# **Agnikarma Treatment for the Management of Calcaneal Spur**

Suganthan R, Kalpana.S, Prabhu P, Rajajameen K., Palanisamy T and

Abdul Sadhiq

Department of Epidemiology The Tamilnadu Dr.M.G.R.Medical University, Chennai Corresponding Author: Kalpana.S

## Abstract

Background:

Agnikarma is an important parasurgical procedure of Ayurvedic surgeons, which has been used widely in the clinical practice. Agnikarma has emerged as an integral part of the Ayurvedic therapeutics. In Ayurveda, agnikarma is a treatment in which heat is applied to a particular part of body to reduce inflammation there and hence the underlying pain. Based on the degree of burn, Agnikarma is classified as Plusthdagdha, Durdagdha, SamvakDagdha and Atidagdha. The agni karma are more superior than kshara as disease treated with agnikarma never happen again.

**Objective:** To see the efficacy of Agnikarma treatment for the disease calcaneal spurs.

Methodology: Totally15 calcaneal spur cases were recruited for the past one year in a clinical trial. Agni karma treatment is carried out with a special instrument made of 5 metals (Copper, Iron, Zinc, Silver & Lead; also contains gold in some special ones), thus is named as Pancha Dhatu Shalaka. This instrument is heated and then stroked gently on the heel. After few strokes, aloe vera is applied to cool the part. Heat thus applied is strong enough to reduce inflammation but does not cause any burns or harm.

**Results:** All the cases were cured but based on the severity of spur, frequency of sitting increased.

**Conclusion:** Efficacy of Agnikarma treatment for the management of calcaneal spur is high. While doing Agnikarmaprocedure one should not exert excessive pressure unless it will produces Atidagdha vrana. Scar disappeared within 3 weeks. Number of sitting depends on chronicity and severity of pain

Key words: Calcaneal Spur, Agnikarma, Biomechanical, Pronation, Pancha Dhatu Shalaka \_\_\_\_\_

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## I. Introduction

Agnikarma is an Ancient Medical Technique derived from the Indian system of medicine, Ayurveda. The technique has been designed and used to treat various muscular and joint disorders. The Agnikarma (Thermal Cautery) involves a procedure whereby heat is transferred to the affected parts of the body using a metal Shalaka. Agnikarma in Light of Veda, In Rig-veda application of Agni has been mentioned in context to obstetric and gynecological disorders. Calcaneal spurs are caused by strains on foot muscles and ligaments, stretching of the plantar fascia, and repeated tearing of the membrane that covers on the heel bone. The verses indicate application of Agnikarma in order to get rid of microorganisms in vagina and uterus of the women to save the fetus from getting infected. Yajur-veda has symbolized Agni and its purpose in sheeta (cold) and related disorders. Samveda enumerated Agni in a separate chapter as Agneya-Kanda where an elaborate description to Agni is mentioned. Atharva-veda identified and worshipped Agni as a God[1]. Therapeutic burns are created using metal rods, based on the specialist knowledge in a number of areas including the kind of disorder, the constitution of the patient, severity of the disorder, etc. The calcaneal spur may have pain rarely when continued overstrain of plantar fascia. The spur is due to the result of the biomechanical fault and associated with a painful plantar heel. 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.[2]The clinical features of heel pain can be associated with the ancient terms 'Vatkantak' which can be correlated with the disease referred in various Vatvyadhi context in the classical text. Vatkantak is reviewed in the article [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 Agnikarm has been described as the most effective therapy in the management [4] of all painful conditions especially for musculo-skeletal disorders. Hence, the present study was carried out to find out the efficacy of agnikarma for the treatment of Calcaneal Spur.

