

STUDY THE EFFICACY OF DARVYADI KWATHA GANDUSHA UPKRAMA IN MUKHAPAKA

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ABSTRACT

Sarvasar mukha rogas are named as “*Mukhapaka*” as it occurs by spreading completely in the *Mukha*. *Mukhapaka* (Oral Ulceration) is a common complaint of patient attending OPD, Occur due to unhealthy dietary patterns and improper habits. It is neither a serious disorder nor a life threatening one, but at the same time it can be crippling by grossly disturbing the individual’s day to day life style. *Gandusha* one of the *upkrama* of *Dincharya*, advocated from health promotive, Disease preventive, curative and restorative purposes. Total 60 patients were selected randomly and assigned in to two groups Group A was given *Darvyadi Kwatha Gandusha* and group B was given *Triphala-Kwatha Gandusha* two times a day for 15 days with a clinical study of pre-and post-test design. It was observed that the trial preparation *Darvyadi Kwatha Gandusha* was found highly significant for reducing all the sign and symptoms of *Mukhapaka*.

Keywords: *Sarvasara, Mukhapaka, Gandusha, Dincharya, Darvyadi Kwatha.*

INTRODUCTION

Mukhapaka is a common condition disturbing day to day life of a person. The estimated point prevalence of oral ulcers worldwide is 4% with aphthous ulcers being the most common affecting as many as 25% of the population worldwide⁽¹⁾ Causative factors are poor oral hygiene, Consumption of pungent and hot food, Dietary protein deficiency, systemic disorders. In Ayurveda, non-practice of *Gandusha* are said to be the main cause for *Mukhagatrogas* Indirectly it infers the importance of *Gandusha* as it has advocated

from health promotive, Disease preventive, curative and restorative purposes.

The burden of oral diseases increasing day by day, Several recent clinical studies suggest oral diseases and inflammation may be a potential risk factor for serious systemic diseases such as low birth weight cardiovascular disease, bacterial pneumonia, diabetes complication and osteoporosis.⁽²⁾, where there is occurrence of such major issues, *Ayurveda* has given the best answer to this *Ayurveda* mention a daily preventive care including proper brush-

ing, tongue cleaning, gargling, these are the simplest processes which will help to stop problems before they develop.

In classics of *Ayurveda*, various *Dra-
vyas* are mentioned which are effective as well as affordable for patients; among these "*Darvyadi Kwatha*"⁽³⁾ mentioned by *Acharya Sharangadhara* was selected as it is easily available and affordable. It was tried on 30 patients of *Mukhapaka* in the form of *Gandusha* whereas other 30 patients treated with *Triphala kwatha gandusha*.⁽⁴⁾ *Observatients* were noted it was found that *Darvyadi Kwatha Gandusha* having better Result in all the sign and symptoms of *Mukhapaka* like pain, Burning sensation, salivation, Redness, No of ulcers than that of *Triphala Kwatha Gandusha*..

Aim: -

Study the efficacy of *Darvyadi Kwatha Gandusha Upkrama* in *Mukhapaka*.

Objectives:

1. To evaluate the efficacy of *Darvyadi Kwatha Gandusha* in *Mukhapaka*.
2. To evaluate the efficacy of *Triphala Kwatha Gandusha* in *Mukhapaka*
3. To study the concept of *Gandusha Upakrama*.
4. To make social awareness over the oral hygiene.

Materials and Method-

Place of Study-

Vidarbha Ayurveda Hospital, Amravati-444604, Maharashtra, India.

Type of study-

Open labeled randomized comparative clinical trial.

Sample size-

60 patients were recruited after satisfying inclusion & exclusion criteria and divided in two group to get data of 30 patients in each group.

Inclusive criteria

- a) Patients of *Mukhapaka* between the Age group of 16 years to 50 years, irrespec-

tive of sex, religion, occupation, socio economic states were selected.

- b) Classical features of *Mukhapaka* such as ulceration (*vrana*) Pain(*shoola*), burning sensation (*daha*) redness(*Raktavarnata*), excessive salivation(*lalastrava*) were taken.

Exclusive criteria

- a) Non-healing ulcers of Malignancy, Syphilis, HIV.
- b) 2.Ulcers due to Diabetes, Tuberculosis, Herpes, Chron's disease, Lichen planus & any systemic illness which interfere the duration of course of treatment.
- c) Traumatic stomatitis.

