

**AN AYURVEDIC APPROACH FOR THE MANAGEMENT OF DAGDHA VRANA  
(SECOND DEGREE BURN) WITH SHATDHOT GHRITA VIKESHIKA BANDHANA – A  
CASE STUDY****Dr. Lochan Singh Khandagale\*<sup>1</sup>, Dr. Neha Gupta<sup>2</sup> and <sup>3</sup>Dr. Jyoti Shinde (Dalal)**<sup>1</sup>Assistant Professor / Ph.d (Scholar) Department of Shayla Tantra Sri Sai Institute of Ayurvedic Research & Medicine Bhopal M.P.<sup>2</sup>Assistant Professor Department of Prasuti Tantra Evam Stri Rog, Sri Sai Institute of Ayurvedic Research & Medicine Bhopal M.P.<sup>3</sup>Ph.d Guide, Professor & Hod, Department of Shalya Tantra Shri Ayurved Mahavidyalaya Nagpur (MH).**\*Corresponding Author: Dr. Lochan Singh Khandagale**

Assistant Professor / Ph.d (Scholar) Department of Shayla Tantra Sri Sai Institute of Ayurvedic Research &amp; Medicine Bhopal M.P.

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**ABSTRACT**

Management of burn injury is a challenging task as it can lead to considerable amount of agony and disability for the victims. An estimated annual burn incidence in India is 6-7 million. Ayurvedic medicines got much desired boost for current & emerging challenges, it is crucial that Ayurvedic medicines are beneficial, must play their respective roles in promoting health & preventing or treating diseases. Sushruta pioneer of Indian surgery explained Dagdha Vrana (burn) and its management in 12<sup>th</sup> Adhyaya of Sutrasthana. As the patients of Dagdha (Burn) are increasing in society due to today's stressful & busy life style. The present study entitled "Acase Study of Vikeshika for Local Application in the Management of Burn." Treatments prescribed in modern medicine like chlorhexidine acetate as bactigauze had proved their definite efficacy in the Burn management, but they have some limitations like it can't avoid eschar, hypertrophic scar, post burn contracture which harms as a cosmetically. So, to overcome these deficiencies we can apply Vikeshika as local application in the 1<sup>st</sup> & 2<sup>nd</sup> degree burn. The clinical assessment was done based on grading criteria with specific symptomology of Dagda Vrana like Vedana (pain), Srava (secretion), Vrana Varna (colour), Gandha (smell), eschar, discoloration, hypertrophic scar, and contracture. According to observations and results, a conclusion has been reached.

**KEYWORDS:** Dagdha Vrana, Jatyadi Ghrita Vikeshika.**INTRODUCTION**

In India, a developing country with no organized burn care facilities and insufficient public safety awareness, an estimated annual burn incidence of 6-7 million is reported, making it the largest group of injuries after road accidents.<sup>[1]</sup> An estimated 300000 deaths are caused by burns every year. Burns are among the leading causes of disability adjusted life years (DALY) lost in the under developed and developed countries. Globally the reare 10 million DALY lost every year.<sup>[2]</sup>

A burn is defined as a wound in which coagulative necrosis of the tissue occurs. It is caused by excessive exposure to thermal, chemical, electrical, or radioactive agents. Burns are classified into three stages—mild, moderate, and major or severe based on the percentage of burn.<sup>[3]</sup> Burn wound healing is a complex process that includes inflammation, granulation, and remodeling of the tissue, and the healing period may vary from 1 to 3 weeks depending on the degree of burn or the thickness

of the skin involved.<sup>[4]</sup> Dagdha Vrana (~traumatic burn) has been classified by Acharya Sushruta according to the depth and severity of the burn, with Durdagdha presenting similarly to second-degree burns<sup>[5]</sup>, for which treatment is emphasized through Sheetala Chikitsa (cooling therapies).<sup>[6]</sup> Bandha is also mentioned by Acharya Sushruta for healing purposes<sup>[7]</sup>, available in different forms such as Vikeshika, Kavalika, Plota, and Pichu.<sup>[8]</sup> Among these, Vikeshika is the cloth that contains Tila Kalka, Madhu, and Ghrita.<sup>[9]</sup> The properties of Vikeshika Aushadha should be such that it is neither too wet nor too dry, and should be applied evenly; otherwise, excessive moisture in the wound bed may result, leading to disruption of the wound margins.<sup>[10]</sup>

Shatdhot Gritha Phala Shruti says it is a Vatpitadahakshatnaakshivitvam and it also does Ropana and used in dagdha vedana, aush-chaush, dah, sphot, vrana, kushtha etc.

