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AN INTEGRATIVE APPROACH TO FOOT HEALTH: AYURVEDIC PRINCIPLES AND CONTEMPORARY MANAGEMENT

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ABSTRACT

Foot-related problems such as Padadari (Padasphutana), Vipadika, excessive sweating, unpleasant foot odour, itching, skin infections, nail disorders, burning sensation of the soles, and chronic wounds can cause considerable discomfort and may interfere with walking and daily activities. Ayurveda approaches these conditions through the concepts of Dosha, Dhatu, Srotas, and Twak Vikara; Padadari, characterized by dryness, cracking, and fissuring of the feet, may be associated with the predominance or aggravation of Vata Dosha, whereas Vipadika, described among Kshudra Kushta, may present with painful fissures and lesions involving the palms and soles. Disturbances of Swedavaha Srotas and Dosha imbalance, particularly Pitta involvement, may also contribute to excessive sweating, foul smell, and itching. Management should be individualized according to the patient's clinical presentation and the severity of tissue involvement and may include Bahya Chikitsa such as Prakshalana, Abhyanga, Lepa, herbal foot soaks, and appropriate local care to maintain cleanliness and support skin health. In suitably selected cases, Panchakarma and other Shodhana measures may be considered based on Dosha predominance, patient strength, and overall clinical condition, while Ropana therapies may support healthy tissue repair in chronic lesions and wounds. Internal Ayurvedic medicines may also be prescribed following proper clinical

assessment. Preventive care remains equally important and includes regular foot and nail hygiene, adequate hydration, a balanced diet, appropriate footwear, and protection of the feet from prolonged dampness or excessive dryness. Thus, an integrated approach based on Ayurvedic principles, supported by careful clinical evaluation and timely referral for complicated conditions such as severe infections, chronic wounds, and diabetic foot lesions, may help improve foot health, mobility, and overall quality of life.

KEYWORDS: Padadari, Vipadika, Twak vikara, Shodhana, Ropana.

INTRODUCTION

In Ayurveda, the feet are considered important for maintaining overall health and well-being. Traditional Ayurvedic literature describes the feet as containing several *marma* points believed to have functional relationships with various parts of the body.[1] Therefore, proper foot care is considered an essential component of preventive health and daily self-care practices. Regular foot hygiene and practices such as *Padabhyanga* (therapeutic foot massage) are traditionally included in *Dinacarya* to promote comfort, maintain skin integrity, and support general wellness.[2]

Neglect of routine foot care may contribute to a range of conditions described in Ayurveda under *Kshudra Roga*. Common problems include cracked heels (*Padadari*), unpleasant foot odour, itching, fungal infections, and other dermatological manifestations.[3] These conditions may be aggravated by prolonged exposure to soil or moisture, inadequate hygiene, unsuitable footwear, and other environmental or lifestyle factors.[4,5]

Among these disorders, *Padadari* is particularly relevant because it is characterised by dryness, fissuring, and cracking of the skin, especially around the heels. From an Ayurvedic perspective, the condition is commonly associated with aggravation of *Vata Dosha*, which contributes to excessive dryness and loss of skin flexibility. Improper adherence to *Dinacarya* and continued exposure to aggravating factors may further worsen the condition.[6] Excessive dryness, prolonged contact with soil, obesity, and associated *Vata* and *Kapha* imbalance have also been identified as factors that may contribute to fissuring and related skin or nail problems.[7]

Another clinically significant condition is *Vipadika*, which is traditionally characterised by painful fissures, scaling, and inflammatory changes of the skin. In severe or persistent cases,

cracking of the skin (*Twaka-Sphutanam*) and intense pain (*Tivra vedana*) may interfere with mobility and daily activities.[8] Such manifestations highlight the potential consequences of untreated or poorly managed foot disorders and emphasise the importance of timely preventive and therapeutic care.

