

Case Report of Plantar Fasciitis in Acupuncture and Oriental Medicine

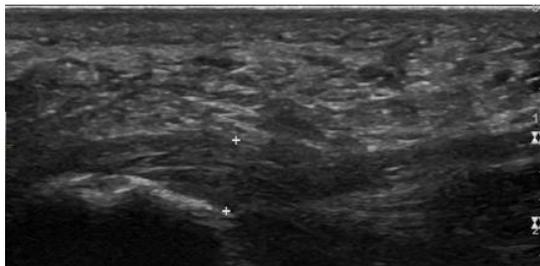
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Definition of disorder: Plantar fasciitis refers to inflammation that causes pain of the connective tissue which supports the arch of the foot. It results in pain in the heel and bottom of the foot. Treatment may be difficult if not taken care of properly^[1]. Between 4% and 7% of the general population has heel pain at any given time: about 80% of these are due to plantar fasciitis.^{[1][4]} Approximately 10% of people have the disorder at some point during their life.^[7] It becomes more common with age.^[1] It is unclear if one sex is more affected than the other.^[1]



Causes: The causes of plantar fasciitis are not all accurately identified. Risk factors include overuse such as from excessive exercise, long periods of standing, and obesity. It is also associated with inward rolling of the foot, a tight Achilles tendon, and a lifestyle that involves little exercise. Although heel spurs are frequently found, it is not clear whether it plays a role in causing

the condition. The plantar fascia is a thick fibrous band of connective tissue that originates from the medial tubercle and anterior aspect of the heel bone. From there, the fascia extends along the sole of the



foot before inserting at the base of the toes, and supports the arch of the foot.^{[2][9][11]} Originally, plantar fasciitis was believed to be an inflammatory condition of the plantar fascia. However, within the last decade, studies have observed microscopic anatomical changes indicating that plantar fasciitis is actually due to a noninflammatory structural breakdown of the plantar fascia rather than an inflammatory process.^{[6][12]}

Sign and Symptoms: People with plantar fasciitis report that it usually hurts the most with the first steps of the day. When plantar fasciitis occurs, the pain is typically sharp^[8] and usually unilateral (70% of cases).^[6] Heel pain is worsened by bearing weight on the heel after long periods of rest.^[9] Improvement of symptoms is usually seen with continued walking.^{[3][5][8]} Rare, but reported symptoms include numbness, tingling, swelling, or radiating pain.^[10] Typically there are no fevers or night sweats.^[2]

If the plantar fascia continues to be overused in the setting of plantar fasciitis, the plantar fascia can rupture. Typical signs and symptoms of plantar fascia rupture include a clicking or snapping sound, significant local swelling, and acute pain in the sole of the foot.^[8]

Diagnosis: Diagnosis is primarily based on clinical signs and physical examination. Patient may present with heel pain with their first steps in the morning or after prolonged sitting, and sharp pain with palpation of the medial plantar calcaneal region. Excessive activity can lead the pain getting worse again. Diagnostic imaging is rarely needed for the initial diagnosis of plantar fasciitis. Use of ultrasonography and magnetic resonance imaging is reserved for recalcitrant cases or to rule out other heel pathology; findings of increased plantar fascia thickness and abnormal tissue signal the diagnosis of plantar fasciitis^[13].

Treatment, and Prognosis: Most cases of plantar fasciitis undergo with time and conservative methods of treatment and many patients have good results with this type of treatment alone.^{[3][6]} For example, relaxation, shoe replacement, exercise and change activities, take pain medications are usually advised.^[3] If this is not sufficient, physiotherapy, orthotics, splinting, or steroid injections may be options.^[3] If these measures are not effective, extracorporeal shockwave therapy or surgery may be tried.^[3]

Case Presentation:

Medical history:

Date of first visit: June 14th 2018

A 55-year-old Caucasian female who has plantar fasciitis presented with anxiety. She had been suffering with mild right heel pain for a couple of months and it suddenly aggravated for 1 week especially early in the morning and pain scale was 7-8 she said. The range of dorsiflexion and plantar flexion were normal but noticed anterior aspect of the heel area's temperature was 1 degree higher than left side of the heel. (Right side 97.4 °F , Left side 96.3 °F) After 5 intensive treatments in two weeks, directly targeted on the area with acupuncture and low level laser therapy LLLT(640nm-905nm), the patient's condition was significantly improved and patient mentioned that her pain scale was 1-2.

