# Persistent Genital Arousal Disorder in Perimenopausal Woman: A Case Report

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#### **Abstract**

### **Background**

Persistent Genital Arousal Disorder is a rare, distressing and embracing disorder with unknown patho-physiology. It was aimed at reporting a perimenopausal female with Persistent Genital Arousal Disorder responding with risperidone and carbamazepine along with proper counseling.

#### Case

A 49 year old female attended the Psychiatric Sex Clinic with the complaints of increased sexual urge which is uncomfortable, demands release and interferes with the social life for last 2 years. With appropriate evaluation of history, physical examination and laboratory investigation she was diagnosed as a case of Persistent Genital Arousal Disorder with proper exclusion of differentials and treatment started with medications and proper counseling. She responded with treatment and follow up of last 1 year revealed significant reduction of symptoms which enables herself to lead a distress free life physically, psychologically and socially.

#### **Conclusion**

There is paucity of documents regarding the patho-physiology, presentation, cultural variation, diagnosis and management guideline of Persistent Genital Arousal Disorder which demands more extensive research for evidence based guidelines.

**Keywords:** Persistent sexual arousal syndrome, Restless Genital syndrome, Hyper sexuality, Sexual dysfunction, Case report.

# Introduction

Persistent genital arousal disorder (PGAD) is a newly recognized sexual dysfunction with poor understanding and few case reports. There are concerns as to the validity of the results because of little research and the prevalence is yet to be identified [1-5]. It is characterized by physiological signs of genital arousal that persist despite the absence of sexual desire and diagnosed in female [6]. The symptoms of PGAD are as follows: [7]

- Symptoms characteristic of sexual arousal (genital fullness/ swelling and sensitivity with or without nipple fullness/ swelling) which persist for an extended period of time (hours to days) and do not subside completely on their own.
- Symptoms of physiological arousal which do not resolve with ordinary orgasmic experience and may require multiple orgasms over hours or days to remit.
- Symptoms of arousal which are usually experienced as

- unrelated to any subjective sense of sexual excitement or desire.
- The persistent genital arousal which may be triggered not only by a sexual activity but seemingly also by nonsexual stimuli or by no apparent stimulus at all.
- Symptoms which are experienced as unbidden, intrusive, and unwanted
- The symptoms which cause the patient at least a moderate degree of distress.

It was previously called persistent sexual arousal syndrome (PSAS) and was first described by psychiatrists Leiblum and Nathan in 2001. Subsequently renamed as PGAD by Goldmeier et al. in 2009 and also named as Restless Genital Syndrome [1,7,8]. Though PGAD is a newly recognized condition as well as scanty published data regarding etiology, diagnosis and treatment, it has significant impact on social life as it is very distressful of being irritated by genitalia. It was aimed to report the new diagnosis as well as significant improvement in symptom profile and social functioning.

#### Case

A 49-year-old Asian perimenopausal female, sent from the Psychiatry out-patient department (OPD) of a tertiary care hospital presented to the Psychiatric Sex Clinic (PSC) in January 2015 with the complaints of intense sexual urge which is uncomfortable; demands release; and interferes with life pleasure and activities for last two years. She becomes bound to masturbate to relief tension, but it does not always go away with orgasm. She also experiences of hot flashes and her menstruation became irregular for last 1 year. The desire is quite different from her normal sexual desire and she experiences it without any sexual cues. Sometimes it persists continuously and aggravated with the touch of her thigh while she sitting with closed thigh position. She feels better if she masturbates and she gets more pleasure in women on top position instead of lithotomy position. She feels guilty as masturbation is sinful to her judgment as well as less enjoyable. She remarriages a 40 years old man secretly to be comfortable for sex for last 6 months; which is not acceptable to her family members as well as not also culturally praiseworthy as her husband died 3 years back and she stays with her two adult sons. She used to meet her new husband secretly and faces legal problems based on social grounds that make her socially very disgraceful and so distressful that she intends to commit suicide. As a person, premorbidly she was sociable, open minded and had a great enthusiasm for sex. She had boyfriends but no extramarital relationship as well as no premarital sex but she used to talk about sex with them.

