Persistent genital arousal disorder: Successful treatment with leuprolide (antiandrogen)

Sir,

Persistent genital arousal disorder (PGAD) or restless genital syndrome results in spontaneous, persistent and uncontrollable genital arousal, with or without orgasm or genital engorgement, unrelated to any feelings of sexual desire. Here, we present a case of a 53-year-old female, who is a widow for 25 years. She came to us with 2½ years history of increased sexual sensation in the genital area which she could not control, along with headache, dizziness, low mood, disturbed sleep, and crying spells. She had no desire to have sex, but she used to feel warm inside her vagina with pulsations, lubrication, tingling, throbbing response, and sometimes discharge. Initially, it was 15–20 times a day gradually increased to persist throughout the day. She lied on bed whole day crying, clinging herself
or folding her body on herself because of the sensations. To get the relief she used to splash water or sometimes put her fingers inside her vagina following that she felt relief for few minutes but again felt the same sexual sensation. She did not have intercourse, neither did she use any artificial objects for pleasure. Her mood was low throughout the day, sleep disturbed, and appetite decreased. She was a widow for 25 years. No major psychosocial stressor was elicited. There was no history of sexual abuse in childhood. She had attained menopause 4 years back. History of earlier treatment with various such as like conjugated estrogen, cabergoline, alprazolam, vertin, cinnarizine, zolpidem, chlordiazepoxide, escitalopram, clonazepam, clomipramine, and etizolaam in adequate dosages for adequate duration did not have any beneficial effect on her.

After being admitted she was investigated for sexual dysfunction. There was no local genital pathology and per vaginum examination was normal. Investigations like blood sugar levels, kidney function test, liver function test, thyroid profile, blood and urine routine and urine culture were within normal limit. Follicle-stimulating hormone (FSH) levels were raised, prolactin and estrogen were within normal range for her age. Total testosterone and free testosterone was normal. Her ultrasonography abdomen, transvaginal ultrasound, magnetic resonance imaging brain, computed tomography scan brain did not reveal any abnormality. Our patient was preoccupied with her increased sexual sensations and had feelings of guilt, shame, hopelessness, worthlessness. After workup, she was diagnosed conceptually to be a case of PGAD with depression. She was started on clomipramine 150 mg/day and clonazepam 1.5 mg/day in divided doses. After 2 weeks as we could not hike the dose of clomipramine due to giddiness, fluoxetine 40 mg/day was added and lignocaine gel local application was made 5–6 times a day along with pelvic floor exercises. She reported a marginal decrease in genital sensations as compared to before but was fluctuating. So after consultation with a gynecologist injection leuprolide3.75 mg (antiandrogen) subcutaneous was added to her treatment and advised to be repeated at 1 month interval for 3 months. Few days after 1st leuprolide injection, she reported a decrease in sexual sensation. The patient continued to improve and her genital sexual sensation significantly subsided at the time of discharge. She has received the 2nd and 3rd dose of injection leuprolide on follow-up and continued other medications as such. The patient is maintaining well for over 1½ years now.

A patient of PGAD is generally diagnosed as sexual dysfunction not otherwise specified in the official classificatory system. Similar cases of PGAD have been reported by Goldmeier and Leiblum[3] and Korda et al.[4] This is predominantly a female syndrome. However cases have been described in males.[5] The symptoms of PGAD can be very distressing and debilitating, preventing concentration on daily tasks. Women with PGAD commonly report feelings of distress, frustration and guilt and frequently experience anxiety, panic attacks, and depression.[6] There are limited data available for the management of PGAD. These include medications like antidepressants, varenicline,[7] anesthetizing gels, electro-convulsive therapy[8] if co-morbid with mood symptoms, transcutaneous electrical nerve stimulation,[9] and cognitive behavioral therapy.[10] No single treatment can be recommended for PGAD.[6] Our patient responded marginally to antidepressants-clomipramine and fluoxetine along with local application of anesthetic lignocaine gel and pelvic floor exercises. The improvement was significantly enhanced by adding injection leuprolide and this may be related to endocrinal and neurological theory of PGAD.[10] Leuprolide acts as an agonist at pituitary gonadotropin-releasing hormone receptors. It indirectly downregulates the secretion of gonadotropins-luteinizing hormone and FSH leading to hypogonadism.

The concept of PGAD is emerging in the literature. Few data are available for the management of the same. Here, we illustrate this rare variety of sexual dysfunction as PGAD and highlight the use of clomipramine, fluoxetine, lignocaine gel with pelvic floor exercises for the treatment of PGAD, emphasizing on the use of injection leuprolide in combination with the above.

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Conflicts of interest
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Kamala Deka, Neha Dua, Monali Kakoty, Rina Ahmed
Departments of Psychiatry and Obstetrics and Gynaecology, Assam Medical College and Hospital, Dibrugarh, Assam, India.
E-mail: drkamala_99@yahoo.co.in

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