**Case Details**

The following is a case report of a patient aged 14 years, who was presented with the following details.

**Chief Complaints**

Burns over Right leg anterior, below the knee joint above ankle joint, small patch of burns. 5 days associated with pain and burning sensation.

**History of present illness**

The patient was apparently normal before 10 days from the day of admission and developed a burn wound left leg anterior below knee joint and above ankle joint region by accidental hot water (during the steam inhalation), water is used to control the burning. Immediately taken to local doctor in his clinic took first aid (details of treatment not found) from there patient is referred to higher center for further management their Patient is treated for 3 days in burn ward (details of treatment not found) than visited Shalya Tantra OPD of Sri Sai institute of Ayurvedic Research & Medicine, kolar road, bhopal (M.P.) and admitted for further management with above mentioned complaints.

**History of Past illness**

No H/O DM, HTN or any other medical / surgical illness & no any other drug sensitivity's in the past.

**Personal History**

Diet : Vegetarian  
 Appetite : Regular  
 Bowel : Once a day, normal  
 Micturition : 5-6times  
 Sleep : Disturbed

**Examination of the Patient General examination**

GC : Fair  
 Pallor : Absent  
 Icterus : Absent  
 Lymphadenopathy : Absent  
 Cyanosis : Absent  
 Clubbing : Absent  
 Edema : Absent

**Vitals**

Pulse : 82 bpm, Regular  
 BP : 110/70 mm of Hg  
 Temperature : Afebrile, 97.6°F  
 Respiratoryrate : 19/min

**Systemic examination**

CVS : S1S2 heard.  
 CNS : Conscious, oriented to time, place and person.  
 P/A : Soft, No Organomegaly.  
 RS : Bilateral equal air entry, Normal vesicular breath sounds, no added sounds present

**Wound Examination**

Location of burn – Right leg anterior, below the knee

joint above ankle joint, small patch of burns.

Degree of burn – Second degree

Percentage of burns – 4% of total body surface according to burn guidelines.

**Investigations**

Hb : 11.6%  
 TC : 8,300cells/mm  
 ESR : 46mm/hr  
 RBS : 80.6mg/dl  
 Sr.Creatinine : 0.6mg/dl  
 Blood urea : 4.0mg/dl  
 Sodium : 140mmol/l  
 Potassium : 5.2mmol/l  
 Chloride : 101.5mmol/l

**Final Diagnosis** : DagdhaVrana- Second degree burns 4%.

**PROCEDURE****Local Approach**

1. Triphla Kwatha Prakshalana followed by wound cleaning with normal saline and Shatdhot GhritaVikeshika Bandhana.
2. Internal Medicine.

**METHODOLOGY****Preparation of Vikeshika**

- Under a septic measures
- Shatdhot Ghrita is evenly impregnated over lenowave fabric.
- Packing done using butter paper and aluminum foil and aluminum cover.
- Ultra violet sterilization done.

**Patient Approach**

- Written consent was taken.
- The patient was made to lie down in a supine position.
- Triphla Kwatha Prakshalana
- Wound cleaned with normal saline.
- Sterile Shatdhot Ghrita Vikeshika is applied over the wound and removed after 24 hours.
- The same procedure is repeated once a day and continued for 15 days.
- Internal medicine Panchatikta ghrita guggul 2 tab bd, Amalki churna 2gm with honey, Syp- Mahamanjhithadi kwath 15 ml bd. For 10 days.

**RESULT**

- Slough is reduced completely in 10 days.
- Re-epithelialization of the wound was seen.
- 80% reduction in Burning sensation and pain.
- No discomfort during dressing change.
- Normal pigmentation of the healed skin seen in 70% of burn area.

The slough was entirely removed, allowing for a cleaner wound bed. This facilitated the re-epithelialization

process, where new skin cells began to cover the wound, indicating significant healing progress. Patients experienced an 80% reduction in burning sensation and pain, greatly improving their comfort levels. Dressing changes were notably painless, contributing to a more positive healing experience. Additionally, 70% of the

burn area exhibited normal pigmentation, suggesting that the skin was healing well and regaining its natural color. This comprehensive healing process not only alleviated physical discomfort but also enhanced the overall recovery experience for patients.

