Vol. 5, No. 1

VISION

THE INTERNATIONAL PELVIC PAIN SOCIETY

Professionals engaged in pain management for women.

THE ROLE OF PHYSICAL THERAPY IN THE TREATMENT OF CHRONIC PELVIC PAIN - INTERSTITIAL CYSTITIS AND VULVODYNIA

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Although Interstitial Cystitis (IC) and vulvodynia are distinctly different chronic diseases, the people who suffer with them have many similarities: a decrease in life quality, pain which may not be adequately controlled, lack of awareness of these conditions not only by peers/family but also by the medical community, to name a few. However, the women who suffer with vulvar pain and the men and women who may have IC can be helped with physical therapy as an integral part of their total medical management.

In brief, the person with IC symptoms of urinary frequency, urgency, nocturia, and pain with negative urine cultures. Etiology is unknown, with some theories that IC could result from infection, a nervous system disorder or perhaps an auto-immune disorder. Although women outnumber men with this condition, it is also speculated that men may have IC and are misdiagnosed with prostatitis[12].

Vulvodynia is chronic vulvar itching, burning, and/or pain that causes physical, sexual, and psychological distress [14]. In 1999, the International Society for the Study of Vulvovaginal Diseases attempted to clarify the current definitions of these disorders. Generalized vulvar dysesthesia indicates that there is pain located anywhere on the vulva and includes the conditions of essential vulvodynia, pudendal neuralgia, and perineal pain syndrome[14].

Vestibulodynia indicated that there is pain consistently localized in the vulvar vestibule and includes primary dyspareunia (pain that originates with initiation of sexual activity) and secondary dyspareunia (pain which develops after a period of comfortable sexual relations.)[15]

Pain

Somatic pain is well localized, occurring after an injury. Visceral pain is not well localized; it is not necessarily linked to visceral injury and it produces stronger autonomic affective responses than somatic pain. IC pain is thought to be visceral pain[18]; the bladder irritation may cause a hypersensitization of the bladder afferent nerves. Over time, persistent pain signals may trigger central hypersensitization - the pain becomes embedded in the central nervous system. Wesselmann urges clinicians to consider the possibility that more than one pain mechanism may underlie the pain experience of the IC patient, which would require several different pain treatment strategies to accomplish adequate pain relief[18].

Neuropathic pain is related to disruption of the nervous system; there is damage to the nerve afferent pathways. Patients with neuropathic pain report lancinating and burning pain. Vulvodynia may be condsidered a neuropathic pain syndrome. As with visceral pain, there may be many initiators with neuropathy as the final pathway[7]. Sympathetic pain may be considered a subgroup of neuropathic pain; the severe pain is mediated by the sympathetic nervous system[16].

Physical Therapy

The initial part of physical therapy involves listening carefully to the patient's concerns and obtaining the medical history. Physical therapy evaluation involves attention to the various organ systems (nervous, circulatory, respiratory, etc) with meticulous observation of the musculoskeletal system. Treatment is initiated after discussion with the patient about what physical therapy options are available based on the history and evaluation. Patient and therapist discuss goals, both short and long term, and the effort the patient must put into any home physical therapy program to increase the likelihood of a positive outcome. With IC and vulvar pain patients, pain relief is an important goal. Ongoing assessment occurs with each treatment to determine the most efficacious course of therapy.

The Pelvic Floor

The muscles that comprise the pelvic floor- bulbospongiousus, ischiocavernosus, transversus perinei, sphincter

The Chairman's Perspective

Dr. C. Paul Perry • Chairman

Current President, Dr. Deborah Metzger, was unable to attend our last Board meeting due to the recent death of her husband, Dan Lacroix. We wish to take this opportunity to express our deepest sympathy. She has asked that I give her report on the Society.

We continue to maintain course on our mission statement of "educating health care professionals to care for women with chronic pelvic pain and to educate the public on the multidisciplinary options for treatment".

Professional education has been enhanced by our annual meetings as well as courses and lectures by invitation. These include: ACOG, May 2001, AAGL 2001, University of Utah's 43rd Annual Update in Obstetrics and Gynecology and most recently a multidisciplinary conference called by the National Institute of Child Health and Human Development April 2002.

Our web site continues to be used more and more by patients and health care professionals for downloading the patient education booklet, history and physical forms and resources on various conditions such as endometriosis, neurophysiology, interstitial cystitis, pelvic congestion, operative management of chronic pelvic pain and much more. We are continually upgrading our web site and hope to have a dedicated search engine to better access our resources. Patients often use the membership roster to access help close to their home.

Our meeting in San Diego, August 15 and 16, 2002 will soon open for registration. We have a very stimulating program for continuing education across multiple disciplines. We will also enjoy brief communications in current research selected from abstract submissions. Our meeting for 2003 will be held in March in Chicago just prior to the American Pain Society's annual meeting. Please make plans to attend.

