

Psychological perspectives in the patient with chronic orchialgia

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Abstract: Chronic orchialgia is a challenging problem to both the practitioner and unhappy patient and may be a poorly understood manifestation of a potential variety of different discrete causes. Treatment options can be wide ranging and include conservative measures, medical therapy, in office treatments and surgical procedures. Research has primarily focused on these more concrete treatment options with little focus on the either co-morbid or causative psychological issues. By at least considering the potential psychological co-morbidities and stressors that may be associated with chronic orchialgia, physicians can better utilize a multi-modal approach to this vexing problem.

Keywords: Orchialgia; chronic pain; psychosomatic pain

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Introduction

Chronic orchialgia is a poorly understood problem that lies under the umbrella of generalized chronic scrotal pain. Chronic scrotal pain itself can be subdivided into broad categories including testicular pain, epididymal pain, and post-vasectomy pain (1-4). Chronic orchialgia has been speculated to be idiopathic in at least 25–50% of individuals and may be refractory to multiple forms of treatment (1,2,5).

Historically, chronic orchialgia has been called by various names, such as idiopathic testicular pain, testalgia, testicular pain syndrome, orchiodynia, and idiopathic epididymo-orchitis (1,6,7). A contemporary definition considers chronic orchialgia as intermittent or constant scrotal pain that lasts for at least the last 3 months (2). Orchialgia can be unilateral, bilateral, or alternating.

The prevalence of chronic orchialgia varies and is unlikely accurately reported. In one of the few quantifications of the frequency of visits for orchialgia, up to 60,000 patients a year visit a medical provider for symptoms in the Netherlands (8). Due to the tricky, and oftentimes frustrating nature of the disease process, most

patients are seen by multiple and a variety of providers including emergency room physicians, general practitioners, urologists, pain specialists, neurologists, and/or holistic medicine specialists (2,9). One study found an average of 4.5 urologists seeing patients with chronic orchialgia (10).

Known etiologies for chronic orchialgia include vasectomy, past scrotal trauma, sexually transmitted infections, varicocele, spermatocele, hydrocele, epididymo-orchitis, neuralgias and neurologic disorders (11-15). In the management and treatment of chronic orchialgia, most patient undergo a comprehensive history and physical, urinalysis and urine culture, and scrotal ultrasound if indicated (2,13,15,16). A variety of symptomatic reliefs, oral medications and other conservatives therapies are then initiated with some providers also recommending surgical treatment or psychological counseling (4,13,17). In providers who consider surgical treatments, use of a perispermatic cord block with potential cord denervation has shown potential in a particular subset of patients (18-21). Almost all practitioners consider a multimodal approach to be ideal and this paper will review the benefit of considering the psychiatric issues that may surround chronic orchialgia.

Impact on quality of life

Chronic orchialgia can have a severe impact on the quality of life for patients (9). Symptoms can be exacerbated by a variety of daily or mundane tasks. In patients with hypersensitization, pain can tend to be all consuming, and even the slightest touch or movement can set off a cascade of pain. For patients, scrotal contents pain can lead to other presumably non-related issues like painful ejaculations, decreased libido, decreased frequency of sexual activities, and a withdrawal from activities of daily life and social functions (9). Within the United States military, chronic orchialgia is the number one urologic reason for medical discharge, and has a tremendous impact on man-hours lost at work (1).

Psychosomatic components

Most papers in the literature cite causes for chronic orchialgia such as post-vasectomy pain syndrome, inflammatory chronic epididymitis, trauma, tumor, torsion, diabetic neuropathy, vascular anomalies, postoperative scrotal pain, chronic prostatitis, and rarer causes such as schistosomiasis and tuberculous epididymitis (1,2,22). Psychosomatic components of chronic orchialgia are poorly understood and infrequently considered as a cause of physical pain. The improvements seen in patients prescribed tricyclic antidepressants or anti-anxiolytics for their symptoms points towards a potential role of the psyche in chronic orchialgia (2,17,23).

One goal in the multimodal approach to treating chronic orchialgia is to implement a psychiatric screening utility, such as the Symptom Checklist (SCL-90 Pearson Assessment and Information Group). This checklist can help providers rule out somatic and psychiatric disorders in patients with chronic orchialgia and can help the practitioner direct individualized therapy toward treating associated depression or somatization (5,8).

Psychosomatic pain theories

Pain is a primary demonstration of illness and is defined as the sensation experienced from thalamic input by peripheral nociceptors. Further, this transmission must be perceived in conscious thought, otherwise the sensation is not truly regarded as pain (24). Research has demonstrated that chronic pain—such as chronic orchialgia—may not be exclusively biologic and that psychological factors may be

associated (25).

