When Osteopathy meets Acupuncture —— An Integrative approach to Treat Women with Chronic Pelvic Pain

A Thesis submitted in Fulfilment of the Requirements for the Degree of

Doctor of Philosophy in Osteopathic Clinical Sciences—PhD (OCS)

in

National University of Medical Sciences (NUMSS)

May 20th, 2021

by

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Introduction

Chronic pelvic pain is a common condition that affects an estimated 15 to 20 percent of women, ages 18 to 50. Chronic pelvic pain is a health condition that can disrupt sleep, work, physical activity, sexual relations, or family life. In addition, chronic pelvic pain can also affect a woman's mental and physical health that result in, for many women, experiencing chronic pelvic pain symptoms, like irritable bowel syndrome, depression, dysmenorrhea, pelvic inflammatory disease, nonspecific chronic fatigue syndrome, and so on. Dealing with chronic pelvic pain has always been a challenge for health care providers of all sorts.

Acupuncture is an ancient Chinese form of health care that has evolved into a complete and holistic medical system. Practitioners of acupuncture and Chinese medicine have used these systems to diagnose and help millions of people get well and stay healthy for thousands of years. In recent decades, acupuncture treatment has become increasingly integrated with conventional medical care. Modern clinical studies found that acupuncture initiates the release of the body's natural pain control chemicals, opioid peptides, which create an analgesic effect. The activation of the nervous system and certain parts of the brain have also been shown to be involved through the secretion of certain chemicals, changes in blood flow and an alteration in the way that the injured or problem area is sending information to and receiving information from the brain.

Osteopathy is a medical practice based on a drug-free non-invasive manual therapy that aims to improve health across all body systems by manipulating and strengthening the musculoskeletal framework, which in turn improves the function of the nervous, circulatory and immune systems and allows faster healing, reducing pain, congestion and restriction within the body. Osteopathy was founded in the late 1800s by an American physician named Andrew Taylor Still. His initial intent and goal developing this type of medicine was to restore the body to optimum health with minimal surgery and medicine. Osteopathy then was introduced to Europe, and spread to the rest of the world today. Manual Osteopathy has been long used to activate this inherent healing capacity and counteract chronic pain management.

Chapter One: Anatomy and Etiology of Pelvic Pain

The pelvis consists of four bones: the right and left hip bones, the sacrum, and the coccyx. The pelvis has several important functions. Its primary role is to support the weight of the upper body when sitting and to transfer this weight to the lower limbs when standing. It serves as an attachment point for trunk and lower limb muscles, and also protects the internal pelvic organs. When standing in the anatomical position, the pelvis is tilted anteriorly. In this position, the anterior superior iliac spines and the pubic tubercles lie in the same vertical plane, and the anterior surface of the sacrum faces forward and downward. There are some structural differences between the female and the male pelvis. In this thesis, as we are dealing with women with chronic pain, there is necessity to put focus on women's pelvic floor.

The pelvis is a hard ring of bone which supports and protects the pelvic organs and the contents of the abdominal cavity. The muscles of the legs, back and abdomen are attached to the pelvis, and their strength and power keep the body upright and enable it to bend and twist at the waist, and to walk and run. The woman's pelvis is adapted for child-bearing, and is a wider and flatter shape than the male pelvis. The pelvis is composed of pairs of bones, which are fused together so tightly that the joints are difficult to see. In addition, there are several ligaments unite the bones of the pelvis. The broad ligament supports the uterus, fallopian tubes, and ovaries. It extends to both sides of the pelvic wall. Uterine ligaments provide additional support for the uterus. The ovarian ligaments support the ovaries.

Pelvic pain that lasts longer than 6 months and shows no improvement with treatment is known as chronic pelvic pain. There are a couple of causes for chronic pelvic pain in women. For example, inflammation or direct irritation of nerves caused by injury, fibrosis, pressure, or intraperitoneal inflammation; menstrual pain and cramps, which is the most commonly menstrual disorder experiencing pain according to the American College of Obstetricians and Gynecologists (ACOG). Moreover, there are some of the more common sources of acute pelvic pain, or pain that happens very suddenly, including ectopic, pelvic inflammatory disease, twisted or ruptured ovarian cyst, urinary tract infection, ruptured fallopian tube, etc. Other causes may be related to problems in the digestive, urinary, or nervous systems.