## RESULT-



DAY 1



DAY 3



DAY 7



DAY 10



DAY 12



DAY 15

# RESULT-



DAY 19



DAY 23



DAY 27



DAY 30



DAY 50

## DISCUSSION

Ayurveda literature suggests that Vikeshika should not be Ati Snigdha, Ati Rooksha, and Vishama. These quality standards mentioned by Acharya Sushruta are very near to those of an ideal contact layer dressing. As per the analysis, shatdhot Ghrita Vikeshika is pathogen-free. It has been proven Ghrita plays an important role in wound

healing as it helps to control infection and increase anti-microbial activity, oxygen release, angiogenesis, protease activity, and bacterial toxicity.<sup>[11]</sup>

There are many formulations which are mentioned in our classics which are not in practice to date. Studies have shown the anti-microbial activity and the effectiveness in

second-degree burn wound of bees wax as well.

Vikeshika has helped in maintaining uniformity in drug application and its sterility has lowered the risk of contamination.

The dressings were changed once in 24hour, keeping in mind about the sensitive nature of burn wounds and to provide wound healing.

As per literature, it takes about 2 to 3 weeks' time for a second-degree burn to heal and is susceptible for secondary infections as well. But in the present study, the wounds were found to heal within 20 days suggesting that, along with the qualities of an ideal contact layer dressing, the formulation has also play role by subsiding local Shotha by removal of local Dhatu Dushti, followed by initiation of Ropana process, i.e. contraction and covering of wound by epithelial layers.

### CONCLUSION

Use of Shatdhot Ghrita Vikeshika shown good results in early epithelization, preventing contracture, reducing scar mark, and fast healing. Also found more effective in reducing itching, swelling of the surrounding area, foul smell, discharge. Further Studies on different types of wounds and ulcers with this drug and various other drugs in similar form is the need on the hour.

### REFERENCES

- Makhija L, Bajaj S, Gupta J. National program for prevention of burn injuries. *Ind. J. Plast. Surg*, 2010; 43(3): 6. [Internet], [cited 2020 Apr 10] Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3038407/>.
- WHO, 2008, A WHO plan for burn prevention and care, Geneva, Switzerland, Page2.
- A concise textbook of surgery by Somen Das, 10th edition March 201 8, Published by Dr. S. Das 13, Old Mayors' Court, Kolkata, Chapter 6th Burn, Page No. 61.
- Singh A, Singh L, Gupta R, Saxena S, Kaneria R. Effect of liquid paraffin gauze dressing in burn wounds: a pro spective study. *Int. J. Sci. Study*, 2019; 2.
- Acharya JT, editor. *Susruta samhita of Susruta, sutrasthana; Agnikarmavidhi adhyaya: Chapter 12, Verse 16, vol. 53.* Delhi: Chaukhambha Sanskrit Sansthan, 201.
- Acharya JT, editor. *Susruta samhitha of Susruta, sustrasthana; Agnikarmavidhi adhyaya: Chapter 12, Verse 22, vol. 54.* Delhi: Chaukhambha Sanskrit Sansthan, 2015.
- Acharya Charaka. *Charaka Samhita. (Ayurveda Dipika Commentary of Chakrapani Datta, Edited by Yadavji Trikamji. 1st ed., Varanasi: Chaukamba Sanskrit Sam sthana 2013. Chikitsa sthana, 25th chapter, verse no. 95 96, 596pp.*
- Acharya Sushruta. *Sushruta Samhita. (Nibanda Sangraha commentary of Dalhana Acharya & Nyaya Panjika commentarily of Gayadasa). Edited by Yadavji Trikamji, 1st ed., Varanasi: Chaukamba Sanskrit Samsthana, 2014.Sutrasthana, 18th Chapter verse no.3,84pp.*
- Acharya Sushruta. *Sushruta Samhita. (Nibanda Sangraha commentary of Dalhana Acharya & Nyaya Panjika commentary of Gayadasa). Edited by Yadavji Trikamji, 1st ed., Varanasi: Chaukamba Sanskrit Samsthana, 2014.Sutrasthana, 18th Chapter verse no.20,21, Dalhana commentary, 88pp.*
- Acharya Sushruta. *Sushruta Samhita. (Nibanda Sangraha commentary of Dalhana Acharya & Nyaya Panjika commentary of Gayadasa). Edited by Yadavji Trikamji, 1st ed., Varanasi: Chaukamba Sanskrit Samsthana, 2014.Sutrasthana, 18th Chapter verse no.21, 88pp.*
- Fratini F, Cilia G, Turchi B, Felicioli A. Beeswax: a minireview of its antimicrobial activity and its application in medicine. *Asian Pac. J. Trop. Med*, 2016 Sep; 9(9): 839e43. [Internet], [cited 2020 Sep 25] Available from: <https://www.sciencedirect.com/science/article/pii/S1995764516301407#:~:text=Exactly%20as%20the%20honey%20which,healing%20bruises%2C%20inflammation%20and%20burns.>