

A Pilot Study on Role of Kati Basti in the Management of Gridhrasi W. S. R. Sciatica

Dr. Sahil Basotra¹, Dr. Rimpay Sharma²

¹Assistant Professor, Department of Panchkarma, Government Ayurvedic Medical College And Hospital (GAMC&H) Akhnoor, Jammu, J&K UT, India 181201

²M.S Shalya Tanta Jammu Institute Of Ayurveda And Research, Nardani (Raipur), Jammu

Abstract

Background: *Gridhrasi* is one of the eighty *Nanatmaja Vata Vikara* (Diseases only due to vitiated *Vata*) according to Acharya Charaka, who has also mentioned its types as- *Vataja* and *Vata-Kaphaja*. Acharya Sushruta has also considered it as a *Vataja* disorder and given its description in *Vatavyadhinidana* chapter. Acharya Vagbhatt has also included it among eighty *Vataja* disorders. Considering the cardinal symptoms which are *Ruka* (pain), *Toda* (pricking sensation), *Stambha* (stiffness) and *Muhurspandana* (twitching) in the waist, hip, back of the thigh, knee, calf region and foot respectively, it can be best correlated to sciatica. **Sciatica** is defined as pain along with the course of the sciatic nerve which is felt in the back of the leg running from the buttock down to the back of the thigh into the calf and foot. It is a symptom that arises due to compression or inflammation of the sciatic nerve. **Kati Basti** is an unparalleled treatment in painful conditions caused mainly by *VataDosha*, usually in degenerative diseases. Kati Basti is used mainly to relief from pain and stiffness (catch) associated with bone, joint and or musculoskeletal pains.

Material And Method: In this study, *Kati Basti* was done in 10 patients selected from *Panchkarma* OPD, GAMC&H, Akhnoor, for 15 days for the management of *Gridhrasi* and the results were recorded after every follow up each with a gap of 5 days.

Results: The results observed based on the relief obtained on the subjective and objective parameters taken for consideration for this study and were found significant on all the above parameters.

Conclusion: It showed that *Kati Basti* significantly helped in reduction of the signs and symptoms of the *Gridhrasi*.

Keywords: Gridhrasi, Nanatmaja Vata Vikara, Muhursapnandana, Sciatica, Sciatica nerve, Kati Basti.

Introduction

Kati Basti is a combination of two words- *Kati* and *Basti*.

“*Kati*” is described as “*Sariramvatasthaneshvekam*” in the Charaka Samhita⁽¹⁾, which means that it is the *sthana* of *Vata*. In the Sushruta Samhita, the *Pramana* of *kati* is 18 *angula*⁽²⁾.

“*Basti*” is derived from the root “*Vas*,” suffixed by “*Tich*” *pratyaya*. The root “*vas*” can indicate the following meanings, according to *Vachaspathyam*⁽³⁾

- “*Vas –nivase*” – means to remain, to stay.
- “*Vas- acchadane*” – means to cover or wrap.



This is the form of giving fomentation or sudation to a localized area. The oils are heated to a tolerable temperature and then pooled over the painful area. *Kati Basti* is also considered as *Bahya Sthanika Basti*(4).

Sciatica is a crippling ailment caused by sciatic nerve root pathology that makes it difficult to walk and leaves patients with pain and paresthesia in the sciatic nerve distribution. Because of its severity, it occasionally interferes with a person's everyday activities and lowers their quality of life. Typically, movement aggravates the pain. Analgesics, muscle relaxants, painkillers, anticonvulsants, and NSAID's to reduce inflammation are frequently used in modern treatment and surgical operations with an eye toward a negative outcome (5).

In Ayurvedic medicine, the illness Sciatica is comparable to *Gridhrasi*, which is classified as a *Nanatmaja Vataja Vikara* (6). The word *Gridhrasi* generally suggests the patient's stride, which resembles that of a vulture because of the patient's excruciating, ongoing, and radiating pain (7). *Ruka* (pain), *Toda* (pricking feeling), *Muhuspandana* (tingling sensation), and *Stambha* (stiffness) in the *Sphik*, *Kati*, *Uru*, *Janu*, *Jangha*, and *Pada* are the four primary symptoms of *Vataj Gridhrasi*. In *Vata-Kaphaja Gridhrasi*, one might see *Tandra* (drowsiness), *Gaurav* (heaviness), and *Aruchi* (anorexia)(8).

Snigdha Swedanas like *Kati Basti* is typically utilized to treat low back pain and lumbosacral diseases. It improves local circulation, nourishes and bolsters muscles and nerves, and helps calm tenseness and spasms, and bring back adaptability. The intervertebral disc has degenerated in this instance, and the lubricating function of *Shleshaka Kapha* is compromised (9). This causes compression, irritation or inflammation of the *Gridhrasi Nadi* (sciatica nerve), which results in excruciating agony.

