatonia characterized by hyperthermia and autonomic dysfunction along with the motor and behavioral symptoms associated with catatonia. Neuroleptic malignant syndrome (NMS) is considered by some to be an iatrogenic form of malignant catatonia occurring secondary to neuroleptic use.<sup>1</sup> NMS occurs in 0.02% to 3% of patients treated with neuroleptics and is typically a self-limited condition, resolving within 7–14 days of stopping the offending drug.<sup>2</sup> However, the course of NMS can be more protracted. Supportive care, benzodiazepines, dantrolene, and dopamine agonists are typically the first-line agents, but when these agents fail, electroconvulsive therapy (ECT) is indicated.<sup>3</sup>

**Case report.** We report the case of a man in his mid-30s with a history of bipolar disorder who had become increasingly manic after outpatient medication changes. He was admitted to a psychiatric hospital where he was given multiple doses of lithium, ziprasidone, lurasidone, chlorpromazine, and haloperidol. He became increasingly agitated, confused, and combative and had stopped eating and drinking. He was febrile and had autonomic dysregulation. The patient was admitted to an outside medical hospital, where his creatine kinase was noted to be mildly elevated at 1,544 U/L (range, 50–200 U/L), and he continued to receive lithium and ziprasidone, despite a diagnosis of NMS (ICD-10 G21.0). He was ultimately admitted to our facility for escalation of care for continued altered mental status and unstable vital signs.

A computed tomography scan of his head showed no pathology, and results from a 24-hour electroencephalogram and autoimmune workup (anti-GAD Ab [anti-glutamic acid decarboxylase antibodies], anti-NMDA receptor Ab [anti-N-methyl-D-aspartate receptor antibodies], and Mayo paraneoplastic panel) were all negative. The patient displayed prominent catatonic symptoms, with an initial Bush-Francis Catatonia Rating Scale<sup>4</sup> score of 21. Antipsychotics were discontinued, and treatment with amantadine and lorazepam was started. He remained catatonic despite treatment with up to 24 mg of lorazepam per day. During his catatonic state, he developed 3 aspiration pneumonias, urinary retention, and deep vein thrombosis (DVT). Emergency ECT was recommended given the risks of his persistent catatonic state and limited response to treatment with benzodiazepines. Since the patient could not consent himself due to his catatonic state, treatment with ECT was delayed because his next-of-kin had to obtain emergency guardianship and a court order for ECT. It took a lengthy 21 days after ECT was recommended on an emergent basis for hearings to take place and consent to be granted by the court. The patient received 6 bilateral ECT treatments, after which his catatonic symptoms resolved. He was discharged to inpatient physical therapy in stable condition 3 months after his initial presentation.

Malignant catatonia and NMS are life-threatening conditions that require urgent treatment. Catatonic patients are at risk

of numerous complications including pneumonia, decubitus ulcers, malnutrition, dehydration, DVT, pulmonary embolism, urinary retention, and debility.<sup>2</sup> When catatonia persists despite pharmacologic interventions, prompt treatment with ECT is necessary to improve overall prognosis and may be life-saving. Delays in providing ECT are associated with decreased response and increased mortality.<sup>5</sup> Despite emergent need for ECT, laws regarding consent for ECT hinder access to urgent treatment. Per Michigan law,<sup>6</sup> if a recipient cannot consent to ECT, a guardian needs to be appointed, and once the guardian provides consent, 2 psychiatrists need to document their concurrence with the need for ECT, after which a probate court upon petition and a hearing can consent to ECT administration. Similar statutes exist in numerous states.<sup>7,8</sup> Given the urgency of ECT in certain cases, advocacy to state legislatures is encouraged in order to provide timely and optimal care. We believe this patient would have had fewer complications and a shorter course of illness if ECT had been started earlier. Faster access to ECT could have a beneficial and direct impact on patient outcome and cost of care.

## REFERENCES

1. Fink M. Neuroleptic malignant syndrome and catatonia: one entity or two? *Biol Psychiatry*. 1996;39(1):1–4.
2. Strawn JR, Keck PE Jr, Caroff SN. Neuroleptic malignant syndrome. *Am J Psychiatry*. 2007;164(6):870–876.
3. Bush G, Fink M, Petrides G, et al. Catatonia. II. Treatment with lorazepam and electroconvulsive therapy. *Acta Psychiatr Scand*. 1996;93(2):137–143.
4. Bush G, Fink M, Petrides G, et al. Catatonia. I. Rating scale and standardized examination. *Acta Psychiatr Scand*. 1996;93(2):129–136.
5. van Waarde JA, Tuerlings JH, Verwey B, et al. Electroconvulsive therapy for catatonia: treatment characteristics and outcomes in 27 patients. *J ECT*. 2010;26(4):248–252.
6. Michigan Mental Health Code. Section 330.1717. Electroconvulsive therapy or other procedure; consent. JUSTIA US Law website: <https://law.justia.com/codes/michigan/2010/chapter-330/act-258-of-1974/258-1974-7/section-330-1717/>.
7. Harris V. Electroconvulsive therapy: administrative codes, legislation, and professional recommendations. *J Am Acad Psychiatry Law*. 2006;34(3):406–411.
8. Livingston R, Wu C, Mu K, et al. Regulation of electroconvulsive therapy: a systematic review of US state laws. *J ECT*. 2018;34(1):60–68.

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