

EFFECT OF APAMARGA KSHARA APPLICATION IN THE POST-OPERATIVE WOUND OF A LUMBAR ABSCESS CAVITY: A CASE REPORT

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Article Received on 05 July 2026,
Article Revised on 25 July 2026,
Article Published on 04 August 2026,
<https://doi.org/10.5281/zenodo.21820625>

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How to cite this Article: *¹Dr. Payal Ashish Kela, ²Dr. Ramesh Vanaji Ahire, ³Dr. Aparna Abhay Raut. (2026). Effect Of Apamarga Kshara Application In The Post-Operative Wound Of A Lumbar Abscess Cavity: A Case Report. World Journal of Pharmaceutical Research, 15(15), 2437–2443.

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ABSTRACT

Background: Abscess is a Kapha-Pittaja Vrana characterised by localised collection of pus that, in contemporary surgical practice, is managed by incision and drainage (I&D). While I&D relieves the acute septic focus, the resulting open post-operative wound often shows delayed granulation, persistent slough, and prolonged healing time. Ayurvedic Shalya Tantra describes Kshara Karma as a para-surgical procedure with Chedana (excision), Bhedana (splitting/opening), Lekhana (scraping) and Shodhana (cleansing) properties, and Apamarga Kshara — prepared from the ash of *Achyranthes aspera* — is classically indicated for Vidradhi (abscess) and non-healing wounds. **Case Presentation:** A 45-year-old female presented with a post-incision-and-drainage wound over the lumbar region following surgical drainage of an abscess, with slough and serosanguinous discharge in the wound bed. Local application of Apamarga Kshara (as an aqueous Kshara applied

on Kshara-soaked gauze/Ksharaploti) was carried out once daily for 30 days. **Outcome:** The wound showed progressive debridement of slough, healthy granulation tissue formation, and complete epithelisation by Day 30, with a Unit Healing Time (UHT) of 2 days/cm², and no adverse reaction or recurrence on follow-up. **Conclusion:** Apamarga Kshara application appears to be a safe, low-cost, and effective adjuvant modality for accelerating debridement

and granulation in post-operative abscess wounds, and merits further evaluation through controlled clinical studies.

KEYWORDS: Apamarga Kshara, Vidradhi, Lumbar Abscess, Vrana Ropana, Kshara Karma, Post-operative wound, Wound healing, Case report.

INTRODUCTION

An abscess (Vidradhi) is a localised collection of pus within a cavity formed by tissue disintegration, classically attributed in Ayurveda to vitiation of Kapha and Pitta Doshas along with Rakta and Mamsa Dhatu. Acharya Sushruta classified Vidradhi into Bahya (external) and Abhyantara (internal) types and described its management on the lines of Shopha Chikitsa in the pre-suppurative stage, followed by Vrana Chikitsa once the abscess has ruptured or been surgically drained.

In contemporary practice, incision and drainage remains the standard treatment for a mature abscess. However, the wound left behind after drainage is frequently colonised, undermined, and slow to granulate — factors that prolong dressing burden and patient discomfort. This has renewed clinical interest in adjuvant Ayurvedic para-surgical measures, particularly Kshara Karma, which Acharya Sushruta and Vagbhata regarded as superior to Agnikarma (thermal cautery) and Raktamokshana (bloodletting) for certain indications because of its broad, multi-modal action.

Kshara is an alkaline preparation obtained by incinerating the drug plant and processing the ash with water to obtain a caustic alkaline solution or paste. Apamarga Kshara — prepared from *Achyranthes aspera* Linn. — is described as possessing Tikshna (penetrating), Ushna (hot), Katu (pungent) and Kshara (alkaline) properties, giving it Chedana, Bhedana, Lekhana and Sodhana actions along with a Tridosha-shamaka effect. These properties make it particularly suited to debriding slough, opening loculations, and preparing the wound bed for healthy granulation.

This case report documents the clinical effect of local Apamarga Kshara application on a post-operative wound following incision and drainage of a lumbar abscess in a 45-year-old female, with the objective of evaluating its debridement and wound-healing potential as an adjuvant Ayurvedic intervention.

CASE REPORT

Patient Information

A 45-year-old female, homemaker by occupation, resident of Nashik, presented to the OPD of the Department of Shalya Tantra with complaints of a discharging wound over the lumbar region from 5 days, following incision and drainage of an abscess performed at the same hospital.

History

The patient had initially presented with painful, localised swelling with redness and low-grade fever over the lumbar region of 6 days' duration. On confirmation of abscess formation (clinically and on ultrasonography showing a well-defined hypoechoic collection with internal echoes suggestive of an abscess), incision and drainage was performed under local anaesthesia, and approximately 30 mL of thick pus was drained and sent for culture and sensitivity, which grew *Staphylococcus aureus*, sensitive to common antibiotics. There was no history of diabetes mellitus, immunocompromise, tuberculosis, or similar swelling in the past.

Clinical Examination

- General examination: Pulse, blood pressure, temperature and systemic examination were within normal limits; no pallor, icterus, or pedal oedema.
- Local examination: Wound present over the lumbar region, size 5.0 × 3.0 cm, wound bed showing slough with undermined edges, discharge purulent, surrounding skin mildly inflamed, no active bleed, no palpable residual collection on bidigital examination.
- Regional lymph nodes: Non-palpable.

