



Case Study

AYURVEDIC MANAGEMENT OF DUSHTA VRANA (VARICOSE ULCER) WITH DASHANGA LEPA

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ABSTRACT

A wound, also known as a *Vrana*, is a condition where the body's tissues are damaged in a specific way, and after repair, the tissues become discolored, resulting in a permanent scar. Varicose ulcers are caused by persistent venous occlusion. A varicose leg ulcer occurs when blood recirculates through venous valves due to ischemia in the leg's vascular supply, caused by this insufficiency. Ignoring these lesions could lead to gangrene and infection. According to Ayurveda, varicose ulcers are associated with '*Sira Janya Dusta Vrana.*' In the medical field, "*Lepa*" can be described as a therapeutic approach where medications are applied externally to alleviate pain, reduce inflammation, or speed up recovery. This case report on varicose ulcers includes the patient's complete medical history, necessary laboratory tests, and clinical and physical examinations. The patient undergoes daily dressings on an OPD basis and is treated with various internal medications along with external procedures like the application of *Lepa*. After the administration of *Lepa*, the wound healed, and other symptoms improved significantly.

INTRODUCTION

A varicose ulcer, commonly known as a stasis ulcer or venous ulcer, is a type of chronic wound that typically develops due to increased venous hydrostatic pressure. This condition is characterized by non-healing, open sores that usually appear on the lateral side of the leg in cases of short saphenous varicosity and on the lower one-third of the leg in cases of long saphenous varicosity. Prolonged venous hypertension elevates vein pressure and damages surrounding tissue, leading to varicose ulcers. Most varicose ulcers are superficial and shallow and are usually painless until they become infected. They are commonly associated with varicose veins^[1] for varicose ulcers includes involves the limb affected limb, actively and passively the calf muscle, passively, daily and treating treatment of the lesion. The four-layer bandage is applied; the treatment options may include saphenous vein stripping, skin grafting,

ELVA (Endo Venous Laser Ablation), RFA (Radio Frequency Ablation), saphenofemoral ligation, and ultrasound-guided foam sclerotherapy.^[2]

Dushta Vrana ^[3] is the *Vrana* vitiated by *Doshas*. If *Vrana* has a bad smell (foul odour), has abnormal color with profuse discharge, severe pain intensity, and takes a long time to heal, it is known as *Dushta Vrana*. The characteristics of *Dushta Vrana* vary as per the predominant *Dosha*. The *Lakshanas* of *Dushta Vrana* are detailed in detail in Sushruta.^[4] Charaka has identified 12 types of *Dushta Vrana*. Charaka has also mentioned 36 *Upakramas* along with *Samanya* and *Vishesh Chikitsa*, while Sushruta has mentioned 60 *Upkramas*. *Sharangadhara* has mentioned *Sapta Kramas* for *Vrana* management.^[5]

Here, we are using *Lepa* to treat varicose ulcers. To illustrate the effectiveness of *Lepas*, consider how quickly a fire is extinguished by dousing it with water; similarly, the triggered *Doshas* of *Vata* (*Vedanta*, soothe, and complications of *Vata*) all disappear when *Lepa* is applied. Therefore, *Lepa's* activities such as *Sodhana*, *Utsadana*, and *Ropana* may be used for the management of *Dushta Vrana*.^[6]

The qualities of *Vrana*, *Shodhana*, *Utsadanam*, and *Ropana* are present in *Dashanga Lepa*. *Dashanga lepa* contains anti-inflammatory and antibacterial

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qualities.^[7] *Dashanga Lepa* must first be mixed with ghritam and applied to the wound.

| Ingredients | Quantity |
|----------------------|----------|
| <i>Sirisa</i> | 1 Part |
| <i>Madhuyashti</i> | 1 Part |
| <i>Tagara</i> | 1 Part |
| <i>Raktachandana</i> | 1 Part |
| <i>Ela</i> | 1 Part |
| <i>Jatamamsi</i> | 1 Part |
| <i>Haridra</i> | 1 Part |
| <i>Daruharidra</i> | 1 Part |
| <i>Kushtha</i> | 1 Part |
| <i>Valaka</i> | 1 Part |

Case Report

Type of Study- Observation single case design

Study Centre- Sri Jayendra Saraswathi Ayurveda College and Hospital, Nazarathpethai, Chennai.

