Successful Multidisciplinary Management of Foot Pain With Orgasm: A Case Report

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ABSTRACT

Introduction: There is very little literature on referred pain syndromes with orgasm. Referred foot pain with orgasm is rare and evidence based diagnosis and management is not defined. Dysorgasmia is a pain condition that can severely affect sexual health and quality of life.

Aim: To add to the understanding and scant literature on referred orgasmic pain with pelvic floor and myofascial etiology.

Methods: A 34-year-old cis-female presented to a Physiotherapist, Sexual Medicine Physician, and Sex Therapist with a rare case of new insidious onset right foot pain with orgasm.

Results: Femoral nerve entrapment was diagnosed at the level of the inguinal ligament, referring pain to the right terminal sensory branch of the saphenous nerve along the medial aspect of the foot. Physiotherapy management resolved the patient's pain, while medical assessment was important to rule out numerous potential pathologies and to facilitate multidisciplinary management. Psychological therapy via sex therapy was integral in the highly successful and improved sexual outcome for this patient and her husband.

Conclusion: This case report details the successful multi-disciplinary assessment and management of a rare dysorgasmia and the importance of addressing sexual sequelae to add to the small amount of literature on difficult referred pain syndromes during sexual arousal and orgasm. **Meddings K , Klein C, Elliott S, Successful Multidisciplinary Management of Foot Pain With Orgasm: A Case Report. Sex Med 2022;10:100499.**

Key Words: Orgasmic Dysfunction; Nerve Entrapment; Foot Pain; Physiotherapy; Sex Therapy

INTRODUCTION

There is very little literature on referred pain syndromes with orgasm. Referred foot pain with orgasm is rare and evidence based diagnosis and management is not defined. Dysorgasmia is a pain condition that can severely affect sexual health and quality of life.

A 34-year-old healthy married cis-female presented to a Physiotherapist, Sexual Medicine Physician, and Sex Therapist with a rare case of new onset right foot pain with orgasm.

Received January 16, 2022. Accepted February 4, 2022.

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https://doi.org/10.1016/j.esxm.2022.100499

CASE PRESENTATION

The 34-year-old cis-female patient presented to a Gynecologist and Neurologist with a 5-month history of 20 seconds of sharp pain in the medial arch of the right foot with either singular or multiple orgasms. Prior to onset, the patient had normal sexual drive, arousal and orgasm and no history of sexual pain.

When foot pain occurred at orgasm, there was no associated dyspareunia, dysmenorrhea, sexually transmitted infections, or history of lower back pain or injury. Pelvic examination by the Gynecologist was normal and symptoms were not elicited on examination. Assessment by a Neurologist revealed normal cranial nerves, symmetrical muscle mass, and 2+ reflexes bilaterally with no numbness, weakness or pain of the legs.

Pelvic ultrasound and multisequence multiplanar MRI of the hips and pelvis at *1.5 Tesla* was normal. There was a slight anterior accentuation of the sacrococcygeal curvature but without signal abnormality or displacement. Electrophysiological studies

demonstrated no evidence of nerve root compression. Caesarean scar was noted. Referral was made to a Sexual Medicine Physician and pelvic health Physiotherapist.

On medical history, the patient delivered a full-term baby following emergency caesarian section with ongoing scar numbness 3 years prior and was using condoms and family planning as contraception at the time of assessment. Past history included right knee pain, recent weight loss and a motor vehicle accident 14 years prior with ongoing migraines and upper back pain. Medical history included Paramyotonia Congenita, a rare non-progressive skeletal muscle genetic disorder, which had diminished to mild stiffness at the time of foot pain presentation.

On sexual medicine history, foot pain did not occur with high preorgasmic arousal, only orgasm, and occurred with self or partner stimulation by hand, oral, vaginal intercourse or vibrator stimulation. Altering pelvic positioning during intercourse did not alter the pain. Only pelvic floor contraction at high arousal would mimic the discomfort in her foot but not to the same degree as with orgasm. The use of stronger stimulation such as a vibrator to reach orgasm did not intensify the orgasmic pain, and in fact, vibrator use had become more common in order for the "[pleasurable] benefit to outweigh the pain." Despite their sexual life being disrupted, they continued to be sexual twice per week. With these findings and those on imaging, the Sexual Medicine Physician felt the pelvic floor was likely the root of a form of nerve compression resulting in distal symptoms, and agreed with the biomechanical approach of the pelvic health Physiotherapist who had seen the woman about 10 months after onset of symptoms.

