

## THE STUDY OF EFFECT OF AGNIKARMA IN THE MANAGEMENT OF CALCANEAL SPUR-A CLINICAL STUDY

**Bhandare Madhuri Vitthalrao\*<sup>1</sup>, Mhatre Sagar Raghunath<sup>2</sup> and Rajendra M. Sonekar**

<sup>1</sup>Assistant Professor, Shalyatantra Dept., R.A. Podar Medical College (Ayu), Worli, Mumbai, India.

<sup>2</sup>YMT Ayurvedic Medical College @ Hospital, Khargher, Navi Mumbai, India.

<sup>3</sup>Professor, Shalyatantra Dept., R.A. Podar Medical College (Ayu), Worli, Mumbai, India.

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**\*Corresponding Author**  
**Dr. Bhandare Madhuri**  
**Vitthalrao**

Assistant Professor,  
Shalyatantra Dept., R.A.  
Podar Medical College  
(Ayu), Worli, Mumbai,  
India.

### ABSTRACT

The calcaneal spur is a pointed bony outgrowth of the bone of the heel (the calcaneal bone). Heel spurs under the sole of the foot (plantar area) are associated with plantar fasciitis. Heel spurs and plantar fasciitis can occur alone or be related to underlying diseases. Till date symptomatic treatments are available like NSAID and analgesic drugs, steroid injections, ortotics 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. According to Ayurveda asthi-snayugata vata can be correlate with the calcaneal spur. Sushruta has advised Agnikarma for disorders of asthi(bone) and snayu (tendons). Hence in this study total 10 patients of calcaneal spur patients was treated with agnikarma for 3 wks.

Agnikarma therapy provided considerable relief in pain.

**KEYWORDS:** Agni karma, calcaneal spur, asthi-snayugata vata.

### INTRODUCTION

A calcaneal spur (heel spur) is a hook of bone that can form on the calcaneus bone of the heel and is associated with plantar fasciitis. About 70% of patients with plantar fasciitis have a calcaneal spur that can be seen on an X-ray.<sup>[1]</sup>

It causes due to deposition of the calcium on the underside of the heel bone, a process occurs over a period of many months. These are often caused by strains on foot muscles and

ligaments, stretching of plantar fascia and repeated tearing of the membrane that covers the heel bone.<sup>[2]</sup>

It projects from the back or underside of the calcaneus bone and that may make walking painful. These are associated with inflammation of Achilles tendon (Achilles tendinitis) and cause tenderness and pain at the back of the heel, which is made worse by pushing of the ball of the foot. Spurs under the sole (the plantar area) are associated with the inflammation of the plantar fascia, which is the bowstring-like tissue that stretches from the heel underneath the sole. These spurs can cause localized tenderness and pain that is made worse by stepping down on the heel.

Calcaneal spurs and plantar fasciitis can occur alone or they can be related to underlying diseases like arthritis and ankylosing spondylitis. Treatment is designed to decrease the inflammation and avoid reinjury. Heel lifts reduce stress on the Achilles tendon and relieve painful spurs at the back of the heel.<sup>[3]</sup> Treatments for heel spurs and associated conditions include exercise, custom-made orthotics, anti-inflammatory medications and cortisone injections. If conservative treatment fails, surgery may be necessary.<sup>[4]</sup>

As per Sushruta the localization of the variously aggravated vayas in the bones produces a wasting (atrophy) of the bones (i.e. degeneration of bone) which crack and begin to spontaneously burst attended with the characteristic boneache.<sup>[5]</sup>

Agnikarma is a noninvasive method of treating surgical diseases in different vataj diseases especially in those patients where noninvasive modality of treatment is preferred compared to surgical method of treatment. Some diseases are not responded any other method than Agnikarma.<sup>[6]</sup>

Describing agnikarma Chikitsa Sushruta has said that those diseases which are not curable by surgery, Kshar Karma or medicine can beneficially be treated by Agnikarma. Such successfully treated diseases have no recurrence or has rare recurrence.<sup>[7]</sup> Sushruta indicated Agnikarma in Snayu, Sandhi and Asthigata Vayu Chikitsa.<sup>[8]</sup>

As calcaneal spur is the Asthigata Vata and the main symptom which worsens the patient's walking is pain in the bone or Snayu so Agnikarma is selected as the choice of treatment in it.

