

## MANAGEMENT OF CALCANEAL SPUR THROUGH *AGNIKARMA* – A CASE REPORT

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### ABSTRACT

*Acharya Sushruta* explained about *Agni karma* (Para Surgical Procedure) for eradication of various diseased conditions of *Sira*, *Snayu* and *Sandhi* in which pain is a predominant symptom. *Agni karma* can be ideating as ancient pain treatment tool. Heel pain is common condition that can persist for a long time and turn into a chronic. Untreated heel pain can result in debilitating discomfort. Plantar fasciitis, heel spur, tarsal tunnel syndrome, stress fractures, Achilles tendonitis are common causes for expressing heel pain. In *Ayurveda* texts it can be correlated with *Vatakantak* and managed successfully with *Agni karma* procedure. For present study we have reported a 46 years female patient with the complaint of left heel pain mainly during early morning for 30 days and were diagnosed with calcaneal spur based on X-ray. Patient was unable to walk properly as it was painful; she was putting more pressure over right heel. Patient is not a known case of HTN or DM. And we had given him *Agni karma* with *Loha shalaka* twice in a gap of 7 days. After treatment patient got relief from pain and tenderness and walking was improved. *Ayurvedic* management has better relief.

**Keywords:** Heel pain, *Agni karma*, *Ayurved*, Calcaneal Spur, *Loha Shalaka*, Pain, *Vatakantak*.

### INTRODUCTION

According to *Acharya Sushruta*, *Vatakantak* is a *vatapradhan vyadhi* (predominance of *vatadosha*) particularly caused by walking uneven surfaces or by *atishrama* (excessive exertion), which produces pain in *khudukpradesh*. *Madhavakar* in *Madhava Nidan* mentioned that *vatakantak* is a pain in the ankle region which arises due to improper position of the foot during its movements.<sup>[1]</sup> Heel pain is observed in a number of conditions like Sevier's disease, Calcaneal Knob, Bursitis, Bony Spur, Paget's, Osteomyelitis, Acute and Chronic Plantar Fasciitis. Amongst these *vatakantak* can be correlated with Plantar Fasciitis. It is estimated that 1 in 10 people will develop heel pain in their lifetime. Incidence occurs between 40 and 60 years of age. The prevalence of this disease increases due to inclination towards wearing high heeled & hard foot wears, improperly fitting footwear's, engaging in strenuous exercise especially jumping, running and standing for prolong period.

Diagnosis is usually made on the basis of history and physical examination alone. Patient experience severe pain with the first step on arising in the morning or following inactivity during the day, which becomes worse on walking barefoot or upstairs. On examination, maximum tenderness is elicited on palpation over the inferior of heel corresponding to the site of attachment of the plantar fascia.

The contemporary treatment consists of ice heat, massage and stretching of the calf muscles and plantar fascia, medial arch support, foot strapping, wearing a night splint and use of NSAIDs. Additionally, injection of Hydrocortisone can be given at the most tender point. If this fails, then lastly division of the plantar fascia is indicated *vatakantak* is a *snayu Asthi Sandhi Ashrit Vyadhi* (Disease of tendon, bone and joint) and painful

condition. *Acharya Sushruta* mentioned different treatment modalities like oleation, poultice, *Agni karma*, and massage for management of *vatakantak* <sup>[2]</sup> According to the above reference, *Agni karma* is used in this case to assess its efficacy in relieving pain and stiffness of *vatakantak* <sup>[3]</sup>

**AIM AND OBJECTIVE:** To assess the role of *Agni karma* in *Vatakantaka* (calcaneal spur)

## MATERIALS AND METHODS

- **Study design:** single arm clinical study
- For ethical consideration consent has been taken from the patient before commencement of treatment
- For the present study 46 years old female patient having symptoms of *vatakantaka* for 30 days is been discussed in detail manner  
.Assessment criteria: gradation of signs and symptoms and objective parameters were assessed based on VAS score, tenderness
- Patients were treated with *Agni karma*.

