## **Case Report**

# Persistent Genital Arousal Disorder

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#### ABSTRACT

Persistent genital arousal disorder (PGAD) is a phenomenon, in which afflicted women experience spontaneous genital arousal, unresolved by orgasms and triggered by sexual or nonsexual stimuli, eliciting stress. The current case is a 40-yearold female who experienced such orgasms for about a month. Physical examination, investigations, and psychological testing were noncontributory. Carbamazepine (600 mg) was discontinued due to a lack of response. She improved significantly with supportive therapy. Various neuropsychological conditions, pelvic pathology, medications, etc., have been associated with this disorder. Pharmacologic strategies have included the use of antidepressants, antipsychotics, mood stabilizers, and analgesics. Validation, psycho-education, identifying triggers, distraction techniques, and pelvic massage have been tried. Living with PGAD is very demanding. There is a lack of understanding of the problem, shame, and hesitation to seek help. The syndrome has been recently described, and understanding is still evolving.

Key words: Persistent genital arousal disorder, persistent sexual arousal syndrome, restless genital syndrome

### INTRODUCTION

Persistent genital arousal disorder (PGAD) is a phenomenon relating mainly to women sexual health, in which afflicted women complain of sudden and frequent genital arousal that are qualitatively different from the kind of sexual arousal that is associated with desire, or subjective arousal. Masturbation and orgasms offer little or no relief. It is important not to confuse persistent sexual arousal syndrome (PSAS) with hypersexuality. Hypersexuality manifests as excessive desire with or without persistent genital arousal. The key difference between the two is that PSAS manifests as persistent genital arousal in the absence of desire.<sup>[1]</sup> It is a very rare condition, and it is possible that the sufferers do not report the condition because of shame and embarrassment.<sup>[2]</sup>

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PGAD, was originally called PSAS and was also known as restless genital syndrome (ReGS or RGS),<sup>[3]</sup> It was documented by Leiblum and Nathan<sup>[4]</sup> and only recently characterized as a distinct syndrome.<sup>[1]</sup> The syndrome of priapism (similar to PGAD) is a diagnosable medical condition by Diagnostic and Statistical Manual of Mental Disorders Fourth Edition.<sup>[1,5]</sup>

The diagnosis of PGAD is based on:

- 1. The physiological responses characteristic of sexual arousal (genital vasocongestion and sensitivity) persist for an extended period of time (hours to days) and do not subside completely on their own;
- 2. The genital arousal does not resolve completely despite one or more orgasms;

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- 3. The persistent genital arousal is experienced as unbidden, intrusive, and unwanted;
- 4. The persistent genital arousal may be triggered not only by sexual activity but by nonsexual stimuli as well (e.g., vibrations from a car); and most importantly,
- 5. There is at least a moderate or greater feeling of distress associated with the experience.<sup>[6]</sup>

The unremitting nature of the symptoms, predisposes them to become severely depressed and even suicidal.<sup>[7]</sup>

## CASE REPORT

Mrs. D, a 40-year-old flower vendor, was referred from the Department of Gynecology with the complaint of spontaneous sensations similar to that experienced during sexual intercourse since 3 months, lasting for ½-1½ h. Episodes spontaneously, not induced by any sexual thoughts or desires. They reduce spontaneously, leaving her fatigued, and she does not engage in intercourse or masturbation for relief. There is no history suggestive of any local infection, selective serotonin reuptake inhibitor use, neurological, endocrinological or psychiatric problems. She was investigated 7 years ago for similar episodes and was found to have a hemorrhagic right ovarian cyst for which oophorectomy was done, and she recovered gradually.

She attained menarche at 13 years, had regular cycles, and her first sexual contact was with her husband. Her sexual life is satisfactory.

General physical and local examinations were unremarkable. During the interview, she expressed deep distress about the symptom and pleaded for help. Her investigations were essentially normal (hemogram, urine routine and culture, blood urea, serum creatinine, blood sugars, lipid profile, thyroid function tests, liver function tests).

Hormone assays which included estrogen, progesterone, follicle stimulating hormone, luteinizing hormone, and testosterone, were within normal limits. Ultrasonography abdomen found an oophorectomised status (right). A neurological opinion was sought. She was advised a magnetic resonance imaging brain, and an electroencephalography, which were within normal limits.

A detailed psychometric assessment was done (16 personality factor, sentence completion test [SCT], Rorschach, thematic apperception test [TAT]). The patient described herself as aloof, rigid, analytical, and unsentimental. She has however also posed herself

as being self-assured, assertive, independent-minded, and courageous with high moral standards. She also considers herself emotionally stable. An attitude of fearlessness is expressed both on SCT and TAT.

## MANAGEMENT

She was started on carbamazepine 600 mg/day, which she discontinued after a month as symptoms persisted. After supportive sessions over 2 months, symptoms reduced in frequency and intensity and the patient has maintained an asymptomatic status.

## DISCUSSION

At present, some neurophysiological conditions have been associated,<sup>[8-10]</sup> with this disorder. Increased soy intake<sup>[11]</sup> exogenous medication,<sup>[12]</sup> or Tarlov cysts<sup>[13]</sup> have been found in these women. A clinical case report discusses feelings of imminent orgasms following restless leg syndrome.<sup>[14]</sup>

Central neurological changes (e.g., postinjury, specific brain lesion/anomaly) peripheral neurological changes (e.g., pelvic nerve hypersensitivity or entrapment) vascular changes (e.g., pelvic congestion), mechanical pressure against genital structures, medication-induced changes, psychological changes (stress), initiation or cessation of treatment with antidepressant medication and other mood stabilizers, onset of menopause, physical inactivity, association with an overactive bladder have been implicated as being causal.<sup>[10,15,16]</sup> One theory suggests that these women may be more vigilant in monitoring small changes in their physical well-being.<sup>[17]</sup>

Evaluating psychological predictors of distress showed that conservative attitudes about sexuality could be expected to characterize women reporting high distress versus low distress, acting as a differentiator factor. It was speculated that women with low openness would possibly endorse a dogmatic and conservative thinking style regarding sexuality and that openness would affect the distress to the genital symptoms through a cognitive path rather than a psychopathological path.<sup>[18]</sup>

While there is no generally accepted treatment for PGAD, current interventions focus on symptom management.<sup>[19,20]</sup> Both biological and psychological modes of treatment have been considered. Pharmacologic strategies have included the use of antidepressants,<sup>[20]</sup> olanzapine, risperidone, carbamazepine, valproic acid, opioid agonist tramadol, varenicline.<sup>[8]</sup> Duloxetine and pregabalin were tried in two women with PGAD. One had full remission (duloxetine), and the other had a substantial improvement (pregabalin).<sup>[21]</sup> Validation,

psychoeducation, identification of triggers, distraction techniques, and pelvic massage to decrease the pelvic floor tension have been attempted.<sup>[19,20]</sup>

In the current case, no known etiological factors could be identified. The first episode was self-remitting, the association with the surgery being co-incidental. The personality profile of the patient being analytical, independent, and assertive, might have played a role in the early remission of symptoms. Response in the current episode appears to be associated with the psychological support provided by the treating team, as there was no response to medication.

Living with PGAD is thus very demanding. There is a lack of understanding of the problem, confusion, shame and embarrassment, and a hesitation to seek help. When they finally do approach the physician, it is important that the treating doctor should not feel uneasy if they are not familiar with this condition. The syndrome has been only recently delineated, and understanding is still evolving.

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#### **Conflict of interest**

There are no conflicts of interest.

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