

A COMPREHENSIVE REVIEW OF VATAKANTAKA: AYURVEDIC PERSPECTIVES
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ABSTRACT

Vatakantaka, a condition extensively documented in *Ayurvedic* texts by *Acharya Sushruta*, is characterized by heel pain primarily due to improper foot placement or prolonged walking on uneven surfaces. This ailment is often correlated with the modern medical condition known as a calcaneal spur, a calcium deposit causing a bony protrusion on the heel bone. Calcaneal spurs frequently coexist with plantar fasciitis, an inflammation of the plantar fascia, resulting in significant pain and disruption of daily activities. The prevalence of plantar fasciitis and associated heel spurs underscores the need for effective management strategies. Ayurvedic treatments for *Vatakantaka*, including *Agnikarma* (thermal cauterization), *Snehna* (oleation), *Swedan* (sudation), and *Raktamokshana* (bloodletting), offer promising therapeutic benefits. This review aims to elucidate the aetiology, pathophysiology, and clinical manifestations of *Vatakantaka*, with a special focus on its association with the calcaneal spur, and to explore traditional Ayurvedic interventions as viable treatment options.

KEYWORDS: *Vatakantaka*, Calcaneal spur, *Vatavyadhi*.

INTRODUCTION

Vatakantaka, a condition described in Ayurvedic literature, is a disorder resulting from the vitiation of *Vata Dosha*, typically manifesting as severe heel pain. This condition falls under the broader category of *Vatavyadhi* and is primarily caused by improper foot placement, walking on uneven surfaces, and excessive exertion.^[1] The pain associated with *Vatakantaka* is often described as a pricking sensation, akin to being pierced by thorns, and is particularly noticeable in the morning or after periods of inactivity. Traditional Ayurvedic treatments, including *Raktamokshana* (bloodletting), *Agnikarma* (thermal cauterization), and *Sweda* (sudation), are employed to alleviate the symptoms by addressing the underlying *dosha* imbalances.^[2]

A calcaneal spur, on the other hand, is a bony outgrowth on the heel bone (calcaneus), commonly associated with plantar fasciitis. This condition results from chronic inflammation at the site where the plantar fascia attaches to the heel bone, often due to repetitive stress, improper footwear, or biomechanical imbalances. The calcaneal spur can cause significant heel pain and difficulty in

walking, impacting daily activities and quality of life. Conservative treatments such as rest, physical therapy, orthotic devices, and anti-inflammatory medications are commonly used, with more invasive procedures like corticosteroid injections or surgery reserved for severe cases.^[3]

Both *Vatakantaka* and calcaneal spur result in debilitating heel pain, albeit from different etiological perspectives—Ayurvedic and allopathic. Understanding these conditions and their respective treatments provides a comprehensive approach to managing heel pain effectively.

ETIOLOGY OF VATAKANTAKA

The combination of these factors leads to the accumulation and aggravation of *Vata Dosha* in the *Gulfa Sandhi*, causing inflammation, pain, and discomfort in the heel region, which is characteristic of *Vatakantaka*. Understanding these etiological factors is crucial for the effective prevention and management of this condition through appropriate lifestyle

modifications, footwear choices, and targeted Ayurvedic treatments.^[4]

The main etiological factors include

1. Improper Foot Placement: Walking or standing with incorrect foot positioning can lead to uneven distribution of body weight, exerting undue pressure on the heel and ankle joints.^[5]

2. Age-Related Degeneration: As individuals age, the tissues and joints in the foot may degenerate, leading to increased susceptibility to Vata imbalances and associated pain conditions.

3. Walking on Uneven Surfaces: Traversing uneven or rough surfaces can strain the foot and ankle, leading to repeated micro-injuries and inflammation in the heel region.^[6]

4. Excessive Physical Exertion: Overexertion from activities such as running, jumping, or prolonged standing can aggravate Vata Dosha, resulting in stress and inflammation in the heel and ankle joints.^[7]

5. Inappropriate Footwear: Wearing ill-fitting, hard, or high-heeled footwear can disrupt the natural biomechanics of the foot, increasing the risk of heel pain and Vatakantaka.

