EVALUATION OF THE EFFICACY OF CHATURBHADRA KALPA
BASTI KRAMA IN THE MANAGEMENT OF GRIDHRASI
W.S.R.T.SCIATICA

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ABSTRACT
Due to sedentary life style, more and more population is falling to many “Vatika disorders” affecting the loco motor system. “Gridhrasi” which is enumerated among the “Nanatmaja Vyadhi of Vata” in the classics, is high on list. As far as etiopathology of Gridhrasi is concerned ‘Vatavaigunya’ plays an important role. It essentially plays a role in the over stimulation of the nerve as experienced by severe pain in the course of affected part. Many works on Basti in Gridhrasi have been tried but Basti on Chaturbhadra Kalpa pattern much research has not been done. So to assess the efficacy of Chaturbhadra kalpa basti krama the present study was undertaken. The assessment criteria were noted before treatment and after follow up. Subjective parameters were, Stambha, Ruk, Toda, Supthi in sphik, kati, prushta, uru, janu, jangha and pada and Objective parameters were, Straight Leg Raising [SLR] test, Visual Analog Scale (VAS), E.S.R. In present study 80 % patient were best responded.

Keywords: Gridhrasi, Chaturbhadra kalpa basti krama, Ardhamatric nirooha basti.

INTRODUCTION: Vatavyadhis are kashtasadhya, they require early and proper line of management. In this way shodhana plays major role. Among the shodhana karmas Bastikarma is considered as the most important one due to its wide spread application and effect. It stands unique because it expels the vitiated doshas rapidly and easily from body. Thus bringing the vata to normalcy and overcoming the samprapti. It is considered as the prime therapy for the Vata pradhana vyadhis.1 Ardhahamatrika Basti is mentioned in Cakradatta as Tridoshahara.2 There are different patterns explained like Yoga Basti, Kala Basti, Karma Basti3 and different research works have been carried out on this three pattern but regarding chaturbhadra kalpa much research has not been done. Chaturbhadra kalpa is the pattern of giving Basti, which is explained in Kashyapa samhita and mention as Nirataya.4 In chaturbhadra kalpa pattern first 4 days continuous Anuvasana Basti then 4 days continuous Nirooha Basti and in last again 4 days continuous Anuvasana Basti is given. According to Sharangadhara it is mentioned that first Utkleshana then Doshahara and in last Samshamaneeya basti should be given5, in this way we can understand Chaturbhadra kalpa basti krama, as first 4 Anuvasana may act as utkleshana Basti next 4 Nirooha Basti may act as Dosahara Basti and last 4 Anuvasana Basti may act as Samshamaneeya Basti in Vatakaphaja type of Gridhrasi. In Vataja Gridhrasi Anuvasana Basti may act as Bramhana, Vatashamana and Nirooha Basti may act as Shodhana.

In Chaturbhadra kalpa basti krama first 4 Anuvasana Basti does utkleshana of dosha, next 4 Nirooha Basti does shodhana of utkleshita dosha, last 4 Anuvasana Basti does shamana of remaining dosha. The Adhishthana of disease Gridhrasi is Kati Pradesh which is the predominant site of Vata Dosha, so
Dosha Pratyanika Chikitsa is likely to be effective. In this regard the objectives proposed in the study are evaluate the efficacy of Chaturbhadra kalpa basti in the management of Gridhrasi.

**MATERIALS AND METHODS:**

**Sample size:** 10 patients received Ardhamatrika nirooha basti and sahachara taila anuvasana basti in chaturbhadra kalpa basti krama.

**Selection Criteria:** The cases were selected strictly as per the pre-set inclusion and exclusion criteria.

**Inclusion Criteria:**
1. Pain along the course of Sciatic Nerve (Gridhrasi nadi)
2. Straight leg raising (SLR) test being positive.
3. Presence of clinical features of both vataja and vata Kaphaja Gridrasi i.e Ruk, Stamba, Toda etc.
4. No discrimination of sex.
5. Age group between 20 to 60 years.
6. Patients fit for Bastikarma

**Exclusion Criteria:**
1. Age group below 20 and above 60 years.
2. Infective disorders
3. Degenerative disorders with marked deformity.
4. History of trauma
5. Long standing calcified patients.
6. Patient with other severe systemic and metabolic disorders like Diabetes Mellitus, Hyperthyroidism, Cardiac disease etc.
7. Pregnant women and lactating mothers.

**Study duration:**

Chaturbhadra kalpa basti krama - 12 days
Pariharakala - 24 days
Total study duration - 36 days.

**Subjective parameters:**
1) Stambha of affected sakthi.
2) Ruja in sphik, kati, prushta, uru, janu, jangha and pada.
3) Toda in kati, prushta, uru, janu, jangha and pada.
4) Supthi in sphik, kati, prushta, uru, janu, jangha and pada.

