



Case Study

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AN AYURVEDIC MANAGEMENT OF VARICOSE ULCER: A CASE STUDY

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ABSTRACT

The Vrana (ulcer) is defined as a structural deformity in the skin and the deeper structure (Gaatra Avachurnana), which is associated with Ruja (pain) and Srava (discharge), etc., caused by vitiation of Doshas or the Abhighata (injury). Acharya Sushruta has mentioned two types of Vrana, i.e., Shuddha Vrana (acute ulcer) and Dushta Vrana (chronic ulcer). Dushta Vrana are Dirghakalanubandhi and non-responsive to treatment, mostly. A 58-year-old diabetic, non-hypertensive male came for Ayurvedic treatment after a wound on his right leg (Above the right medial malleolus) had not responded to the conventional treatment for 3 years. After a complete examination, the patient was diagnosed with a varicose ulcer. The ulcer was painful, with pus discharge, foul smell, and itching. The patient undergoes daily dressing on an OPD basis, and Ayurvedic management comprises Triphala Guggulu, Punarnava Mandura, Chandraprabha Vati, Varunadi Kwatha, orally, and Vrana Lepa (application of medicinal paste) prepared from Haridra, Yashtimadhu Churna, Panchatikta Ghrita, Madhu, and Jatyadi Taila. The prescribed medicine has Vrana Ropana, Vrana Sodhana, Tridosha Shamaka, Shothahara, and Vedana Shamaka properties. In this case, Ayurvedic treatment is proven effective, safe, and superior for the healing of varicose ulcer, which not only facilitated the faster recovery but also minimized the complications.

Keywords: Dushtavrana, Ulcer, Varicose Ulcer, Vranalepa, Vranasodhana.

INTRODUCTION

The destruction or discontinuity of body tissue/part of the body is called Vrana. Acharya Sushruta defines Dushta Vrana as a chronic ulcer that can appear anywhere on the body and is brought on by trauma or Doshas. It can be correlated with chronic or non-healing wounds. It is known as Nija Vrana when it is caused by the Doshas and Agantuja Vrana when it is caused by trauma. According to the Dosa impacted, the Nija Vrana displays indications and symptoms. The different characteristics of Dushta Vrana, which are mentioned, are Atisamvrita (overly covered), Ativivrita (overly uncovered), Atikathina (too hard), Atimrudu (too soft), Utsanna (overly elevated), Avasanna (overly depressed), Atyushna (color), Atisheeta (cold to touch), differently coloured, unsightly, suppurated, painful, linked to various discharges, and chronic.¹

Dushta Vrana is the type of Vrana, that is vitiated by Tri-Doshas and has bad foul smell, abnormal color, with profuse discharge and severe pain, and it takes a prolonged time to heal. According to Acharya Charaka, Dushta Vrana is of 12 types and has been mentioned in 36 Upakramas (treatment principles). Whereas Acharya Sushruta and Sharangadhara have mentioned Sashti (60) and Sapta (7) Upakrama for the management.^{2,3}

A varicose ulcer is also known as a stasis ulcer or venous ulcer, which is characterized by the non-healing open sores that appear on the lateral side of the leg, which is mainly caused by the increased venous hydrostatic pressure. Venous leg ulcers are a chronic type of wound that primarily results from prolonged venous insufficiency, which is more common in older adults. It develops due to poor blood flow in the veins, which leads to the

breakdown of the tissues.⁴ A venous ulcer is found at the lower part of the leg, on its medial side, and it can be of any size and shape. The edges are sloping with purple color, and the margins have thin and blue epithelium. The discharge is seropurulent, and sometimes blood may be traced. The treatment protocol for a varicose ulcer due to venous insufficiency includes debridement of the ulcer, dressing, foot elevation, multilayer bandaging, elastic stockings (compression), anti-inflammatories, and surgery.⁵ But the chronic wound care practices are inconsistent with the evidence-based approach for wound management.⁶ Treatment of Dushta Vrana (chronic ulcer) as per Ayurveda includes a comprehensive regimen combining Sastra karma (surgery), Shodhana (wound cleansing), and Ropana (wound healing), along with Shamana Chikitsa (internal medication). The presented case study highlights the efficacy of Shamana and Lepana Chikitsa in Duhsta Vrana. The existing allopathic treatment has certain hurdles, such as chronicity, recurrence, and antibiotic resistance. This study was planned with the aim of to evaluate the effectiveness of Ayurvedic treatment modalities in the management of varicose ulcer (Dushta Vrana).

Aim: To evaluate the effectiveness of Ayurvedic treatment modalities in the management of varicose ulcer (Dushta Vrana).

