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Case Report

A Case Study on Management of Calcaneal Spur with *Ḍimād* (Paste) of Polyherbal Unani Medication

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Abstract

Objective- To evaluate the effectiveness of *Dimād* therapy, a traditional Unani treatment method, in alleviating heel pain caused by calcaneal spur, and to explore its potential as a safe, affordable alternative to conventional therapies

Design - This is a single-case report detailing the clinical presentation, diagnosis, and treatment of a patient with a calcaneal spur using *Dimād* therapy within the Unani medical framework**.**

Intervention - The patient underwent *Dimād* therapy, which involves the local application of heat to the affected heel area, based on the principles of Unani medicine, which aim to restore humoral balance and eliminate morbid materials. Treatment was tailored according to the six essential factors of life in Unani medicine.

Main Outcome Measure- Reduction in heel pain, improvement in mobility, and overall patient satisfaction following completion of *Dimād* therapy.

Results- The patient experienced significant relief from heel pain and reported enhanced mobility following the course of *Dimād* therapy. No adverse effects were observed, and the therapy was well tolerated.

Conclusion- This case suggests that *Dimād* therapy may be an effective and non-invasive approach to managing calcaneal spurs. It supports the Unani view that addressing underlying humoral imbalance and lifestyle factors can contribute to sustainable pain relief. Further clinical studies are needed to validate these findings.

Keywords- Unani medicine, *Waja-ul-Aqib*, heel pain, traditional therapy, *Ilaj bit tadbeer*

INTRODUCTION

A heel spur, sometimes called a calcaneal spur, develops when a bony protrusion grows on the heel bone. Calcaneal spurs can be found beneath the sole (planter heel spur) or at the rear of the heel (dorsal heel spur). Whereas the spur beneath the sole is linked to planter fasciitis, the dorsal spur is frequently connected to Achilles tendinopathy. Calcaneum spurs progressively grow. It usually happens when you take your first step out of bed in the morning or after spending a lot of time sitting still. Obese middle-aged people are more likely to have planter difficulties. The incidence of Calcaneum spur in the Indian population with heel spurs is reported to be 59% by observation studies. [1,2]

Calcaneal spurs are of three types: 1. Those which are large in size but symptomless, because the angle of growth is such that the spur does not become a weight-bearing point and/or the inflammatory changes have been arrested. This type is usually found incidentally when the foot is x-rayed for some other purpose. 2. Those which are of large size and painful upon weight-bearing, because the pitch of the calcaneus has been altered by a depression of the longitudinal arch and, as a result, the spur may become a weight bearing point, sometimes causing intractable pain. 3. Those which have only a rudiment of proliferation and whose outline is irregular and jagged, usually accompanied by an area of decreased density around the origin o the plantar fascia, indicating a subacute inflammatory process . All calcaneal spurs undoubtedly begin in this manner, but only a few become symptomatic at this stage, because only in these few are the etiologic factors acute.[3,4]

In Unani classical literature though there is no specific description about calcaneal spur, however its chief complaint (heel pain) is mentioned as *waja ul aqib*.[5]. *Waja ul aqib* is an Arabic term, where *waja* literally means 'pain' and *aqib* means 'heel'. So, the meaning of

Waja-ul-aqib is pain in heel. *Waja ul aqib* is a type of *Waja ul Mafasil*. *Waja ul Mafasil* is a painful or inflammatory condition affecting joints and their surrounding tissues e.g. muscle, fascia and ligaments etc. [6] As per the Unani concept, it is classified on various bases like temperament, involvement of morbid material, type of morbid material involved and site of manifestations etc. and is given a particular name accordingly like *Niqris* (gout), *waja-ul-warik* (ischial or hip joint pain), *Irqun nisa* (sciatica), *waja-ur-rukba* (knee pain) and *waja ul aqib* etc.[7]

Associations of Calcaneal spur-

Calcaneal spur occurs in various type of disorders, a few are shown in Figure 1.

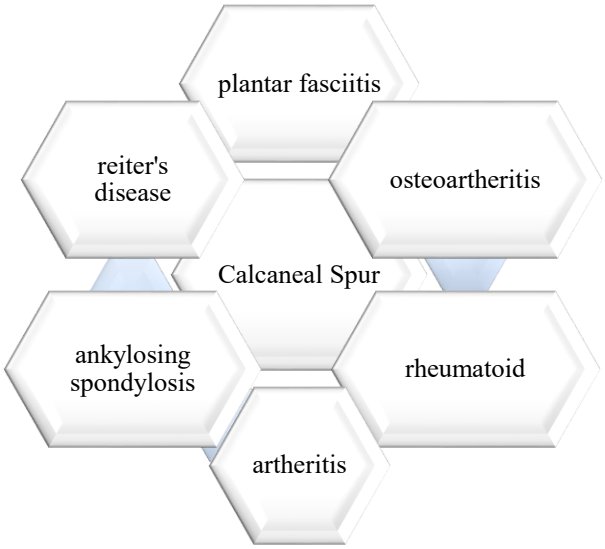

Figure 1: Association of calcaneal spur.

INTERVENTIONS

In the current case report, Patient diagnosed with calcaneal spur were treated using a topical Unani formulations *Dimād* based on classical references and individual *mizāj*(temperament).

The topical formulation *Dimād* focused on anti-inflammatory and analgesic property.

The following Unani formulation (Table 1) were employed as *Dimād* in this case used consistently throughout.

