WJPMR, 2026, 12(3), 491-498 Research Article Impact Factor: 7.533

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

ISSN (O): 2455-3301
ISSN (P): 3051-2557
Coden USA: WJPMBB

ROLE OF SWALPA KHADIR VATIKA IN THE MANAGEMENT OF MUKHGATAVRANA WSR APHTHOUS ULCER – AN AYURVEDIC CLINICAL TRIAL STUDY

Dr. Sana Khan[1]*, Dr. Anjana Dwivedi[2], Dr. Rajeev Narayan Bilas[3]

[1]*M.D Scholar, Post Graduate Department of Rasa Shastra and Bhaisajya Kalpana, State Ayurvedic College and Hospital, Lucknow Uttar Pradesh.
[2]HOD and Prof of Post Graduate Department of Rasa Shastra and Bhaisajya Kalpana, State Ayurvedic College and Hospital, Lucknow Uttar Pradesh.
[3]Reader, Department of Rasa Shastra and Bhaisajya Kalpana, Lalit Hari State PG Ayurvedic College and Hospital, Pilibhit Uttar Pradesh.

***Corresponding Author: Dr. Sana Khan**

M.D Scholar, Post Graduate Department of Rasa Shastra and Bhaisajya Kalpana, State Ayurvedic College and Hospital, Lucknow Uttar Pradesh. **DOI:** https://doi.org/10.5281/zenodo.18874546

How to cite this Article: Dr. Sana Khan[1]*, Dr. Anjana Dwivedi[2], Dr. Rajeev Narayan Bilas[3] (2026). Role Of Swalpa Khadir Vatika In The Management Of Mukhgatavrana Wsr Aphthous Ulcer – An Ayurvedic Clinical Trial Study. World Journal of Pharmaceutical and Medical Research, 12(3), 491–498.

Article Received on 05/02/2026 **Article Revised on 25/02/2026** **Article Published on 01/03/2026**

ABSTRACT

Recurrent Aphthous stomatitis ("canker sores") is a common, painful oral condition often correlated with *Ayurvedic Mukhagata Vraṇa* (*Mukhapāka*), a *Pitta*-dominant inflammatory lesion of the oral mucosa. Conventional therapies (e.g. topical steroids) provide symptomatic relief but may have limitations. *Ayurvedic* formulations *like Khadīra* (Acacia catechu) preparations are traditionally indicated for oral ulcers, promoting healing and Pitta-pacification. Objectives: This study aimed to evaluate the standardized Ayurvedic formulation "*Swalpa Khadir Vatika*" (SKV) for its clinical efficacy in *Mukhagata Vraṇa* (aphthous ulcer). A single-arm, open-label clinical trial was conducted in 50 patients (age 18–60) with recurring mild-to-moderate aphthous ulcers (*Mukhagata Vraṇa*). After obtaining IEC clearance and CTRI registration, patients received SKV orally (1 tablet four times daily) for 7 days. Standardized assessment scales for subjective symptoms (pain, burning, impact on activities, ulcer frequency) and objective findings (ulcer count, size, duration, lesion site, and clinical appearance) were used (Tables 1–2). Overall response was graded as good, marked, moderate or poor (75–100%, 50–74%, 25–49%, <25% improvement). Paired t-tests analyzed pre- versus post-treatment changes ($p<0.05$ significant). SKV was well-tolerated by all patients. By Day 7, a significant reduction in subjective scores (pain, burning, functional impairment) was observed and ulcers healed faster than baseline). All objective parameters (ulcer number, size, duration) showed statistically significant improvement ($p<0.05$), with ulcer healing typically complete by the 14-day follow-up. In this pilot evaluation, standardized Swalpa Khadir Vatika showed encouraging clinical efficacy in aphthous ulcers (Mukhagata Vraṇa), with significant pain relief and accelerated healing. These results support its traditional use and merit further controlled studies.

KEYWORDS: Mukhgata vrana, Aphthous ulcer, Stomatitis, Vrana, Ulcer.

