HYPNOTHERAPY FOR PERSISTENT GENITAL AROUSAL DISORDER: A Case Study

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Abstract: Persistent genital arousal disorder (PGAD) is characterized by intrusive sexual arousal that is unresolvable via sexual activity and persists for an extended period of time. PGAD’s etiology is unknown, and it has no established treatments. This case study reports on a 71-year-old female patient diagnosed with PGAD who received 9 sessions of hypnotherapy. The following measures were administered at baseline and follow-up: Hospital Anxiety and Depression Scale, Center for Epidemiologic Studies Depression Scale, Pittsburgh Sleep Quality Index, and visual analogue measurements of quality of life, intensity of symptoms, and marital interference. At follow-up, there were significant improvements in all measures. Given the currently limited alternatives for treatment, this case study suggests that hypnotherapy may be beneficial for some patients with PGAD.

Persistent genital arousal disorder (PGAD) is a condition characterized by presence of the following features: (a) persistent physiological signs of sexual arousal (genital and breast vasocongestion and sensitivity) for an extended period of time (hours to days) that do not subside on their own; (b) the arousal is unable to be resolved completely despite one or more orgasms; (c) the symptoms are experienced as intrusive, unwanted, and unbidden; (d) the symptoms may be triggered not only by sexual activity but also by nonsexual stimuli; and (e) there is at least a moderate feeling of distress associated with the experience (Goldmeier, Mears, Hiller, & Crowley, 2009; Leiblum, 2009; Leiblum & Nathan, 2001). PGAD was first described in 2001 (then named Persistent Sexual Arousal Syndrome) in a collection of five case studies involving women presenting with the symptoms that now characterize PGAD. Little is known about PGAD, such as its etiology, mechanisms of action, or appropriate therapies. There is no obvious hormonal, vascular, neurological, or psychological cause attributed to its symptoms, although
it is likely that a combination of the above may contribute to its onset. Recent case studies have shown a correlation between PGAD symptoms and antidepressant usage (Leiblum & Goldmeier, 2008).

Thus far, treatment options for patients diagnosed with PGAD have been extremely limited due to a lack of understanding of the disorder and the rarity with which it occurs (Korda, Pfau, Kellner, & Goldstein, 2009). There is currently no established treatment for PGAD, and many of the current interventions utilize a combination of pharmacological and psychological treatments in an attempt to address the patient’s physiological and psychological distress. Biological treatment options may include a topical anesthetic agent, other pharmacological therapies, or even surgical interventions (Goldmeier et al., 2009). Masturbation may provide limited reduction of symptoms, although the results for this have been mixed and relief is frequently temporary (Goldstein, De Elise, & Johnson, 2006; Wylie, Levin, Hallam-Jones, & Goddard, 2006). Psychological treatment options include cognitive-behavioral interventions aimed at enhancing coping skills and decreasing the patient’s level of anxiety related to the symptoms and their onset (Hiller & Hekster, 2007). Due to the severity of PGAD symptoms, electroconvulsive therapy has been utilized in some cases (Korda et al., 2009; Yero, McKinney, Petrides, Goldstein, & Kellner, 2006).

Given that treatment options for PGAD are very limited, there is a need for safe and effective alternatives. To our knowledge, no studies have yet been conducted on the therapeutic potential of hypnosis for PGAD. The following case study describes the use of hypnotherapy to treat a patient suffering from PGAD.

**Case Study**

Ms. P is a married, 71-year-old Caucasian female who presented with uncontrolled and debilitating levels of sustained genital arousal. Ms. P was diagnosed with Parkinson’s disease in 2001 and has, over the past 10 years, been placed on various medications including Sinimet, Comtan, Mirapex, and Amantadine to manage her symptoms. The patient’s neurologist diagnosed Ms. P with PGAD in 2011. Ms. P’s PGAD-relevant symptoms appeared shortly after an increased dose of Mirapex. Her physicians attributed the development of PGAD symptoms to the Mirapex medication (a known and rare side effect); however, the cause remains unknown. She reported persistent sensations of genital arousal, vaginal wetness, and genital engorgement that usually persisted for most of the day. Additionally, she stated that the symptoms followed a cyclical pattern, reaching their highest intensity during the evenings and their lowest during nights and mornings. Ms. P’s symptoms were initially associated with sexual desire, but the
initial pleasure of the sensations became entirely distressing within a few weeks. She reported that the PGAD symptoms interfered with her daily functioning and enjoyment of previously pleasurable activities, including her work as an artist, housework, cooking, socializing, travelling, attending church, and gardening. She stated that the symptoms caused her the most distress when she experienced them during church and travel. Additionally, she mentioned that she avoided wearing any type of close-fitting clothing, as this exacerbates her symptoms. Ms. P reported that PGAD also interfered with her sexual relationship with her husband of 52 years. In the early phase of her disorder, sexual activity provided brief relief (a few minutes) from her symptoms, but eventually this effect diminished and sexual activity began to intensify her symptoms. Due to these negative effects, she and her husband avoided sexual activity altogether due to fear of worsening her symptoms. She stated that she had tried using Lidocaine and ice baths, but these had little to no noticeable effect other than short, temporary relief. She reported considerable anxiety, difficulty sleeping, and poor quality of life and was referred by her neurologist (to the first author, GE) for hypnotherapy. At the time of consultation, no treatment strategies had successfully ameliorated her symptoms.