**Objective parameters:**
1) Straight Leg Raising [SLR] test.
2) Visual Analog Scale (VAS)

**Investigations:** For Diagnostic purpose
1) Hb%.
2) T.C, D.C.
3) RBS
4) Plain X-rays of lumbar spine for Diagnostic & Assessment of Results
5) E.S.R

**CHIKITSA:**

The Materials Used for the Study:
a) Dashamoola kashaya - 400 ml
b) Shatahva kalka - 10 grams
c) Saindhava - 10 grams
d) Madhu - 100 ml
e) Murchita Tila Taila - 100 ml

Sahachara taila

Sahachara Kashaya, Sahachara MoolaKalka, Tila taila, Ksheera and Sharkara are the five ingredients are added and reduced according to taila paka vidhi.

Chaturbhadra kalpa basti krama

First Anuvasa basti 4 days continue then Nirooha basti 4 days continue and in last again 4 days continue Anuvasana basti is given.

**Poorvakarma:** All the patients were asked to be in the hospital with in 9.A.M. Every patient was given stanika abhyanga and swedana just prior to the introduction of bastidraya. The abhyanga was done with Sahachara taila to the udarapradesha, kati, prushta, ooru, janu, jangha and pada.
Swedana was done only on to the area where the abhyanga was done.

Pradhanakarma: Ardhahriyatrika nirooha basti was administered to all patients by using plastic enema pot fit with soft rubber tubes at the terminal end and for Anuvasana Basti Glycerine syringe fit with soft rubber tube was used. For Nirooha a quantity of 600 ml luke warm bastidravya and for Anuvasana 100 ml of Sahachara taila was taken in the bastiyantar and air is trapped from bastiyanta. Then the anal region and the netra is smeared with oil. Gently rubber catheter was introduced in to the anal orifice up to the four Angula length. The method of administration of bastidravya was strictly followed as told by the Acharyas.

After the Anuvasana basti, the patient was made to lie on supine posture and gentle tapping was made on each of the soles and over the buttocks, legs of the patient was raised thrice. After passing the motion with sneha in proper time the patient is allowed to take light food in the evening if he feels hungry.

After the nirooha Basti, Patient was asked to remain in the same position till the feeling of defecation. Later after the manifestation of urges he was asked to evacuate the bastidravya. After the limited time, 1/2hr-1hr time, patient was asked to take hot water bath and was advised with laghu bhojana.

The same procedure was repeated for 12 days. The time of administration, the time of retention and complication was noticed if any.

Paschatkarma: Basti pratyagamana kala was recorded and then thorough examination of the patient was repeated by noting all the vital data again. Patient was advised with all the pathyapathya to be maintained in the basti pariharakala.

The patient was asked to follow a pariharakala of 24 days and was asked to report on 36th day from the treatment schedule started, for follow up and observation.

Assessment of Response to Treatment:
For subjective analysis gradation of cardinal symptoms are the Parameters. For objective analysis SLR test, VAS and ESR are the parameters. Every patient was observed before treatment and after the follow up for clinical response. The result is analyzed as below.

1. Best responded: Total absence of cardinal symptoms, SLR test being negative, VAS up to 3, ESR up to 10 mm/1st hour.
2. Responded: Up to 80% absence of cardinal symptoms, SLR test being negative or maximum improvement, VAS up to 6, ESR between 11-15 mm/1st hour
3. Not responded: No change in cardinal symptoms, SLR test being negative or same or minimum improvement, VAS more than 6, ESR more than 15 mm/1st hour

Certain gradations and declarations are made about the data, which are as follows,

Gradings of Subjective parameter:

Ruk (pain):
Grade 0 - No pain.
Grade 1 - Trivial pain.
Grade 2 - Mild pain.
Grade 3 - Moderate pain.
Grade 4 - Severe pain.

Sthamba (Stiffness):
Grade 0 - No stiffness.
Grade 1 - Up to 25% impairment of movements.
Grade 2 - 25-50% impairment of movements.
Gradings of Objective parameters:

**Straight Leg Raising Test:**
- Grade 0 - More than 90°
- Grade 1 - 71°-90°
- Grade 2 - 51°-70°
- Grade 3 - 31°-50°
- Grade 4 - up to 30°

**Visual Analogue Scale (VAS):**
- Grade 0 - 0
- Grade 1 - 1-3.
- Grade 2 - 4-6
- Grade 3 - 7-10

**Erythrocyte Sedimentation Rate (E.S.R.):**
- Grade 0 - 0 to 10 mm/1st hour
- Grade 1 - 11-15 mm/1st hour
- Grade 2 - 16-20 mm/1st hour
- Grade 3 - 21-25 mm/1st hour
- Grade 4 - more than 25 mm/1st hour.