The development and persistence of these conditions may also be influenced by local factors such as excessive dryness or prolonged moisture, both of which can impair the skin's protective function and create conditions favourable for microbial growth and further tissue damage.[9] Consequently, the management of chronic foot disorders requires a comprehensive approach. Ayurvedic management may include appropriate hygiene and lifestyle measures, topical herbal preparations such as *Sarjarasadi Malahara*, *Jivantadi yamaka* etc. and internal therapies selected according to the individual's *dosha* involvement and clinical presentation.[10]

Thus, maintaining proper foot hygiene and incorporating preventive practices into daily life are important not only from the perspective of traditional Ayurvedic self-care but also for reducing the risk of chronic fissures, irritation, and secondary infections. A holistic approach that combines preventive care, identification of contributing factors, and appropriate therapeutic intervention may help preserve foot health and improve the quality of life of individuals affected by conditions such as *Padadari*, *Vipadika* etc., foot-related disorders.

Pathophysiology of Foot Disorders

From an Ayurvedic perspective, the pathophysiology of foot disorders is primarily associated with the aggravation of *Vata dosha*, particularly its *Ruksha* (dry) and *Khara* (rough) qualities. Excessive expression of these properties can affect the normal condition of the *Twak* (skin), resulting in dryness, roughness, loss of elasticity, and progressive deterioration of the skin barrier. Disturbance of the *Swedavaha Srotas*, which is responsible for *sweda* (sweat) production and the maintenance of appropriate moisture, may further aggravate this dryness and predispose the plantar skin to cracking and fissuring.[11]

When the normal functioning of these channels is impaired, the pathological accumulation or improper processing of *Mala* may contribute to derangement of the *Dhatus*. In particular, involvement of *Asthi* and *Meda Dhatu* may adversely influence the support, nourishment, and integrity of the structures underlying the plantar surface. Consequently, the foot becomes more susceptible to dryness, thickening of the skin, fissure formation, and pain.

The feet are continuously exposed to mechanical pressure, friction, weight-bearing, and environmental influences. Their frequent contact with external surfaces makes the maintenance of skin integrity particularly important. Ayurvedic literature broadly considers such localized skin manifestations within the spectrum of *Kshudra Kushtha*, depending on their clinical features and pathological involvement. Symptoms such as *Pani-pada Sphutana* (fissuring of the hands and feet) and *Tivra Vedana* (severe pain) indicate significant local tissue involvement and may reflect underlying *Dosha–Dushya Sammurchhana*, or the pathological interaction between the aggravated *Doshas* and affected *Dhatu* (body tissues).[12]

Treatment Protocol for Foot-Related Disorders: An Ayurvedic and Integrative Approach

This review examines Ayurvedic concepts and therapeutic approaches relevant to common foot disorders by integrating classical literature with contemporary clinical reports. Particular emphasis is placed on *Ubhayaparimarjana Chikitsa*, combining external (*Bahirparimarjana*) and internal (*Antahparimarjana*) measures to address both local lesions and underlying systemic factors. Foot conditions may be classified according to their clinical presentation and aetiology, including fissures, traumatic wounds, dermatological disorders, and chronic ulcers such as *Prameha pidika* and *Dushta vrana*. Management is planned according to the nature and severity of tissue involvement, with *Shodhana* aimed at cleansing and preparing the affected area and *Ropana* directed towards promoting healthy tissue repair. Local measures may include cleansing, medicated applications, and suitable dressings. In complicated wounds, interventions described under *Sushruta's Shashti Upakrama*, such as *Sthanika Parisheka*, *Kshara Karma*, and *Avachurnana*, may be selected according to the wound condition.[13]

General Approach to Management

Foot problems may range from relatively minor conditions, such as dry and cracked heels, excessive sweating, odour, and nail abnormalities, to more serious conditions including fungal infections, chronic wounds, and diabetic foot ulcers. Therefore, treatment should be planned according to the nature and severity of the condition rather than following a single standard regimen for every patient.

