Comparative study on efficacy of Kavala Dharana with Godugdha and Goghrita in management of Mukhapaka

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ABSTRACT

Mukhapaka is affected to particular age, socioeconomic status, improper food habits and life style. Here control over Pittadosha is the very first step. There is a need to find out a simple, cost effective, economical, reliable and most suitable therapy by which one can give good results on disease. Godugdha & Goghritha is best Vranaropaka and due to its Guna, it cures Mukhapaka. In present era people are interested towards Ayurveda, which is most effective and reliable. Hence the present work was undertaken “Comparative study on efficacy Kavala Dharana with Godugdha and Goghrita in management of Mukhapaka”. Objectives: To compare the efficacy of Godugdha and Goghrita Kavala Dharana in the management of Mukhapaka. Conclusion: Goghrita Kavala has shown better effect than Godugha during subsequent follow up with very minimal recurrence rate was found.

Key words: Dinacharya, Kavala, Mukhapaka, Godugdha, Goghrita

INTRODUCTION

Ayurveda is an ancient science derived from “Vedas”. Ayurveda is given by Bramha to mankind to teach them properly the manner of living in world by preventing & curing disease. The ancient science is said to be ‘Divya’. Anadi, Nitya, Shashwat etc. because of its own unchanged principles Ayurveda is a holistic healing science. It comprises of both practical & scientific information. On various subjects beneficial to mankind like health, philosophy, astrology & engineering. Ayurveda is science dealing not only with treatment of disease but is also a complete way of life. The aim of Ayurveda is to give complete health & not just getting free from physical disease. Ayurveda treatments don’t suppress the main symptom & create new ones as side effects of the main treatment. It is to remove the root cause & give permanent relief. The treatment mainly comprises of powders, tablets, decoctions, medicated oils etc. prepared from natural herbs, plants & minerals. We are thousands year away from the time when Ayurveda was practiced uniquely. The Siddhanta’s of this science then & now are the same. These Siddhanta’s are too revised in the context of modern lifestyle. To maintain the health of healthy person is main the main goal of Swasthavritta. The branch parallel to Swasthavritta is ‘Preventive & Social Medicine (PSM) which is now considered to be one of the important branches in the modern medicine. Swasthavritta mainly emphasizes on following a proper routine regime as well as seasonal regime. Daily regime stresses on day-to-day instructions like morning, routine, basic cleanliness, natural urges, evening routine etc. There are some principles which are mentioned in old classical, texts are ‘Dinacharya’ Upakrama. By following rules of Dinacharya. We can take care of Indriya i.e., Sensory organs & keep them clean, so they can do their function normally Dantadhavan, Nasya, Gandoosha, Kavala\(^[1]\) and Anjana

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are some of the Upakrama’s described in Dinacharya.[2] Now a days as life style are changed everyone is trying to live western style. In today modern & fastmoving hectic life style common man has no time to take care of his health. Many bad habits are developed in human being. Some of them alcohol, smoking, gutkha chewing, soft drink etc. Due to busy & hectic schedule oral hygiene is neglected ultimately leads to Mukhapaka.[3] To maintain oral hygiene Ayurveda describe Kavala & Gandoosh Upkrama in Dincharya.

Kavala is defined as holding medicated decoction or Semisolids in the mouth in such a quantity so that it could be moving in the mouth.[4] Advantages of Godugdha and Goghrita are described in old text Bhavaprakasha Nighatu. Due to oral hygiene neglected so many people are approaching from treatment for complaining Mukhapaka[5] recurrently. Ayurveda Acharyas mentioned various Dravyas which are effective as well as affordable for patients. As Godugdha[6] and Goghruta[7] are easily available any were and also it is having Ropana quality. So, this topic was selected to evaluate the efficacy of Godugdha and Goghrita kavaladhrana in Mukhapaka.

**OBJECTIVE OF THE STUDY**

1. To study the Kavala, Mukhapaka in detail.
2. To study the effect of Godugdha & Goghrutha Kavala Dharana in detail.
3. To compare the efficacy of Godugdha and Goghruta Kavala Dharana in the management of Mukhapaka.

**MATERIALS AND METHODS**

**Source of data**

Literary Source from Classical books of Ayurveda and Modern Science. Articles from Periodicals, Journals, Dissertation and other Published and Unpublished works. Related Sources of the data from the website.

