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SUCCESSFUL MANAGEMENT OF VARICOSE ULCER WITH JALAUKAVACHARANA: A CASE REPORT

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ABSTRACT

Background: Varicose ulcer is a common complication of chronic venous insufficiency characterized by delayed wound healing, pain, edema, and recurrent infection. In Ayurveda, it can be correlated with Dushta Vrana associated with Rakta Dushti and Sira Dushti. Jalaukavacharana is a type of Raktamokshana indicated in chronic wounds. Case **Presentation:** A 56-year-old male, a pan shop owner, presented with a non-healing ulcer over the left ankle region for 3–4 months with pain, edema, and serous discharge. He had a history of varicose veins and prolonged standing. Routine blood investigations were normal, and he was non-diabetic. **Intervention:** Four sittings of Jalaukavacharana were performed at 15-day intervals using 4–5 medicinal leeches for 30–60 minutes. Compression bandaging was applied after each sitting. Wound cleansing with medicated decoction and dressing were started after the third sitting. **Results:** Progressive reduction in pain, edema, discharge, and unhealthy tissue was observed. Healthy granulation tissue developed, and near-complete healing was achieved after the fourth sitting without complications. **Conclusion:** Jalaukavacharana may be a safe and effective Ayurvedic intervention for the management of varicose ulcer.

KEYWORDS: Varicose ulcer, Jalaukavacharana, Medicinal leech therapy, Dushta Vrana, Raktamokshana.

INTRODUCTION

Varicose ulcer, also known as a venous ulcer or stasis ulcer, is the most common chronic ulcer affecting the lower extremity. It develops as a result of chronic venous insufficiency, where incompetent venous valves produce venous hypertension and venous stasis. Persistent venous hypertension causes leakage of plasma proteins, inflammatory mediators, and red blood cells into surrounding tissues. This results in edema, tissue hypoxia, lipodermatosclerosis, skin pigmentation, and ultimately ulcer formation. Venous ulcers account for nearly 70–90% of chronic leg ulcers and are associated with prolonged morbidity, repeated hospital visits, reduced mobility, loss of working ability, and poor quality of life.

Several risk factors contribute to varicose ulcer formation, including prolonged standing, advancing age, obesity, previous deep vein thrombosis, trauma, and occupations requiring long hours of standing. Diagnosis is mainly clinical and may be supported by duplex Doppler ultrasonography to evaluate venous reflux. Conventional treatment includes compression therapy, limb elevation, wound dressing, antibiotics whenever infection is present, and surgical procedures such as endovenous ablation or correction of superficial venous reflux. Despite these treatment modalities, delayed healing and recurrence remain major clinical problems.

According to Ayurveda, varicose ulcer can be correlated with Dushta Vrana associated with Rakta Dushti, Sira Dushti, Siragata Vata, and Sirajagranthi. Vitiation of Vata causes impaired circulation and Srotorodha (obstruction of channels), whereas vitiated Rakta produces discoloration, inflammation, pain, swelling, and delayed healing. Sushruta has described Raktamokshana as an important therapeutic measure for diseases involving vitiated blood and chronic inflammatory conditions. Jalaukavacharana is considered the safest form of Raktamokshana, particularly in delicate patients and inflamed wounds.

Medicinal leech therapy not only removes vitiated blood but also improves local circulation. Modern studies have shown that leech saliva contains several bioactive substances including hirudin, calin, hyaluronidase, destabilase, bdellins, eglins, and vasodilatory compounds. These substances exhibit anticoagulant, anti-inflammatory, analgesic, thrombolytic, antimicrobial, and microcirculatory actions that support wound healing. Therefore, Jalaukavacharana may offer an effective complementary approach in chronic venous ulcers.

The present case demonstrates the successful management of a chronic varicose ulcer with four sittings of Jalaukavacharana.

CASE PRESENTATION

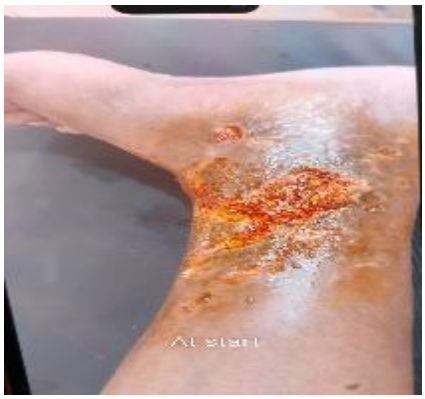
A 56-year-old male presented with pain, swelling, serous discharge, and a non-healing ulcer over the left ankle for 3–4 months. He had a history of varicose veins for several years. He worked as a pan shop owner requiring prolonged standing. There was no history of diabetes mellitus or other major systemic illness. Blood pressure was 130/90 mmHg and pulse rate was 78/min.

