

A Case Report On The Effect Of Jalaukavacharana In A Chronic Non-Healing Wound (Dushta Vrana)

Priya Ranjan¹, Deepali Sundari Verma²

¹PG Scholar, Dept. of Shalya Tantra, G.A.C.H., Patna

²Professor & Head, Dept. of Shalya Tantra, G.A.C.H., Patna

CORRESPONDING AUTHOR

Dr. Priya Ranjan

PG Scholar Department of Shalya Tantra Government Ayurvedic College & Hospital (G.A.C.H.) Patna, Bihar, India

Email ID : drranjanpriya28@gmail.com

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ABSTRACT

Chronic non-healing wounds represent a significant clinical challenge due to delayed tissue repair, persistent inflammation, and compromised local circulation. In Ayurveda, such wounds are described under Dushta Vrana, wherein vitiation of Rakta and Pitta plays a pivotal role in delayed healing. Jalaukavacharana (leech therapy), a parasurgical procedure classified under Raktamokshana, is indicated in conditions associated with Rakta-Pitta Dushti and is traditionally known for its blood-cleansing, anti-inflammatory, analgesic, and wound-healing effects. This case report documents the successful management of a chronic non-healing wound of four years' duration using Jalaukavacharana in combination with appropriate Ayurvedic local wound care and internal medications. Medicinal leeches were applied around the wound margins under aseptic precautions, followed by standard wound cleansing and dressing. The treatment protocol was administered systematically with regular follow-up. Progressive improvement was observed in terms of reduction in pain, inflammation, discharge, and wound size, along with healthy granulation tissue formation. Complete wound healing was achieved within eight weeks of treatment, with no recurrence or adverse effects noted during the follow-up period. The outcome of this case highlights the potential role of Jalaukavacharana as a safe, effective, and economical therapeutic modality in the management of chronic non-healing wounds. When used judiciously as part of an integrative Ayurvedic treatment approach, it can offer promising results in long-standing and refractory cases of Dushta Vrana...

Keywords: *Jalaukavacharana, Dushta Vrana, Chronic non-healing wound, Raktamokshana, Leech therapy*

INTRODUCTION

Non-healing wounds constitute a persistent and challenging clinical problem due to delayed or arrested wound repair despite appropriate therapeutic interventions. Conventionally, a wound that fails to progress through the normal stages of healing within a period of 4–6 weeks is classified as a chronic or non-healing wound [1]. Such wounds significantly affect the quality of life of patients and impose a substantial burden on healthcare systems. Multiple local and systemic factors are responsible for impaired wound healing, including repeated infection, inadequate blood supply, chronic inflammation, tissue hypoxia, nutritional deficiencies, and prolonged pressure or trauma [2]. These factors disrupt the physiological process of wound repair, leading to delayed granulation, persistent discharge, and non-epithelialization.

In Ayurvedic literature, chronic non-healing wounds are described under the broad classification of Dushta Vrana. Classical Ayurvedic texts elaborate that Dushta Vrana presents with characteristic features such as pain (Vedana), excessive or abnormal discharge (Srava), discoloration (Vaivarnya), foul smell (Dourgandhya), presence of slough, and delayed or unhealthy granulation tissue formation [3]. These features closely correlate with the modern description of chronic wounds. The etiopathogenesis of Dushta Vrana is primarily attributed to vitiation of Rakta along with dominance of Pitta Dosha, resulting in inflammation, infection, and delayed tissue regeneration. [4]

Sushruta Samhita emphasizes Raktamokshana as an important therapeutic modality in the management of Dushta Vrana, especially in conditions associated with Rakta and Pitta Dushti [5]. Bloodletting helps in removing vitiated blood, reducing

local congestion, and restoring normal circulation. Among various methods of Raktamokshana, Jalaukavacharana (leech therapy) is considered the safest and most suitable technique, particularly in chronic inflammatory conditions, delicate patients, and those unsuitable for sharp surgical instruments [6]. Its gentle nature and localized action make it an ideal parasurgical intervention for chronic non-healing wounds.

CASE PRESENTATION

A 45-year-old male patient presented to the OPD of Shalya Tantra with a chronic non-healing ulcer over the medial aspect of the right lower leg, persisting for four years. The wound developed following minor trauma and failed to heal despite repeated conventional dressings and antibiotic therapy.

