

EFFECT OF AGNI KARMA IN CALCANEAL SPUR: A REVIEW

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ABSTRACT

The modern lifestyle demands being active on our feet for long hours resulting pain in the heels in many cases. The predominant cause of such a pain is 'Calcaneal spur'. The Calcaneal spur is a condition of pointed bony outgrowth of the heel bone. It is one of the most troublesome common health complaints which affect people's routine work badly. This is most often seen in people over the age of 35. People who are obese, who have flat feet, or who often wear high-heeled shoes are most susceptible to heel spur. Its major symptoms are pain in heels, which increases in intensity after prolonged periods of rest. Outgrowth is detected in X-ray of foot in Calcaneal spur. Till date symptomatic treatments are available like NSAID and analgesic drugs, steroid injections, orthotics and exercise. The surgical treatment like excision of Calcaneal spur is available but it is sometimes having complications like incomplete relief of pain and nerve damage. According to *Ayurveda*, *asthi-snayugata*, *vata* and *vatakantak* can be correlated with the Calcaneal spur. *Sushruta* has advised *Agnikarma* for disorders of *asthi* and *snayugata*. *Agnikarma* a subtype of *anushastra karma* is an important parasurgical procedure. It is a treatment in which heat is applied to a part of the body raising local body temperature causing dilatation of local blood vessels which increases tissue perfusion, clears accumulated metabolic waste, resolves inflammation and reduces pain. Classics said that pain is caused by vitiated *Vata dosha* and *Agni Karma* counter acts on it due to its *Ushna guna*, as it is exactly opposite to *Sheeta guna* of *Vata*. *Agnikarma* has *Shulahara*, *Shothahara* and *Vatahara* properties, less painful with minimum expenditure.

Keywords: Calcaneal spur, *asthi- snayugata vata*, *vatakantak*, *Agnikarma*

INTRODUCTION

A heel spur (or osteophyte) is a small bony growth or collection of bony growths on the back or underside of the heel. Stabbing pain under the heel, mild inflammation of the heel and ankle joint pain are the cardinal

features of this illness. Numbness is also complained by some individuals^[1]. Calcaneal spurs may develop for a variety of reasons including weight gain, wearing improper footwear, and plantar fasciitis, an inflamma-

tion of the arch of the foot. It may also develop if calf muscles are weak, because of the extra pressure on the heels which would have been taken up by the calf muscles. The most common etiology is thought to be abnormal pronation which results in increased tension forces within the structures that attach in the region of the calcaneal tuberosity. People with rheumatoid arthritis, osteoarthritis, or poor circulation are at increased risk of developing a heel spur. Diagnosis is usually made based on an X-ray, which will indicate where the spur is located on the heel. In the early stages of the disease, treatments such as regular exercise, weight loss, or supportive footwear can help prevent the spur from developing further. Exercises to strengthen the calf muscles are most helpful, as they help reduce the pressure placed on the heel during movement. A calcaneal spur can often be treated with rest and physical therapy, but a severe case may require surgery^[2]. The clinical features of heel pain can be associated with the ancient terms ‘*Vatakantak*’ which can be correlated with the disease referred in various *Vatavyadhi* context in the classical text^[3]. The pain is typically relieved during rest but is worse after getting up again. As a rule of thumb, it is most painful first thing in the morning. The pain can become so severe that it becomes difficult to continue your daily work. *Agnikarma* has been described as the most effective therapy in the management^[4].

