

## CASE REPORT: MANAGEMENT OF CALCANEAL SPUR WITH AGNI KARMA

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### ABSTRACT

Calcaneal spur, also known as heel spur or Vatakantaka in Ayurveda, is a painful condition characterized by bony outgrowth at the calcaneal tuberosity. Conventional treatments include analgesics, corticosteroid injections, physiotherapy, or surgery. In Ayurveda, Agni Karma (therapeutic cauterization) is an effective para-surgical procedure for chronic pain disorders. This case report highlights the successful management of calcaneal spur using Agni Karma therapy.

**Keywords:** Calcaneal Spur, Vatakantaka, Agni Karma, Ayurveda, Heel Pain

### INTRODUCTION

Calcaneal spur is a common orthopedic condition resulting from repetitive stress on the heel bone, leading to inflammation of the plantar fascia and deposition of calcium at the insertion point. Patients often complain of sharp heel pain during walking or standing. In Ayurveda, this condition is comparable to Vatakantaka, caused by aggravated Vata Dosha affecting the Kandara (ligament) and Asthi Sandhi (joint) of the heel. Agni Karma, described by Acharya Sushruta, is indicated for diseases caused by Vata and Kapha Dosha such as Vatakantaka, Sandhigata Vata, and Gridhrasi. It provides immediate pain relief by balancing Vata and Kapha and removing obstruction in microchannels (srotas). A calcaneal spur is a bony growth that projects from the calcaneus (heel bone), typically at the calcaneal tuberosity, where the plantar fascia attaches. These spurs can also form on the back of the heel, near the insertion of the Achilles tendon. They result from repetitive stress and microtrauma to the associated tendon or ligament, leading to calcium deposits and new bone formation.

#### Anatomical Location

- **Plantar calcaneal spur:**

The most common type, arising from the bottom of the heel bone (calcaneus) at the calcaneal tuberosity. It is the attachment point for the plantar fascia, the connective tissue that runs along the bottom of the foot.

- **Dorsal calcaneal spur:**

A less common type, found on the back of the heel where

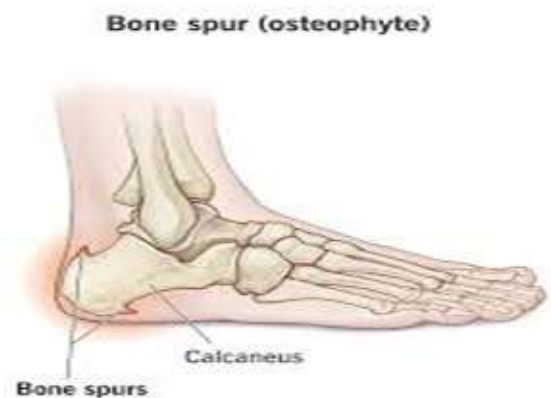
the Achilles tendon attaches.

#### Formation of a Calcaneal Spur

- **Repetitive Stress:** Prolonged activities like running, jumping, or standing, as well as wearing poorly fitting shoes or carrying excess weight, can place excessive stress on the heel.
- **Microtrauma:** This stress can cause micro-tears in the plantar fascia.
- **Calcium Deposits:** The body's healing response to these micro-tears can lead to the buildup of calcium and the formation of a bony outgrowth, or spur.

#### Association with Heel Pain

- While heel spurs are bony growths, they are not always the cause of pain. Pain may result from pressure on surrounding nerves or soft tissues.
- The spur is often associated with plantar fasciitis, an inflammation of the plantar fascia.



**CASE PRESENTATION**

Patient Details:

Name: [Anonymous / Mrs. X]

Age: 45 years

Sex: Female

Occupation: School teacher

Chief Complaint: Pain in the right heel for 6 months, worse in the morning and after prolonged standing.

Associated Symptoms: Stiffness and difficulty in walking.

History of Present Illness:

The patient reported gradual onset of pain over the plantar surface of the right heel. The pain was throbbing in nature, aggravated by walking and relieved by rest. She had tried NSAIDs and heel pads with temporary relief.

General Examination:

BP: 120/80 mmHg

Pulse: 78 bpm

Temperature: Normal

Local Examination:

Tenderness over medial aspect of calcaneal tuberosity.