**Clinical Sources**

Mukhapaka patients were selected by Random sampling method from OPD, IPD and Camps conducted in College and Hospital.

**Materials**

Godugdha & Goghritha was selected for Kavala as mentioned in Sushruta Samhita[8]

**Drugs:** 1. Godugdha  2. Goghrita

**Composition of drug:** Only Godugdha & Goghrita was used for present study.

**Dose:** 30ml

**Time:** Morning (after Dantadhavana)

**Procedure:**

**Poorvakarma:** The individual was made to sit comfortably in a room devoid of breeze and dust. Mild massage and fomentation was given to the shoulder neck, throat and forehead.

**Pradhankarma:** Individual was asked to keep his face slightly lifted up and advised to hold Godugdha or Goghrita allowing movements of Dravya inside the mouth till the secretion occur in mouth, nose and eyes.

**Paschatkarma:** After spitting out the contents, mouth was cleaned with lukewarm water.

**Methods of collection of data:** Diagnosed patients of Mukhapaka will be selected with respective of age above 5 years. Irrespective of sex, occupation, socio economic status from OPD and Camps conducted in college and hospital. The sample size will be 30 (minimum) excluding dropouts.

**Study design**

The sample of 30 patients of Mukhapaka will be selected with respective of age above 5 years. Irrespective of sex, occupation, socio economic status from OPD and Camps conducted in college and hospital. The sample size will be 30 (minimum) excluding dropouts.

**Group A:** 15 patients of this group will be advised for Godugdha Kavala Dharana in the morning.

**Group B:** 15 patients of this group will be advised for Goghrita Kavala Dharana in the morning.

**Study duration:** Total duration: 30 days.

**Treatment duration:** Treatment will be performed for 15 days.

**Follow up study:** 1st follow up: On the last day of treatment i.e., on 15 days.
2nd follow up: After 15 days of treatment i.e., on 30th day.

Parameters of the study

Subjective parameters
1. Daha
2. Ruja
3. Sphota

Objective Parameters
Sphota (numbers of ulcers)

Inclusive Criteria
1. Patients with Lakshanas of Mukhapaka were selected.
2. Patients of age above 5 yrs were selected.[12]
3. Patients of both genders were included irrespective of their religion & caste.
4. Patients fit for Kavaladharana were selected.

Exclusive Criteria
1. Patients of below 5 years of age were excluded.
2. Patients suffering from any systemic disorders were excluded.
3. Patients suffering from CA of oral cavity, toothache were excluded.
4. Patients unfit for Kavala dharana were excluded.

Assessment Criteria
1. Daha
2. Ruja
3. Sphota

Symptoms are taken as parameters for the assessment & gradation. The observations were noted from time to time of every user in research as well as group A and group B. This categorized information is prepared & presented statistically to subject to the critical analysis. After analyzing the information, we are going to make an effort to draw better conclusions regarding the facts mentioned above in the aims & objectives of this clinical study. All the symptoms were assesses using scoring pattern.

Score grading
0 : No Symptom
1 : Mild degree
2 : Moderate degree
3 : Sever degree

Assessment Variables

Clinical assessment was made for the severity of the disease and for clinical improvement. Grading for the severity of individual symptoms was framed as variables on the basis of guidelines of 3 the management. The grading of 4 variables is given along with clinical proforma specially designed for the study on Mukhapaka. The severity of each variables ranging from Normal (1), Mild (2), Moderate (3) and Severe (4).

Assessment of clinical improvement

Clinical improvement of the disease was based on the improvement in, reduction in severity of the symptoms & overall severity of disease.

Statistical Analysis

The data were collected from both Groups. Before, in between the treatment, after treatment and post follow up. They are statistically analyzed by using unpaired student’s ‘t’ test in consultation with Biostatistician.

OBSERVATIONS AND RESULTS

In the present study 30 patients suffering from Mukhapaka, fulfilling inclusion criteria were taken for clinical study. Patients were randomly categorized under following groups.

Group A - Godugdha - 15 patients.
Group B - Goghrita - 15 patients.

Table 1: Showing the different degree of assessment criteria after follow-up.