INTRODUCTION

Recurrent aphthous stomatitis (RAS) is characterized by painful, recurring ulcers of the oral mucosa. It affects about 20% of the population and significantly impairs quality of life. RAS can be categorized as minor, major or herpetiform, with minor aphthae being the most common form (small, shallow ulcers healing in ~2 weeks). Conventional treatments (topical corticosteroids, antimicrobials, nutritional supplements) provide only limited or temporary relief, and long-term use of steroids may have adverse effects. In Ayurveda, aphthous ulcers of the mouth are correlated with *Mukhapāka* or *Mukhagata Vraṇa*. Classical texts list *Mukhapāka* as a *Pitta*- and *Raktaja* condition, arising from *Pitta prakopa* and blood *(Rakta*) and muscle tissue (*Mamsa*) vitiation. Symptoms include burning (daaha), pain, and red-yellow ulcers on the non-keratinized oral mucosa . Ayurvedic management emphasizes *Pittashamana* (Pitta-pacifying),

Shothahara (anti-inflammatory), *Vedanasthāpana* (analgesic), and *Vraṇa-ropana* (wound-healing) therapies. Several Ayurvedic practices (e.g., *kavala-gandusha* with bitter decoctions, herbal pastes, internal medications) are described for *Mukhapāka*, aiming to heal ulcers and prevent recurrence.

MATERIALS AND METHODS

The methodology of research serves as the cornerstone of any scientific investigation, ensuring that the study is conducted with precision, validity, and reproducibility. A well-defined research protocol not only provides clarity in the execution of the study but also establishes its credibility and scientific merit. The present section, therefore, describes in detail the materials and methods adopted, including ethical clearance, selection of study subjects, consent procedure, and the tools used for clinical assessment and data collection**.**

PROTOCOL OF RESEARCH

- **Ethical Approval**: The synopsis for the human trial was reviewed and by the Institutional Ethical Committee (IEC) of S.A.C. & Hospital, Lucknow, U.P. (**IEC Letter No. SAC/IEC/2023/135**} Furthermore, the study was registered with the Clinical Trial Registry of India (CTRI) under registration number{**CTRI/2025/02/080561**.}
- **Informed Consent**: Written and informed consent was obtained from all study participants prior to their inclusion in the clinical trial.
- **Proforma Preparation**: A structured proforma was designed to record detailed information of the study subjects, including presenting complaints, medical history, signs, symptoms, and clinical assessment parameters.

SELECTION OF PATIENTS

Sample Sources - All the patients will be selected from the OPD and IPD of Shalakya Department of State Ayurvedic College & Hospital, Lucknow UP.

After careful clinical history, examination & laboratory investigations as per proforma, patients were selected and screened for their suitability of getting enrolled in this clinical trial as per specific inclusion and exclusion criteria.

Inclusion criteria

- Patient of age between 18-60 year.
- Patient having classical sign and symptom of *Mukhgata vrana*
- Patient having condition of Aphthous ulcer, Stomatitis
- Person fit for Oral administration of trial drug {*vatika.*}
- Patients willing to participate and provide written informed consent.
- Patients with recurrent ulcers of mild to moderate intensity.
- Patients with a minimum hemoglobin level >10 g/dl (fit for trial).
- Patients not under any other ongoing systemic or local therapy for the same condition.

EXCLUSION CRITERIA

- Patients aged below 18 or above 60 years.
- Patients with hereditary disorders such as Albinism or Vitiligo.
- Patients with autoimmune disorders (e.g., SLE, Crohn's disease, Behçet's disease).
- Patients with nutritional deficiencies like Pernicious anemia, Iron deficiency anemia.
- Patients on chemotherapy, radiotherapy, or immunosuppressive drugs.
- Patients with severe systemic illnesses (e.g., uncontrolled diabetes, hypertension, cardiac diseases).
- Pregnant and lactating women.
- Patients with known drug allergies or hypersensitivity to ingredients of the trial formulation.
- Patients with active infectious diseases (e.g., tuberculosis, HIV, hepatitis).
- Patients with a history of substance abuse or alcoholism.