There may be several tests that doctors would us to make a diagnosis for pelvic pain, including blood count, pregnancy test and testing for infection such as chlamydia and gonorrhea, urine test that can help identify if a urinary tract infection might be the cause of your pelvic pain, imaging tests like a transvaginal ultrasound, a CT scan, or an MRI scan of the abdomen and pelvis for a more complete picture.

In addition, Women with chronic pelvic pain frequently have psychological alterations and a life history that includes either one of the following alone or in combination: sexual abuse, family problems, divorce, oral history of violence. Because many women tend to internalize stress, repeated alternation of muscle tension and relaxation may lead to nerve entrapment or alteration of circulation to muscles or other body structures.

Chapter Two: The Deferential Diagnosis in Chinese Medicine

Chinese diagnostic methods have evolved continuously over more than 2000 years and reached a remarkable level of sophistication. Pulse diagnosis alone is a good example of the level of sophistication and subtlety of Chinese diagnostic methods. While Western medical diagnosis is very much based on 'looking inside' with X-rays, scans, blood tests, endoscopies, laparoscopies, etc., Chinese medical diagnosis is based on 'looking at the outer': that is, observing the complexion, the tongue, palpating the pulse and asking questions, plus tongue and pulse readings. Chinese diagnosis has traditionally four major parts: diagnosis by observation ('to look'), by interrogation ('to ask'), by palpation ('to touch') and by auscultation ('to hear and to smell').

'Identification of patterns' (bian zheng in Chinese) indicates the process of identifying the basic disharmony that underlies all clinical manifestations. This is the essence of Chinese medical diagnosis and pathology. Rather than analyzing symptoms and signs one by one in trying to find a cause for them, as Western medicine does, Chinese medicine forms an overall picture taking all symptoms and signs into consideration to identify the underlying disharmony.

In Chinese medical diagnosis, there are a few different systems to identify patterns: pattern identification according to Eight Principles, Identification of patterns according to Qi, Blood and Body Fluids, pattern identification according to internal organs, pattern identification according to the 12 channels, pattern identification according to six stages, pattern identification according to three burners, pattern identification according to wei, qi, ying, xue. In this thesis, we will explore the pattern diagnosis for chronic pelvic pain according to internal organs and meridians.

Identification of Patterns according to Internal Organs is based on the pathological changes occurring in the Internal Organs and is the most important of all the various systems for the diagnosis and treatment of internal diseases. Identification of patterns according to the 12 channels, which is the oldest of all modes of identification of patterns. This method of identification of patterns, describes the symptoms and signs related to each meridian channel, rather than the organ. This way of identifying patterns comes into its own when an acupuncturist treats a condition which is caused by damage to a channel rather than an Internal Organ or even by damage to an Internal Organ manifesting along its corresponding channel. The organs and their relevant channels form an indivisible energetic unit: problems of the Internal Organs. can affect the relevant channels and, conversely, problems that start as channel problems can penetrate the Interior and be transmitted to the organs.

To make the best and appropriate selection of Acupuncture points to treat pelvic pain, the first and foremost is to have a Chinese medicine diagnosis in terms of identification of patterns. Clinically, there are five common patterns seen in female patients with chronic pelvic pain.

- 1. Heat Toxicity: <u>pelvic pain</u> with burning pain, fever, headache, lower abdominal pain, may have vaginal discharge, foul, dark urine and constipation, yellow tongue coating, red tongue, wiry and slipper pulse.
- 2. Damp Heat: <u>pelvic pain</u> with low grade fever, heavy body sensation, thirst without wanting to drink, yellow vaginal discharge, red tongue, yellow tongue coating, wiry and slipper pulse.
- 3. Qi stagnation and Blood stasis: <u>pelvic pain</u> with stabbing nature, fixed location, pressure makes it worse, irritability, stress, anxiety, or irregular menstruation, clots, dark red or purple tongue body, with purple spots, thin tongue coating, deep tight pulse.
- 4. Chong and Ren vessels deficient cold: <u>pelvic pain</u> with cold in lower abdomen, prefers warmth and pressure, clear vaginal discharge, sensitive to cold, cold extremities, thin and white tongue coating, and deep thin pulse.
- 5. Pain location identification according to corresponding meridians that run through the pelvic region.

