

## **Malignant Catatonia Mimicking Serotonin Syndrome: Two Cases Treated Successfully with Electroconvulsive Therapy**

Laura Ortiz, Louise Kao, Laura Tormoehlen, Dan Rusyniak  
*Indiana University School of Medicine, Indianapolis, IN, USA*

**Background:** Serotonin Syndrome (SS) and Malignant Catatonia (MC) have overlapping symptoms and are challenging to differentiate.

**Hypothesis:** Considering the diagnosis of MC in patients failing typical therapy for SS can lead to different treatment strategies.

**Methods:** A two patient chart review.

**Results:** Case 1: A 46 year old male presented to the Emergency Department (ED) from a psychiatric facility. He was confused, tremulous, with clonus and rigidity in all extremities. His medications included lithium, escitalopram, trazodone and paliperidone without recent changes. Initial vitals were unremarkable except temperature 99.5°F. He was treated for suspected SS with lorazepam and cyproheptadine 8mg q6hours. On hospital day (HD) #3 he developed fever (Tmax 101.8), tachycardia, delirium, and required intubation. Fever, rigidity, and tachycardia persisted. On HD#10 the diagnosis of MC was entertained. Electroconvulsive therapy (ECT) started on HD#10 and his mental status and rigidity improved. He received 10 ECT treatments and scheduled lorazepam and was discharged on HD#30 at his baseline neurological state.

Case 2: A 24 year old male presented to the ED from jail with headache and fevers. His home medications included quetiapine, citalopram and clonazepam, without recent changes. His initial vital signs were temperature 100.5°F, heart rate 118, blood pressure 160/90, and respiratory rate 24. On exam, he had rigidity and clonus in all extremities. Over 12 hours, he became increasingly febrile (Tmax 107°F), tachycardic and delirious requiring intubation. He was treated for SS with lorazepam and cyproheptadine 12 mg then 2mg q2h. He remained febrile and rigid despite escalating sedation with lorazepam, propofol, and pentobarbital. On HD#14 the diagnosis of MC was entertained and ECT was started with clinical improvement. He received 5 ECT treatments and was extubated on HD#20. He was discharged on HD # 38 at his baseline neurological state.

**Discussion:** MC shares significant symptom overlap with SS including altered mental status, rigidity, and autonomic dysfunction. However treatment strategies differ between these entities.

**Conclusion:** We present two cases of SS mimicking MC, which were successfully treated with ECT. MC should be considered in the differential diagnosis with SS, as appropriate treatment can lead to successful recovery.