ASSESSMENT CRITERIA

- SUBJECTIVE PARAMETER
- OBJECTIVE PARAMETER
- **PAIN LEVEL{-TABLE -1}**

Pain Level	Grade
No pain	**0**
Slight discomfort	**1**
Excruciating pain	**2**

IMPACT ON DAILY ACTIVITIES-{TABLE -2}

Impact on Daily Activities	Grade
No Impact	**0**
Slight Difficulty	**1**
Significant Difficulty	**2**

BURNING SENSATION – {TABLE -3}

Burning Sensation	Grade
Absent or no Burning sensation	**0**
Mild Burning sensation	**1**
Moderate to severe Burning sensation	**2**

FREQUENCY OF ORAL ULCER- {TABLE – 4}

Frequency of Oral Ulcer	Grade
Absent	**0**
Frequent	**1**
Continuous	**2**

GRADE FOR OBJECTIVE PARAMETER NUMBER OF ULCERS –{TABLE – 5}

Number of Ulcers	Grade
1 to 5 ulcers	1
6 to 10 ulcers	2
More than 10 ulcers	3

SIZE OF ULCERS-{TABLE -6}

Absent	**0**
Small {Avg diameter < 5mm}	**1**
Medium {Avg diameter 5-10mm}	**2**
Large {Avg diameter - > 10mm	**3**

SITE OF LESION- {TABLE – 8}

Non keratinized mucosal sites {eg- buccal mucosa}	**1**
Keratinized mucosal sites {hard palate, dorsum of tongue}	**2**

DURATION OF ULCERS-{TABLE – 7}

Ulcer heals within 1 week	**0**
Ulcer last between 1 – 2 weeks	**1**
Ulcer last more than 2 weeks	**2**

CLINICAL APPEARANCE- {TABLE – 9}

No lesion present	**0**
Presence of a red erythematous halo	**1**
Presence of a central white yellow fibrin leukocytic layer with a surrounding halo	**2**

Investigational Drug*: Swalpa Khadir Vatika* (SKV) is a polyherbal formulation described in *Bhaishajya Ratnavali* {*Mukhgatachikitsa*) for *Mukhrog, Danta, Oshta, Jhihwaa and taalugatrog*. consisting of mainly five ingredients namely –*Khadir, kankol, Poogphala, Javitri, Kankol* underwent standard pharmaco-analytical testing (organoleptic, physicochemical and phytochemical parameters) to ensure quality. Patients received SKV orally at a dose of 1 tablet four times a day after meals for 7 days Standard *Pathya* (dietetic) and lifestyle advice was given (Pitta-pacifying diet, avoidance of irritants, adequate rest, exercise)

Study Design and Assessment: This was a single-arm open trial with a planned sample of ≥50 patients. Baseline assessments included complete history, clinical exam, and laboratory tests. Patients were reviewed on day 7 (end of treatment) and day 14 (follow-up). Clinical efficacy was evaluated using both subjective symptoms and objective signs. Subjective parameters included: pain intensity, burning sensation, impact on daily activities, and ulcer frequency. Objective parameters were number of ulcers, average ulcer size, duration of ulcer (healing time), lesion site, and clinical appearance of ulcers.

Each parameter was graded on a numerical scale (see Tables 1 and 2). For example, pain was graded 0 (no pain) to 2 (excruciating). Frequency was graded 0 (absent) to 2 (continuous). Ulcer count was scored 1–3 for 1–5, 6–10, or >10 ulcers. Size was graded 0–3 for absent, <5mm, 5–10mm, or >10mm. Duration was graded 0–2 (healed <1 week, 1–2 weeks, >2 weeks). Site was noted (non-keratinized vs keratinized mucosa, graded 1–2). Clinical appearance was scored 0 (no lesion), 1 (red erythematous halo), or 2 (central white-yellow fibrinous layer with halo). Efficacy was determined by pre- vs post-treatment scores; overall response was categorized as Good (75–100% reduction in total score), Marked (50–74%), Moderate (25–49%), or Poor (<25%). Statistical analysis (paired t-test, Wilcoxon signed-rank as appropriate) compared baseline and post-therapy scores. A p-value <0.05 was considered significant. According to the overall assessment, good (75–100%) improvement was seen in the majority of patients, with 60–70% classified as "good response" (G4) and 20–30% as "marked response" (G3). A few patients (≈10%) showed moderate improvement, and none had treatment failure. Paired t-tests confirmed that both subjective and objective scores decreased significantly from baseline ($p<0.05$ for all parameters). Overall, SKV administration led to clinically significant relief of pain and rapid ulcer healing in most cases.

