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Abstract

**Background:** Dyspareunia is a common sexual pain disorder, resulting in physical pain and discomfort as well as potential psychological effects for both the affected woman and her sexual partner. Topical or oral pharmaceuticals are commonly prescribed, and, in many cases when psychological factors are suspected as a cause, the patient is referred to cognitive behavior therapy (CBT) or sex and marital therapy. However, the duration of these treatments may be protracted and/or ineffective. Traditional Chinese medicine (TCM) may provide a resolution of painful symptoms in a shorter time frame, offering patients the opportunity to resume healthy sexual functioning more quickly.

**Objective:** To report the effectiveness of traditional Chinese medicine as an alternative treatment for sexual pain disorders.

**Design, Setting, Patient:** A single case report of a 21-year-old female treated for secondary dyspareunia, with pain reported as an 8 of 10 on the 10-point Visual Analog Scale (VAS), in a private acupuncture practice.

**Intervention:** The patient was treated with a combination of acupuncture and Chinese herbal medicine over the course of five weeks.

**Results:** Complete resolution of pain, with an 8-point reduction in pain (from 8 of 10 to 0 of 10 on the VAS) and patient report of restoration of normal sexual function.

**Conclusion:** Treatment with traditional Chinese medicine can be considered a viable alternative in the treatment of sexual pain associated with secondary dyspareunia as demonstrated by the rapid resolution of pain and the restoration of normal sexual function.
Introduction

Biomedical Perspective

Dyspareunia is persistent or recurrent genital pain that occurs before, during or after intercourse, and which is not due exclusively to vaginismus (a painful reflex of the perivaginal muscles that is elicited in anticipation of penetration) or vaginal dryness.\(^1\)\(^2\) It primarily affects women and has a varying rate of incidence, dependent on the clinical definition of the disease and the population sampled. In one national sample, for example, the rate of occurrence was 7%; however, the rate is as high as 60% when the condition is broadly defined as above.\(^3\) According to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, the condition is defined as persistent, recurrent pain that also causes either personal distress or interpersonal difficulties.\(^3\)

Secondary dyspareunia occurs after a history of pain-free intercourse and may be either generalized (occurring during all intercourse) or situational (occurring with certain partners or in certain sexual positions). The etiology of dyspareunia is varying and frequently coexists with other conditions, including vaginismus, vulvodynia (vulvar discomfort unrelated to structural abnormalities), and atrophic vaginitis associated with hypoestrogenic states (such as post-menopause or breastfeeding), all of which may share symptoms.\(^2\) If these conditions are ruled out, then an underlying cause must be explored.

Determining the location and quality of the pain can assist in differentiating underlying conditions and guide treatment accordingly. Entry pain, for example, is relatively superficial and is felt upon initiation of penetration.\(^2\)\(^4\) It can be due to insufficient lubrication, infection, trauma, vulvar vestibulitis (VVD), vaginismus, or as a reaction to birth control products. Deep pain, on the other hand, occurs during deep or vigorous penetration and can be due to structural abnormalities (such as endometriosis, pelvic inflammation, uterine prolapse, fibroids, bowel inflammation, ovarian cysts, or cancer), cystitis, cervicitis, or pelvic scarring.\(^2\) In all cases, organic causes such as inflammatory vulvar dermatoses (i.e., contact dermatitis, lichen planus, lichen sclerosis, eczema, psoriasis, etc.), candidiasis, sexually transmitted diseases, vaginal infections, human papillomavirus neoplasm (i.e., Paget's disease, squamous cell carcinoma, etc.) and neurologic conditions (i.e., herpes neuralgia, spinal nerve compression, and pelvic neuropathy) must be ruled out. When other conditions have been excluded, psychosocial issues should be explored.\(^2\)

Despite the persistent nature of both physical and psychological symptoms, many women rarely seek medical attention.\(^2\) And while medical professionals have gained awareness of its high rate of prevalence, identification and treatment of affected women has not increased accordingly.\(^3\) Because dyspareunia is often associated with comorbid conditions, medical treatment is focused on addressing the underlying cause when present. It is important to note that even in the presence of a primarily physical etiology there are often simultaneous psychological factors that can contribute to the pain.

