

**MANAGEMENT OF DIABETIC FOOT ULCER WITH UDARDA
PRASHAMANA MAHAKASHAYA: SINGLE CASE STUDY****Yogitha M. Patrimata^{1*} and Shreevathsa²**

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ABSTRACT

Introduction: Diabetic foot ulcer (DFU) is a common complication in diabetes, affecting about 6.3% of individuals globally. The high recurrence rates and risk of amputation underscore the need for improved treatments. This study evaluates the efficacy of UdarDA Prashamana Mahakashaya in managing DFUs. **Methods:** A 58-year-old male with poorly controlled diabetes presented with a Wagner Grade 1 foot ulcer. He was treated with UdarDA Prashamana Kashaya internally, and UdarDA Prashamana Kashaya Seka and Taila Lepana externally for 21 days. **Results:** After 21 days, the ulcer showed significant improvement with complete closure and no infections. By day 14, the ulcer reduced in size with clear margins and visible granulation tissue. **Discussion:** UdarDA Prashamana Mahakashaya effectively promotes wound healing by balancing doshas, reducing inflammation, and improving blood circulation. The formulation's internal and external applications work synergistically to address both the local wound environment and systemic factors. **Conclusion:**

UdarDA Prashamana Mahakashaya is an effective treatment for DFUs, supporting wound healing and reducing complications in diabetic patients.

INTRODUCTION

Diabetic foot ulcer (DFU) is a frequent and serious complication that affects approximately 6.3% of individuals with diabetes mellitus (DM) globally.^[1] As a common manifestation of

diabetes, DFUs present significant challenges to both patients and healthcare providers. The high recurrence rates and the frequent need for amputation associated with DFUs underscore the critical need for improved care and treatment strategies. This highlights the importance of a comprehensive approach that incorporates not only clinical diagnosis but also effective treatment modalities to manage this complex condition.

In the early stages of DM, patients often experience heightened foot sensitivity, characterized by symptoms such as pain and tingling. However, as the disease progresses, these sensations typically give way to negative symptoms like numbness and weakness in the toes.^[2] Over time, patients may exhibit a mixed combination of pain sensitivity and numbness, accompanied by decreased limb sensation and motor function. This progression leads to an increased risk of imbalance, unsteadiness, and a higher likelihood of falls, further complicating the management of diabetic foot ulcers.^[3] In this case study, the administration of Udarda Prashamana Kashaya^[4] internally, combined with Udarda Prashamana Kashaya Seka (therapeutic pouring) and Taila Lepana (oil application) externally, was employed as a treatment approach for wound healing. After approximately 21 days of treatment, significant improvements were observed, demonstrating the potential efficacy of this formulation in managing DFUs and promoting healing.

PATIENT INFORMATION AND CLINICAL FINDINGS

A 58-year-old male patient presented with a diabetic foot ulcer on the right big toe of his right foot, associated with moderate pain, and mild discharge. The patient had an 8-year history of poorly controlled diabetes mellitus and reported symptoms of tingling in the lower extremities. Clinical examination revealed a grade 1 ulcer with erythematous margins, slough at the base, and seropurulent discharge. The surrounding skin was inflamed, with mild peripheral edema.

DIAGNOSTIC FOCUS AND ASSESSMENT

The diagnosis of DFU was confirmed based on the clinical presentation and physical examination. Laboratory tests revealed elevated fasting blood glucose (198 mg/dL), confirming the patient's poorly controlled diabetes. The ulcer was classified as Wagner Grade 1, which corresponds to a superficial ulcer involving only the skin and not extending to deeper structures.^[5] This grade of ulcer necessitates appropriate wound care and systemic management to prevent progression to more severe stages.

TIMELINE AND THERAPEUTIC INTERVENTION

Table 1: DFU Treatment Timeline with Udarda Prashamana.

Day	Clinical Observations	Treatment Administered
Day 0	Treatment initiation with Udarda Prashamana Kashaya internally and Udarda Prashamana Kashaya Seka and Taila Lepana externally.	Udarda Prashamana Kashaya (Internal) Udarda Prashamana Kashaya Seka (External) Taila Lepana (External)
Day 7	Reduction in erythema, early reepithelialization, and decreased discharge.	Continued internal and external treatment.
Day 14	Ulcer size reduced with clear margins and granulation tissue formation. Inflammation decreased. Pain reduced.	Ongoing internal and external therapy.
Day 21	Complete wound closure, no infection, improved sensation in lower extremities.	Ongoing internal and external therapy.