❖ DISCUSSION ON OBSERVATION {CLINICAL STUDY}

* Age: The age distribution of the study participants showed that the majority belonged to the 19–30 years age group, comprising 30 individuals (58.8%). This was followed by 11 participants (21.6%) in the 31–40 years group, 8 participants (15.7%) in the 41–50 years group, while only 2 participants (3.9%) were in the 51–60 years age group.
* Sex: The distribution of participants according to sex revealed that males constituted the majority with 28 individuals (54.9%), while females accounted for 23 individuals (45.1%).
* Occupation: The occupational distribution of participants showed that students formed the largest group with 21 individuals (41.2%), followed by those engaged in private work comprising 17 individuals (33.3%). Professionals accounted for 6 participants (11.8%), while homemakers represented 5 cases (9.8%). A smaller proportion of participants, 2 individuals (3.9%), were employed in government jobs.
* Habitat: The distribution of participants according to habitat showed that the majority belonged to urban areas, accounting for 27 individuals (52.9%), followed by 20 participants (39.2%) from semi-urban areas, while only 4 individuals (7.8%) were from rural areas.
* Religion - The majority of participants in the study practiced Hinduism, accounting for 43 individuals (84.3%). This was followed by 6 participants (11.8%) who followed Islam, while Sikhism and Christianity were represented by 1 participant each (2.0% respectively).

* Marital Status: In terms of marital status, the majority of participants were married, comprising 28 individuals (54.9%), while 23 participants (45.1%) were unmarried.
* Literacy – The educational status of the participants revealed that most were literate, comprising 43 individuals (84.3%), whereas 8 participants (15.7%) were illiterate.
* Socio Economics Status: The socio-economic distribution of participants showed that the majority belonged to the middle class, accounting for 45 individuals (88.2%), while 6 participants (11.8%) were from the lower socio-economic group.
* Dietary Habit: The assessment of dietary habits showed that the majority of participants, 32 individuals (62.7%), followed a vegetarian diet, while 19 individuals (37.3%) were non-vegetarian.
* Appetite: The analysis of appetite among participants revealed that 17 individuals (33.3%) reported having a good appetite, while the majority, 34 individuals (66.7%), had a medium level of appetite.
* Addiction: Regarding addiction status, the vast majority of participants, 49 individuals (96.1%), reported no addictions, while 2 individuals (3.9%) were former smokers
* H/O Past Illness: Concerning past medical history, only 2 participants (3.9%) reported the presence of a past illness, whereas the remaining 49 participants (96.1%) had no history of past illness.
* Family History: Regarding family history, 24 participants (47.1%) reported a positive family history, while 27 participants (52.9%) did not have any relevant family history.

RESULTS

Before to After Treatment Frequency Changes in Pain Level

Regarding pain levels, before treatment, 36 participants (70.6%) reported Grade 1 pain, 15 participants (29.4%) had Grade 2 pain, and none had Grade 0 or Grade 3 pain. After treatment, the majority, 46 participants (90.2%), experienced no pain (Grade 0), while 5 participants (9.8%) reported mild pain (Grade 1), with no participants in Grades 2 or 3.

Before to After Changes in Pain Level

The mean pain level before the trial was 1.29 ± 0.46, which significantly reduced to 0.10 ± 0.30 after the trial, representing a 92.42% decrease. This reduction was statistically significant ($z = 6.66$, $p < 0.001$).

Before to After Treatment Frequency Changes in Impact on Activity

Before treatment, the impact on activity was notable, with 47 patients (92.2%) classified as Grade 1 and 4 patients (7.8%) as Grade 2, while no patients were in Grade 0 or Grade 3. After treatment, there was a marked improvement, with 47 patients (92.2%) achieving Grade 0, 4 patients (7.8%) remaining at Grade 1, and no patients in Grades 2 or 3.

Before to After Changes in Impact on Activity

The mean impact on activity before the trial was 1.08 ± 0.27, which significantly decreased to 0.08 ± 0.27 after the trial, reflecting a 92.73% improvement. This change was statistically significant ($z = 7.14$, $p < 0.001$).

Before to After Treatment Frequency Changes in Burning Sensation

Before treatment, 7.8% of participants reported no burning sensation, 86.3% had grade 1, and 5.9% had grade 2, with none experiencing grade 3. After treatment, 86.3% reported no burning sensation, 13.7% had grade 1, and grades 2 and 3 were completely absent, indicating a substantial reduction in symptoms.

Before to After Changes in Burning Sensation

The mean burning sensation score decreased from 0.98 ± 0.37 before the trial to 0.14 ± 0.35 after the trial, representing an 86% reduction. This change was statistically significant ($z = 6.56$, $p < 0.001$), indicating a substantial improvement in symptoms.