**Measures**

Prior to beginning hypnotherapy in the initial visit, the patient was administered several psychometric instruments and rating scales. These included the Hospital Anxiety and Depression Scale (HADS), the Center for Epidemiologic Studies Depression Scale (CES–D), the Pittsburgh Sleep Quality Index (PSQI), and visual analogue measurements for intensity of PGAD symptoms at their best and worst, marital interference due to symptoms, and quality of life. These instruments were also administered at a follow-up appointment 6 months later.

*Hospital Anxiety and Depression Scale (HADS).* The Hospital Anxiety and Depression Scale (HADS) is a 14-item instrument that provides a sensitive measure of anxiety and depression in medical patients (Zigmond & Snaith, 1983). Internal consistency of the items has been demonstrated ($r = .76$, $p < .02$), and the scale has been shown to be a valid measure of anxiety ($r = .74$, $p < .001$) and provides a dimensional representation of mood (Herrmann, 1997).

*Pittsburgh Sleep Quality Index (PSQI).* The Pittsburgh Sleep Quality Index is a reliable ($\alpha = .83$), self-rated 19-item questionnaire that assesses sleep quality and disturbances over a 1-month time interval (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989).
Center for Epidemiologic Studies Depression Scale (CES–D). The CES–D is a 20-item self-report instrument that measures symptoms of depression that have occurred over the past week (Radloff, 1977). Internal consistency has been found to be .90 in patient samples (Radloff, 1977).

Visual Analogue Measures. Visual analogue scales were used to measure intensity of PGAD symptoms at their worst and at their best, marital interference, and quality of life. The patient-rated symptoms on visual analogue scales with lengths of 100 millimeters, anchored with worst possible to best possible. Scores were determined by measuring the points that the patient marked on the scale, resulting in scores between 0 and 100.

Stanford Hypnotic Clinical Scale (SHCS). The Stanford Hypnotic Clinical Scale was used to assess hypnotizability (Morgan & Hilgard, 1978–1979). The items are scored with either a “+” or “−”, and the total score ranges from 0 to 5. Hypnotizability scores consist of low hypnotizable (passes zero to one item), middle hypnotizable (passes two to three items), and highly hypnotizable (passes four to five items).

Hypnotherapy Intervention

During the initial visit, the patient completed the baseline measures and provided interview information and informed consent. Her questions regarding hypnotherapy were also addressed. Ms. P was seen for nine hypnotherapy sessions that were scheduled approximately biweekly based on her convenience. Each session lasted approximately 45 minutes. Primary goals of the intervention included decreased distress, improved sleep, and increased control over PGAD symptoms.

Sessions 1 and 2 involved a hypnotic relaxation induction using a transcript (Elkins & Handel, 2001) with suggestions for relaxation and decreasing distress. Following an eye-focus induction, the patient was given suggestions for dissociation and feeling a “wave of relaxation, spreading from the top of the head to the feet” and “every breath of air leading to a deeper and a more relaxed state.” In addition, the patient was provided with an audio CD recording of the session and instructed to practice with it at home on a daily basis. After 1 month, the patient reported that she was able to achieve considerable relaxation and that her sleep was slightly improved, but her symptoms of persistent genital arousal remained.

Sessions 3 and 4 involved hypnotic inductions that followed the same transcript but also included individualized mental imagery. The patient reported that she had a number of flowers planted around her home and that she enjoyed walking outside. She brought several photographs of her house and landscaping, which provided the basis
for individualizing mental imagery. Suggestions were given that she would enter a “deep state of hypnosis” and that she would “experience walking outside, at home and in the flower garden, feeling calm and comfortable in every way . . . no tension, no stress, at ease and relaxed.” Posthypnotic suggestions were given that she would “find the symptoms of persistent genital arousal becoming less” and that her sleep would improve. Following Sessions 3 and 4, the patient noted that she was able to relax more, that she was able to fall asleep more quickly at night, and that her symptoms of persistent genital arousal were decreased while “in a hypnotic state.” However, the sensations of PGAD returned upon alerting.

