EVALUATION OF EFFECT OF GODHUMADI UPANAHA SWEDA IN NIRAMAJA KATIGRAHA: AN OPEN CLINICAL TRIAL

Tarun Kumar 1, Rajashekhar V Sanapeti 2

1PG Scholar, Department of Panchakarma, KLEU’s Shri BMK Ayurveda Mahavidyalaya, Shahapur, Belagavi, Karnataka, India
2Reader, Department of Panchakarma, KLEU’s Shri BMK Ayurveda Mahavidyalaya, Shahapur, Belagavi, Karnataka, India

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*Corresponding author
E-mail: dr.tarunbams3887@gmail.com

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ABSTRACT

Katigraha, a condition in which Kati Pradesh (low back) is afflicted with either suddha (pure) vata or sama vata (vata combined with aama i.e. the toxins released from undigested food) and symptom like ruja (Pain) with stabhdhata (stiffness) is present. Katigraha often correlated with low back pain with stiffness. About 60% to 80% of general population in India suffer from low back pain during their life time. Upanaha (poultice) Swedana (sudation) is one of the treatments mentioned for Katigraha. In Katigraha afflicted with suddha vata i.e. Niramaja (without aama) Katigraha, Vatanashaka (which reduces vata) Upanaha is required. So, in patients who are having Niramaja Katigraha, Godhumadi Upanaha was used once a day for 7 days. Subjective parameters were ruja, stabhdhata and Oswestry disability index. Niramaja Katigraha patients who are treated with Godhumadi Upanaha showed 34.18% effect in relieving pain (P value < 0.0001), 22.67% effect in relieving stabhdhata (stiffness) (P value = 0.0147) and 27.71% effect in Oswestry disability index change (P value= 0.0001). Ruja and Stabhdhata was due to sheeta-rukha (cold-dry) properties of vata, drugs used were having snigdha (unctuous) properties and bruhmana (nourishing) effect so along with ushna (hot) properties of Upanah, it helped in pacifying vata doshu thus helped in relieving ruja and stabhdhata of the patient. Patients treated with Godhumadi Upanaha showed overall 30% efficacy in relieving Niramaja Katigraha. As Godhumadi Upanaha showed effect in management of Niramaja Katigraha so along with other treatment modalities it will be helpful in treating Niramaja Katigraha in better way.

Key Words: Katigraha (low back pain), Upanaha (poultice), Swedana (sudation), Low Back Pain

INTRODUCTION

Kati Pradesh (low back), when afflicted with suddha (Pure) vata or sama vata (vata combined with aama i.e. the toxins released from undigested food juice), and symptom like ruja (Pain) with stabhdhata (stiffness) is appreciated, then this condition is called as Katigraha (low back pain)1. This can be correlated with low back pain. It is most common disorder which is characterised by dull or sharp pain, may also associated with stiffness. About 60% to 80% of general population in India suffer from low back pain during their life time due to several stressful factors seen in their professional or social life and also due to wrong postural habits. Swedana (sudation) is one of the treatment modality mentioned for Katigraha (low back pain)2 and Upanaha (poultice) is one among various types of Swedana (sudation)3. The selection of drugs varies according to the avastha (condition) of disease. As there are two avastha (condition) mentioned in Katigraha (low back pain) that is samaja (with aama) and niramaja (without aama), specific type of Upanaha (poultice) is required for each avastha (condition). Hence study has been carried out with an objective to evaluate the effect of Godhumadi Upanaha Sweda in Niramaja Katigraha (low back pain).

Objective

To evaluate the effect of Godhumadi Upanaha (poultice) Sweda (sudation) in Niramaja Katigraha (low back pain without aama).

MATERIALS AND METHODS

Study design: An open clinical trial

Diagnostic criteria
- Ruja (Pain)
- Stabhdhata (stiffness)

Inclusion criteria
- Patients presenting with classical lakshana of Niramaja Katigraha (low back pain).
- The patients, who are fit for Swedana (sudation).
- The age group between 20 to 60 years of either sex.

Exclusion criteria
- Samaja Katigraha (low back pain with aama) present with Sama lakshana i.e. Gauravata (Heaviness), aruci (anorexia), agnimandya (low digestive power), alasya (laziness) and mukhapraseka (salivation).
- Low back pain results from osteoporotic fractures, infections, neoplasms and other mechanical derangements.
- Patient associated with any other systemic disorders.
- Patients with the history of trauma (Abhighata janya Katigraha).
- Known case of skin allergy and open wound.
- Post-surgical backache.

Source of Data: Subjects of Katigraha fulfilling the inclusion criteria were selected from OPD/ IPD of KLEU Shri BMK Ayurveda Hospital and Research Centre, Belagavi.
**Study Plan:** Study was started after taking ethical clearance and consent was taken from subjects and study was in accordance with ICH GCP Guidelines.

**Table 1: Ingredients of Godhumadi Upanaha (poultice)**

<table>
<thead>
<tr>
<th>Medicinal Powder</th>
<th>Godhuma (Wheat) Powder 50-75 gm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tila kalka (Sesame seeds paste) 30-45 gm</td>
</tr>
<tr>
<td></td>
<td>Erandamoola (Ricinus communis) powder 100-125 gm</td>
</tr>
<tr>
<td></td>
<td>Sandhva (Rock salt) 30 – 45 gm</td>
</tr>
<tr>
<td>Drava (Liquid part)</td>
<td>Gokshira (Milk) 200-300 ml</td>
</tr>
<tr>
<td></td>
<td>TilaTala(Sesame oil) 40-60 ml</td>
</tr>
</tbody>
</table>

**Sample size:** 27 patients of niramaja Katigraha (low back pain without aama).

**Method of collection of data**
1. 27 patients who had fulfilled the inclusion criteria were selected after taking consent.
2. Patients questioned and examined on the basis of Performa and clinical test.