Before to After Treatment Frequency Changes in Ulcer Frequency

The frequency of ulcers showed marked improvement after treatment. Before treatment, 30 patients (58.8%) had no ulcers (Grade 0), 20 patients (39.2%) had Grade 1 ulcers, and 1 patient (2.0%) had Grade 2 ulcers. After treatment, 48 patients (94.1%) had no ulcers, while only 3 patients (5.9%) had Grade 1 ulcers, and no patients had Grade 2 or 3 ulcers, demonstrating a substantial reduction in ulcer frequency.

Before to After Changes in Ulcer Frequency

The mean frequency of ulcers significantly decreased following the trial. Before the trial, the mean ulcer frequency was 0.43 ± 0.54, which reduced to 0.06 ± 0.24 after the trial, reflecting an 86.36% reduction. This change was statistically significant ($z = 4.15$, $p < 0.001$).

Before to After Treatment Frequency Changes in No of Ulcer

The number of ulcers showed a marked reduction after treatment. Prior to treatment, none of the participants had grade 0 (no ulcer), 43 (84.3%) had grade 1, and 8 (15.7%) had grade 2 ulcers, with no cases of grade 3. Following treatment, 41 participants (80.4%) had no ulcers (grade 0), 10 (19.6%) had grade 1, and there were no cases of grade 2 or grade 3 ulcers, indicating substantial improvement.

Before to After Changes in No of Ulcer

The mean number of ulcers significantly decreased following treatment. Before the trial, the mean number of ulcers was 1.16 ± 0.37, which reduced to 0.20 ± 0.40 after the trial, representing an 83.05% reduction. This change was statistically significant ($z = 6.59$, $p < 0.001$).

Before to After Treatment Frequency Changes in Size of Ulcer

The size of ulcers showed a marked reduction after treatment. Before treatment, 24 patients (47.1%) had no ulcer, 25 patients (49.0%) had grade 1 ulcers, and 2 patients (3.9%) had grade 2 ulcers. After treatment, 49 patients (96.1%) had no ulcer, while only 2 patients (3.9%) had grade 1 ulcers, and no patients had grade 2 or 3 ulcers, indicating substantial improvement.

Before to After Changes in Size of Ulcer

The mean size of ulcers significantly decreased following the trial, with the baseline mean of 0.57 ± 0.57 reducing to 0.04 ± 0.20 after treatment, representing a 93.10% reduction. This change was statistically significant ($z = 5.20$, $p < 0.001$).

Before to After Treatment Frequency Changes in Duration of Ulcer

The duration of ulcers showed a marked improvement after treatment. Initially, 84.3% of patients had Grade 1 ulcers, and 15.7% had Grade 0, with no cases in Grades 2 or 3. Following treatment, 98.0% of patients were in Grade 0, and only 2.0% remained in Grade 1, with no cases in Grades 2 or 3, indicating a significant reduction in ulcer duration.

Before to After Changes in Duration of Ulcer

The mean duration of ulcers decreased significantly following treatment. Before the trial, the mean duration was 0.84 ± 0.37, which reduced to 0.02 ± 0.14 after the trial, representing a 97.67% reduction. This change was statistically significant ($z = 6.48$, $p < 0.001$).

Before to After Treatment Frequency Changes in Site of Lesion

The distribution of lesion sites showed marked improvement after treatment. Initially, no patients were graded as 0, while 44 (86.3%) were grade 1 and 7 (13.7%) were grade 2. Post-treatment, 41 patients (80.4%) achieved grade 0, 10 (19.6%) remained at grade 1, and none were in grades 2 or 3, indicating substantial healing and reduction in lesion severity.

Before to After Treatment Changes in Site of Lesion

The mean site of lesion score decreased significantly from 1.14 ± 0.35 before the trial to 0.20 ± 0.40 after the trial, representing an 82.76% improvement. This change was statistically significant ($z = 6.13$, $p < 0.001$), indicating a substantial reduction in lesion involvement following treatment.

Before to After Treatment Frequency Changes in Clinical Appearance

The clinical appearance of lesions showed marked improvement following treatment. Before treatment, no patients had a Grade 0 appearance, 43 patients (84.3%) were Grade 1, and 8 patients (15.7%) were Grade 2, with none at Grade 3. After treatment, 44 patients (86.3%) achieved Grade 0, 7 patients (13.7%) were Grade 1, and no patients remained in Grades 2 or 3, demonstrating a significant resolution of clinical symptoms.

