



AN INTERDISCIPLINARY APPROACH TO CHRONIC PELVIC PAIN MANAGEMENT FOLLOWING FEMALE-TO-MALE GENDER REASSIGNMENT SURGERY

BEYOND PAIN

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Hypothesis / aims of study

Recent advancements in female-to-male (FtM) gender transition surgeries have significantly enhanced the alignment of physical appearance with gender identity, but they also present considerable functional and psychosocial challenges. (1)

A prominent concern among these is chronic postoperative pelvic pain, encompassing neuropathic, nociceptive, nociplastic and psychological components. This multifaceted pain significantly impacts patient satisfaction and underscores the necessity for sophisticated pain management strategies. Although rehabilitative techniques often form a part of postoperative pain management strategies and can improve the pain symptom, there is a notable lack of shared protocols for their implementation. (2) The existing body of literature particularly lacks comprehensive protocols for managing post-FtM surgery pelvic pain. This case study delves into the management of chronic pain in a patient following gender reassignment surgery (FtM), with an emphasis on the need for multidisciplinary approaches.

Study design, materials and methods

A 49-year-old male patient with a body mass index of 26, experienced **chronic pelvic pain syndrome with neuropathic and nociplastic elements** following multiple surgeries since 2013 including: hysterectomy, bilateral mastectomy, phalloplasty, urethroplasty with clitoral incorporation, scrotoplasty, vaginectomy, and glans reconstruction. In 2022, a pelvic MRI identified a fistulous tract from the penile urethra to the left subpubic region. He underwent neourethrocystoscopy and excision of the perineal fistulous tract, with cauterization of residual vaginal tissue, which exacerbated his pelvic pain. He was referred to our center for a **multidisciplinary pain management program.**

Results and interpretation

The two months inpatient treatment yielded significant improvements in various domains: pain (as measured by DN4 and NRS scales), global functionality and autonomy (evaluated by the Barthel index) and overall quality of life (evaluated by SF36).



Scales administered at admission: NRS 8/10, DN4 6/10, BI 70, SF36 55/100.

Scales administered at discharge NRS 4/10, DN4 4/10, BI 95 e SF36 85/100.

The integrated and intensive multimodal care provided in an inpatient setting was able to significantly improve the existing pain condition. The healthcare professionals worked in a synergistic and integrated manner, periodically holding meetings to optimally coordinate all interventions. Consequently, the above-described combined management enabled the patient to cope with the pelvic pain, with the following highlights:

Therefore, we implemented a multidisciplinary rehabilitation protocol for the treatment of pelvic pain, which included a comprehensive inpatient rehabilitation approach incorporating:

- physiotherapy (2 hours/day)
- hydrokinesitherapy (6 hours/week)
- neuropsychological therapy, including transcranial direct current stimulation (tDCS) and neurofeedback (1 hour/day)
- occupational therapy
- acupuncture (3 hours/week)
- pharmacological treatments (SSRIs and pregabalin).

In the **physiotherapy sessions**, manual therapy techniques were utilized for managing areas of tenderness and tender points within the context of an overactive pelvic floor, and breathing exercise techniques were also applied. The only physical therapy utilized was tecar therapy, applied to the pelvic tender points. (2)

The intervention with the **occupational therapist** was focused on facilitating penetrative sex, as the neophallus had not undergone the final surgery for penile prosthesis placement due to the patient's intense pelvic pain. The sizes of commercially available sheaths were not compatible with the circumference of the patient's neophallus, leading to the unexplored path of creating a custom penile sheath. So through an innovative project, an orthopedic company with extensive experience in creating high-quality prostheses was contacted, and thanks to the collaboration with technicians, it was possible to create a custom silicone and carbon sheath to provide rigidity to the penis, allowing for penetration. The sheath is attached to the pelvis via an adjustable strap that also supports the patient's penis. (Figure 1-2)

In the **neuropsychological treatment**, the patient underwent 22 sessions of individual psychotherapy within the framework of multidisciplinary care. The psychotherapist's intervention included an initial clinical assessment through an interview to evaluate the patient's general emotional and affective condition. This was followed by a more detailed examination of the symptomatic, perceptual, and emotional components of the pain experience, using standardized questionnaires and scales. After this initial phase, a series of 10 sessions of neuromodulation using tDCS (transcranial direct current stimulation), a non-invasive electrical stimulation technique, was conducted according to pain treatment protocols reported by Lefaucheur and Fregni. (3) This treatment modality was complemented by EMDR (Eye Movement Desensitization and Reprocessing) sessions, aimed at stabilizing the patient's emotional resources and desensitizing negative or traumatic events associated with the clinical course and emergency medical treatments, particularly for concurrent complications.

1) significant reduction in pain rating scales;

2) improvement in quality of life;

3) enhancement of independence in activities of daily living and resumption of social engagement;

4) the approach is non-invasive;

5) both the patient and caregiver highly appreciate the approach.

Conclusions

This case underscores the complexities of managing pain in FtM gender reassignment surgery, highlighting not only the significance of a multimodal treatment approach in significantly improving the patient's chronic pelvic pain but also the critical need for a thorough preoperative multidisciplinary clinical assessment. Such an evaluation is crucial to identify risk factors that may help predict which patients are likely to experience postoperative pain. Furthermore, the authors emphasize the importance of implementing a preemptive rehabilitative care plan for these identified at-risk patients before undergoing gender reassignment surgery. This proactive approach aims to minimize the risk of postoperative pain syndromes, suggesting that managing pain in these cases requires both preoperative planning and postoperative intervention.



The **acupuncture sessions** were conducted on a bi-weekly basis, lasting 30 minutes each. The primary acupuncture points treated were: SP6, LR1, SP4, CV12, CV4, LI4, ST36, and KI1.

Finally **hydrokinesiotherapy** treatment was administered using a specific protocol for pain management.

We monitored the treatment efficacy by administering the following scales at the beginning (T0) and end of the treatment (T1, after 2 months): DN4 and NRS for pain, Barthel Index for the evaluation of global functionality and autonomy, and SF-36 for quality of life.

References

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