

## Management of 'Mukhapaka' by 'Haridradi Tail' w.s.r. to Recurrent Aphthous Ulcer

M.A. Lahankar<sup>1</sup>, Sunita V. Magar<sup>2</sup>, and Amar P. Dwivedi<sup>3</sup>

<sup>1</sup>Department of Shalakya, M.A. Podar Govt. (Ayu) Hospital, Mumbai, Maharashtra, India

<sup>2</sup>Department of Shalakya, M.G. Ayurved College, Salod, Wardha, Maharashtra, India

<sup>3</sup>Department of Shalya Tantra, Dr. D.Y. Patil College of Ayurveda & Hospital, Nerul, Navi Mumbai, Maharashtra, India

Correspondence should be addressed to Amar P. Dwivedi, dramar\_d@yahoo.co.in

Publication Date: 15 October 2013

Article Link: <http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-98>



Copyright © 2013 M.A. Lahankar, Sunita V. Magar, and Amar P. Dwivedi. This is an open access article distributed under the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Abstract** 'Mukhpak' or 'Sarvasar Rog' is nothing but a recurrent mouth ulcer or Stomatitis and is also termed as Aphthous ulcer. Over consumption of extremely pungent and spicy food, consuming and chewing of chemical agents like Tobacco-Gutakha, Insomnia, Vitamin deficiency, many life threatening disease like Malignancy, Submucosal fibrosis, Skin disease and disturbances in G.I. tract like Constipation, Dysentery are the main causative factors responsible for this most common ENT ailment. In modern medicine, several mouth paints and mouth gargles are used for the treatment for Aphthous ulcer adjuvant to steroids, B'Complex group of drugs, injection placentrex (sub mucosal) which have their own limitations and there is no successful, satisfactory and cost effective treatment available. The trial preparation 'Haridradi Tail' i.e. medicated oil consisted of Haridra (*Curcuma longa*), Nimba patra (*Azadirachta indica*), Yastimadhu (*Glycyrrhiza glabra*), Neelkamal (*Nelumbo nucifera*) & Sesame oil (*Sesamum indicum*). This was clinically tried on 30 cases of mild to severe types of 'Mukhapaka' in the form of 'Gandoosh', after every 4 hourly and also for oral administration, 10ml twice a day, for 10 days. It was observed that the trial preparation produces highly significant ( $p < 0.05$ ) symptomatic relief and causes marked improvement ulceration, present in buccal mucosal layer, burning sensation of palate, redness and erosion of oral cavity, difficulty in swallowing & chewing pungent things, enlargement of lymph nodes etc.

**Keywords** *Sarvasar Rog; Sushrut Samhita; Haridradi Tail; Aphthous Ulcer*

### 1. Introduction

Aphthous ulcer is also termed as mouth ulcer (Stomatitis). It can occur anywhere in the mouth, including the inside of the cheeks, gums, tongue, lips and palate and is thought to affect about 20% of the general population to some degree. The symptoms range from presence of Mouth Ulcers, Redness and Erosion of Buccal Mucosa, Burning Sensation of Oral Mucosa, Difficulty in Chewing Pungent & Hot Things and or Enlargement of Sublingual & Submandibular Lymphnodes.

The causative factors are poor oral hygiene, dietary protein deficiency, poorly fitted dentures, or from mouth burns and scars from food or drinks, toxic plants, or by conditions that affect the entire body, such as medications, allergic reactions, radiation therapy, or infections. Furthermore, in India, a habit of consumption of extremely pungent and spicy food poses a potential hazard to the oral mucosa [1].

In modern medicine, therapies are aimed at alleviating the pain, reducing the inflammation and promoting healing of the ulcers, but there is little evidence of efficacy for any treatment that has been used.

In Ayurvedic text, Aphthous ulcer is denoted as 'Sarvasar rog' or 'Mukhapaka' due to its spread in the complete oral cavity (mukha) [2, 3, 4].

The trial preparation 'Haridradi Tail' was given in patients having mild to severe types of 'Mukhapaka' in the form of 'Gandoosh', after every 4 hourly and also for oral administration, 10ml twice a day, for 10 days.

It was observed that 'Haridradi Tail' revealed highly significant in relieving symptoms like ulceration present in buccal mucosal layer, burning sensation of palate, redness and erosion of oral cavity, difficulty in swallowing & chewing pungent things, enlargement of lymph nodes etc. Thus, the trial drug proved effective, potent, easily available in all seasons, easy to prepare & use, acceptable by any group, which has minimal unwanted action.