Sessions 5, 6, and 7 included hypnotic inductions with suggestions for relaxation, individualized mental imagery, and symptom reduction as outlined above. In addition, during each hypnotic induction, the patient was told that she would hear a sound and that, as the “sound fades . . . the symptoms and sensations of persistent genital arousal would become less and less . . . fading away with the sound.” The sound was provided through the use of a metal Tibetan “singing bowl” struck with a mallet providing a prolonged gong sound in the note of C. In addition, Ms. P was given instruction in the practice of self-hypnosis (without the use of the CD) and given the suggestion, “during self-hypnosis practice, recall the gong sound and hear it fading . . . and as it does, so the symptoms of persistent genital arousal will fade.”

Upon returning for Session 8, Ms. P reported that her symptoms were improving. She stated that she felt less distress and that, at times, her symptoms of persistent genital arousal were almost completely gone. She noted that, when experiencing unwanted genital arousal, she was able to reduce her symptoms via self-hypnosis practice. Session 8 included a discussion of ways Ms. P could integrate her practice of self-hypnosis into her daily routine. In addition, a hypnotic induction was completed similar to the previous sessions (Sessions 5–7).

Session 9 also involved a hypnotic induction with suggestions for relaxation and individualized mental imagery. She was also given suggestions that she would be “less bothered by symptoms of persistent genital arousal . . . as they fade into the background and become less and less” and that she would continue to “remain more in control of these symptoms” with an “improved sense of well-being, less stress, as the symptoms become less and less . . . day by day.” Her continued practice of self-hypnosis was encouraged, and the follow-up appointment was scheduled for approximately a month later (6 months from the initial consultation). At the follow-up appointment, the patient completed all outcome measures including the SHCS.
Table 1  
*Reduction in Symptoms Pre-to Posttreatment Follow-Up*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretreatment Rating</th>
<th>Posttreatment Rating</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>HADS–Anxiety Subscale</td>
<td>8</td>
<td>6</td>
<td>25%</td>
</tr>
<tr>
<td>HADS–Depression Subscale</td>
<td>8</td>
<td>3</td>
<td>63%</td>
</tr>
<tr>
<td>CES–Depression</td>
<td>17</td>
<td>4</td>
<td>76%</td>
</tr>
<tr>
<td>PSQI–Pittsburgh Sleep Quality Index</td>
<td>8</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>VAS: Intensity of Symptoms at their Worst</td>
<td>99</td>
<td>99</td>
<td>0%</td>
</tr>
<tr>
<td>VAS: Intensity of Symptoms at their Best</td>
<td>76</td>
<td>2</td>
<td>97%</td>
</tr>
<tr>
<td>VAS: Marital Interference</td>
<td>81</td>
<td>3</td>
<td>96%</td>
</tr>
<tr>
<td>VAS: Quality of Life</td>
<td>52</td>
<td>92</td>
<td>77%</td>
</tr>
</tbody>
</table>

HADS = Hospital Anxiety and Depression Scale; CES–Depression = Center for Epidemiologic Studies–Depression Scale; PSQI = Pittsburgh Sleep Quality Index; VAS = Visual Analog Scale.

**Results**

The patient achieved a score of 4 on the Stanford Hypnotic Clinical Scale indicating high hypnotizability. Posttreatment results showed significant decreases in symptom intensity for marital interference, sleep disturbance, and depression, as well as an increase in quality of life (Table 1). Ms. P’s score on the Hospital and Depression Scale decreased from baseline to follow-up, with reduction in the depression (63%) and anxiety (25%) subscales. Similarly, her score on the Center for Epidemiologic Studies Depression Scale decreased by 76%. Ms. P’s scores on the Pittsburgh Sleep Quality Index also decreased by 50%, which corresponded to a categorical shift from “poor quality of sleep” to “good quality of sleep.” Her visual analogue scale scores also suggested improvement in PGAD-related symptoms. While there was no change in her rating of “persistent genital arousal at its worst” (0% change), there was a significant improvement in “symptoms at their best” from baseline to follow-up (97%). Additionally, her rating of marital interference due to symptoms of PGAD improved by 96%, and her current quality of life rating improved by 77% from baseline to follow-up.

**Discussion**

The patient’s improvement suggests that hypnotherapy may be a promising intervention for the physical and psychological symptoms associated with PGAD. The results demonstrate that, following the
hypnotherapy intervention, the patient’s symptoms of depression, sleep disturbance, and marital interference were significantly alleviated, while quality of life improved. The intervention also resulted in significant improvement in the intensity of PGAD symptoms “at their best,” while the intensity of symptoms “at their worst” remained unchanged. This likely indicates that the patient continued to have symptoms of persistent genital arousal, but that she had achieved significant control over those symptoms. The hypnotherapy intervention also resulted in a significant decrease in the degree to which the PGAD was having a negative impact on the patient’s marital relationship. Because she was able to achieve greater symptom control, there was less interference with her marital relationship. This was an area of great concern for the patient, and at follow-up she reported that she and her husband had been able to resume a sexual relationship without any symptom exacerbation.

