On the Borderline of Pleasure and Pain: Comorbid Persistent Genital Arousal Disorder and Borderline Personality Disorder

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Patients with borderline personality disorder (BPD) face barriers to compassionate, quality care. Classically, they have tempestuous relationships marked by rapid swings in mood and affect that often extend to the patient-provider relationship.

Persistent genital arousal disorder (PGAD) describes a phenomenon wherein female patients experience distressing, spontaneous genital arousal, unresolved by orgasms and triggered by sexual or nonsexual stimuli.[1,2] PGAD was first defined in 2001 with 5 official diagnostic criteria by Leiblum and Nathan.[3] They described the condition in 5 women with persistent physiologic arousal in the absence of sexual desire.[3] Clinical diagnosis and management necessitate a diverse and eclectic approach.

Considering these factors, we present a case that highlights the challenges that patients with both PGAD and BPD face, as well as the multidisciplinary approach needed to provide evidence-based care.[4]

Case Report

A 33-year-old woman meeting criteria for BPD, generalized anxiety disorder, depression, and posttraumatic stress disorder was seen in the office for a follow-up psychiatric visit and medication management. She presented with a new complaint of continuous genital discomfort. The sensation was persistent in the clitoral region and vulvar and vaginal areas.

Regarding her behavioral health history, the patient had struggled with depression since age 12 years. She had a history of driving under the influence involving prescription benzodiazepines. She reported recurrent nightmares and flashbacks of the time she spent in jail and difficulty sleeping.

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The patient denied any suicidal or homicidal ideations. She reported a suicide attempt as a teenager by overdosing on her medications. She denied violence toward others. Other relevant medical history included endometriosis and migraine headaches.

She received dialectical as well as behavioral therapy. Her therapist first noted she was "feeling hypersexual and masturbating often to the point of soreness" 2 months prior to her initial psychiatric visit. Therapy notes suggest a reticence to communicate the symptoms with doctors out of embarrassment.

Two days following this therapy session, the patient had a gynecology telehealth visit regarding the discomfort, as she was concerned that the hypersexuality was hormonal or related to hormonal IUD placement. She was encouraged to address the issue with behavioral health services, and the provider's note ascribes this complaint to her BPD. The neurology team also saw the patient and referred her to the psychiatry department.

Months later at a psychiatry appointment, the patient reported "my clitoris is buzzing like a bubble bee," noting other physiologic changes of secondary sexual response including lubrication and breast engorgement. The patient reported this as a problem off and on since she was 24 years old. She struggled with intrusive sexual thoughts "between arousal and panic."

In the office, the patient was restless and constantly shifting position in her chair. She denied any pain. She was started on Prozac 10 mg and experienced relief of symptoms within 2 weeks. She maintained continued engagement with psychotherapy.

The patient eventually followed up with a gynecology appointment, and a medical workup was performed with measurement of free and total testosterone, sex hormone binding globulin, dehydroepiandrosterone, and androstenedione. These levels were normal except for androstenedione, which was found to be elevated. The patient also had a normal transvaginal ultrasound except for a complex left ovarian cyst (which ruptured subsequently at an emergency department encounter later that month).

Discussion

Regarding this patient's experiences with PGAD, one can speculate if her road to treatment was more circuitous because of comorbid BPD. There is some evidence to suggest that most individuals that suffer from PGAD

(regardless of complicating comorbidity) face a tortuous path to diagnosis.

A 2021 study[4] detailed trends across 113 participants and their experiences in the health care system. Most study participants (56.6%) reported waiting at least 6 months to seek health care for PGAD symptoms. Those who sought health care approached many health care providers (46.0% approached over 6 providers). While the extent of other mental health comorbidities was not discussed, decreased comfort communicating with one's provider was associated with greater depressive and anxiety symptoms.[4]

It is important to consider the differential diagnosis of sexual addiction. The differentiating factor is if the arousal and orgasm was desired or if the patient is seeking relief from intolerable and incessant stimulation. From a gynecologic perspective, genital arousal may be provoked by pelvic congestion syndrome. Of note, the patient was nulliparous and had a normal transvaginal ultrasound.[5,6] Pelvic congestion syndrome may sometimes appear as tortuous vasculature of the vagina, ovaries, adnexa, and uterus in (often multiparous) women. In one such reported instance,[7] symptoms improved with occlusion of the ovarian vein, resulting in reduction of varicosities in the vaginal wall. Additionally, vulvodynia symptoms can include throbbing and swelling that could be likened to the physiologic sexual response cycle in women. This may be the result of a genetic factor, or it may be the result of an offending agent. Sometimes, this may be caused by pelvic floor muscles. For this reason, biofeedback and pelvic floor training can be helpful in treatment of vulvodynia and as an adjunct therapy to PGAD. The complex innervation of the genitalia merits involvement of neurology in the care team. Atypical pudendal nerve neuropathy has been supported as a cause of discomfort[8] in a variety of clinical settings in which trigger point injections proved effective in limiting the pain associated with persistently aroused genitals. Parallels to PGAD of overactive bladder and restless leg syndrome have been drawn, and there can be considerable overlap in their treatment.[9]

The borderline patient is deserving of compassion and objective care, but this can prove challenging due to "projective identification" that can cause countertransference problems. These individuals, who often feel lonely, may attempt to inappropriately befriend a practitioner or behave promiscuously. Psychiatrists have described borderline individuals as having a "chaotic sexuality."[10]

Assumptions that a borderline patient with PGAD is simply acting out or attention seeking in their hyperarousal belies the fact that there is an underlying neuropsychological pathology.[11] Several practitioners, including sexual health therapy and gynecology, suggested that the patient presented here may be in a manic state of hypersexuality in their notes.

PGAD remains poorly understood, and its pathophysiology is unknown. There is a link between monoamine neurotransmitters and the regulation of sexual response. Serotonin produced in the pons and midbrain have an inhibitory effect on sexual functioning. The serotonergic nuclei in the brain stem have been known to inhibit orgasm. The choice of selective serotonin reuptake inhibitors (SSRIs) in PGAD and specifically fluoxetine in the present case is related to these pathways; however, the exact mechanism remains unknown.[12]

Also, it is worth mentioning that the patient was on bupropion 200 mg twice/d and expressed she had been prescribed this medication from another provider since at least 2019. Her stated reason for taking it was "anxiety." While not entirely understood, bupropion is thought to be a norepinephrine and dopamine reuptake inhibitor.[12] Dopamine has been linked to an increase in libido, and in certain cases of major depression, it is preferred over SSRIs because it does not affect sexual functioning. In this instance, the sexual side effects of fluoxetine were used to diminish the unwanted arousal.

Since receiving the diagnosis of PGAD, the patient's encounters with her gynecology providers have been much more productive. The elevated androstenedione level, a steroid androgen, was discussed at subsequent gynecology visits as a possible component to her symptoms. They placed the patient on spironolactone 50 mg (an androgen antagonist) as well as topical lidocaine 2% jelly with a trial of benzocaine/menthol spray. The patient was also referred to sexual health therapy, but the degree of symptom relief by these interventions has yet to be determined.

Conclusion

It is critical for clinicians to be as objective as possible when treating individuals who have been diagnosed with BPD with a concomitant diagnosis of PGAD. This report is an attempt to increase clinician awareness of this uncommon comorbid diagnosis, thereby reducing the formation of countertransference and allowing for more prompt care of patients without disrupting the therapeutic alliance.

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