Objectives

- To assess the role of Sthanika Chikitsa (e.g., Vrana Shodhana and Ropana with medicated oils, Lepa, or honey) in promoting wound healing.
- To evaluate the effectiveness of Shamana Chikitsa in improving wound healing, enhancing the quality of life, and preventing recurrence of varicose ulcer.

Case Report

Type of study – interventional single case study
 Study centre – S. G. Patel Ayurveda Hospital and Maternity Home, Anand, Gujarat.
 Patient information
 Patient name – ABC
 Age – 58 years
 Weight – 101 kg
 Occupation – farmer

Chief complaints: Local examination of the ulcer

History of present illness: A 58-year-old male patient was diagnosed with a varicose ulcer on the right lower limb (Above the right medial malleolus). A venous color Doppler study was done on 12/09/2024. Also, the patient has a surgical history of Ilizarov surgery and has been taking allopathic treatment for a varicose ulcer for 2.5 years, but there has been no significant relief from the symptoms.

The patient came here (S. G. Patel Ayurveda Hospital and Maternity Home, Anand, Gujarat) with complaints of ulceration above the right medial malleolus with pus discharge, pain, foul smell, and itching for 3 years. He is a known case of diabetes mellitus and has been on medication for 8 years for the same.

Diagnosis: Varicose ulcer above the right medial malleolus (confirmed by right lower limb venous color doppler, done on 12/09/2024) with signs of infection, including pus discharge, pain, and itching. The associated condition is diabetes mellitus (type 2), which may contribute to delayed wound healing and increased infection risk.

Chronic venous ulcer insufficiency: Underlying cause of the varicose ulcer (confirmed by venous color Doppler study).

History of past illness: Diabetes mellitus (on medication for the last 8 years)

Past treatment history: Underwent allopathic treatment for a varicose ulcer for over 2.5 years, without substantial relief.

Surgical history: Ilizarov surgery (10 years ago)

Family History: Not any

Personal History

Diet – Vegetarian

Appetite – Regular

Sleep – Disturbed

Bowels – Normal (one time/day)

Micturition – Normal (4-5 times/day, 1 time/night)

Habits – Tea (2 times/day)

Addictions – Not any

General examination: Vital parameters were within normal limits

Table 1: General examination

Blood pressure	138/82 mmHg
Heart rate	84/bpm
Respiratory rate	18/min
BMI	25.95
Icterus	Absent
Pulse rate	84/min
Height	170 cm
weight	75 kg
Cyanosis	absent

Table 2: Examination of varicose ulcer (clinical parameters): Baseline Findings

Clinical Parameters	
Location of Ulcer	Above the right medial malleolus
Size of Ulcer	Approx. $3 \times 2 \times 1 \text{ cm}^3$ (length \times breadth \times depth). (before treatment)
Margin and edges of Ulcer	Irregular margin and everted edges
Discharge	Purulent
Surrounding area	Erythema

Table 3: Symptoms with severity and duration

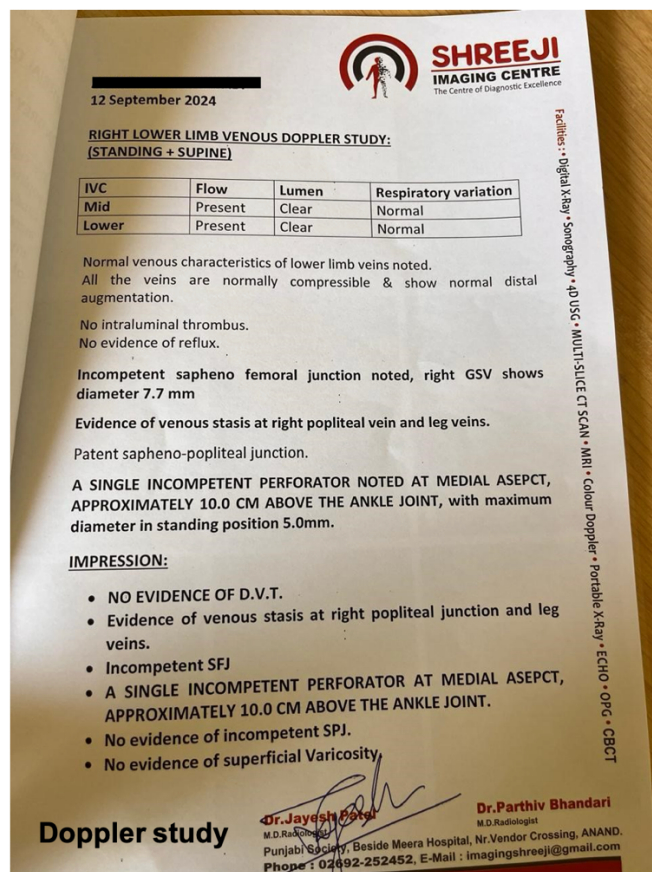
Symptoms	Severity	Duration
Pain	5 (VAS score)	2.5 years
Itching	8 (NRS score)	
Pus discharge	Present	