Investigations

- Complete blood count: Hb 12.0 g/dL, TLC 9,800 cells/mm³, ESR 22 mm/hr.
- Random blood glucose: 98 mg/dL.
- Pus culture and sensitivity: *Staphylococcus aureus* isolated, sensitive to common antibiotics.
- Ultrasonography (local part), post-drainage: No residual collection.

Diagnosis

Post-operative (post-I&D) wound of Vidradhi (abscess) over the lumbar region, Sadhya Vrana with delayed granulation.

Treatment Protocol

After confirming absence of residual collection and control of the acute septic phase, local application of Apamarga Kshara was initiated over the open wound as follows:

- Preparation: Apamarga Kshara prepared classically from the Panchanga (whole plant) of *Achyranthes aspera* by incineration and Sodhana (purification) as per Sharangadhara Samhita methodology, diluted to the required strength with sterile water to obtain an aqueous Kshara solution.
- Pre-application to clean the wound was done with Triphala Kwatha which cleanse the wound bed.
- Application: Apamarga Kshara solution applied over the slough and wound margins using sterile Kshara-soaked gauze (Ksharaploti) for a contact time of 5 minutes, followed by neutralisation with normal saline, once daily.
- Dressing: Sterile non-adherent dressing applied after each sitting and the dressing changed every 24 hours.
- Duration: Kshara application continued for 30 days, until the wound bed showed healthy, uniform granulation tissue and complete epithelisation.
- Adjuvant oral medication: Triphala Guggulu, along with Pathya-Apathya (dietary and lifestyle advice).
- Monitoring: Wound size, discharge, granulation tissue, and pain (VAS score) were recorded at each visit; photographic documentation was maintained.

Follow-up and Outcome

Serial observations recorded during the 30-day course of treatment are summarised below:

Day	Wound size (cm × cm)	Discharge	Granulation tissue	Pain (VAS 0–10)	Slough/necrotic tissue
Day 0 (pre-application)	5.0 × 3.0	Purulent	Absent / poor	6	Present, moderate
Day 3	4.5 × 2.8	Serosanguinous	Poor	5	Reduced
Day 7	4.0 × 2.5	Serous	Fair, pink	4	Minimal
Day 14	3.0 × 1.8	Minimal serous	Good, healthy	2	Nil
Day 21	1.5 × 1.0	Scant	Healthy, contracting	1	Nil
Day 30 (complete healing)	0 × 0	Nil	Healthy, fully epithelialised	0	Nil

Unit Healing Time (UHT) was calculated as: $UHT = \text{Total days for complete healing} \div \text{Initial wound area (cm}^2\text{)}$. In the present case, UHT was found to be 2.0 days/cm² (30 days ÷ 15 cm²),

with complete wound healing achieved in 30 days without any complication, keloid formation, or recurrence on follow-up at 1 month.

Visual Evidence



DISCUSSION

A post-operative abscess wound presents a distinct healing challenge: the cavity is often colonised, the wound margins may be undermined, and residual slough can perpetuate low-grade inflammation, delaying the transition from the inflammatory to the proliferative phase of healing. Apamarga Kshara, by virtue of its Tikshna, Ushna and Kshara Guna, acts primarily through controlled chemical debridement (Lekhana-Chedana) — it dissolves and separates necrotic or sloughy tissue from the healthy wound bed without damaging viable

tissue when applied judiciously, thereby shortening the lag phase before granulation tissue appears.

The alkaline nature of Kshara is also considered to exert an antimicrobial/bacteriostatic effect on the wound surface, reducing the bioburden that would otherwise sustain purulent discharge. In this case, this translated into a steady reduction in wound size and discharge, earlier appearance of healthy, vascular granulation tissue by Day 14, and a progressive fall in pain scores (VAS 6 to 0), with complete epithelisation by Day 30 — findings consistent with prior case reports on Apamarga Kshara Taila in non-healing venous and diabetic ulcers, and with reports of Apamarga Kshara Sutra/Kshara application in Nadi Vrana, Bhagandara, hidradenitis suppurativa, and post-abscess wounds.

The only limitation observed during the course of treatment was a transient mild burning sensation for a few minutes after each application, which settled without intervention. Being a single case, the findings must be interpreted with caution regarding generalisability.

A note of caution is warranted: Kshara is a caustic preparation, and its strength, contact time, and technique of application must be carefully titrated to the depth and vascularity of the tissue to avoid excessive tissue damage, since over-application can injure healthy granulation tissue or underlying structures. Its use is therefore best restricted to trained hands, with strict monitoring of wound response at each sitting.

CONCLUSION

In this case, local application of Apamarga Kshara over a post-operative lumbar abscess wound resulted in effective debridement of slough, early healthy granulation, and complete wound healing within 30 days, without complication. This supports the classical description of Apamarga Kshara as a Lekhana-Chedana-Sodhana agent and its potential role as a safe, cost-effective adjuvant in the management of post-operative abscess wounds, particularly in resource-limited settings. As this is a single case report, controlled clinical studies with larger sample sizes are required to validate these findings and to standardise the concentration, frequency, and duration of Apamarga Kshara application.

Consent

Written informed consent was obtained from the patient for publication of this case report and any accompanying clinical images.

Conflict of Interest

None declared.

Source of Funding

None.

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