History of Present Illness

A 35-year-old married male patient presents with the complaint of a non-healing ulcer, severe pain, and discharge from an ulcer in the left lower leg at the medial malleolus for 2 years. The patient was normal before 2 years. Then he developed pain in the lower leg followed by a small wound near the medial malleolus which increased in size and did not heal despite topical treatment. He received treatments from various hospitals but had no improvement in the symptoms. The patient has a previous history of DVT and varicose veins. The patient was on blood thinning medicine for DVT. Hence, he came to our hospital for further treatment. Written informed consent of the patient was taken before initiating the procedure on the patient.

Family History

No, any relevant family

Personal History

Diet – Mixed

Appetite – Regular

Sleep – Disturbed

Bowels – Normal (two times a day)

Micturition – Normal (3-4 times/ day)

Habits – Tea (2-3 cups/ day)

Addiction - None

General Examination

Table 1: General examination

| | |
|------------------|------------------------|
| Blood pressure | 130/80 mmHg |
| Respiratory rate | 18/bpm |
| BMI | 29.4 kg/m ² |
| Edema | Bilateral lower legs |
| Icterus | Absent |
| Pulse rate | 84/bpm |

| | |
|-------------|-----------------|
| Height | 5 feet 3 inches |
| Nails | Normal |
| Lymph nodes | Normal |
| Heart rate | 72/bpm |
| Weight | 62 kg |
| Pallor | Absent |
| Cyanosis | Absent |
| Temperature | 36.8 degree C |

Dashvidha pariksha

Table 2: Dashvidha pariksha

| Dashavida pariksha | Interpretations |
|----------------------|--------------------|
| <i>Pakruti</i> | <i>Kapha Vata</i> |
| <i>Vikruti</i> | <i>Pitta Kapha</i> |
| <i>Sara</i> | <i>Twak Rakta</i> |
| <i>Samhanan</i> | <i>Madhyam</i> |
| <i>Pramana</i> | <i>Madhyam</i> |
| <i>Satmya</i> | <i>Vyamisra</i> |
| <i>Satva</i> | <i>Madhyam</i> |
| <i>Vaya</i> | <i>Madhyam</i> |
| <i>Ahara shakti</i> | <i>Madhyam</i> |
| <i>Vihara shakti</i> | <i>Madhyam</i> |

Astavidha pariksha

Table 3: Astavidha pariksha

| Astavidha pariksha | Interpretations |
|--------------------|-------------------|
| <i>Nadi</i> | <i>Kapha Vata</i> |
| <i>Mala</i> | <i>Shushka</i> |
| <i>Mutra</i> | <i>Alpa</i> |
| <i>Jihwa</i> | <i>Nirlipta</i> |
| <i>Shabda</i> | <i>Clear</i> |
| <i>Sparsha</i> | <i>Sheeta</i> |
| <i>Drika</i> | <i>Prakruta</i> |
| <i>Akriti</i> | <i>Madhyama</i> |

Assessment criteria

1. Defense and Veterans Pain Rating Scale Score before treatment -8 (severe pain)
2. Bates-Jensen wound assessment tool: Wound score before treatment-42

Investigation

| | |
|----------|-------------------|
| HB | 14.2 gms/dl |
| WBC | 10230 cells/cumm |
| RBC | 6.76 million/cumm |
| Platelet | 3.56 lakhs/cumm |
| ESR | 9mm/hr |
| RBS | 98 mg/dL |

Radiology

Doppler study -left lower limb vein shows:

-GSV appears dilated and tortuous throughout from the level of medial malleolus till its drainage into with incompetent perforators noted at the level of knee (-3.3 mm) and mid-calf (-6.3 mm).

-SSV appears dilated and tortuous till the calf region with two incompetent perforators noted at the mid-calf region (max-6.4 mm).

Multiple tortuous tributaries were noted at the ankle level medially.

No evidence of thrombosis of the deep veins of the left lower limb at the time of the scan.

Provisional diagnosis: *Dushta Vranam* (varicose ulcer)

Treatment plan

The patient was treated with external procedures.

External medication:

The wound was cleaned with normal saline and *Lepa karma* was done with *Dashanga Lepa*. After the application of *Dashanga Lepa*, the dressing was done with sterile gauze and bandage once daily. This treatment plan was followed for 15 days. The therapeutic procedure is given in Table 4.