## 2. Aim and Objectives of Study

- i. To evaluate the therapeutic efficacy of 'Haridradi Tail' in 'Mukhapaka' (Recurrent Aphthous Ulcer) as an alternative form of treatment.
- ii. To rationalize the treatment of 'Mukhapaka' by launching a drug or formulation, which is most effective and potent, easily available in all seasons, easy to prepare & use, acceptable by any group, which has minimal unwanted action.

## 3. Material and Methods

### ***Title of Study***

To evaluate the therapeutic efficacy of 'Haridradi Tail' in 'Mukhapaka' (Recurrent Aphthous Ulcer).

### ***Place of Study***

M.A. Podar (Govt.) Hospital, Worli, Mumbai-400018, Maharashtra, India.

### ***Sample Size***

30

### ***Drug & Duration of Therapy***

Haridradi Tail 'Gandoosh', every 4 hourly and also for oral administration, 10ml twice a day, for 10 days.

**Drug Ingredients**

Haridra (*Curcuma longa*), Nimba patra (*Azadirachta indica*), Yastimadhu (*Glycyrrhiza glabra*), Neelkamal (*Nelumbo nucifera*) in equal quantity & Sesame oil (*Sesamum indicum*) [5].

Typical method of 'Siddha oil' preparation (1:4:16) is followed as per 'Sneh kalpana' described in Sushrut Samhita.

**Inclusive Criteria**

Patients presenting with following symptoms were considered for the clinical trial.

- Male and female patients of age group of 13 years and above.
- Ulceration occurred anywhere in buccal cavity for e.g. tongue, lips, cheek, hard palate, pharyngeal wall etc.
- Burning sensation of oral mucosa while taking food.
- Redness and inflammation of the tongue.
- Difficulty in swallowing chewing pungent and spicy food and hot drinks.
- Patients having Mukhapaka/ ulceration due to stress, wrong dietary habits, deficiency of vitamins, drug induced due to anemia & constipation.

**Exclusive Criteria**

Patients with Diabetes, Tuberculosis, HIV, Herpes, Malignancy, Chrones's disease, Ulcerative colitis, lichen planus etc.

**Pathological Investigations**

Complete Blood Count, E.S.R, V.D.R.L, Blood sugar and Urine routine.

**4. Assessment**

The diagnosis of 'Mukhapaka' was confirmed on presence of mouth ulcer & difficulty in chewing pungent and hot things; due to erosion buccal mucosa each and every patient had these symptoms. The clinical feature of 'Mukhapak' was graded in four points 0-3 scale. The effect of the treatment was assessed after every two days basis, in terms of subjective improvement by way of determining the rate of favorable shift of grades on a four (0 to 3) grade symptoms rating scale developed for this purpose.

**(A) Subjective Assessment**

In these study group, age of patient where ranging from 30-82 yrs with average age 35.21 yrs 53.3% of total cases were male 76.6% of total cases were married and 70.0% of cases were educated.

**Table 1: Demography of Patients**

| Parameters | Total No. of Cases: 30 |           |
|------------|------------------------|-----------|
|            | Age                    | Mean± SD  |
|            | 35.21±14.97            | 13-82 Yrs |
| Sex %      | Male                   | Female    |
|            | 16 (53.3)              | 14 (46.6) |
| Diet %     | Veg.                   | Mixed     |

|                      |           |            |
|----------------------|-----------|------------|
|                      | 15 (50.0) | 15 (50.0)  |
| Educational Status % | Educated  | Illiterate |
|                      | 21 (70)   | 9 (30)     |
| Marital Status %     | Married   | Single     |
|                      | 23 (76.7) | 07 (23.3)  |

## (B) Statistical Observations

### i. Presence of Mouth Ulcers (Numbers of Ulcers, Size of Ulcers, Site of Ulcers)

The initial mean grade of mouth ulcers along with number of ulcers present in trial group of patient ( $2.29 \pm 0.66$ ) on the 2<sup>nd</sup> day of follow up, it came down to ( $2.11 \pm 0.69$ ), if further came down successively on the 4<sup>th</sup> day to ( $1.32 \pm 0.61$ ), 6<sup>th</sup> day ( $0.48 \pm 0.57$ ), on 8<sup>th</sup> day ( $0.07 \pm 0.26$ ), 10<sup>th</sup> day (0).

The improvement statically noted on the 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup> & 10<sup>th</sup> day of follow up was highly significant ( $p < 0.05$ ) significant.