From an Ayurvedic perspective, management begins with identifying the underlying *Dosha* involvement and the affected tissues and *Srotas*. Clinical features such as dryness, roughness, fissuring, and pain may indicate a predominance of Vata, whereas burning and excessive

sweating may suggest excessive Pitta involvement. Itching, excessive moisture, and certain chronic skin changes may involve Kapha along with other *Doshas*. The patient's *Prakriti*, *Agni*, *Bala*, associated illnesses, and chronicity of the condition should also be considered before planning treatment.

Overall management may follow the principles of *Nidana Parivarjana*, *Shamana*, *Sthanik Chikitsa*, and *Shodhana*. For wounds, *Vrana Shodhana* is performed first, followed by *Vrana Ropana*.

1. Elimination of Causative Factors

Avoiding the factors responsible for the condition is an essential part of treatment. Patients should be advised to maintain proper foot hygiene and avoid prolonged exposure of the feet to moisture, mud, sweat, and unhygienic surroundings.

Particular attention should be given to avoiding.

- Wearing wet or unwashed socks
- Using tight or poorly ventilated footwear for prolonged periods
- Walking barefoot in contaminated areas
- Excessive scratching of itchy lesions
- Improper or aggressive trimming of nails
- Repeated trauma to cracked skin
- Excessive use of harsh soaps and detergents
- Sharing towels, socks, or footwear, particularly when an infection is suspected

The feet should be cleaned regularly and dried thoroughly, especially between the toes. In patients with diabetes or reduced sensation, daily inspection of the feet is particularly important.[14]

2. Local Treatment (*Sthanik Chikitsa*)

A. Management of Dryness and Cracked Heels

In *Padasphutana* or dry, fissured heels, treatment should primarily aim to reduce excessive dryness and protect the damaged skin from further injury.

Gentle cleansing of the feet may be carried out with lukewarm water or an appropriate herbal preparation such as Triphala Kwatha, depending on the clinical condition. The feet should

then be dried carefully. Excessive soaking should be avoided, especially when the skin is already infected.

In dry and Vata-predominant conditions, local application of Ghrita, suitable medicated oils, or other unctuous preparations may be considered to improve skin softness and reduce roughness. Gentle Pada Abhyanga may also be beneficial when there is no active infection or open wound.[12]

Where fissures are superficial, local preparations with *Ropana* properties may be used to support restoration of the skin. Deep, bleeding, or infected cracks, however, require proper examination before applying any local formulation.[15]

B. Management of Excessive Sweating and Foot Odour

Excessive sweating creates a moist environment that may favour bacterial or fungal growth. Therefore, the primary objective is to keep the feet clean and dry and to reduce prolonged moisture retention.

The patient should be advised to.

- Wash the feet regularly and dry them completely.
- Change socks frequently.
- Prefer clean and breathable footwear.
- Allow shoes to dry properly before reuse.
- Avoid wearing closed footwear continuously for long periods.

From an Ayurvedic perspective, treatment may be selected according to associated features such as *Atisweda*, *Daurgandhya*, *Kandu*, or *Daha*. When significant itching, scaling, or maceration is present, an underlying fungal infection should be considered and appropriately investigated and treated.

Heavy or oily applications between the toes should generally be avoided when excessive moisture or interdigital infection is present.

C. Management of Suspected Fungal Infection

Patients presenting with persistent itching, scaling, peeling, redness, or maceration between the toes should be evaluated for fungal infection. Maintaining dryness and hygiene is important, but these measures alone may not be sufficient in an established infection.

Management should include appropriate diagnosis and evidence-based antifungal therapy where indicated. Supportive Ayurvedic local care may be considered according to the condition, but it should not delay appropriate medical treatment. Towels, socks, and footwear should not be shared, and footwear should be cleaned and allowed to dry properly before reuse.

