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The Pelvic Floor Paradox

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When I started writing this periodic column, I mentioned that every now and then, a "wow-factor" enters my life; synchronistic events and pieces of information coincide to illuminate what was previously foggy. As the fog lifts, simultaneous thoughts often occur. The first thought is, "It's obvious why I didn't see it before" coupled with "Is there evidence to support this?" As I hope you will agree at the end of this short article, "it" is obvious, and there is abundant evidence. So what is "it" and what is "the problem?"

The Problem

Let's start with a clinical fact I have been aware of, but have been unable to explain. In recent years, more and more of my younger female patients have reported symptoms ranging from variable to acute pelvic pain to stress incontinence, interstitial (i.e., nonbacterial) cystitis, vestibulitis and painful intercourse (dyspareunia). Many of these patients had seen appropriate experts in genitourinary medicine and/or physical medicine, and most had been prescribed what can best be described as "toning" (Kegel-type) exercises for presumed laxity in their pelvic floor muscles, along with various forms of medication.

Now, clearly, the patients I was seeing were the ones in whom such treatment had failed. However, because the practitioners prescribing these methods continued to do so, I must assume they worked for many. But they had not worked for those distressed (mainly) young ladies consulting me, whose lives were in turmoil because of considerable and sometimes constant pain in a very intimate part of their anatomy. All too often, these women were socially incapacitated due to their incontinence; with many unable to have normal relationships. And most of these women were no older than their early 20s.

Structural evaluation often revealed very well-toned musculature. Many had a history involving athletics, gymnastics or dance, and it also was common to have a report of emphasis on Pilates toning exercises with insufficient emphasis on flexibility. Frequently, there was extreme shortness of some of the muscles

attaching to the pelvis, particularly the adductors, hip flexors and the ("core stability") abdominals.

In the United Kingdom, my license as a doctor of osteopathy allows me to conduct internal examination and treatment with informed consent, but this was not part of my usual assessment protocol – until recently, that is.

Nowadays, with a clinical chaperone or member of the patient's family present, such examinations are always suggested (and sometimes declined) in such cases.

What changed my approach? Evidence that the problems in most of these unfortunate patients was not reduced tone, but increased and excessive tone, together with the wonderful work of (mainly U.S.-based) medical and manual therapy practitioners who rediscovered something demonstrated many years ago[1] – that trigger points can cause all of these symptoms, and that the trigger points and the symptoms frequently can be removed manually.

Diversion to Australia

Before going more deeply into the high-tone/trigger-point connection, I want to take you to Melbourne, Australia, where a part of the complex picture began to fall into place.

The 5th World Congress on Low Back and Pelvic Pain (November 2004) was held in beautiful (magnificent might be a better word) Melbourne, where I was presenting a paper on the influence of breathing pattern disorders and motor control associated with back pain. On the same panel was the wonderful Diane Lee, PT, from Vancouver, B.C. In front of some 2,000 delegates, she was discussing and showing video clips of paradoxical behaviour of the pelvic floor in women with stress incontinence.[2] Ultrasound images of the pelvic floor and bladder were shown in which, when asked to "retract" or "draw the pelvic floor upward," quite the opposite happened and the pelvic floor, along with the bladder, dropped toward the floor with the incontinence consequences.

In real life, such women would try to prevent from wetting themselves by the natural response of tightening and drawing up and in, but what if the muscles trying to tighten and draw up already were as tight as they could possibly be? Perhaps the better response would have been to learn to relax these clenched muscles (or to have them manually relaxed), and to be able to influence the pelvic floor via a relearned awareness of muscle control?

This was Diane's objective. To me, the "wow factor" was the recognition that these women were almost certainly also going to demonstrate paradoxical diaphragm behaviour and unbalanced breathing (and most do), which is one of my main areas of interest.[3] It would be fair to say that, after that presentation, my area of interest moved south to incorporate that other diaphragm, the pelvic floor. My belief is that if normal diaphragm (breathing) function can be restored and the pelvic floor muscles relaxed, re-education can take place efficiently and relatively easily. A part of that process requires that active trigger points – in the lower abdomen, inner thigh and sometimes internally – be deactivated as the muscles are restored to their normal length and tone. Is there evidence for any of this?