### ii. Redness and Erosion of Buccal Mucosa

Initial mean grade score for the symptom 'redness and erosion of buccal mucosa was ( $2.04 \pm 0.74$ ) after 2<sup>nd</sup> day it came down to ( $1.61 \pm 0.63$ ), on day 4<sup>th</sup> ( $0.71 \pm 0.60$ ). It came down to ( $0.24 \pm 0.51$ ) on 6<sup>th</sup> day of treatment. On 8<sup>th</sup> day ( $0.03 \pm 0.19$ ) and on 10<sup>th</sup> day (0).

The result still being highly significant ( $P < 0.05$  significant) in each follow up from 2<sup>nd</sup> day.

### iii. Burning Sensation of Oral Mucosa

From the very 2<sup>nd</sup> day of follow up this symptoms started reducing i.e. (mean grade score for this symptoms was ( $1.93 \pm 0.77$ ) & on 2<sup>nd</sup> day ( $1.46 \pm 0.64$ ). On day 4<sup>th</sup> mean grade was ( $0.57 \pm 0.63$ ) & on 6<sup>th</sup> day the mean grade was ( $0.24 \pm 0.51$ ). On 8<sup>th</sup> day ( $0.03 \pm 0.19$ ) & on 10<sup>th</sup> day it came to (0); ( $p < 0.050$ ), statistically results highly significant.

### iv. Difficulty in Chewing Pungent & Hot Things

Initially means score was ( $1.89 \pm 0.79$ ) on 2<sup>nd</sup> day it comes down to ( $1.31 \pm 0.68$ ) on 4<sup>th</sup> day it was ( $0.54 \pm 0.64$ ). On 6<sup>th</sup> day the score was ( $0.21 \pm 0.49$ ). On 8<sup>th</sup> day ( $0.03 \pm 0.190$ ) and on 10<sup>th</sup> day it disappeared completely ( $p < 0.05$  significant).

## (C) Enlargement of Sublingual & Submandibular Lymphnodes

The initial means grade score of enlargement & tenderness of lymphnodes was ( $1.18 \pm 1.09$ ) & it remains constant on day 2. It reduced to ( $0.86 \pm 0.85$ ) on day 4<sup>th</sup> ( $0.32 \pm 0.55$ ) & to ( $0.14 \pm 0.44$ ) on day 6<sup>th</sup>. On 8<sup>th</sup> day ( $0.03 \pm 0.19$ ) the result being statistically highly significant ( $p < 0.05$ ) the symptoms were absent in all cases on tenth day of follow up.

**Table 2:** Statistical Analysis of Objective Para Meters

| S. No. | Symptoms  | Initial Mean±SD | After 2 days  | After 4 days  | After 6 days  | After 8 days  | After 10 days |
|--------|---|-----------------|---------------|---------------|---------------|---------------|---------------|
| 1      | Number of mouth ulcers & size of mouth ulcers   | 2.29<br>±0.66   | 2.11<br>±0.69 | 1.32<br>±0.61 | 0.48<br>±0.57 | 0.07<br>±2.26 | 0             |
| 2      | Redness and erosion of buccal mucosa            | 2.04<br>±0.74   | 1.61<br>±0.63 | 0.71<br>±0.60 | 0.24<br>±0.51 | 0.03<br>±0.19 | 0             |
| 3      | Burning sensation of oral mucosa                | 1.93<br>±0.77   | 1.46<br>±0.64 | 0.57<br>±0.63 | 0.24<br>±0.51 | 0.03<br>±0.19 | 0             |
| 4      | Difficulty in swallowing pungent and hot things | 1.89<br>±0.79   | 1.36<br>±0.68 | 0.54<br>±0.64 | 0.21<br>±0.49 | 0.03<br>±0.19 | 0             |
| 5      | Enlargement of lymphnodes and tenderness        | 1.18<br>±1.09   | 0.86<br>±0.85 | 0.32<br>±0.55 | 0.14<br>±0.44 | 0.03<br>±0.19 | 0             |

By wilcoxon sign rank test  $p < 0.05$  significant

Above table shows that mean score of ulceration were 2.29 at basal.

After treatment at the end of 4 days means score had a significant reduction 42.4% and at end of 6<sup>th</sup> day reductions were 79.1%, at end of 8 day not a single patient had ulceration.

