



## Research Article

### EFFECT OF JATI (*JASMINUM GRANDIFLORUM*) MOUTHWASH IN RAS: A CASE REPORT

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#### ABSTRACT

RAS (Recurrent Aphthous Stomatitis) or aphthous ulcers are most common oral lesions characterised by round or oval ulcerations with a prevalence of at most 25% in the general population. A clinical condition with unknown aetiology, topical interventions like mouthwashes and gels are generally used for symptomatic relief such as reduction of pain. Jati (*Jasminum grandiflorum*) is a drug mentioned in Ayurvedic classics attributed with antibacterial and wound healing properties. We report here a case of RAS with its classical symptoms like oral ulceration associated with severe pain being well managed with a novel formulation, an herbal mouthwash out of Jati (*Jasminum grandiflorum*) giving symptomatic relief for pain, itching, redness etc associated with RAS along with accelerated healing period.

**KEY WORDS.** RAS; Stomatitis; Mouthwash; Jati, Herbal mouthwash.

#### INTRODUCTION

RAS (Recurrent Aphthous Stomatitis) or aphthous ulcers are most common oral lesions characterised by round or oval ulcerations, with a greyish yellow, crateriform base surrounded by an erythematous halo of inflamed mucosa, and also with a prevalence of at most 25% in the general population<sup>1</sup>. A clinical condition with unknown aetiology, the treatment modalities includes systemic and topical interventions aiming symptomatic relief such as reduction of pain. Antimicrobial mouthwashes with minimal side effects can be considered effective for managing the condition<sup>2</sup>. Jati (*Jasminum grandiflorum*) has been attributed with various properties like holding in mouth as part of daily regimen and anti-ulcer activities in Ayurvedic classics and proven of its antibacterial and wound healing<sup>3</sup> effects. The aim of the present study was to assess the effect of an herbal aid – Jati (*Jasminum grandiflorum*) mouthwash in the management of RAS with special reference to its method of modification, improved shelf life with no preservative and patient compliance.

#### CASE REPORT

A 19-year old female patient, 3rd year B.E student was presented to the O.P. of Amrita School of Ayurveda, Amritapuri, with complaints of a reddish ulceration in the oral cavity, since a day associated with severe burning sensation and pricking pain. Since the last few years the patient had frequent episodes of oral ulcers and was managed with multivitamin medication. There was no history of any chronic illness such as DM & HTN. She was not able to chew or talk due to severe pain associated with. The patient revealed that emotional stress and lack of sleep had often become the predisposing factors for the occurrence of RAS. No

other skin lesions or gastrointestinal problems were revealed on interrogation.

#### Clinical findings

On examination, a reddish ulcer, was found along the lateral aspect of the lower lip associated with severe swelling and slight discharge. On the basis of associated symptoms such as burning sensation, pricking pain etc present in the patient, she was diagnosed as having the clinical presentation of the condition called Recurrent Aphthous Stomatitis in contemporary medicine. Informed consent was obtained from the patient for documentation and publication of her case history.

**Diagnostic Focus and Assessment:** On the basis of history taking and thorough physical and clinical examination, the patient was diagnosed with RAS.

#### Therapeutic Intervention

The following treatment schedule was executed:  
Patient was asked to do the gargling or mouth washing using the Jati mouthwash, advised 10ml of mouthwash at a time twice daily (morning and evening) for 7 days. Diet modification was also advised as to avoid the spicy foods.

#### Outcomes

Pain was measured on visual analogue scale (VAS) (Figure 1). Each day the assessment of the patient has been recorded for 7 days along with the associated symptoms such as itching, swelling, redness, discharge, difficulty in swallowing food and

burning sensation (Figure 2). OCMI<sup>5</sup> (Oral Clinical Manifestation Index) was used for the assessment each day. Photographs were taken each day for the assessment (Figure 3-7).

**RESULTS**

Significant difference was noted in the pain and also other associated symptoms before and after administration of the mouthwash. The associated symptoms of the condition like burning sensation, difficulty in swallowing food, discharge, redness, swelling and itching were resolved completely by the fifth day. The ulcer healed completely without scar formation and no side effects were recorded. Significant decrease in pain was noted every day for five days. The healing period of the ulcer has

been accelerated with the aid of this topical medicament as it was reduced to five days.