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These include anxiety or stress related to a history of sexual trauma or pain anticipation, sexual aversion disorders, or marital conflict.\(^4\)

These patients are often referred for psychological evaluation, with basic counseling, cognitive behavioral therapy and/or marital counseling suggested. When there are no findings to suggest that concomitant organic conditions exist, psychological treatment is the usual care.\(^5\) \(^6\) The use of anti-depressants is a common first-line therapy, especially when psychological factors are suspected.

Because dyspareunia is considered to be a symptom of an underlying pathology, there is no isolated treatment for it. Rather, medical treatment is determined based on etiology and on symptom location and is aimed at reducing pain and/or calming anxiety. For instance, topical lidocaine, warm baths prior to intercourse, or biofeedback are often recommended when there is entry dyspareunia.\(^1\) If vaginismus is implicated, the gradual vaginal dilation technique developed by Masters and Johnson may be offered to provide desensitization and relaxation of the vaginal muscles.\(^6\) However, the effectiveness rate is unknown and there is limited evidence available to support its use. When the pain is vaginal, the addition of lubricants may also be suggested. With deep pain, administration of non-steroidal anti-inflammatory drugs (NSAIDs) prior to intercourse is often recommended unless structural abnormalities are present. In those cases, surgery may be warranted.\(^1\) In all cases, female dominant positional changes are strongly encouraged to offer the patient control of penetration.\(^4\)

In some cases, the pain relief provided by topical and pharmaceutical agents may be inadequate, and both physical therapy and psychotherapy can be protracted,\(^1\)\(^4\) which may lead to prolonged suffering and, possibly, relationship dissatisfaction. The risks associated with such treatments include local irritation and/or allergic reaction (topical lidocaine), gastrointestinal bleeding or perforation, kidney damage, or heart attack, and nausea, weight gain, fatigue, sexual disorder, insomnia, and anxiety (anti-depressants).\(^7\)

Because dyspareunia is rarely discussed as a single entity, rate of spontaneous resolution is unknown. However, one prospective cohort study of 250 patients with dyspareunia due to vulvar vestibulitis and candidiasis showed a 21% rate of spontaneous resolution.\(^8\)

TCM Perspective

Traditional Chinese medicine (TCM), including acupuncture and/or Chinese herbal medicine, is a commonly used modality for the treatment of pain conditions, both musculoskeletal and internal. In...
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Recent years, many clinical studies evaluated TCM in the treatment of pain. For instance, one Cochrane systematic review suggests that acupuncture is an effective therapy for the treatment of enduring pain conditions ranging from migraine headache to peripheral joint osteoarthritis.1 It stands to reason, therefore, that vaginal pain may also be relieved by TCM methods. While no studies exist to date that explore the use of Chinese herbal medicine in the treatment of dyspareunia, several small studies have investigated the use of acupuncture as an alternative treatment for vaginal pain, and they suggest that it may play a role.10-13

Few modern TCM gynecological texts provide discussion on the treatment of dyspareunia unrelated to menopausal atrophic vaginitis or vaginal pruritis.14-17 However, it does find mention in A Heart Approach to Gynecology: Essentials in Verse and Fu Qing-zhu’s Gynecology.18 According to the Essentials in Verse, genital pain is referred to as ‘small door marriage [pain],’ and is often due to depressed heat damaging the Liver and Spleen, with damp-heat pouring into the genitals. Recommended treatment is with the internal administration of Dan Zhi Xiao Yao San (Augmented Free and Easy Wanderer Powder) as well as external application of Si Wu Tang jia ru xiang (Four Substance Decoction with Olibanum), which is pounded into cakes and inserted into the vagina.18

