American Journal of Psychiatric Rehabilitation

Expert Opinion Article

"An Ayurvedic Insight into Venous Ulcer Management W.S.R. to *Sirajgranthi* -A Case report"

Dr. Sagar Verma[1], Dr. Sanjay Chandrakant Babar[2*], Dr. Amit Ashok Paliwal[3], Dr. Mahesh Pandurang Jadhav[4], Dr. Priyanka Dushyant Patil[5], Dr. Vinod Bharat Hendawale[6]

[1]Post-graduate Scholar, Department of Shalyatantra, Dr. D. Y. Patil College of Ayurved & Research Centre, Pimpri, Dr. D.Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune-18, Maharashtra.
Email: sagarsoni426@gmail.com
[2*]Professor & H.O.D. Department of Shalyatantra, Dr. D. Y. Patil College of Ayurved & Research Centre, Pimpri, Dr. D.Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune-18, Maharashtra.
Email: sanjaybabar2024@gmail.com
[3]Professor Department of Shalyatantra, Dr. D. Y. Patil College of Ayurved &Research Centre, Pimpri, Dr. D.Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune-18, Maharashtra. Email:dramitpaliwal@gmail.com
[4]Associate Professor Department of Shalyatantra, Dr. D. Y. Patil College of Ayurved &Research Centre, Pimpri, Dr. D.Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune-18, Maharashtra. Email:drmahesh897@gmail.com
[5]Assistant professor Department of Shalyatantra, Dr. D. Y. Patil College of Ayurved &Research Centre, Pimpri, Dr. D.Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune-18, Maharashtra. Email:priyanka.patil@dpu.edu.in
[6]Assistant professor Department of Shalyatantra, Dr. D. Y. Patil College of Ayurved &Research Centre, Pimpri, Dr. D.Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune-18, Maharashtra. Email:vhendawale@gmail.com

***Corresponding Author:** Dr. Sanjay Chandrakant Babar
*Professor & H.O.D. Department of Shalyatantra, Dr. D. Y. Patil College of Ayurved &Research Centre, Pimpri, Dr. D.Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune-18, Maharashtra.
Email: sanjaybabar2024@gmail.com

ABSTRACT:
Introduction: Venous leg ulcers are chronic wounds that result from prolonged venous insufficiency, primarily affecting older adults. These ulcers develop due to poor blood flow in the veins, leading to tissue breakdown, especially in the lower extremities. Over time, this can cause significant disability and complications. Venous ulcers represent a chronic condition with significant morbidity, often resistant to conventional therapies.
Clinical Findings: A female with a 6-month history of a non-healing venous ulcer on lower leg. She had a history of varicose veins and mild hypertension. The ulcer was associated with pain and serous exudate.
Intervention: This single-case study explores the therapeutic potential of *Nagakesar Ghrit*, an Ayurvedic medicated *ghee* traditionally used for its anti-inflammatory and wound-healing properties, in managing the venous ulcer.
Outcome: This study suggests that *Nagakesar Ghrit* may enhance venous ulcer healing, with a 78.6% reduction in ulcer area in 21 days. These outcomes align with Ayurvedic principles attributing *Nagakesar's* efficacy to its antimicrobial and tissue-regenerative properties, potentially augmented by *ghee*'s emollient and anti-inflammatory effects.
Conclusion: This case suggests *Nagakesar Ghrit* may offer a novel approach to venous ulcer management, though larger studies are needed to validate these findings. Further research is needed to establish standardized treatment protocols and explore the long-term outcomes of various therapeutic interventions.

Keywords: *Sirajgranthi*, *Nagakesar Ghrit*, Wound Healing, Pain management, Ayurvedic management of Venous Ulcer, case report

INTRODUCTION:

Venous ulcers, a common complication of chronic venous insufficiency, affect approximately 1- 3% of the adult population, particularly the elderly. Standard treatments, including compression therapy and wound dressings, often yield slow or incomplete healing, prompting exploration of alternative therapies. In Ayurveda, it can be co-related with *Sirajgranthi* as mentioned by *Acharya Sushruta*[1] also *Acharya Vagbhatta* mentioned distinguished causes and symptoms[2] and for which it offers herbal formulations like *Nagakesar Ghrit*, derived from
Mesua ferrea (*Nagakesar*) and *ghee*, known for its anti-inflammatory properties as mentioned in *Dhanvantri Nighantu*.[3] Although different ayurvedic approaches have been used for Venous Ulcer[4] such as unmedicated *Ghrit*[5] application but the application of *Nagkesar Ghrit* have not been. While

traditionally used for hemorrhoids and skin disorders, antimicrobial properties[6] of *Nagkesar* have been discovered but its application in venous ulcers remains underexplored. This case study evaluates the efficacy and safety of *Nagakesar Ghrit* in a single patient with a chronic *Sirajgranthi*, assessed through serial clinical examinations[7].