Chief Complaint:

Plantar fasciitis for more than two months.

Second Complaint:

Mild back pain and Anxiety

Present Illness:

Patient said that she gaining weight gradually due to the stress which related with work for last one year. Due to the pain on the right-side foot she couldn't perform normal activities which caused anxiety. "Sometimes it feels like cactus underneath the heel and hitting it when you walk, and it's very painful" she said. Patient took 400mg of Motrin time to time to alleviate the pain.

Second medical history:

Patient stated that she has been experiencing mild chronic back pain and leg weakness gradually getting worse for over 1 year. Patient doesn't have any inherited illness nor does she take any type of prescriptions, and prefers warm drinks.

Physical Examination:

Noticed anterior aspect of the right-side heel temperature was 1 degree higher than left side. The range of dorsiflexion and plantar flexion were normal. Noticed her gait was imbalanced due to the pain. Apparent tenderness at anterior/exterior aspect of the heel area. Patient's calf muscles on both sides showed tenderness. Patient said that pain scale was 7-8.

Review of Systems (ROS)

Gait: Imbalanced, unable to walk fast.

Energy level: Moderate energy level, an average of 6/10, however gets tired easily.

Temperature: The patient gaining more weight recently, therefore body temperature goes up very easily.

Body Type: Obese BMI 32 (5'6", 200lbs)

Sleep: Patient usually sleeps 7-8 hours average. She wakes up two times during the night to empty her bladder.

Nourishment: Patient needed balanced diet which includes a lot of vegetables with the right amount of fish/meat, and a variety of grains.

Apparent Wellness or Illness: Patient presents with planta fasciitis along with chronic back pain which causing anxiety.

Apparent edema: Slight edema noticed on both feet.

Appearance in relationship to age: Normal

Mental Status: Noticed anxiety due to the circumstances.

HEENT/Examination:

Normal, she did not have any allergies. Patient had a good shen.

Blood Pressure: 120/75

Pulse: 72 bpm, thready/tight

Tongue: Swollen body with teeth mark on both liver position , thick white coating.

Chest: Respiratory rate was 20 per minute. Respiration pattern was regular with no use of accessory muscles upon inhalation and expiration. Skin was moistened and cold to touch.

Symmetrical chest expansion was observed. No sputum production or productive cough presented.

Abdomen: Abdomen was soft and had no signs of distention. No masses presented upon palpation.

Urination and Bowel movement: The patient had regular straw yellow colored urine and had regular bowel movements.

Pain: Patient complained of foot pain with a level of 7-8/10 and chronic back pain with a level of 2-3/10.

Speech: Patient had no issues with speech.

OB/GYN: N/A

Plan/Procedures:



Treatment Plan: 3 times a week for 1 week then follow up re-evaluation.

Modalities: Acupuncture w/o E-stim, low level laser therapy LLLT (640nm-905nm) and TDP lamp



Goal: Reduce pain level, repair muscular-skeletal injuries, decrease medication needs, increase lumbar strength and improve level of function in activities of daily living.

Acupoints that are selected were: (R) GB34, UB40, UB57, UB61 KI5, KI6, (B) UB23-25, Jaji, Pe 6, Yintang, Ashi.

Progress:

Total 5 treatments were performed during 2 weeks period. Patient mentioned that her daily activities such as sitting, walking and driving have improved at least 90% compared to the treatment before. She also mentioned that the condition of chronic back stiffness was recovered 70%. Patient said that she was more stable mentally then before she started treatment.

Objective/Functional Improvement

Patient has been compliant with the treatment plan and tolerated treatment well. Planta fasciitis was improved during first 3 treatments. Chronic Low Back Pain was improved gradually during the treatments. Noticed gait imbalance and limping were improved significantly. Noticed anterior aspect of the both heel area's temperature were same. (Right 96.3 °F, Left 96.1 °F)

Recommendations: The patient was busy with work but recommended to be treated for another two months every two weeks. Also, recommended when stress occurs, should go to the nearby park and take a rest.

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