Investigation-

Routine Hematological investigation and other investigation done before treatment as per need to rule out the exclusion criteria and other systemic illness.

Randomization-

As per lottery method of randomization,60 patients were randomly divided in two group **Group A-** 30 patients of this group were treated by trial drug.

Yoga-Darvyadi Kwatha

Duration-15 days

Matra- Asanchari ,2 times a day.

Route of administration-Local

Group B- 30 patients of this group were treated with *Triphala Kwatha*.

Yoga-Triphala Kwatha

Duration-15 days.

Matra-Asanchari 2 times a day.

Route of administration-Local.

Follow up study-

Follow up of the study were carried out on 3rd,6th,9th,12th and 15th day of intervention.

**Drug Ingredients and Preparation Method
Ingredients-**

Darvi, Amruta, Triphala, Jatipatra, Dhamasa, Daksha, Honey.

Preparation Method-

As per the reference ⁽⁵⁾ the decoction is prepared and was put in the clean vessel when the decoction becomes lukewarm 1/6 th part honey of prepared decoction was added in it. Administration done in the morning and at evening up to the *samyaka Gandusha Lakshana* appeared.

Assessment Criteria-

1. Pain (*Vedana*)
2. Burning sensation(*Daha*)
3. Salivation(*Lalastrava*)
4. Redness (*Raktavarnaka*)
5. No of Ulcers

Observation and results-

Table 1: showing within group analysis of symptoms

	Group	<i>Vedana</i> (Pain)		<i>Daha</i>		<i>Lalastrava</i>		<i>Raktavarnava</i>		No of ulcers	
		BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
Mn	A	2.33	0.26	2.10	0.40	1.70	0.23	2.00	0.13	1.70	0.16
	B	2.30	0.66	2.43	1.06	1.53	0.20	2.13	0.70	1.90	0.66
Md	A	2	0	2	0	2	0	2	0	2	0
	B	2	1	2	1	2	0	2	1	2	1
SD	A	0.66	0.44	0.60	0.49	0.70	0.43	0.58	0.34	0.53	0.37
	B	0.59	0.66	0.56	0.63	0.57	0.40	0.50	0.70	0.40	0.47
SE	A	0.12	0.08	0.11	0.09	0.12	0.07	0.10	0.06	0.09	0.06
	B	0.10	0.12	0.10	0.11	0.10	0.07	0.09	0.12	0.07	0.08
Sm	A	70	8	63	12	51	7	60	4	51	5
	B	69	20	73	32	46	6	64	21	57	20
p	A		***		***		***		***		***
	B		***		***		***		***		***

***-P <0.0001- highly significant.

For within group analysis pair t test was applied on all the symptoms i.e. *Vedana*, *Daha*, *Lalastrava*, *Raktavarnata* and No of ulcers. In both the group P value summery for all the symptoms was found <0.0001 i.e. highly significant.

From the above observation, the mean value of both the group represents that Group A showed better relief that group Group B.

COMPARISON BETWEEN TWO GROUP-

An unpaired ‘t’ was applied on the sample of 60 patients of *Mukhapaka* randomly divided in to two groups.

Table 2: *Vedana*

	Group A	Group B
Mean	2.06	1.66
SD	0.78	0.79
SE	0.14	0.08
P	*	

Mean difference in symptom *Vedana* in Group A is 2.06 ± 0.14. Mean difference in symptom *Vedana* in Group B is 1.66 ± 0.08. This mean difference in *Vedana* is statistically significant between Group A and Group B (p value< 0.05) Thus, Group A treatment is significant than Group B.

Table 3: *Daha*

	Group A	Group B
Mean	1.70	1.36
SD	0.70	0.49
SE	0.12	0.08
P	*	

Mean difference in symptom *Daha* in Group A is 1.70 ± 0.12 Mean difference in symptom *Daha* in Group B is 1.36 ± 0.08 . This Mean difference in *Daha* is statistically significant between Group A and Group B (p value < 0.05). Thus, Group A treatment is significant that Group B.

Table No 4: Lalastrava

	Group A	Group B
Mean	1.46	1.33
SD	0.68	0.54
SE	0.12	0.09
P	NS	

Mean difference in symptom *Lalastrava* in Group A is 1.46 ± 0.12 Mean difference in symptom *Lalastrava* in group B is 1.33 ± 0.09 . This mean difference in symptom *Lalastrava* in Group A and Group B is statistically not significant. (p value >0.05)

Table No 5: Raktavarnata

	Group A	Group B
Mean	1.86	1.43
SD	0.57	0.50
SE	0.10	0.09
P	**	

Mean difference in symptom *Raktavarnata* in Group A is 1.86 ± 0.10 . Mean difference in symptom *Raktavarnata* in Group B is 1.43 ± 0.09 .

