

**Lori Pusateri
Case Study #5
Clinic Level 4
10/12/15**

Overview:

Sex: Male

Age: 42

Height: 6'0"

Weight: 175

Occupation: Forestry

Chief Complaint:

The patient's chief complaint is lower back pain and sciatica. The pain is in the sacroiliac joint, L5, S1, S2, and the gluteal muscles on the right side. He has had this pain intermittently for 6 months following a day of working outdoors and describes it as a level 6 out of 10. The patient has been coming once or twice a week for 4 weeks at the time of this writing.

Family Medical History:

The patient has a family medical history of:

- High Blood Pressure
- Prostate Cancer
- Obesity

Patient Medical History:

The patient received an MRI and x-rays two weeks after the injury. These did not show any fractures, arthritis or degeneration. His Western diagnosis at that time was Piriformis Syndrome. Professional massages on the area did not ease the pain. The patient reports no previous injuries to the area, but does a lot of bending, hiking and lifting at his job. In addition, the patient lives in high altitude on the Big Island where there is frequent rain, wind and cold conditions. He also surfs every morning in cold water.

10 Question Highlights:

- impaired walking, worse with twisting at the waist
- feeling of heaviness and cold in the lower body and extremities
- pain is in fixed locations and seems to get worse when the weather changes, especially during rain
- aversion to wind
- fatigue and muscles spasms in limbs
- palpitations
- shortness of breath
- catches colds easily
- feels tired after eating
- eating habits are irregular and usually on the go

Patient Examination:

- Pulse: deep, soft, slow
- Tongue: pale and slightly dry on sides with thick white greasy coating
- The patient has a pale and sallow complexion. He talks very quietly and softly but has good Shen in his eyes.
- Upon palpation, the pain radiates from L5-S1-S2 to the gluteal muscles and down the lateral side of the leg to the area of Gb34 and Ub40. The skin in the area feels cold to the touch. There are no masses or discolorations, but some atrophy of the muscles in the area. The channels involved are the Du, Ub and Gb.

Case Analysis: Etiology and Pathophysiology:

Piriformis syndrome refers to sciatic nerve pain caused by entrapment or pinching of the sciatic nerve as it exits the greater sciatic notch in the gluteal region. Entrapment in this area is due to myospasm or contracture of either the piriformis or gemellus muscles. The main symptoms of this condition are deep, chronic, nagging pain aggravated by sitting, squatting, or walking, possible low back pain, and occasional numbness, pain, and tingling below the knee and into the foot. Many weekend athletes and people who spend long hours sitting are prone to this syndrome. In the athlete's case, it is usually due to improper stretching and inadequate warm-up exercises, as well as overuse and injury. In the case of those who sit for long periods

of time, inappropriate posture causes contracture of the piriformis muscle. Females are more prone to this syndrome by a 6:1 ratio (Flaws 2001).

Traditional Chinese Medicine Diagnosis and Differentiation:

According to Chinese medical texts, piriformis syndrome can occur from wind damp cold impediment hindering and obstructing the free flow of qi and blood, resulting in pain. There may also be underlying deficiencies in qi and blood (Flaws 2001).

The word "*Bi*" in Chinese means an obstruction. Bi Syndrome refers the syndrome characterized by the obstruction of qi and blood in the meridians due to the invasion of external pathogenic wind, cold and dampness. This is manifested as soreness, pain, numbness, heavy sensation, swelling of joints, limbs, and limitation of movements (Deng 2004).

According to TCM theory, Bi syndrome can be due to either external factors or internal factors (Maciocia 2005).

1. External factors - the invasion of the muscles, joints and meridians by pathogenic wind, cold and dampness. In Chapter 43 of *The Bi Syndrome of Plain Questions*, a part of *The Yellow Emperor's Canon of Internal Medicine*, says that "if pathogenic wind, cold and dampness invade the body together, it will lead to obstruction in the meridians and Bi syndrome may take place". Clinically, Bi syndrome is more common in the areas where the weather is cold, wet and windy (Maciocia 2005).
2. Internal factors - general weakness of the body as well as the defensive qi: This condition may cause the weakened resistance to pathogens, marked by dysfunction of skin and pores as well as defensive qi. As a result pathogenic wind, cold and dampness can easily invade the body causing Bi syndrome. This was described by the book *Prescriptions for Succouring the Sickness*, or *Ji Sheng Fang*, by Dr Yan Honghe in 1253, which states "it is because of weakness of the body with poor function of defensive qi that invasion of pathogenic wind, cold and dampness can result in Bi syndrome" (Maciocia 2005).