# **II.** Materials and Methods:

This open clinical non-comparative trial has been conducted at Sri Maruthi Health Centre, Chennai, India. A total of 15 patients were included in the study. Both male and female patients were randomly selected with different pain scale. X-rays of the heel were observed manually for all patients. Agni karma treatment is carried out with a special instrument made of 5 metals (Copper, Iron, Zinc, Silver & Lead; also contains gold in some special ones), thus is named as Pancha Dhatu Shalaka. This rod is heated and then stroked gently on the heel. After few strokes, aloe vera ismay be applied to cool the part. Heat thus applied is strong enough to reduce inflammation but does not cause any burns or harm. Two trials at the interval of 15 days were performed, and the follow up assessment was carried out consequently after every seven days [Day- 0, 7, 15, 21, 30] a total of five times in a month. Visual analogue scale(VAS) was used to assess pain score based on the severity. VISUAL ANALOG SCALE are rated as 0 1 2 3 4 5 6 7 8 9 10 (0 - No pain, 1-3: Mild pain,4-7: Moderate pain, 8-10: Severe pain)

#### **III. Results and Discussion**

The age group of maximum patients with heel pain was observed between 25 to 50. Heel pain was observed to be dominant in females (80%) compared to Males. It has been found that mild degree of heating (180 °C) is effective in relieving pain. However, strong superficial heating (350 °C) procedure has been observed to have potential to relieve pain due to counter irritation effect. It has been suggested that pain may be possibly caused as a result of the accumulation of metabolic waste products in the tissues, and an increased flow of blood in the region is the possible mechanism that is responsible to remove these substances and relieve pain. Another possibility is that the pain releasing mechanism is associated with muscle relaxation. Pain due to acute inflammation or recent injury is relieved most efficiently by mild heat. When pain is long standing or of chronic type, heating temperature may be increased up to  $360 \,^{\circ}C$ .

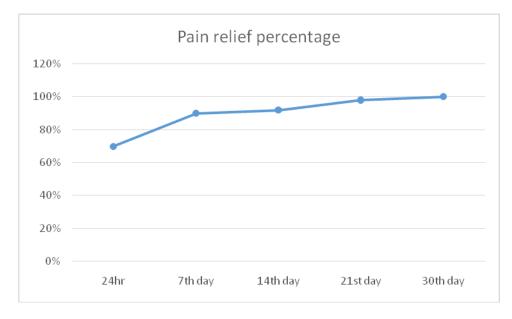
Table;1 Gender Distribution			
Male	3 (20%)		
Female	12 (80%)		
Female	12 (80%)		

Table-2: Pain Scoring				
Scoring	Frequency	Percentage		
0:No pain	2	13		
1-3: Mild pain	5	33		
4-7: Moderate pain	7	47		
8-10: Severe pain	1	07		

All 15 patients get cured after treatment. Out of 15 patients 70% had relief of pain even after 24 hrs of Agnikarma and 30% of them had only mild pain. During second sitting after 7 days almost 90% of them relived of pain , 92% of them said no pain after 14 days but 2% of them had very mild pain while walking after 21 days, during  $30^{th}$  day treatment no one have even mild pain as shown in pain relief graph.

<b>Table-5.</b> Aginkarina treatment and I am Status		
Day	Pain relief percentage	
24hr	70%	
7 <sup>th</sup> day	90%	
14 <sup>th</sup> day	92%	
21 <sup>st</sup> day	98%	
30 <sup>th</sup> day	100%	

Table-3: Agnikarma treatment and Pain Status



#### **IV. Conclusion:**

In this research, we observed that Agnikarma is one of the very effective treatment in reducing symptoms such as heel pain, swelling and tenderness of heel. In this preliminary clinical research, the efficacy of Agnikarma in the management of calcaneal spur was clinically demonstrated on 15 patients. Agnikarma is a cost effective, easy to practice, less complicated, quick relief treatment that does not require surgeries or hospitalization. Agnikarma can be an acceptable alternative to contemporary calcaneal spur modalities. However, further research is required with large sample size to establish the complication levels. Over all we conclude that Agnikarma is a cure of underlying causes, rather than just treating pain; it not only relieves pain, but also help to restore the body to fundamental health by addressing root causes. This study concludes that no of sitting depends on the severity of the disease.

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