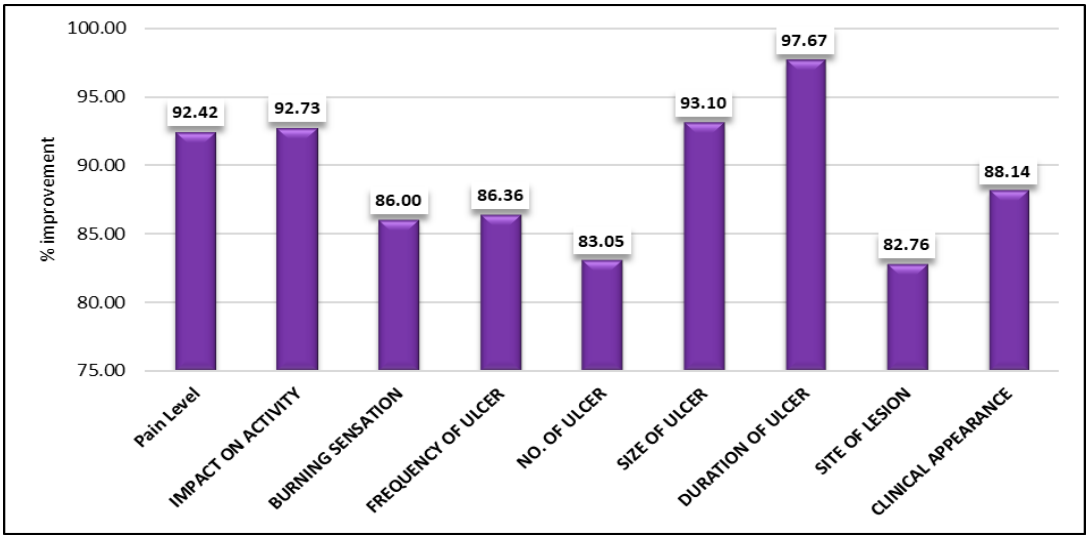
Before to After Treatment Changes in Clinical Appearance

The clinical appearance of lesions improved significantly after the trial. The mean score decreased from 1.16 ± 0.37 before treatment to 0.14 ± 0.35 after treatment, representing an 88.14% improvement. This change was statistically significant ($z = 6.94$, $p < 0.001$), indicating a substantial reduction in the severity of the clinical presentation.

Parameterwise Improvement Status{TABLE -10}

Parameter	% imp	p-value
Pain Level	92.42	**<0.001**
Impact on Activity	92.73	**<0.001**
Burning Sensation	86.00	**<0.001**
Frequency of Ulcer	86.36	**<0.001**
No. of Ulcer	83.05	**<0.001**
Size of Ulcer	93.10	**<0.001**
Duration of Ulcer	97.67	**<0.001**
Site of Lesion	82.76	**<0.001**
Clinical Appearance	88.14	**<0.001**

