



Case Report

Unlocking the healing potential: Agada tantra principles in pyoderma gangrenosum management

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ABSTRACT

Introduction: Due to their rising prevalence and growing awareness of the associated morbidity and socioeconomic burden, chronic ulcers, defined by their inability to heal within a reasonable amount of time, have become a more significant clinical issue. In Ayurveda, Agada Tantra principles provide a comprehensive approach to treating chronic wounds.

Material and Methods: We present a case report of a 60-year-old female patient with a non-healing ulcer on the lateral aspect of her right leg that had been present for one year and associated with Itching and burning sensation, as well as serosanguineous discharge from the wound.

Results and Conclusion: Hence Pyoderma gangrenosum was successfully managed using Ayurveda intervention, highlighting the potential of Agadas in managing chronic ulcers.

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1. Introduction

Pyoderma gangrenosum (PG) is a rare debilitating inflammatory skin disease clinically characterized by painful, rapidly evolving cutaneous ulcers with undermined, irregular, erythematous-violaceous edges.¹

PG represents the prototype of neutrophilic dermatoses and is currently classified within deep/hypodermal neutrophilic dermatoses² with a worldwide estimated incidence of 3–10 cases/million people/year³ Wound care is crucial for the appropriate management of PG cases.⁴ Pyoderma gangrenosum ulcers evolve through inflammatory and healing phases, requiring a differentiated approach depending on depth and exudation.^{5,6}

Interestingly, Ayurveda, the ancient system of medicine from India, offers insights into wound management through its Shalyatantra and Agadatantra branches, shedding light on the potential of Ayurvedic remedies to treat chronic

ulcers.

2. Case Report

A 60-year-old female patient with no history of diabetes, hypertension, thyroid disease, or any other systemic disease presented to the Nirvisha OPD with complaints of a non-healing wound on the lateral aspect of the right leg that had been present for one year associated with Itching and burning sensations, as well as serosanguineous discharge from the wound. Before one year, the patient appeared to be healthy; however, she began to experience itching in her right leg, which she repeatedly scratched with her nails, resulting in a wound. There was no discharge at first, but the wound gradually grew larger. There was no intervention other than the analgesics given for a short period by the local doctor. The patient didn't have drug information.

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2.1. Therapeutic intervention

The patient was given with following set of three treatment courses.

2.2. The first course of treatment

The treatment plan included Panchavalkala Kashaya Seka (irrigation) with freshly prepared Kashaya (decoction) to the wound region, as well as external application of Nalpamaradi Taila Pichu (oil-based padding) and internal medications. [Table 3]

2.3. The second course of treatment

The Panchavalkala Kashaya Seka procedure was continued, along with Nalpamaradi Taila Pichu and internal medicines. [Table 4]

2.4. The third course of treatment

Along with the internal medications, the external treatment of Panchavalkala Kashaya Seka was continued using freshly prepared Kashaya and Nalpamaradi Taila Pichu. [Table 4]

Only the Nalpamaradi Taila application was continued after the third sitting, and the wound fully healed after three months. [Table 5]



Figure 1: First visit



Figure 2: Second visit



Figure 3: Third visit



Figure 4: Final visit

2.5. Follow-up and Outcome

The patient has been assessed before treatment, after the first sitting, after the second sitting, and after the third sitting. The assessment was based on the subjective and objective parameters listed below. [Table 2].

