A RANDOMIZED COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF AGNIKARMA WITH PANCHALOHA SHALAKA AND LOHA SHALAKA IN GRIDHRASI VIS-À-VIS SCIATICA

Abstract: Gridhrasi is one of the vatavyadhi according to Ayurveda. It is a ruja pradhana vyadhi. On the basis of the symptoms Gridhrasi can be correlated with Sciatica. It is a crippling disease, causing throbbing pain in hip and radiating downwards, with the sciatic nerve. Trauma, overloading, prolonged standing, sedentary lifestyle and neurological factors are said to be the causative factors. About 60-80% of people get affected by low back pain and amongst which 6 percent are reported to have radiating type of pain. It disturbs daily routine of the patients because of continuous and stretching type of pain. Despite of all advances in modern medicine, Sciatica merely managed with Analgesics, NSAIDs; Muscle relaxants which have long term severe side effects. In Ayurveda, various methods used in the treatment of Gridhrasi are Bhashaja, Basti, Siravyadana and Agnikarma. The common indications of Agnikarma include pain, stiffness, muscle spasm and inflammatory conditions; these symptoms are observed in the Gridhrasi. The disease treated with Agnikarma do not recur and there is no fear of putrefaction and bleeding, and ultimately it produces balancing effect on vitiated vata dosha. Agni karma done by using Panchaloha Shalaka, which does vata kapha shamka. Agnikarma done by using lohashalaka which works as a Rejuvenator, health promoter, and it balances all the tridoshas. Hence considering above facts this study has been planned as “A RANDOMIZED COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF AGNI KARMA WITH PANCHALOHA SHALAKA AND LOHA SHALAKA IN GRIDHRASI VIS-À-VIS SCIATICA”.

Key words: Agnikarma, Sciatica, Panchalohashalaka, lohashalaka.
I. INTRODUCTION

In today's era, the lifestyle and nature of work are putting tension on the usual health. Due to this, the person is unable to carry out the daily activities. Sciatica is a crippling disease, causing throbbing pain in hip and radiating downwards, with the sciatic nerve. Trauma, overloading, prolonged standing, sedentary lifestyle and neurological factors are said to be the causative factors. About 80 - 90% of people get affected by low back pain and 5% of those become victims of sciatica which disturbs daily routine and overall quality of life, compromised by continuous and stretching type of pain. There are several disharmonies in this biological system as the advancement of busy professional and social life, improper sitting postures and over exertion jerking movements during traveling etc. factors creates undue pressure to the spinal cord which leads to low backache and the progression leads to sciatica. This disease now becomes a threat to the working population.

Sciatica is due to spinal disc herniation, back sprain, shingles, and degenerative lumbar spine. Spinal stenosis or the narrowing of the spinal canal due to compression of the spinal cord could be another reason for sciatica pain. Sciatica may also occur during pregnancy as a result of the weight of the fetus pressing on the sciatic nerve. It rarely arises from Piriformis syndrome in which the shortening of piriformis muscle exerts pressure on the sciatic nerve, all cause temporary forms of sciatica, lasting from days to weeks.

In reference to sciatica treatment, Modern medical science has only symptomatic management with analgesics like muscle relaxants, NSAIDS, corticosteroids and condition is managed by administration of physiotherapy etc. In some cases, Epidural steroid injection and Periradicular infiltration are given and these are having their-own complications and side effects. If nerve compression is more; surgical procedures like laminectomy, discectomy are indicated but these surgical procedures are expensive with their limitations. Long term use of these medicines may cause mild to serious systemic illness.

So, it is the need of time to seek other treatment option mentioned in Ayurveda classics. In Ayurveda, Pain is cardinal symptom in most of the Vatavyadhis the term 'Gridhrasi' itself suggests the gait of the person which is similar to Ghridha (vulture) due to pain. This disease is listed under vitiation of Vata Only, i.e. Nanatmaja Vatavyadhi having lakshana of Sakti Kshepanigraha (i.e. restricted lifting of the legs) symptoms of Gridhrasi are pain starts from Sphik and then radiates to, Uru, Janu, Jangakati, Prushtagha and Pada along with Stambha, Toda, Spandana. It disturbs the physical and mental status of a patient. Vata Invading the kandaras of the Parsha, Pratyanguli and gulpha produces kshepanin the thighs causing Gridhrasi. On the basis of the symptoms, Gridhrasi can be correlated with Sciatica. In Ayurveda, various methods used in the treatment of Gridhrasi are Bhesjaha Basti, Siravyadana and Agnikarma. In classics Agnikarmain Padakanistika region mentioned for Gridhrasi, it includes relief from pain and stiffness, reduces muscle spasm and inflammatory conditions, which are the symptoms observed in the Gridhrasi.

