Sacroiliac Joint Dysfunction

By Matt Callison

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The sacroiliac joint transmits the weight of the upper body to the hip and is also an energy absorber from forces coming from the ground upward.[1] This stable joint is supported by very strong ligaments found on the anterior and posterior sides of the joint. Movement at the sacroiliac joint is limited in range but varies considerably between individual constitutions as well as sexes. For example, the low back which includes the sacroiliac joints is influenced by the Kidneys (*Shen*), therefore patients with deficient Kidney Qi and Yang (*Shen Qi Bu Zu, Shen Yang Kui Sun*) often present with sacroiliac pain. There is also a difference between males and females with regard to the movement allowed at the joint. Males, creatures of Qi, have thicker and stronger sacroiliac ligaments holding the joint in place which allows for greater strength and less vulnerability to injury. Females, creatures of Blood (*Xue*) have more laxity in the ligaments decreasing structural strength of the joint. This laxity increases with monthly hormonal fluctuations with the joint becoming much more mobile during pregnancy and childbirth.[2]

Sacroiliac joint dysfunction typically involves a unilateral pelvic rotation of the ilium in an anterior or posterior direction. An anterior rotation occurs when the ilium rotates forward onto the sacrum and conversely, a posterior rotation occurs when the ilium rotates backward onto the sacrum. In both positions, stress is placed onto the sacroiliac ligaments. In either anterior or posterior pelvic rotation, when force is great enough such as from an acute trauma or repetitive joint motions these ligaments will be affected often becoming sprained.

The sacroiliac pain reported may be localized in the joint region located lateral to acupuncture points UB 26 (*Guanyanshu*) and UB 27 (*Xiaochangshu*) or the patient may

describe the pain as an ache that wraps toward the hip or down the into lower extremity. Acute sacroiliac sprains most often occur when the sacrum and ilium are

Figure 8-16. Pain from sacroiliac joint dysfunction often affects the posterior ligaments.

jammed into each other. This occurs from two common mechanisms. The first is common to all sports where the athlete lands abruptly onto the gluteal region. This mechanism is evident in the photo below where the equestrian has been thrown from a horse (Fig. 8-17A). The second mechanism occurs when athletes land on a straight leg after a jump having failed to bend the knee which would have absorbed the shock of the landing. This occurs in track sports such as the long jump where the athlete misjudges the landing or when a soccer player gets bumped by an opponent and lands awkwardly on a straight leg (Fig. 8-17B).

A.

B.

Figure 8-17 A, B. Acute injury to the sacroiliac ligaments often involves either (A) direct impact or (B) a force that is transferred to the SI joint when an athlete lands on a straight leg.

Non-traumatic conditions causing sacroiliac pain are an outcome of a repetitive pattern of joint motions that have a cumulative effect on the joint such as those associated with swinging a golf club (Fig. 8-18). This pain can also come from occupations that require sitting for long periods of time. The patient with a non-traumatic injury may report the pain as having an insidious onset or may have awakened with pain with no recollection of injury the day before. In non-traumatic sacroiliac injuries, pelvic rotation and muscle imbalance are always found.

Figure 8 –18. Repetitive one-sided twisting motions can create muscle imbalance and offset the sacroiliac joint.

Together resulting in either hypermobility- instability, or hypomobility-fixation of the joint.

In all cases of sacroiliac pain the patient's constitutional strength, assessed with TCM's differential diagnosis, as well as pelvic disparities and muscle imbalance must be evaluated. Symptoms of sacroiliac pain can be similar to pain caused by lumbar disc involvement so a differential diagnosis must be made with orthopedic exams such as those listed below. However, the practitioner can determine whether the sacroiliac joint is involved by observing movement of the joint. Several orthopedic tests are designed to produce this joint motion thereby reproducing signs and symptoms. Generally, several positive tests reproducing the pain located at the sacroiliac joint and confirmed with palpation determines the probable source of pain.

When sacroiliac pain occurs, there is a common referral pattern of aching pain that

follows TCM topography. Examining the Gall Bladder (*Dan*) meridian from GB 29 (*Juliao*) there is a branch that connects to UB 31-34 (*Shangliao – Xialiao*) before proceeding back to GB 30 (*Huantiao)* [3],[4] forming a quadrilateral shape (Fig. 8–19). This referral pattern covers the gluteus medius and piriformis muscles which are often found to be weak with manual muscle testing. These two muscles are primary stabilizers which maintain structural integrity to the sacroiliac joints and must be treated to ensure successful outcomes.[5]

In addition to the Gallbladder meridian, the sacroiliac joint is also traversed by and directly related to the Dai Mai vessel. The relevance of treating the master point of the Dai Mai GB 41 (*Zulinqi*) and the coupled point of the Yang Wei SJ 5 (*Waiguan*) can be observed with Gillett's Test. This test determines if there is a posterior fixation of the sacrum onto the ilium. Treating

