

Review Article

Plantar Fasciitis and Its Homoeopathic Management

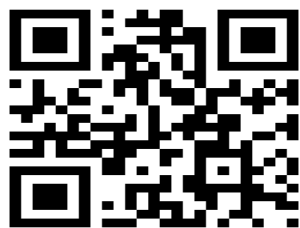
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ABSTRACT

Plantar fasciitis is one of the common orthopedic condition and a most common cause of heel pain which makes walking difficulties in adults of age between 40 and 60 years with a lifetime incidence of about 10% and recently increasing number of teenagers also being affected and more commonly seen in women than in men. The pain felt at the bottom of foot worse when first few steps after sleep or other periods of inactivity. The exact etiology is not known and is probably associated with multifactor. Plantar fasciitis is commonly seen in athletes, women and obese/sedentary adults. A diagnosis is totally based on patient's history, risk factors and physical examination.

Keywords: Plantar fasciitis, heel pain, homoeopathy, treatment



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INTRODUCTION

Plantar fasciitis is a painful foot condition caused by inflammation of the plantar fascia origin at the medial calcaneal tuberosity. The pain usually felt at the bottom of the foot near the heel Pain gets worse when getting out of bed in the morning or other periods of inactivity.

Plantar fascia is a thick connective tissue that lies beneath the skin on the bottom of foot it connects the heel to the front of the foot and it plays important role in biomechanics of foot and providing support for the arch of foot and acts as a shock absorber and also helps to maintain the shape of foot.

When this tissue can become strained from overuse, unsupportive footwear, a tight Achilles tendon, or running on hard surfaces can cause plantar fascia become irritated or inflamed leading to plantar fasciitis.

It is the most common reason for heel pain responsible for 80% of cases. Commonly seen in women, older athletes, dancers and

young Male athletes.

Types

Insertional plantar fasciitis- also known as heel pain syndrome where pain felt at medial calcaneal tubercle

Diffuse plantar fasciitis- pain is felt diffusely over the heel and sole of the foot.

Epidemiology

Exact incidence and prevalence are not known approximately 10% of people have the disorder at some point during their life. Commonly affects women of 40 – 60 years old, and about 22% runners have high prevalence rate. Between 4% and 7 % of the general population has heel pain at any given time: about 80% of these are due to plantar fasciitis. More than 2 million Americans receive treatment for plantar fasciitis.

Etiology

The cause of plantar fasciitis is often unclear and may be multifactorial. Because of the high incidence in runners to be caused by

repetitive micro trauma. 70% of Possible risk to obese individuals who present with plantar fasciitis and is an independent risk factor.

Achilles tendon tightness and inappropriate footwear

Most often the cause of plantar fasciitis is chronic irritation, athletes are prone to overuse injuries in which plantar fascia is strained continuously from running and jumping.

Risk factors

Even though the cause is unknown but some factors can increase the risk of developing the plantar fasciitis. Risk factors are divided into Intrinsic and extrinsic factors.

Intrinsic factors

Age – people between 40 to 60 years age group are at high risk

Foot mechanics – flat feet, high arch or abnormal pattern of walking can affect weight distribution when standing causes more stress on plantar fascia.

Excessive foot pronation & tight calf muscles - which inhibits efficient use of windlass mechanism. This decreases shock absorption through the plantar fascia which in turn increases the tension on the fascia.

Obesity – excess weight put more stress on plantar fascia

Extrinsic factors

Runners – athletes like long distance runners such continuous pressure on their plantar fascia.

Professional hazards - teachers, sales executives, factory workers and those stand for long hours or walking on hard surfaces.

Certain exercises – Running, ballet dancing, aerobics

Pregnancy - due to weight gain during pregnancy.

Improper shoes – shoes that are thin sole, lacking arch support, high heels causing the Achilles tendon can contract and shorten leads to irritation and strain around the heel.

Pathological features

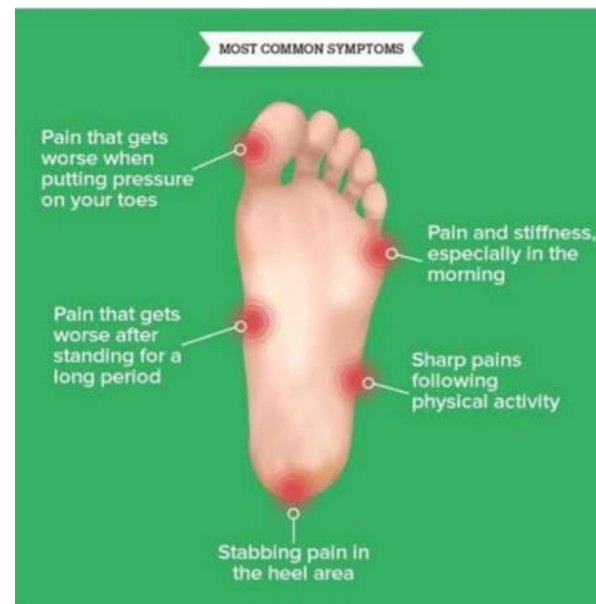
The plantar fasciitis disease is actually a degenerative process without any inflammatory changes which may see on ultrasound. Biomechanical dysfunction of the foot is the most common etiology of plantar fasciitis, where infections, trauma, neurological, arthritic and other systemic

conditions are secondary. Excessive stretching of the plantar fascia can result in micro trauma of this structure along its course or where it inserts onto the medial calcaneal tuberosity. The repetitive micro trauma results to chronic degeneration of plantar fibers leads to plantar pain particularly with the first few steps after sleep or long period of inactivity.