Disease Review

Calcaneal spur is also called as heel spur. It is located on the heel bone and it develops due to repeated deposits of calcium on the bone spur (osteophyte) of the heels^[5]. Middle aged overweight and athletic individuals are more Susceptible to heel problems and sometimes non athletic peoples are also affected, who spend a lot of time on their feet and suddenly become active after a long period of time. Constant weight and high heeled footwear exert more pressure over heel region. This lead to stretching or flattening of the calcaneus and hence a thorny hook shaped growth formed in the local regions and gradually it exerts pressure over the soft tissue around it. It will cause inflammation of the soft tissue and pain while walk-

ing. When stress is put on the plantar fascia ligament, it does not cause only plantar fasciitis, but causes a heel spur where the plantar fascia attaches to the heel bone. Generally a Calcaneal spur develops when proper care is not given to the foot and heels. People who are obese, have flat feet, or who often wear high-heeled shoes are most susceptible to heel spurs. Diagnosis by X-ray and tenderness over that area when palpate. Till date symptomatic treatments are available like NSAID and analgesic drugs, steroid injections, orthotics and exercise. The surgical treatment like, plantar fascia release and excision of calcaneal spur are available having complications like incomplete relief of pain and nerve damage^[6]. According to *Ayurveda asthi-snayugataavata* can be correlated with the calcaneal spur. *Sushruta* has advised *Agnikarma* for disorders of *asthi* and *snayu*. *Ayurveda* also describes this condition as *vatakandaka*, condition resulting due to *kapha-vata* vitiation. *Vatakandaka* is a very common disease especially in old age as *vata rogas* occurs particularly in this time but usually this disease seen commonly in middle ages. This condition occurs due to *kapha dosha* vitiation along with *vata dosha* as a result *kapha dushti/vitiation* bone formation in that area malfunctioned and lead to inflammation etc. Excess calcium deposition and spur formation occurs. These vitiated *kapha* block or alter the normal path of the *vata srothas*. *Vata* has the main *dosha* in three of them and has the main functions like movement, neurological and motor activities. The vitiated *vata* also causes burning sensation and pain^[7].

Material and Method

Materials required- *Loha Shalaka, Jatyadi Taila, aloe vera leaf, turmeric powder, burneretc.*

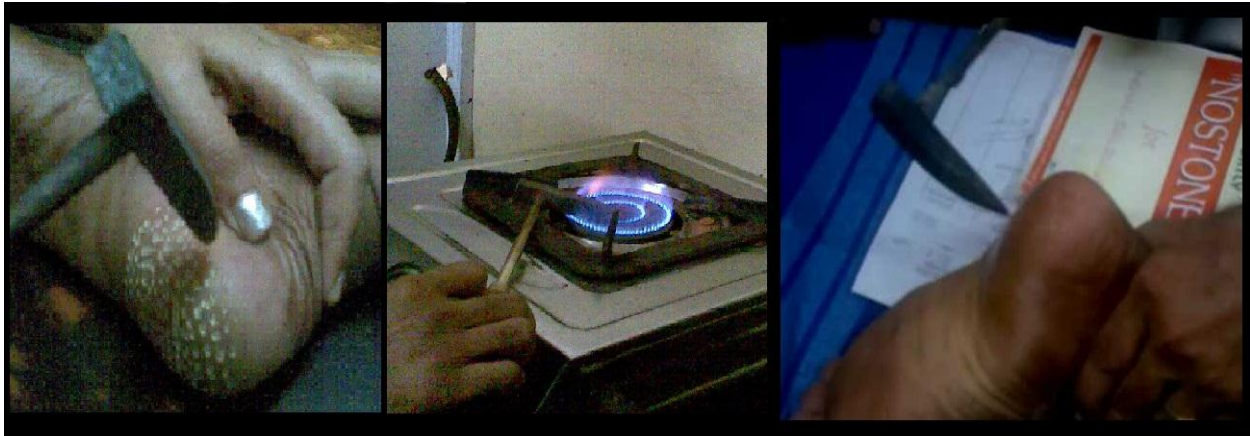
Method of Procedure

Agnikarma is done with *Loha Shalaka* making the signs of *bindu*, all over the affected part with application of aloe vera intermittently to give cooling effect to the patient. After *Agnikarma* turmeric powder should be applied as post-operative procedure^[8].