<table>
<thead>
<tr>
<th>SN</th>
<th>Assessmen Criteria</th>
<th>Group-A</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
</tr>
<tr>
<td>1.</td>
<td>Ruja</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Daha</td>
<td>04</td>
</tr>
<tr>
<td>3.</td>
<td>Sphota</td>
<td>07</td>
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Table 2: Showing the different degree of assessment criteria after follow-up:

<table>
<thead>
<tr>
<th>S N</th>
<th>Assessments Criteria</th>
<th>Group A</th>
<th>N R G 1</th>
<th>%</th>
<th>M L D G 2</th>
<th>%</th>
<th>M D R G 3</th>
<th>%</th>
<th>S V R G 4</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Ruja</td>
<td>05</td>
<td>33.3</td>
<td>3</td>
<td>08</td>
<td>53.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Daha</td>
<td>02</td>
<td>13.3</td>
<td>3</td>
<td>02</td>
<td>13.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>Sphota</td>
<td>03</td>
<td>20</td>
<td>03</td>
<td>20</td>
<td>-</td>
<td>-</td>
<td>-</td>
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In between Group - A v/s Group - B

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Treatment</th>
<th>Group A Mean±SE</th>
<th>Group B Mean±SE</th>
<th>Df</th>
<th>t-value</th>
<th>p-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruja</td>
<td>AT</td>
<td>1.00±0.14</td>
<td>1.07±0.12</td>
<td>28</td>
<td>0.71</td>
<td>0.001</td>
<td>HS</td>
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<tr>
<td></td>
<td>AF</td>
<td>0.53±0.13</td>
<td>0.53±0.13</td>
<td>28</td>
<td>0.00</td>
<td>&lt;0.0001</td>
<td>NS</td>
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<tr>
<td>Daha</td>
<td>AT</td>
<td>0.73±0.15</td>
<td>0.47±0.13</td>
<td>28</td>
<td>1.31</td>
<td>0.006</td>
<td>NS</td>
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<tr>
<td></td>
<td>AF</td>
<td>0.27±0.12</td>
<td>0.13±0.09</td>
<td>28</td>
<td>1.89</td>
<td>&lt;0.0000</td>
<td>NS</td>
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<tr>
<td>Sphota</td>
<td>AT</td>
<td>0.60±0.13</td>
<td>0.47±0.13</td>
<td>28</td>
<td>0.71</td>
<td>0.008</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>AF</td>
<td>0.13±0.09</td>
<td>0.20±0.11</td>
<td>28</td>
<td>0.47</td>
<td>0.0004</td>
<td>NS</td>
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Overall result of Group A

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<tr>
<th>Parameters</th>
<th>BT Mean±SE</th>
<th>AT Mean±SE</th>
<th>df</th>
<th>t-value</th>
<th>%</th>
<th>p-value</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>Overall</td>
<td>3.93±0.44</td>
<td>3.27±0.52</td>
<td>1</td>
<td>2.86</td>
<td>16.9</td>
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Overall result of Group B

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<tr>
<th>Parameters</th>
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<th>AT Mean±SE</th>
<th>df</th>
<th>t-value</th>
<th>%</th>
<th>p-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>4.00±0.45</td>
<td>2.87±0.46</td>
<td>1</td>
<td>2.91</td>
<td>28.3</td>
<td>0.01</td>
<td>SS</td>
</tr>
</tbody>
</table>
**DISCUSSION**

*Kavala* is among the Ayurvedic theories explained in *Dinacharya* which has been attributed not only as a promoter of oral hygiene but also taken as an *Upakrama* in the management of *Mukhapaka Rogas.* Regular practice of *Kavala* will exert cleansing action and promotes the defense mechanism in oral cavity thus prevents oral disorders. It is true fact that if a person does not follow the rules of oral hygiene has an important role in the maintenance of body health. It is believed that the nature provides both the disease and the drug together and gave concept of protection, restoration and regeneration of health. Ayurveda being a nature remedy gave concept of *Kavala* in the *Mukhapaka Roga* for protection restoration and regeneration of oral health. So, efficacy of *Kavala* has been taken for clinical study. *Mukhapaka* is the *Sarvasaramukhagataroga* which is due to the vitiation of *Vata, Pitta, Kapha* and *Rakta*. The *Sarvasara* manifested by the vitiation of *Pitta* and *Rakta* is known as *Mukhapaka* having the symptoms of *Daha, Alparuja* and yellow or red *Sphota* in the *Mukha*. Acharya *Vagbhata* explained that the vitiated *Vatadosha* in the *Mukha* leads to the *Vrana* all over the *Mukha*, these *Vrana* and *Ruksha*, are red in color called as *Mukhapaka*. There is great necessity to find an effective and economical mode of treatment method. So, to see the effect of these procedures *Kavala Dharana* in disease *Mukhapaka* which is the most common problem caused by improper food habits, the study was undertaken with title entitled Comparative study on efficacy of *Kavala Dharana* with *Godudhga* and *Goghrita* in the management of *Mukhapaka*.

