



CASE REPORT

Conservative Ayurvedic Management Of Full Thickness Corrosive Burn Ulcer- A Case Report

Shruthy Santhan¹, Deepa Jose² & Shafeer M S³

¹Final Year P G Scholar, Department of Salyatantra, Govt. Ayurveda College, Tripunithura, Ernakulam, Kerala.

²Associate Professor, Department of Salyatantra, Govt. Ayurveda College, Tripunithura, Ernakulam, Kerala.

³Assistant Professor, Department of Salyatantra, Govt. Ayurveda College, Tripunithura, Ernakulam, Kerala.

*Email: shruthysanathan@yahoo.com

ARTICLE HISTORY

Received: 11 March 2025

Accepted: 25 June 2025

Available online

Version 1.0 : 31 June 2025

Keywords

Full thickness corrosive burn ulcer, *Haridradi Ghritha*.

Additional information

Peer review: Publisher thanks Sectional Editor and the other anonymous reviewers for their contribution to the peer review of this work.

Reprints & permissions information is available at <https://keralajournalofayurveda.org/index.php/kja/open-access-policy>

Publisher's Note: All Kerala Govt. Ayurveda College Teacher's Association remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Copyright: © The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited (<https://creativecommons.org/licenses/by/4.0/>)

CITE THIS ARTICLE

Shruthy S, Deepa J, Shafeer MS. Conservative Ayurvedic Management Of Full Thickness Corrosive Burn Ulcer- A Case Report. Kerala Journal of Ayurveda. 2025;4(2):07-10.

<https://doi.org/10.55718/kja.395>

Abstract

Corrosive burn ulcer or chemical burn ulcer is a type of non-specific traumatic ulcer.¹ Traumatic ulcers may be situated anywhere in the body. But these ulcers occur more commonly where the skin is closely applied to bony prominences e.g. shin, malleoli and back of the heel.² In chemical burn, the severity of the damage is directly related to the concentration of the chemical agent, the amount of agent and the duration of contact.³ Such burn injury tends to be deeper than it is assessed from outside.³ Chemical burns are serious because ocular penetration occurs quickly and ischaemic necrosis can result. In this tissue destruction is more and progressive. It is always a deep burn.³ In this case study, a 72-year-old female patient, presented with non-healing ulcer on the right leg due to the exposure of concentrated Dettol solution for 2 weeks. The patient was managed with internal administration of *Gugguluthikthakakam kashayam*, *Chandraprabha gulika*, *Vrana kshalana* with *Triphala kashaya*, wound dressing with *Haridradi Ghritha*.

Introduction

A corrosive burn ulcer, also known as a chemical burn ulcer, represents a form of non-specific traumatic ulcer.¹ Such traumatic ulcers can occur in various sites throughout the body. However, these ulcers tend to arise more often in regions where the skin is in close contact with bony prominences, for instance, the shin, malleoli, posterior aspect of the heel.² The extent of damage of a chemical burn is directly related to the concentration of the chemical agent, the quantity of the agent and the duration of contact.³ Burn injuries of this nature are often deeper than external evaluation.³ Chemical burns are particularly severe as they can lead to rapid ocular penetration and subsequent ischaemic necrosis. The resulting tissue destruction is both extensive and progressive. These burn injuries are consistently categorized as deep burns.⁴

In this case study, a 72-year-old female patient presented with a non-healing ulcer on her left leg, which resulted from exposure to concentrated Dettol solution for a duration of 2 weeks. The management plan for the patient included

the internal administration of *Guggulutikthakam kashaya*,⁵ *Chandraprabha gulika* and *Vrana kshalana* with *triphala kashaya*, along with wound dressing using *Haridradi Ghritha*. *Haridradi ghritha*, mentioned in *dwivraneeeya chikitsa* of *kashyapa samhita*, having *vrana shodhana-ropana* and *vata-pittahara* properties which may be beneficial to treat symptoms of this kind of *dushta vrana*.⁶ *Haridra*, *daruharidra*, *tila*, *saindhava*, *madhuka*, *trivrit*, *nimbapathra* are the ingredients of *haridradi ghritha*. All these drugs have *vrana* property. *Haridra* have *vata-pitta naasana* properties. *Daru haridra* is with *pittasaamaka*, *vedanaasthapana* and *rakta sthambhaka* properties.⁷ *Tila* is *anilaapaha*, *sookshma* and *yogavahi*. *Madhuka* is *shonithastapana* and *pittaasra nasana*. *Trivrut* having the properties like *kapha-pitta prasamana* and *shodhahara*. *Nimba patra* is *visheshena vranaghna*, *vatahara* and *kapha-pittahara*.⁷



Fig. 1. corrosive burn ulcer on 29/4/2024

Case report

In this case study, a 72-year-old female patient, presented with non-healing painful ulcer on the right leg since 2 weeks on 29/4/2024. The ulcer was on the anterior part of lower 1/3rd of right leg and with severe burning pain and her sleep was disturbed due to severity of pain.

