STUDY THE EFFICACY OF DARVYADI KWATHA GANDUSHA UPKRAMA IN MUKHAPAKA

Sarika K. Alone¹, Sanjay K. Chopkar

¹PG Scholar, ²HOD
(Dept of Swasthavritta), VAM, Amravati, Maharashtra, India

Email: sarikaalone0@gmail.com

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 Draavyas are mentioned which are effective as well as affordable for patients; among these “Darvyadi Kwatha” 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. Observents 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, irrespect-}

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

<table>
<thead>
<tr>
<th></th>
<th>Vedana (Pain)</th>
<th>Daha</th>
<th>Lalastrava</th>
<th>Raktavarnava</th>
<th>No of ulcers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BT</td>
<td>AT</td>
<td>BT</td>
<td>AT</td>
<td>BT</td>
</tr>
<tr>
<td>Mn A</td>
<td>2.33</td>
<td>0.26</td>
<td>2.10</td>
<td>0.40</td>
<td>1.70</td>
</tr>
<tr>
<td>B</td>
<td>2.30</td>
<td>0.66</td>
<td>2.43</td>
<td>1.06</td>
<td>1.53</td>
</tr>
<tr>
<td>Md A</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>SD A</td>
<td>0.66</td>
<td>0.44</td>
<td>0.60</td>
<td>0.49</td>
<td>0.70</td>
</tr>
<tr>
<td>B</td>
<td>0.59</td>
<td>0.66</td>
<td>0.56</td>
<td>0.63</td>
<td>0.57</td>
</tr>
<tr>
<td>SE A</td>
<td>0.12</td>
<td>0.08</td>
<td>0.11</td>
<td>0.09</td>
<td>0.12</td>
</tr>
<tr>
<td>B</td>
<td>0.10</td>
<td>0.12</td>
<td>0.10</td>
<td>0.11</td>
<td>0.10</td>
</tr>
<tr>
<td>Sm A</td>
<td>70</td>
<td>8</td>
<td>63</td>
<td>12</td>
<td>51</td>
</tr>
<tr>
<td>B</td>
<td>69</td>
<td>20</td>
<td>73</td>
<td>32</td>
<td>46</td>
</tr>
<tr>
<td>p A</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>B</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

***-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**

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.06</td>
<td>1.66</td>
</tr>
<tr>
<td>SD</td>
<td>0.78</td>
<td>0.79</td>
</tr>
<tr>
<td>SE</td>
<td>0.14</td>
<td>0.08</td>
</tr>
<tr>
<td>P</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

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**
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**

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.46</td>
<td>1.33</td>
</tr>
<tr>
<td>SD</td>
<td>0.68</td>
<td>0.54</td>
</tr>
<tr>
<td>SE</td>
<td>0.12</td>
<td>0.09</td>
</tr>
<tr>
<td>P</td>
<td>NS</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.86</td>
<td>1.43</td>
</tr>
<tr>
<td>SD</td>
<td>0.57</td>
<td>0.50</td>
</tr>
<tr>
<td>SE</td>
<td>0.10</td>
<td>0.09</td>
</tr>
<tr>
<td>P</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.53</td>
<td>1.23</td>
</tr>
<tr>
<td>SD</td>
<td>0.57</td>
<td>0.43</td>
</tr>
<tr>
<td>SE</td>
<td>0.10</td>
<td>0.07</td>
</tr>
<tr>
<td>P</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

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 Sandhankar.

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 Pittamana. 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 warmness 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. Tikatarasa present 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 0.70 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, reductio in raktavarnata may be appreciated due to the Pittashamaka and ultimately rak-tashamaka 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
with dominancy of female sex (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.

REFERENCES
1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935903/

Source of Support: Nil
Conflict Of Interest: None Declared