A CLINICAL STUDY ON THE ROLE OF MATRA BASTI (ERANDA TAILA) AND SHAMAN CHIKITSA (SHEPHALIKA, NIRGUNDI PATRA KWATH) IN THE MANAGEMENT OF GRIDHRASI W.S.R TO SCIATICA SYNDROME

Sharma Rajendra¹, Ghosh Sukumar², Talukdar Arunansu³, Singh Kumar Shailendra⁴

¹PG Scholar, Kayachikitsa (Final Year), Institute of Post Graduate Ayurvedic Education & Research at Shyamadas Vaidya Shashtra Pith Hospital, Kolkata-09, West Bengal, India
²MD, Ph.D, Reader & HOD. Dept. Kaya Chikitsa, Institute of Post Graduate Ayurvedic Education & Research at Shyamadas Vaidya Sahstra Pith Kolkata-09, West Bengal, India
³MD, Ph.D., FICP Professor Medicine Dept., Medical College Hospital Kol-73
⁴Lecturer Dept. of Kayachikitsa RGMAC & Hospital, West Bengal, India

Email: drrajendarsarma@gmail.com

ABSTRACT

Gridhrasi is a physical complain which is characterized by Ruka (Pain), Stambha (Stiffness), Toda (Pricking sensation) and Ruja in Kati Prista Janu Jangha and Pada in an order. In Astanga Hridaya we found another symptom Sakthyutkshepa Nigrihanati which is similar to SLR test. The disease can be correlated with Sciatica Syndrome. For this study, a series of 40 patients were selected. Patients were questioned, examined and investigated thoroughly by following the exclusion & inclusion criteria and they were divided into two groups- Group A and Group B (20 patients in each group). Group A patients were treated with Nirgundiidi kwath and Group B patients treated with Nirgundiidi kwath and Matra Basti. The response of the treatment was recorded by periodical checkup on the basis of clinical improvement. At the end of the treatment, the result of Group-‘B’ was statistically more significant in comparison to Group-‘A’ without untoward effect.

Keywords: Gridhrasi, Sciatica syndrome, Nirgundiidi kwath, Matra Basti.

INTRODUCTION

According to Ayurveda the concept of healthy person is not restricted only up to the body but the physical, spiritual and mental all the three state must be in proper condition i.e. in the equilibrium state¹. Low back pain is the second most common cause of disability² in society.
Gridhrasi is a physical complain due to which people cannot stand, sit or walk properly which causes continuous pain in the affected limb\(^3\) and nature of pain is similar to that which is caused due to eating flesh by vulture\(^4\). The Sciatica Syndrome is characterized by pain radiating from the back into the buttock and along the posterior or lateral aspect of the lower limb and is caused by pressure on the Sciatic Nerve\(^5\). Hence, the term *Gridhrasi* can be considered as equivalent to Sciatica Syndrome. According to *Ayurveda Gridhrasi* is one among the 80 types of *Vatavyadhi*\(^6\) and *Basti* is the best treatment for it\(^7\), here *Vata* is considered to be the most powerful and active among the three dosas. *Garuda Puran* first described the detailed and separate description of *Gridhrasi*\(^9\). According to *CharakSamhita*, *Gridhrasi* is of two types, one is caused by aggravation of *Vata* alone and the other caused by the aggravation of both *Vata* and *Kapha*\(^8\). Among *Panchkarma*, *Basti karma* is such a *Chikitsa* that is applicable to all the *Vatavyadhis*\(^10\). The management of this disease is still a medical problem; chances of recurrence are high even after surgery but special attention has been given in *Ayurveda*. The development of new harmless drug of plant origin which is cheap and easily available for the treatment of this disease is the reason behind the selection of my work.

**AIMS AND OBJECTIVES**

1. A thorough review of literature concern with *Gridhrasi*.
2. To study the etiopathogenesis of *Gridhrasi* as well as Sciatica Syndrome.
3. To assess the efficacy of *Matra Basti*.
4. To compare the effect of *Nirgundiyadi kwath* and *Matra Basti*.

**MATERIALS AND METHODS:**

**Inclusion criteria:**

1. Patients between the age group of 30 – 60 years.
4. Pain radiates from hip to thigh, knee, leg and foot posteriorly.
5. Tenderness of sciatic nerve.
6. SLR (Straight Leg Raising) test positive.
7. Both sexes.
8. Written consent for trial.

**Exclusion criteria:**

1. Age below 30 years and above 60 years.
2. Patients suffering from Cardiac Diseases.
4. Ca of Lumbo-Sacral spine
5. Tuberculosis of vertebral column.

**Grouping of the patients** -

Total 40 patients of *Gridhrasi* (sciatica syndrome) were divided into two groups i.e Group-A

(20 patients) were administered *Nirgundiyadi Kwath* and Group B (20 patients) both *Nirgundiyadi Kwath* and *Matra Basti*.