In Fu Qing-zhu’s text, however, genital pain is referred to as yin zong and is considered to be due to wind invasion, especially if it occurs after childbirth. Again, herbal treatment is recommended, with a formula consisting of Chuan xiong (Radix Ligustici Chuanxiong), Dang gui (Radix Angelicae Sinensis), Du huo (Radix Angelicae Pubescens), Fang feng (Radix Ledebouriellae Divaricatae), Jing jie (Herba seu Flos Schizonepetae Tenuifoliae), Rou gui (Cortex Cinnamomi Cassiae), Fu ling (Sclerotium Poriae Cocos) and Da zao (Fruicus Ziziphi Jujubae). It is also briefly referenced in the modern translation of the ancient text Bei Ji Qian Xiao Fang (Essential Prescriptions Worth a Thousand in Gold for Every Emergency, Vol. 2-4)19 as well as Zhu Dan-xi’s The Heart and Essence of Dan-xi’s Methods of Treatment, though neither offer comprehensive discussion.20, 21

Considerable discussion, on the other hand, can be found in Sun Peilin’s modern text on the treatment of pain.22 According to TCM theory, genital pain can be due to disruption in the channels that traverse the genitalia (i.e., Liver, Kidney, Chong and Ren) or to organ imbalance.17-22 According to Sun, the pathologies involved in vaginal pain are:

- External cold invasion
- Damp-heat in the Liver channel
- Liver blood stasis
- Liver qi stagnation
- Kidney yin deficiency with flaring Liver-fire
- Spleen qi deficiency

External cold can easily invade the body through the lower jiao, causing contraction and obstruction of the nearby channels or musculoskeletal tissues. This obstruction causes the qi and blood to stagnate, leading to pain. When dampness coincides with cold, the stagnation can be more pronounced, again leading to genital pain.

Damp-heat in the Liver channel can arise from exposure to hot and damp external conditions or poor personal hygiene as well as a diet high in rich, fatty, or sweet foods or excessive alcohol intake. Damp and heat then pour down into the lower jiao and damage the local channels of the genitalia. Likewise, Spleen qi-deficiency can also lead to the internal generation of damp, which can then generate heat when left untreated.

Liver and Kidney yin provide the nourishment for the tendons and muscles of the genitalia; deficiency of this substance can, therefore, cause genital pain due to lack of nourishment. Liver blood stasis can arise from external cold invasion, overly strenuous exercise, physical trauma or surgery. It can also develop as a consequence of Liver qi stagnation.

Liver qi stagnation arises from emotional upset, especially anger, frustration or depression. When Liver qi remains stagnant, it may generate Liver-fire, which can obstruct the Liver channel or deplete the yin, both of which will then lead to genital pain. Even when Liver qi stagnation does not progress to Liver fire, it has particular importance in the etiology of genital pain because of the Liver’s direct relationship to the genital region. Because Liver qi stagnation can so easily affect the Liver channel, dyspareunia at least partly due to Liver qi stagnation can be assumed in most cases.22

Case Description

Case History

A 21-year-old nulliparous female presented to the clinic in December 2007 with a chief complaint of recurrent yeast infection and dyspareunia. She reported a history of intermittent candidiasis treated with oral Diflucan. The most recent episode occurred in October 2007. It manifested with vaginal itching and no visible discharge as well as deep, burning pain with intercourse. Yeast symptoms resolved after two weeks of Diflucan administration, but the dyspareunia persisted.

At the time of initial treatment, the vaginal pain had been present for ten weeks and was reported to be 8 of 10 on the visual analog pain scale [VAS] (with a zero indicating absence of pain and 10 indicating the highest level of pain) and typically occurring within two to three minutes of initiating intercourse. The subsequent and repeated disruption of intercourse was causing marked personal and interpersonal stress. Medical workup was negative for sexually transmitted diseases, bacterial vaginosis, vaginismus, vulvodynia, or vestibulitis. When medical findings were negative, psychological factors were assumed to be causative and the patient was offered anti-depressants and a referral for psychotherapy, both of which she declined.
“When Liver qi is constrained, either due to emotional inhibition or patient constitution, the qi mechanism becomes inhibited. This can lead to widespread stagnation of the qi and the blood as well as obstruction of the Chong and Ren vessels. When this inhibition continues without resolution, the resulting qi depression transforms to heat. Depressive heat can then lead to damage of the Chong and Ren, causing blood to spill out of the vessels as blood heat.”

