A Comparative Clinical Study Of Yogabasti With Katibasti And Yogabasti Without Katibasti In The Management Of Kati Shoola W.S.R. To Low Back Pain

Dr Hooli Mruthunjaya Shantaveerappa MD Scholar¹, Dr V S Kanthi MD(Panchakarma)², Dr N H Kulkarni MD(Jamnagar), PhD(Jaipur)³

1. MD Scholar, Department of Panchakarma, Bhagawan Mahaveer Jain Ayurvedic Medical College and PG Centre, Gajendragad
2. Professor & HOD, Department of Panchakarma, Bhagawan Mahaveer Jain Ayurvedic Medical College and PG Centre, Gajendragad
3. Principal and Hospital Superintendent, Bhagawan Mahaveer Jain Ayurvedic Medical College and PG Centre, Gajendragad

ABSTRACT

Introduction: Lower back pain is one of the most common painful condition which is experienced by all age groups. Ayurveda treatment of such conditions depends upon the acute or chronic causes, on which the physician decide whether emergency or conservative line of treatment is best. In Ayurveda, Trikgraha and Katigraha come under vaat vyadhis. For vaat vyadhis the common line of treatment mentioned in classics is snehana, swedana and shodhana. In this study total 40 patients of Kati Shoola were treated with Katibasti with Yogabasti and with only Yogabasti.

Objectives: To compare the effect of Katibasti with Yogabasti and only Yogabasti in management of Katisshoola.
Methods: 40 patients of either sex, diagnosed as Katisshoola, were randomly assigned into two groups, Group A and Group B, each comprising minimum of 20 patients. Group A: 20 patients were given Katibasti with Sahacharadhi Taila & Eranda moolaaadi Yogabasti. Group B: 20 patients were given Niruha basti in the form of Yogabasti. The assessment was done using subjective and objective parameters.

Results: In Group A. 16 (80%) patients were gained complete remission. 4 (20%) patients were got just marked improvement. In Group B. 10 (50%) patients were gained complete remission. 10 (50%) patients were got marked improvement.

Both the groups proved to be effective in combating the disease Katisshoola but ‘Katibasti with Yogabasti’ is more effective than only ‘Yogabasti’ in Katisshoola.

Keywords: Katisshoola, Low Back Pain, Katibasti, Yogabasti, Niruha basti

INTRODUCTION

Low back pain is pain affecting the lower part of the back. In this fast, life the physician who treats musculoskeletal problems sees patients with low backache, second only to common cold as a cause for primary visit to the doctor. This condition is extraordinarily common, with lifetime prevalence of 60 to 90 % and annual incidence of 5 %. More than 15% of claims for work related injuries are related to lumbar spine.

The main cause for low back pain is a strain of the muscles, or other soft structures (e.g. ligaments and tendons) connected to the back bones (vertebrae). Sometimes it is the cushion between the bones (inter vertebral disc) which is strained, and which bulges out (herniates) and presses on the nearby nerves (as in sciatica).

Understanding the role of different medical systems in the management of backache is important for the cost-effective management of the disease. Physician treating backache patients should understand this, so that they can co-ordinate and integrate functionally based programs, because no single medication, modality, exercise regimen or other treatment technique may result in low backache recovery. This condition can be correlated to Katisshoola in Ayurvedic texts.

In Ayurvedic texts, also the Kati Shoola has been mentioned as a very common problem. It is a major symptom of provoked Vata.

Panchakarma is a very unique therapeutic procedure because of its preventive, promotive, prophylactic and rejuvinative properties as well as providing a radical cure. Among these Panchakarmas; Basti Karma is such a Chikitsa that is applicable in all the Vatavyadhi.

Here Kati Basti¹, along with Yoga Basti² was selected which are simple to administer, safe and free from complications.
OBJECTIVES

1. To study in detail about *katishoola*.

2. To study in detail about *Katibasti* and *Yogabasti*.

3. To compare the effect of *Katibasti* with *Yogabasti* and only *Yogabasti* in management of *Katishoola*.

DRUG REVIEW

**Sahacharadi Taila: Used for Kati Basti Contents of Anuvasana**–

- Sacharadi taila 100 ml
- Saindhava 3-5 grams

**Ingredients of Sahacharadi Taila**

- Kalka – Sahacharamula kalka 01 part
- Sneha- Tila Taila 06 parts

**Drava dravya**

- Sahachara kwatha 10 parts
- Ksheera 04 parts

**Contents of Eranda Mooladi Niruha (Used for Niruha Basti)**

- Madhu - 100 ml
- Saindhava - 10 gram
- Murchita Tila Taila - 200 ml
- Kalka - 30 gram
- Kwatha - 400 ml (Erandamuladi)
- Gomutra - 75 ml
MATERIALS AND METHODS

Source of Data

Minimum 40 patients of Katishoola were selected randomly from the OPD, IPD and by conducting the special camps in Department of Post Graduate Studies in Panchakarma, Bhagawan Mahaveer Jain Ayurvedic Medical College, Hospital & PG Centre Gajendragad.

