

OUTCOMES OF TRIGGER POINT RELEASE TREATMENT IN PATIENTS WITH CHRONIC PELVIC PAIN - A NOVEL RETROSPECTIVE STUDY IN AN ASIAN POPULATION

Hypothesis / aims of study

Chronic Pelvic Pain is defined by the International Continence Society as persistent pain lasting longer than 6 months or recurrent episodes of abdominal/pelvic pain, hypersensitivity or discomfort often associated with elimination changes, and sexual dysfunction often in the absence of organic aetiology [1].

In both males and females, chronic pelvic pain is characterised by involving the pelvic cavity contents of the pelvic floor musculature and the consensus is that myofascial trigger points are the most frequent cause of a regional myofascial pain syndrome [2].

Trigger point release as a treatment modality for chronic pelvic pain has gained more validation in recent years. The 2016 Canadian Urological Association Guideline on diagnosis and treatment of interstitial cystitis/bladder pain syndrome gave a grade "A" recommendation for physiotherapy and massage including myofascial tender points release as a treatment modality for pelvic floor dysfunction [3].

However till date, there has not been any literature which looks at the outcomes of trigger point release treatment specific to an Asian population of patients suffering from chronic pelvic pain.

The effectiveness of trigger point release treatment of the pelvic floor musculature in patients with chronic pelvic pain in an Asian Population case series was therefore evaluated.

Study design, materials and methods

A retrospective study of all 37 patients with chronic pelvic pain followed up at our institution's Pelvic Floor Service clinic treated with trigger point release to the pelvic floor from November 2010 to January 2017 was performed. The patients were followed up and received treatment by the same nurse clinician specialised in trigger point release.

This heterogeneous group of patients presented with lower abdominal, pelvic and/or genital pain with or without accompanying lower urinary tract or defecating symptoms.

Anorectal manometry confirmed diagnosis of pelvic floor dyssynergia/anismus in 5 patients and high resting anal pressure in 2 patients. Urodynamic study confirmed diagnosis of pelvic floor hypertonia in 3 patients, bladder hypocontractility with bladder outlet obstruction (BOO) in 2 patients, bladder acontractility in 1 patient, detrusor overactivity with BOO in 2 patients, detrusor overactivity without BOO in 2 patients and detrusor sphincter dyssynergia in 1 patient. 7 patients were classified as having levator ani syndrome and 12 patients as having chronic pelvic pain syndrome.

Outcomes of trigger point release treatment were measured based on percentage improvement in pain score on palpation of the pelvic floor. Patients' rate their pain on a numeric scale from 0 to 10, where 0 is "no pain" and 10 is "worst pain imaginable". Percentage improvement of pain score was calculated based on the formula: [(pain score at last follow up – pain score at initial treatment encounter) / pain score at initial treatment encounter] x100%.

Results

Gender distribution was similar with 19 (51.4%) males and 18 (48.6%) females. Majority were Chinese: 24 (64.9%), whilst the remainder were 6 Malays, 5 Caucasians, 1 Indian and 1 Vietnamese. Median (interquartile range) of age at point of initial consult was 50.00 (20.50) years old. The median duration of trigger point release treatment was 78.00 (191.00) days and number of treatment sessions was 4.00 (6.00). Median duration of each treatment session was 36.40 (10.40) minutes. 27 (73.0%) patients were compliant to all treatment sessions prescribed.

23 (62.2%) of patients reported an improvement in pain score on physical examination from initial treatment to last treatment session, with a median (IQR) improvement of percentage pain score of 28.57 (57.50). Of the 9 (24.3%) patients who reported no pain score improvement, 6 of them were non-compliant to treatment (defined as at least one missed treatment session). 5 (13.5%) patients had unknown improvement in pain score at the end of entire treatment duration, of which 2 patients had only attended 1 treatment session each. 27 (73.0%) patients were prescribed analgesia at initial treatment session; of which 18 (66.7%) patients had lower analgesic requirements, 4 (14.8%) had similar analgesic regime, and 4 (14.8%) had higher analgesic requirements, at the end of last follow up.

Using the linear regression model, both univariate (B= -35.60, 95% CI= -63.86 to -7.27, p=0.015) and multivariate (B= -41.00, 95% CI= -76.52 to -5.47, p=0.026) analysis showed that compliance to trigger point release treatment was a positive predictor of percentage improvement in pain score. However, whether analgesia was given or not at initial treatment encounter was not found to be associated with percentage improvement in pain score.

At the end of entire treatment duration, 7 (18.9%) patients were discharged, 9 (24.3%) remain on follow up and 21 (56.8%) patients were lost to follow up from the Pelvic Floor Service clinic.

Interpretation of results

Trigger point release treatment may help to improve pain score in both male and female patients in our Asian population independent of analgesic usage, in the majority of patients who were compliant to treatment.

Concluding message

Although patients with chronic pelvic pain are a heterogeneous group with varied presentations and associated with a diverse group of conditions, our study demonstrates that trigger point release treatment by a trained nurse clinician may help to reduce pain significantly. Therefore, our study adds to the growing amount of literature that validates the use of trigger point release in the holistic treatment approach to manage patients with chronic pelvic pain.

References

1. Deggweiler R, Whitmore KE, Meijlink JM, Drake MJ, Frawley H, Nordling J, Hanno P, Fraser MO, Homma Y, Garrido G, Gomes MJ, Elneil S, van de Merwe JP, Lin AT, Tomoe H. A standard for terminology in chronic pelvic pain syndromes: A report from the chronic pelvic pain working group of the international continence society. *NeuroUrol Urodyn*. 2016 Aug 26.
2. Cummings M, Baldry P. Regional myofascial pain: diagnosis and management. *Best Pract Res Clin Rheumatol*. 2007;21:367–87.
3. Cox A, Golda N, Nadeau G, et al. CUA guideline: Diagnosis and treatment of interstitial cystitis/bladder pain syndrome. *Canadian Urological Association Journal*. 2016;10(5-6):E136-E155.

Disclosures

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