The Role of Lamotrigine in Postpartum Psychosis

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Postpartum psychosis is a psychiatric emergency, and women with a history of postpartum psychosis or bipolar disorder should be treated prophylactically.[1] Treatment should begin in the perinatal period in those with a history of both bipolar disorder and postpartum psychosis or in the postpartum period in those with a history of isolated postpartum psychosis. Lithium remains the gold standard for treatment of bipolar disorder and prevention of relapse.[2] We present the case of a patient with postpartum psychosis in which treatment options were limited by multiple complicating factors.

Case Report

Ms A, a 33-year-old woman with a history of ulcerative colitis, hypothyroidism, and fertility issues but no history of mood or psychotic disorders prior to her first perinatal period, was admitted in September 2020 to an inpatient psychiatric unit. At the time of admission, she was 12 weeks into her second pregnancy and had stopped eating and caring for herself and her 7-month-old child from her first pregnancy. Months prior, she had exhibited significant irritability as well as paranoia that someone was trying to harm her newborn, followed by episodes of frequently isolating herself in her room, and appeared internally preoccupied.

While in the hospital, she was delusional and believed she was there for a routine pregnancy checkup despite being told she was in a psychiatric facility. As she continued to refuse to eat, she developed alkalosis and was transferred to a medical hospital in early October for nasogastric tube feeds. It was determined her psychotic presentation was likely postpartum psychosis from the birth of her first child 7 months prior. Ultrasound showed congenital malformations of her current pregnancy including ventriculomegaly of the brain and significant cardiac defects (nonfunctional left ventricle, transposition of the great vessels, ventricular septal defect), likely not due to her current medications.

After trials of haloperidol, mirtazapine, and olanzapine with minimal change, lithium was initiated at 20 weeks gestation in late November, and she showed significant improvement. Lithium was gradually increased; however, 1 month after initiation she became febrile, hypotensive, and lethargic and was transferred to the intensive care unit and intubated for acute respiratory failure. Her lithium levels were toxic, and she required hemodialysis. It was determined she was in septic shock from aspiration pneumonia. The patient's head computed tomography additionally showed diffuse brain atrophy. She subsequently developed preeclampsia and required emergency C-section. Once medically stabilized, she was transferred back to an inpatient psychiatric facility in mid-January.

Following the C-section, she exhibited a return of irritability as well as delusions of not having a mental illness. Given that she had failed 2 antipsychotics and an antidepressant, and the cause of her lithium toxicity was unclear, lamotrigine was initiated with some improvement of her symptoms. Her affect brightened, and she developed some insight into her condition and showed more interest in connecting with her husband and child. She was discharged on lamotrigine 50 mg/day.

Discussion

While bipolar disorder is the most common underlying primary psychiatric disorder associated with postpartum psychosis, it is important to differentiate between bipolar disorder versus an isolated postpartum psychosis, as it may affect the approach to treatment. In Ms A, her history made it difficult to identify any preexisting mood disturbances, and so only a diagnosis of postpartum psychosis could be made (especially given her failed trials of haloperidol and olanzapine). Ms A's symptoms were initially mild and likely went unrecognized for months after giving birth to her first child. Additionally, her multiple comorbidities and pregnancy with multiple congenital defects suggest a possible unidentified underlying medical or genetic condition that may have made her more susceptible to lithium toxicity (although any family history of such anomalies was unknown). In such situations, lamotrigine may be considered as an alternative treatment, as it has been documented to be an effective agent to prevent relapse of bipolar disorder[3]; however, its role in isolated postpartum psychosis remains less clear.

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