## METHODOLOGY

OPD patients of age group 30 to 75 having unilateral heel pain are selected for the study. Clinical examination has done. All patients had tenderness at the affected calcaneal region but swelling and restriction of movements was absent. All patient's diagnosis is confirmed as calcaneal spur with X-ray Foot AP & Lat. view. Routine blood investigations i.e. CBC,BSL (F & PP), ESR and Urine examination (R & M) having normal values has selected for the agnikarma procedure. Agnikarma in the form of Bindu with loha shalaka has done in 10 patients of calcaneal spur. Pain is measured with the help of NRS (Numerical Rating Score Scale) before Agnikarma and after 24 hrs. and at the interval of 7 days.

Type of Agnikarma - Agnikarma in the form of Bindu. Total 6 bindu agnikarma i.e. one bindu (point) in the centre and 5 bindus (points) in 1cm diameter has done.

Time of Agnikarma - Morning hrs. from 8.30 AM to 10.30.AM.

Instrument (shalaka) used - Iron probe (loha - shalaka)

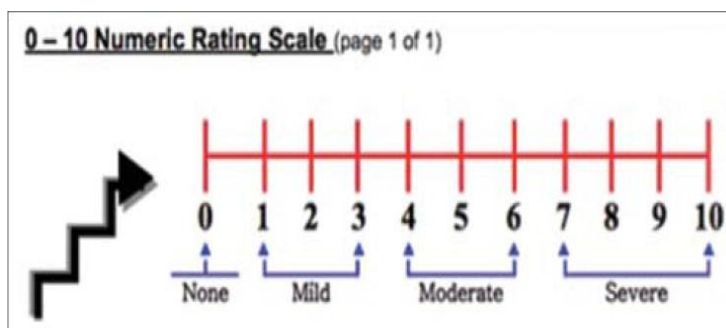
Duration - Total 4 sittings at the interval of one week

Post *Agnikarma* - Yashtimadhu powder was sprinkled on wounds and advised to apply *Madhu* and *Ghrita* from next day. The same procedure was adopted at 7 days interval for 3 times.

Follow up - After 24 hrs. of Agnikarma,7<sup>th</sup> day,14<sup>th</sup> day.

Objective criteria - NRS (Numerical Rating Scale) for assessment of pain.

### NRS (Numerical Rating Scale)

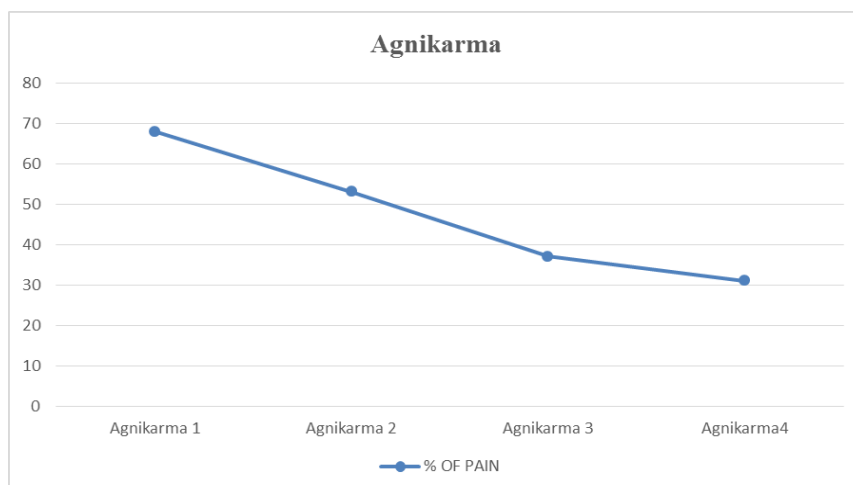


The 1<sup>st</sup> reading of intensity of heel pain of all 10 patients has taken before the 1<sup>st</sup> sitting of Agnikarma and it is considered as maximum pain 10 as per NRS.

