



## EFFICACY OF KADALI PATRADANA IN DUSHTA VRANA – A CASE REPORT

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### ABSTRACT

“*Vrana Gatravichurnane*”<sup>1</sup>- *Vrana* is characterised by destruction or injury to the body tissue. A non-healing ulcer is a common concern in recent times, often arising from trauma or underlying pathological conditions and leading to persistent discomfort for patients. The management of non healing ulcers using Ayurvedic remedies has emerged as a significant focus of research. This approach has gained attention for its potential to offer holistic and natural solutions through the use of traditional Ayurvedic principles. Sushruta provided a detailed description of *Vrana* and outlined *Shahsti Upakramas*, one of which is *Patradana*<sup>2</sup>, involving the application of leaves over the *Vrana* for a specified period of time. This study explores the use of *Kadalipatra* as a treatment for non-healing ulcers. *Kadali* is one of the significant ancient medicinal plants. It is both economical and easily accessible. It does *Vrana Shodhana* and further aids in *Vrana Ropana*. In this study a male patient aged 42 years presented with the ulcer on left lower limb over the medial malleolus with slough, foul smell, discolouration of surrounding skin for 6 months was treated with *patradana* using *kadali patra*, which was utilised for daily dressing. The wound was completely healed with scar mark in a span of 3 months. *Kadali*, having properties like *kapha-pittaharana*, *Madhura-kashaya Rasa* and *Shita Veerya*<sup>3</sup>. Tannins and flavonoids i.e., ethanol, present acts as anti-microbial, *Vrana Shodhana*, thus helps in removing the slough from the ulcer, aiding in *Vrana Ropana*.

**KEYWORDS:** Dushtavrana, Kadalipatra, Patradana, Non-healing ulcer.

### INTRODUCTION

The break or loss of continuity of bodily tissue or part of the body is called an ulcer. “*Vrana Gatravichurnane*”- *Vrana* is the one which destroys the bodily tissue. Generally, the wounds tend to heal faster when they are kept clean. Contamination of wound by bacteria, insufficient blood supply, tissue tension are the local factors for delay in wound healing where as general factors include malnutrition, malignant disease, diabetes and long-term consumption of steroids and cytotoxic drugs.

*Acharya Sushruta* has provided a detailed description of *Vrana* with different stages like *Shuddha Vrana*, *Dushta Vrana*, *Ruhyamaana Vrana* and *Rudha Vrana*. Non-healing ulcers can be compared with *Dushtavrana*. *Lakshanas* of *Dushta Vrana* are as follows- *Ati Samvritta*, *Ati Vivritta*, *Puya Srava*, *Ati Katina*, *Ati Mrudu* etc.

*Patradana* means covering with leaves, that involves placing of medicated leaves on the *Vrana* for a specific duration. This method of surgical dressing has been

explained in the context of *Shashti Upakrama* explained by *Sushruta* in the first chapter of *Chikitsa Sthana*. This is a unique measure of covering the wounds / ulcers on which the medicinal preparations are applied followed by bandaging. All these *Shashti Upakrama*(60 kinds of treatments) are useful for treating the ulcers and also to prevent their complications. These 60 kinds of treatments are included in 7 types of treatments called *Sapta Upakrama* which *Sushruta* has mentioned in the 17<sup>th</sup> Chapter of *Sutra Sthana*. *Vaikrutapaha* is the last treatment modality among these 7 treatments. *Vaikrutapaha* means removing the deformities caused by the ulcers and wounds. This is a kind of cosmetic rebuilding of the ulcer area which helps to promote healing in a comprehensive way, *Vaikrutapaha* comprises of 26 kinds of treatments among which *Patradana* is one.

*Patradana* is done in *Sthiranam* - immobile ulcers / wounds, *Alpa mamsanam*-ulcers / wounds covered with less muscles, the muscles would have got destroyed due to ulcers / wounds as a complication, *Raukshyaad anuparohataam* - wounds / ulcers which have not healed due to extreme dryness in them.

Leaves that are mentioned for patradana are Eranda Patra, Bhurja Patra, Karanja Patra, Ashvabala Patra, Kashmari (Gambhari) Patra, Kshiri Vrksa Patrani (leaves of latex yielding plants / trees), Audaka Patra - leaves of plants growing in water (like lotus etc), Patha Patra, Murva Patra, Guduchi Patra, Kakamachi Patra, Shukanasa Patra. Leaves which are used for patradana should be Akarkasha - not rough, Avichchinnam - not torn, Ajirnam - not old (should be fresh), Sukumarakam - tender, Ajantu jagdham - not infested with worms and insects, Mrdu - smooth.

*Kadali* is one of the significant drug described in ayurveda, it does *Vrana Shodhana* and *Vrana Ropana*. It is both economical and easily accessible. *Kadali*, having properties like *kapha-pittaharana*, *Madhura-kashaya Rasa* and *Shita Veerya*<sup>3</sup>. Tannins and flavonoids i.e., ethanol, present acts as anti-microbial, *Vrana Shodhana*, thus helps in removing the slough from the ulcer, aiding in *Vrana Ropana*.