3. Panchakarma-Based Approach

Panchakarma should not be considered a routine treatment for every foot-related complaint. The selection of any Panchakarma procedure must depend upon the patient's overall condition, *Dosha* involvement, disease chronicity, and strength.

A. Pada Abhyanga

Pada Abhyanga may be particularly useful in uncomplicated Vata-predominant conditions associated with dryness, roughness, fatigue, or stiffness. Appropriate medicated oil or other *Sneha* may be selected according to the patient's condition.[1]

Massage should not be performed vigorously over infected areas, open wounds, actively bleeding fissures, or severely inflamed tissue.

B. Local Swedana

Mild and properly controlled local *Swedana* may be considered in selected cases of muscular fatigue, stiffness, or *Vata-Kapha* predominance. It should be avoided over acutely inflamed, infected, or actively bleeding lesions.

Special caution is necessary in patients with diabetes and peripheral neuropathy because reduced sensation may increase the risk of thermal injury.

C. Shodhana Therapy

Systemic *Shodhana* should be planned only after detailed clinical evaluation. The decision should be based on the overall disease process and evidence of systemic *Dosha* aggravation rather than on the presence of a foot lesion alone.

Where clinically appropriate, procedures such as *Virechana* may be considered in selected patients with Pitta-dominant pathology. Other *Shodhana* procedures should similarly be selected according to classical indications, following proper *Purvakarma* and assessment of contraindications.

4. Management of Chronic Wounds and Dushta Vrana

Chronic wounds require a more structured and careful approach. In Ayurveda, the concepts of *Vrana Shodhana* and *Vrana Ropana* provide an important therapeutic sequence.

Vrana Shodhana

When a wound contains unhealthy discharge, slough, debris, or other features that interfere with healing, the priority is to improve the wound environment. Appropriate cleansing and local wound care are necessary, together with assessment for infection and removal of non-viable tissue when clinically indicated.

Classical Ayurvedic principles of *Shodhana* may be used as part of an individualized wound-care plan.

Vrana Ropana

Once the wound is clean and healthy, the treatment focus shifts towards supporting granulation, epithelialization, and restoration of tissue integrity. Suitable *Ropana* measures may be selected according to the condition of the wound.

The sequential use of *Shodhana* and *Ropana* represents a logical progression in wound management: first creating favourable conditions for healing and subsequently supporting tissue repair.[16]

Severe wounds, deep ulcers, or wounds with suspected infection require proper medical and surgical assessment. Ayurvedic management should be integrated with established principles of wound care rather than delaying essential treatment.

5. Internal Management

Internal Ayurvedic medicines should be selected individually and should not be prescribed as a universal regimen for all foot-related conditions. The choice of medicine depends on the underlying diagnosis and associated systemic involvement.

For example, treatment may differ considerably in.

- *Vata*-predominant *Padasphutana*
- Chronic skin disorders associated with *Kandu*
- *Prameha*-related foot complications
- Inflammatory or *Pitta*-dominant conditions

- Chronic non-healing wounds

An *Ayurvedic* physician should select the appropriate formulation after considering *Dosha*, *Dushya*, *Agni*, *Bala*, *Koshta*, and associated diseases.

6. Role of Aromatherapy[17]

I. Cinnamon (*Twak*) – Oils of cinnamon can be applied as a massage on the foot.
II. Camphor (*Karpoora*) – Camphor essential oil can be applied as a massage on the foot.
III. Clove (*Lavanga*) – A regular massage of clove oil on the foot helps in the degeneration of bacteria & keeps the skin smooth and supple.
IV. Oregano and Thyme – These are wonderful herbs of strong aroma to relieve the excess tension of the feet, as well as resists to form unwanted odours in the feet.
V. Lemongrass- Lemongrass in oil form to apply on the legs before wearing the shoes.
VI. Peppermint – Helps in digestive disorders, which can be an indirect cause for sweating.
VII. Rosemary – Muscular pains, mental stimulant, relaxing effect.
VIII. Sandalwood (*Chandana*) – Its oil relieves the fatigue of the feet.
IX. Eucalyptus- The leaves of this plant are kept in warm water for half an hour, and a foot soak can be done for another 10 – 15 mins.