Table 1: Unani Topical Formulation – *Dimād used in the study*

Common Name	Botanical Name	Dose	Action	Reference
Babuna	Matricaria Chamomilia	10gm	Anti-inflammatory	8,9
Nakhuna	Carum Capticum	10gm	Anti-inflammatory	10,11
Gule Tesu	Butea Monosperma	10gm	Anti-inflammatory	12
Namak lahori	Rock salt	10gm	-	-
Mako khushk	Solanum nigrum	10gm	Anti-inflammatory, Analgesic	13
Sambhalu	Vitex Negundo	10gm	Anti-inflammatory, Analgesic	14
Neelgiri	Eucalyptus globulus	10gm	Anti-inflammatory, Analgesic	15,16

CASE REPORT

Demographic Profile:

A 32-year-old female patient, identified by OPD number 20169, presented to the OPD of Ilaj Bit Tadbeer in Hakim Syed Ziaul Hasan Government Unani Hospital Bhopal with complaints of pain and localized tenderness in both heels for the past 6 months. She reports difficulty walking, with pain that worsens in the posterior aspect of the heels during standing or walking, and experiences severe pain in the morning. The patient has no known history of hypertension, diabetes, tuberculosis, epilepsy, or any major illnesses, and reports no drug allergies.

Clinical Examination:

On physical examination, there was localized tenderness over the calcaneal region, most pronounced at the site where the plantar fascia attaches to the calcaneus. No

visible swelling or erythema was noted.Palpation revealed significant discomfort at the heel, especially on deep pressure over the medial calcaneal tuberosity. There was mild restriction in ankle dorsiflexion, and tightness in the Achilles tendon was also appreciated on passive movement. The **Windlass test** was positive, with reproduction of heel pain upon dorsiflexion of the toes. Gait analysis revealed an **Antalgic limp** as the patient tried to avoid weight-bearing on the affected heels. the patient was afebrile. Her pulse was 82 beats per minute, and blood pressure was recorded at 120/70 mmHg.

Systemic examination revealed clear breath sounds on respiratory examination (RS), normal heart sounds (S1, S2) on cardiovascular examination (CVS), and the patient was conscious and oriented during the neurological examination (CNS). The abdominal examination was unremarkable, with the abdomen being soft and non-tender.

INVESTIGATIONS

All routine investigations such as Complete Blood Count, Blood Sugar Level were in normal Range.

X-Ray Both Heel (AP) – X-Ray shows bilateral Calcaneal spur

Assessment Criteria

1. PAIN IN BOTH HEEL REGIONS

Nature of pain	Grading
No pain	0
Mild Pain	1
Moderate pain	2
Severe pain	3

2. DISTANCE WALKED BY PATIENT WITHIN 10 MINUTES.

Distance in feet	Grading
90 feet	0
60 feet	1
30 feet	2
Less than 30 feet	3

INTERVENTIONS: *Dimād* with polyherbs (mentioned in table 1) on affected part.

PROCEDURE OF *DIMĀD* -The medicinal herbs will be crushed and grinded in a form of powder, after adding required water, a thick consistency Paste is made.

The patient will be advised to apply a lukewarm paste to the affected site in a desirable amount and cover the area with a bandage.

TIME: The procedure should be performed once daily, preferably before bedtime.

DURATION: The procedure of *Dimād* will be applied on the affected part by patient on regular basis for 15 days straight.

The Following Instructions Were Given to the Patients.

1. Take proper rest.
2. Use properly fitted footwear with a heel arch and support.
3. Avoid barefoot walking, especially on hard floors.
4. Avoid standing for a long time.

Follow-up: Scheduled at 5-day intervals.

RESULTS

Observations in the present case

Examinations	Baseline/ Before treatment	5th day	10th day	15th day/After treatment
Pain during standing for a long time	**3**	**3**	2	1
Tenderness over affected area	3	2	1	0
Pain during walking	3	2	1	0

DISCUSSION

The patient presented to the OPD with complaints of bilateral heel pain and difficulty walking, which had persisted for six months. This chronic condition was accompanied by tenderness over both heels, particularly during weight bearing activities like standing and walking. After undergoing a 15-day treatment regimen consisting of *Dimād* therapy and polyherbal formulations, the patient experienced a significant improvement in their symptoms.

Dimād therapy, a core Unani treatment, is based on the principle of applying local heat (thermotherapy) to accelerate metabolic processes, which in turn enhances blood circulation and reduces the concentration of toxic metabolites in the affected area. This approach effectively alleviated the patient's pain and tenderness, which are hallmark symptoms of calcaneal spur. Over the treatment period, the patient's functional abilities improved, as pain during standing and walking diminished significantly, and tenderness at the heel was reduced.

In addition to *Dimād* therapy, the polyherbal regimen tailored to the patient's individual *Mizāj* (temperament) contributed to the holistic approach, addressing both local and systemic imbalances. The combination of internal purification through herbal medicines and external thermotherapy is consistent with Unani principles, which emphasize the restoration of humoral balance to promote healing. This treatment approach not only relieved the patient's immediate symptoms but also contributed to long-term restoration of balance within the body, which is central to the Unani philosophy of disease management.

The patient's response to treatment within just 15 days underscores the potential efficacy of Unani therapies in managing chronic musculoskeletal conditions like calcaneal spur. Unlike conventional treatments, which often provide only temporary relief or come with side effects, Unani medicine offers a holistic, well-tolerated, and safer alternative. This case demonstrates that personalized Unani regimens, focusing on both symptom relief and the restoration of systemic harmony, can provide effective long-term management for calcaneal spur.

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