Table 4: Laboratory Investigations (done on 12/10/2025)

Test	Observed Values
Haemoglobin	14.05 mg%
Total WBC count	6460 cells/cu mm
Total RBC count	5.03 cells/ cu mm
Differential count	N: 83% L: 13% E: 02% M: 02% B: 00%
Platelet count	2.41 lcs

Radiological Investigation (done on 12/09/2024)

The right lower limb vein shows evidence of venous stasis at the right popliteal vein and leg veins. A single incompetent perforator was noted at the medial aspect, approximately 10.0 cm above the ankle joint (Above the right medial malleolus), with a maximum diameter in the standing position of 5.0 mm.

**Treatment plan**

The varicose ulcer was treated successfully with Shamana Chikitsa (internal medications), Lepam Chikitsa with daily cleaning and dressing (Sthanik Chikitsa/topical medication). Here, details are given of both lines of treatment.

Table 5: Shaman Chikitsa (internal medications) with their pharmacological action, dose, and duration

SN	Shamana Chikitsa (internal medication)	Pharmacological action	Dose	Duration
1.	Triphala Guggulu	Antibacterial, antioxidant, wound healing, and reduces inflammation	2tab BID, after food	15 days
2.	Punarnava Mandura	Blood purification reduces edema	2tab BID, after food	15 days
3.	Chandraprabha Vati	Anti-inflammatory and wound healing	2tab BID, after food	15 days
4.	Varunadi Kwatha	Anti-inflammatory, antibacterial, and improves blood circulations	30 ml BID, after food	15 days

The Shamana Chikitsa is continued for a further 45 days.

Table 6: Topical treatment with its pharmacological action and duration

SN	Sthanik Chikitsa (Topical treatment)	Pharmacological action	Duration
1.	Cleaning and Dressing (with Povidone-iodine)	Antiseptic solution to cleanse the wound site (antimicrobial activity)	2 months (applied once daily with aseptic precaution)
Lepam Chikitsa (Dressing Paste)			
1.	Haridra (turmeric, <i>Curcuma longa</i>) Churna	Antiseptic, anti-inflammatory	2 months
2.	Yashtimadhu (licorice, <i>Glycyrrhiza glabra</i>) Churna	Promotes wound healing	2 months
3.	Panchatikta Ghrita	Aids in wound healing and tissue re-epithelialization	2 months
4.	Madhu (Honey)	Antimicrobial, tissue regeneration	2 months
5.	Jatyadi Taila	Vrana Shodhana (wound cleansing) and Vrana Ropana (wound healing)	2 months



Figure 1: Medicinal paste prepared from Haridra Churna, Yashtimadhu Churna, Panchatikta Ghrita, Madhu, and Jatyadi Taila was applied, with Vriddhadaru Patra

Table 7: Treatment procedure

Treatment procedure	From	To	Duration
Cleaning the wound with Povidone-iodine + Sthanik Chikitsa (Lepa prepared from paste) + Shamana Chikitsa (internal medication)	14/10/2024	05/01/2025	2 months and 20 days (including follow-up)

RESULTS

After completing the treatment plan of 2 months of daily dressing and 2 months of oral medication, there was significant reduction in ulcer size, healing with healthy granulation tissue, and no active discharge. Clean wound with no visible pus, and tissue exhibiting early signs of re-epithelization. The VAS score is reduced from 5 (moderate pain) to 1 (minimal pain), indicating a significant improvement in pain management. The Numeric

Rating Scale (NRS) is reduced from 8 (severe itching) to 2 (mild itching), showing a marked reduction in pruritus. The pus discharge ceased completely, indicating successful control of infection and inflammation. The reduced scar formation is likely due to the anti-inflammatory and wound-healing properties of the Ayurvedic dressing paste. Wound contraction and re-epithelization are improved, showing faster healing compared to previous allopathic treatments.

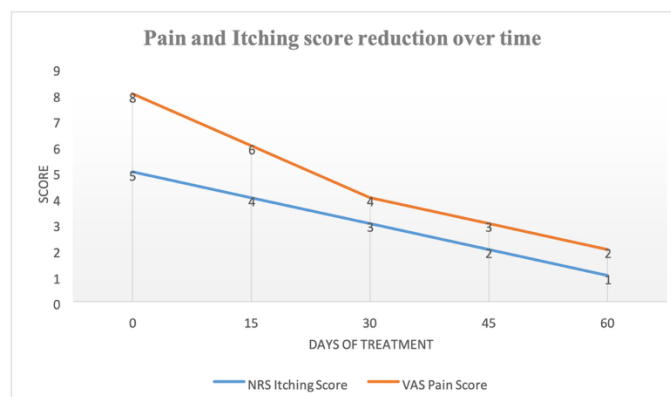


Figure 2: Before treatment



Figure 3: After treatment

Table 8: Assessment at the interval of 15, 30, 45 and 60 days of treatment

	Before treatment (0 days)	After 15 days	Score	After 30 days	After 45 days	After treatment (60 days)
VAS Pain Score	8	6	4	3	2	1
NRS Itching Score	5	4	3	2	1	1