A CASE REPORT:
A 58-year-old female presented with a 6-month history of a non-healing venous ulcer[8] on the anterior aspect of her left lower leg. She had a history of varicose veins and mild hypertension, managed with oral antihypertensive medication. Prior treatments, including compression bandages[9] and topical antibiotics, provided minimal improvement. The patient reported persistent pain (VAS score: 7/10) and moderate serous exudate.

Clinical Findings:

Table 1: Showing personal history of the patient.

Name- ABC	Bala- *Hina*
Age- 58 years	Sex- Female
Marital status- Married	Occupation- Housewife
Weight- 64 kgs	Bowel habit- Regular
Sleep- Disturbed	Diet- Mixed

- Patient is a known case of Hypertension (under oral medication)
- Patient is not known case of Diabetes mellitus or any major illness.
- Patient has not undergone any previous surgery.

General Examination:
Pulse rate- 84/min regular with normal volume, Blood pressure- 140/84 mm of Hg.
Respiratory Rate- 16/min Temperature- 97.9 ^{0}F
Pallor/Icterus/Clubbing- Absent
Systemic Examination:
Respiratory system: Air entry bilaterally equal, no abnormal lung sounds heard.
Cardio-vascular system: S1 and S2 heard.
Central nervous system: Conscious and well oriented with normal cranial nerve examination. Per abdomen: Soft and non-tender. Striae Gravidarum noted on abdomen.

Local Examination :
(Patient was examined in the room that was well lit up, in presence of a female attendant and patient laid down in supine position.)
- Wound Characteristics: Ulcer measured 4.5 cm x 3.2 cm (area: 14.4 cm^2), with irregular margins, a fibrinous base, and surrounding erythema.
- Exudate: Moderate, serous.
- Pain: Visual Analog Scale (VAS) score of 7/10.
- Skin: Periwound skin was edematous with mild hyperpigmentation.

- **ASSESSMENT CRITERIA**:

Table 2: Assessment Criteria for examination.

Parameter's	**Gradation**				
	0	**1**	**2**	**3**	**4**
1. Pain (VAS)	On VAS scale 0-10 (According to severity)				
2. Exudate	Absent	Mild	Moderate	Severe	-
3. Wound size	Measured using digital planimetry (length x width in cm^2).				
4. Tissue Regeneration	Evaluated by percentage of area of wound covered with granulation tissue.				

Interventions:

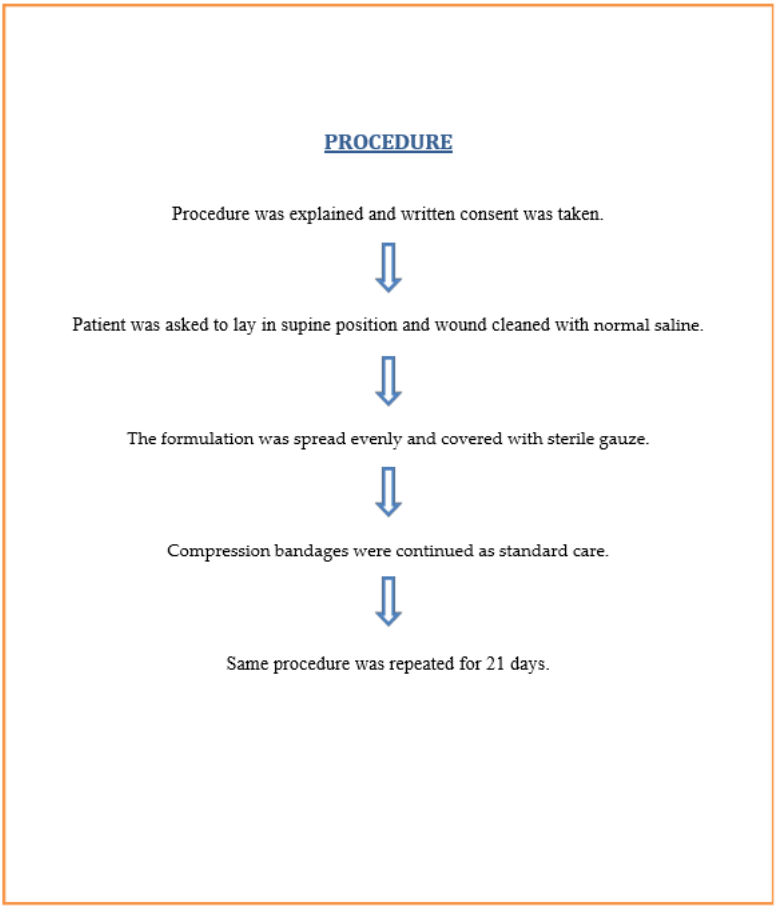
Table 3: Therapeutic regimen (Internal and external therapy)

Sr.No.	Therapeutic regimen	Dosage	Duration
1.	Tab. *Punarnavadi Gugglu*	2 TDS (250 mg each)	21 days
2.	*Nagakesar Ghrit* Dressing	7 mL per 10 cm^2	21 days

Table 3 Explains the therapeutic regimen that includes both internal and external therapies along with its dosage and duration. External therapy introduced was *Nagakesar Ghrit* dressing done daily for 21 days.