The Physiotherapist completed an objective assessment using the Integrated Systems Model Physiotherapy framework developed by Diane Lee.[1-3] The patient was found to have no obvious redness, swelling, ecchymosis, or joint effusion in the right foot or leg. Gait was normal. There was full active and passive range of motion in the right hip, knee and ankle. Manual strength muscle testing was performed and found to be grade 5/5 in both lower limbs. There was no tenderness on palpation of the right foot in any region. In functional assessment, both standing and a single leg stance on the right leg, the patient's pelvis would rotate to the right in the transverse plane. Neurological examination showed no deficits in dermatomal, myotomal, or reflex testing. Lower limb neural tension testing revealed an increase in femoral nerve tension in the right side compared with the left. After considering the relationship between multiple body regions, it was determined that the pelvis was the primary site of impairment and required further assessment.

As compared to the left, manual palpation of the musculoskeletal structures of the pelvic floor showed increased resting tone and tenderness of the right illiopsoas and the internal and external obliques musculature, with tenderness and palpable fibrosis of the caesarean scar on the right side. Real time ultrasound imaging of the abdominal wall and pelvic floor musculature using the *GE Logiq E R7* ultrasound system trans-abdominally in the transverse plane showed overactivity of the lower fibers of the internal obliques and transverse abdominis muscles on the right side of the abdominal wall and poor motor control of the right lower fibers of transverse abdominis when compared with the left side. Internal digital vaginal examination demonstrated differences in the patient's sensation between the left and right levator ani musculature, with overactivity of the right levator ani muscle group and myofascial restrictions when palpated.

Femoral nerve entrapment was diagnosed at the level of the inguinal ligament, where the femoral nerve divides into anterior and posterior branches. It was thought the referring pain was from the right terminal sensory branch of the saphenous nerve, part of the posterior branch of the femoral nerve as it passes into the medial aspect of the foot. This diagnosis was based on location of the patient's pain on history, as well as findings on physical exam including positive right femoral neural tension testing, caesarean scar tissue adhesions, and increased activity and tone of the right pelvic floor and abdominal musculature.

Treatment included trigger point and active release therapy for the right psoas, iliacus, obliques and pelvic floor musculature, scar mobilization techniques, abdominal wall, and pelvic floor re-training, and pain education. Home practices for the patient included self-releasing the musculature using massage techniques, stretches for the psoas, obliques, and pelvic floor and abdominal wall, and pelvic floor re-training exercises. Sexual intercourse with penetration was permitted if pain-free. Initially the patient needed to complete the self-release prior to intercourse but it was eventually not required and the relief was permanent. In total, 5 Physiotherapy sessions were completed over a period of 3 months to achieve long term relief for the patient and independence with their home program.

Upon completion, despite having pain-free orgasms for 2 weeks, the Physiotherapist and Sexual Medicine Physician felt sex therapy by a Registered Psychologist would benefit the couple. The patient attended the Psychologist and stated, prior to the dysorgasmia, being in a happy, heterosexual, monogamous relationship with her husband of 13 years inclusive of an enjoyable sexual relationship. Once the orgasm-induced foot pain started, however, sex became about trying to figure out "what was causing and what might ameliorate the pain" vs pleasure, and by the time the foot pain had resolved the negative consequences to her sex life had worsened. She described a continuing struggle to relax and enjoy her husband's attempts to pleasure her, having worrying thoughts that her husband did not understand her body, and finding communication about how she was feeling to be difficult.

Given the interpersonal nature of her presenting concerns, the husband agreed to take part in subsequent sessions. The sessions then focused on helping the couple define the criteria for greater sexual intimacy and to communicate more openly about sexuality, a new skill for both. They reported that being Christian, they had "jumped from not having sex before marriage to having sex" without prior exploration or knowledge of each other's sexuality.