6. Biomechanical Imbalances: Abnormal gait patterns, flat feet, or high arches can contribute to improper distribution of forces across the foot, predisposing the individual to Vatakantaka.^[8]

SYMPTOMS

1. Heel Pain: The primary symptom is severe, sharp, and pricking heel pain, often described as a sensation of being pricked by thorns. The pain is typically located in the Gulpha Sandhi (ankle joint) and padatala pradesha (sole).^[9]

2. Morning Stiffness: Patients often experience increased pain and stiffness in the heel during the first steps taken in the morning or after prolonged periods of inactivity.

3. Pain After Activity: The pain tends to worsen after physical activities such as walking, running, or standing for long periods.

4. Localized Swelling: There may be mild to moderate swelling around the heel and ankle joint.

5. Difficulty in Walking: Due to the intense pain, individuals may find it challenging to walk or bear weight on the affected foot.^[10]

6. Aggravation by Cold and Dry Climate: Symptoms may worsen in cold and dry weather conditions, which can further aggravate Vata Dosha.

INVESTIGATION

1. Laboratory tests are conducted to rule out underlying endocrine and inflammatory conditions.

2. X-rays are needed to exclude other causes of heel pain, particularly calcaneal stress fractures.

3. MRI is performed on patients who do not respond to treatment, to identify diagnoses that were not visible on the X-ray, such as a calcaneal stress fracture, calcium deposit, or soft-tissue tumour.^[11]

PROGNOSIS

The prognosis of any disease primarily depends on various factors, including the strength of the causative factor (*hetu*), the severity of the aggravated dosha (*prakupita dosha*), the site and severity of the disease, and the disease's chronicity. Other influencing factors include the patient's age, physical strength, and lifestyle. According to Acharya Yogarathnakara, Vata vyadhis (Vata disorders) are considered difficult to cure (*asadhya*) and should be managed without providing any assurance of recovery. However, Acharya Charaka states that diseases of recent origin, without complications (*upadravas*), and occurring in strong patients are considered curable.

UPASHAYA

Specific upashaya (remedies) and anupashaya (non-remedies) are not explicitly mentioned. However, since Vatakantaka is a Vata vyadhi (Vata disorder), treatments involving warmth (*ushna upachara*) may provide relief (*upashaya*). Additionally, considering the causative factor of exertion (*nidana shrama*), rest (*vishrama*) may also alleviate the pain.

SAMPRAPTI

Due to various causative factors (*nidanas*), Vata gets vitiated and settles in the Gulphasandhi (ankle joint), leading to Padaruk (heel pain). Nidanas such as improper foot placement (*vishama pada*) and excessive exertion (*shrama*) can cause Vata prakopa (aggravation of Vata). When the foot is placed on uneven surfaces, repeated trauma (*abhighata*) occurs, leading to Vata-related blood vitiation (*rakta dushti*). The pathways of Vata become obstructed by aggravated blood (*prakupita rakta*), resulting in Vata being enveloped (*aavrata*) by rakta. In this way, the enveloped Vata (*aavrata vayu*) causes vitiation of the blood throughout the body (*rakta dhushana* of *shareera*).

SAMPRAPTI GHATAKA

DOSHA	VATA
DOOSHYA	MAMSA,RAKTA
SROTAS	RAKTAVAHA,ASTHIVAHA
SROTODUSHTI	SANGHA,VIMARGAMAN
AGNI	RAKTA DHATVAGNI, MAMSA DHATVAGNI, AMA RAKTA DHATVAGNI JANYA
ROGA MARGA	MADHAYMA
UDBHAVASTHANA	PAKVASHAYA
VYAKTASTHANA	GULPHASANDHI, PADTALA

**CHIKITSA
IN CONTEMPORARY SCIENCE**

Treatment options for calcaneal spur aim to alleviate pain and inflammation, improve mobility, and address underlying causes. These treatments range from conservative approaches to more invasive procedures

1. Conservative Care

- **Rest and Activity Modification:** Reducing activities that exacerbate the pain, such as prolonged standing, running, or walking on hard surfaces.

- **Ice and Heat Therapy:** Applying ice packs to reduce inflammation and pain, followed by heat therapy to relax the muscles and improve blood flow.

- **Orthotic Devices:** Using shoe inserts or custom orthotics to provide support, cushioning, and proper foot alignment.

- **Footwear:** Wearing well-fitted, supportive shoes with cushioned soles to reduce pressure on the heel.

2. Medications

- **Non-Steroidal Anti-Inflammatory Drugs (NSAIDs):** Medications such as ibuprofen or naproxen can help reduce pain and inflammation.