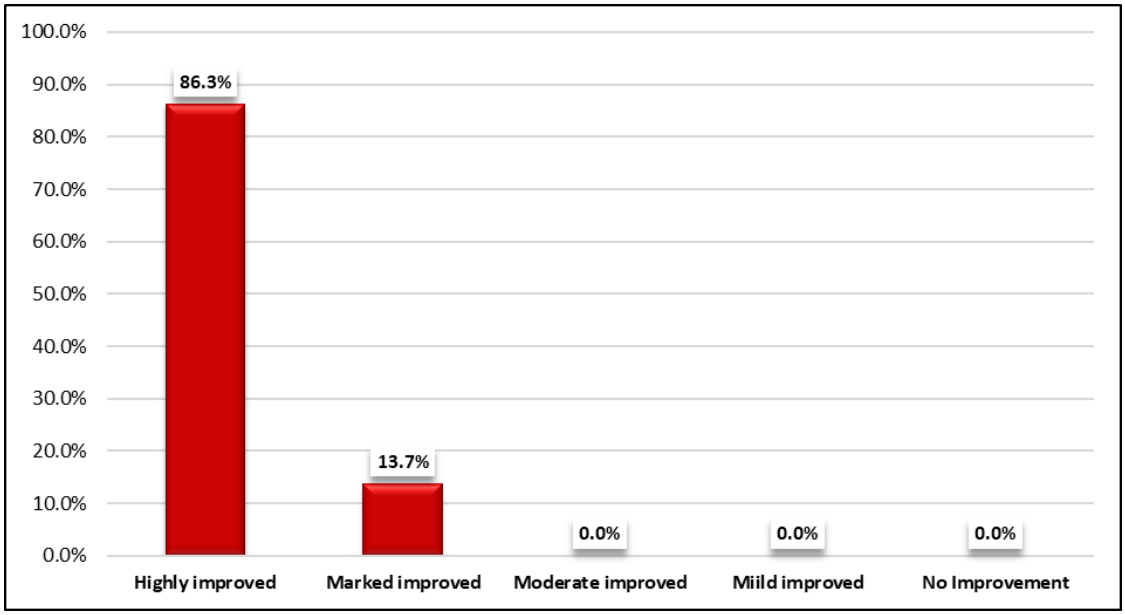
All evaluated parameters showed significant improvement following the intervention. Pain level improved by 92.42% ($p < 0.001$), impact on activity by 92.73% ($p < 0.001$), and burning sensation by 86.00% ($p < 0.001$). Frequency of ulcer reduced by 86.36% ($p < 0.001$), number of ulcers by 83.05% ($p < 0.001$), and size of ulcers by 93.10% ($p < 0.001$). Duration of ulcer showed the highest improvement at 97.67% ($p < 0.001$), while site of lesion improved by 82.76% ($p < 0.001$) and clinical appearance by 88.14% ($p < 0.001$), demonstrating overall highly significant therapeutic efficacy across all parameters.



Overall Improvement Status {TABLE -11}

Overall Improvement	No.	%
Highly improved	44	86.3%
Marked improved	7	13.7%
Moderate improved	0	0.0%
Miild improved	0	0.0%
No Improvement	0	0.0%

Overall, the majority of patients showed substantial benefit from the intervention. Specifically, 44 patients (86.3%) were classified as highly improved, while 7 patients (13.7%) demonstrated marked improvement. No patients showed moderate, mild, or no improvement, indicating a consistently positive therapeutic outcome across the study population.



The encouraging results suggest that Swalpa Khadir Vatika may be an effective Ayurvedic intervention for aphthous ulcers. The observed analgesic and ulcer-healing effects can be attributed to the pharmacological properties of Khadīra. Acacia catechu contains catechins and tannins with anti-inflammatory, antimicrobial, and astringent actions, which help cleanse ulcers and promote epithelization. Its Pitta-pacifying and Vedanasthāpana (analgesic) qualities are described in Ayurvedic texts. In classical terms, SKV likely acts by Pittashamana and Vraṇa-ropana, addressing the underlying Pitta and Rakta disturbances of Mukhapāka. The reduction in erythema (reddish halo) and fibrinous coating is consistent with Vranashodhana (wound-cleaning) effects.

DISCUSSION

All patients demonstrated highly significant improvement ($p < 0.001$) in both subjective and objective parameters. Among subjective findings, pain intensity, burning sensation, and impact on daily activities showed marked relief, with mean percentage reductions of 92.42%, 86%, and 92.73% respectively. Similarly, objective parameters like number, size, and duration of ulcers exhibited substantial improvement — duration decreased by 97.67%, and size by 93.10%. These results signify a rapid and sustained healing response following treatment.

Overall, 86.3% of patients showed "highly improved" outcomes, while 13.7% showed "marked improvement," indicating the clinical efficacy of Swalpa Khadir Vatika in reducing pain, inflammation, and recurrence of aphthous ulcers. No adverse effects were reported, affirming its safety and tolerability. The therapeutic efficacy can be attributed to the Kashaya Rasa, Sheeta Virya, and Ropana–Shothahara properties of the ingredients. Khadir provides astringent and wound-healing actions; Kankol and Karpoor contribute anti-inflammatory and antimicrobial effects; Poogphala aids in Stambhana and Mukhshodhana, while Javitri acts as Vedanasthapaka and Shothahara. The combined effects promote Rakta–Pitta Shamana, Srotoshodhana, and Vrana Ropana, leading to complete healing of oral mucosal lesions.In summary, the clinical trial substantiates that Swalpa Khadir Vatika is a safe, effective, and rapidly acting formulation for Mukhgata Vrana (Aphthous Ulcers), offering significant symptomatic and clinical relief without adverse reactions.Clinically, SKV appeared safe and well tolerated. No adverse reactions were noted, and patient compliance was high. The dietary and lifestyle guidance (Pittahara diet, avoidance of irritants) may have contributed to the outcomes, as per Ayurvedic Pathya principles Limitations of this study include its open design and small sample, so placebo effect cannot be excluded. This trial also illustrates the importance of a defined assessment protocol. Using standardized scoring for pain, burning, ulcer count, size, and healing time enabled objective evaluation of SKV's efficacy. All analyses were performed in line with ICMR/CTRI guidelines for Ayurvedic clinical research.