**Upaṇaha (Poultice) method**

**Preparation of paste**
Take medicinal powder in a pan, add 100 ml Gokshira (Milk) to it and mix it well. Now add Erandamula powder to it again add 100 ml Gokshira (Milk) to it and mix it well. Now add Tila kalka (sesame seeds paste), Saindhava lavana (Rock Salt) and Tila taila (sesame oil) to it and make its consistency dough like.

**Main Procedure**
The patient should lie in prone position on abhyanga (massage) table. Expose the part to be treated that is Kati Pradesh (low back) and cover it with proper shaped Erandamula leaves. Then tie it with a Cotton bandage.

**Post operative procedure**
After removing Upaṇaha (poultice) gentle massaging is done and cleaned well with lukewarm water and patient is asked to move the joint slowly.

**Oswestry Disability Index Total Score**

<table>
<thead>
<tr>
<th>Visual Analogue Scale: (Pain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

**RESULTS**

**Table 2: Effect of Godhumadi Upanaha (poultice) in Niramaja Avastha**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Parameter</th>
<th>BT (Mean + St dev)</th>
<th>AT (Mean + St dev)</th>
<th>t value</th>
<th>Significance/ p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VAS</td>
<td>5.06 ± 1.03</td>
<td>3.33 ± 1.15</td>
<td>8.17</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>2</td>
<td>Stabdhatha (stiffness)</td>
<td>1.72 ± 0.73</td>
<td>1.33 ± 0.75</td>
<td>2.72</td>
<td>0.0147</td>
</tr>
<tr>
<td>3</td>
<td>OsDI</td>
<td>45.11 ± 8.69</td>
<td>32.61 ± 9.82</td>
<td>7.31</td>
<td>&lt; 0.0001</td>
</tr>
</tbody>
</table>

*OsDI- Oswestry Disability Index, BT: Before Treatment, AT: After Treatment

**DISCUSSION**

**Discussion on Observation**

Out of 27 cases of Niramaja Katigraha (low back pain) males (52.78%) were found to be more affected than Females (47.22%), prolonged standing postures (38.89%), moderate working life style (38.89%), farmers, labors (27.78%) and house wives (33.33%) were found more prone for Katigraha (low back pain), it may be because they have to do more laborious work and due to them prolong standing postures, it exerts pressure over Kati Pradesh (low back) and provides khai vaigunya (impaired space) i.e. favorable condition for sthana samshraya (residency) of already vitiated vata doshas. Age wise distribution of 27 patients of Katigraha (low back pain) showed...
that 40-60 years (69.44%) of age group were found more affected than other age groups as this age group is more prone to degenerative changes further vitiated vata dosha leads to shleshaka kapha kshaya (reduction) causes Katigraha.

**Effect of Godhumadi Upanaha (poultice) in Niramaja Avastha Patients**

Niramaja avastha patients when treated with godhumadi Upanaha (poultice) showed 34.18% effect in pain relieving (P value < 0.0001), 22.67% effect in stabhdhata (stiffness) relieving. (P value 0.0147) and 27.71% effect in Oswestry disability index change (P value < 0.0001). So Godhumadi Upanaha (poultice) was significantly effective in treating ruja (Pain) and stabhdhata (stiffness) in Niramaja avastha (condition without aama) might be because Ruja (Pain) and Stabhdhata (stiffness) was due to sheeta-ruksha (cold-dry) properties of vata, drugs used were having snigdha (unctuous) properties and bruhmana (nourishing) effect so along with ushna (hot) properties of Upanaha (poultice), it helped in pacifying vata dosha thus helped in relieving ruja (Pain) and stabhdhata (stiffness) of the patient.

**Probable mode of action of Upanaha (poultice)**

The lipoidal bond is very much suitable for penetration of drug molecule through stratum corneum. On this basis, we can assume that in Upanaha (poultice), taila (oil) helps in formation of lipoidal bond with other drugs thus helps in the penetration of drug molecules. Upanaha (poultice) is a type of Swedana (sudation) so it induces hyperthermia which improves local blood and lymphatic circulation and thereby improving local tissue metabolism, reduces inflammation by modifying secretion of various inflammatory mediators, relaxes local musculature by physical effect of heat and thereby reduces pain, increases the rate of trans-dermal drug delivery. Most of the drugs used are having alkaloids, thus they are doing the inhibition of Prostaglandins, which in turn decreases the inflammation and some of the drugs are having flavonoids also which play a role in anti-oxidant effect.

**CONCLUSION**

In this clinical trail 27 patients of Niramaja Katigraha were selected. Godhumadi Upanaha (poultice) in niramaja Katigraha showed 34.18% effect in relieving ruja (Pain), 22.67% effect in relieving stabhdhata (stiffness) and 27.71% effect in Oswestry disability index change. As Godhumadi Upanaha (poultice) showed effect in management of Niramaja Katigraha so along with other treatment modalities it will be helpful in treating Niramaja Katigraha in much better way.

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