



An Outlook of Plantar Fasciitis with Correlation in Ayurveda as Vatakantaka

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Mini Review

Volume 7 Issue 1

Received Date: February 02, 2023

Published Date: February 14, 2023

DOI: 10.23880/jonam-16000380

Abstract

Pain is an unfavourable sensation that brings an individual to the physician due to a halt from his routine works. Heel pain is commonly found in society which experiences severe pain, tenderness and restricted movements fortunately in some of these pain subsides within short period, but unfortunately as many as these pains reoccur and may get converted in diseases like VATAKANTAKA (PLANTAR FASCIITIS). Vatakantaka can be properly compared to plantar fasciitis based on its pathophysiology and clinical presentation, and it responds quite well to ayurvedic treatment. Ayurveda defines "Vatakantaka" as being brought on by vitiated Vata at Gulfa Sandhi Pradesh, as stated by Acharya Charaka, Sushruta, and Vagbhata. Chronic plantar fascia irritation and fibrous tissue deterioration without new fibrous tissue development are the pathology of plantar fasciitis. Vatakantaka can be properly compared to plantar fasciitis based on its pathophysiology and clinical presentation, and it responds quite well to ayurvedic treatment.

Keywords: Vatakantaka; Plantar Fasciitis; Pathophysiology; Ayurvedic Treatment

Introduction

Pada (foot) being one of the *Karmendriya*, most of the activities of day today life depends on this any problems of foot adversely affect the routine of an individual. Plantar fasciitis is the most common cause of heel pain [1]. Approximately 15% of all foot complaints coming to the attention of health care professionals can be attributed to this cause [2].

This condition also accounts for 8% of all injuries in athletes in running-related sports [3]. Hence, it can be said that this condition is common in both sedentary and athletic population. It is attributed to chronic weight bearing and repeated overload of the foot in daily activities or sports [1].

There is very less references available regarding *Padagata vyadhi* in *Samhitas* but amongst *Vatavyadhi*, *Vatakantaka* is one condition which affects the foot of a person. *Vatakantaka* is a *Vata Pradhana Vyadhi* particularly caused by walking on uneven surfaces or by *Atishrama*, which produces pain in *Khuduka Pradesh* (*Paarshni* or *Padajanghasandhi*). Except *Charaka Acharya*, all *Bhruhatrayee's* and *Laghutrayee's* accepted *Vatakantaka* as *Vata Nanatmaja Vyadhi*. Patients suffering with *Vatakantaka* experience severe pricking (*Kantakavata*) pain in *Padatalapradesha* [4].

As the pain is seen more during morning and after a period of inactivity in patients, it indicates the *Samsarga* of *Kapha* or presence of *Ama* with the *Vata*. Here production

of the *Ama* is expected from the *Avarana* of *Koshtagni* by aggravated *Vata* as explained by *Charaka* in *Nidana sthana* [5].

With this pathology and clinical presentation *Vatakantaka* can be effectively paralleled with plantar fasciitis. Pathology reveals chronic inflammation of plantar fascia and degeneration of fibrous tissue with or without fibroblast proliferation.

Plantar fasciitis, reportedly the most common cause of pain in the inferior heel. Estimated to account for 11 to 15 percent of all foot symptoms requiring professional care among adults, 5-18 % of runners and also common among military personnel [6]. * Ref -National centre for complementary and integrative health

The incidence reportedly peaks in people between the ages of 40- 60 years in the general population and in younger people among runners.