**Trial drug & doses**

*Nirgundiyadi Kwatha* and *Eranda Tail*.

**Dosage:** - 25ml in empty stomach twice daily.

*Matra Basti* with 60 ml *Eranda Tail* (Castor Oil) for 15 days.

**Ingredients:-**

*Nirgundiyadi Kwatha:* - *Shephalika Patra* (*Nyctanthes arborititis Linn*)\(^{11}\) and *Nirgundi Patra* (*Vitex negundo Linn*)\(^{12}\).

**Study Period:** 18 months. Individual patient 45 days.
Sample Size: 40 patients.
Diagnostic Criteria:
a) Subjective: Ruka, Stambha, Toda and SLR Test.
b) Objective: Blood for TC, DC, ESR, Hb%, Blood for FBS, PPBS

Table 1: Showing the assessment criteria

<table>
<thead>
<tr>
<th>Ruka (Pain)</th>
<th>Stambha (Stiffness)</th>
<th>Toda (Pricking sensation)</th>
<th>SLR (Straight leg Raise Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No pain</td>
<td>No stiffness</td>
<td>Absent</td>
<td>&gt;90°</td>
</tr>
<tr>
<td>Occasional pain</td>
<td>Occasional Stiffness</td>
<td>Mild</td>
<td>71° – 90°</td>
</tr>
<tr>
<td>Mild pain</td>
<td>Regular Stiffness (10 to 30 min.)</td>
<td>Moderate</td>
<td>51° – 70°</td>
</tr>
<tr>
<td>Moderate pain</td>
<td>Regular Stiffness (30 to 60 min.)</td>
<td>Severe</td>
<td>31° – 50°</td>
</tr>
<tr>
<td>Severe pain</td>
<td>Regular Stiffness (More than 1 hr.)</td>
<td>Extreme</td>
<td>Upto 30°</td>
</tr>
</tbody>
</table>

Study design:
Step – 1 Selection of patients as per selection criteria.
Step – 2 Informed consent were taken from all the patients of the study.
Step – 3 Confirmation of diagnosis.
Step – 4 Patients were divided into 2 groups (Group A and Group B).
Step – 5 Dropout: A record of all dropout patients were recorded.
Step – 6 Assessment of result.
Step – 7 Regular follow up.
Step – 8 Statistical analysis.

THERAPEUTIC TRIAL
In this present research program therapeutic trial was conducted in all the 40 patients of Gridhrasi out of which 38 patients completed X-ray of lumbo-sacral spine Antero Posterior and lateral view.

Assessment Criteria:
The patients will assess mainly on the basis of relief of symptoms. To assess the effect of the therapy, all the sign and symptoms were given scoring pattern depending upon their severity.

RESULT
The effect of treatment on symptoms profile in terms of percentage of relief, SD, SE, ‘t’ value, ‘p’ value were evaluated. The clinical trial was conducted among all the patients and the observation discussed under the following headings-
Table 2: Effect of Nirgundiyadi Kwath on Group-A patients of Gridhrasi

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Symptoms of patients (n=18)</th>
<th>Mean Score BT</th>
<th>Mean Score AT</th>
<th>% of Relief</th>
<th>SD(±)</th>
<th>SE(±)</th>
<th>‘t’ value</th>
<th>‘p’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ruka (Pain)</td>
<td>2.66</td>
<td>2.50</td>
<td>6.0%</td>
<td>0.42</td>
<td>0.08</td>
<td>1.77</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>2.</td>
<td>Stambha (Stiff-ness)</td>
<td>2.50</td>
<td>2.33</td>
<td>6.8%</td>
<td>0.38</td>
<td>0.09</td>
<td>1.82</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>3.</td>
<td>Toda (Pricking sensation)</td>
<td>2.00</td>
<td>1.83</td>
<td>8.5%</td>
<td>0.40</td>
<td>0.092</td>
<td>1.83</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>4.</td>
<td>SLR Test</td>
<td>2.17</td>
<td>2.00</td>
<td>7.66%</td>
<td>0.37</td>
<td>0.086</td>
<td>1.84</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

Table 3: Effect of Nirgundiyadi Kwath and Matra Basti on Group-B patients

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Symptoms of patients (n=20)</th>
<th>Mean Score BT</th>
<th>Mean Score AT</th>
<th>% of Relief</th>
<th>SD(±)</th>
<th>SE(±)</th>
<th>‘t’ value</th>
<th>‘p’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ruka (Pain)</td>
<td>3.50</td>
<td>1.80</td>
<td>48.57%</td>
<td>0.80</td>
<td>0.17</td>
<td>9.55</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>2.</td>
<td>Stambha (Stiff-ness)</td>
<td>2.45</td>
<td>1.40</td>
<td>42.85%</td>
<td>0.75</td>
<td>0.16</td>
<td>6.28</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>3.</td>
<td>Toda (Pricking sensation)</td>
<td>2.60</td>
<td>1.35</td>
<td>48.07%</td>
<td>0.84</td>
<td>0.18</td>
<td>6.61</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>4.</td>
<td>SLR Test</td>
<td>2.80</td>
<td>1.35</td>
<td>51.78%</td>
<td>0.73</td>
<td>0.15</td>
<td>8.95</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

n= Number of patients, SD=Standard deviation, BT= Before treatment AT= After treatment, SE= Standard error, ‘t’= paired ‘t’ test, ‘p’= Level of significance.