Aims And Objectives

AIM: To evaluate the role of *Kati Basti* in the management of *Gridhrasi*.

Objectives:

1. To reduce the pain associated with *Gridhrasi*.
2. To reduce the associated symptoms of *Gridhrasi* like numbness, tingling sensation and weakness.
3. To reduce impact of disease on daily activities.

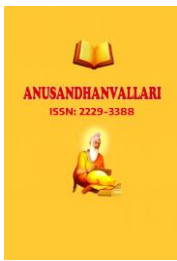
Materials And Methods

Materials:

- 1) *Masha powder* (Black gram powder) – ½ kg to 1 kg.
- 2) Oil (*Mahanarayan taila* or *Sehcharadi taila*, according to disease indications) – 200 -500 ml

Method:

10 patients between 25-70 years of age diagnosed with Sciatica (*Gridhrasi*) were selected after informed consent for the study. All the patients underwent uniform assessment that included detailed medical history, local examination and systemic examination. ECG was conducted to rule out heart failure and ischemic heart diseases. Liver function tests and kidney function tests were performed to rule out renal and hepatic dysfunction. Some basic blood tests were conducted, including tests for ESR, CBC, HIV, HbsAg and Anti HCV to look for any inflammation or infections. *Kati Basti* was performed in all 10 patients for 15 days with regular follow up after an interval of 5 days.



Poorva Karma (Pre-Operative Procedure):

Patients were asked to evacuate urine and stools before coming to the table. A lumbosacral x-ray was obtained beforehand to specify the location for *Kati Basti*.

Pradhan Karma (Operative Procedure) ⁽¹⁰⁾:

Patients were asked to lie down on the table in prone position. First the lumbar region was cleaned with cotton where we apply *Kati Basti*. *Masha* dough was made into a ring shape and then fixed on the site of pain. Then lukewarm medicated oil was poured with the help of cotton from a distance of 4 Angula and kept for 30-45 minutes duration. The uniform temperature of the oil was maintained constantly during the treatment.

Paschat Karma (Post Operative Procedure) ⁽¹⁰⁾:

After the completion of the treatment, first the oil was removed, then *Mashapishti* and the area was cleaned with cotton. *Mridhu samvahana* (oil massage) to whole body or lumbar region, buttocks and legs was given without applying pressure. After massage *Nadiswedana* or *Rookshaswedawas* was given, according to the need. Patient was asked to take comfortable position and rest for another half an hour. The patients were advised not to be exposed to the air directly and to take rest in supine position on hard bed.

Inclusion Criteria

1. Patients between the ages of 25-70 years were included in the study.
2. Random selection of patients irrespective of their gender, occupation, religion etc. was done from the OPD and IPD of Panchkarma Department of GAMC, Akhnoor, Jammu, J&K UT after informed consent was taken.
3. Patients suffering from sciatica were included only.

Exclusion Criteria

1. Patients with complete disc prolapse were excluded.
2. Patients with co-existing medical conditions such as heart failure, chronic liver disease, chronic renal disease, and chronic infectious diseases like tuberculosis (TB), HIV, hepatitis B, and hepatitis C were excluded from the study.
3. Patients with cardiovascular diseases like hypertension, coronary artery disease etc .were not included in the study.