1. Subjective parameters Pain assessed by Verbal Descriptive Scale
2. Sleep is assessed in the following manner:
 - (a) Sound
 - (b) Disturbed

3. Claudication distance – assessed in the following manner:

- (a) Pain compels to take rest
- (b) The pain persists and walks with difficulty.
- (c) No pain

2.5.1. Parameters

Size of wound-length and breadth is measured by using a paper ruler

1. Floor of ulcer – assessed in the following manner

- (a) Unhealthy with slough
- (b) Unhealthy without slough
- (c) Normal scar

2. Objective edema – assessed by measuring tape

- (a) 0–1 cm – mild
- (b) 1–2 cm – moderate
- (c) More than 2 1 cm – severe

3. Discussion

Chronic ulcers are frequently classified in Ayurveda based on dosha imbalances and the underlying cause of the ulcer. Ayurveda emphasizes the importance of adequate blood circulation for tissue reconstruction and healing. The current case was clinically linked to Abhigataja Vrana, which led to Dushta Vrana, so Chikitsa (treatment) was planned along the same lines. Because the dosha involved in this was determined to be Kapha Pitta, and the Dushtas are Rakta, Mamsa, Medas, and Srotas, and the Dushti is Sanga and Margaavarana Samprapti, internal medications were used in conjunction with local wound management Upakrama.

The medications were chosen based on the involvement of Dosha and Dushta. In terms of Agada tantra, we know that it is a specialized branch of Ayurveda that primarily deals with Visha (Poison) and its management. Most of the bites & Stings lead to non-healing wounds or ulcers and Acharyas had advised to use various Agadas in such conditions. There are several Agada Yogas (formulations) that are unique because of the potent ingredients that they have and hence are faster in action. Kshara Agada is one among the several Agada Yogas which is explained in Charaka Samhita and Sushruta Samhita. It is indicated in several complications of Visha such as Sotha (inflammation), Twak Dosha (skin ailments), Pandu (anemia), etc. When we look at the ingredients of Kshara Agada, we find that most of them have Kushtaghna, Vranahara, Krimighna, and Shoolaghna properties,⁷ which is why it was used for treatment.

3.1. Bilwadi agada

BA is an herbal formulation named after one of its first ingredients, Bilva (Aegle marmelos). Most of the drugs have

Tikta (bitter), Katu (pungent) Rasa Pradhana and act as Kaphavatahara, Ushna Virya, and Katu Vipaka properties, as well as Deepana, Pachana, and Vishghna. Most of the drugs have antimicrobial, antioxidant, wound healing, anti-inflammatory, analgesic, and immunomodulatory properties (Bhootaghna and Krimighna). As a result, this was used in the treatment.⁸

And then, formulations like "Asanadi Kashaya" and "Nimbadi Kashaya" Since most of the ingredients used in this formulation possess anti-inflammatory properties, they are all capable of being considered as having Raktaprasadaka properties, efficient in lessening the signs and symptoms of elevated Pitta and Kapha Dosha.

Since these constitute Tikta Rasa Pradhana, they aid in Kleda's Shoshana and eliminate the Ama in Dosha and Dhatus, clearing the associated Srotas. Properties such as Tikta and Kashaya Rasa, Laghu and Ruksha Guna, Ushna Virya, Katu Vipaka, Deepana, and Pachana aid in Dhatu Poshana as well as nutrition and regeneration of healthy tissue.

Nimbadi Guggulu contains anti-inflammatory ingredients such as Nimba (Azadirachta indica), Haritaki (Terminalia chebula), and Shunthi (Zingiber officinale). These ingredients aid in the reduction of inflammation in the body, making it useful for various inflammatory conditions. Nimba, one of the main ingredients in Nimbadi Guggulu, is well-known for its antimicrobial properties. It aids in the fight against microbes and infectious agents in the body. Furthermore, neem along with the other ingredients in the formulation have antioxidant properties that aid in the neutralization of harmful free radicals and the reduction of oxidative stress and some Nimbadi Guggulu ingredients may have analgesic properties, indicating that they can help with pain relief.

Nalpamardi Taila has Kashaya Rasa Pradhana Dravyas that are Raktapittahara, and the drugs have Vranashodhaka and Vranaropaka properties, and Ksheeri Vruksha contain tannins that inhibit bacterial growth. Bacteriostatic and Bactericidal properties are also found in the base Tila Taila. Nalpamaradi Taila in the form of Pichu aids in local Dhatuvridhi and has a long contact time.