We have a committed Board of Directors and enjoy the support of many sister organizations including the Endometriosis Association, the Intersitial Cystitis Association, the Intersitial Cystitis Network, National Vulvodynia Association, American Association of Gynecologic Laparoscopists, Society of Laparoscopic Surgeons and other. The future is bright and we have made great progress in helping millions of women who suffer from Chronic Pelvic Pain.

C. Paul Perry MD

C. PAUL PERRY, M.D.
Chairman of the Board
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ani, levator ani muscles, levator ani, coccygeus, and obturator internus[17] -may also become involved in the chronic pelvic pain patient. Butrick states: "The key to successful therapy for many of these (vulvodynia and IC) patients is the diagnosis and treatment of the pelvic floor muscle dysfunction."[2,p280]. The pain of IC and vulvodynia can influence pelvic floor tension, resulting in hypertonus and increased pain.

Direct treatment of the pelvic floor with massage and myofascial release may be a very effective part of a physical therapy treatment. The application of a deep, transvaginal massage to the pelvic floor muscles has been effective in pain reduction for women with IC[6,9]. The application of physical agents may also be helpful.

Beyond the Pelvic Floor

Posture and musculoskeletal disorders may contribute to the pain of IC and vulvar pain patient. Trigger points in the abdomen or in muscles that attach to the pelvis can refer pain to the pelvic floor[1, 8, 13, 17]. Lumbar spine disorders and hip disorders may also contribute to pelvic pain. Muscle imbalances in length and/or strength may also be problematic. The following may be evaluated in a physical therapy initial visit, or as assessment continues during patient treatment:

·Posture - an assessment of position, noting variations of

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the ideal as well as asymmetries in body alignment. Care is ·taken to evaluate pelvic alignment, which is often involved in chronic pelvic pain patients.

Range of motion - to determine the flexibility of the spine as well as lower extremity joints; to assess muscle length as well.

·Gait analysis, noting deviations from the normal

·Muscle testing - to determine muscle strength, including upper and lower abdominal; to assess all muscles that may affect the pelvis. To determine the presence of an abdominal muscle diastasis.

·Active motion and activities of daily living - to determine how treatment may achieve the most in terms of function in the patient's life. This may take a variety of forms: observation of mobility and gait; patient self report; recommendation for orthotic support (brace); analysis of foot biomechanics to determine if shoe modification is needed.

Treatment

Historically and empirically, physical therapy is and has always been a "hands on" profession. A variety of manual techniques may be used, including massage, soft tissue mobilizaion, myofascial release, joint mobilization, strain/counterstrain, muscle energy, craniosacral mobilization and visceral mobilization. The use of these various manual methods is to effect not only pain relief but also change in the body's tissue for the restoration of pain-free and optimal movement.

Another hallmark of physical therapy is therapeutic exercise. Evaluation provides information; therapeutic exercise is often the key to the achievement of musculoskeletal balance and stability that can help provide lasting pain relief. Physical therapists are also health educators, and can provide knowledge and reinforcement of self-care strategies for their patients' comfort and wellness. Instruction in active relaxation techniques is an example.

The application of physical agents (therapeutic heat, cold, ultrasound, and electrical stimulation) have been basic to physical therapy practice for many years. With thoughtful application, these modalities can also be successfully used in the treatment of IC and vulvodynia. A few examples are the following:

·Application of surface heat via moist heat packs to the abdomen may be helpful for IC patients. Patients with vulvodynia may prefer cold pack application to the vulvar area.

·Therapeutic ultrasound is acoustic energy. The frequency varies between 0.7 and 3.3 megahertz to produce both thermal and non-thermal effects. Ultrasound may be used as an adjunct to manual therapy and to help reduce pain[3].

·Various forms of electrotherapy may be used. Transcutaneous electrical nerve stimulation (TENS) has been well researched for a variety of pain relief applications, including IC. Successful treatment over the course of a year has been reported for IC patients. These patients were given home units and worked with their therapists to determine optimum electrode placement as well as current modulation[10].

·Another form of electrotherapy is interferential therapy. Two different electrical currents are applied to the skin to produce a current deep within the target tissues by the interference of the two frequencies[3,10,11]. Electrodes may be placed to target tissues of the vulva and pelvic floor.

·A relatively new application of electrical current is the sympathetic therapy system (STS). This physical agent uses low frequency, high intensity current affect the autonomic nervous system and therefore treat sympathetically maintained chronic pain[5] Because of its potential effects on the nervous system, perhaps STS may be helpful in controlling the chronic pain of IC and vulvodynia.

·Biofeedback is used by several health care disciplines, including physical therapy. Biofeedback involves using surface electrodes to transduce muscle potentials into auditory or visual cues; the patient can learn to increase or decrease voluntary muscle activity. Patients with hypertonic resting level of their pelvic floor muscles can learn to decrease their resting tone[4].

Multiple factors contribute to the pain of the IC and the vulvodynia patient[1,7]. A team approach may offer the pelvic pain patient the best methods, if not for complete pain relief, some alleviation of their suffering and restoration of life quality. Physical therapy is an important part of that team.

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