Ayurvedic Terminology

Vatakantaka, Padakantaka, Khudaka vata, Parshni ashrit vata

Kantak – refers to pain

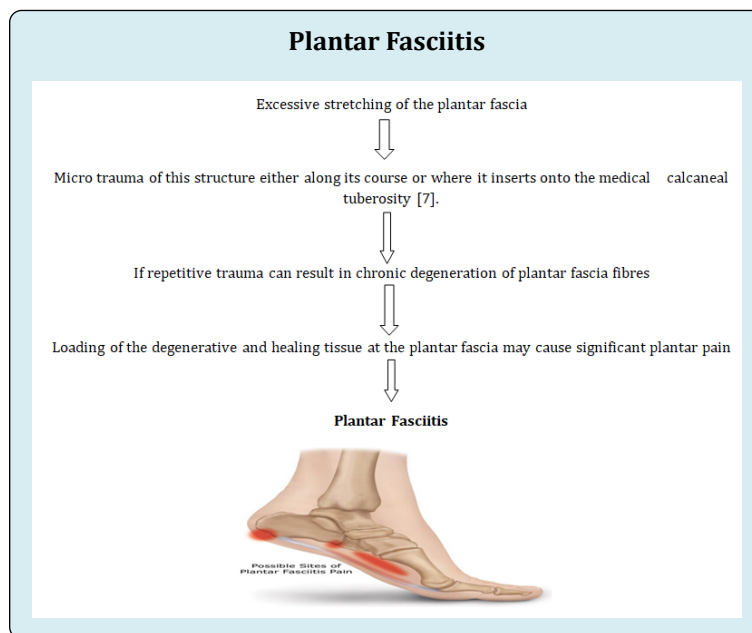
Aetiopathogenesis

Excessive stretching of the plantar fascia

Micro trauma of this structure either along its course or where it inserts onto the medial calcaneal tuberosity [7].

If repetitive trauma can result in chronic degeneration of plantar fascia fibres

Loading of the degenerative and healing tissue at the plantar fascia may cause significant plantar pain



Aetiology

Although the cause is unclear, there are a number of independent studies that show the following risk factors for repetitive micro damage to the plantar fascia:

- The most frequent cause of plantar fascia is the tendon that connects the calf muscle to the heel is tight, which prolongs foot flexion and shortens the plantar fascia, so when the person stands, the plantar fascia stretches and the pain intensifies [8].
- Obesity or pregnancy- related excessive abrupt weight stress on the foot. The risk of plantar fasciitis is shown to be two times higher when the body mass index (BMI) is

higher than 25kg/m².

- Diabetes Mellitus, Hypothyroidism, Osteoarthritis.
- Plantar fasciitis has been linked to mechanical imbalances of the foot problems that are caused by foot itself or by excessive walking in footwear with poor arch support, such as ill-mannered shoes, heels . Flat foot, high arches and reduced ankle dorsiflexion are examples of foot and arch issues.
- Heel spurs have been mentioned as a Plantar Fasciitis risk factor. Recent research shows a significantly substantial correlation between Plantar Fasciitis and calcaneal spur.
- Jobs that require standing, walking and working on hard surfaces for the majority of the day have risk of Plantar

Fasciitis.

- Prolonged foot flexion causes the plantar fascia to shorten, which is the most typical cause of plantar fasciitis. The condition is brought on by a tight Achilles tendon, which connects the calf muscle to the heel .as a result; standing causes the plantar fascia to stretch and intensifies pain.

According to the Ayurveda, the vitiation of both Vata Dosha and Kapha Dosha is the cause of this ailment. Common causes of Vata Dushti include:

- Constant exercise
- Walking barefoot, which results in Vata Dushti
- Not enough sleep

Symptoms

- It is characterized by the intense pain that occurs along with the first step in the morning which gradually decreases along with the movements.
- Reoccurrence of pain after long period of standing, after exercise or rising from sitting position, or driving the car for a prolonged period.

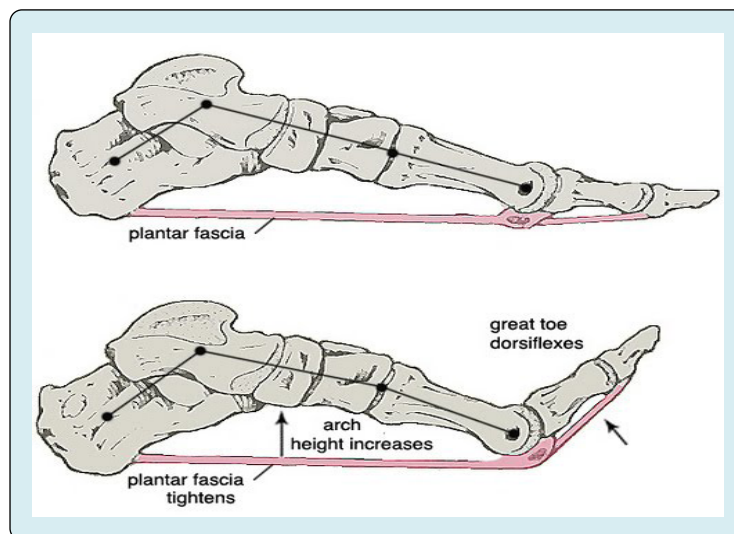
- When the heel is pressed from inside there is discomfort and perhaps pain along the arch.
- Plantar fascia stretching could be uncomfortable.

Diagnosis

The diagnosis is made on the basis of medical history and physical examination.

Windlass Test

- It is a special test for plantar fasciitis, a 'Windlass' meaning is the tightening of a rope or cable.
- Passively dorsiflexing the toes of a patient with heel pain. Reproduction of pain at the insertion of the plantar fascia is suggestive of plantar fasciitis.
- The windlass test achieves a direct stretch on the plantar aponeurosis which can be effective in examining dysfunction of the plantar fascia.
- The test can be important in the decision making process involved in the evaluation and treatment of plantar fasciitis.