Study Design:

A comparative clinical study with pre-test and post-test design.

All the formulations were prepared in the pharmacy attached to the college.

Methods of Collection of Data

Patients of either sex were selected randomly based on the symptoms of Katishoola, the screened patients were randomly divided into two groups group A and group B with 20 patients in each group.

Inclusion Criteria

1. Patient having classical Lakshanas of Katishoola
2. Patient aged between 16 to 70 who fulfills the diagnostic criteria.
3. Patients fit for basti karma.

Exclusion Criteria

1. Patient below the age of 16 years and above the age of 70 years
2. Patients unfit for basti.
3. Patient with other systemic disorder and serious illness interfering in the course of the treatment.
4. Patient aged below 16 years and above 60 years

Diagnostic Criteria

1. Stiffness of Kati
2. Katishoola.
Intervention:

**Group A:** 20 patients were given Katibasti with Sahacharadhi Taila & Errand moolaadi Yogabasti

**Basti Schedule**

<table>
<thead>
<tr>
<th>Basti</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
<th>Day 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anuvasana</strong></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Niruha</strong></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**Group B:** 20 patients were given Niruha basti in the form of Yogabasti

**Basti Schedule**

<table>
<thead>
<tr>
<th>Basti</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
<th>Day 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anuvasana</strong></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Niruha</strong></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**Method of Katibasti Procedure**

**Poorva karma:**

- Patient should be in laghu koshta and with minimum clothes.
- Patient will asked to lie in prone position
- Mashapishti ring is kept over kati area

**Pradhana karma:** Sahacharadhi Taila kati basti for 30 mins

**Paschat karma:** The oil was removed from the circular ring by using a spatula and then the circular ring is removed.

Mild massage is given over the area.

**Method of Niruhabasti Procedure**

Anuvasana basti was given of bala taila.

Niruha basti was given of Errand moolaadi Niruha basti.
Poorvakarma:


Pradhana Karma:

The Procedure was administered in Yoga Basti schedule. As per Sarangadhara Samhita the Heena Matra dosage is taken.

Laghu Ahara was advised before to Anuvasana Basti and after the Niruha Basti.

Paschath karma: Patting the buttocks, Gentle massage to the abdomen with palms slowly and Leg portion of the bed should be lifted up and lowered down thrice.

ASSESSMENT CRITERIA

Assessment was done based on the following parameters

Subjective Parameter
1. Pain
2. Stiffness

Objective Parameter
1. Straight leg raising test.
2. Tenderness
3. Lateral flexion
4. Rotation

Grading of Symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td></td>
</tr>
<tr>
<td>No Pain</td>
<td>0</td>
</tr>
<tr>
<td>Occasional pain</td>
<td>1</td>
</tr>
<tr>
<td>Mild Pain but difficulty in walking</td>
<td>2</td>
</tr>
<tr>
<td>Mild pain but slight difficulty in walking</td>
<td>3</td>
</tr>
<tr>
<td>Sever pain and difficulty in walking</td>
<td>4</td>
</tr>
<tr>
<td>Stiffness</td>
<td></td>
</tr>
<tr>
<td>No stiffness</td>
<td>0</td>
</tr>
<tr>
<td>Sometimes for 5-10minutes</td>
<td>1</td>
</tr>
<tr>
<td>Daily for 10-30minutes</td>
<td>2</td>
</tr>
<tr>
<td>Daily for 30-60 minutes</td>
<td>3</td>
</tr>
<tr>
<td>Daily more than 1 hour</td>
<td>4</td>
</tr>
<tr>
<td>SLR Test</td>
<td>Not positive</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Positive on one leg without lasegue sign</td>
</tr>
<tr>
<td></td>
<td>Positive on one leg with lasegue sign</td>
</tr>
<tr>
<td></td>
<td>Positive on both legs with lasegue sign present on one leg or absent on both</td>
</tr>
<tr>
<td></td>
<td>Positive on both legs without lasegue sign present on both legs</td>
</tr>
<tr>
<td></td>
<td>Positive on both legs with lasegue sign present on both legs</td>
</tr>
<tr>
<td>Tenderness</td>
<td>No Pain</td>
</tr>
<tr>
<td></td>
<td>Patient says its paining</td>
</tr>
<tr>
<td></td>
<td>Patient winces</td>
</tr>
<tr>
<td></td>
<td>Patient winces and withdraws the part</td>
</tr>
<tr>
<td></td>
<td>Patient does not allow to touch the part</td>
</tr>
<tr>
<td>Lateral Flexions</td>
<td>Can do lateral flexion easily</td>
</tr>
<tr>
<td></td>
<td>Can do lateral flexion with difficulty</td>
</tr>
<tr>
<td></td>
<td>Cannot perform lateral flexion</td>
</tr>
<tr>
<td>Rotation</td>
<td>Can rotate easily</td>
</tr>
<tr>
<td></td>
<td>Rotation with difficulty</td>
</tr>
<tr>
<td></td>
<td>Cannot rotate</td>
</tr>
</tbody>
</table>