FOLLOW-UP AND OUTCOME

Before treatment, the patient presented with a Wagner Grade 1 diabetic foot ulcer, characterized by a superficial ulcer involving only the skin, with erythematous margins, slough at the base, and mild discharge. After 21 days of treatment, the ulcer showed significant improvement, with complete wound closure, clear margins, and no secondary infections as depicted in the [Figure: 1].

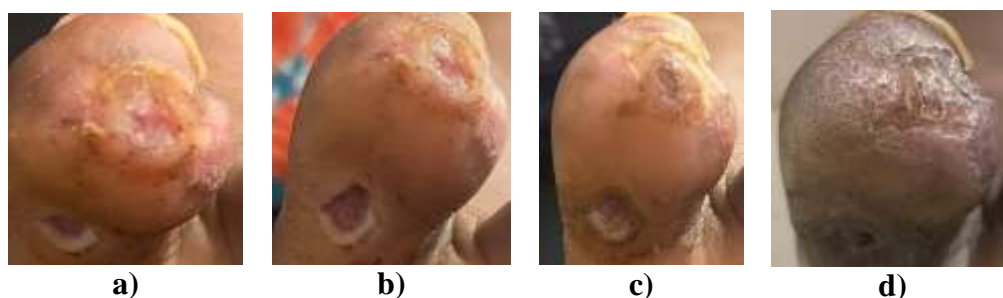


Figure 1: a) Day 0: Superficial ulcer (Wagner Grade 1) with erythema, slough, and discharge. b) Day 1: Slight erythema reduction, early reepithelialization, and decreased discharge. c) Day 14: Ulcer size reduced, clear margins, granulation tissue formed, and inflammation reduced. d) After intervention: Complete closure of wound bed, no infection, improved sensation.

DISCUSSION

The mechanisms of action of Udarda Prashamana Mahakashaya can be understood through its internal and external applications, both of which address the complex pathology of chronic

wounds like diabetic foot ulcers. Internally, the formulation focuses on dosha balancing, with its Kashaya and Tikta properties effectively reducing Kapha.^[6]

The Shita virya of the Drugs Reduces the inflammation, alleviating Pitta-related symptoms such as discharge. The formulation also enhances Raktaprasadana through Drugs like Khadira and Asana^[7], which improve the circulation of the blood, ensuring adequate oxygen and nutrient delivery to the wound site. Furthermore, its Balya properties, supported by ingredients like Priyala and Badara^[8], promote tissue regeneration and vitality, crucial for addressing chronic conditions like diabetes.

Externally, the therapeutic application of Kashaya Seka aids wound drying and infection prevention due to its astringent nature, while its Rakta prasadana effect enhances blood flow, supporting granulation and epithelialization. Taila Lepana provides snehana and Ropana properties that maintain moisture balance and stimulate tissue repair.^[9] The anti-inflammatory actions of the medicated oils help reduce local swelling and redness. Additionally, Bandhana stabilizes the wound, minimizes external contamination, and promotes tissue alignment, which is critical for effective healing.

Specific herbs in the formulation play pivotal roles in wound management. Khadira (*Acacia catechu*) possesses Tikta and Kashaya rasa that cleanse and dry wounds while offering anti-inflammatory and antimicrobial benefits. Tinduka (*Diospyros melanoxylon*) balances Kapha and Vata doshas with its Shita and Kashaya properties, aiding skin repair. Badara (*Ziziphus jujuba*) enhances Raktashodhana and balances Vata-Pitta doshas, addressing metabolic imbalances common in diabetes. Saptaparna (*Alstonia scholaris*) is effective in managing Kapha-Pitta-related inflammatory conditions and skin disorders, while Arjuna (*Terminalia arjuna*) supports wound contraction, hemostasis, and inflammation control through its astringent and cooling properties.

CONCLUSION

Udarda Prashamana Mahakashaya, through its internal and external applications, effectively addresses the complex pathology of diabetic foot ulcers (DFUs). Internally, the formulation balances doshas, reduces Kapha, reduces Pitta-related inflammation, and promotes blood circulation, aiding wound healing. Externally, Kashaya Seka dries the wound, prevents infection, and enhances blood flow, while Taila Lepana supports tissue repair and reduces inflammation. Specific herbs like Khadira, Tinduka, and Arjuna play key roles in cleansing,

balancing doshas, and supporting wound contraction. Clinically, by day 21st, significant ulcer reduction, clear margins, and no infections were observed, demonstrating the efficacy of Udarda Prashamana Mahakashaya in DFU management.

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