Duration Of Complete Treatment

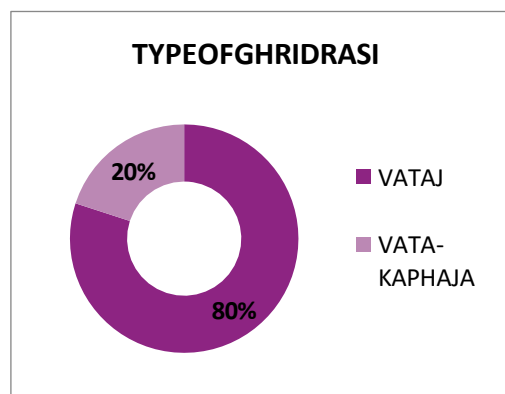
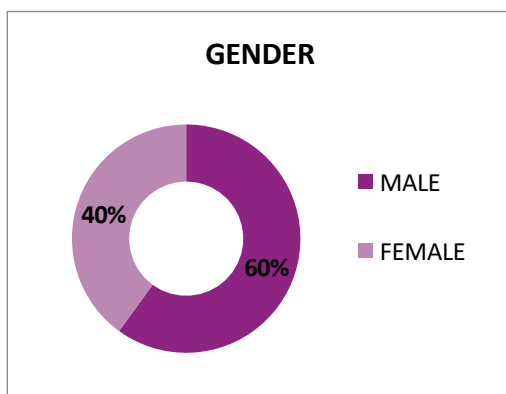
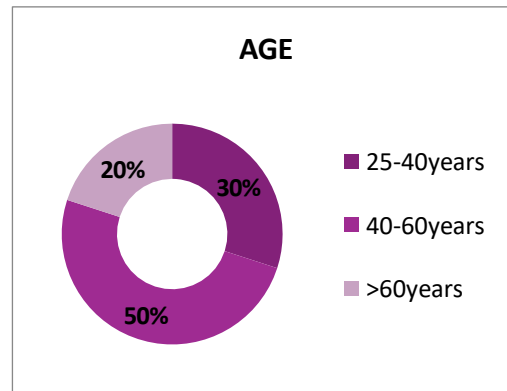
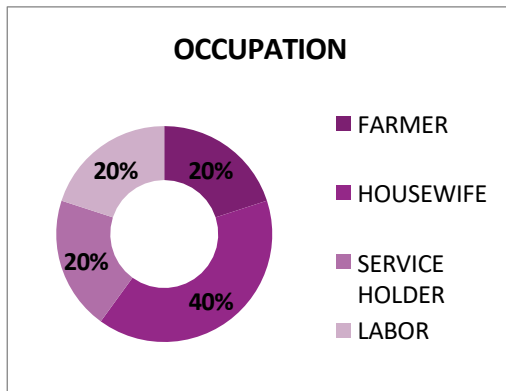
The *Kati Basti* treatment was performed for 45 mins everyday for 15 days. A total of four follow ups were recorded, first 3 follow ups after every 5 days and then the last one after 15 days i.e.

Day0= Enrollment day Day 5= First follow up Day 10= Second follow up Day15= Third follow up

Day 30 = Fourth Follow up

STATISTICAL DATA OF THE PATIENTS

The clinical observations from different aspects of the treatment have been represented showing the statistical analysis according to various factors like occupation, Gender, Age and type of *Ghridrasi*.



ASSESSMENT CRITERIA:

1. NATURE OF PAIN

G0: no pain

G1: dull ache or slight discomfort

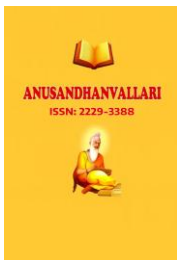
G2: sharp or throbbing pain

G3: intense, debilitating pain

2. RADIATION OF PAIN:

G0: no radiation

G1: radiation to leg, but gets relieved itself



G2: radiation to leg, may require physical therapy

G3: radiation to leg, severe limitations to mobility and daily tasks

ACTIVITY

G0: no impact on activities

G1: mild discomfort while performing tasks

G2: major discomfort, may require physical therapy or some analgesics

G3: severe debility along with weakness, inability to perform any task

3. ASSOCIATED SYMPTOMS:

G0: No associated symptoms

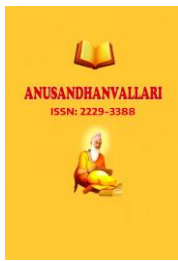
G1: mild tingling sensation present

G2: tingling sensation with numbness present

G3: tingling, numbness and severe weakness present

OBSERVATION

PATIENT	ASSESSMENT CRITERIA	BEFORE TREATMENT	AFTER TREATMENT	RESULTS
PATIENT 1	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G2 G1 G1 G2	G1 G1 G0 G0	IMPROVEMENT NO IMPROVEMENT IMPROVEMENT IMPROVEMENT
PATIENT 2	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G3 G2 G3 G3	G2 G2 G1 G1	IMPROVEMENT NO IMPROVEMENT IMPROVEMENT IMPROVEMENT
PATIENTS 3	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G1 G1 G1 G1	G0 G0 G0 G0	IMPROVEMENT IMPROVEMENT IMPROVEMENT IMPROVEMENT



PATIENT 4	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G2 G1 G1 G2	G1 G0 G0 G1	IMPROVEMENT IMPROVEMENT IMPROVEMENT IMPROVEMENT
PATIENT 5	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G3 G3 G3 G3	G3 G2 G3 G3	NO IMPROVEMENT IMPROVEMENT NO IMPROVEMENT NO IMPROVEMENT
PATIENT 6	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G2 G1 G1 G1	G1 G0 G0 G1	IMPROVEMENT IMPROVEMENT IMPROVEMENT NO IMPROVEMENT
PATIENT 7	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G2 G2 G2 G1	G1 G0 G0 G0	IMPROVEMENT IMPROVEMENT IMPROVEMENT IMPROVEMENT
PATIENT 8	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G3 G2 G3 G2	G3 G3 G3 G3	IMPROVEMENT WORSENER IMPROVEMENT WORSENER
PATIENT 9	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G2 G2 G2 G1	G1 G0 G0 G1	IMPROVEMENT IMPROVEMENT IMPROVEMENT NO IMPROVEMENT
PATIENT 10	PAIN RADIATION ACTIVITY ASSOCIATED SYMPTOMS	G1 G1 G1 G1	G0 G0 G0 G0	IMPROVEMENT IMPROVEMENT IMPROVEMENT IMPROVEMENT