Figure 4: After 15 days of treatment (follow-up)



Figure 5: After 30 days of treatment (follow-up)



Figure 6: After 45 days of treatment (follow-up)

The above-mentioned wound assessment tool indicates positive progress in the management and healing of the varicose ulcer. The pain and itching were reduced significantly, and no further complaints were reported in subsequent follow-ups. These results suggest the effectiveness of the clinical intervention and highlight the role of Ayurveda in the management of venous ulcers and pain.

Effect on Vrana Vedana (Pain)- pain and tenderness at the site is completely reduced after 60 days of management. Severe pain was present at the initial stage (VAS 8), which is reduced by 4 and 2, respectively, at the end of 30 days and 60 days of treatment.

Effect on Vrana Kandu (itching)—Severe itching (NRS 5) was present at the initial stage, which was reduced by 3 and 1, respectively, at the end of 30 days and 60 days of treatment.

Table 9: Local assessment parameters before and after treatment

Parameters	Before treatment	After treatment
Pain and tenderness	VAS 8 (Severe)	VAS 2
Discharge	Present	Absent
Itching	NRS 5 (severe, localized)	NRS 1
Recurrence	Present	No sign of recurrence occurred
Site	Right medial malleolus	Fibrous scar mark
Sloughing	Up to 25%	Absent
Discoloration	Blackish	Mild lightening

DISCUSSION

This case study highlights the therapeutic efficacy of Ayurvedic intervention in managing chronic non-healing varicose ulcers, particularly in patients with venous insufficiency and comorbid diabetes mellitus. The treatment protocol, integrating Shamana Chikitsa (pacific treatment) and Sthanik Chikitsa (topical treatment), played a crucial role in Vrana Shodhana (wound debridement), Vrana Ropana (wound healing), and infection control.

The internal medications used in this study exhibited anti-inflammatory, antioxidant, antimicrobial, and angiogenic properties. Triphala Guggulu, rich in gallic acid, tannins, and flavonoids, has been reported to enhance collagen synthesis, fibroblast proliferation, and epithelialization, thereby promoting wound contraction.⁷ Punarnava Mandura, known for its Rakta Shodhaka (blood-purifying) and anti-oedematous effects, improves microcirculation, reduces venous congestion, and enhances oxygenation of ischemic tissues.⁸ Chandraprabha Vati,

with its anti-inflammatory and detoxifying properties, aids in tissue repair and inflammatory modulation. The topical agents also played a significant role in wound healing. Haridra (*Curcuma longa*), a potent anti-inflammatory and antimicrobial agent, modulates NFκB pathways, reducing oxidative stress and bacterial colonization.⁹ Yashtimadhu (*Glycyrrhiza glabra*) contains glycyrrhizin and flavonoids, which accelerate fibroblast activity and epithelial regeneration.¹⁰ Panchatikta Ghrita and Jatyadi Taila, known for their Vrana Ropana (wound healing) and Vrana Shodhana (cleansing) properties, promote collagen deposition, angiogenesis, and granulation tissue formation.^{11,12}

This study underscores the scientific validity of Ayurvedic formulations in chronic wound management, demonstrating their potential as evidence-based, adjunctive therapies to conventional wound care. The Ayurvedic approach provided a safe, cost-effective, and holistic alternative, promoting faster healing, infection control, and better clinical outcomes in non-healing varicose ulcers.

CONCLUSION

This case demonstrates the effectiveness of Ayurvedic treatment in managing chronic varicose ulcers, particularly in patients with underlying conditions such as diabetes mellitus. Despite prior allopathic treatments showing no significant relief, the patient's condition improved significantly with a combination of topical Ayurvedic dressings and oral medications. The wound healed faster, pain and itching were reduced, and pus discharge ceased. Ayurvedic formulations, particularly those with antiseptic, anti-inflammatory, and wound-healing properties, provided superior results, highlighting Ayurveda's potential in wound management. This approach not only facilitated faster recovery but also minimized complications such as infection, making it a viable alternative to conventional treatments. These findings support the integration of Ayurveda into evidence-based wound care protocols for better clinical outcomes.

Declaration: The study is carried out as per international conference of Harmonization-Good Clinical Practices Guidelines (ICH-GCP) or as per ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.

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