She already had a small abrasion on the anterior part of lower 1/3rd of right leg since 3 weeks. Two weeks before, she cleaned that wound with a large quantity (about 250 ml) of concentrated Dettol solution for fast healing as self-medication. That leads to the development of a large ulcer on the site of previous ulcer. Suddenly, the wound become worsened, became increased in size gradually and associated with severe pain. So, she consulted at an allopathic hospital. Then she consulted our OPD and got admitted for ulcer management.

There was no history of type 2 diabetes mellitus, varicose vein with no relevant past illness and personal history. Vital data were normal (29/4/2024).

Clinical findings (29/4/2024)-

On examination- Single ulcer on the anterior aspect of lower 1/3rd of right leg. Size of the ulcer was 14x7x1 cm. Shape was irregular and in floor, muscle and tendon sheath were exposed. Margin was well demarcated. Copious serous discharge was present. The surrounding area was hyperpigmented and edematous. Edge was sloping type and base was bone. Bleeding was absent. On palpation, there was grade-2 tenderness.

Investigations (29/4/2024)-

Blood investigations like Hb gm% TLC, DLC, RBS, HIV, HBsAg, RFT were done. These were in normal limit. ESR was 65 mm/hr.

THERAPEUTIC INTERVENTION (29/4/2024 to 8/5/2024)

Table 1. Details of therapeutic intervention

Sl. No.	Medicine	Dose	Time	Mode of use
1	<i>Guggulutikthakam kashaya</i>	90 ml BD	At 6 AM and 6 PM	1 hour before food
2	<i>Chandraprabha gulika</i>	2 BD	At 6 AM and 6 PM	With kashayam
3	<i>Triphala kashaya</i>	Sufficient quantity	Morning and evening	Vrana kshalana
4	<i>Haridradi ghritha</i>	Sufficient quantity	Morning and evening	Ulcer dressing

RESULT (8/5/2024)

After 10 days of treatment, pain of ulcer got completely relieved and discharge became scanty. The floor of the ulcer covered with healthy red granulation tissue. Marked reduction in slough formation was noted.



Fig. 2. corrosive burn ulcer on 8/5/2024

Discussion

This was a case of full thickness corrosive or chemical burn ulcer. This is a type of non-specific traumatic ulcer. Traumatic ulcers may be situated anywhere in the body. But, occur more commonly where the skin is near bony prominences. Here, the ulcer is on the left shin. This corrosive or chemical burn ulcer may be included under *dushta vrana*.

Haridradi ghritha, referenced in the *dwivraneeya chikitsa* of *kashyapa samhita*, has been chosen for the treatment of *dushta vrana*, focusing on its *vrana shodhana-ropana* properties. The ingredients of *haridradi ghritha* include *haridra*, *daruharidra*, *tila*, *saindhava*, *madhuka*, *trivrit* and *nimbapathra*. Each of these drugs possesses *vrana-hara* properties. *Haridra* is known for its *vata-pitta naasana* effect. Curcumin, a phytochemical present in *haridra*, exhibits notable wound-healing property. *Daruharidra* is characterized by its *pittasaamaka*, *vedanaasthapana* and *rakta sthambhaka* properties.⁷ *Tila* is recognized as *anilaapaha*, *sookshma* and *yogavahi*. *Madhuka* has *shonithastapana* and *pittaasra nasana* effects. The root of liquorice (*madhuka*) demonstrates analgesic properties. *Trivrit* has *kapha-pitta prasamana* and *shodhahara* effects. Operculina turpethum (*trivrit*) is noted for its analgesic and antiulcer effects.⁷ *Nimba patra* is particularly effective in *vrana-ghna*, *vatahara* and *kapha-pittahara* properties. The leaves of *Azadirachta indica* (*nimba*) are known for their wound-healing action. *Ghritha*, regarded as the best among *snehas*, also facilitates *vrana shodhana-ropana karma*. Additionally, it encompasses *Pittanilahara*, *Nirvapana*, *Mridukara*, *Madhura* and *Seetha*.⁷

Guggulutikthakam kashayam has *vrana-hara* property. *Guggulu tiktaka Kashaya* promotes re-epithelialization and wound contraction via its powerful antioxidant, sesamol. This compound aids in the proliferation of epithelial cells from the wound edges, thereby facilitating the healing process by mitigating oxidative damage. It is also linked to the reduction of pro-inflammatory mediators, which are vital for a controlled inflammatory response during the initial stages of wound healing. This regulated inflammatory response is important for proper healing, as it assists in the removal of damaged tissue and debris and stimulates the formation of new tissue.⁸ In addition to its anti-inflammatory effects, *Guggulutiktakam kashaya*, possesses antimicrobial properties, which are consistent with the current understanding of infection prevention and management, a critical aspect of the wound-healing process. *Nimba*,