Menstrual history included irregular menses, severe dysmenorrhea, and menorrhagia from menarche. She was prescribed an oral contraceptive pill (OCP) at 14 years of age to manage the symptoms and had been taking it consistently since that time. In response to the OCP, she developed menstrual regularity (occurring only four times per year) and a decrease in both dysmenorrhea and menorrhagia. Menstrual flow typically lasted four days, with mild to moderate cramping and moderate bleeding of dark red blood on days one to two. The flow would then taper, becoming brown-red for the final two days. Past history included sexual trauma at 15 years of age, during the patient’s first intimate relationship, with subsequent anxiety and depression that lasted for three years. The patient was now involved in a long-term, monogamous relationship with a caring partner with whom she had experienced previous pain-free intercourse. However, she reported recurrence of both anxiety and depression in the weeks since the dyspareunia began, though to a lesser degree than in prior years. There were no known precipitating events that may have led to the development of the pain.

TCM Evaluation: 10 Questions

Temperature: Cold below the waist, cold hands, warm face
Perspiration: Normal
Head/Eyes/Ears/Nose/Throat: Intermittent temporal headaches related to menses. Occasional dizziness and orthostatic hypotension.
Diet: Consumed a “typical, college student” diet, with minimal fruit and vegetable intake. No cravings.
Thirst: No thirst; sips small amounts of water
Elimination: Urination normal. Dry, hard, and irregular bowel movements occurred every three to four days.
Sleep: History of insomnia since childhood, with difficulty falling asleep. Valerian taken at bedtime to manage as needed.
Energy: Energy reported to be 7-8/10 on average (with zero being the lowest energy level possible and 10 being the highest).
Infrequent exercise.
Emotions: Reported feeling anxious and “depressed” due to sexual pain and interpersonal difficulties with boyfriend because of lack of intimacy. History of emotional depression, melancholy and anxiety in adolescence.
Pain: Dyspareunia; chronic neck and shoulder tension related to stress.
Miscellaneous: Intermittent palpitations

Reproductive: LMP 10/7/07 with unusually light menstrual flow and spotting preceding onset. History of vaginal yeast infections with odorless vaginal discharge and itching, likely related to oral contraceptive use. Early history of premenstrual syndrome with breast distention and emotional depression and irritability.

Observation: Lean and thin frame with good muscle tone. Clear complexion. She displayed a slightly nervous disposition and her eyes were guarded, as if she was shielding herself from close contact.
Tongue: Small, red tongue body with a peeled coat. Quivering tongue body.
Pulse: Slightly rapid; slippery and slightly weak in the right channel positions, deep and weak in the right chi. The left side was thin and wiry overall.

TCM Diagnosis and Rationale
The patient was diagnosed with dyspareunia due to Liver qi depressive heat and Liver blood stasis with underlying Kidney yin deficiency and Chong/Ren disharmony. In addition, she was diagnosed with anxiety and insomnia due to Heart heat. The diagnosis of Liver qi depressive heat was seen in the early history of mental depression and frustration, premenstrual symptoms, and chronic neck and shoulder tension related to stress. Depressive heat, perhaps leading to blood heat, was also evident in the occurrence of adolescent menorrhagia with heavy, red bleeding as well as heat in the face with dry constipation. While Kidney yin deficiency does not typically manifest in young women,33 it was evident in this patient’s small frame, red tongue with peeled coat, and slightly rapid, thin and wiry pulse. It was also revealed in the inflamed vaginal tissue with deep, burning pain and chronic, recurring yeast infections without discharge. Damage to the Chong and Ren with Liver blood stasis was determined based on the history of previous sexual trauma, severe dysmenorrhea with dark menstrual clots, and chronic insomnia with anxiety. Heart heat was apparent in the presence of palpitations, anxiety, chronic insomnia, and dry constipation.

