

PELVIC FLOOR MYOFASCIAL TRIGGER POINTS: MANUAL THERAPY FOR INTERSTITIAL CYSTITIS AND THE URGENCY-FREQUENCY SYNDROME

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ABSTRACT

Purpose: The effectiveness of manual physical therapy was evaluated in patients with interstitial cystitis and the urethral syndrome, that is urgency-frequency with or without pelvic pain. The rationale was based on the hypothesis that pelvic floor myofascial trigger points are not only a source of pain and voiding symptoms, but also a trigger for neurogenic bladder inflammation via antidromic reflexes.

Materials and Methods: From September 1995 to November 2000, 45 women and 7 men, including 10 with interstitial cystitis and 42 with the urgency-frequency syndrome, underwent manual physical therapy to the pelvic floor for 1 to 2 visits weekly for 8 to 12 weeks. Results were determined by patient completed symptom score sheets indicating the rate of improvement according to outcome parameters, including 25% to 50%—mild, 51% to 75%—moderate, 76% to 99%—marked and 100%—complete resolution. In 10 cases these subjective results were confirmed by measuring resting pelvic floor tension by electromyography before and after the treatment course.

Results: Of the 42 patients with the urgency-frequency syndrome with or without pain 35 (83%) had moderate to marked improvement or complete resolution, while 7 of the 10 (70%) with interstitial cystitis had moderate to marked improvement. The mean duration of symptoms before treatment in those with interstitial cystitis and the urgency-frequency syndrome was 14 (median 12) and 6 years (median 2.5), respectively. In patients with no symptoms or brief, low intensity flares mean followup was 1.5 years. In 10 patients who underwent electromyography mean resting pelvic floor tension decreased from 9.73 to 3.61 μV ., which was a 65% improvement.

Conclusions: Pelvic floor manual therapy for decreasing pelvic floor hypertonus effectively ameliorates the symptoms of the urgency/frequency syndrome and interstitial cystitis.

KEY WORDS: bladder; urination disorders; pain, intractable; cystitis, interstitial; physical therapy

It is well established that dysfunctional pelvic floor muscles contribute significantly to the symptoms of interstitial cystitis and the so-called urethral syndrome, that is urgency-frequency with or without chronic pelvic pain.^{1–6} However, it is also possible that these muscles act not only as a source of symptoms, but also as a trigger for neurogenic inflammation of the bladder wall, which is a source of the urothelial permeability characteristic of interstitial cystitis.

Schmidt and Vapnek performed urodynamics in patients with interstitial cystitis or severe urgency and frequency, and observed that pain episodes paralleled behavioral changes in the sphincter more than in the bladder.² Pressure applied to the pelvic floor muscles, especially the levators, elicited pain and continued compression referred pain to the suprapubic and perineal regions, rectum, glans penis and labia. Most patients had no voluntary control over the pelvic floor muscles. However, after the muscles were relaxed through biofeedback or neurostimulation symptoms rapidly improved.

Because the symptoms of interstitial cystitis and the urgency-frequency syndrome are similar, the etiology may also be similar. An association of dysfunctional pelvic floor muscles with voiding symptoms in the urgency-frequency syndrome has also been noted.^{3,4} In 25 women with severe urinary urgency and frequency Schmidt and Tanagho noted hyperactivity of the voluntary muscles surrounding the dis-

tal third of the urethra.³ In patients with the urgency-frequency syndrome Bernstein et al observed a high tonic level in the pelvic floor, poor ability to relax or tense and inadequate voluntary control.⁵ In similar patients Kaplan et al diagnosed sphincter dyssynergia or pelvic floor hyperactivity.⁶ What these reports imply is that the bladder may not be completely responsible for the symptoms of the urgency-frequency syndrome and interstitial cystitis.

Therefore, it is possible that in some patients interstitial cystitis represents the end of a spectrum on which the urgency-frequency syndrome symptoms are at the start.⁷ It may follow that progression can occur along this spectrum as the result of years of chronic and/or progressive myofascial dysfunction. In support of this concept Held et al reported that 28% of patients diagnosed with interstitial cystitis recalled difficult voiding in childhood.⁸ Likewise in my experience at the initial interview patients often report a long history of intermittent urinary symptoms that progressed to an association with pain. Pelvic floor myofascial trigger points may underlie the pathophysiology of this progression.

As noted by Schmidt and Vapnek,² pelvic floor findings on palpation are consistent with those of a myofascial trigger point, defined by Simons et al as a tender spot created by injury at the motor end plate as a result of acute, repetitive or sustained muscle overloading.⁹ Depending on the severity of myofascial injury a trigger point can be latent and asymptomatic. The confusing aspect in the development of a symptomatic trigger point is that traumas leading to it may be additive, contributing to an injury pool.¹⁰ Sometimes the

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