# Persistent Genital Arousal Disorder: An Update of Theory and Practice

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Persistent Genital Arousal Disorder (PGAD) is a perplexing condition characterized by high levels of genital arousal occurring in the absence of subjective sexual interest or desire.

First identified and termed Persistent Sexual Arousal Syndrome (PSAS), the condition was later renamed PGAD to clarify that the disorder is primarily a problem of genital, rather than sexual, arousal. Patient concerns include clitoral tingling, irritation, vaginal congestion, vaginal contractions, throbbing, pressure and pain, as well as spontaneous orgasms in some cases. Attempts to quell the genital arousal by engaging in masturbation or sexual activity usually provides only temporary relief or even more arousal and activation.

## **DIAGNOSIS OF PGAD**

The diagnosis of PGAD is made based on the presence of all 5 of the following features: (a) 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; (b) the genital arousal does not resolve completely despite one or more orgasms; (c) the persistent genital arousal is experienced as unbidden, intrusive, and unwanted; (d) the persistent genital arousal may be triggered not only by sexual activity but by nonsexual stimuli as well (eg, vibrations from a car); and most importantly, (e) there is at least a moderate or greater feeling of distress associated with the experience. Hypersexual states often associated with mania, sexual compulsivity, or stimulating social drugs preclude a diagnosis of PGAD.

#### **PGAD RESEARCH**

Three studies on PGAD have been published using data from women who completed Web-based surveys concerning the condition. These research reports found high levels of stress and anxiety among sufferers, as well as a greater incidence of obsessive-compulsive and somatization symptoms in PGAD women. Unlike women who met some, but not all, features of the condition (a non-PGAD group), PGAD women reported that the genital arousal they experienced was more intense, continuous, unwanted, and distressing than that of the non-PGAD women, many of whom enjoyed the unsolicited genital arousal.

Although in many cases the dysphoric mood of PGAD sufferers preceded their first experience of unsolicited genital arousal, the unremitting nature of the symptoms, coupled with lack of relief, predisposes some women to become severely depressed and even suicidal. The distress associated with the disorder is compounded by the fact that many women feel embarrassed about revealing the condition to intimate partners and health care professionals. The shame attached to the symptoms has most likely contributed to the phenomenon going unrecognized and under-reported. As a result, there are currently no reliable figures on the prevalence of PGAD, although it may not be as rare as initially described.

#### **ETIOLOGY**

At this time, there is little consensus regarding the etiology of PGAD. Based on case reports and small series, there are a number of possibilities (See Table). One theory from a psychological perspective suggests that women with PGAD may be more vigilant in monitoring small changes in their physical well-being than women who simply report unsolicited (but untroubling) genital arousal. It is not known at this time whether the distress experienced by PGAD patients as compared with non-PGAD women stems from the kind, intensity, or duration of

genital sensations, or how these women label and account for the arousal.

# TABLE. Possible PGAD Etiologies

- Central neurological changes (eg, post-injury, specific brain lesion anomaly)
- Peripheral neurological changes (eg, pelvic nerve hypersensitivity or entrapment)
- · Vascular changes (eg, 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 (possibly related to restless leg syndrome)
- · Association with overactive bladder
- . Some combination of all of the above

#### **TREATMENT**

While there is no generally accepted treatment for PGAD, current interventions focus on symptom management. Psychoeducation and social support are often the first steps as patients discover they are not alone in their experience and become aware of the stimuli that exacerbate symptoms. Anesthetizing agents or ice may be used to numb the area. Pelvic massage or stretching exercises are sometimes helpful in reducing pelvic tension. Medication management is empiric because various medications may be associated with either alleviation or activation of symptoms. Mood stabilizing, anti-seizure medications, such as valporic acid, have helped some women, while others report relief with selective norepinepherine reuptake inhibitors. Cognitive-behavioral interventions have been used to enhance coping skills

and assist in interrupting the cycle of anxiety and catastrophizing of the symptoms. Mindfulness-based intervention may help, since anxiety worsens symptoms by leading to more autonomic nervous system activation, and often, more genital arousal.

## **FUTURE DIRECTIONS**

More research is needed to investigate etiology, causes, and treatments of PGAD. In addition to extensive medical histories and psychological evaluations, the collection of comprehensive physiological data—including gynecologic examinations, thermograph measurement of the genital area, pelvic floor muscle tonality data, the measurement of hormone levels, fMRI brain scan information, and evaluation of the sensitivity of the genital tissue areas—will be key in elucidating the disorder. Since little is known about the range and diversity of women's sexual response, investigations into PGAD will likely shed light on the dynamics of arousal, desire, and female sexual functioning.

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