Gradual and structured exercises of mindful touch to one another for their own interest rather than with the intent of pleasing their partner (sensate focus)[4,5] were initiated. By mindfully turning the patient's attention to physical sensations vs distractions and helping both partners explore and learn about each other's bodies, their ability to speak openly about sex greatly improved, resulting in her feeling very loved and desired by her spouse — something she had never previously felt during sexual intimacy with him.

The couple completed five sessions of sex therapy, resulting in the patient no longer worrying about pain or other negative consequences during sexual activities; letting go of preconceived notions about sex; learning about their bodies; communicating openly about their desires; letting go of negative emotions that had previously been triggered during sexual intimacy; feeling comfortable being "totally vulnerable"; and learning the value of slowing things down and making quality time for one-another. While the patient's initial goal was to retrain the association between sex and pain to one of sex and pleasure, she also reported improvements in the couple's overall intimacy and connection.

DISCUSSION

This case represents a successful biopsychosocial approach to dysorgasmia. Caesarean scar tissue adhesions and increased activity and tone of the patient's right iliopsoas, obliques, and pelvic floor musculature meant that the femoral nerve was at risk of becoming entrapped or prevented from gliding well. Possible mechanisms include local changes in vascular permeability, impairment of axonal transport, and the formation of edema.[6] Vasocongestion from sexual arousal and contraction of the pelvic floor and surrounding musculature at orgasm likely increased the risk of intermittent compression of the femoral nerve, resulting in a referred pain response into the saphenous nerve of the right foot, the sensory branch of the femoral nerve.[7,8] A significant, albeit temporary, compression would explain the dysesthesia of sharp pain at the site verses a mild tingling. Subtle but positive changes occurred over time to diminish and eventually alleviate the underlying pathophysiology without resorting to pain medication or symptomatic management. Through sex therapy, this motivated couple ended up with an improved sexual life beyond their sexual state prior to the introduction of pain with orgasm.

Management of pain with sexual activity is complicated given the various biopsychosocial aspects of sexual functioning, and sequelae can continue even with pain resolution. While physiotherapy through a biomechanical approach was the main contributor of pain relief, the medical assessment was important to rule out numerous potential pathologies and to assist in multidisciplinary management. Psychological therapy via sex therapy was integral in the highly successful and improved sexual outcome for this patient and her husband. This case study exemplifies the productivity achieved by open and respectful synergy between different sexual health care professionals leading to a rewarding sexual life for the couple beyond what could have been expected by one therapeutic stream alone.

ACKNOWLEDGMENTS

We are grateful to the patient for allowing this case report to be published.

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Conflict of Interest: The authors report no conflicts of interest.

Funding: None.

STATEMENT OF AUTHORSHIP

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REFERENCES

1. Hides JA, Donelson R, Lee D, et al. Convergence and divergence of exercise-based approaches that incorporate motor control for the management of low back pain. **J Orthop Sports Phys Ther 2019;49:437–452.**
2. Lee D. Highlights from an integrated approach to the treatment of pelvic pain and dysfunction. In: Magee DJ, Zachazewski JE, Quillen WS, Manske RC, editors. Pathology and intervention in musculoskeletal rehabilitation. 2nd ed. Maryland Heights, MO: Elsevier; 2016. p. 612–650.
3. Lee D. The pelvic girdle: An integration of clinical expertise and research. 4th ed. Edinburgh, UK: Elsevier/Churchill Livingstone; 2011.
4. Masters WH, Johnson VE. Human sexual response. Boston: Little Brown; 1966.
5. Weiner L, Avery-Clark C. Sensate focus: Clarifying the Masters and Johnson model. **Sex Relatsch Ther. 2014;23:307–319.**
6. Martin R, Martin HD, Kivlan BR. Nerve entrapment in the hip region: Current concepts review. **Int J Sports Phys Ther 2017;12:1163–1173.**
7. Bohlen JG, Held JP, Sanderson MO, et al. The female orgasm: Pelvic contractions. **Arch Sex Behav 1982;11:367–386.**
8. Kratochvíl S. Vaginal contractions in female orgasm. **Cesk Psychiatr 1994;90:28–33.**