As the 'Essentials of Chinese Acupuncture' points out, 'identification [of the pattern] is made not from a simple list of symptoms and signs, but from a reflection on the pathogenesis of the disease Identifying a pattern involves discerning the underlying pattern of disharmony by considering the picture formed by all symptoms and signs.

Chapter Three: Osteopathic Examination

When a patient comes to the clinic presenting symptoms relating to pelvic pain, a practitioner should perform osteopathic examination on the patient in order to make the best and customized treatment plan addressing the issue. The order of the osteopathic physical examination is best based on the patient's history and clinical presentation. And the osteopathic examination of the pelvic region should at least consist of two main components: general observation and palpatory examination.

It is highly recommended that the practitioner begins with general observation of the static posture and then the dynamic posture, namely gait and regional ROM. And when it comes to the ROM, the order of it should be active, passive, and resistant. While performing the examination, the practitioner is required to pay close attention to any possible asymmetries or abnormalities at this point.

After the general observation, it is recommended to go about the next step, palpatory examination. The palpatory examination is also best started by observing the pelvic region for any vasomotor, dermatologic, or developmental abnormalities. Then it is important to check for blood circulation by checking the temperature in the area and tissue texture. And it is practitioner's interest to attempt to monitor the tissue texture quality and any dynamic fluid movement or change in tissue compliance during this step of the palpatory examination.

In performing the osteopathic examination through general observation and palpatory check-ups, the practitioner then can determine blood circulation and specific tissue structure in dysfunction, all of which will help develop the best and the most appropriate treatment plan for chronic pelvic pain patients.

Chapter Four: A combination of Acupuncture and Manual Osteopathy for Chronic Pelvic Pain

Manual Osteopathy may be integrated with Acupuncture to treat women with chronic pelvic pain. Treatment times, frequencies, and even number of needles vary among practitioners. However, technically and theoretically, usually patients may be seen twice a week to begin with, depending on their conditions, and as the condition improves, the treatments and frequency will change accordingly. In general, the practitioner is suggested to perform both manual osteopathic techniques and acupuncture based on diagnosis through both physical examination and TCM pattern identification, and then offer the most appropriate treatment plan for the patient. Even though everyone's condition would be different, theoretically, the whole session of treatment, which lasts 45 to 60 minutes, consists of three main components:

osteopathic mobilization for 10 minutes, muscle energy technique for 10 minutes, and then acupuncture with needle retention for 20 min.

First, practitioner performs osteopathic mobilization techniques on the pelvic region. First, the practitioner should focus on prone posterior to anterior iliac joint with pelvis pull: Locate the near side sacroiliac joint, then place heel of caudal side palm lateral to SI joint, on the ilium (fingers pointing cephalic), then pressure posterior to anterior with caudal hand, supporting with cephalic hand, while pressure down to end of ROM and release in a smooth motion, then repeat the pressuring 5-10 times, after which move to the other side of the table and work while contacting the opposite ilium.

The muscle energy techniques should be performed after the osteopathic mobilization. The first part is as follows: The patient lies supine, and the physician stands at the left side of the table; then the patient's right hip and knee are flexed to about 90 degrees, and the right foot is lateral to the left knee. The physician's right hand is placed under the patient's right innominate, grasping the medial aspect of the right PSIS and adducts the patient's right knee until the edge of the restrictive barrier is reached, while asking the patient to abduct or resist for 5 seconds, then the patient is instructed to stop and relax completely. Once relaxed for 2-3 seconds, the practitioner further adducts the patient's right knee to the edge of the new restrictive barrier and draws traction laterally on the right PSIS. The second part involves the Public Compression the pubic symphysis. The patient lies supine with the feet flat on the table. The practitioner then separates the patient's knees and places the forearm between the patient's knees while the patient resists for 5 seconds, then the patient is instructed to stop and relax. Once the patient has completely relaxed for 2-3 seconds, the patient's knees are separated slightly farther from the midline for another 5 seconds.