## 5. Results, Discussion and Conclusion

**Table 3:** Clinical Profile of the 30 Patients

| S. No. | Clinical Features                   | No. of Cases | Percentage |
|--------|-------------------------------------|--------------|------------|
| 1      | Mouth ulcers present                | 30           | 100%       |
| 2      | Burning sensation of mucosa         | 30           | 100%       |
| 3      | Redness of oral mucosa erosion      | 30           | 100%       |
| 4      | Difficulting chewing pungent things | 27           | 90%        |
| 5      | Enlargement of lymphnodes           | 19           | 60.3%      |
| 6      | Recurrence of mouth ulcers          | 21           | 70%        |

The object of the present research was to undertake a critical study on the concepts of clinical aetiopathology of 'Mukhapaka' and to evaluate the efficacy of 'Haridradi Taila' to treat the mouth ulcers, one of the commonest occurring diseases of oral cavity.

The ancient Ayurvedic physicians were aware of the 'Apathyakara Ahara and Vihara' (unsalutary life style and food habits) as the most important causative agent [6, 7, 8].

Total 30 cases of 'Mukhapaka' were registered for clinical study. Maximum number of patients were in the 2<sup>nd</sup> and 3<sup>rd</sup> decades of life; residing in urban area and of lower and middle socio-economic status.

The trial preparation 'Haridradi Taila' was clinically tried on 30 cases of mild to severe types of 'Mukhapaka' in the form of 'Gandoosh', after every 4 hourly and also for oral administration; 10ml twice a day; for 10 days.

The effect of the treatment was assessed after every two days basis in terms of subjective improvement by way of determining the rate of favorable shift of grades on a four (0 to 3) grade symptoms rating scale developed for this purpose.

It was observed that the trial preparation produces highly significant ( $p < 0.05$ ) symptomatic relief and causes marked improvement ulceration, present in buccal mucosal layer, burning sensation of palate. Redness and erosion of oral cavity, difficulty in swallowing & chewing pungent things, enlargement of lymph nodes etc.

On the basis of case study we can say that management of 'Mukhapaka' by 'Haridradi Taila' has been proved as cost effective, potent, easily available in all seasons, easy to prepare & use, acceptable treatment by any group, with minimal unwanted action.

## References

- [1] A Short Textbook of ENT- edited by K.B. Bhargava, S.K. Bhargava & T.M. Shah, 7th Edition-2005, Usha Publication, Mumbai, India, 228-229.
- [2] Vagbhatta's Ashtanga Hridayam, Vol. 3 (Uttar sthan), translated by Prof. K.R. Srikanth Murthy, Edition Reprint-2006, and published by Chaukhamba Krishnadas Academy, Varanasi, U.P. India, Chapter 22, 184-197.
- [3] Illustrated Susruta Samhita of Sushruta, Vol. 1 & 2, translated by Prof. K.R. Srikanth Murthy, Edition Second-2004, published by Chaukhamba Orientalia Publication, Varanasi, U.P. India, Nidansthan Chapter 16-Page no. 563 & Chikitsasthan Chapter 22- Page no. 204-215.
- [4] Agnivesh's Charak Samhita (Based on Chakrapani Datta's Ayurved Dipika), Vol. 4, translated by Dr. Ram Karan Sharma & Vaidya Bhagwan Dash, Edition Reprint-2007, published by Chaukhamba Sanskrit series office, Varanasi, U.P. India, Chikista Sthan- Chapter 26-Page no. 505.
- [5] Dravyaguna Vigyan, Vol. 2, by Prof. P.V. Sharma, Edition Reprint-2006, published by Chaukhamba Bharati Academy, Varanasi, U.P., India, Page no. 120, 149, 162, 253 & 585.
- [6] Bhavprakash of Bhavamisra (Uttarardha Madhyamkhanda), Part 2, 8th Edition-2003, edited with the Vidyotini Hindi Commentary by Pandiat Sri Brahmashankara Mishra published by Chaukhamba Sanskrit Sansthan, Varanasi, U.P., India, Chikistadhikar; Mukharogadhikar, Chapter 66-Page no. 720.
- [7] Bhaisajya Ratnavali-Vidyotini Hindi Vyakhya Vimarsh Parisishta Samhita-commentary by Shri Ambika Datta Shastri, edited by Kaviraj Rajeshwardatta Shastri, 16th Edition-2002, published by Chaukhamba Sanskrit Sanshtan Varanasi, U.P., India, Page no. 676-677.
- [8] Yogaratnakar (Uttarardha), Vidyitini tika, by Vaidya Shri Lakshmipati Shastri, Edited by Bhishagratna Shri Brahmashankar Shastri, 7th Edition-2002, published by Chaukhamba Sanskrit Sansthan, Varanasi, U.P., India, Mukharoga Nidan/Chikitsa, Page no. 296-97.