As the patient in this case study scored in the high range of hypnotizability, further study would be needed to determine if similar results could be obtained in patients in the lower range of hypnotizability. In addition, the majority of hypnotherapy sessions involved considerable individualization of mental imagery and the use of sounds produced by a metal Tibetan “singing bowl.” The degree to which these elements of the intervention were idiosyncratic to this particular patient or would be applicable to other patients with PGAD is unknown.

The results from this case study are encouraging; however, the limited generalizability of a single case study should be taken into account. Further research, including additional case studies, would be helpful in clarifying the clinical utility of hypnosis for PGAD and would better inform the field in general about this disorder.

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**References**


**Hypnotherapie bei andauernder genitaler Erregungsstörung : Eine Fallstudie**

Gary R. Elkins, Derek Ramsey und Yimin Yu

Abstrakt: Die andauernde genitaler Erregungsstörung (PGAD) ist durch häufig wiederkehrende und unvorhergesehene sexuelle Erregung charakterisiert, die nicht durch sexuelle Aktivität aufgelöst werden kann und über längere Zeit anhält. Die Ätiologie der PGAD ist unbekannt und es gibt keine etablierte Behandlung. Diese Fallstudie berichtet von einer 71jährigen Patientin mit PGAD, die 9 Hypnotherapiesitzungen erhielt. Folgende Messdaten wurden am Grundpunkt und am follow-up aufgenommen: Hospital Anxiety and Depression Scale, Center for Epidemiologic Studies Depression Scale, Pittsburgh Sleep Quality Index und visuelle Analogskalen in Bezug auf Lebensqualität, Symptomausprägung und eheliche Probleme. Am follow-up ergaben sich in allen Messungen signifikante Verbesserungen. Da es bisher nur eingeschränkte Behandlungsalternativen gibt, möchte diese
Fallstudie zeigen, daß Hypnotherapie für einige Patienten mit PGAD von Vorteil sein könnte.

**Stephanie Reigel, MD**

L’hypnothérapie pour traiter le syndrome d’excitation génitale persistante : une étude de cas

Gary R. Elkins, Derek Ramsey et Yimin Yu

Résumé: Le syndrome d’excitation génitale persistante (SEGP) se caractérise par une excitation sexuelle importune et prolongée, non résolue par l’activité sexuelle. L’étiologie du SEGP est encore inconnue, et il n’existe aucun traitement établi. Cette étude de cas porte sur une patiente de 71 ans souffrant du SEGP ayant reçu 9 séances d’hypnothérapie. Les échelles d’évaluation suivantes ont été administrées au départ et au suivi : l’échelle d’anxiété-dépression en cours d’hospitalisation, l’échelle de dépression du Center for Epidemiologic Studies, l’Indice de qualité du sommeil de Pittsburgh et l’échelle visuelle analogue de mesure de la qualité de vie, de l’intensité des symptômes et de l’interférence maritale. Lors du suivi, on a noté des améliorations significatives des résultats de toutes ces mesures. Étant donné le nombre actuellement limité d’autres traitements, cette étude de cas indique que l’hypnothérapie peut apporter un soulagement à certaines patientes souffrant du SEGP.

**Johanne Reynault**

C. Tr. (STIBC)

Hipnoterapia para el Trastorno de Excitación Genital Persistente: Un estudio de caso

Gary R. Elkins, Derek Ramsey, y Yimin Yu

Resumen: El Trastorno de Excitación Genital Persistente (TEGP) se caracteriza por excitación sexual intrusiva que no se resuelve mediante actividad sexual y persiste un periodo extendido de tiempo. La etiología del TEGP se desconoce y no existen tratamientos establecidos. Este estudio de caso trata sobre una paciente de 71 años de edad diagnosticada con TEGP que recibió nueve sesiones de hipnoterapia. Las siguientes mediciones se aplicaron en la línea basal y el seguimiento: Escala de Ansiedad Hospitalaria y Depresión, la Escala de Depresión del Centro de Estudios Epidemiológicos, el Índice de Calidad de Sueño Pittsburg, y mediciones visuales análogas sobre calidad de vida, intensidad de síntomas, e interferencia marital. En el periodo de seguimiento se encontraron mejorías significativas en todas las mediciones. Considerando las actualmente limitadas alternativas de tratamiento, este estudio de caso sugiere que la hipnoterapia podría beneficiar a algunos pacientes con TEGP.

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