Thiele Massage

Sometime before World War II, a physician named Thiele developed a technique in which coccygeal prostate problems were treated by means of massage of specific muscles, mainly levator ani.[4] This approach (see description in the third bulleted item below) currently is used in major centers in the U.S. to treat prostate pain and the sort of pelvic floor problems discussed above.[5] Examples include:

- Chronic prostatitis involving nonbacterial urinary difficulties, accompanied by chronic pelvic pain (involving the perineum, testicles and penis), was shown in a 2005 study at Stanford University Medical School to be capable of being treated effectively using trigger-point deactivation together with relaxation therapy.[6] The researchers pointed out that 95 percent of chronic cases of prostatitis are unrelated to bacterial infection and that myofascial trigger points, associated with abnormal muscular tension in key muscles, commonly are responsible for the symptoms. The one-month study involved 138 men; marked improvement was seen in 72 percent of the cases, with 69 percent showing significant pain reduction and 80 percent improvement in urinary symptoms. The study noted that "TrPs in the anterior levator ani muscle often refer pain to the tip of the penis. The levator endopelvic fascia lateral to the prostate represents the most common location of TrPs in men with pelvic pain … myofascial TrPs were identified and pressure was held for about 60 seconds to release [described as myofascial trigger point release technique - MFRT]. Specific physiotherapy techniques used in conjunction with MFRT were voluntary contraction and release/hold-relax/contract-relax/reciprocal inhibition and deep tissue mobilization, including stripping, strumming, skin rolling and effleurage."
- Using similar trigger-point deactivation methods, Weiss[7] has reported the successful amelioration of symptoms in (mainly female) patients with interstitial cystitis using myofascial release.
- The effectiveness of transvaginal Theile massage has been shown[8] on high-tone pelvic floor

musculature in 90 percent of patients with interstitial (i.e., unexplained) cystitis. Describing the technique, the researchers note that, “Subjects underwent a total of six intravaginal massage sessions using the Theile stripping technique. This technique encompasses a deep vaginal massage via a back-and-forth motion over the levator ani, obturator internus, and piriformis muscles as well as a myofacial release technique whereas a trigger point was identified, pressure was held for 8 to 12 seconds and then released.” As to the mechanisms involved, they report that, “As a result of the close anatomic proximity of the bladder to its muscular support, it appears that internal vaginal massage can lead to subjective improvement in symptoms of IC.”

- A link between the sort of symptoms treated in the previous examples, as well as painful intercourse (dyspareunia), together with sacroiliac dysfunction, was noted in a study conducted in Philadelphia.[9] Sixteen patients with interstitial cystitis were evaluated first for increased pelvic tone and trigger-point presence, and second for sacroiliac dysfunction. The study reported that in all 16 cases, SI joint dysfunction was identified. Treatment comprised direct myofascial release, joint mobilization, muscle energy techniques, strengthening, stretching, neuromuscular re-education and instruction in an extensive home exercise program. The outcome was a 94 percent improvement in problems associated with urination; nine of the 16 patients were able to return to pain-free intercourse. The greatest improvement related to frequency symptoms and suprapubic pain. There was a lesser improvement in urinary urgency and nocturia.
- A French osteopathic study[10] investigated a new approach to the treatment of irritable bowel problems (IBS) in which there was a combination of massage of the coccygeus muscle together with physical treatment of frequently associated pelvic joint disorders. One hundred and one patients (76 female, 25 male; mean age: 54 years) with a diagnosis of levator ani syndrome (LVAS) were studied prospectively over one year following treatment. Massage was given with the patient side lying on the left. Physical treatment of the pelvic joints was given at the end of each massage session. Results: Forty-seven patients (46.5 percent) of the 101 patients suffered both from LVAS and IBS. On average, fewer than two sessions of treatment were necessary to alleviate symptoms. Sixty-nine percent of the patients remained free of LVAS symptoms six months later, while 10 percent still had symptoms but were improved. At 12 months, 62 percent were still free of symptoms and 10 percent improved. A similar improvement trend was observed in the IBS-patient group (53 percent IBS-free initially, 78 percent at six months, 72 percent at 12 months). All IBS-free patients were LVAS-free at six months. The conclusion was that the LVAS symptoms may be cured or alleviated in 72 percent of the cases at 12 months with one to two sessions, and that since most of IBS patients benefited from such treatment, it is logical to suspect a mutual etiology and to screen for LVAS in all such patients.

So, this story is not just about pelvic pain and incontinence, but possible irritable bowel disease and, in some instances, sacroiliac dysfunction. Is this not a remarkable conjunction of influences, often linked to hypertonicity and dysfunctional patterns such as breathing?