The basic pathology of Bi syndrome is the obstruction of qi and blood in the meridians, due to the invasion of pathogenic wind, cold and dampness. According to TCM theory, if the meridians are open and the qi and blood are circulating smoothly and normally, there will be no pain; but if the meridians are obstructed and the flow of qi and blood are blocked, pain will arise (Deng 2004).

Wind Bi has symptoms of wandering arthralgia, accompanied with aversion to wind, white or greasy fur and floating pulse. Cold Bi has pain that is severe and stabbing with fixed location as well as local cold sensation, alleviated by warmth, aggravated by cold, white fur and tight pulse. Finally, dampness Bi syndrome has soreness and fixed pain in the joints with local swelling and numbness, aggravated on cloudy and rainy days, white and greasy fur, soft and slow pulse (Maciocia 2005). From the symptoms described by the patient we can see elements of all three, with a higher percentage of Dampness and Cold.

There are also elements of underlying qi and blood deficiencies in the patient. The qi deficiency is presented as fatigue, shortness of breath, quiet voice, aversion to wind and catching colds easily, while the blood deficiency shows in the muscle spasms, numbness, palpitations and sallow complexion. The deep slow pulse shows a internal condition that is cold in nature. The pale tongue shows the blood deficiency, slightly dry on the sides indicates liver blood, and the white greasy fur shows an internal chronic condition of weak spleen qi and dampness (Maciocia 2005).

Treatment Strategy:

The treatment strategy has been to expel wind-cold-damp, disperse painful obstruction, and tonify qi and blood. Follow up treatments may include longer term tonification of qi and blood.

Treatment Methods:

Herbal Formula:

The following formula was taken by the patient throughout the duration of treatment. The patent from Blue Poppy Herbs was used for patient compliance at a dosage of 3 pills 2 times per day.

Du Huo Ji Sheng Tang (Pubescent Angelica and Taxillus Decoction)

Du Huo (Angelicae pubescentis Radix) - 9g

Xi Xin (Asari Herba) - 6g

Fang Feng (Saposhnikoviae Radix) - 6g

Qin Jiao (Gentianae macrophyllae Radix) - 6g

Sang Ji Sheng (Taxilli Herba) - 6g

Du Zhong (Eucommiae Cortex) - 6g

Niu Xi (Achyranthis Radix) - 6g

Dang Gui (Angelicae Sinensis Radix) - 9g
Rou Gui (Cinnamomi Cortex) - 6g
Chuan Xiong (Chuanxiong Rhizoma) - 6g
Sheng Di Huang (Rehmanniae Radix) - 6g
Bai Shao (Paeoniae Radix alba) - 6g
Ren Shen (Ginseng Radix) - 6g
Fu Ling (Poria) - 6g
Zhi Gan Cao (Glycyrrhizae Radix preparata) - 6g (Bensky 1990).

This formula treats chronic painful obstruction patterns that involve insufficiency of qi and blood. For this reason, the formula uses a complex strategy of dispelling wind dampness, stopping pain, augmenting the functions of the Liver and Kidneys, and tonifying qi and blood. The chief herb *Du Huo* expels wind, dampness, and cold from the lower burner, bones and sinews. *Xi Xin* scatters cold and wind dampness to stop pain. *Fang Feng* expels wind and dampness while *Qin Jiao* relaxes the sinews and expels wind and dampness. *Sang Ji Sheng*, *Du Zhong*, and *Niu Xi* expel wind dampness and tonify the liver and kidneys. *Niu Xi* also directs the herbs to the lower extremities. *Rou Gui* warms and unblocks the channels and fortifies the yang. *Dang Gui*, *Chuan Xiong*, *Sheng Di Huang* and *Bai Shao* nourish and invigorate blood. *Ren Shen* and *Fu Ling* tonify the spleen and alleviate dampness while *Zhi Gan Cao* tonifies the middle qi and harmonizes (Bensky 1990).

Acupuncture:

The following acupuncture points were needled throughout the sessions:

Hou Xi (Si-3) - relaxes sinews, expels wind, opens *Du* with *Kun Lun* (Ub60)
Kun Lun (Ub60) - disperses wind, relaxes sinews, transforms damp, benefits lower back
Wai Guan (Sj5) - Dissipate wind, move qi, open *Yang Wei* with *Zu Lin Qi* (Gb41)
Zu Lin Qi (Gb41) - move qi, regulate *Dai Mai*
Shen Shu (Ub23) - tonify kidneys, strengthen lumbar vertebrae
Huan Tiao (Gb30) - remove painful obstruction, strengthen back/legs, tonify qi/blood
Wei Zhong (Ub40) - command point for lumbar
Fei Yang (Ub58) - disperse wind damp, clear channel, tonify kidneys, luo pair with Kd3
Tai Xi (Kd3) - tonify kidney, strengthens lower back, yuan pair with Ub58
Yang Ling Quan (Gb34) - influential point of sinews, remove bi pain (Ross 1995).