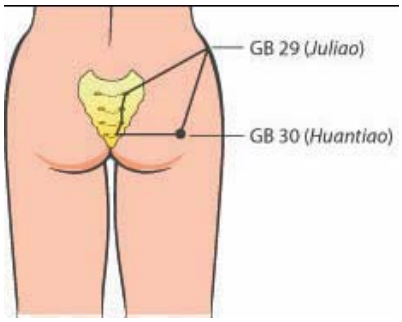

Figure 8-19. Pain referral from sacroiliac joint is often in a quadrilateral shape following the Gall Bladder (Dan) meridian pathway from GB 29 (Juliao) to GB 30 (Huantiao).

the Dai Mai and Yang Wei vessels master and coupled points on the same side as a positive Gillett's Test will release the sacroiliac joint fixation, evident upon immediate re-testing.

Assessment

• The patient may describe their hip as not connected properly, reporting a disjointed feeling. The patient can often pinpoint the pain at the sacroiliac joint and may report an aching sensation wrapping to the front of the body near GB 29 (Juliao) and ST 31 (Biguan).

• Assess Pelvic Rotation/Tilt and Muscle Imbalance p.219
• Modified Gaenslen's Test p. 221
• Sacroiliac Rocking Test p. 221
• FABER Test p.223
• Gillett's Test p. 224
• Straight Leg Raise Test or Slump Test p. 226
• Manual Muscle Testing p. 209
• MRI scan to rule out disc herniation

TCM Pattern

• Qi and Blood Stagnation from Trauma (*Wai Shang Die Pu, Qi Zhi Xue Yu*): Trauma to the sacroiliac joint causes stagnation of Qi and Blood in the sacrum and low back. Patient can usually recall a specific impact from a fall, tripping, twisting or lifting incident that precipitated the injury. Pain is sharp, acute, stabbing, and fixed in location.

• Kidney Jing and Yang Deficiency *(Shen Jing Kui Sun, Shen Yang Bu Zu)*: Weak Kidney Jing is unable to nourish bone and the low back region. Deficiency of Kidney Yang is unable to hold the structural integrity of the sacrum. Patient will experience soreness and pain in the area without any history of injury. Pain is dull, aching, constant, worse with exertion and cold, and improves with rest and warmth.

• Wind-Cold-Damp Obstruction *(Feng Han Shi Bi)*: External Wind-Cold-Damp obstructs the movement of Qi in the channels and collaterals causing pain in the sacrum that can range from mild to severe. There is heaviness, soreness, and distending pain. Pain and soreness is better with warmth.

• Damp-Heat in the Lower Jiao *(Xia Jiao Shi Re):* Damp-Heat invades the channels of the low back and sacrum causing pain that is sore, heavy, and worse with heat; constipation, foulsmelling diarrhea, hemorrhoids, and dark urination.

Acupuncture

Huatuojiaji Points:

• Tender points to palpation of T12-L5

Motor Points:

• Piriformis, gluteus medius and minumus, quadratus lumborum and abdominals

Target tissue needling:

Sacroiliac Ligament Needle technique. Palpate 4 - 5 vectors from medial to lateral into the sacroiliac joint for tenderness (Fig. 8-20A). Needle 1 or 2 most painful vectors 1-1.5 inches into the sacroiliac joint (Fig. 8-20B).

• Sacroiliac Dragon Needling: A three needle technique for pain in the sacroiliac region (Fig. 8-21).

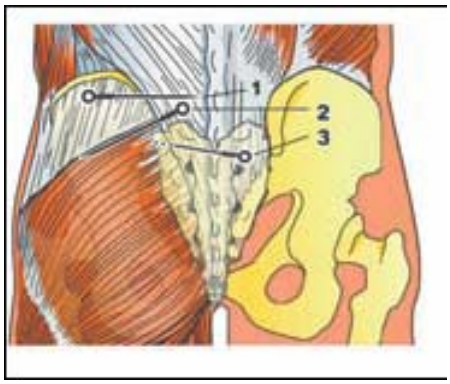

Figure 8-21. Sacroiliac dragon needle technique.

1. Palpate

the soft tissue attachments on the superior border of the PSIS located medial to the extra point *Yaoyan*. Thread one needle from lateral to medial in a cross-fiber direction.

2. Find the gluteal aponeurotic line which runs from the PSIS to the Superior border of the greater trochanter. As you palpate this line in a cross-fiber direction you will find what feels like a speed bump. This is the attachment of the gluteus maximus muscle to aponeurosis tissue. Insert one needle, medial to lateral, into this attachment following the gluteal aponeurotic line.