*Kavala* is one of *Kriya Kalpa* procedure explained in classics. It is explained under the context of daily regimen as well as part of treatment. *Kavala* is routine process of filling the mouth with liquid which helps to maintain the oral health. It is also an *Upakrama* for *Mukhapaka* for *Mukharoga*. So, it is having preventive and curative effect. From the definition of *Kavala* it reveals that *Kavala* the process of holding any medicated liquid like *Kwath, Swaras, Madhu, Ghrita, Taila, Gomutra, Ushnodaka* etc. in mouth fill half and do movement until tears and nasal watering starts and then asked to split out. The classification of *Kavala* is mainly based on its *Karma* i.e., *Snaihika, Shamana, Shodhana* and *Ropana Kavala* which is useful in *Vataja Mukharoga, Pittaja Mukharoga, Kaphaja Mukharoga* and *Mukhagata Vrana* respectively.

**General mode of action of Kavala**

Even though *Kavala* is *Sthanika Chikitsa* its action can be understood as both

1. Local action
2. Systemic action

**Local action**

*Kavala* has many actions locally they are as follows. Increase local defense mechanism. Enhancing both mechanical and chemical digestion of food that starts in Mouth. Removing of metabolic waste (urea and uric acid), Soothing effect strengthening of muscles of oral cavity. The action of *Kavala* exerts increased mechanical pressure inside the oral cavity. So, this increased stimulate pressoreceptor (stretch reflex) that are present in mouth. Once the pressoreceptor is stimulated they send signals to salivary nuclei in the brain stem (pons and medulla). As a result, para sympathetic nervous system activity increases and motor fiber in facial (VII) and glossopharyngial (IX) nerve trigger dramatically increased output of saliva chemical constituent present in the drug also stimulate chemoreceptor present in mouth, which in turn increases salivary secretions. An enzyme called lysosome present in saliva is bacteriostatic in action. It will not allow for growth of pathogenic microorganisms in the oral cavity, Antibody IgA present in saliva also provide protection against microorganisms. Thus, *Kavala* increases local defense mechanism. The enzyme salivary amylase present in saliva and lingual lipase secreted by the lingual gland present at the dorsum of tongue initiates digestion of carbohydrate and fats respectively. *Kavala* increases secretions of the enzymes. Excessive salivary secretion, which predominantly contains water, removes metabolic wastes present in oral cavity. Some of *Dravyas* used for *Kavala* like *Panchavalkala* produces soothing effect on lesions like ulcers thus prevents ulcers from physical...
and chemical injury. The act of Kavala and Gandusha gives proper exercise to the muscles of cheeks, tongue, lips and soft palate thereby increasing the motor functions of these muscles.

Systematic action[12]

Mucosal layer inferior to tongue (sublingual) is thin and highly vascular enough to permit the rapid absorption of lipid soluble drugs into systemic circulation. Some drugs irritate the oral mucosa (by their chemical nature) and increase cellular permeability. Thus, an active principle of Dravya gets absorption in systemic circulation. Most of the Dravas (Kwatha) given for Gandusha thereby enhancing systemic absorption of and are warm (Sukhoshna) so raised temperature causes the increased vascular permeability there by enhancing systematic absorption of drugs.

CONCLUSION

Kavala is one among the Dinacharya which has been attributed not only as promoter of oral hygiene but also taken as an Upakrama in the management of Mukhapaka. The disease Mukhapaka can be correlated with disease stomatitis. Nidana Parivarjana plays a vital role in preventing the disease Mukhapaka. Godugdha Kavala has shown significant result in management of Mukhapaka. Goghrita Kavala has shown significant results in management of Mukhapaka. Goghrita Kavala has shown better effect than Godugha during subsequent follow up with very minimal recurrence rate was found.

REFERENCES


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