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SHORT COMMUNICATION

Protection against hormone-mediated mood symptoms

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Abstract We present the case of a woman with bipolar I disorder with severe premenstrual mood instability, confusion, and psychosis resembling the clinical features of postpartum psychosis when estrogen levels are expected to be low, and hypomania when estrogen levels are expected to be elevated. While depressive symptoms across the menstrual cycle have been extensively documented in the literature, there is little information regarding manic and hypomanic symptoms. In addition, we describe the successful treatment of her menstrual-cycle related symptoms. Approaches to the management of menstrual psychosis have not been systematically studied, and clinical guidelines do not exist. Clinical experiences such as the one reported here, in which the clinical formulation of the patient was consistent with known neuroendocrine phenomena and in which the treatment approach was successful, are crucial to developing promising approaches that can be tested in controlled trials.

Keywords Menstrual psychosis · Bipolar disorder · Psychosis · Estrogen · Hormone-related mood symptoms

While depressive symptoms across the menstrual cycle have been extensively documented, less is known about psychosis and elevated mood states with hormonal changes across the menstrual cycle. Menstrual psychosis is a rare cyclical disorder characterized by brief episodes of psychosis related to the menstrual cycle (Brockington 2011; Deuchar and Brockington 1998). While case reports of treatment response in menstrual psychosis with premenstrual onset can be found, there is not yet a consensus about the best treatment approach (Brockington 2011). We present a woman with menstrual psychosis and hypomanic symptoms related to the menstrual cycle whose cyclical symptoms resolved with more aggressive mood stabilization.

A 24-year-old woman with bipolar I disorder, previously undiagnosed mania and a distant major depressive episode, experienced confusion, mood changes, and psychosis in the late luteal and early follicular phases of her menstrual cycle for 15 months prior to treatment. These symptoms began 3 days prior to menstruation, and persisted through menstruation. Menstruation lasted around 3 days, and her cycle length varied from 24 to 30 days. Estrogen has antipsychotic properties, and this is a period when estrogen levels are expected to be low, though hormone levels over time are not available for this woman (Kulkarni et al. 2015). She experienced anger and panic attacks, during which she was unable to leave her home or feed herself, was disoriented, and engaged in head banging and biting herself. Her psychosis involved thinking her feet turned blue, images of herself in a blood-filled bath, and vague visual changes. After menstruation, these symptoms resolved, and hypomanic symptoms emerged. She briefly experienced increased energy, increased productivity, and decreased need for sleep. Until shortly before her next menstrual cycle, she was asymptomatic.

Prior to diagnosis with bipolar disorder, her cyclical depression was treated with venlafaxine, which triggered mania with mixed features, and led to two psychiatric hospitalizations. Despite partial improvement with divalproex sodium and lurasidone, she continued to experience debilitating cyclical depression. With the addition of lithium and increased lurasidone as an outpatient, she achieved remission of her

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cyclical mood symptoms and remained asymptomatic throughout her menstrual cycle.

Her symptoms during periods of expected low estrogen resemble postpartum psychosis, which often includes a bipolar-affective component and confusion (Brockington 2011; Deuchar and Brockington 1998). Postpartum psychosis has an association with estrogen depletion and with menstrual psychosis (Deuchar and Brockington 1998). During periods of expected elevated estrogen, she developed hypomanic symptoms, a relationship that has rarely been described (Matsuoka et al. 2014; Kulkarni et al. 2006). Despite the cyclical nature of these symptoms, her menstrual psychosis and hypomanic symptoms resolved with aggressive mood stabilization. Optimizing her mood stabilizer regimen appears to have mitigated the hormonally triggered symptoms, presumably by reducing her sensitivity to changing estrogen states.

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