## CASE REPORT

A 46-years-old female patient came to OPD with the complaint of left heel pain mainly during early morning for 30 days and was diagnosed with calcaneal spur based on X-ray. Patient was unable to walk properly as it was painful, swelling, tenderness she was putting more pressure over right heel.

Patient is not a known case of HTN or DM.

- **Tenderness-** +++ over left heel.

**Surgical history-** no surgical history

The patient denied any history of trauma

**Local examination:** site- left heel.

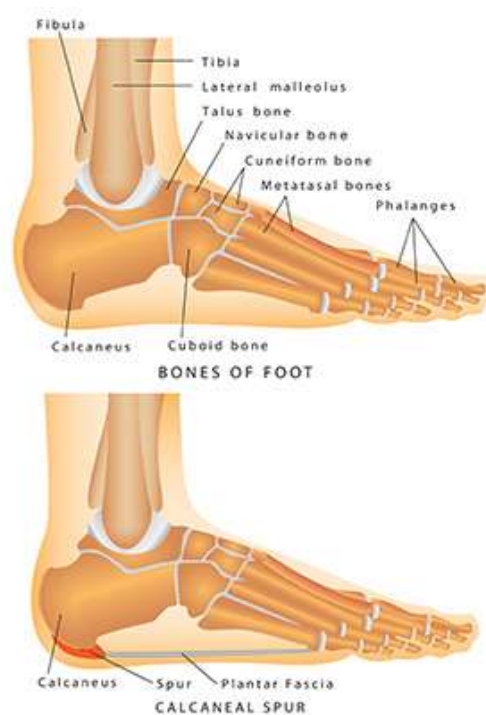
## Investigation

- **HB** – 12.0
- **TLC** – 7,600
- **PT/INR-** 14.2/0.97
- **BSL-R** – 98
- **URINE ANALYSIS-** within normal limit
- Other investigations were within normal limit.

## Diagnostic assessment

A lateral X-ray revealed a large, well-defined bony projection at the base of calcaneus in both the heels, however, the right-heel calcaneal spur was bigger and more painful A calcaneal spur is a bony projection from the undersurface of calcaneal tuberosity due to ossification of plantar fascia. Numeric analog scale was administered to rate the extent of pain during each follow-up for one years.

**IMAGE 1.** SHOWING NORMAL BONY STRUCTURE OF FOOT AND CALCANEAL SPUR GROWTH. <sup>[4]</sup>



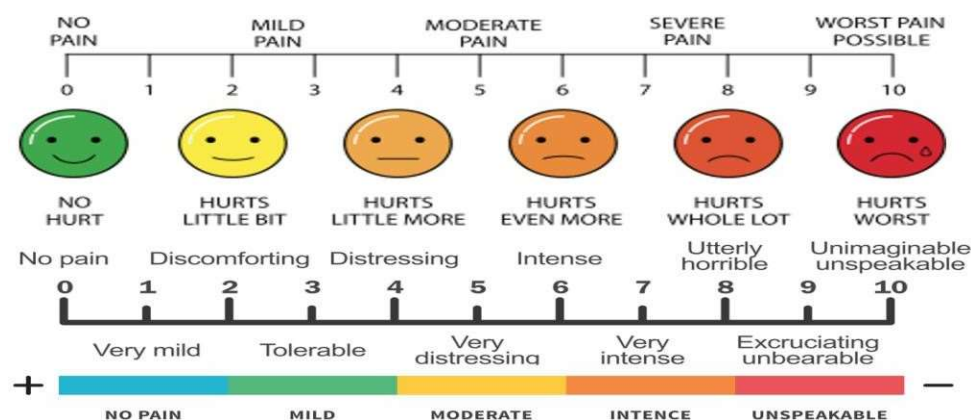
**Image: 1**

**IMAGE 2.** RADIOLOGICAL IMAGE OF CALCANEAL SPURS.



**Image: 2****Assessment criteria**

PAIN (*Vedana*) - pain is assessed with VAS scale.