### CASE REPORT

A 42 years old male patient, not a known case of Hypertension or Diabetes mellitus, known case of varicose veins in his left lower limb since 5 years, came with the complaint of wound at the left ankle region

since 6 months associated with pain and pus discharge since 2 weeks. He had consulted nearby clinic for the same, where regular cleaning and dressing was advised along with oral antibiotics. The wound was not healed despite regular cleaning and dressing. Hence the patient came to our hospital for further wound management.

### Local Examination

On Inspection  
 Site - Left medial malleolar region  
 Number - One  
 Shape - Oval  
 Edge - Sloping  
 Margin - Well defined with slight induration  
 Floor - Pale granulation tissue  
 Size - 8\*7 cm  
 Discharge - Mild pus discharge  
 Odour - Present (foul smell)  
 Surrounding skin - Blackish discoloration

### On Palpation

Tenderness - Mildly present  
 Temperature - warmth present  
 Base - Slightly indurated  
 Bleeding on touch - absent  
 Peripheral pulsations - palpable

### Investigations done

Hemoglobin(g/dl)	13g%	Total count (WBC)	11 x 10 <sup>3</sup> /uL
RBC	5.8x10 <sup>6</sup> / uL	PLT	217x 10 <sup>3</sup> /uL
Erythrocyte sedimentation Rate	40mm/1 <sup>st</sup> hr	RBS	116mg/dl
BT	2 min 40 sec	HIV	Non-reactive
CT	5 min 10sec	HBsAg	Negative

### MATERIALS AND METHODS

*Kadali patradana* was done in the study.

#### Materials

- Pancavalkala kashaya
- *Jatyadi taila*
- *Kadali patra*
- *Sterile gauzes and pads*

#### Method of application

Initially, the ulcer was cleaned with Normal Saline, followed by *prakshalana* with *Panchavalkala Kashaya* is done. The wound is then packed with *Kadalipatra* smeared with *Jatyadi Taila*. Sterile dressing is done. Dressing is carried out till the complete wound healing.

Internally patient was prescribed with *Kaishora Guggulu* 2 tablets twice daily after food, *Mahamanjistadi kashaya* 15ml twice a day before food.

### RESULTS

Initially, there was a noticeable increase in soakage, which gradually diminished over time. The treatment demonstrated a significant impact in reducing the amount of pus discharge and soakage, as well as improving the overall condition of the wound. There was a marked

reduction in the presence of slough, accompanied by a substantial decrease in the size of the ulcer. Concurrently, healthy granulation tissue began to develop, signifying progressive wound healing. The consistent improvement in these parameters indicates a positive response to the treatment, with the wound exhibiting clear signs of recovery and regeneration.

The margins of the wound showed marked improvement, becoming healthy and free from any signs of induration. The edges of the wound displayed a healthy sloping contour, indicative of positive healing progress. Over a period of 30 days, the ulcer size showed a remarkable reduction, demonstrating a substantial improvement in wound dimensions.

Additionally, the floor of the wound, which was initially elevated by approximately 2–3 mm, gradually regressed to align with the normal skin level. This restoration of the wound bed to its natural state indicates the successful achievement of *Avasadana Karma*.

This result demonstrates the effectiveness of the therapeutic intervention in enhancing wound contraction, alleviating inflammation, and restoring normal tissue structure. The overall progress underscores the

treatment's ability to support the wound's transition towards complete healing.

### DISCUSSION

Kadali (*Musa paradisiaca*), known for its unique medicinal properties, is characterized by its ability to pacify Kapha and Pitta doshas (Kapha-Pittaharana). It possesses Madhura and Kashaya Rasa, along with Shita Veerya (cooling potency), making it an effective therapeutic agent. The plant contains bioactive compounds such as tannins and flavonoids, which are notably present in its ethanol extract. These compounds exhibit potent antimicrobial activity, which helps in Vrana Shodhana (cleansing wound) by effectively removing slough and necrotic tissue from ulcers. This cleansing action creates a conducive environment for Vrana Ropana (wound healing), promoting tissue regeneration and recovery. Hence, Kadali serves as a valuable natural remedy for managing ulcers and enhancing overall wound care.

### CONCLUSION

Thus, the treatment protocol adopted here can be regarded as an effective approach for managing uncomplicated, non-healing ulcers, based on the Yukthi of the Vaidya.

*Kadali* (*Musa paradisiaca*), a commonly found shrub in India, is recognized in Ayurvedic literature for its wound-healing properties.

Its wide availability and therapeutic potential make it promising for further investigation. Consequently, *Kadali Patradana* is expected to serve as a safe, effective, and cost-efficient method for treating chronic non-healing ulcers.

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