The collected data was analyzed by using paired and unpaired t–test at 5% level of significance under expert supervision.

Total effect of the therapy was assessed as

1. Complete remission
2. Marked improvement
3. Moderate improvement
4. Unchanged.
Laboratory Investigation

1. X-Ray lumbosaccaral region anterior posterior view and Lateral view routine
2. Hematological investigation Hb, TC, DC, ESR, FBS
3. Urine- sugar, albumin and microscopic examination.
4. Other investigations if necessary

RESULTS

Table No. 32: Effect of therapy on Subjective & Objective Parameter

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Group</th>
<th>Mean</th>
<th>Diff.</th>
<th>%</th>
<th>SD</th>
<th>SE</th>
<th>‘t’</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B.T.</td>
<td>A.T.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td></td>
<td>2.50</td>
<td>0.45</td>
<td>2.05</td>
<td>82</td>
<td>0.39</td>
<td>0.08</td>
<td>23.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.40</td>
<td>0.65</td>
<td>1.75</td>
<td>73</td>
<td>0.44</td>
<td>0.09</td>
<td>17.1</td>
</tr>
<tr>
<td>Stiffness</td>
<td></td>
<td>2.15</td>
<td>0.45</td>
<td>1.70</td>
<td>79</td>
<td>0.57</td>
<td>0.12</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.05</td>
<td>0.65</td>
<td>1.40</td>
<td>68</td>
<td>0.50</td>
<td>0.11</td>
<td>12.1</td>
</tr>
<tr>
<td>SLR</td>
<td></td>
<td>2.65</td>
<td>0.50</td>
<td>2.15</td>
<td>81</td>
<td>0.74</td>
<td>0.16</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.35</td>
<td>0.70</td>
<td>1.65</td>
<td>70</td>
<td>0.58</td>
<td>0.13</td>
<td>12.2</td>
</tr>
<tr>
<td>Tenderness</td>
<td></td>
<td>2.20</td>
<td>0.45</td>
<td>1.75</td>
<td>80</td>
<td>0.44</td>
<td>0.09</td>
<td>17.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.05</td>
<td>0.75</td>
<td>1.30</td>
<td>63</td>
<td>0.47</td>
<td>0.10</td>
<td>12.0</td>
</tr>
<tr>
<td>Lateral Flexions</td>
<td></td>
<td>1.75</td>
<td>0.35</td>
<td>1.40</td>
<td>80</td>
<td>0.50</td>
<td>0.11</td>
<td>12.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.55</td>
<td>0.45</td>
<td>1.10</td>
<td>71</td>
<td>0.44</td>
<td>0.10</td>
<td>10.0</td>
</tr>
<tr>
<td>Rotation</td>
<td></td>
<td>1.70</td>
<td>0.30</td>
<td>1.40</td>
<td>82</td>
<td>0.50</td>
<td>0.11</td>
<td>12.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.50</td>
<td>0.45</td>
<td>1.05</td>
<td>70</td>
<td>0.39</td>
<td>0.08</td>
<td>11.6</td>
</tr>
</tbody>
</table>

DISCUSSION

Kati Shoola is not mentioned as a separate disease in any of the Brihatrayees directly. Even though Acharya Charaka has not mentioned the condition directly, but by his quotation “Hetu Sthaana Visheshat Ca Bhavet Roga Vishesha Krit” he has indirectly mentioned all those conditions which can arise due to localization of Vata in specific parts of the body.
Kati is an area where there is a conglomeration of various Sandhi, Snaayu and Peshi. Sandhi is a place where two or more structure unites. Sandhi is not a single structure rather it is considered as an organ. There are different structures, which helps in maintaining the stability of the joint. Snaayu or ligament, are those structures which helps in proper binding of the joint. They unite the bones and help to direct the movement and prevent the excessive and undesirable motion. Muscle tone helps to maintain the alignment of the joint. Shleshmadharakala situated in the joints supported by Shleshaka Kapha helps in lubrication, provides nutrients and helps in keeping the joint firmly united. Therefore the vitiation of Vata can cause pathologies of these structures in the Kati Pradesha leading to their hampered functioning.