In 1959, George Engel proposed the theory that pain was externally (physically) derived but psychologically influenced. He described that guilt, defeat, unsatisfied aggressive/sexual impulses and a history of real or fantasied loss of loved ones were all risk factors for chronic pain (24,26). He also countered the definition of the two-component concept of pain. The two-component concept of pain asserts that pain originates from pain receptors and is either sensed or reacted to when perceived by an individual. Instead, Engel believed that the experience of pain is dependent upon disordered impulse patterns. While he believed that physical factors and neural impulses influenced pain, Engel stated that pain remains a psychological process. Thus, Engel helped define the term “psychogenic” pain, which is generally referred to as pain that occurs without an identifiable cause. Engel argued that we cannot state such pain does not exist, as pain is an experienced phenomenon and subsequent information regarding pain is thus reliant upon the person experiencing it (24).

In recent decades, there has been a burgeoning literature about the psychosomatic underpinnings of several well-known chronic pain disorders. John Samo and his colleagues have written extensively about chronic back and neck pain, fibromyalgia, carpal tunnel syndrome, and migraine headaches, as well as gastrointestinal and genitourinary disorders (27). Samo has stated that so-called “mindbody disorders” tend to spread as epidemics if they are in vogue, if they are frequently misdiagnosed as having a structural or physical basis, and if insurance-reimbursed treatment is readily offered. In Sarno’s psychosomatic disorder model, chronic pain is frequently not the result of an underlying structural problem, but rather repressed unconscious emotions, especially those emotions typically seen as “unacceptable”, such as anger, rage, and resentment. In this model, the physical pain sensations are the result of mild ischemic changes to the local musculature and/or peripheral nervous system, changes that cause physical distress that is the unconscious mind’s way of preventing an acknowledgment of painful or significantly uncomfortable emotions (27).

There are a number of other theories regarding the nature of psychosomatic pain. Descartes’ mind-body dualism theory described pain as a direct consequence of physical damage to tissues. While writers before his time used the words pain and emotional suffering interchangeably, Descartes’ theory and subsequent experimental work trivialized the concept of non-organic

pain. The primary foundations of the field of psychoanalysis were in the search for psychological explanations for physical symptoms. Jean-Martin Charcot, Josef Breuer, and Sigmund Freud all made significant impact in the field of neuropathology by studying and attempting to treat the various manifestations of hysteria (27). Their work helped to establish the prevalence of psychogenic symptoms and possible mechanisms for their origins. It was not until Freud in the early 20th century did the stigma around non-organic pain diminish. Freud was an immense influence in shaping the beliefs around pain occurring in the absence of organic causes and believed that pain associated with emotional distress (with no physical findings) was mainly a result of psychiatric illness (26). Subsequent to Freud's many breakthroughs, with a few exceptions such as Alfred Adler and Franz Alexander, the field of psychoanalysis moved away from psychosomatic disorders as an area of major study (27).

Psychogenic pain is therefore a psychological phenomenon, yet it is important for clinicians to exclude that an anatomical or pathologic process is not contributing to this pain. Engel went on to describe the "pain-prone" patient, in whom psychological factors were the principal reason for pain regardless of the presence or absence of organic causes (24). Chronic orchialgia may be potentially considered psychogenic in nature once clinicians have excluded known etiologies.

The overlap of pain syndromes and psychiatric diagnoses

Patients suffering from chronic pain have been noted to experience significant depressive symptoms, and to a lesser extent, other psychiatric conditions (26). However the causality in this observation is unclear—the pain stimulus may induce psychiatric distress or the psychiatric issues may further potentiate the pain impulses.

Psychogenic pain has been observed co-morbidly with a variety of psychological conditions, namely conversion hysteria, illness anxiety disorder, depression, anxiety and schizophrenia (24,28-30). Personality disorders—notably dependent, passive aggressive and histrionic disorders—have been found in over half of patients receiving care at a pain center. Studies have also found an association between low medication intake, a higher number of surgeries and a lack of children around the home with patients suffering from chronic pain (28). Additionally, patients with psychosomatic pain have been found to have appreciably reduced sexual

activity, marital communication and physical activity (28,31).

While Engel originally found a strong association between patients with conversion hysteria and psychogenic pain, later studies substantiated that, in fact, depressed patients were most likely to suffer from pain (24,28). Two separate studies found that the incidence of major depression in patients with chronic pain attending an inpatient program was 64% and 42% respectively (32,33). In fact, Katon *et al.*, found that the incidence of depression in patients seeking pain relief at inpatient pain programs can reach up to 86% (34).

Blumer and Heilbronn demonstrated that antidepressant medications considerably improve symptoms in a majority of patients with chronic pain, further drawing together these two co-morbid conditions. In their work, they concluded that chronic pain is an aspect of depression and not vice-versa (29). More recent literature has attempted to shift the focus on pain away from terms such as "medically explained" *vs.* "psychogenic" pain and instead depicts psychological illness as both magnifying pain and inhibiting the ability to adjust to severe pain (30).

Chronic pelvic pain syndromes and orchialgia

It is not uncommon for men with chronic pelvic pain to have concomitant chronic orchialgia. Although chronic orchialgia falls under the umbrella of chronic pelvic pain syndromes, a specific etiology for the pain has not yet been defined (1). While a theory regarding neuronal plasticity and Wallerian degeneration has been substantiated as a possible mechanism for this chronic pain, data from multiple studies in the chronic prostatitis collaborative research network series support a biopsychosocial model for quality of life in patients with chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) (1,35,36). Information about the more widely studied CP/CPPS can help us further understand treatment options and diagnoses in chronic orchialgia.

