



EXPLORING AYURVEDIC TERMINOLOGY FOR PLANTAR FASCIITIS: A COMPREHENSIVE REVIEW

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Abstract : Plantar fasciitis is a common foot ailment characterized by pain and discomfort in the heel and arch of the foot. While modern medical treatments have been effective, Ayurveda, the ancient system of medicine, offers a unique perspective on plantar fasciitis and its treatment. Different theories have been proposed to explain plantar fasciitis from an Ayurvedic perspective, but there is no consensus amongst the experts. Plantar fasciitis is the inflammatory and degenerative pathology of plantar fascia at foot. The painful conditions related to foot region are Vatakantak, padashula, Snayugatavata etc are having differences in etiopathology, involved tissue segment, presenting associate symptoms. So a detailed review of available Ayurvedic literature was carried out to understand the anatomy with physiology of plantar fascia and etio-pathogenesis with management of plantar fasciitis from the perspective of Ayurveda.

IndexTerms:

Keyword: Agnikarma, Ayurved terminology, Plantar fasciitis, Snayugat vata, Vatkantaka

Introduction

Plantar fasciitis is a painful condition that affects millions of people worldwide, leading to significant discomfort and reduced quality of life. While contemporary medical interventions have been beneficial, Ayurveda, the traditional Indian system of medicine, provides an alternative approach to understanding and treating plantar fasciitis. This research article delves into the Ayurvedic perspective on plantar fasciitis, examining its terminology, etiology, and treatment modalities.

Ayurveda is the great medical science of Indian origin with main eight branches with its literature found with details of diseases with its name are in Sanskrit language. Finding out the comparative similar disease terminology from contemporary medicine is difficult to find out in many conditions. This hard job is needed as for research to rule out need of investigations for diagnosis and uniform protocol for assessment.

Different theories have been proposed to explain plantar fasciitis from an Ayurvedic perspective, but there is no consensus amongst the experts. Plantar fasciitis is the inflammatory and degenerative pathology of plantar fascia at foot. The bird's eye view of the ancient literature of Indian medicine suggest few similar conditions which present with pain in heel are like Parshnishool, Kurchasool, Vatkantaka, Snayugat vata etc., it will be worthwhile to scan the ancient and modern Ayurvedic literature to come to the conclusion of Ayurvedic nomenclature of the condition to establish the suitable parallel Ayurvedic nomenclature of plantar fasciitis.

All of these diseases are painful and related to foot region, but etiopathology, involved tissue segment, presenting associated symptoms are found different. So it's a sincere attempt presented in this paper to reach to final Ayurvedic term for plantar fasciitis. A detailed review of available literature was carried out to understand the anatomy with physiology of plantar fascia and etiopathogenesis with management of plantar fasciitis from the perspective of Ayurveda.

AIMS AND OBJECTIVES:

To study the ancient literature of Indian medicine for mimicking conditions like Parshnishool, Kurchasool, Vatkantaka, Padaharsha, Snayugatvata etc., to establish the suitable parallel Ayurvedic nomenclature of plantar fasciitis

MATERIALS & METHODS:

This material is collected from Ancient books and commentaries on them like Charak Samhita, Sushruta Samhita, Astanga Hridaya, Madhav Nidan, Textbooks on orthopedic, and various articles, websites, authentic books, research publications.

Conceptual Study:

The bird's eye view of the ancient literature of Indian medicine suggest few similar conditions like plantar fasciitis which present with pain in heel. The terms found are Vatakantaka, Snayugatvata, Padadaha, Padaharsha, Padashula, padabramsha, Padasuptata, atakhudhata, Gulphagraha, Vatashonit.ⁱ Even the detailed review of available Ayurvedic literature was carried out to understand the anatomy with physiology of plantar fascia.

Anatomical and physiological consideration as per Ayurved for Plantar fascia :

Snayu:

The plantar fascia is a thickened fibrous aponeurosis that originates from the medial tubercle of the calcaneus, runs forward to insert into the deep, short transverse ligaments of the metatarsal heads, dividing into 5 digital bands at the metatarsophalangeal joints and continuing forward till metatarsal heads. Its main function is it fixes the skin of the sole, protects deeper structures, helps in maintain the longitudinal arches of the foot, gives origin to the muscles of the first layers of the sole.ⁱⁱ

Its function of protection, maintaining of shape of foot resembles with anatomical structure Pruhu type of Snayu as per Ayurved. Snayu is described as 'Vaatavahini Nadi' (structure carrying Vata)ⁱⁱⁱ. They are of four types based on its structure, function and location. They are Pratanavathi snayu (spreading), Vrithas-snayu (round), Pruthu Snayu (flat and thick) and Sushira Snayu (porous). Their main functions are to maintain the shape of body and holding bones and other tissues, protecting and covering underline tissues, help to lift the weight of body.^{iv}

Plantar fascia can be considered under Pruthu type of Snayu.