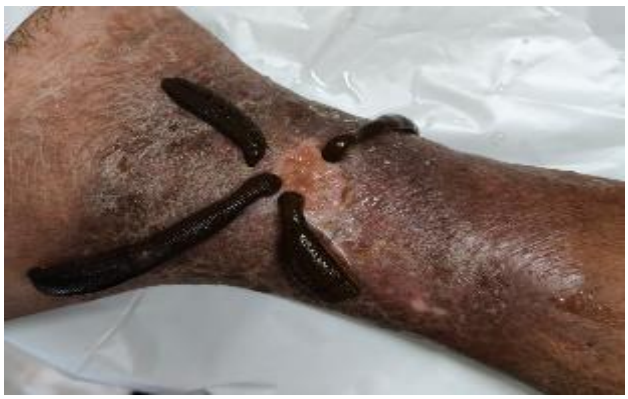
Clinical Findings

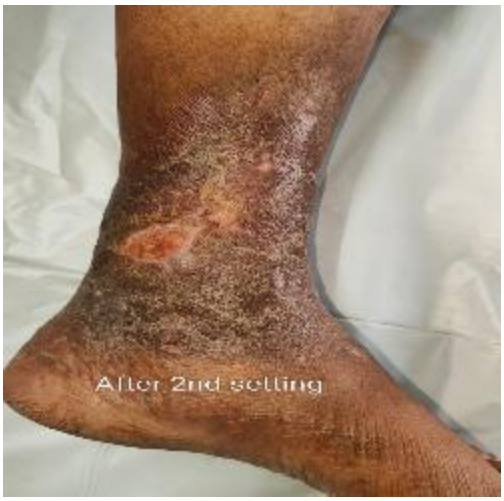
Local examination revealed an irregular ulcer near the left ankle with serous discharge, surrounding hyperpigmentation, pain, and edema. Routine blood investigations including CBC and blood sugar were within normal limits. Venous Doppler was not performed.

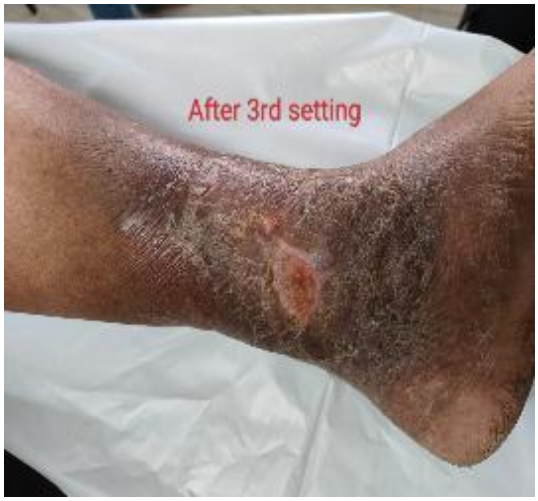
Therapeutic Intervention

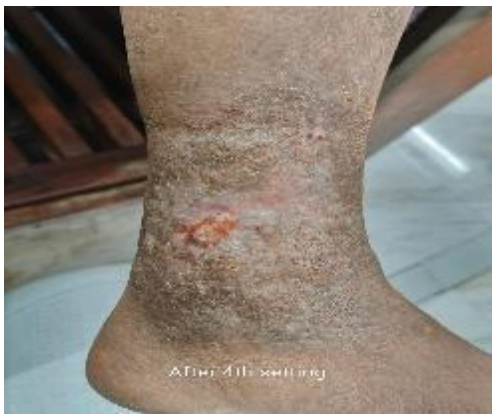
After informed consent, Jalaukavacharana was performed in four sittings at 15-day intervals. Four to five medicinal leeches were applied around the ulcer for approximately 30–60 minutes in each sitting. Compression bandaging was done after every sitting. After the third sitting, wound cleansing with medicated decoction followed by sterile dressing was started.











RESULTS

Clinical photographs demonstrated progressive healing. Pain, edema, and discharge reduced after each sitting. Healthy granulation tissue gradually replaced unhealthy tissue, wound contraction was observed, and near-complete healing was achieved after the fourth sitting without adverse effects.

DISCUSSION

The present case showed progressive clinical improvement following four sittings of Jalaukavacharana. Reduction in pain, edema, discharge, and unhealthy tissue was observed after each sitting. Clinical photographs demonstrated gradual appearance of healthy granulation tissue, contraction of wound margins, and near-complete healing after the fourth sitting without treatment-related complications.

From a modern point of view, chronic venous insufficiency produces sustained venous hypertension that impairs tissue nutrition and oxygenation. The resulting inflammatory response delays normal wound healing and predisposes to chronic ulcer formation. Local

congestion further compromises microcirculation and promotes persistent edema. In the present case, repeated medicinal leech application may have improved venous drainage and tissue perfusion, thereby creating a favorable environment for wound healing.

According to Ayurvedic principles, the pathology mainly involves Rakta Dushti, Sira Dushti, Siragata Vata, and Dushta Vrana. Vitiated Rakta causes discoloration, inflammation, pain, and non-healing ulcers, while aggravated Vata causes obstruction in the channels and poor nourishment of tissues. Jalaukavacharana removes vitiated Rakta, reduces local congestion, restores circulation, and facilitates Vrana Shodhana followed by Vrana Ropana.

The pharmacological action of leech saliva also supports these observations. Hirudin inhibits thrombin activity and prevents clot formation. Calin inhibits platelet aggregation and prolongs local bleeding, thereby improving tissue perfusion. Hyaluronidase enhances diffusion of active substances into tissues. Destabilase possesses fibrinolytic activity, while bdellins and eglins reduce inflammation by inhibiting proteolytic enzymes. Vasodilatory substances increase blood flow and oxygen delivery. Together these actions reduce inflammation, improve microcirculation, encourage granulation tissue formation, and accelerate epithelialization.

Compression bandaging used after each sitting further improved venous return and reduced edema. Wound cleansing with medicated decoction after the third sitting helped maintain a clean wound bed and supported healthy healing. The absence of diabetes mellitus and normal blood investigations eliminated common factors associated with delayed wound healing.

Although this report describes only a single patient, the findings indicate that Jalaukavacharana can be considered a safe, minimally invasive, and economical outpatient procedure for selected patients with varicose ulcers. Larger controlled clinical studies with objective wound assessment and long-term follow-up are required to establish its effectiveness and recurrence rates.

CONCLUSION

The present case suggests that Jalaukavacharana, together with appropriate wound care and compression bandaging, may be an effective and safe outpatient treatment for varicose ulcer. Larger clinical studies are required to validate these findings.

Patient Consent

Written informed consent for treatment and publication of clinical photographs should be obtained from the patient.

Conflict of Interest

None declared.

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