

As announced in the Editorial by Bruce Farnsworth (*Pelviperrineology* 2011; 30:5) this is the seventh of a series of articles highlighting the different sections of the book "Pelvic Floor Disorders, Imaging and a Multidisciplinary Approach to Management" edited by G.A. Santoro, P. Wiczorek, C. Bartram, Springer Ed, 2010 .

Pelvic pain

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The seventh section of "Pelvic floor disorders - Imaging and Multidisciplinary Approach to Management" is focused on chronic pelvic pain, a common, disabling problem among women, frequently overlooked and under-diagnosed, resulting in inappropriate referral and inadequate treatment. Considering the prevalence of chronic pelvic pain on the level of 15% in women between the ages of 18 and 50 years, it has a substantial economic impact as 15% of women with chronic pelvic pain miss an average 12.8 hours of work per month in the United States, which accounts for \$14 billion of lost productivity per year. As the sources of pelvic pain are multifactorial, and their causes are difficult to determine the clinicians must be familiar with the clinical, pathologic, and radiologic characteristics of the underlying causes in order to be able to make an accurate diagnosis in most cases and facilitate referral for appropriate therapy.

The first chapter is focused on painful bladder syndrome/interstitial cystitis (PBS/IC), also known as bladder pain syndrome (BPS/IC). It is a chronic, multifactorial disorder with symptoms of urinary frequency, urgency, and pelvic pain, often associated with other painful diseases, which profoundly affects patients' quality of life due to its disabling aspects. Although its etiology is not known and clinical characteristics vary among patients, early recognition of BPS/IC is crucial. Physical evaluation is a critical component of diagnosis, together with questionnaires and local cystoscopy, which is not mandatory but a good preliminary investigation to rule out other conditions. The therapeutic strategy aims to reduce or eliminate the symptoms, so improving quality of life and interfering with the potential disease mechanism. Therapies include conservative, medical (oral, subcutaneous, and intravesical), or interventional procedures.

In the second chapter of this section entitled "Pelvic Pain Associated with a Gynecologic Etiology", Sondra L. Summers and Elizabeth R. Mueller outline that chronic pelvic pain is a difficult clinical dilemma, which requires the services of a multidisciplinary approach and team. A thorough history that includes a patient questionnaire, review of records, and interview by a trained clinician are important first steps. A detailed physical exam which incorporates techniques of pain mapping is also key to developing a protocol that will assist each patient with individualized therapy. There is also a role for vulvar biopsy if the patient's presentation does not provide immediate diagnosis. Cultures or other testing for infections is paramount, so that treatable sources of pain are not overlooked. Likewise, cytology and biopsies of the cervix can be important in a patient with a friable cervix. Empiric treatment with antibiotics, analgesics, or suppression of the hormonal cycle with

oral contraceptives, progestational agents, or GnRH agonists can be an effective first line of therapy and can be initiated during completion of the workup. Failure to respond to first-line treatments should be followed up with a discussion regarding other parallel protocols such as a change in medication or more invasive therapies such as trigger point injections or surgical evaluation and treatment. Psychotherapists should assist the patients in dealing with the stress and possible concomitant depression that can accompany chronic pain syndromes. Moreover, the relationship between a woman with chronic pelvic pain and her healthcare provider is crucial, especially in those scenarios where the treatment modalities are not improving the quality of life with pain relief. These women will require more therapy and care even if the ultimate outcome does not result in complete pain relief.

The third chapter is describing "Pelvic Pain with Coloproctologic Etiology". There are many possible causes of anorectal pain such as inflammatory or functional disease, pelvic tumors, postoperative complications. Patients with active ulcerative colitis experience visceral pain secondary to hyperalgesia and allodynia, while in those with quiescent or mild ulcerative colitis and Crohn's disease hypoalgesia is more common. PID such as prostatitis or interstitial cystitis can cause recto-anal pain, also. "Functional" disorders such as levator ani syndrome, proctalgia fugax, coccygodynia and Alcock's canal syndrome cause severe anal pain affecting the QoL. Patients with IBD complain of pelvic pain, although there are no structural lesions underlying this symptom. Anorectal tumours commonly cause pain. Radiotherapy has been demonstrated to be an useful mean to improve pelvic pain. Sexually transmitted infections can cause proctitis. Bowel endometriosis causes a wide variety of symptoms, from rectal bleeding to pelvic pain on defecation. Haemorrhoids, anal fissures and anal abscesses are the most common proctological diseases associated with anal pain. Chronic proctalgia has been also described after many surgical procedures. Accuracy in collecting medical information and in physical examination is mandatory. The multidisciplinary workup should be focused to demonstrate or exclude a disease in each individual patient, although in some it fails to reach the correct diagnosis and cure.

In the fourth chapter "Surface Electromyography and Myofascial Therapy in the Management of Pelvic Pain" M. Jantos reviews current research in relation to the pain syndromes such as bladder pain syndrome, levator ani syndrome and vulvodynia, identifying the muscle dysfunctions for each disorder and providing guidelines for functional normalization. The anatomical and functional complexity of pelvic floor muscles increases the risk of pelvic floor

disorders. Idiopathic bladder, vulvar and rectal pains represent three common pain syndromes that affect the anterior, middle, and posterior pelvic compartments. Evidence suggests that these disorders are of somatic and muscular origin and are associated with hypertonic pelvic muscle states. Two potential mechanisms by which muscle overactivation gives rise to sensitization and pain include ischemia and myofascial trigger points found in muscle tissue, ligaments and fascia. Clinical modalities essential to the management of these pain disorders include surface electromyography and myofascial therapy. Surface electromyography provides an objective means of evaluating and normalizing pelvic muscle function, while myofascial therapy provides the means of resolving trigger point related pain.

In the *ffth chapter "Chronic Pelvic Pain: A Different Perspective"* P. Petros presents chronic lower abdominal pelvic pain, collision dyspareunia, and vulvodynia as related to laxity in the uterosacral ligaments. Unexplained chronic pelvic pain comprises up to 10% of outpatient gynecology referrals and may be an indication for la-

paroscopy in up to 35% of laparoscopies and 10% of hysterectomies. The syndrome is quite characteristic: low abdominal 'dragging' pain, usually unilateral, often right-sided, low sacral pain, deep dyspareunia, and postcoital ache, tiredness and irritability. The pain has been demonstrated to be a referred pain. With injection of local anesthesia in the posterior vaginal fornix the pain disappears temporarily. An initial cure rate of up to 80% has been reported following tensioning and reinforcement of the uterosacral ligaments, most recently with the tissue fixation system (TFS). Pelvic pain is rarely psychological and it can be cured or improved both surgically and non-surgically.

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