

CASE STUDY

# Effect of *Dhupan Karma* in the Management of Varicose Ulcer: A Case Report

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## ABSTRACT

This case study explores the potential benefits of *Ayurvedic Dhupan* treatment in managing Varicose ulcer (Venous Ulcer) in a 65-year-old male patient with Varicose Vein. *Dhupan Karma* a therapeutic procedure involving medicinal smoke, was used to treat Varicose Ulcer on left ankle joint region. The treatment approach may offer benefits by reducing bacterial load, promoting wound healing, and enhancing local circulation. This case study highlights the potential of integrating *Ayurvedic* treatments like *Dhupan Karma* into conventional care for managing Varicose ulcer and promoting wound healing.

**Key Words** *Dhupan treatment, Varicose ulcers, Vrana, Wound healing*

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## INTRODUCTION

Wound healing can be a complex and challenging process due to various factors that impede the body's natural healing mechanisms. Chronic wounds often caused by underlying conditions like diabetes, poor circulation, or infection, can fail to heal in a timely manner. Infections, whether bacterial, fungal, or viral can significantly delay healing and lead to further complications. Additionally, poor circulation can limit the delivery of oxygen, nutrients, and growth factors essential for healing, while nutritional deficiencies can deprive the body of essential building blocks for tissue repair. Age and comorbidities can also impair wound healing,

particularly in older adults or individuals with compromised immune function.

The impact of wounds on quality of life should not be underestimated. Wounds can cause significant pain and discomfort, affecting daily life and overall well-being. Chronic wounds can lead to emotional distress, including anxiety and depression and decreased quality of life. Furthermore, wound care can be time-consuming and costly, placing a significant burden on individuals, families, and healthcare systems.

Effective wound care requires a comprehensive approach. A multidisciplinary team of healthcare professionals should work together to develop a personalized treatment plan that addresses the individual's unique needs and circumstances.

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This plan should not only focus on physical aspects of wound care but also address emotional and social aspects to promote optimal healing and improve overall well-being. By adopting a holistic approach to wound care, healthcare providers can help individuals overcome the challenges of wound healing and achieve better outcomes.

According to *Ayurveda*, the progression from *Ashudha Vrana* (acute wound) to *Dushta Vrana* (chronic wound) occurs when the wound's healing process is impeded by factors like infection, poor wound care, and underlying health conditions. *Dushta Vrana* is characterized by its chronic nature, non-healing tendency, discharge, odor, pain, and discomfort. *Ayurvedic* management involves *Vranashodhana* (wound cleaning and purification), *Vranaropana* (promoting wound healing through herbal remedies), and palliative care to alleviate symptoms and improve quality of life<sup>(1)</sup> Timely intervention is crucial to prevent complications and promote optimal healing. A comprehensive treatment plan addressing underlying causes and promoting wound healing can help prevent the progression to *Dushta Vrana* and improve outcomes. By adopting an *Ayurvedic* approach, individuals can benefit from a holistic understanding of wound healing and management.

*Dhupan Karma*, an *Ayurvedic* procedure utilizing medicinal smoke plays a significant role in wound healing, particularly for chronic non-healing wounds like *Dushta Vrana*. The

medicinal smoke possesses antimicrobial properties, preventing infection and promoting a clean environment for wound healing. As a *Vrana shodhaka*, or wound purifier, *Dhupan Karma* helps remove toxins and debris from the wound site, enhancing the healing process and reducing complications. Additionally, it may reduce inflammation and promote tissue repair aiding in chronic wound management. Often used in conjunction with herbal remedies and *panchakarma* therapies, *Dhupan Karma* promotes comprehensive wound care, addressing underlying imbalances and fostering overall health and well-being. By creating a conducive environment for healing, *Dhupan Karma* can improve outcomes and support the body's natural healing processes.

*Dhupan Karma*, a therapeutic procedure involving medicinal smoke, is referenced in *Ayurvedic* texts like *Sushruta Samhita* for its benefits in wound management.<sup>(2)</sup> Although specific mentions of *Dhupan Karma* in *Charaka Samhita* are limited, both texts emphasize the importance of wound cleansing and purification. *Sushruta Samhita* elaborates on wound healing principles, detailing treatments like *Vrana-Shodhana* (wound cleansing) and *Vrana-Ropana* (wound healing) using medicinal plants.<sup>(3)</sup> A holistic approach to wound management is advocated, addressing underlying imbalances and promoting overall health and well-being. By leveraging these ancient principles, practitioners can develop effective wound care strategies that incorporate the therapeutic potential of medicinal

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smoke and plants. This approach can aid in managing chronic wounds and promoting optimal healing outcomes.

Varicose ulcers, also known as venous ulcers, are painful sores that develop on the skin due to inefficient blood pumping from underlying veins. They typically appear on the lower legs, around the ankles, and are common in elderly people with circulation problems. The primary causes of varicose ulcers include chronic venous insufficiency, genetic predisposition, age-related circulation problems, and deep vein thrombosis. Symptoms of varicose ulcers include painful, bloody lesions, redness, itching, and discomfort around the affected area, as well as dermatitis and atrophy blanche.<sup>(4)</sup> Ulcer formation is characterized by irregular borders and a shallow base. Effective treatment and management involve wound care, compression therapy, antibiotics to treat infections, and surgical interventions for severe cases. A multidisciplinary approach, collaborating with healthcare professionals, is essential to develop a comprehensive treatment plan and promote optimal healing. By addressing the underlying causes and managing symptoms, individuals can reduce the risk of complications and improve their quality of life.