Benefits - The thermal effect within the deep layers of tissues will cause blood to dilate which improves blood circulation and promotes healing and wellness^[9]. According to *Ayurveda* :-

1. Effect on dosha: *Agnikarma* is considered as best therapy for vata and *kapha dosha* because *Agni* possesses *ushna, sukshma, tikshna guna* and *aashukari guna* which are opposite to vata and kapha. It removes *srotovarodha* and increases the *rasa rakta samvahana* to the affected site.
2. Effect on *dhatu*: Therapeutic heat transferred by *Agni karma* increase the *dhatwagni*, so metabolism at *dhatu* level increases which helps to digest the *ama dosha*^[10]. *Agnikarma* constricts the *siras* and help in

cessation of the bleed. *Agnikarma* also told in the context of sterilization^[11]. It is mainly indicated in conditions such as presence of severe pain in skin, muscle, vein, ligament, joint and bone, caused by aggravated vata, wound with raised, hard and numbed granulation; in *granthi*, piles, tumors, fistula in ano, *apache*, *shleepada*, *charmakeela*, *tilakalaka*, *antravruddhi*, and disease of joints and cutting of blood vessel etc. and also in *nadi* and excessive haemorrhage^[12].



DISCUSSION

According to *Acharya Susruta Agnikarma* is *kapa-vatha shamana* due to its antagonistic properties. *Ushna, tikshna, sukshma* properties of *Agni* remove blockage in channels and *ashukari* property results in instantaneous pain relief. In *Ayurvedic* terms the analgesic action of *Agnikarma* can be explained as follows. Pain caused anywhere in the body is due to *vata*. Skin is one of the seats of *vayu*; *agnikarma* is performed to release the *sangha* of *vayu*. Being an *Ushna chikitsa* it pacifies *vata*, and thus the pain is relieved immediately. *Agnikarma* also arrests the pathogenesis of a disease because *ushna* property stimulate the tissue metabolism and *amapachana* thus remove the *avarana*. *Agnikarma* is having the property of *sirasankochana* by that quality even it helps for *rakthasthambhana*^[13]. The local thermo therapy may increase tissue metabolism which may leads to excretion of the unwanted metabolites and toxins. Heat may stimulate lateral spinothalamic tract (SST) which leads stimulation of descending pain

inhibitory (DPI) fibres which release of endogenous Opioid peptide which bind with opioid receptors at substantia gelatinosa rolandi. It is collection of cells in grey area in spinal cord, which inhibit of release of P-substance (Pre-synaptic inhibition) and blockade of transmission pain sensation occur^[14].

Probable mode of action

Theory 1 Effect on pain: Due to increased local metabolism, the waste products get excreted, which normalise the blood circulation and releases the pressure on end nerves, thus resulting in decreased intensity of pain.

Theory 2 Effect on muscle tissues: Rise in temperature reduces relaxation of muscles and increase the efficiency of their action.

Theory 3 (Gate Control Theory of Pain): Stimulation of Lateral Spinothalamic Tract (SST) Heat stimulation of descending pain inhibitory fibers Release of endogenous opioid peptide which bind (DPI) with opioid receptors at substantia gelatinosa and Inhibition of release of P-substance.

Theory 4 (Ref. www.painfoundation.org): Pain receptors of skin and motor end plate get stimulated at 45°C. Pathway for pain and thermal signals run parallel and end up at same area, but only stronger one can be felt. Therefore, complete exclusion of pain impulse by heat occurs^[15].

Effect on metabolic activity – The rate of any metabolic activity is increased by a rise in temperature. In living organism increasing tends to denature proteins and thus interfere with enzyme controlled metabolic processes. At temperature above 45°C so much tissue destruction occurs. From therapeutic point of view with an appropriate rise in temperature, all cell activity increase, including cell motility and the synthesis and release of chemical mediators. Further the rate of cellular interactions, such as phagocytosis or growth, is accelerated.