Her methodical physical examination revealed nothing contributory regarding her present complaints. Mental state examination revealed a perimenopausal woman with average body build wearing socially and culturally appropriate dress up. She looked tense, embarrassed and anxious. Her mood was depressed. She had pessimistic thought about her physical symptom and had suicidal ideation. Delusion and hallucination was not found and she was in normal cognitive state. All routine investigations, Pelvic ultra sonography, MRI of lumbo sacral spine, possible detailed hormonal analysis revealed nothing abnormal. She was diagnosed as a case of PGAD according to the criteria proposed by Leiblum; as her arousal was intrusive in nature, not associated with sexual context and psychological desire for sex, her urge does not go away with orgasm as well as her style of masturbation more related with clitoral stimulation. The diagnosis was assigned as a diagnosis of exclusion of other possible differentials.

# **Treatment**

After diagnosis; psychoeducation, explanation and counseling provided. She was advised tablet Risperidone 4mg per day (after initial up titration), and tablet Carbamazepine 200mg (Controlled Release formulation) per day as pharmacotherapy based on evidence in previous reports and advised to follow up after 2 weeks in the OPD set up. In the first follow up her symptoms decrease both in frequency and intensity more than fifty percent. She is followed up for last 1 year with the above mentioned medications and she became symptom free after 6 months of continuous treatment. At present she is with medications and without symptoms and attempts to taper the medications is not tried yet.

#### **Discussion**

It is the first case of PSC documented detailed description of symptoms, associated with PGAD. There is little and not reliable data on the prevalence of PGAD. It's possible that the disorder is more common than researches' assumption [8,9]. On one hand the disorder is being very rare, on the other- the condition is frequently unreported by sufferers who may consider it embarrassing. Leiblum (2006) postulated that there may be two subtypes of PGAD: one more closely related to physiological factors (e.g., neurovascular or neurochemical), and the other to psychological factors. Several hypotheses have been summarized as: central neurological changes (e.g, post-surgical, post-injury brain lesion, seizuredisorder), peripheral neurological changes (e.g, pelvic nerve hypersensitivity or entrapment), vascular changes (e.g., pelvic congestion or dilatation, or vascular pathology associated with chronic fatigue syndrome, mechanical pressure against genital structures, medication-induced changes (e.g. upon either initiation or cessation of SSRI or mood stabilizer therapy). psychological factors, (e.g. severe stress, the perception and persistence of symptoms, anxiety and obsessive vigilance about physical symptoms, overall lower levels of sexual satisfaction, lower desire and greater pain), beginning menopause, physical inactivity [12-14].

There are no recommended treatment guidelines to treat the disorder due to the lack of clear understanding of the etiology and mechanisms. Pharmacologic strategies have included use of antidepressants, olanzapine, risperidone, anti-seizure medications (e.g. carbamazepine), use of the opioid agonist tramadol, and use of varenicline (a partial agonist at the nicotinic receptor subtype that decreases the ability of nicotine to stimulate the release of mesolimbic dopamine) [15,16]. Although the proposed treatments do not completely eliminate the condition, they may help reduce pain, stress, and discomfort. It was hypothesized that our reported PGAD may be associated with stress as precipitating as well as perpetuating factor. The risperidone was applied to block dopamine receptor in infundibular pathway as the prolactin has a role in maintaining the refractory and relief phase after orgasm. The carbamazepine was also advised because it was assumed that carbamazepine would be beneficial for modulation of overexcited neurons. The psychological approach was psychoeducation regarding symptom and reassurance, improving stress coping ability and relaxation training.

#### **Conclusion**

Lack of recommended guidelines and evidences regarding epidemiology, etiology, symptom profile, diagnostic criteria, control trials, management guidelines and prognosis makes difficulties for the clinicians. Holistic approach comprised of Psychological support, Pharmacological acceptance as well as environmental addressing is needed to handle the clients. These observations warrant further investigation of risperidone and carbamazepine in PGAD as well as larger scale control trials needed to establish the strong evidence, which will make comfortable the clinicians as well as the patients.

# **Abbrevations**

PGAD: Persistent Genital Arousal Disorder; MRI: Magnetic Resonance Imaging; PSAS: Persistent Sexual Arousal Syndrome; OPD: Out Patient Department; PSC: Psychiatric Sex Clinic; BSMMU: Bangabandhu Sheikh Mujib Medical University.

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