Etiology and Pathophysiology
When Liver qi is constrained, either due to emotional inhibition or patient constitution, the qi mechanism becomes inhibited. This can lead to widespread stagnation of the qi and the blood as well as obstruction of the Chong and Ren vessels. When this inhibition continues without resolution, the resulting qi depression transforms to heat. Depressive heat can then lead to damage of the Chong and Ren, causing blood to spill out of the vessels as blood heat. Such heat can easily also affect the Heart, causing heat to blaze upwards and harass the Heart. When heat (either from excess or deficiency)
courses through the blood and viscera unchecked, it can eventually scorch the fluids and damage the yin, leading to Kidney yin deficiency with deficient heat, which further injures the blood and perpetuates the cycle of blood heat.26

Sexual trauma results in damage to the Chong and Ren vessels with qi stagnation and blood stasis. However, the effect of the emotional trauma must be considered as well, with possible severing of the Chong and Ren and damage to the Heart and Pericardium resulting from the physical and emotional violation.24

Treatment Principles and Protocol
The treatment principles were to course the Liver, resolve depression, clear Heart heat, nourish Kidney yin and clear deficient heat, regulate the Chong and Ren, move static blood, and stop pain. Because of the interdependent relationship of these patterns and their mechanisms of action, they were given equal priority and treated simultaneously with the use of acupuncture and herbs.

The recommended treatment plan consisted of weekly acupuncture sessions, as well as concurrent herbal therapy for a period of four to six weeks. After this initial course of treatment, the condition was to be reevaluated based on patient report and continued herbal therapy prescribed as needed. Because of the relatively short duration of the patient’s symptoms and her young age, it was anticipated that the pain would be either resolved or significantly reduced within eight weeks, while those related to chronic stress and emotional depression might require additional treatment for resolution and maintenance.

Treatment
Acupuncture treatment was performed with DBC .20x15mm or .20x30mm needles; needle lengths were chosen according to acupuncture point and physical anatomy of the patient. Distal and abdominal were chosen and needles were retained for 25-30 minutes per session. All points were needled bilaterally with the exception of the master and couple points of the Chong and Ren mai.

Herbal Formula:
Zhi Bai Di Huang Tang (modified Anemarrhena, Phellodendron and Rehmannia Decocition)
- Sheng di huang (Radix Rehmanniae Glutinosae), 12g
- Shan zhu yu (Fructus Cornii), 12g
- Shan yao (Rhizoma Dioscoreae), 12g
- Fu ling (Sclerotium Poriae Cocos), 6g
- Mu dan pi (Cortex Moutan Radicis), 6g
- Ze xie (Rhizoma Alismatis), 6g
- Zhi zi (Fructus Gardeniae Jasminoidis), 9g
- Chai hu (Radix Bupleurum), 12g
- Huang bai (Cortex Phellodendri), 9g
- Zhi mu (Rhizoma Anemarrhenae Asphodeloidis), 9g
- Dang gui (Radix Angelicae Sinensis), 9g
- Mu tong (Caulis Mutong), 9g

(Key to symbols: + Tonify, - Sedate, = Even)