With the completion of the manual osteopathic section of treatment, the practitioner or acupuncturist should make a selection of acupuncture points according to the TCM diagnostic pattern identification (see chapter 3). In this thesis, the principal acupuncture points in most common situations are provided, the practitioner is expected to modify the point selection based on every individual patient's condition in order to get the best results. Acupuncture points used in the treatment of chronic pelvic pain:

- 1) To regulate Qi to relieve abdomen pain KI-14, Ren-5, SP-12, SP-13, ST-25 and LIV-4;
- 2) To move the Qi to clear Damp-Heat from the lower Jiao GB-26, GB-27 and GB-28;
- 3) To clear Damp-Heat from the Lower Jiao KI-10, SP-9, LIV-5, LIV-8, Ren-3;
- 4) Liver Qi stagnation predominant: LIV-3 and LIV-5, GB-34;
- 5) Spleen deficiency predominant: Ren-6, Ren-12 and ST-36
- 6) Liver and Kidney deficiency predominant: KI-7 and KI-10, KD6, LV8
- 7) Damp-Heat and Blood stagnation predominant: SP9, LV3, LV2, SP10, LI11;

The needles should be retained for at least 20 minutes with a heat lamp over patient's feet or abdomen since the energy channels have been opened and patients may tend to feel cold during this time.

Conclusion

A brief overview of acupuncture, manual osteopathic procedure for chronic pelvic pain has been discussed. Manual osteopathy and acupuncture share a lot in common when it comes to their holistic healing philosophies and their many mechanisms of action, especially when dealing with blood circulation, reducing inflammation, and promoting fascial release. This thesis highly recommends the combination of both manual osteopathy and acupuncture to treat women with chronic pelvic pain, with an expectation of getting effective results.

Reference

Acupuncture Energetics, A Clinical Approach for Physicians, Berkeley, CA: Medical Acupuncture Publishers.

A New American Acupuncture: Acupuncture Osteopathy, the Myofascial Release of the Bodymind's Holding Patterns, Mark Seem.

An Osteopathic Approach to Treating Women With Chronic Pelvic Pain, Melicien A. Tettambel.

Atlas of Osteopathic Techniques, Alexander S. Nicholas and Evan A. Nicholas.

Chronic pelvic pain: prevalence, health-related quality of life, and economic correlates, Mathias SD, Kuppermann M, Liberman RF, Lipschutz RC, Steege JF. Obstet Gynecol.1996;87:321-327.

Clinical Gynecologic Endocrinology and Infertility, Speroff & Fritz Lippencott Williams & Wilkins Press.

Foundations of Osteopathic Medicine, edited by Anthony Chila.

Handbook of Osteopathic Technique 3rd Edition, Laurie S. Hartman.

Manipulation of the Spine, Thorax and Pelvis, Peter Gibbons & Philip Tehan.

Mechanical Link: Fundamental Principles, Theory, and Practice Following an Osteopathic Approach, Paul Chauffour & Eric Prat.

Muscle Energy Technique, Leon Chaitow.

Obstetrics and Gynecology in Chinese Medicine, Giovanni Maciocia

Orthopedic Manual Therapy: An Evidence-Based Approach, Chad Cook.

Osteopathic Manipulative Medicine and Acupuncture Combined: A Retrospective case study to determine if order of treatment makes a difference in outcome for acute mechanical low back pain, William H. Stager, December 2007, The AAO Journal/19.

The Foundations of Chinese Medicine: A Comprehensive Text, Giovanni Maciocia

The Infertility Cure, Lewis. Little Brown Press.

The Practice of Chinese Medicine: The Treatment of Diseases with Acupuncture and Chinese Herbs, Giovanni Maciocia.

Treatment of Infertility with Chinese Medicine, Jane Lyttleton.

Trigger Points and Muscle Chains, Philipp Richter & Eric Hebgen.

Using Integrative Therapies to Treat Women With Chronic Pelvic Pain Melicien, A. Tettambel, DO. The Journal of the American Osteopathic Association, November 2007, Vol. 107, ES17-ES20.