The Tennis Ball Trick

For many practitioners, the Thiele form of massage may be in contravention of their license. In such cases, a referral to an appropriately licensed and trained practitioner is one option. Even where this is seen to be a good clinical choice, focus on normalizing the associated pelvic muscles and breathing function offers a positive option.

Another option was offered to me by a therapist (ex-dancer) at a recent workshop. She reported she had suffered many of the symptoms outlined above, and had been instructed in Kegel exercises for her incontinence. She noted that these exercises had aggravated rather than helped her. A yoga therapist had then advised her to purchase a tennis ball and sit on it with the ball (placed on a firm surface such as a carpeted floor) strategically placed under the perineum, between anus and the vagina; and to allow the pressure onto the ball to deeply relax the pelvic floor muscles for five to 10 minutes daily. She reported that this procedure was somewhat uncomfortable at first, but that the effects were dramatic in terms of her symptoms. I have since recommended this to several patients for home use and all have reported benefit.

Don’t Forget the Psychological Aspect

This is a complex story, and I don’t want to leave you with the impression it can all be solved by a tennis ball, although this might offer symptomatic relief for many. It’s essential to note that in many such cases of clenched pelvic floor muscles, there is a background of assault or abuse (although a great many seem to be caused by nothing more than mechanically-produced, excessive tone with a background of dance, athletics and bad Pilates). Where there is a psychosocial or psychosexual element to the condition, appropriate professional support usually is needed along with bodywork.

The information offered above should at least provide a sense of what *might* be happening in some patient’s bodies. Those trained in neuromuscular therapy know that aspects of this work usually are a part of that training. Information on the inter-rectal NMT approach is provided in *Clinical Applications of Neuromuscular Techniques,* Volume 2 (pp. 384-387)[11] for information only, unless the methods are within your scope of practice.

Working on relaxation of the region (adductors, etc., as a first focus!), possibly deactivating trigger points if they are readily accessible, along with breathing rehabilitation, offer practical ways forward. And the tennis ball trick might just be an answer for some.

References

1. Slocumb J. Neurological factors in chronic pelvic pain: Trigger points and the abdominal pelvic pain syndrome. *American Journal of Obstetrics and Gynecology* 1984;149:536.
2. Lee D. "Altered Motor Control and the Pelvis: Stress Urinary Incontinence." Fifth World Congress on Low Back Pain and Pelvic Pain, pp. 138-154. Nov. 10-13, 2004, Melbourne Australia.
3. Chaitow L. Bradley D. Gilbert C. *Multidisciplinary Approaches to Breathing Patters Disorders.* 2002 Churchill Livingstone, Edinburgh.
4. Thiele G. Coccygodynia and pain in the superior gluteal region. *JAMA* 1937;109:271-1275.
5. Oyama I, Rejba A, Luknan, A, et al. Modified Thiele massage as therapeutic intervention for female patients with interstitial cystitis and high tone pelvic floor dysfunction. *Urology* 2004;64(5):862-865.
6. Anderson R, Wise D, Sawyer T, et al. Integration of myofascial trigger point release and paradoxical relaxation training treatment of chronic pelvic pain in men. *J Urol* 2005;174(1):155-160.
7. Weiss JM. Pelvic floor myofascial trigger points: Manual therapy for interstitial cystitis and the urgency-frequency syndrome. *J Urol;*166:2226.
8. Holzberg A, Kellog-Spadt S, Lukban J, et al. Evaluation of transvaginal Theile massage as a therapeutic intervention for women with interstitial cystitis. *Urology* 2001;57(6 – Supp. 1):120.
9. Lukban J, Whitmore K, Kellog-Spadt S, et al. The effect of manual physical therapy in patients diagnosed with interstitial cystitis, high tone pelvic floor dysfunction and sacroiliac dysfunction. *Urology* 2001;57(6 – Supp. 1):121-122.
10. Riot F-M. Goudet P. Moreaux, J-P. Levator ani syndrome, functional intestinal disorders and articular abnormalities of the pelvis, the place of osteopathic treatment. *Presse Medicale* 2005;33(13):852-857.
11. Chaitow L, DeLany J. *Clinical Applications of Neuromuscular Techniques,* Volume 2 – *The Lower Body.* 2002 Churchill Livingstone, Edinburgh, pp.384-387.