3. Insert one needle into the sacroiliac joint ligamentous tissue as described above in Fig. 8-20B.

Acupuncture point combinations
for TCM patterns:

• UB 40 (*Weizhong*), UB 17 (*Geshu*), LIV 3 (*Taichong*), LI 4 (*Hegu*), GB 34 (*Yanglingquan*), UB 18 (*Ganshu*), SP 10 (*Xuehai*), SP 6 (*Sanyinjiao*), UB 29 (*Zhonglushu*), UB 30 (*Baihuanshu*) to promote Qi circulation and eliminate Blood stasis (*Qi Zhi Xue Yu*) and remove obstructions from the channels and collaterals.

• REN 6 (*Qihai*), K 7 (*Fuliu*), K 3 (*Taixi*), UB 52 (*Zhishi*), UB 23 (*Shenshu*), DU 4 (*Mingmen*), DU 3 (*Yaoyangguan*), UB 26 (*Guanyuanshu*), GB 30 (*Huantiao*), REN 4 (*Guanyuan*) to tonify Kidney Jing and Yang and strengthen the low back. (*Shenshu*), DU 4 (*Mingmen*), DU 3 (*Yaoyangguan*), UB 26 (*Guanyuanshu*), GB 30 (*Huantiao*), REN 4 (*Guanyuan*) to tonify Kidney Jing and Yang and strengthen the low back.

• DU 16 (*Fengfu*), SP 9 (*Yinlingquan*), ST 36 (*Zusanli*), SI 3 (*Houxi*), GB 20 (*Fengchi*), DU 14 (*Dazhui*), LU 7 (*Lieque*), UB 13 (*Feishu*) to eliminate Wind-Cold- Damp from the channels and collaterals, disperse stagnation and alleviate pain.

• SP 9 (*Yinlingquan*), UB 40 (*Weizhong*), UB 63 (*Jinmen*), UB 64 (*Jinggu*), UB 66 *(Zutonggu*), GB 30 (*Huantiao*), GB 34 (*Yanglingquan*) to resolve Damp-Heat in the channels and collaterals and lower jiao. Moxibustion

• Pole moxa over sacrum and low back to move Qi and Blood and eliminate stagnation from the channels and collaterals.

• Pole or direct moxa on REN 6 (*Qihai*), K 7 (*Fuliu*), K 3 (*Taixi*), UB 52 (*Zhishi*), UB 23 (*Shenshu*), DU 4 (*Mingmen*), DU 3 *(Yaoyangguan*), UB 26 (*Guanyuanshu*), GB 30 (*Huantiao*), REN 4 (*Guanyuan*) to tonify Kidney Jing and Yang and strengthen the low

back.

• Pole moxa over the Urinary Bladder meridian and DU vessel between L1 and the sacrum to expel Wind-Cold-Damp. Pole or direct moxa over ST 36 (*Zusanli*) and SP 9 (*Yinlingquan*) to remove Damp

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Endnotes

1. Broadhurst, N.A. 1998. Pain provocation tests for the examination of sacroiliac joint dysfunction. *J Spinal Disorders* 123 (4): 357-358.
2. Grieve, G.P.: The sacroiliac joint. *Journal of Anatomy*. 58:384-399, 1993.
3. O' Conner, J., and D. Bensky. *Acupuncture: A Comprehesive Text.* Shangai College of Traditional Medicine. Seattle: Eastland press, 1981, pg. 59.
4. Ross, J. Acupuncture Point Combinations: The Key to Clinical Success. New York: Churchill Livingstone, 1995, pg. 257.
5. Bernard T, Cassidy JD. The sacroiliac syndrome. In: First Interdisciplinary World Congress on Low Back Pain and its relation to the Sacroiliac Joint. San Diego: Philips Medical Systems. 1992: 120-143.

MATT CALLISON earned his Bachelor of Science Degree in Sports Medicine from San Diego State University in 1985. Mr. Callison worked in the Sports Medicine field at Alvarado Sports Medicine clinic and Scripps Hospital, La Jolla for 6 years. In 1991, Mr. Callison received his Masters Degree in Traditional Oriental Medicine from Pacific College of Oriental Medicine, in which the class that he developed is still being taught; "Treatment of Orthopedic Disorders". Mr. Callison serves as Pacific College's supervisor of acupuncture interns at the University of California's San Diego Sports Medicine RIMAC Center where they are blending Chinese and Sports Medicine together in a western setting.

Mr. Callison's unique ability to blend Chinese Medicine with Sports Medicine is

demonstrated by his excellent reputation. This is particularly evident in his international lecture series, “Sports Medicine Acupuncture”. He has published a clinical study on acupuncture and tibial stress syndromes (shin splints) in the *Journal of Chinese Medicine*. Furthermore, Mr. Callison is well-known for his work with professional teams and individual athletes. Mr. Callison is also the creator of the Motor Point and Acupuncture Meridian Chart as well as the author of three publications, *The Motor Point Manual*, *Motor Point Index* and *Sports Medicine Acupuncture.*