This mean difference in symptom *Raktavarnata* is statistically more significant between Group A and Group B (p value <0.01) Thus Group A treatment is more significant that group B.

Table 6: No of Ulcers

	Group A	Group B
Mean	1.53	1.23
SD	0.57	0.43
SE	0.10	0.07
P	*	

Mean difference in sign, no of ulcers in Group A is 1.53 ± 0.10 . Mean difference in sign no of ulcers in Group B is 1.23 ± 0.07

The mean difference in sign no of ulcers is statistically significant between Group A and Group B (p value < 0.05). Thus, Group A treatment is significant than group B

PROBABLE MODE OF ACTION OF DARVYADI KWATHA-RASA KARMA-Tikta Rasa⁽⁶⁾

Daha kandu prashamana-Reduces burning sensation and itching

Lekhana- causes depletion of *Kapha*.

Pachana-Causes Local *amapachana*, and relieves *strotorodha*.

Upshoshana-Ruksha guna present in the *Tikta Rasa* causes absorption of *kleda* and *Kapha*.

It helps for removing the debris fetor and thus improve and maintain the proper oral hygiene.

Kashaya rasa⁽⁷⁾

Kashaya rasa is *Vranaropana* and *Sandhanakar*.

It causes *Sleshma*, *Pitta*, *Rakta Prashamana*. *Kashaya rasa* is *Shothhar* and *Sleshmakala Sankochaka* which promotes healing of ulcers. *Vedana* goes on decreasing as healing starts.

VEERYA KARMA-

Jati, *Darvi*, *Haritaki*, *Bibhitaka* is having *Ushna veerya* which causes *Kaphashamana*.

Daksha, and *Dhamasa* is having *sheeta veerya* causes *Pittashamana*, reduces burning sensation and redness.

VIPAKA KARMA-

Most of the *Dravyas* in the *Darvyadi Kwatha* is having *Madhura vipaka* which cause *Pittashamana*.

Daruharidra and *Jati* possess *Katu vipaka* which normalizes vitiated *Kapha*.

GUNA KARMA-

Ruksha Guna-It has the *Kharatva* property which causes absorption of *Kapha Dosha*. **Rusha Guna** causes alleviation of the vitiated *Kapha*, which is the main *Dosha* in the Pathogenesis of *Mukhagatrogas*.

Laghu Guna-It alleviate *Kapha Dosha*. It has also *Lekhana* and *Ropana* property. **Laghu Guna** has *Akash, Agni* and *Vayu Mahabhuta* dominance which cause alleviation of aggravated *Kapha*.

Mrudu Guna-It has dominance of *Jala* and *Akash Mahabhuta* causes *pittashamana*

OVER ALL EFFECT OF DRUG:

Extensive studies have indicated wound healing & inflammation modifying action of the *Jatipatra*. It contains salicylic acid which is known for its antiseptic action. *Jatipatra* also known for its wound healing and wound contraction activity which increased hydroxyproline content and support in the local treatment and management of ulcers. *Amalaki* possess antioxidant as well as astringent property which has been proven to be effective in the treatment of ulcers. *Amalaki* is one of the rich source of vitamin C which has important role in collagen formation and wound healing. Vitamin C also provides tensile strength to newly built collagen. Honey act as purifying and healing agent in case of ulcers. *Darvyadi Kwatha Gandusha* cause cleaning effect which removes morbid material and improves oral hygiene.

MODE OF ACTION OF GANDUSHA-

1. *Gandusha* exerts the mechanical pressure inside the oral cavity, it causes vasodilatation due to the warmth of the *Kwatha*. Due to vasodilatation, more fresh blood comes at the affected site and thus reduces inflammation.
2. Warm *Kwatha* stimulates mucous secretion and helps to wash out the superficial infective microorganisms.
3. *Gandusha* causes local cleaning effect there by removing debris and improve oral hygiene.
4. *Gandusha* increases the local defense mechanism- The press receptor present in the oral cavity is stimulated by the mechanical pressure which exerted during the procedure of *Gandusha*. This stimuli send signals to the salivary nuclei due to this, the parasympathetic nervous system increases the secretion of saliva. Local defense mechanism increases due to the lysosome one of the enzyme present in the saliva which is bacteriostatic in nature.
5. The chemoreception present in the oral cavity is stimulated by the chemical constituents present in the *Darvyadi Kwatha* which ultimately increases the secretion of saliva and thus reduces the inflammation.

