

Title: Unmasking Premenstrual Dysphoric Disorder Through Multidisciplinary Care

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Background/Synopsis:

Premenstrual dysphoric disorder (PMDD) is a hormone-sensitive mood disorder affecting 2–6% of menstruating individuals.¹ Women who have moderate to severe symptoms can have significant functional impairment and distress. This case highlights PMDD as a distinct diagnosis and the importance of personalized, multidisciplinary care.

Objective/Purpose:

To illustrate the diagnostic complexity of PMDD and demonstrate the value of a personalized, multidisciplinary treatment approach

Methods: Case Report

Results:

A 47 y/o G3P3 with PMH of postpartum depression, generalized anxiety disorder (GAD), and major depressive disorder (MDD) initially presented to reproductive endocrinology for pre-menstrual mood swings, low libido, and fatigue, and was ultimately diagnosed with PMDD. She was treated with a variety of estrogen and testosterone formulations. With the help of her psychiatrist, she eventually achieved partial remission of her depressive and anxiety symptoms with desvenlafaxine, brexpiprazole, clonazepam, lisdexamfetamine, amphetamine/dextroamphetamine, and Delta 8 gummies for anxiety and sleep. A hysterectomy was performed for further management in 2016 since progesterone suppositories had increased mood lability. Pharmacogenomic testing revealed she was a rapid metabolizer of CYP219 and a low metabolizer of CYP2D6, preventing selective serotonin reuptake inhibitor use.

Due to persistent symptoms, she sought a second opinion in our Women's Behavioral Health clinic regarding treatment of her PMDD, endorsing a history of pre-menstrual mood swings, characterized by mood lability with negative thoughts of "I'm stupid and can't think." Her psychiatrist initially suspected bipolar disorder, but a mood diary showed correlation of her symptoms with her cycle. She would experience worsening depressive episodes, passive suicidal ideation, and self-isolation during the luteal phase that resolved at the start of her menstrual cycle, and tremors on days 10 and 21 of her cycles. These combined findings as well as somatic complaints were consistent with PMDD. Further workup included obtaining a follicle stimulating hormone (FSH) level to assess menopausal status, which was within normal limits. Thus, Leuprolide injections were started with estrogen and testosterone discontinuation and plans to restart estrogen in the setting of hot flashes, night sweats, and decreased bone mineral density over the 6 month-course of treatment.² Specifically, she experienced less mood lability, but noted fatigue, anxiety, increased blood pressure, visual changes, and hot flashes. She declined fezolinetant for hot flashes, but desired laparoscopic bilateral oophorectomy for definitive management. After the procedure and Leuprolide completion, she endorsed anxiety, hot flashes, and low libido for which she received estradiol patches, topical vaginal estradiol cream, and Bupirone with notable symptomatic improvement. Since her procedure, all stimulants and brexpiprazole were no longer needed and were discontinued as well.

Conclusion:

This case highlights the importance of recognizing PMDD as a potential cause of cyclical mood symptoms that can mimic primary psychiatric conditions such as bipolar disorder, MDD, and GAD. The use of mood diaries is essential in establishing the cyclical pattern of symptoms and aids in the diagnosis of PMDD. Pharmacogenomic testing plays a critical role in guiding medication selection, especially when conventional treatments are limited by metabolic profiles. For refractory cases, GnRH agonists, like leuprolide, are effective, though they require close monitoring for menopausal side effects. Surgical intervention, including bilateral oophorectomy, may serve as definitive treatment when medical management fails. Additionally, emerging therapies, such as Zuranolone, may expand future options for PMDD due to its efficacy with mood disorders affected by the allopregnanolone pathway.^{2,3,4} This case emphasizes as well that hormone replacement therapy can be effective for women with surgically- treated PMDD. Overall, this case highlights the value of a personalized, multidisciplinary approach, involving psychiatry and gynecology, to diagnose and address the interplay of hormonal and psychiatric features in PMDD.

References:

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