CONCLUSION

The present study indicates that Swalpa Khadir Vatika, a pharmaceutically standardized Khadira-based formulation, exhibits significant clinical efficacy in patients suffering from recurrent aphthous ulcers (Mukhagata Vrana). Statistically and clinically meaningful improvements were observed in subjective parameters such as pain and burning sensation, as well as objective healing outcomes within seven days of intervention. The formulation demonstrated a favorable safety profile, reflecting its biocompatibility and alignment with Ayurvedic principles of wound healing. These findings reinforce classical textual indications of Khadira and suggest that Swalpa Khadir Vatika can be considered a promising therapeutic modality in the management of aphthous ulcers. Swalpa Khadir Vatika showed promising therapeutic potential in reducing symptom severity and promoting early healing in recurrent aphthous ulcers (Mukhagata Vrana), with good tolerability and safety. The outcomes provide preliminary clinical evidence supporting the traditional Ayurvedic indication of Khadira in oral mucosal lesions. Nevertheless, further well-designed randomized controlled trials with larger sample sizes, longer follow-up, and comparative arms are warranted to establish definitive efficacy, explore mechanisms of action, and support broader clinical application.

REFERENCE

1. Govind Das Sen. Bhaishajya Ratnavali. Mukhrogadhikara (61/101–103). Edited with Siddhiprada Hindi Commentary by Shastri Ambikadatta, Chaukhambha Prakashan, Varanasi, Reprint Edition, 2022.
2. Sharangadhara. Sharangadhara Samhita (Madhyama Khanda – Vati Kalpana Adhyaya). Commentary by Pandit Parasurama Shastri Vidyasagara. Chaukhambha Orientalia, Varanasi, Reprint Edition, 2021.
3. Sushruta. Sushruta Samhita with Nibandha Sangraha Commentary by Dalhana. Chaukhambha Surbharati Prakashan, Varanasi, Reprint 2020.
4. Agnivesha. Charaka Samhita revised by Dridhabala with Ayurveda Dipika Commentary of Chakrapanidatta. Edited by Vaidya Yadavji Trikamji Acharya. Chaukhambha Sanskrit Sansthan, Varanasi, 2021.
5. Kaur H, et al. "Clinical Evaluation of Ayurvedic Herbal Formulations in Recurrent Aphthous Ulceration." AYU Journal, 2021; 42(3): 187–192.
6. Choudhary A, et al. "Comparative Evaluation of Ayurvedic Formulations in Recurrent Aphthous Stomatitis." AYU Journal, 2022; 43(2): 73–78.
7. Porter SR, Leao JC. "Recurrent Aphthous Stomatitis: Clinical Characteristics and Associated Systemic Disorders." Seminars in Cutaneous Medicine and Surgery. 2019; 28(4): 302–308.
8. Scully C, Felix DH. "Oral Medicine – Recurrent Aphthous Stomatitis: Current Concepts." British Journal of Oral and Maxillofacial Surgery, 2018; 57(5): 387–393.
9. Lalla RV, Sook-Bin W. "Current Concepts in Management of Aphthous Ulcers." Dental Clinics of North America, 2018; 62(3): 567–584.
10. AYUSH Research Portal. https://www.ayushportal.nic.in – Search results for Khadir, Mukhgata Vrana and Vatika formulations.
11. DHARA Database (Digital Helpline for Ayurveda Research Articles). https://www.dharaonline.org – Classical and research references related to Ayurvedic oral diseases.

12. Clinical Trial Registry of India (CTRI). CTRI/2025/02/080561 – Registered Clinical Trial on Swalpa Khadir Vatika in Mukhgata Vrana, Lucknow, 2025.