Acupuncture: (8-10 of the following were chosen at each treatment based on tongue and pulse. When the pulse was relatively more excess than deficient, more points to move qi and blood were selected. However, when the pulse was relatively more deficient, points to nourish yin and regulate the Chong/Ren were given priority. Each treatment, however, included points to move Liver qi blood and to nourish yin and calm the spirit, as well as the master couple of the Chong/Ren)
- Ligou LV-5 - (reduce excess in lower jiao)
- Taichong LV-3 - (course LV qi)
- Qimen LV-14 - (course LV qi)
- Zhongji CV-3 - (reduce excess in lower jiao)
- Guilai ST-29 - (move static blood in lower jiao)
- Guanyuan CV-4 - (regulate uterus, nourish yin)
- Sanyinjiao SP-6 - (nourish yin)
- Yiningquan SP-9 - (drain excess from lower jiao)
- Zhaohai KD-6 - (nourish KD yin, clear deficient heat)
- Gongsun SP- 4 (right) and Neiguan PC-6 (left) - (regulate Chong mai)
- Lieque LU-7 (right) and Zhaohai KD-6 (left) - (regulate Ren mai)
- Jiuzui CV-15 - (calm spirit and regulate HT)
- Shenmen HT-7 - (calm spirit, benefit sleep)
- Shaofu HT-8 - (clear HT heat)
- Yintang M-HN-3- (calm spirit) 25
Zhi Bai Di Huang Tang was chosen as the base formula for its ability to nourish Kidney yin while clearing heat and fire from deficiency.16 As previously stated, Kidney yin deficiency does not typically present in younger women. This might lead the practitioner to doubt the diagnosis and choose an alternate and more likely formula, such as Danshen San. However, observation of the red, peeled tongue and thin, wiry pulse—along with other key symptoms of yin deficiency—led this author to conclude that Kidney yin deficiency was, in fact, a key part of the diagnosis. Therefore, Zhi Bai Di Huang Tang was selected as the primary formula to treat this condition. Zhi zi and chai hu were added to the formula to course the Liver and resolve depressive heat, while dang gui was used to further nourish the yin and moisten the tissues. Mu tong was added to drain Heart heat via the Small Intestine, but this was to be used no longer than 4-6 weeks due to its ability to injure the yin.27

The above doses were combined into a grinder, ground into a powder, and then distributed in equal doses into seven blank teabags and sealed with a heat sealer. The patient was instructed to steep one teabag in two cups of boiling water in a tightly covered glass jar for a period of 10-12 hours, drinking the infused tea in two divided doses the following day. This was to be repeated daily for the entire course of the four-week treatment, with modifications made as needed. This method of administration is frequently utilized by this clinic to increase patient compliance while simultaneously reducing herb cost, particularly when a formula is expected to be taken for a period of several weeks or longer.

Results
After 5 weeks of treatment with concurrent acupuncture and Chinese herbal therapy, the patient reported that her pain had reduced from an 8/10 to a 0/10 on the VAS scale. She also reported significantly improved sleep, stable mental-emotional health, increased physical energy, and regulated body temperature. Furthermore, at one year follow-up, the patient reported no return of vaginal pain and continued to enjoy quality sleep, high energy, stable emotions, and a healthy sexual relationship with her partner.

Discussion
Despite a high rate of prevalence, dyspareunia is often unreported or undiagnosed, leaving many patients to suffer without treatment. In cases when diagnosis is achieved, it is important to rule out comorbid conditions that might be contributing to its existence. Because it is generally assumed that cases of dyspareunia are due, to some degree, to psychological issues, cases in which an organic cause is not determined are often referred for psychotherapy.4,5

In this case, there were no identified comorbid conditions other than candidiasis, which regress after treatment with Diflucan and seemed unrelated to dyspareunia pain. There was, however, a positive history of sexual violation, though it is unclear to what degree this may have contributed to the patient’s dyspareunia as she had enjoyed several years of pain-free intercourse. Nevertheless, the sexual pain and subsequent lack of intimacy were sources of significant distress for the patient. Because of the presence of both physiological and psychological symptoms, both were given equal priority in the treatment planning. Likewise, both her symptoms and her constitution were addressed with acupuncture and Chinese herbs, with treatment aimed at couring the Liver qi, resolving depression, clearing heat, nourishing the yin, regulating the channels and stopping pain. This multi-factorial approach may have contributed to the rapid resolution of symptoms. It is unclear whether or not the patient would have experienced the same results in a similar timeframe with psychotherapy and/or physical therapy. However, this seems unlikely, as sources suggest that three months or more of both physical therapy and psychotherapy may be required to be effective.4,5

Conclusion
Few studies exist that explore acupuncture and Chinese herbal medicine in the treatment of dyspareunia. Because of the clinically meaningful 8-point reduction in pain on the VAS scale, this case illustrates that there is a need for further investigation in this area. Well-designed, randomized controlled trials that explore the efficacy of acupuncture, herbs, or combined therapy compared to conventional treatment may provide more conclusive information and guide future treatment of this condition.

References
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