**DISCUSSION**

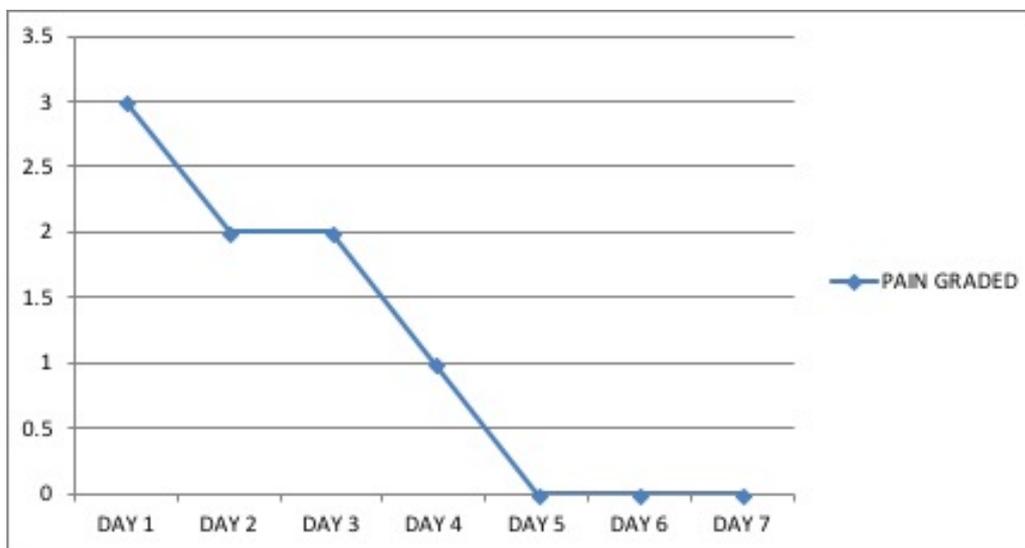
Topical medication with natural herbal medicines with fewer or nil side effects could be an effective tool for the management of the most common oral lesions of Recurrent Aphthous Stomatitis<sup>4</sup>. Jati mouthwash, with the special mode of modification being enriched with the compounds of Thymol and Carvacrol added on with a natural shelf life of almost one year could be an effective remedy for this very commonest condition. Future clinical trials on large scale population are needed to ascertain the obtained results.

**TABLE 1: ASSESSMENT OF SIGNS & SYMPTOMS**

SIGNS AND SYMPTOMS	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
<b>Pain (VAS scale)</b>	9	7	5	2	0
<b>Itching</b>	1 – Mild	1-Mild	0-Absent	0-Absent	0-Absent
<b>Swelling</b>	3-Excessive	3-Excessive	2 - Moderate	1-Mild	0-Absent
<b>Redness</b>	2-Bright red	2-Bright red	1-Red	1-Red	0-Coral pink
<b>Discharge</b>	1-Slight	1-Slight	0-Absent	0-Absent	0-Absent
<b>Difficulty in swallowing food</b>	3 -Severe	2-Moderate	2-Moderate	1-Mild difficulty	0-No difficulty
<b>Burning sensation</b>	3-Unbearable	2-Higher but bearable	1-Mild	1-Mild	0-Absent

**TABLE 2: ORAL CLINICAL MANIFESTATION INDEX**

DAY	Jati Mouthwash OCMI SCORE			
	Type of ulcer	No. of ulcer	Pain score	Total score
Day 1	3	1	4	8
Day 2	3	1	3	7
Day 3	3	1	2	6
Day 4	1	1	1	3
Day 5	0	0	0	0