7. Diet and Lifestyle Measures

Diet and lifestyle form an important supportive component of treatment. Patients should be encouraged to follow a balanced diet suited to their general health and underlying disease. Adequate hydration and regular intake of fibre-rich foods may support overall health.

Patients should avoid excessive intake of heavily fried foods and highly processed foods. In patients with diabetes, dietary advice should be individualized with appropriate attention to blood glucose control.

Regular personal hygiene, appropriate Dinacharya (daily regimen), Ritucharya (seasonal regimen), and healthy lifestyle practices may contribute to the prevention of recurrent foot problems.

DISCUSSION

Foot disorders should not be regarded as a single clinical entity. They include a wide range of conditions involving the skin, sweat glands, nails, soft tissues, nerves, and blood vessels.

Their severity may vary from simple cosmetic or hygiene-related concerns to potentially limb-threatening conditions such as infected diabetic foot ulcers.

Ayurvedic concepts provide a useful framework for individualized assessment. Symptoms of dryness, fissuring, and roughness can be interpreted in relation to *Vata* predominance, while burning and excessive sweating may indicate a greater role of *Pitta*. Itching and excessive moisture may involve *Kapha* along with other pathological factors. However, classical *Ayurvedic* descriptions and modern clinical diagnoses should not automatically be considered identical. Careful clinical examination remains essential.

The management of chronic wounds particularly demonstrates the relevance of the sequential concepts of *Vrana Shodhana* and *Vrana Ropana*. Before tissue repair can occur effectively, factors that interfere with healing—such as unhealthy discharge, infection, necrotic tissue, or repeated trauma—must be addressed. Once a healthy wound environment is established, treatment can focus on supporting granulation and epithelial repair. This staged approach is broadly consistent with the need for wound bed preparation before promoting tissue regeneration.

Panchakarma may have a role in selected patients, especially when there is significant systemic *Dosha* involvement. However, it should not be applied indiscriminately. Local *Snehana* and *Pada Abhyanga* may be useful in dry and *Vata*-dominant conditions, whereas systemic procedures require careful patient selection. Similarly, *Swedana* should be used cautiously and avoided in situations involving acute infection or reduced protective sensation. The safety of the patient remains the most important consideration. Diabetic foot, deep ulcers, spreading infection, gangrene, significant loss of sensation, or evidence of poor blood supply require early specialist evaluation. Delayed treatment in such cases can lead to serious complications. Therefore, an integrative approach should combine the strengths of Ayurvedic principles with appropriate modern diagnostic, antimicrobial, surgical, vascular, and metabolic care.

CONCLUSION

Foot-related disorders require an approach that is both individualized and stage-specific. Simple conditions such as dryness, cracked heels, excessive sweating, and odour may often be improved through appropriate hygiene, removal of aggravating factors, local care, and suitable lifestyle modification. Ayurvedic principles such as *Nidana Parivarjana*, *Shamana*,

Sthanik Chikitsa, and *Pada Abhyanga* may be useful when selected according to the patient's clinical presentation.

In chronic wounds, the principles of *Vrana Shodhana* followed by *Vrana Ropana* provide a rational sequence: unhealthy wound conditions are addressed first, followed by measures intended to support tissue repair and restoration.

Panchakarma should be considered only when clinically indicated and after proper assessment of the patient. It should not be treated as a universal intervention for all foot complaints.

Finally, potentially serious conditions—particularly diabetic foot ulcers, deep wounds, severe infection, ischemic changes, and gangrene—must receive timely professional medical attention. The most appropriate model of care is therefore one that combines sound *Ayurvedic* principles with evidence-based modern assessment and treatment, ensuring both therapeutic benefit and patient safety.

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