Panchvalkala Kashaya Seka - possesses Kashaya rasa, Sheeta Virya, and Ruksha Guna, acting as Pitta-Kapha Shamaka and performing Stambhana. It is referred to as Vranapaha. Tannins in Nyagrodha and Udumbara have antioxidant, blood-purifying, and anti-inflammatory properties. As a result, they may aid in reducing swelling. The phytosterols and flavonoids reduce pain by acting as anti-inflammatory and analgesic agents. Tannins were also discovered for their antimicrobial properties, which help reduce discharge. As a result, it favors wound healing while removing slough from the wound's floor.⁹

Table 1: Timeline of events

Time	Events
27-07-2022	1st visit- The patient had complaints of a non-healing wound on the lateral aspect of the right leg that had been present for one year and associated with Itching and burning sensations, as well as serosanguineous discharge from the wound for 1 year.
27-08-2022	2nd visit- Previous complaints have reduced in severity, no serosanguineous discharge was present but the itching and slight burning were persisting.
24-09-2022	3rd visit- Previous complaints have reduced but slight itching and hypopigmentation were persisting.
24-10-2022	4th visit- All the complaints have reduced completely, with only slight hypopigmentation present.

Table 2: Assessment criteria

Assessment parameters	1st visit	2nd visit	3rd visit
Subjective parameters			
Pain	8	4	0
Sleep	Disturbed	Slightly improved	Improved/good
Objective parameters			
The floor of the ulcer	Unhealthy tissue with slough	Healthy granulation tissue	Only scar
Claudication distance	Pain is present but can walk with effort	Mild pain and can walk with comfort	No pain
Size of wound	4x5cm	2x1.9cm	Normal scar
Edema	Severe	Moderate	Reduced
Discharge	Purulent discharge	Serous	No discharge

Table 3: First-sitting treatment plans

Procedure	Medicine used	Time	Duration
Seka	Panchavalkala Kashaya	Twice	30 days
Pichu	Nalpamaradi Taila	Twice	30 days
Internal medication			
Medicine	Dose and Frequency	Time	Duration
Asanaadi Kashaya	15 ml three times daily	Before food	30 days
Vilwaadi Gulika	2 tablets twice daily	After food	15 days

Table 4: Second sitting treatment plans

Procedure	Medicine used	Time	Duration
Seka	Panchavalkala Kashaya	Twice	30 days
Pichu	Nalpamaradi Taila	Twice	30 days
Internal medication			
Medicine	Dose and Frequency	Time	Duration
Nimbadi Kashaya	15 ml three times daily	Before food	30 days
Nimbaadi guggulu	2 tablets twice daily	After food	30 days

Table 5: Third sitting treatment plans

Procedure	Medicine used	Duration	Duration
Seka	Panchavalkala Kashaya	Once	30 days
Pichu	Nalpamaradi Taila	Twice	30 days
Internal medication			
Medicine	Dose and Frequency	Time	Duration
Nimbadi Kashaya	15 ml three times daily	Before food	30 days
Ksharaagada	1 tablet twice daily	After food	15 days

4. Conclusion

The case report demonstrates complete healing of a chronic ulcer using Ayurvedic management, which encourages further implementation as it may prevent further complications. Furthermore, the use of various Agada Yogas [Anti-Toxic formulations] in conjunction with other treatments will undoubtedly result in better outcomes and faster healing, as well as the prevention of recurrence.

Declaration of patient consent

The authors certify their authenticity and have obtained all necessary patient consent forms. In the form, the patient (s) has/have provided his/her/their consent for his/her/their images along with additional clinical information to be published in the journal. The patients fully comprehend that their names and initials will not be published and that every effort will be made to conceal their identities, but anonymity cannot be guaranteed.

5. Source of Funding

None.

6. Conflicts of Interest

There are no conflicts of interest.

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