Investigations

Radiograph of ankle joint antero-posterior, mortise and lateral view.

- Hb %, ESR
- Blood sugar
- S.uric acid
- AST, ALT, S.bilirubin
- S.creatinine, B.urea
- NCV
- EMG

- Neurosensory testing

Prevention

- Maintain a healthy weight.
- Always do a warm-up before exercise.
- Wear supportive shoes that support your arch and heel
- Don't wear worn- out athletic shoes
- Apply ice
- Stretch your arches.

Treatment

Conservative	Intermediate	Surgical
Nsaids	Extracorporeal Shockwave Therapy (Eswt)	Endoscopic Plantar Fasciotomy
Corticosteroid Injections	Cast Immobilization	Open Fasciotomy
Stretching	Plantar Fasciorraphy (Autologous Platelet Concentrate Injections)	Spur Resection
Taping And Padding		
Heel Pads		
Night Splints		
Orthotic Devices		

Ayurveda has described treatment of vatakantaka [9] in vatavyadhi chikitsa, Acharya Chakradatta has mentioned the specific treatment of vatakantaka as In *Vatakantaka* (pain in ankle), bloodletting should be done frequently or castor oil should be taken or the part should be cauterized with needles.

Treatment for it requires both Bahya and Abhyantra Chikitsa, as well as regional Ishtika Sweda, Valuka Sweda, Snehana, Upanaha, Raktavsechana, Bandhana, and Suchikarma (Viddhakarma) and Abhyantara Eranda Snehapana [10].

Panchkarma Plays a Vitol Role in Treatment of Vatakantaka

Raktamokshana: Letting out blood for therapeutic use. People, who undergo raktamokshana, will not suffer from any kind of twakdosha, granthi, sophia and roga due to dushta rakta as the dushya in vatakantaka is also a rakta.

Siravyadha: When the treatments fail, *siravyadha* has to be done for *raktaprapkopaja vikaras*.

Upnaha Sweda: Swedan is commonly mentioned as *purvakarma* in ayurvedic classics, however it is also used as *pradhan karma* in treating many conditions like *vata* and *kapha* disorders.

- *Upnaha* is mentioned as *Bahya* and *Ekanga swedan*. It is specifically indicated for *vantage disorders*.

Upnaha is best for *vatavyadhi* with *predominance of shoola, sankocha and stambha*.

Agnikarma: *Agnikarma chikitsa* introduces *agni* (heat) in the affected area.

- Physical heat from red hot *shalaka* is transferred as therapeutic heat to *twakdhatu* by producing *samyak dagdha vrana*.
- The *ushan*, *tikshna*, *laghu*, *sukshma*, *vyavayi*, *vikashi*

and *ashukari* properties of *agni* helps to remove the *srotavarodha*, pacifies the vitiated *vata kapha dosha* and maintains their equilibrium thus break the *samprapti*.

Discussion

In *Ayurveda*, according to *Acharya Sushruta* and *Acharya Vagbhata Vatakantaka* is a disease of *Khuda* (heel) *Asthi* characterised by *Pada Ruk* (heel pain).

Over exertion and walking on an irregular surface as well as due to improper placement of foot over the ground, aggravated *Vata* which takes *Ashraya* in the *Gulpha Sandhi* or *Khudagh* causes pain in *Padatala Pradesha* especially in the morning and after a long period of inactivity.

Symptomatically it can be correlated to signs and symptoms of *plantar fasciitis*.

Plantar fasciitis is one of the most common causes of heel pain. In this condition there is inflammation in *plantar fascia* which is the thick band of tissues that lies on the bottom of the foot and connects the heel to the toes and provides support to arch of the foot. It also acts as shock absorber.

Conclusion

The *Plantar fasciitis* is treated as *Vatakantaka*. Chronic *plantar fasciitis* is mostly required analgesic and anti-inflammatory and surgical correction to stabilize the patient as well as to cure the condition, but in developing countries such type of treatment modalities were avoided because of complications of NSAIDs, longer hospitalization and also economical expenses.

So there is a scope for non surgical treatment modalities with less economical expenditure as well as minimum hospitalization with the help of *Panchkarma* procedure like *Abhyanga*, *Swedana*, *Raktavsechana*, *Agnikarma* etc. are

helpful in Plantar fasciitis (Vatakantaka) with the use of this therapy, we are able to alleviate the patient's Vata vitiation and provide alleviation.

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