

Presented at the International Association for the Study of Pain, special interest group on Pain of Urogenital Origin (PUGO), London, England. September 7, 2001.

Development of a Program for Sequential Therapy of Urogenital Pain Attributed to Pudendal Neuropathy.

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Development of an evaluation and treatment program for chronic pelvic pain has been an evolutionary process and remains a "work in progress". Cooperation with the Departments of Anatomy and Radiology has been of paramount importance.

The Problem

Chronic pelvic pain has the health impact of acute myocardial infarction, unstable angina or acute ulcerative colitis. Over 7.7 million patient visits for "chronic prostatitis" occurred in the USA in 1996. It is estimated that >90% DID NOT have infection or inflammation.

Most urologists consider pain in the urogenital/rectal area "chronic prostatitis". The United States National Institute of Health established the International Prostatitis Collaborative Network (IPCN) which defines the "prostatitis-like" symptoms " in the absence of infection or inflammation as Category IIIB chronic prostatitis/chronic pelvic pain syndrome. Robert et al and others define the same symptom complex as pudendal neuralgia, pudendal nerve entrapment or pudendal canal syndrome. We consider the symptom complex to be a compressive neuropathy which meets the criteria of chronic regional pain syndrome. There is pain, motor impairment (urethral sphincter, ischiocavernosus muscle) and autonomic dysfunction (irritable bladder, penile/scrotal retraction, abnormal sweating, inability to achieve erection) and skin changes manifested by peau d' orange over the sacrum or buttocks in some patients.

Evaluation

After urological evaluation excludes reproductive tract infection, the physical examination highlights the sensory examination of the pudendal nerve distribution. An attempt is made to reproduce the subjective pain by compression of Alcock's canal and the sacrospinous ligaments medial to the ischial tuberosity. These sites are along the anatomical pathway of the pudendal nerve. Gluteal skin is examined for peau d' orange.

Neurophysiological testing is difficult but may include pudendal nerve terminal motor latency testing and EMG of the ischiocavernosus muscles. These tests are not commonly performed at our institution.

Diagnosis

Pudendal nerve entrapment is a clinical diagnosis: urogenital/rectal pain aggravated by sitting, reduced when standing, not present when recumbent and relieved by sitting on a toilet seat. The IPCN defines Category IIIB chronic prostatitis as lower genitourinary symptoms, particularly pain in the perineum or genitalia, voiding symptoms such as dysuria or frequency, and sexual dysfunction in the absence of uropathogens in the urine or prostatic secretions,

Etiology

The etiology of pudendal nerve entrapment appears to be compression and/or stretching of the pudendal nerve at the interligamentous space between the sacrospinous and sacrotuberous ligaments and in the pudendal (Alcock's) canal. The symptoms in males and females are remarkably similar depending on which branch(es) of the nerve is involved and the degree and duration of the injury. The position of the ischial spine is frequently abnormal (surgical observation and/or Judet views of pelvis) and may be the common anatomical denominator for this syndrome. The variety of symptoms is explicable by the marked variation in the composition of the pudendal nerve during segmentation and segregation of the spinal cord and the peripheral nerves also the variable sites of nerve impingement and the variable microtrauma.

Treatment

Treatment is based upon the concept of relief of a compression neuropathy, analogous to carpal tunnel syndrome. Treatment is monitored with the NIH- Chronic Prostatitis Symptom Index. (NIH-CPSI).

I. Perineal hyperprotection or self-care.

This consists of avoidance of hip flexion exercises, standing as much as possible, avoidance of cycling and using a sitting pad cut specially to "suspend" the perineum when sitting—a "perineal suspension pad". In the absence of previous medication therapy the patients are given ketorolac 10-mg q6h for five days and amitriptyline increasing from 10mg @hs to 50 mgm @ hs at 10 days intervals.

II. Perineural corticosteroids injections.

Three injections are given at two-week intervals using a mixture of bupivacaine and dexamethasone. Effectiveness is evaluated by sensory examination of the pudendal distribution 1 to 2 hours after the injection. Cadaver studies including section of unembalmed hemipelvis after CT guided injection of dye and radiographic contrast into the interligamentous space and into Alcock's canal confirm the accuracy of this procedure.

III. Surgical intervention.

When conservative treatment is not totally effective, neurolysis with sectioning of the offending ligaments and fasciotomy of the obturator fascia forming Alcock's canal is performed by a neurosurgeon.

Results

Response to treatment varies from 42% to 72% depending upon treatment modality used and technique used to analyze the response. The use of the NIH-CPSI is valuable for monitoring patient response. Case reports illustrating positive response to each modality are presented.