Ashi acupuncture and moxibustion on buttocks area of pain

Sliding and stationary cupping of lumbar and buttock area

E-stim connecting various lower back and distal points

Dietary:

General dietary recommendations include regular eating times, eating moderate amounts and chewing thoroughly. Raw foods and cold foods constrict circulation and should be avoided while cooked warming foods like soups and stews added. Likewise, highly fatty foods, especially saturated fats impair circulation. Eating while distracted or emotionally stressed should also be avoided (Pitchford 2002).

Specific foods for Wind Damp Patterns include:

- turmeric, basil, oregano, rosemary, ginger, flaxseed oil or other sources of EFAs
- rice, barley, rye, Chinese job's tears
- alfalfa sprouts, cilantro, mustard greens, turnips, mushrooms especially oyster mushrooms
- cherries, papaya
- black beans, kidney beans, lotus seeds, mung beans, black soybeans
- quail eggs, sardines (Pitchford 2002).

Lifestyle:

The patient was instructed to layer clothing and bring changes of clothes when working outside in cold damp weather. He was to immediately change out of wet clothes and swim trunks and take a warm shower/bath. Warm foot soaks after work and a dehumidifier for the home were also suggested. He also purchased a gentle Tai Chi dvd to practice in the mornings.

Treatment Assessment:

After the first treatment the pain was 75% gone. The patient returned twice a week for two weeks, then once a week for 2 more weeks. His pain returned about 30% in between initial treatments. However, each time the pain returned it was less intense, and the size of the painful area was reduced. The pain also stayed away longer after treatments. The pain was significantly better and stayed away longer when treatments combined acupuncture with E-stim and moxibustion.

Biomedical Clinical Sciences:

The Western medical diagnosis of piriformis syndrome consists of first ruling out lumbar disk herniation. The affected leg is often externally rotated when relaxed. Various physical examination maneuvers confirm this diagnosis (e.g., Freiberg's maneuver, Pace's maneuver, Beatty's maneuver, and the Mirkin test). The Western medical treatment of this condition mainly consists of stopping any offending exercises or activities. While many clinicians prescribe stretching exercises, the authors of *The Merck Manual* say such exercises are "rarely beneficial." Corticosteroids are sometimes injected into the site where the piriformis muscle crosses the sciatic nerve, presumably reducing fat around the muscle. (Flaws 2001).

Patient Prognosis:

The patient's pain has been significantly reduced over the course of 4 weeks of treatment. It is important to continue to strengthen the underlying deficiencies of qi and blood so that it does not return, or appear somewhere else. We plan to continue to see the patient weekly, with new focus on tonification. We will also assess changing to a qi and blood tonic formula. The patient's home practices of diet, tai chi, and keeping himself and his environment warm and less damp have expedited results.

Self-Assessment:

This case was good practice for me using other modalities such as cupping, moxabustion and E-stim. The treatments that utilized a variety of modalities seemed to create the best and most lasting results. I would like to improve my confidence with needle moxa and fire cupping, and will continue to practice them on patients when appropriate. I also found the use of a patent formula to be effective and allowed for easier patient compliance. I will be doing more research on potency of different patent brands.

References:

Bensky D and Barolet R. (1990). **Chinese Herbal Medicine: Formulas and Strategies**, rev. ed., Seattle: Eastland Press.

Deng, T. (2004). **Practical Diagnosis in Traditional Chinese Medicine**. Shanghai: Shanghai Scientific and Technical Publishers.

Flaws, B and Sionneau, P. (2001). **The Treatment of Modern Western Medical Diseases with Chinese Medicine: a Textbook and Clinical Manual**. Boulder: Blue Poppy Press.

Maciocia, G. (2005). **The Foundations of Chinese Medicine: A Comprehensive Text for Acupuncturists and Herbalists**. Beijing: Churchill Livingstone.

Pitchford, P. (2002). **Healing with Whole Foods**. Berkeley: North Atlantic Books.

Ross, J. (1995). **Acupuncture Point Combinations: the Key to Clinical Success**. Singapore: Longman Singapore Publishers.