**Figure 1: Grading of pain**

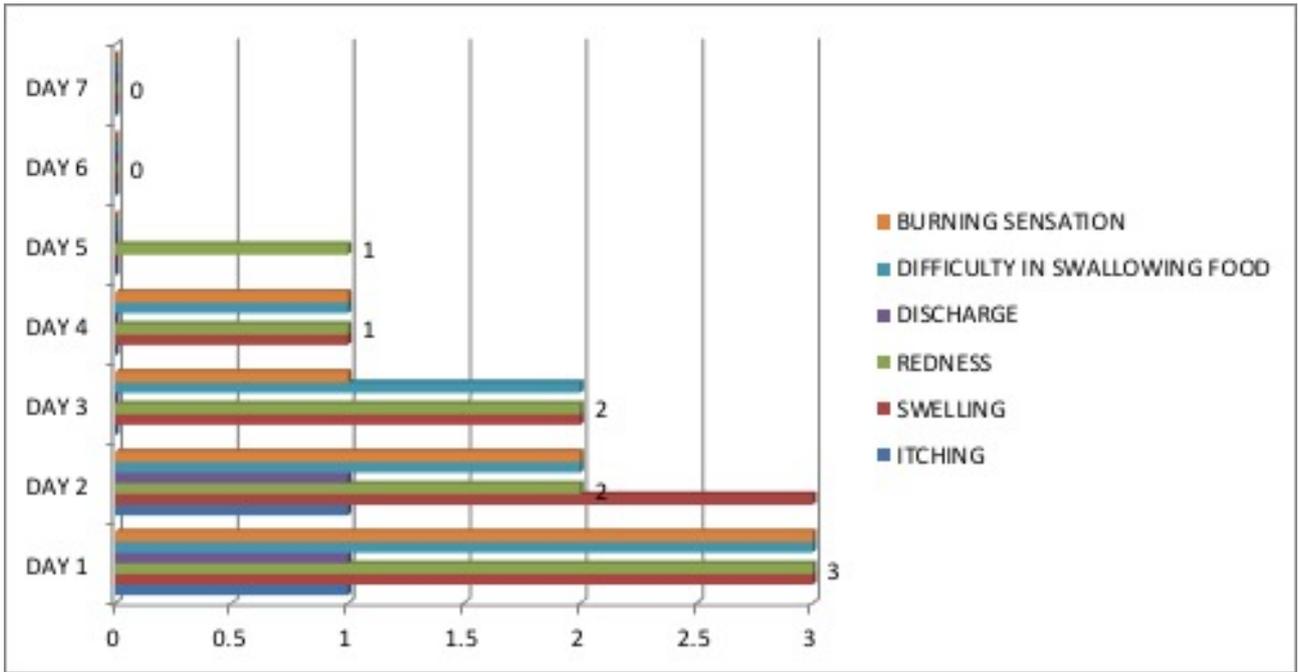


Figure 2: Grading of associated signs and symptoms

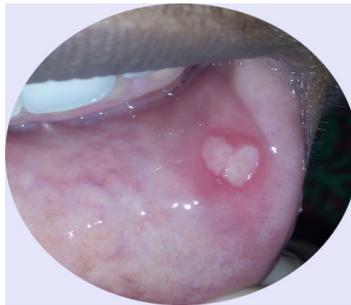


Figure 3: Photograph taken on Day 1



Figure 4: Photograph taken on Day 2



Figure 5: Photograph taken on Day 3

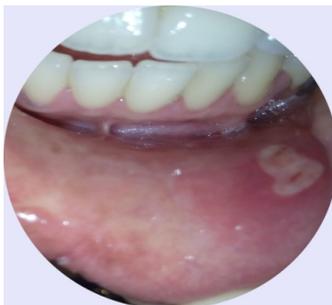


Figure 6: Photograph taken on Day 4

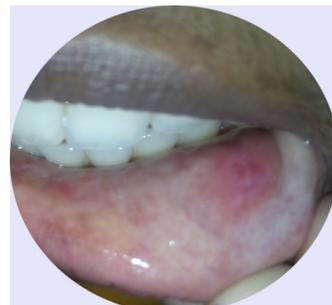


Figure 7: Photograph taken on Day 5

## REFERENCES

1. Barrons RW. Treatment strategies for recurrent oral aphthous ulcers. American Journal of Health- System Pharmacy, January 2001,[cited 2018 Jan 4] 58 (1) 51-53. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/11194135>
2. Natah SS, Kontinen YT, Enattah NS, Ashammakhi N, Sharkey KA, Häyrinen Immonen R. Recurrent aphthous ulcers today: a review of the growing knowledge. International Journal of Oral Maxillofacial Surgery 2004,[cited 2018 Jan 8];33:221-234. Available from : <https://www.ncbi.nlm.nih.gov/pubmed/15287304>
3. Bassel Tarakji, Giath Gazal, Sadeq Ali Al-Maweri, Saleh Nasser Azzeghaiby, Nader Alaizari. Guideline for the Diagnosis and Treatment of Recurrent Aphthous Stomatitis for Dental Practitioners. Journal of International Oral Health, 2015 May,[cited 2017 Dec 28]; 7(5): 74–80. Available from : <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441245/>
4. Chun-Lei Li, He-Long Huang, Wan-Chun Wang, Hong Hua. Efficacy and safety of topical herbal medicine treatment on recurrent aphthous stomatitis:a systemic review. Drug design, Development and Therapy 2016,[cited 2018 Feb 2]; 10: 107–115. Available from : <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4706126/>
5. Sharquie KE, Hayani RK. BCG as a new therapeutic and prophylactic agent in patients with severe oral aphthosis. Clinical and experimental Rheumatology, 2005,[cited 2018 Jan 10]; Nov-Dec; 23(6):914. Available from : <https://www.ncbi.nlm.nih.gov/pubmed/16396718>

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