Effect on blood vessels - Skin heating vasodilation occurs not only to distribution the additional heat around the body, but also to protect the heated skin. The skin surface is naturally heated from the outside and heat conduction is not affected through the subcutaneous fatty tissue. Vasodilation by heat is caused by several mechanisms. There will be a direct effect on capillaries, arterioles and venules, causing them all to dilate. Increased metabolism will lead to further release of carbon dioxide and lactic acid, leading to greater acidity of the heated tissues, provokes dialation. Heating can damage proteins; this may initiate an inflammatory response due to the liberation of histamine like substances and bradykinins which causes vasodilation and improve blood flow.^[16]. *Panchadhatu salaka* a recent innovation of Prof. P D Gupta is widely used for all types of cauterization. It is having 40% of copper, 30% of iron and silver, zinc, tin 10%, each. It can transmit more heat energy to deeper tissues with minimum tissue injury. The concept of *panchadhatu* is mentioned in ancient text book of '*shil-pashastra*'^[17]. These are the five metals present in human body. Studies have revealed that many individuals lack some of these metal components in the body. *Agnikarma* by this *shalaka* can help in refilling the components to bring stability and positivity in life.

It can help in balancing the life force or *pranashakti*^[18].

CONCLUSION

Agnikarma is very effective procedure in Calcaneal spur. This process is easy to perform, less chance of recurrence because of *Shulahara*, *Shothahara* and *Vatahara* properties of *Agnikarma*. *Agnikarma* therapy is result oriented to local *Vataja* and *Kaphaja* disorder and it is the ultimate measure for Haemostasis. It is an ambulatory treatment with minimum expense. *Agnikarma* works on the law of pain management.

REFERENCES

1. Ayurvedic-treatment-for-calcaneal-spur-corns-and-calluses-calcaneal-bursitis.html. <https://ayurmantra.com>
2. what-is-a-calcaneal-spur.htm <https://www.wisegeek.com>
3. Ramkaran S, Vaidya Bhagwan D: Agnivesha's Charaka Samhita. Text with English translation. Translated, vol 1. Varanasi: Chowkambha Publishers; 2005
4. A Clinical Study of Efficacy of Agnikarm: An Ancient Treatment Method in the Management of Heel Pain. Accessed Apr 272018.
5. calcaneal-spur <https://diseasespictures.com/>
6. HEEL PAIN OR CALCANEAL SPUR AND ITS AYURVEDA. <https://vaidyaveekshan.blogspot.com/2013/06/heel-pain-or-calcaneal-spur>
7. heel-pain-or-calcaneal-spur-and-its.html <https://vaidyaveekshan.blogspot.com/2013/06/>
8. A conceptual study on agnikarma in the management of vatakantaka w.s.r. calcaneal spur, Natasha Dsouza PG Scholar Department of Shalyatantra, Ayurveda Mahavidyalaya Hubli, Karnataka, India. www.iamj.in > posts > images > upload <https://ayurmantra.com/ayurvedic-treatment-for-calcaneal-spur-corns-and-calluses>
9. calcaneal-spur-heel-pain-vatakantaka.html <https://vaidyaveekshan.blogspot.com/https://www.slideshare.net/chandigarhayurvedcentre/agnikarma-an-ancient-ayurvedic-therapy-a-scientific-overview>
10. Dr Amit Kumar Singh & Dr Pragya Mishra, Journal of Vishwa Ayurveda Parishad Patrika Oct-2012, Issue-9, Vol-9-10, p33
11. Sushruta. Jadavaji Trikamji. Sushruta Samhita with Nibandhasagraha commentary of Dalhanacharya.

Chaukhambha Surbharati Prakashan, Varanasi. Edition: Reprint 2008. Pp – 824

12. Agnikarma journalcra.com/article/review-action
 13. Agnikarma-an-ayurvedic-pain-mangement-therapy-without-side-effect <https://cureveda.com/>
 14. Das S. A Concise Textbook of Surgery; 3rd Calcutta. 2001. p. 52. <https://cureveda.com/agnikarma-an-ayurvedic-pain-mangement-therapy-without-side-effect>
 15. Panchaloha <https://en.m.wikipedia.org/wiki/Panchaloha>
 16. HEEL PAIN OR CALCANEAL SPUR AND ITS AYURVEDA
...<https://vaidyaveekshan.blogspot.com/2013/06/heel-pain-or-calcaneal-spur>
-

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