Therefore this study has been conducted to rule out the comparative efficacy of Agnikarma using “PANCHALOHA SHALAKA” for group A and Agnikarma using “LOHA SHALAKA” for Group B in GRIDHRASI VIS-Á-VIS SCIASTICA.”
II. A CLINICAL STUDY REPORT

1.1 Selection of the patient:

Patient attending OPD and IPD of Department of ShalyaTantra, Ayurveda Mahavidyalaya, Hospital, Hubballi, 20 patients were randomly selected who were fit for the study as per the inclusion criteria.

1.2 Selection of drugs

*SahacharadiTaila* for *sthanika abhyanga* and *LakshadiGuggulu* as internal medicine was prepared in the department of *RasaShastra* and *BhaishajyaKalpana*, Ayurveda Mahavidyalaya, Hubli.

1.3 Sample size

Minimum of 20 patients diagnosed as *Gridhrasi* will be selected and randomly categorized into two groups as Group A & Group B each consisting of 10 patients.

<table>
<thead>
<tr>
<th>Sample size</th>
<th>- 20 patients</th>
</tr>
</thead>
</table>
| Procedure   | - *Group A : Agnikarma with panchaloha shalaka*  
*Group B : Agnikarma with lohashalaka* |
| No. of settings | - Two sitting |
| Locally     | - Sahacharadi Tailam for *sthanika abhyanga* (for both group) |
| Internally  | - Lakshadi Guggulu(for both group) |
| Dose        | - Lakshadi Guggulu - One tablet of 500mg twice a day after food with ushnodaka(for both group) |
| Duration    | - Every week assessment for one month |
| Follow up   | - Follow up after 14 days |

1.4 Inclusion Criteria:

1. Patients with sign and symptoms of *Gridhrasi* (sciatica)

2. Patients of either sex between the age group of 20 to 60 years.

3. Patients fit for Agnikarma.
1.5 Exclusion Criteria:

1. Patients with Hypertension, Uncontrolled Diabetes Mellitus, Cardiac disorders, Malignancy and Systemic disordersPatients with Hepatitis B, Tuberculosis, HIV.

2. Patient who are unfit or contra-indicated for Agnikarma

3. Pregnant women

1.6 Assessment Criteria

- Subjective parameters - table 1
- Objective parameters - table 2
- Investigations - table 3

III. OBSERVATIONS

1. Patient were with age group of 41-50 years, Female sex; married; non-vegetarian dietary habit;

2. Majority of the patients i.e. 60% patients were having Madhyama kosta, and 30% patients were having vishama agni.

3. Maximum number of patients i.e. 0-1 year’s chronicity, and are Having gradual onset.

4. Maximum number of patient’s i.e. 78.33% having Vata predominant Prakurti, 70% patients had MadhyamaSaara, 58.33% patients had MadhyamaSamhanana, 53.33% patients had MadhyamaSatva, 48.33% patients had MadhyamaSatmya, 55.00% patients had MadhyamVyayama Shakti, 92.5% of the patients had Madhyam
5. Out of 60 patients maximum i.e. 60 patients (100%) presented with
the symptom of Ruka (Pain). 37 patients (61.66%) were presented with the symptom of Stambha (Stiffness) and 31
patients (51.67%) were presented with the symptom of Tingling & numbness, and 51 Patients (85%) were Presented with the
Symptom of Painful movement, followed by 29 patients (48.33%)
Presented with Toda (Pricking sensation) described as main
symptoms of sciatica were observed in all patients
of this series
6. No side-effects were found in any patients during the course of
Procedure.

IV RESULTS:

- Effect of therapy in inter group: -
  i. Subjective parameters (wilcoxon matched pairs signed ranks test)
  ii. Objective parameters (paired ‘t’ test)

- Effects of therapy in inter group: -
  i. Subjective parameters (mann-whitney test)
  ii. Objective parameters (unpaired t test)

- Comparison of overall effect in both groups: -
  i. Percentage relief in two groups in subjective
  ii. Percentage reliefs in two groups in objectives parameter
Total effect of therapy in the patients of *Gridhrasi* :-

**V. DISCUSSION**

Highest incidence of disease was reported in the age group of 35-60 years, which is the kala of *vata prakopa*. In the present study, the therapy provides 82.64% relief in group A and 87.09% relief in group B.