Patients with CP/CPPS are twice as likely to report anxiety and depression as compared to controls (35,37). An NIH sponsored study found that men with CP/CPPS were also more likely to report a history of rheumatologic and musculoskeletal pain as well as irritable bowel syndrome (IBS) (37).

A study by Nickel, Tripp and the International Interstitial Cystitis Study Group looked at female patients with interstitial cystitis in order to determine phenotypes of the condition. The authors assessed psychosocial parameters

using the CES-D for depression, STAI for anxiety, FSFI for sexual functioning and PCS for pain catastrophizing. They found that two phenotypes existed—“pelvic pain only” and “pelvic pain and beyond”. The “pelvic pain and beyond” group reported poorer quality of life measures, such as depression and increased sensory pain and sleep disturbances along with IBS, fibromyalgia and general fatigue (38).

Catastrophizing, which is a set of negative pain-related thoughts used when a patient is undergoing or anticipating pain, is correlated with increased pain and depressive symptoms (9,37,39). It is a robust pain predictor when controlling for demographic and psychosocial variables (38,40,41). Catastrophizing also had a negative relationship with patients’ social supports, as patients’ helplessness due to their pain adversely impacts interpersonal relationships. Males were most likely to report dependency as the root of their helplessness and subsequent relationship issues (41). These data suggest CP/CPPS may be the urologic component of a systemic pain syndrome (38,40). Therefore, we propose that the multidisciplinary and individualized method of approaching men CP/CPPS may also help in men suffering from chronic orchialgia (36,37,39-41).

There are a number of methods that have been studied and utilized in treating CP/CPPS. Two effective therapies as evidenced in the literature are myofascial release therapy combined with progressive relaxation training as well as electroacupuncture. Both treatment options demonstrated effective pain relief, and the former also provided reprieve from urinary symptoms (37). As the treatment goals for CP/CPPS are eliminating bothersome symptoms, improving quality of life and giving patients’ the capability to complete their activities of daily living, therapies should include holistic treatments as well as systemic pharmacological agents that have central effects (38). Examples of holistic strategies include dietary changes (avoiding trigger foods), stress reduction, cognitive behavioral therapy, relaxation techniques and yoga (37,39). Tricyclic antidepressants and gabapentinoids in combination with psychological support such as cognitive behavioral therapy can also be utilized (38).

The role of the mental health specialist

Indications for referral to a mental health counselor are varied and largely based on the practice pattern of the treating physician. We recommend referral to a mental health specialist for every patient who presents without an

obvious organic or anatomic abnormality of the orchialgia. Practitioners should strongly consider referral when the patient endorses a significant psychiatric response to the ongoing pain or if the pain affects non-medical aspects of their life (i.e., relationship issues, employment concerns, legal problems). If the pain is accompanied by mental distress, anxiety or depression then referral is recommended.

Psychotherapy for the treatment of psychosomatic pain disorders, while seemingly the obvious treatment of choice, has not been particularly well studied nor have well-accepted evidence-based treatments been identified. These data that do exist point to antidepressant pharmacotherapy and cognitive behavioral therapy as potentially helpful in the reduction of pain (42). Cognitive behavioral therapy is a symptom-focused treatment, one that when employed in the treatment of pain disorders seeks to teach relaxation, to reduce avoidance based on irrational fear of injury, to challenge pain-related distorted thinking, and generally to set and reach goals of increased activity and reduced pain-related limitations (43).

Short-term psychodynamic psychotherapy has also shown promise in reducing the impact of physical symptoms and improving social/occupational functioning (44). As noted earlier in this paper, Sarno’s work in the area of primarily back and neck pain (27) has sparked a return to the once widely believed notion that many unexplained pain disorders may be the result of unconscious repressed emotions and unresolved emotional conflicts (45). In general, psychodynamic psychotherapy attempts to bring unconscious material, of which the patient is by definition unaware, into the consciousness. This practice centers on the hope that such awareness will decrease a patient’s propensity for maladaptive, self-harmful behavior and increase his/her flexibility in responding to life’s challenges and in dealing with past traumas and losses in a psychologically and physically healthy way. In such a model of therapy, physical pain, especially of a chronic and/or unexplained nature, is viewed as a symptom—much in the same way a panic attack or obsessive thought could be viewed a symptom. However these “symptoms” simultaneously functions as a primary focus of conscious awareness and concern, and are as such a distraction from the painful and often unacceptable feelings of which the patient is mostly unaware. By increasing awareness of these underlying psychodynamic issues and fully experiencing them in rationale thought, the patient will learn to refocus conscious thought and have some measure of pain relief.

Conclusions

Chronic orchialgia is a challenging problem to both the practitioner and unhappy patient. By at least considering the potential psychological co-morbidities and stressors that may be associated with chronic orchialgia, physicians can better utilize a multi-modal approach to this vexing problem.

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Footnote

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