PROCEDURE:

Figure 1: Representation of Procedure.



FOLLOW UP AND OUTCOME:

Table 4: Observation of Signs and symptoms of the patient before treatment on 0th Day and after treatment on 7th ,14th and 21st Day

Parameter's	Observation (Before treatment – 0th Day)	Observation (After treatment – 7th Day)	Observation (After treatment – 14th Day)	Observation (After treatment – 21st Day)
1. Pain (VAS)	7/10	5/10	3/10	1/10
2. Exudate	Moderate, Serous	Mild, Serous	Minimal	None
3. Wound Size	4.5 x 3.2 cm	3.8 x 2.7 cm	3.0 x 2.0 cm	2.1 x 1.5 cm
4. Tissue Regeneration	0% granulation tissue	20% granulation tissue	50% granulation tissue	75% granulation tissue

CHRONOLOGY IN OBSERVATION AND RESULT: (Table 2 & 4)

Clinical examination of the patient reveals regression of the wound of about 75% gradually after 21 days. Patient got relief from associated symptoms as pain and exudate reduced and size was significantly reduced after 21 days.

Figure 2: Representation of ulcer on Day 0,7,14 and 21.

DISCUSSION:

'This study suggests that *Nagakesar Ghrit* may enhance venous ulcer healing, with a 78.6% reduction in ulcer area in 21 days'. These outcomes align with Ayurvedic principles attributing *Nagakesar's* efficacy to its antimicrobial and tissue-regenerative properties, potentially augmented by ghee's emollient and anti-inflammatory effects. The significant pain reduction further supports its clinical utility, addressing a key patient concern.

Compared to standard care studies (e.g., compression therapy achieving 50–70% healing rates in 12 weeks*), Nagakesar Ghrit's* results are encouraging, though the shorter study duration and lack of a control group temper direct comparisons. The low infection rate (5.6%) contrasts with typical venous ulcer studies (15–30%), hinting at an antimicrobial effect warranting microbiological validation.

• LIMITATIONS:

The single case study precludes causality attribution, as spontaneous healing or compression therapy contributions cannot be isolated. The small sample size and lack of long-term follow-up limit generalizability. Future randomized controlled trials comparing *Nagakesar Ghrit* to placebo or conventional dressings, with histological and biochemical analyses, could clarify its mechanisms (e.g., angiogenesis, collagen synthesis).

• CONCLUSION:

Nagakesar Ghrit showed promising therapeutic effects in managing venous ulcers (*Sirajgranthi*), with significant wound healing and pain reduction in this single case study. Its favorable safety profile supports its traditional use, but controlled trials are essential to establish its efficacy and role in integrative wound care.

• FURTHER SCOPE OF STUDY:

This treatment modality can be adapted in bigger sample size or comparing with earlier used techniques and protocols.

REFERENCES:

1. Shastri Ambikadatta, Sushruta Samhita, Chaukhamba Sanskrit Sansthan Varanasi,

Fourth edition 1976, Nidana Sthana 11/8-9, page no.351
2. Gupta, Kaviraj & Upadhya, Astanghridyam Of Vagbhatta Edited with Vidyotni Hindi Commentary, Uttar Tantra 29/10-11 Prakashan, Chaukhambha. (2022)
3. Sharma P.V. Dhanvantarinighantu,Chaukhamba orientalia ,Varanasi,third edition 2012,page no- 78.
4. Ratha KK, Aswani PS, Dighe DP, Rao MM, Meher SK, Panda AK. Management of Venous Ulcer through Ayurveda: A Case Report. J Res Ayurvedic Sci 2018;2(3):202-208
5. Udwadia, T.E. Ghee and Honey Dressing for Infected Wounds. Indian J Surg 73, 278–283 (2011). https://doi.org/10.1007/s12262-011-0240-7
6. Thakur, Shifali & Kaurav, Hemlata & Chaudhary, Gitika. (2021). Mesua Ferrea Linn. (Nagkesar): A Potent Antimicrobial Plant Species. International Journal of Current Pharmaceutical Research. 6-13. 10.22159/ijcpr.2021v13i4.42734.
7. SRB's Manual of Surgery. 4th edition 2013; pg: 149
8. Das S Concise Textbook of Surgery,15th ed. Kolkata: S Das Publication
9. Bernatchez, Stephanie & Eysaman-Walker, Jill & Weir, Dot. (2021). Venous Leg Ulcers: A Review of Published Assessment and Treatment Algorithms. Advances in Wound Care. 11. 10.1089/wound.2020.1381.