Mode of action of *Agnikarma*:

After *Agnikarma* the *Ushna* (hot) Guna of *Agni* pacifies the *Shita* (cold) Guna of *Vayu* and reduces the joint pain in the case of *Sandhi*. Acharya Charaka described that *Agni* is the best treatment for *Shoola* (pain). *Ushna* Guna of *Agni* helps to removes the Avarana effectively and stabilizes the movement of *Vata*, which provide relief from *Shoola*. As per the modern medicine, therapeutic heat increases blood circulation at knee joint leads to the proper nutrition of the tissue. This induced circulation help to flush away pain producing substances from affected site and ultimately reduces the local inflammation. The heat application is indicated in cases of chronic inflammation. Heat leads to vasodilatation, exudation of fluid, increase in white blood cells and antibodies. This response obtained on heating the tissues is augmentation of these changes for certain period and reduce the chronic inflammation.

**VI. CONCLUSION**:

From the present study, it can be concluded that-Although *Agnikarma* using *PanchalohaShalaka* and *Agnikarma* using *LohaShalaka* gave good result, but comparison in both therapies, *Agnikarma* using *LohaShalaka* provided much better relief in the symptoms of *Sciatica*.

**VII. REFERENCES**


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### Table 1: Subjective parameters

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stambha</strong> (Stiffness)</td>
<td>No stiffness</td>
<td>Mild (for 10 – 30 min)</td>
<td>Moderate (for 31 – 60 min)</td>
<td>Severe (for more than 1 hour)</td>
</tr>
<tr>
<td><strong>Ruk</strong> (Pain)</td>
<td>No pain</td>
<td>Mild pain but no difficulty in walking (1-3)</td>
<td>Moderate &amp; slight difficulty in walking (4-6)</td>
<td>Severe pain with extreme difficulty in walking (7-10)</td>
</tr>
<tr>
<td><strong>Spandana</strong> (Twitching)</td>
<td>No Twitching sensation</td>
<td>Mild (for 10 – 30 min)</td>
<td>Moderate (for 31 – 60 min)</td>
<td>Severe (for more than 1 hour)</td>
</tr>
<tr>
<td><strong>Gourava</strong> (Heaviness)</td>
<td>No</td>
<td>Mild (not affecting the normal movements)</td>
<td>Moderate (affecting the normal movements)</td>
<td>Severe (severely affecting the normal movements)</td>
</tr>
</tbody>
</table>
### Table 2: Objective parameters

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenderness</td>
<td>No tenderness</td>
<td>Mild (Pain on deep palpation)</td>
<td>Moderate (Pain on superficial palpation)</td>
<td>Severe (Doesn’t allow)</td>
</tr>
<tr>
<td>Straight leg raise test (SLR TEST)</td>
<td>More than 90°</td>
<td>Between 60° - 90°</td>
<td>Between 30° - 60°</td>
<td>Less than 30°</td>
</tr>
</tbody>
</table>

### Table 3: Investigations

- **Blood**
  - 1. CBC
  - 2. RBS
  - 3. RA- FACTOR
- OTHER
- X-RAYS (If necessary)

### Table 11: Showing the Overall assessment of therapy in both Group A and Group B (In percentage)

<table>
<thead>
<tr>
<th>Remarks</th>
<th>Group A</th>
<th>%</th>
<th>Group B</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete relief (100%)</td>
<td>3</td>
<td>30%</td>
<td>4</td>
<td>40%</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>Marked relief (75% - 99%)</td>
<td>3</td>
<td>30%</td>
<td>6</td>
<td>60%</td>
<td>9</td>
<td>45%</td>
</tr>
<tr>
<td>Moderate relief (50% - 74%)</td>
<td>4</td>
<td>40%</td>
<td>0</td>
<td>0%</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>Mild relief (25% - 49%)</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>No relief (Below 25%)</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Table 12: Total effect of therapy in both the Groups

Showing the Total effect of therapy in both the Groups

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT</td>
<td>AT</td>
</tr>
<tr>
<td>121</td>
<td>21</td>
</tr>
</tbody>
</table>