DISCUSSION

Effect on Vedana-

In Group A, after therapy the initial mean score was reduced from 2.33 to 0.26 with an average change of 2.06 ± 0.14 , which shows an improvement of 88.57% which was statistically highly significant. Group B, after *Gandusha* the initial mean score was reduced from 2.30 to 0.66 with an average change of 1.63 ± 0.08 showing an improvement of

71.01% which was again statistically highly significant. From the above result, it is found that group A having better result than group B. *Vedana* is one of the characteristic feature of *Shotha*, almost all the *dravyas* in the *Daryadi Kwatha* is considered as best *shothahara*. This can also have considered due to the analgesic property of *Guduchi*.

Effect on Daha-

After the therapy in Group A the initial mean score was reduced from 2.10 to 0.40 with an average change of 1.70 ± 0.12 , which shows an improvement of 80.95% which was statistically highly significant. In Group B ,after *Gandusha* the initial mean score was reduced from 2.43 to 1.06 with an average change of 1.36 ± 0.089 showing an improvement of 56.16% which was again statistically highly significant While comparing the effect of *Gandusha* it was found that Group A treatment having better result than group B ,This may be due to the *Draksha* and *Dhamasa* which has *Madhura rasa* and *Sheeta veerya* which reduces the burning sensation. *Tikatarasapresent* in the *Darvyadi Kwathais* best *Pittashamaka* and *sheeta* in nature which reduces burning sensation. *Kashaya rasa* also meant for relieving pain and reduces burning.

Effect on Lalastrava-

In Group A, after therapy the initial mean score was reduced from 1.70 to 0.23 with an average change of 1.46 ± 0.12 , which shows an improvement of 86% which was statistically highly significant. In Group B, after *Gandusha* the initial mean score was reduced from 1.53 to 0.20 with an average change of 1.33 ± 0.09 showing an improvement of 86% which was again statistically highly signifi-

cant, that means both the therapies having an equal effect on the symptom Lalastrava.

Effect on Raktavarnata

After the therapy in Group A the initial mean score was reduced from 2.00 to 0.13 with an average change of 1.86 ± 0.10 , which shows an improvement of 93.33% which was statistically highly significant. In Group B, after *Gandusha* the initial mean score was reduced from 2.13 to 0.70 with an average change of 1.43 ± 0.09 showing an improvement of 67.18% which was again statistically highly significant as we discuss earlier that *Mukhapaka is Rakta pradoshaja vikara*, reduction in *raktavarnata* may be appreciated due to the *Pittashamaka* and ultimately *raktashamaka* property of *Darvyadi Kwatha*.

Effect on No of ulcers-

After the treatment in Group A the initial mean score was reduced from 1.70 to 0.16 with an average change of 1.53 ± 0.10 , which shows an improvement of 90.19% which was statistically highly significant. In Group B, after *Gandusha* the initial mean score was reduced from 1.90 to 0.66 with an average change of 1.23 ± 0.07 showing an improvement of 64.91 % which was again statistically highly significant. Group A having better result than Group B this may be assume due to the *Kashaya rasa*, which is *Shothhar* and *sleshmakala sankochaka* which promotes healing of ulcers. Both the *rasa (Tikta & Kashaya)* having *krimighna* and *shothhar* property which causes *Vranashodhana* and *Vranaropana*.

CONCLUSION

1. Maximum numbers of patients were belonging to the age group of 21-30 years

- (41.66%), with dominancy of female sex 63.33% *Pitta-Kapha prakruti* (41%) Preferring *Katu rasa* (38%), habituated to Tea/Coffee (41%), and having stress (70%)
2. Most of patients found were of *Pitaja sarvasara* with higher incidence in *Sharad ritu*(65%)
 3. Most of patients reported were having poor oral hygiene and practicing only *Dantadhavana*.
 4. *Gandusha* is easy and simple procedure, more acceptable, cost *Darvyadi Kwatha Gandusha* give best relief from all the sign and symptoms & promote speedy healing of the ulcers.
 5. Still there is need of further extensive studies on large sample size to conclude the authenticity of *Darvyadi Kwatha* in Recurrent Aphthous ulcers.

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