Managing Manic Delirium in Bipolar Disorder With Features of Mania, Catatonia, and Neuroleptic Malignant Syndrome

To the Editor: Bipolar disorder is a chronic illness characterized by episodes of mania and depression with or without psychotic features. Incidence is estimated at 2.6% in the general population, and mean age at onset is 18 years.[1] Episodes can be precipitated by physiologic or psychological burden. Severe mood episodes and their treatment can result in significant morbidity including manic delirium, catatonia, and neuroleptic malignant syndrome (NMS). We present the case of a patient who exhibited this continuum of symptomatology.

Case report. Ms A, a 66-year-old black woman with a history of bipolar I disorder, presented to her psychiatrist with decreased need for sleep, urinary urgency, and visual hallucinations. She was hyper verbal after many years of stability. A urine sample was positive for a urinary tract infection, thus a culture was not ordered. Ciprofloxacin 500 mg twice/day was initiated and continued for 7 days. Olanzapine was titrated to 20 mg/day from 10 mg/day, and her family was advised to monitor for worsening of symptoms. A few days later, Ms A exhibited confusion, evidenced by getting lost in her neighborhood, and was subsequently taken to the emergency department and admitted to an outside hospital. She was diagnosed with bipolar disorder, current episode manic (*DSM-5* criteria), and risperidone was added to olanzapine. She developed tachycardia (103 bpm), tachypnea (33 bpm), muscle rigidity, pyrexia (101° F), elevated blood pressure, and altered mental status and was no longer tolerating oral intake. Her creatine phosphokinase (CPK) level was elevated above 1,000 U/L with a peak creatine level of 1.27 µmol/L. The medical workup, including infection and head imaging, was negative. She was transferred to the intensive care unit. The differential diagnosis included NMS and delirium related to multiple etiologies. Antipsychotic medications were discontinued, and she was started on intravenous dantrolene, hydration, and other supportive measures. Ms A's subsequent liver function tests were elevated most likely due to dantrolene, thus it was discontinued. Over the next 5 days, her constitutional symptoms resolved, with improvement in CPK levels and renal function tests. However, she was nonverbal and unable to follow commands, with stupor, verbigeration, intermittent agitation, and restlessness. She was diagnosed with catatonia and treated with low doses of lorazepam; however, her symptoms persisted, with only a minimal response. Electroconvulsive therapy (ECT) was considered at this point but was declined by her family, and there was limited access to ECT and concerns about obtaining consent from the patient given her altered mental status. Lorazepam was titrated to 4 mg every 6 hours, and valproic acid 250 mg/day (increased to 500 mg/day) was cautiously added after liver function tests returned to normal levels. Over the next few weeks, Ms A began to slowly improve in cognition and functional ability. She was eventually restarted on low doses of olanzapine and tapered off lorazepam after discharge to a rehabilitation facility. She was able to return to independent living within 2 months of the episode.

Incidence of manic delirium is estimated to be around 15% in acutely manic patients.[2,3] Due to sparse literature and a lack of unified diagnostic criteria, delirium is underrecognized and often missed.[4] This case illustrates a wide range of pathophysiology starting with a physiologic stressor precipitating a manic episode, intermixed with symptoms of delirium often referred to as manic delirium, with the progression to NMS and eventually catatonia. This is in congruence with previous literature[4] on manic delirium that highlights the risk of progression to NMS or malignant catatonia, both of which are life-threatening conditions. Clinicians must have a high suspicion index for manic delirium and provide appropriate treatment.

References

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