Painful diseases of foot region as explained in Ayurved literature:

1. Vatakantaka : वातकण्ठक :

Vatakantaka is basically an acute painful disorder related to ankle joint. It is mentioned by all samhita of Laghutraye and Bruhatraye. This is Vyadhi of vitiated Vata Dosha and is a type of Vatavyadhi. Etiopathology is explained as when the foot is landed unevenly on the ground, vata localized in the khuda (ankle) gets aggravated and produces pain as major complaint. Main etiopathology is seen almost similar in all samhitas. Its main origin at Khuda i.e. Ankle joint, is specified by Gayadas in Nyayachandrika.^v It is mentioned as Vata's Nanatmaja Vyadhi by Acharya Charak, Vagabhat.^{vii}

Table 1: Vatakantaka as per different Samhitas

Vatakantaka as per different Samhitas			
Reference	Author	Chapter	Details
Sushrutasaamhita	Acharya Sushruta	Nidansthana- Chapter 1-Vatavyadhinidan	Vatakantaka is explained as painful disorder at ankle joint and etiology is uneven landing of foot
Nibhandasangraha	Acharya Dhalhana	Nidansthana- Chapter 1-Vatavyadhinidan	He explains the meaning of Nyasta is placed and Kudhaka means Joint between foot and leg i.e. ankle joint
Nyayachandrika	Gayadas	Nidansthana- Chapter 1-Vatavyadhinidan	Added meaning of Nyasta etyadi- other diseases like Sakthirog, Khdagashrit- joint between foot and leg i.e. Parshni
Ashtanga Samgraha	Wagabhat	Nidansthana- Chapter 15 Vatavyadhinidan	Same as Sushruta
Ashtanaga Hrudaya	Wagabhat	Nidansthana- Chapter 15 Vatavyadhinidan	Same as Sushruta
Sarwagasundari	Arundatta	Nidansthana- Chapter 15 Vatavyadhinidan	He added - Shrama -means strain /exertion as causative factor

MadhavNidan Madhukosh	Madhavkar	Ch.12 Vatavyadhinidan	Mention causative factors as uneven landing and shrama and location is at ankle joint
Madhukoshatika Atankadarpana vyākhyā		Ch.12 Vatavyadhinidan	Mention causative factors as uneven landing and shrama and location is at ankle joint , said it as Khudakavat

Remark:As vatakantaka is a disease related to ankle joint and caused by improper landing of foot with pain as main presenting complaint , it can be correlated to ankle sprain .

2. Snayugata Vata- स्नायुगत वत

The term Snayugata Vata has its origin from a combination of three words, Snayu, Gata and Vata. The word Snayu, denotes anatomical aspect of body, Monier Williams has given the meaning of the word Snayu as body part which act to bind. The term Gata is derived from the root "Gam" which means gone to, arrives at, situated in, directed to and Vata denotes Physiological aspect of body. Thus, in case of Snayugata Vata, it means the site (Snayu) in which provoked Vata is situated.

Snayugata Vata is described under Vatavyadhi in all the Samhita and Sangraha Grantha. Vata when provoked or vitiated by any internal or external factor reside in Snayu resulting in instantaneous manifestation of Snayugata Vata.^{viii}

As per Madhav Nidan and Charak Samhita it can be local or general. As per Charak Samhita if snayu.sira and kandara are affected ,there is stiffness,atrophy,khalli,and numbness in tissues .

Table 2: Snayugata Vata as per different Samhitas

Reference	Authour	Chapter	Details
Acharya Sushruta	Sushruta	Nidansthana-1- Vatavyadhinidan	It is described that SnayugataVata as, Aggravated Vata residing at Snayu (Ligaments) gives rise to stiffness, Tremor, Pain and convulsions. Treatment is mentioned in chikitstasthan as local application of Snehan,Swedan,Agnikarma,Bandhan,Mardan
Nibhandasangraha	Acharya Dhalhana	Nidansthana-1- Vatavyadhinidan	Explains following terms- Stambha means Nischalikaran (Stiffness),Akshepan-Exagareted movements
Nyayachandrika	Gayadas	Nidansthana-1- Vatavyadhinidan	Gives meaning of - <i>Snayu –sthula -kandara</i>
Madhav Nidan	Madhavkar	Ch.22 Vatavyadhinidan	It can be local or general.
Ātānkadarpaṇa Vyākhyā	vācaspati vaidya	Ch.22 Vatavyadhinidan	There will be Sciatica, stiffness, atrophy in tissues

Remark: Plantar Fascia can be considered under Snayu and so is the disease plantar fascia can be correlated with Snayugata vata.Even their symtoms resembles each other.