Vidanga and other *tikta dravyas* present in *Guggulutiktakam kashaya* are also known for their strong antimicrobial properties. *Guggulu*, a key ingredient in *Guggulutiktakam kashaya*, is recognized for promoting collagen synthesis, making it relevant in the context of modern wound care. Collagen is an essential component of the extracellular matrix, providing structural support for tissue repair and regeneration. By promoting collagen synthesis, *Guggulu* helps to speed up the healing process and improve the quality of new tissue.⁸

Chandraprabha Gulika is *vrana-hara* and *shodhahara*. *Pippali*, one of the ingredients of *chandraprabha vati*, having wound healing and antimicrobial properties. The *Bhasma* of *Makshik dhatu* enhances skin elasticity, suppresses inflammation, diminishes scarring and redness and promotes the healing process.⁹

Triphala kashaya is *vrana shodhana-ropana*, ie, both wound cleansing and healing properties. Also, it possesses improved tissue regeneration, antibacterial and antioxidant activities, necessary for the management of full thickness wound.¹⁰

The floor of the ulcer was covered with slough and pale granulation tissue and the serous discharge was profuse in nature before treatment. After the 10 days of treatment, pain of ulcer got completely relieved and serous discharge became scanty. The floor of the ulcer became covered with red granulation tissue. And there was marked reduction in slough formation on the floor of the ulcer. This indicates *dushtavranavastha* became converted to *suddhavranavastha*. This ulcer was large sized.

Conclusion

Corrosive burn ulcer or chemical burn ulcer is a type of non-specific traumatic ulcer. Conservative Ayurvedic management is effective in this type of ulcers. Through this treatment, it clear that *gugguluthikthakam kashaya*, *chandraprabha gulika*, *triphala Kashaya* and *haridradi ghritha* has *shodhana* effect in *dushta vrana* developed due to chemical burn. That is, conservative Ayurvedic management is effective in chemical burn ulcers.

Strength of the Study

In a previous study, *Haridradi ghritha* was used for fissure-in-ano. Here, assessed the utility of *haridradi ghritha* in full thickness corrosive burn ulcer.

Limitation of the Study

Even though, this full thickness corrosive burn ulcer can be treated with ayurvedic treatment, the ulcer needs long time for complete healing with epithelization.

Ethical Considerations

- Informed written consent was taken from the patient before publication.
- Data leading to personal identification including name, address, photographs without masking faces were not included in the entire case report.
- Ethical clearance obtained from Institutional Ethics Committee dated 24/05/2024 with reference number 11/SL-AR/IEC/2024.

Conflict of Interest

Nil

References

1. Somen Das. A Manual on Clinical Surgery: 13, Old Mayor's Court, Kolkata. 13th edition; p61.
2. Shrinivas AG, Amol W. Study of the pathogenesis of ulcer of lower extremity under various conditions. International Journal of Research in Medical Sciences [Internet]. 2016;4:621-7. Available from: <https://www.msjonline.org/index.php/ijrms/article/download/552/549/2187>
3. Somen Das. A Concise Textbook of Surgery. Published by Dr. S. Das. 13 old Mayor's Court. Kolkata. 6th Edn. July 2010; 5-7.
4. Sriram Bhat M. SRB's Manual of Surgery. Panama: Jaypee Brothers Medical Publishers. 5th edition; 2016; p15.
5. Arunadatta, Ashtanga Hridaya chikitsa sthana, chapter 21, verse 58-61, Chaukhamba Sanskrit Pratisthan, 2015.
6. Prof. Tiwari P.V, Kasyapa Samhita (commentary), Chikitsa sthana, Chapter? Verse no. 15, Chaukhamba Viswabharati; Varanasi; 2018: 165 p.
7. Santhan S, Jose D. Ayurvedic Management of Acute Fissure-In-Ano-A Case Series. Kerala Journal of Ayurveda. 2025 Mar 31;4(1).
8. Bant A. Issue 12 www.jetir.org (ISSN-2349-5162). JETIR2412671 Journal of Emerging Technologies and Innovative Research [Internet]. 2024 [cited 2025 June 17];11. Available from: <https://www.jetir.org/papers/JETIR2412671.pdf>.
9. Jagani P, Moharana PK. A Critical Review on Chandraprabha Vati- An Ayurvedic Formulation. Journal of Ayurveda and Integrated Medical Sciences. 2022;7(11):136-44.
10. Kumar MS, Kirubanandan S, Sripriya R, Sehgal PK. Triphala promotes healing of infected full-thickness dermal wound. J Surg Res. 2008 Jan;144(1):94-101. doi:10.1016/j.jss.2007.02.049. Epub 2007 Jul 27. PMID: 17662304.

§§§