Mild swelling present.

Pain on dorsiflexion of foot.

Radiological findings confirmed a calcaneal spur.

Ayurvedic Diagnosis: Vatakantaka

Modern Diagnosis: Calcaneal Spur

**Treatment Plan**

Therapeutic Procedure: Agni Karma

Material Used: Panchadhatu Shalaka (metallic rod of five metals)

Heating Source: LPG gas flame

Anesthetic Measure: Application of Aloe vera pulp for cooling and mild anesthesia.

**Procedure**

1. The patient was positioned comfortably in a prone position.
2. The affected area was cleaned with antiseptic solution.
3. The Panchadhatu Shalaka was heated until red hot.
4. The heated rod was gently touched to the tender point on the heel for 1-2 seconds (4-5 dots).
5. After each contact, Aloe vera pulp was applied to soothe the burn.
6. After completion, Jatyadi Taila was applied and the area was dressed.

Duration: Once weekly for 3 sittings.

**Post-Procedure Care**

o Application of Jatyadi Taila daily.

o Avoid exposure to water for 24 hours.

o Avoid excessive walking and prolonged standing for 2 days post-procedure.

o Mild stretching of calf and plantar fascia advised after pain subsided.

**RESULTS**

After 1st sitting: 40% reduction in pain intensity.

After 2nd sitting: Marked improvement in pain and reduction in tenderness.

After 3rd sitting: Complete relief from pain, improved gait, and no recurrence after 1 month follow-up. Agnikarma results show significant pain reduction and functional improvement, particularly in musculoskeletal and Vata-Kapha disorders like osteoarthritis, sciatica, and corns, with some studies showing 80-90% reduction in pain and tenderness. The therapy is a safe, minimally invasive procedure that works by applying controlled heat to improve local circulation, reduce inflammation, and enhance tissue healing, leading to fast, effective, and long-lasting results.

**DISCUSSION**

Agni Karma acts through thermal stimulation, which provides immediate pain relief by:

o Pacifying aggravated Vata and Kapha Dosha.

o Enhancing local blood circulation.

o Inducing controlled tissue coagulation leading to denaturation of pain mediators.

Promoting fibroblast activity and tissue healing.

This treatment offers a minimally invasive, cost-effective, and recurrence-free approach compared to conventional therapies.

**CONCLUSION**

Agni Karma is an effective and safe Ayurvedic para-surgical procedure for managing calcaneal spur (Vatakantaka). It provides rapid and sustained pain relief without side effects, making it a valuable therapeutic option in clinical practice.

Specific Results and Conditions

- **Osteoarthritis (Sandhigata Vata):**

Studies show Agnikarma significantly reduces pain (85.32%), tenderness (89.75%), crepitus (78.35%), and improves joint mobility.

- **Sciatica (Gridhrasi):**  
Agnikarma provides relief from low back pain, numbness, tingling, and improves gait.
- **Corns (Kadar):**  
It is effective in destroying hyperkeratotic tissue, promoting healing without scars, and preventing recurrence.
- **Cervical Erosion:**  
Agnikarma has shown high efficacy in relieving the symptoms of cervical erosion with no apparent complications.
- **Acute Headache:**  
Patients have experienced immediate pain relief, with a reduction in headache intensity from 10 (on a 10-point scale) to 0 immediately after treatment.

#### Mechanisms of Action

- **Thermodynamics & Gate Theory:**  
Heat from Agnikarma directly affects nerve endings, providing sedative effects and potentially reducing pain by activating spinal cord analgesia systems.
- **Improved Circulation:**  
The heat promotes local blood circulation, which enhances the healing process and helps deliver nutrients to the affected area.

- **Anti-inflammatory Effects:**  
Agnikarma helps to reduce local inflammation, contributing to pain relief and faster tissue repair.

#### Advantages of Agnikarma

- **Minimally Invasive:** It is a less invasive para-surgical technique compared to some conventional treatments.
- **Rapid Results:** Patients often experience immediate relief from pain.
- **Safe and Well-Tolerated:** Studies show the procedure is well-tolerated with no major adverse effects when performed correctly.
- **Economical:** It is considered an economical and convenient treatment option.

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