CHIEF COMPLAINTS

Non-healing wound for 4 years

Mild pain and burning sensation

Seropurulent discharge

Blackish discoloration of surrounding skin

MEDICAL HISTORY

No history of diabetes mellitus or hypertension

History of pulmonary tuberculosis 14 years ago; completed full DOTS regimen

History of left-sided paralysis 6 years ago

No history of previous surgery

Personal History

Occupation: Farmer

Diet: Mixed

Appetite: Good

Sleep: Sound

Bowel habits: Regular

Addiction: Tobacco chewing and alcohol intake

Allergy: None

General Examination

General condition: Fair

Build: Moderate

Weight: 58 kg

Blood pressure: 110/74 mmHg

Pulse: 74/min

Respiratory rate: 16/min

Cardiovascular and respiratory systems: Within normal limits

Local Examination

Site: Medial aspect of right lower leg

Size: 5 × 3 × 0.5 cm

Edges: Irregular

Floor: Slough present

Discharge: Minimal seropurulent

Tenderness: Mild

Surrounding skin: Hyperpigmented and inflamed

INVESTIGATIONS

Routine hematological investigations including CBC, ESR, BSR, and viral markers were performed. All parameters were within normal limits, ruling out systemic infection and metabolic disorders.

Ayurvedic Diagnosis

Dushta Vrana due to *Pitta-Rakta Dushti* [7]

Treatment Plan

Jalaukavacharana

Number of leeches: 2 medicinal leeches

Site: Periwound area

Frequency: Once weekly

Total sittings: 6

PROCEDURE

The wound area was cleaned with sterile water under aseptic precautions. Medicinal leeches were applied around the wound margin and allowed to attach naturally. After spontaneous detachment, the site was cleaned and dressed with sterile gauze [8].

LOCAL WOUND CARE

Cleansing with *Panchavalkala Kwatha*

Dressing with *Jatyadi Taila*

Internal Medication[9]

Panchanimbadi Churna – 5 g twice daily

Sanshamani Vati – 2 tablets twice daily

Capsule Stresscom – 1 capsule twice daily

Tablet Peggard – 2 tablets twice daily

OUTCOME AND FOLLOW-UP

After the fourth sitting of *Jalaukavacharana*, a significant reduction in pain, discharge, and inflammation was observed. By the sixth sitting, healthy granulation tissue was evident, and wound dimensions reduced considerably. Complete wound healing occurred within eight weeks. No recurrence was noted during follow-up[10].

DISCUSSION

Chronic non-healing wounds remain a significant therapeutic challenge due to impaired local circulation, persistent inflammation, infection, and poor tissue regeneration. In the present case, leech therapy played a crucial role in breaking this pathological cycle by improving local hemodynamics and supporting physiological wound repair mechanisms. The biological secretions released during leech attachment possess anticoagulant, anti-inflammatory, analgesic, and antimicrobial actions, which together help in reducing venous stasis, relieving pain, and preventing secondary infection. Improved microcirculation and oxygen delivery to the wound bed create a favorable environment for granulation tissue formation and epithelialization, thereby accelerating the healing process.

From an Ayurvedic standpoint, chronic wounds are often associated with *Rakta Dushti* and *Pitta Prakopa*, leading to delayed healing and recurrent inflammation. *Jalaukavacharana*, being a gentle form of *Raktamokshana*, is particularly indicated in such conditions where delicate tissues are involved. The removal of vitiated blood through leech therapy helps restore local tissue balance, reduces inflammatory changes, and promotes *Vrana Shodhana*. Subsequent improvement in tissue vitality supports *Vrana Ropana*, resulting in progressive wound contraction and healing.

The combined therapeutic approach adopted in this case, involving parasurgical intervention along with appropriate local wound care and internal medications, addressed both local and systemic factors contributing to chronicity. Regular wound cleansing and dressing maintained asepsis and supported tissue regeneration, while internal medicines helped in correcting underlying doshic imbalance and enhancing healing potential. This integrative strategy resulted in significant clinical improvement and satisfactory wound healing without complications.

Thus, leech therapy, when employed judiciously as part of a comprehensive Ayurvedic treatment protocol, can be considered an effective and safe modality for the management of chronic non-healing wounds.

CONCLUSION

Jalaukavacharana emerged as a safe, effective, and economical parasurgical intervention in the management of chronic non-healing wounds (Dushta Vrana). The therapy contributed significantly to wound cleansing, reduction of inflammation, improvement in local circulation, and enhancement of tissue regeneration. When administered judiciously along with appropriate Ayurvedic local wound care and internal medications, it addressed both local pathological factors and underlying systemic imbalances responsible for delayed healing. The integrative treatment approach adopted in this case resulted in satisfactory wound healing without adverse effects, highlighting the therapeutic potential of Jalaukavacharana in chronic and refractory wound conditions. These findings suggest that leech therapy can be considered a valuable adjunct in Ayurvedic wound management protocols, warranting further clinical studies for wider validation ..

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