- **Corticosteroid Injections:** Administering steroid injections directly into the affected area to provide temporary relief from severe pain and inflammation.

3. Physical Therapy

- **Stretching Exercises:** Exercises to stretch the plantar fascia, Achilles tendon, and calf muscles to reduce tension and improve flexibility.

- **Strengthening Exercises:** Exercises to strengthen the foot and lower leg muscles, improving overall foot mechanics.

- **Manual Therapy:** Techniques such as massage and mobilization to alleviate pain and improve tissue function.

4. Advanced Therapies

- **Extracorporeal Shock Wave Therapy (ESWT):** A non-invasive procedure that uses shock waves to stimulate healing and reduce pain.

- **Ultrasound Therapy:** Using sound waves to promote tissue healing and reduce inflammation.

5. Surgical Interventions

- **Plantar Fasciotomy:** A surgical procedure involving the partial release of the plantar fascia to relieve tension and pain. This can be performed through open surgery, percutaneous techniques, or endoscopically. The closed method is often preferred due to shorter recovery times.

- **Heel Spur Resection:** Surgical removal of the calcaneal spur if it is causing significant pain and other treatments have failed.

6. Nutritional Supplementation

- **Vitamin C, Zinc, Omega-3 Fatty Acids, and Glucosamine:** These supplements may support overall foot health and reduce inflammation. While there is no definitive evidence of their effectiveness, they may be used in conjunction with other treatments under medical supervision.

The choice of treatment depends on the severity of symptoms, patient preferences, and the response to initial therapies. Combining multiple approaches often provides the best outcomes for managing calcaneal spurs.^[12]

AYURVEDIC MANAGAMENT

The general treatment protocol for *Vatavyadhis* (Vata disorders) is outlined in all *Ayurvedic* classical texts. The primary treatments recommended for *Vatavyadhis* are *Snehana* (oleation), *Svedana* (sudation), and *Basti* (medicated enema).

Charaka suggests using substances with *madhura* (sweet), *amla* (sour), *lavana* (salty), *snigdha* (unctuous), and *ushna* (hot) properties, along with treatments such as *Snehana*, *Svedana*, *Asthapana Basti* (decoction enema), *Anuvasana Basti* (oil enema), *Nasya* (nasal administration), and *Abhyanga* (massage). Among these, *Asthapana* and *Anuvasana Basti* are considered the best treatments for *Vata*. Methods like *Veshtana* (bandaging), *Trasana* (trembling therapy), *Madya* (medicated wine), *Sneha* (oils) combined with *Deepana* (digestive) and *Pachana* (metabolic) drugs, *Mamsarasa* (meat soup), and *Anuvasana Basti* help pacify *Vata*. In *Charaka Samhita*, *Sweda* (sudation) is indicated for *Vatakantaka*.

In *Ashtang Samgraha*, the *Ritucharya* (seasonal regimen) of *Hemant Ritu* is recommended for *Vatavyadhis*. According to *Sushruta*, *Shirobasti* (oil head bath), *Shirosneha* (head oleation), *Snaihik Dhumpana* (medicated smoking), and *Sukhoshna Gandusha* (warm oil gargling) are advised for treating *Vatavyadhis*.

Vangasena Samhita, *Chakradatta*, *Gadanigraha*, and *Bhaishjyarnavali* recommend *Rakthamokshana* (bloodletting), oral intake of *Erandathaila* (castor oil), and *Daha* with *Soochi* (needling) as treatments for *Vatakantaka*. Acharya *Sushruta* and *Vagbhata* consider *Siraveda* (venesection) as a treatment for *Vatakantaka*, performed 2 *Angula* above *Kshipramarma* using *Vreehimukha* Shastra. Acharya *Dalhana* suggests that if symptoms persist after common *Vatavyadhi* treatment, *Shonithavarana* (blood purification) should be done.

CONCLUSION

The comprehensive review of literature highlights the multifaceted approaches to its diagnosis and treatment, including both traditional and contemporary methods. Traditional *Ayurvedic* treatments, such as herbal remedies, *Panchakarma* therapies, and lifestyle modifications, offer holistic and effective solutions. Meanwhile, modern medical interventions provide additional options, creating a synergistic approach that can enhance patient outcomes. Future research should focus on rigorous clinical trials and integrative treatment models to further validate and optimize these therapies. Addressing *Vatakantaka* with a blend of ancient wisdom and modern science holds promise for improved patient care and quality of life.

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