

# Extracorporeal shockwave therapy for the management of persistent genital arousal disorder/genito-pelvic dysesthesia from lumbo-sacral spine pathology-induced sacral radiculopathy

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## Introduction

Persistent genital arousal disorder (PGAD), a form of genito-pelvic dysesthesia (GPD), is a sexual medicine condition highly associated with despair, emotional lability, catastrophization and suicidality. PGAD/GPD may be triggered by an inflammatory radiculopathy of sacral spinal nerve roots in the cauda equina from lumbar annular tear(s) or sacral Tarlov cyst(s). Approximately 1% of the population have PGAD/GPD. These patients may suffer from unwanted, unrelenting, unprovoked, arousal and/or dysesthesia symptoms with limited treatment options.

## Material & Method (please include the kind of device you are using)

This is a retrospective chart review of patients who underwent lumbo-sacral extracorporeal shockwave therapy (ESWT) who had: 1) distressing PGAD/GPD symptoms; 2) abnormal neurogenital testing; 3) abnormal lumbo-sacral MRI's exhibiting sacral Tarlov cyst or lumbar annular tear; and 4) a consultation with a minimally invasive spine surgeon. ESWT was applied to the right and left lateral sacral (Tarlov cyst) and/or lumbar area (annular tear) identifying regions of moderate-severe discomfort using the UroGold 100 MTS OP155 unfocused parabolic probe, Hz 3, membrane level 1. The probe was maintained over that region until discomfort diminished to zero. Initial energy flux density was 0.06 mJ/mm<sup>2</sup>, increasing energy by 0.01 mJ/mm<sup>2</sup> until a new region of moderate-severe discomfort was identified and discomfort returned to zero, with a maximum energy flux density of 0.11 mJ/mm<sup>2</sup>. From 2 to 6 treatment sessions were performed with 2800-4900 shocks each session, based on individual tolerance. Patients self-rated their PGAD/GPD intensity prior to treatment and multiple times during treatment. Beginning with the second treatment, patients completed the Patient Global Impression of Improvement (PGI-I) after signing consent. Clinically relevant improvement was expressed by scores of 1-3 on the scale of 1-7.

## Results

21 people (mean age 39 ± 13 years) were identified: 10 had undergone lumbar and/or sacral spine surgery with only partial resolution of symptoms; 8 were not considered candidates for spine surgery; 3 chose not to undergo spine surgery. All exhibited various bothersome symptoms of PGAD/GPD during lumbo-sacral ESWT with marked reduction in symptoms during the actual shockwave treatment in 13/21 (62%). These patients also exhibited longer-term marked reduction in symptoms with reports of 1-3 on the PGI-I with follow-up of 2-4 months. Adverse events were limited to short-term back pain that fully resolved by 1 week.

## Discussion

Initial results are promising for this non-invasive, non-hormonal, non-pharmacologic shockwave energy-based strategy for a highly selected population of patients with distressing PGAD/GPD secondary to Tarlov cyst and/or lumbar annular tear induced sacral radiculopathy.

**Technology:** Focused Shockwave

**Device and Company:** Urogold 100, MTS

**COI:** No conflict of interest