RESULTS

ASSESMET CRITERIA	NO. OF PATIENTS	IMPROVEMENT	EFFICACY IN % AGE
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PAIN	10	8	80%
RADIATION	10	7	70%
ACTIVITY	10	8	80%
ASSOCIATED SYMPTOMS	10	6	60%

OVERALL EFFICACY IN PERCENTAGE = 72.5%

Discussion

Mode of action depends on the selection of proper area for procedure, base oil, medicament used, duration of contact of oil with area of application, amount of oil placed, duration of procedure and temperature of oil applied. Because they function at the *Samprapti* location, the native *Snehana* and *Swedana* are particularly effective and yield immediate effects.

Some of the potential benefits of *Kati Basti* include ⁽¹¹⁾:

REDUCING PAIN AND INFLAMMATION: The warm medicated oil used in *Kati Basti* helps to reduce pain and inflammation in the lower back by increasing blood flow to the affected area. The oil also has a soothing effect on the nerves in the lower back, which can help to reduce pain. For e.g.. Due to its *Madhura* and *Tikta Rasa*, *Sahacharitaila* has the unique quality of *Gati Viseshatvam* (aids in movement). Its *Vatahara*, *Bruhana*, and *Pachana* qualities, as well as its analgesic and anti-inflammatory effects can help alleviate inflammatory changes in the nerve and possibly to reduce symptoms of nerve root compression.

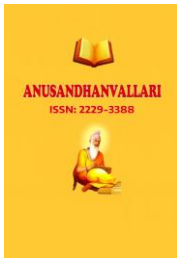
IMPROVING FUNCTION: *Kati Basti* helps to help improve flexibility and range of motion in the lower back, which can improve overall function and reduce disability. *Kati Basti* helps to reduce the symptoms of *Gridhrasi* by counteracting the *Khara* (roughness), *Ruksha* (dryness) *Gunas* of *Vata*, rigidity, and tightness by improving the conduction of nerves to travel uninterruptedly.

PROPERTIES OF THE OIL USED: The use of the *Kati Basti* with *SahacharadiTaila* at L4-L5 region is more effective in controlling *Kapha* dominance *Gridhrasi* symptoms such as *Stambha* (stiffness), *Gaurava* (heaviness) and *Tandra* (tingling sensation) and also on walking distance and the magnitude of pain. *BalaAshwagandhaTaila* deals with *VataDosh*a helps in strengthening the related muscles. *Kati Basti* with *Maha Narayan Taila* is more effective to control vata dominance symptoms.

RELAXING THE MUSCLES AND JOINTS: The massage that follows the *Kati Basti* treatment helps the oil to penetrate deeper into the tissues, as well as to help release tension and stiffness in the muscles and joints of the lower back.

IMPROVING CIRCULATION: Warm oil is thought to help increase blood flow to the affected area, which can promote healing and reduce pain. Vasodilation is caused by hot fomentation which promotes the flow of blood and nourishment to the organ and finally helps the tropical drug to reach the target tissue or organ. Sweating flushes toxins from the body and relaxes the tissues resulting in an overall improvement in muscle spasms and pain. Increased peripheral circulation aids in the reduction of edema, which can aid in the reduction of inflammation, reduces pain, and aids in faster healing.

TARGETS A PARTICULAR AREA: The retention of medicated oil on the lower back for a certain period of time is believed to help penetrate deep into the tissues, muscles, and joints and provide a therapeutic effect. The dough ring is thought to help contain the oil and prevent it from spilling out, allowing for a concentrated treatment in the targeted area.



Conclusion

Kati Basti is a form of *Snehayuktasweda*, *Sagni*, *Ekanga*, *Snigdha*, and *Samshamaniya Bahirparimarjana chikitsa*. It is the combination of *Snehana* and *Swedana*, both work together in synchronous manner and help to relieve *Stambha*, *Gaurava*, and *Sheeta*, as well as to lessen the severity of pain. *Kati Basti* is one such method in which rapid relief from symptomatology can be acquired from a *Shamana* perspective, as well as numerous medications that ease the severity of pain and improve functional ability, both of which are important in *Gridhrasi*. It is a *Bahirparimarjan chikitsa* that relieves *Sthanikvataand* provides *Brumhana* qualities in the *Kati* area, which is where the disease occurs (lumbosacral region). The absorption, penetration, neural stimulation, vasodilation, and anti-inflammatory activity of *Katibasti* result in a reduction of signs and symptoms of *Gridhrasi*.

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