These changes suggest a non-inflammatory condition and dysfunctional vasculature which may be seen on ultrasound.

Signs and symptoms

- Plantar fasciitis typically presents with the insidious onset so called start up pain with first steps in the morning or after long periods of non-weight bearing.



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- Tenderness to the anterior medial aspect of heel (bottom of the foot).

- Pain is sharp, stabbing often burning and can be severe.

- Usually unilateral but up to 30% of cases have bilateral presentation.

- The Pain gets subsides after a short period of walking, but returns while performing activities like prolong weight bearing, standing, walking or running.

- The patient may also complain that heel pain worse after repeat weight bearing

followed a period of rest, such as standing after a rising from prolong sitting period.

- Limited dorsiflexion and tight Achilles tendon

Diagnosis

Usually, diagnosis of plantar fascia made clinically based on a patient medical history and physical examination findings.

On physical examination pain during palpation at plantar medial calcaneal tubercle of the plantar fascia insertion on the heel bone. Pain reproduces with passive dorsiflexion of the foot and toes.

Windlass test – passive dorsiflexion of the first metatarsophalangeal Joint, positive test if pain is reproduced (pain due to stretching plantar fascia)

Investigations

In most cases clinical findings are sufficient to diagnose plantar fasciitis, however imaging may help to determine whether an alternate diagnosis is present in patients with pain which lasts more than 3 months and doesn't respond to treatment.

Guidelines from the American college of radiology states that although radiography is typically not sensitive for plantar fasciitis

X- Ray - a heel spur may be visible, it is a common incidental finding, although people with chronic heel pain are likely to have bone spurs.

USG - may demonstrates thickening of the plantar fascia.

MRI - can be useful to rule out other conditions like calcaneal stress fracture, it can show increased plantar fascia thickness and signal intensity.

Laboratory investigations - useful in some cases to rule out systemic diseases causing the heel pain such as Rheumatoid arthritis, ankylosis spondylitis, etc.

Differential diagnosis

Calcaneal spur – in this condition also people get same kind of symptoms but both conditions are different. Calcaneal spur is the bony projection of the heel bone. x- ray confirm the diagnosis.

Achilles tendonitis

Osteoarthritis

Spinal stenosis

Ankylosis spondylitis

Reactive arthritis

Rheumatoid arthritis

Tarsal tunnel syndrome



Prevention

- Life style modifications
- Maintain healthy weight- carrying extra weight can put more stress on plantar fascia.
- Choose supportive shoes - Wear supportive shoes, avoid raised heels, sandals, flip-flops. Avoid walking barefoot on hard surfaces.
- Avoid jumping and running.
- Do low impact exercises like swimming or cycling.
- Ice fomentation – on painful area for 15 min three or 4 times a day, which helps in reduction of pain and inflammation.
- Resting and keeping off the foot as much as possible.
- Stretching- Wake up with a stretch, Stretching the calf muscles, Achilles tendon and plantar fascia to reduce the tightness.
- Athletic tape – tape can support foot
- Home exercises-

Toe exercise- sit in a chair and extend the affected leg and heel is on the floor and pull big toe up and back for at least 15- 30 sec for 2- 4 times per day.

Towel stretch – place a rolled towel under the ball of foot, hold the towel at both the ends and gently pull the towel towards body and make sure knee must be straight.



Homoeopathic treatment

The homoeopathic therapeutics given below is not a definite guide to treat this condition. Homoeopathy medicines are selected on the basis of individualization which includes medical history, constitution, presenting symptoms, symptom, family history, causative factors, susceptibility, miasm etc., taken into consideration to treat acute or chronic cases and due to symptom similarity of disease and medicines which helps to reducing inflammation and pain and also improves the quality of life.

Rhus Tox

Indicated for complaints arising from excessive stress, strain on or use of body part. In cases where heel pain is worse in morning as one takes the first few steps, & where running, exercise worsen the pain by putting excessive stress on the heels.

Pulsatilla

Boring pain in the heel that aggravates in the evening is unique symptom of Pulsatilla, heel pain that worsens when rising from a sitting position, it is helpful for heel pain that comes on every time one starts waking that person feel the need to stretch their feet.

Berberis vulgaris

Lymphatic swelling of tendo Achilles, with pains on lifting the foot, and a sensation as if the foot were bearing a heavy load. Swelling of the foot after movement, with sensation of burning, swelling of the heel, and cramps in foot. Heel pain as if ulcerated on standing. Tearing in balls of feet, with pain when

stepping on them. Burning pain in the soles of the feet in the evening.

Ammonium mur

Pain of ulceration and pulling in the heels, sudden jerks, pulling, or shootings, throbbing and tingling in the extremities of the toes. Tension in the joints, as from shortening of muscles. Very severe ulcerative pain in the heel, > by rubbing. The feet get very cold in the evening in bed.