Table 4: Treatment procedure

| Treatment procedure | From | To | Number of days |
|---|------------|------------|----------------|
| Cleaning the wound with normal saline + <i>Dashanga Lepa</i> was applied and Wound dressing with sterile gauze once daily | 10/07/2024 | 25/07/2024 | 15 days |

RESULTS

| | Score | | | |
|---|-------|----------------------|----------------------|-------------------------|
| | BT | AT | | Follow up After 15 days |
| | | 1 st week | 2 nd week | |
| Defense and Veterans Pain Rating Scale: | 8 | 3 | 0 | 0 |
| Bates-Jensen wound assessment tool: | 42 | 23 | 13 | 13 |

Overall, both the Defense and Veterans Pain Rating Scale and the Bates-Jensen wound assessment tool demonstrate positive progress in managing pain and healing wounds, respectively. The patient's pain level has significantly decreased over time, with no pain reported in the follow-up assessments. The wound condition has also improved, with a consistent decrease in the severity score. These findings indicate the effectiveness of the clinical interventions and highlight the importance of an integrated approach to pain management and wound care in enhancing patient outcomes

Effect on *Vrana Vedana* (pain): Patient pain and tenderness were completely reduced at the end of

treatment. Severe pain is present at the initial stage, with more than 50% relief at the end of 1st week, and complete relief at the end of 2nd week.

Effect on *Vrana Aakriti*

After the course of treatment, *Vrana* fully recovered with little scarring. *Dashanga Lepa* accelerated the rate of contraction and healing, which helped to minimize the size of the wound. By the end of the first week, *Dushta Vrana's* clinical aspects had improved, and by the end of the second week, the wound had nearly healed, leaving hardly any scar. After a 15-day follow-up, no recurrence symptoms were seen.



Table 5: Symptoms before and after treatment

| Before treatment | After treatment |
|---|--|
| Severe pain and tenderness are present at the site region | Tenderness completely relief, and pain reduce by more than 50% after 7 days of treatment |
| Discharge | Completely stop after 15 days |
| Scarring present | Minimal scarring after 15 days of treatment |
| Recurrence of the wound present | No signs of recurrence occurred after treatment |

DISCUSSION

Complications from varicose ulcers are a frequent recurrent issue. Reducing venous congestion, improving tissue perfusion, and fostering tissue repair are the main objectives. Most patients respond to conservative treatment, which often comprises the traditional regimen of elastic stockings, elevating the leg during rest, and calf muscle training. However, some ulcers become resistant to treatment, necessitating limb amputation and causing severe impairment. Ayurvedic medications have shown efficacy in treating a wide range of difficult and chronic illnesses. Ayurveda offers a variety of formulas to address skin conditions. The medications used in this case have the following properties: *Rakta Shodhaka* (blood purifier), *Vrana Ropaka* (wound healing), and *Sothahara* (anti-inflammatory).

Dashanga Lepa: *Kashaya*, *Tikta*, *Katu*, and *Madhura* Rasa are present in the majority of the medications used in *Dashanga Lepa*. It has already been shown that plants including *Kashaya* and *Tikta* Rasa can cure wounds.^[8] *Dashanga Lepa* possesses the qualities of *Utsadanam*, *Ropana*, and *Vrana Shodhana*. All four cardinal symptoms of inflammation- pain, edema, erythema, and temperature- are decreased by *Dashanga lepa*. Pain can be effectively managed with *Dashanga Lepa*. One possible explanation is a drop in prostaglandin levels. *Dashanga Lepa* contains flavonoids (Ana Garcia-Lafuente *et al.*, 2009) and tannin (Watson *et al.*, 1992) that have potent analgesic properties. Therefore, it's possible that *Dashanga Lepa* had analgesic effects on inflammation.^[9]

CONCLUSION

Based on this case study, it can be concluded that *Lepam karma* with *Dashanga lepa* was found to be very effective in the management of *Dushta Vrana* (varicose ulcer). *Dashanga Lepa* possesses high efficacy in *Vrana Shodhana* and *Vrana Ropana* with fine scaring without producing any adverse effect and it

gives relief in signs and symptoms of *Dushta Vrana* (varicose ulcer). Thus, *Dashanga Lepa* along with internal medications quickens the process of wound healing and serves as an alternative herbal approach for the management of *Dushta Vrana* (varicose ulcer).

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