Second reading has taken after 24 hours of Agnikarma.

Third reading has taken on 7<sup>th</sup> day and 4<sup>th</sup> reading has taken on 14<sup>th</sup> day. The percentage of readings of all 4 sittings has done and shown in the graph described below

### % of Pain Relief



### OBSERVATION

Out of 10 patients 7 was female and 3 was male.

All 10 patients of unilateral calcaneal spur has got 68% relief of pain after 24 hrs of Agnikarma and gradually it reduces to 53% after 7 days, 37% after 14 days and 31% after 21 days as shown in above % of pain relief graph.

Post-Agnikarma Vrana the wound made by Agnikarma completely healed within a week without any complications and the scar disappeared within 15 days of post-Agnikarma period.

### DISCUSSIONS

In this study conventional Agnikarma therapy has done with the help of loha shalaka I.e. iron rod which was easily available. calcaneal spur is snayuasthyashrita vyadhi and sushruta indicated Agnikarma in these diseases.<sup>[9]</sup> The cardinal symptom of calcaneal spur is pain at heel. According to Ayurveda, basic humor responsible for pain is Vata. Vata Dosha is predominantly having Sheeta guna which is exactly opposite to Ushna Guna of Agni. So Agni is capable of producing relief in pain by virtue of its ushna Guna. In *Agnikarma* the temperature at the applied site is increased which reduces nerve reflexes resulting in relaxation of muscle.

The use of local heat (thermotherapy) may provide relief of pain and painful muscle spasm by acceleration of metabolic processes whereby the concentration of pain inducing toxic metabolites is reduced. This is accomplished primarily by an increase in local circulation. Acceleration of the inflammatory response to resolution may initially exacerbate discomfort, but will shorten the time course to resolution of inflammation.<sup>[10]</sup>

## CONCLUSION

Agnikarma is simple, cheap, safe, effective and alternative management in calcaneal spur without any complications that surpasses the pharmacological treatment i.e. NSAIDS or Steroids.

No of sittings of Agnikarma depends upon the chronicity and severity of the disease.

## REFERENCES

1. [www.stepbystepfootcare.com/blog/what-are-heel-spurs/](http://www.stepbystepfootcare.com/blog/what-are-heel-spurs/) dated on 15/07/2017 on 4.16pm.
2. [www.m.webmd.com/pain-management/heel-spurs-pain-causes-symptos-treatments#1-2](http://www.m.webmd.com/pain-management/heel-spurs-pain-causes-symptos-treatments#1-2) dated on 15/07/2017 on 4.24pm.
3. [http://www.medicinenet.com/heel\\_spurs/article.htm](http://www.medicinenet.com/heel_spurs/article.htm) dated on 15/01/2017 11.28 pm.
4. <http://www.webmd.com/pain-management/heel-spurs-pain-causes-symptoms-treatment#1> dated on 15/07/2017 on 11.40 pm.
5. sushruta samhita(English translation), K.L.Bhishagratna, vol II, 4<sup>th</sup> edition, Chaukhamba Sanskrit series office, Varanasi, 1991, page no 05.
6. [www.panchakarmaayurveda.com/agnikarma](http://www.panchakarmaayurveda.com/agnikarma) dated on 16/07/2015 on 03.34 pm.
7. Sushrutsamhita Vol 1, reprint edition, Chaukhamba Sanskrit Sansthan, 2012, page no 50.
8. sushrutasamhita, vaidya yadavji trikamji Acharya & rest, Chaukhambha orientalia Varanasi, 7<sup>th</sup> edition, 2002, page no 420.
9. Illustrated Sushrut Samhita Vol I, reprint edition, Chaukhambha Orientalia, Varanasi 2010, page 72.
10. [www.ncbi.nlm.nih.gov/pmc/articles/PMC4649569](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4649569) ciated on 30/01/2017.