Ledum pal

Pain in heels extending upwards pains is sticking, tearing, throbbing like aggravated by motion night by warmth of bed ameliorated by icy cold water.

Ranunculus bulb- pain stitching, stabbing shooting type pains due to corns and calluses worse due to atmospheric changes, wet stormy weather and in evening

Causticum

Cramps in the feet. Pains in the instep, in the ankle bones, in the soles of the feet, and in the toes, on walking. Neuralgic pains in the soles of the feet. Contraction in the instep, with tensive pain when stepping. Coldness of the feet. Swelling of the feet. Pains in the varices. Tingling in the soles of the feet. Festering vesicles and ulcerations on the heels.

Graphitis

Congestion in the legs and in the feet, when standing upright. Swelling of the legs and of the feet, with hardness and shooting pain. Stiffness of the instep. Shooting pain, like that of an ulcer, in the heel and in the soles of the feet, on rising from the sitting posture. Cold feet, even in the evening in bed. Feet burning. Fetid sweat on the feet. Contraction of the toes. Swelling and distortion of the toes.

Medorrhinum

Burning in feet, wants them uncovered and fanned. Cold feet with chills all over. Oedema of feet followed and better by diarrhea. Soreness in ball of foot under toes. Cold, sweating feet.

Pulsatilla

Painful sensation of numbness in soles of feet and in balls of the toes. Red-hot swelling of feet, extending up to calf, with stinging pain. Swelling of top of foot. Oedematous swelling of feet, worse in evening. Piercing

shootings and incisive pains in heels (towards evening). Shootings in soles of feet and extremities of toes. The complaints are worse when one allows the feet to hang down.

Sulphur

Shootings in feet. Coldness in feet, especially in evening, in bed, or burning sensation, chiefly in soles of feet. Burning in feet, wants to find a cool place for them, puts them out of bed to cool them off. Burning in soles, on stepping after sitting a long time, and itching, especially on walking, wants them uncovered. Cramp in soles at every step. Soles cold and sweating. Sweat on right foot. Swelling of feet, and especially of the ankles. Gnawing vesicles on soles. Ulcer on instep.

Zincum met

Stiffness of joint of the foot after being seated for some time. Wrenching pain in joints of feet and toes. Burning sensation in feet. Inflammatory swelling of feet. Homeopathic medicine plantar fasciitis has weakness and trembling of feet. Feet sweaty and sore about toes, fetid suppressed foot-sweat with much nervous excitement. Coldness of the feet at night. Nervous, fidgety movement of the feet, after retiring and during sleep. Tearing in margin of right foot. Ulcerative, boring pains in heels, worse when walking than when sitting. Profuse sweat on the feet.

Natrum Carb – sore pain in ball of foot, on stepping; throbbing and crawling in both heels, as from an ulcer, evenings in bed; corns, with drawing, stitching pains in them.

Magnum

Rheumatic patients cannot bear any weight on the heels, the pressure causing dark, almost bluish spots.

Sabina

suffering from rheumatic inflammation; sharp stitches from within outward in both heels; aggravates at night; arthritic pains, violent, boring in toes, especially in great toe, Shooting in heels and metatarsal bones.

Ammonium Crud

soreness of heels; large horny places on the soles, close to toes; great sensitiveness of soles when walking.

Lycopodium

pains in the heels like pebbles under them on walking or putting pressure or weight upon them.

Bryonia Alb

pain as of dislocation in the foot when walking. Swelling of the feet with redness and heat; pain as from a bruise on stretching the feet, tension on moving them; and pains as from ulceration on being touched. Shooting in the feet, the soles of the feet, and the toes when resting on the foot. Burning in soles of feet at night. Ulcerative pain in soles cannot step.

Petroleum – aching in heels relieved by elevating feet; pains like electric shocks.

Cyclamen –

burning sore pains in heels-better by moving about, massage and warmth, worse by sitting or standing and by a cold bath.

Borax

pain in heels; burning pain in great toe; inflammation of the bulb of toes, stitches in soles.

Valeriana officinalis

Drawing and weak feeling toward the heel when sitting; disappearing when rising from a seat. Constant pain in heels when sitting especially right. drawing pain in the joints of the feet when sitting down. Sudden pain as if bruised in outer malleolus of the right foot aggravates when standing and ameliorate when walking. Transient pain in the right ankle, < while standing, but disappears when walking. Pains shooting in heels. when seated.

Ruta Graveolens

Burning, gnawing pain in bones of the feet, which does not permit standing or walking. Paralytic stiffness of instep. Pain and tenderness in soles, aching in ankles and very acute shooting in back of left heel, tendons sore, aching pain in tendo Achilles. Pain in bones of feet and ankles. Great restlessness. Worse when lying down, from cold, wet weather.

Benzoic acid

sharp pain left ankle, when weight is on left foot on walking. Pain in right tendo Achilles and in heart region at same time. Tearing and stitches, esp. in the metatarsal joints of the right great toe. Pain in tendo Achilles worse in open air; by covering.

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