Kati Shoola is one such condition in which the vitiated Vata and Kaphais localizing in the KatiPradesha and producing pain.

The Chikitsa Sootra of Kati Shoola is Snehana and Swedana. Patrapinda Sweda is a form of Sankara Sweda where Vatahara Patra are taken and being practiced widely owing to its easy procedure and excellent fast action in relieving the symptom.

### Mode of Action of Kati Basti:

Kati Basti is a procedure basically developed from Shirobasti. It is Bahya Sthanika Snehana and Swedana procedure. Snehana mainly acts against the Ruksha Guna caused by Vata and Swedana mainly acts against the Sheeta Guna. It also reduces the Sthambha. Sushrutha in Shareera Sthana-(Dhamani Vyakarana Shareeram) describes that, out of four Tiryak Dhamani, each Dhamani divides into hundred and thousand times and become innumerable. These Dhamani form a network and spread all over body. They have their openings in the Loma Koopa. The Dravya applied over the skin is absorbed through these openings and undergo Pachana by the help of Bhrajaka Pitta which is situated in the skin. The Dravya can be applied in various forms such as Abhyanga, Parisheka, and Avagaha etc. All the drugs applied in any of these forms undergo Pachana in the way explained above. The Vata Dosha, which is the key factor in the causation of Kati Shoola, has almost opposite quality of Sahacharadhi Taila. Shoola is one among the features of Kati Shoola which is almost present in all the patients. The properties of Sahacharadhi Taila such as Snigdha, Guru, and Ushna are totally opposite to the properties of Vata. Thus these properties of Sahacharadhi Taila acts against Vata and help in subsiding the Shoola.

### Mode of action of Yoga Basti

Yogabasti with Sahacharadi Taila comprises mainly Sahachara, Devadaru, Sunthi and Tila Taila. All these drugs possess mainly Snigdha Guna, Ushna Virya and Vata-kaphashamaka properties, thus provided significant effect on almost all the symptoms of Katishoola. Pharmacological study also shows that it possesses anti-inflammatory and analgesic properties. Hence, by relieving the inflammatory change in nerve, it might have reduced the nerve root compression symptoms.
According to modern science, as per Basti/Enema concerned, in transrectal route, the rectum has a rich blood and lymph supply and drugs can cross the rectal mucosa like other lipid membrane. Thus, unionized and lipid soluble substances are readily absorbed from the rectum. The portion absorbed from the upper rectal mucosa is carried by the superior haemorrhoidal vein into the portal circulation, whereas that absorbed from the lower rectum enters directly into the systemic circulation via the middle and inferior haemorrhoidal veins. Pharmacologically factors affecting the drug absorption and its bio-availability are –

1. Physical properties i.e. high lipid solubility of the unionized drug favors its absorption.
2. Nature of the dosage form.
3. Physiological factors –
   a. pH of the gastrointestinal fluid and blood
   b. Ionization

The advantages of this route are total gastric irritation is avoided and that by using a suitable solvent the duration of action can be controlled. Moreover, it is often more convenient to use drugs rectally in the long time in case of Geriatric and terminally ill patients.

CONCLUSION

The following conclusions are drawn after logical interpretation of the results obtained in this clinical study, which are listed below:

- The efficacy of Yogabasti depends mainly on, retention time, and the Agnibala of the patients.
- All the selected therapies provided significant results statistically. But clinically Kati Basti & Yogabasti (Group A) provided better results in reduction of Pain, Stiffness, Tenderness, and restricted movements compared to only Yogabasti (Group B).
- In this study, no any complications, or side effects observed.
- **Effect on Pain:** In Group A, 82% patients are found relief in pain whereas in group B 73% patients are found relief in pain.
- **Effect on Stiffness:** In Group A, 79% patients are found relief in stiffness whereas in group B 68% patients are found relief in stiffness.
- **Effect of therapy on symptom SLR:** Group A, & B has shown 81% & 70& improved in SLR respectively
• **Effect of therapy on symptom Tenderness:** In Group A & B has relieved from tenderness 80% & 63% respectively.

• **Effect of therapy on symptom Lateral Flexions:** In Group-A 80% patients are able to easily flex laterally with highly significant improvement and In Group-B 71% patients are able to easily flex laterally with significant improvement.

• **Effect of therapy on symptom Rotation:** In Group A, 82% patients are found relief in stiffness whereas in group B 70% patients are found relief in Rotation.

**REFERENCES**