**IMAGE 3. Visual Analogue Scale****Image :3****TENDERNESS (*Sparsha Asahatva*)**

- No tenderness-0.
- Part is tender-1.
- Winces and withdraws the affected part-2.
- Will not allow the part to be touched-3.

**Assessment before treatment**

- Intense Pain- 7.
- Patient was wincing and withdrawing leg on touch- 2

**Pathophysiology of *Vatakantaka***

Indulgence in the unwholesome food and activities leads to *Vata dosha* vitiation and this aggravated *Vata* moves all over the body due to its *Chala* (moving tendency) and gets lodged in the *Khuda Pradesh* (heel) causing tremendous pain in heel leading to *Vatakantaka*.

**Diagnosis-** *Vatakantaka* (Calcaneal spur)

**Treatment-** *Agni karma* with *Loha Shalaka* twice with the gap of 7 days

## Material used

- Ghee
- *Loha shalaka*

## Procedure

### Pre-operative

- *Loha shalaka* was heated to red hot.
  - Patient was made to lie down in prone position.
  - Most tender point was marked.
  - Left heel was cleaned with normal saline.
- Sthanik abhyanga* was done with cow ghee over the left heel

### Operative-

Agni karma done with *Loha Shalaka* in *Bindu Akruti* (dot like shape) over left heel.

### Post-Operative-

- Ghee was applied to the site of *Agni karma*.
- Patient was made to rest for 10 to 15 minutes.
- The procedure was repeated on 7th day again

### IMAGE 4: SHOWING SITE OF HEEL PAIN.



Image: 4

**IMAGE 5: SHOWING AGNIKARMA PROCEDURE IN HEEL PAIN USING *SHALAKA*****Image :5****OBSERVATION AND RESULT**

The patient received a total of three *Agni karma* therapy sessions over a period of three weeks

Symptoms	BT	AT
HEEL PAIN	VAS-7	VAS-2
Difficulty during walking	Pain during walking	Can walk without pain
Tenderness	Grade 3	Grade 0

**DISCUSSION**

Patient got marked relief from pain and tenderness was reduced after *Agni karma*. There were no changes in X-ray but improvement was witnessed in subjective parameters. Patient got relief from early morning heel pain, walking was improved Probable mode of action of *Agni karma*.<sup>[5]</sup> *Agni karma* cures all the *vataja* and *kaphaja* disorders as *Ushna guna* of *Agni karma* is opposite to that of *Vata* and *Kapha doshas*. According to *Ayurveda*, every *Dhatu* (tissue) have its own *Dhatvagni* and when it becomes low, diseases begin to manifest.<sup>[5]</sup> In this condition, *Agni karma* works by giving external heat thereby increasing the *Dhatvagni* which helps to digest the aggravated *Doshas* and hence cures the disease.<sup>[7]</sup> The local thermal therapy may increase tissue metabolism which may lead to excretion of the unwanted metabolites and toxins. Heat may stimulate lateral spinothalamic tract (SST) which leads to stimulation of the descending pain inhibitory fibers (DPI) which release of endogenous Opioid peptide which

bind with Opioid receptors at substantia gelatinosa rolandi which inhibit the release of P- substance (pre-synaptic inhibition) and blockage of transmission of pain sensation.

## CONCLUSION

*Agni karma* is indicated when the *Dosha* are situated in *Snayu*, *Mamsa*, *Siras* and *Sandhi* and where there is failure of *Bheshaja*, *Shastra*, *Kshara*, *Agni karma* is the line of treatment and the *Roga* doesn't reoccur. *Acharya Sushruta* mentions that the disease *Vatakantaka* is *Snayu Asthi Sandhi Ashrita* and such diseases should be treated with *Sneha*, *Upanaha*, *Agni karma*, *Bandhana*, *Unmardana*. There was significant difference in terms of improvement in tenderness (*Sparsha Asahatva*) and *Kriyahaani* (inability to move the limb of affected heel) after *Agni karma*.

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