Fig 1: Showing the effect of Nirgundiyadi Kwath on Group-A patients

![Fig 1: Showing the effect of Nirgundiyadi Kwath on Group-A patients](image)

Fig 2: Showing the effect of Nirgundiyadi Kwath and Matra Basti on Group-B patients

![Fig 2: Showing the effect of Nirgundiyadi Kwath and Matra Basti on Group-B patients](image)
DISCUSSION

The entire nervous system depends upon the spine. So, the disease affecting lumbar spines are handled very carefully. Gridhrasi is such a disease having its origin in Pakwasaya, Sphik, and Kati i.e Lumbar spines in the classics. Acharya Sushruta has emphasized the involvement of Kandara from Parshni to Anguli in the disease Gridhrasi. He also added the symptom i.e. Sakthikshepa Nigraha i.e restriction of lifting the affected legs. Now a days, this symptoms known as SLR test which helps in the diagnosis of disease and assessment of nerves involves in the disease. The disease Gridhrasi is characterized by Ruka (Pain), Stambha (Stiffness), Toda (Pricking sensation) and Ruja in Kati Pristha Janu Jangha and Pada (Pain originates from hip region and radiates to thigh, knee, leg and foot posteriorly). Herniation of spinal cord, degenerative changes in disc are common causes, the other causes often associated are trauma, or lifting heavy object and extreme cold. This disease hampers the day to day activity and makes the patient partially crippled. Detailed description of samprapti of the disease Gridhrasi was not found as a separate disease. It is included under Vatavyadhi chikitsa. Modern drugs are highly symptomatic with troublesome side effects. This needs for special requirement of Ayurvedic management. This is the reason behind the selection of this topic, on the basis of Ayurvedic classics. All the components of trial drug formulation possess Katu, Tikta rasa, Katu Vipak, Ushna Virya. Erand possess Madhur Vipaka and Madhur; Tikta Kashaya rasa\(^1\)). Hence, they all mitigate Vata and Kapha dosha which is involved in Gridhrasi roga. The Bio-purificatory procedure i.e Matra Basti with Eranda taila eliminates the toxins from the body. Overall, the trial drug formulation and Matra Basti alleviate the Shula(pain), Stambha(stiffness), Gaurava(heaviness) of Gridhrasi. In this clinical study 40 patients were selected from the OPD and IPD of Kayachikitsa department of I.P.G.A.E. &.R at S.V.S.P. on the basis of sign and symptoms described in Ayurvedic and Modern text. The patients were divided in to two groups. Group-A patients were orally administered Nirgundiyadi Kwath in a dose of 25ml twice daily for 45 days. Group-B patients were administered Matra Basti with Erand taila for 15 days, along with oral administration of Nirgundiyadi Kwath 25ml twice daily for 15 days. The results obtained were analyzed by using paired ‘t’test.

CONCLUSION

Gridhrasi is included under 80 types of Nanatmaja vata vyadhi. It is a chronic and recurrent disorder. There is no direct reference of this disease is available in Vaidik period. In Garuda Puran Gridhrasi is explained as an independent disease. It can be correlated with Sciatica syndrome in Western system of medicine because maximum sign and symptoms of Gridhrasi are similar with Sciatica syndrome Vata-kapha prakriti persons are more susceptible to Gridhrasi. Male are more prone then female. Mainly vatavyadhi chikitsa have been advocated for this disease. Matra Basti with Erand taila along with Nirgundiyadi kwath both together acts significantly and shown better results in comparison to oral administration of Nirgundiyadi Kwath. Matra Basti has definite role in the management of Gridhrasi. All the drugs have properties like sothhara (anti-inflammatory), vedanasthapak (analgesic),
rasayan etc. So, they can help in relieving the samprapti of Gridhrasi roga\textsuperscript{14}. Therapeutic trial was conducted among 38 cases of Gridhrasi vis-à-vis Sciatica syndrome in two groups i.e Gr-A and Gr-B. Group –B results were statistically highly significant i.e p<0.001 in comparison to Group-A, which shows that Ayurvedic management of this disease is better, safe and effective than Western system of medicine. Hence further more extensive studies are suggested by future research workers for the management of this disease.

REFERENCES

5. 5. https://www.spine-health.com/conditions/sciatica

Source of Support: Nil
Conflict Of Interest: None Declared