## CASE REPORT

65 year old male patient presented with the complaint of ulcers over the medial malleolus of the left leg since 3 months, associated with severe

pain, burning sensation around the ulcer site, swelling and blackish discolouration in the leg and foot regions. These wounds were not healing in spite of constant use of modern medicine. For the past 18 years the patient had been suffering from varicose veins of the affected limb and had a history of repeated ulcerations over the same area from the past 7 years. By his profession, he was habituated to standing for 10-12 hours per day for the past 20 years. There was no history of any associated chronic illnesses like Diabetes mellitus or Hypertension. On examination, one big, oval, reddish ulcers having sloping edges were found associated with mild serous discharge, on the medial malleolus of the left leg. The bigger ulcers measured about 3cm in length and 2cm in width and 4mm depth, with pale granulation tissue were found in the neighbouring area. The patient also had swelling and blackish discolouration around left ankle joint and feet, with severe tenderness around the ulcer site. Varicosity of the left lower limb tested positive for Trendelenburg test and the dorsalis pedis pulsation was present.

### Symptoms

1. Pain at site of varicose ulcer
2. Redness at the site of varicose ulcer

No history of DM/HTN/ any surgery

**Consent** – Informed consent was taken before starting the treatment.

On examination, the skin was open and showed signs of tissue death around the wound. The Varicose ulcer were shallow with the pink-red wound bed.

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### Local examination:

Size – 3 × 2 cm

Shape – oval

Edge – sloping

Number – 1

Position – left ankle joint

Discharge – mild

Palpation – mild tenderness present

Depth – 3 cm

Bleeding – Absent

*Asthavidha parikshan* –

*Nadi* -74/min

*Mala* – 1times/day

*Mutra* – 4-5 times a day

*Jivha* – *Lipta*

*Shabda* – *Alpa*

*Sparsha* – *Anushna*

*Druka* – Normal

*Akruti* – *Krusha*

### ASSESSMENT CRITERIA

#### Subjective Criteria

- a. Pain
- b. Burning sensation

#### Objective Criteria

- a. Size of the wound
- b. Edema
- c. Granulation tissue

### MATERIALS AND METHODS

Following are the material used during the study

**Table 1** Material used during the study

Sr. No.	Dravya	Latin name	Rasa	Parts Used	Quantity
1)	<i>Nimba</i>	<i>Azardiachta indica</i>	<i>Tikta, Kashaya</i>	<i>Patra</i>	2gm
2)	<i>Rala</i>	<i>Resin Shorea robusta Gaertn</i>	<i>Kashay, Tikta</i>	<i>Niryas</i>	2gm
3)	<i>Guggulu</i>	<i>Commiphora mukul</i>	<i>Tikta, Katu</i>	<i>Niryas</i>	2gm
4)	<i>Haridra</i>	<i>Curcumba longa</i>	<i>Tikta, Katu</i>	<i>Kand</i>	2gm

### Method of preparation

Dry cow dung cake was burnt with the help of *Goghruta* mixed with *Dhupan Dravyas*. After the smoke started forming *Dhupan yantra* was kept near the site of *Vrana* until all smoke diminished. It takes around 15-20 minutes. *Dhupan Karma* was done at morning 10.30 am and evening at 6:30pm.

### OBSERVATION & RESULT

The assessment of the ulcer was done based on relief in symptoms i.e. pain, size of wound, and redness. We noticed that within 7 days there was relief in signs and symptoms and a decrease in the size of the wound 2×1cm day by day.



**Figure 1** Wound status before treatment



**Figure 2** *Dhupan Karma* procedure

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*Dhupan Karma* can support conventional treatments like wound care and compression therapy.

#### Mode of action of *Dravya*:

The action of *Dravya* used during the study is listed below. Drugs having *Vranashodhan* and *Vranaropan* properties are selected

**Table 2** *Dupan Dravyas* and their mode of action

Sr. No	<i>Dravyas</i>	Mode of action
1)	<i>Nimba</i>	<i>Vranapachaka, VranaShodhana, Krumighna</i>
2)	<i>Rala</i>	<i>VranaShodhana, Vranaropka,</i>
3)	<i>Guggulu</i>	<i>Vrana Shodhana, Ropana</i>
4)	<i>Haridra</i>	<i>Vrana Shodhana, Ropana, Varnya, (6), Twakadoshara</i>

#### Mode of action of *Dhupana Dravya*:

*Dhupana Dravya*



*Kleda Shoshana*

(Absorbs Moisture)

Reduces Bacterial Growth



*Shodhana*

(Purifies Wound)

Removes Toxins and Debris



*Dosha Samyata*

(Balances Doshas)



**Figure 3** Varicose ulcer status after 7 days



**Figure 4** Varicose Ulcer status after 10 days



**Figure 5** Varicose Ulcer status after 15 days

## DISCUSSION

### Role of *Dhupan karma*

*Dhupan Karma*, a therapeutic procedure involving medicinal smoke, offers several benefits in managing ulcers, including varicose ulcers. The antimicrobial properties of medicinal smoke help reduce bacterial load and prevent infection, while wound purification aids in cleaning and promoting a healthy environment for healing. By creating a conducive environment, *Dhupan karma* enhances the healing process, reduces complications and may also help reduce inflammation and promote tissue repair. As an adjunctive therapy,

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Enhanced Local Circulation Promotes

Tissue Repair



Wound Healing

### Follow-up:

Follow-up was done on the 15<sup>th</sup> day. During this period, it was advised to change patient position or use of pillow, pad, try to move the patient every 2hour.

## CONCLUSION

The materials used in the form of *Dhupan* maintain an environment that improves healing time. The above study, reveals that *Ayurvedic Dhupan* process has a good result in *Dushta Vrana* in the case of Varicose ulcer. There was no side effect found during treatment.

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