**Observations and Results:**
Showing Statistical Outcome of the study Before Treatment & After Follow up
Showing the Overall Assessment:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Mean</th>
<th>Net Mean</th>
<th>%</th>
<th>SD</th>
<th>SE</th>
<th>T-value</th>
<th>P-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sthambha</td>
<td>2.4</td>
<td>0.4</td>
<td>2</td>
<td>2.1</td>
<td>0.664</td>
<td>3.009</td>
<td>&lt;0.02</td>
<td>HS</td>
</tr>
<tr>
<td>Ruk</td>
<td>3.7</td>
<td>1.1</td>
<td>2.6</td>
<td>2.66</td>
<td>0.841</td>
<td>3.088</td>
<td>&lt;0.02</td>
<td>HS</td>
</tr>
<tr>
<td>Toda (pricking sensation)</td>
<td>0.5</td>
<td>0</td>
<td>0.5</td>
<td>100</td>
<td>0.55</td>
<td>2.872</td>
<td>&lt;0.02</td>
<td>HS</td>
</tr>
<tr>
<td>Toda (tingling sensation)</td>
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<td>100</td>
<td>0.23</td>
<td>4.121</td>
<td>&lt;0.001</td>
<td>HS</td>
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<tr>
<td>Toda (burning sensation)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Suptata</td>
<td>0.5</td>
<td>0</td>
<td>0.5</td>
<td>100</td>
<td>0.45</td>
<td>3.511</td>
<td>&lt;0.01</td>
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<tr>
<td>SLR active right leg</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>50</td>
<td>1.1</td>
<td>2.872</td>
<td>&lt;0.02</td>
<td>HS</td>
</tr>
<tr>
<td>SLR active left leg</td>
<td>2.1</td>
<td>1.1</td>
<td>1.2</td>
<td>57.14</td>
<td>1.12</td>
<td>3.385</td>
<td>&lt;0.01</td>
<td>HS</td>
</tr>
<tr>
<td>SLR passive right leg</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>50</td>
<td>1.1</td>
<td>2.872</td>
<td>&lt;0.02</td>
<td>HS</td>
</tr>
<tr>
<td>SLR passive left leg</td>
<td>2.3</td>
<td>1</td>
<td>1.3</td>
<td>56.52</td>
<td>1.23</td>
<td>3.339</td>
<td>&lt;0.01</td>
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</tr>
<tr>
<td>VAS</td>
<td>2.9</td>
<td>1.1</td>
<td>1.8</td>
<td>62.06</td>
<td>1.78</td>
<td>3.195</td>
<td>&lt;0.02</td>
<td>HS</td>
</tr>
<tr>
<td>E.S.R.</td>
<td>0.8</td>
<td>0.1</td>
<td>0.7</td>
<td>87.5</td>
<td>0.77</td>
<td>2.872</td>
<td>&lt;0.02</td>
<td>HS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment effect</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Responded</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Respondent</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>Not Responded</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

DISCUSSION ON CHATURBHADRA KALPA BASTI KRAMA: Chaturbhada kalpa is the pattern of giving Basti, which is explained in Kashyapa samhita and mention as niratyaya. In chaturbhada kalpa pattern first 4 days continuous Anuvasana Basti than 4 days continuous Nirooha Basti and in last again 4 days continuous Anuvasana Basti is given. According to Sharangadhara it is mention that first Utkleshana than Doshahara and in last Samshamaneya basti should be given, in this way we can understand Chaturbhada kalpa krama, as first 4 Anuvasana may act as utkleshana Basti next 4 Nirooha Basti may act as Doshahara Basti and last 4 Anuvasana Basti may act as Samshamaneya Basti in...
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RESULTS:
- In overall assessment of the study, among 10 patients, 20% (2 patients) showed best response and 80% (8 Patients) showed response.
- Sthambha, Ruk, VAS are better responded.
- Chaturbhadra kalpa basti krama with Ardhamatrika Nirooha Basti and Sahachara taila Anuvasana basti is an effective treatment in the management of Gridhrasi and it shows long lasting result.

CONCLUSION: At the end of the study, following conclusions can be drawn on the basis of observations made, results achieved and thorough discussions in the present context. Gridhrasi occurs due to provoked vata and seated in the kandaras of the lower extremities. Impairment of Utkshepanadi karma is the main features along with ruk, sthabdatha and toda etc. The symptomatology of Gridhrasi explained in the classics are having the resemblance to the symptomatology of Sciatica explained in contemporary science. The main cause of Sciatica, degenerative changes in the lumbar vertebrae can be compared with the Dhatukshayaja nidana of Gridhrasi.

REFERENCES:

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