

## Role of *Agnikarma* in the Management of Calcaneal Spur - A Case Study

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### Abstract

Ayurveda is one of the most ancient sciences of human refinement. *Shalyatantra* is one of the branches of Ayurveda which consists of various treatment modalities mentioned in different disease conditions. *Agnikarma* is one among them. In *Agnikarma*, therapeutic burning is done with various types of tools at specific sites. This ensures complete cure of disease and avoids recurrence. *Agni* by its *Ushna*, *Snigdha* gunas pacifies *Vata* and *Kapha* and mechanically burns the unwanted tissue. In western medical sciences it is used under the heading of therapeutic burn or cauterization. In the present study a modest attempt has been made to evaluate the role and mode of action of *Agnikarma* in the management of Calcaneal spur. This case study concludes that *Agnikarma* is a very effective, easy and simple procedure that can be implied as outpatient procedure for treating calcaneal spur.

### Keywords

*Agnikarma, Calcaneal Spur*



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## INTRODUCTION

Osseous Spurring of calcaneus was first documented in 1900 by the German physician Plettner, who coined the term “Kalkaneussporn” (calcaneal spur). The pathophysiology of calcaneal spurs is poorly assumed. The two explanations regarding the pathophysiology which could be termed the longitudinal traction hypothesis and vertical compression hypothesis may be able to clear the picture. Furthermore, a latest study has indicated that the bony trabeculae of spurs are vertically oriented, suggesting that the stresses responsible for spur formation may be the result of vertical loading. Calcaneal spur may be correlated with the signs of *Asthivridhi*.

*Shalyatantra* is one of the prime branches of Ayurveda based on six major methods of management such as *Bheshajkarma*, *Ksharakarma*, *Agnikarma*, *Yantrakarma*, *Shastrakarma* and *Raktamokshana*. *Agnikarma* is superior among them and windfall for local *Vata* & *Kaphaja Vyadhi*. The diseases treated by *Agnikarma* do not recur and it gives instant relief to the patients. There is no fear of complication such as putrefaction and bleeding due to contact with *Agni*. Calcaneal spur is a common type of *Vatik* disorder found in all

cases. Owing to disrupting nature and difficult management *Vata Vyadhi* has been included in *Ashta-mahagada*. Due to change in life style like unsuitable standing & walking style Calcaneal spur is emerged in society as conspicuous disease.

## CASE REPORT

Here we shall study a case of a 65yr old male patient who visited to OPD of Shalyatantra Department of Government Ayurved Hospital, Nagpur with complaint of pain, difficulty in walking and tenderness over right heel since one month without any major illness. On examination there was tenderness over right calcaneal region. The diagnosis was confirmed as Calcaneal spur on the basis of signs, symptoms and x-ray of right foot. It was decided to have *Agnikarma* as line of treatment with no any internal medication. *Agnikarma* was done daily for 5 days. *Agnikarma* was done with the help of *Lohashalaka* which was placed at the site of maximum tenderness over calcaneal region. It was done in a dotted manner i.e., *Bindu*. It was performed 10-12 times in one sitting. *Madhu Ghrita* was applied over the area to alleviate the burning sensation. Patient was observed for pulse and blood-pressure before and after the procedure. Same

procedure was carried out for 5 days. Patient was observed for 8 days after completion of the treatment.

## MATERIALS AND METHODS

The case study was performed at Government Ayurved Hospital, Nagpur.

### VISUAL ANALOG SCALE

0	1	2	3	4	5	6	7	8	9	10
No Pain				Moderate Pain				Severe Pain		

**Table 1** Gradation of Pain according to the signs

Grade	Grade No.	Signs
No Pain	0	No pain on pressing or during walking.
Mild Pain	1-3	Pain related to site on pressing.
Moderate Pain	4-7	Disturbed daily work.
Severe Pain	8-10	Intolerable and continuous pain, unable to walk.

## PROCEDURE

### Pre-operative (*Purvakarma*)

Patients consent to undergo *Agnikarma* treatment.

Confirmation of site.

Selected site cleaned with *Triphala Kwath* or normal saline.

### Assessment Criteria

Vedana (Pain)-

Visual analogue scale used for assessment criteria of Pain.

In any condition spirit should not be applied.

### Main procedure (*Pradhan karma*)

Intermittent, multiple heating method: Performed by giving multiple heat burns, approximately 10-12, over the site of maximum tenderness.

### Post-operative (*Paschat karma*)

*Madhu Ghrita* applied prior to dressing. This medicine helps to reduce the burning sensation and pain caused by heat burn also help in healing process. The site of *Agnikarma* is prevented from contact with water. follow-up taken for 8 days.

## OBSERVATIONS AND RESULTS

**Table 2** Improvement in the Signs & Symptoms of Calcaneal Spur after 5 consecutive sittings of Agnikarma

S r. N o.	Signs & Sympt oms	Before Agnik arma	Aft er 1 <sup>st</sup> Sitt ing	Aft er 2 <sup>nd</sup> Sitt ing	Aft er 3 <sup>rd</sup> Sitt ing	Aft er 4 <sup>th</sup> Sitt ing	Aft er 5 <sup>th</sup> Sitt ing
1.	Heel Pain	8	6	3	1	1	0
2.	Tende rness	3	2	1	1	0	0
3.	Diffic ulty in Walki ng	8	7	5	3	1	0

When the patient came to OPD for first time, he had severe heel pain and then after 1<sup>st</sup> sitting of *Agnikarma*, it was reduced to moderate heel pain & gradually reduced upto the 5<sup>th</sup> sitting where there was no pain at all means patient completely relieved from pain. Similarly there was also gradual decrease in the tenderness and difficulty in walking as shown in table above.

## DISCUSSION

A calcaneal spur is a bony projection forwards from under surface of calcaneal tuberosity. It is nothing but ossification of the plantar fascia at its calcaneal end. On an X-ray, a calcaneal spur can extend forward by as much as a half inch. Management of

calcaneal spurs and associated conditions include exercise, custom-made orthotics, anti-inflammatory medications and cortisone injections. If conservative treatments miss the mark, surgery might be necessary.

In Ayurveda, *Agnikarma* has been stated as one of the main treatment modality in decreasing the pain threshold. So based on this principle the study was carried out and after completion of therapy the symptoms found to be relieved. To support the effect of *Agnikarma* therapy following probable phenomena may take a part in relieving the symptomatology of disease,-

### Probable Mechanism of Action

The probable mechanism of action of *Agnikarma* may be due to the assets of *Agni*. The properties of *Agni* are *Laghu*, *Sukshma*, *Tikshna* and *Ushna guna*. It works on both *vata* and *kapha dosha*. It works on *vata* by its *Ushna* and *Tikshna guna* and on the *kapha dosha* by *Laghu*, *Sukshma*, *Tikshna* and *Ushna guna*. It acts deep in the tissue because of its power of penetration by quality of *Laghu*, *Sukshma* and *Tikshna Guna*.

## CONCLUSION

It is easy to learn and apply the principle of *Agnikarma* in managing different surgical conditions where surgery is not possible to treat the condition or there is great chance of relapse of disease. *Agnikarma* provides lot of options for the surgeon as it is easy to implement, less chance of recurrence, less bleeding and minimal pain.

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