3. **Padashula: पादशूल** :It is mentioned in Charak Samhita in Maharogadhyaya. Details are not available in other commentary on Charak Samhita,but it can be said as pain in foot due vitiation of Vata. ^{ix}

4. **Padbhramsha – पादभ्रंश**:It is mentioned in Charak Samhita in Maharogadhyaya. Chakrapani in his Ayurveda pradipika explain that it is due to landing of foot on uneven surface .It is similar to Vatakantaka as explained in Sushruta Samhita.

5. **Padasuptata-पादसुप्तता**:It is mentioned in Charak Samhita in Maharogadhyaya.It is sudden numbness in foot, which regress instantly with treatment. This symtoms appears due to aggravation of Kapha and Vata. Generally numbness in foot is symtoms of neuropathy .

6. **Padaharsha: पादहर्ष**:Mentioned by Sushruta Samhita, Ashtanga Samhita, Madhav Nidan. Presenting symptom is tingling sensation and numbness in foot. Main etiology is Awaran of Vata by Kapha Dosh.^x Tingling sensation is observed in radiculopathy.

7. **Pad-Daha : पाददाह** : It is mentioned in Sushruta Samhita, Astanga samhita and Madhav Nidan. Main etiology is awaran of vata by Pitta and Rakta .It is observed more in persons who walks a lot,presenting symptom is burning in foot and mainly seen while walking .This type of presentation is found in lumbar stenosis,neuropathy.

8. **Khudagwata: खुडवात**: It is painful condition of at ankle joint due to vitiated Vata and Rakta as per Ashtanga Samhita. Charak Samhita mention it as Vatakuddatta.

9. **Gulphagraha: गुल्फग्रह**: It is painful spasm of Ankle joint due to vitiation of Vata Dosh as mentioned in Charak Samhita .

10. **Vipadika:विपादिकः** It is the condition where skin on sole is cracked causing pain ,itching and bleeding.

11. **Vatashonit -वातशोणितः** It is disease related to foot region where Vata and Rakta are involved .Main symptoms are pricking Pain, Swelling, Numbness at foot region. It is sub typed as per association of Pitta, Kapha ,Tridoshaj.It is one of inflammatory joint condition with acute or chronic pain and swelling.

Management :

All these painful diseases has managment as Vatavyadhi protocol of local oil massage, steam, lepa , Bandhana-compression bandage, Basti, Oral medication . Acharya Sushruta has mentioned Agnikarma and Raktamokshan as a part of management as per tissue involved.^{xi}

Discussion :

After studying all 10 conditions which are related to Pada [Foot] and mentioned in Bhruhatrayee and Laghutrayee following observations are found .

Table 3: Painful Conditions at foot as per Ayurveda

Sr.No.	Name of painful conditions in foot	Causative factor	Location of disease	Symptoms
1.	Vatakantaka	Irregular positioning of foot	Khudaka-Joint between Foot and leg	Pain at Ankle joint
2.	Snayugat vata	Aggravated vata	Any Snayu	1. Stiffness 2. Tremors 3. Pain 4. Uncontrolled movements
3.	Padadaha	Person who keep walking for long hours- Aggravated Vata with Pitta and Rakta	Pada-Foot	Burning in foot region while walking
4.	Padaharsha	Aggravated Kapha and Vata	Pada-Foot	1. Tingling 2. Numbness 3. Loss of sensation
5.	Padashula	Aggravated Vata	Pada-Foot	Pain in foot
6.	padabramsha	Improper landing on foot	Ankle joint	Pain at ankle joint
7.	Padasuptata	Vitiated vata	Foot	Numbness
8.	Vatakhudhata	Vitiated Vata and Rakta Doshha	Ankle joint	Pain at ankle joint
9.	Gulphagraha	Vitiated Vata Doshha	Ankle joint	Spasm at ankle joint
10.	Vatashonit	Vitiated vata and Rakta	Knee, Ankel ,Foot	Pain,swelling , Redness at each or all

•Four of above disorders are related to Ankle joint only i.e. Vatakantaka, VataKhudatta, Gulphagraha, Padabhramsha , so cannot be correlated with plantar fasciitis as it is at heel region.

•The three conditions i.e. Padadaha,Padaharsha ,Padasuptata are having different symtoms than plantar fasciitis .The main pain symptom is not there .

•Vipadika is different as it is related to skin of sole only .

•Padashula is explained very less but its presenting symptom is pain at foot .

•Vatashonit is inflammatory condition having swelling and numbness at while foot .

•Snayugat Vata is having near similarity with Plantar fasciitis as it is local origin also .Plantar fascia can be considered as Snayu as its anatomical similarity.Presenting symptoms Pain and Stiffness are similar .

Conclusion:

As per anatomical and physiological consideration of Plantar facia, it is an aponeurosis which is the tough tissue which has main function protection of deeper structures and maintaining the longitudinal arches of the foot which can be considered under Pruthu type of Snayu. Plantar fasciitis is a common foot ailment characterized by pain and discomfort in the heel and arch of the foot and its symptoms are nearly matches Snayugat vata.Further study is required to evaluate terms for other painful conditons also.

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