Postpartum Eclampsia Associated With Changes of Mood Symptoms

To the Editor: We present a case of a patient who had a relapse of her major depressive disorder after giving birth. Her presentation was complicated with selective mutism, catatonic features, and postpartum eclampsia. This case highlights the importance of careful monitoring on the psychiatry unit of postpartum patients as well as the necessity and importance of communication between psychiatry and other medical specialties. Furthermore, this case presents a rare but dangerous presentation of eclampsia.

Case report. Ms A, a 20-year-old obese African American woman with a history of major depressive disorder (*DSM-5*), temporal lobe epilepsy (*ICD-10*), and borderline intellectual functioning (*DSM-5*), presented to the emergency department as a result of an emergency court order for mental health evaluation. She was found by her case manager to be living in deplorable conditions—she had been accumulating trash, vomiting in several bags, and writing on the wall with her feces in addition to having an overflowing toilet and couches and chairs soaked in urine. Ms A had been recently discharged from the hospital after having a normal spontaneous vaginal delivery 3 days prior to her visit to the emergency department. Evaluation by the emergency department physician noted that the patient provided only a limited history, refusing to answer questions regarding her current hospitalization. She was noted by the emergency physician to be "withdrawn and quiet." Upon review of systems, Ms A complained of a mild headache and was transferred to the psychiatry department where she was evaluated, and per chart review, had had a previous history of self-neglect necessitating her admittance for similar behavior at another psychiatric facility about a year earlier.

Ms A was started on the same medications she had been taking at home, which included fluoxetine 40 mg daily for depression. She continued, however, to be isolative, refusing to tend to activities of daily living (ADLs) while in the unit, and was exhibiting selective mutism, choosing only to speak to her social worker. She was found to be hypertensive (151/98 mm Hg), and the obstetrics and gynecology department (Ob-Gyn) was consulted for recommendations. The Ob-Gyn physician ordered the following: PIH/PC ratio (pregnancy-induced hypertension:protein-creatinine), acetaminophen for headache, and blood pressure checks every 2 hours starting now and gave instructions to contact Ob-Gyn for further management if her blood pressure exceeded 160/110 mm Hg. Review of systems at the time of the Ob-Gyn examination was positive for headaches.

The patient was uncooperative with ordered blood work and assessments. Blood pressure of the right leg was obtained at 199/97 mm Hg. Ms A was transferred to Ob-Gyn for a postpartum preeclampsia workup. Results of her HELLP (hemolysis, elevated liver enzyme, low platelet count) laboratory measures were within normal limits as was her protein-creatinine ratio. She was discharged from the Ob-Gyn service and transferred back to psychiatry 3 days later with normal vitals of blood pressure, 127/69 mm Hg; pulse, 53; temperature, 98.5°F (36.9°C); and respiratory rate, 20. She remained isolative, refusing to answer questions, and not tending to ADLs on the unit. Two days after Ms A's readmission to psychiatry, at 7:28 PM, she had a witnessed seizure that was recorded as lasting 30–45 seconds, and her blood pressure could not be read because the systolic was in the 200s, her pulse was 107, and her pulse oxygen level was 91% on room air. The patient was given intramuscular lorazepam during the seizure episode and transferred to the emergency department for evaluation where she was given ziprasidone for combativeness. Ms A had a second witnessed seizure while in emergency department, and magnesium and levetiracetam were administered. Results of a head computed tomography scan were negative for any acute changes. She was transferred to the antepartum unit where she received 24 hours of magnesium sulfate infusion. Her blood pressures remained in the normal range. She reported that her headache improved, and her urine output remained adequate.

Ms A was transferred back to inpatient psychiatry 4 days later—10 days after giving birth and 7 days after her first admission to the psychiatry unit. She was then switched from fluoxetine to escitalopram, which was titrated to 20 mg. The patient had been switched from escitalopram to fluoxetine during pregnancy due to safety profile, but she had done well with escitalopram in the past, and therefore escitalopram was resumed in place of fluoxetine. She became less isolative, participated in milieu therapy, and was more vocal, stating that she "felt better." Mental status changes were thought to be secondary to medical condition of postpartum preeclampsia that led to eclampsia. Throughout her hospital stay, the team worked to get safe disposition for the patient. Ms A met with adult group home caretakers prior to going to an adult group home, and arrangements were made for her to get supervised visitation time with her child.

Eclampsia is a rare complication of pregnancy, and its incidence has been decreasing. One study[1] reported that between 2003 and 2009, the incidence of eclampsia dropped from 12.4 to 5.9 per 10,000 deliveries. In another study[2] done in the United Kingdom, it was found that although the incidence of eclampsia steadily decreased between the years 1931 and 1990, there was an increase in postpartum eclampsia. Chames et al[3] conducted a study looking at 89 cases of eclampsia and found 29 of the cases occurred in the postpartum period. Of the 29 cases, 23 occurred 48 hours after delivery, which is considered to be late postpartum. Protokowicz[4] postulates that both mental illness and preeclampsia may present with abnormal cytokine elevations. This common link establishes a biologic foundation for the possible relationship between preeclampsia and mental illness. Furthermore, markers such as tumor necrosis factor, interleukin-6, and interleukin-8 have been shown to have positive correlation with mental illness and preeclampsia.[4] Benjamin and Benjamin[5] report a case of a 27-year-old postpartum woman who was hypertensive, complained of headaches and epigastric pain, had hyperreflexia without edema or proteinuria, and also complained of anxiety. She was given 2 g of magnesium sulfate intravenously, followed by 1 g/h. Seven hours later, her symptoms resolved and blood pressure was normotensive. Ranzini and colleagues[6] report a case of maternal puerperal psychosis without prior history of mental illness that presented with catanonia and symptoms of eclampsia. The patient underwent Cesarean-section, as presumptive diagnosis of eclampsia was made secondary to hypertension, altered mental status, hemoconcentration, and oliguria. She became manic shortly after delivery and was treated with lithium for close to 5 months until after remission of her mania.

Our case highlights the importance of careful examination of postpartum patients and the unique medical and psychiatric

complications they face. Confounding factors such as selective mutism and a psychotic appearance may further complicate the clinical picture in such cases. It is important for more research to be conducted on topics related to the postpartum period, specifically with regard to preeclampsia, eclampsia, and mental illness.

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