

A Study to Compare the Efficacy of Kati Basti with Different Oils (Prasarani Oil and Moorchita Tila Oil) in Sciatica (Gridrashi)

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Abstract

Sciatica is a painful ailment caused by the pathology of the sciatic nerve or the sciatic nerve root. Pain and paresthesia in the sciatic nerve distribution or a lumbosacral nerve root are common in patients with this condition. A herniated disc with nerve root compression is the most common cause of sciatica; however lumbar stenoses and (less frequently) tumors are also probable causes. In general, 5 to 10 percent of people with low back pain have sciatica, but the lifetime prevalence of low back pain is reported to range from 49% to 70%. *Gridhrasi* having the same symptomatology as sciatica described in ayurvedic classics under *vata vyadhi*, is a condition in which pain, stiffness, gripping, and pulsations begin in the buttocks [gluteal region] and progress to the posterior aspect of the *Kati* (pelvis and lumbosacral regions), *Uru* (thigh), *Jaanu* (behind the knee), *Jangha* (leg), and *Pada* (foot). Among different modalities of treatment described in Ayurveda, Kati Basti is the most popular and commonly practiced one. In the present study an effort has been made to treat 30 patients of Gridhrasi with Kati Basti with Prasarini Taila and Tila taila separately in two groups. The treatment was given 48 minute long daily for seven days. The assessment was done by analyzing the changes in clinical signs and symptoms before and after treatment. The majority of patients (93.33 percent) improved after treatment. In this study, *kati basti* with *prasarini taila* outperformed moorchita tila taila in terms of reducing *Gridhrasi* or sciatica signs and symptoms. The *snehana* property of oil and medications in *Prasarini taila* was helpful in the relief of *gridhrasi*, as well as the *swedana* impact of *Kati Basti*.

Keywords: Kati Basti, Prasarani tail, Gridhrasi, Sciatica, Snehana.

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INTRODUCTION

Sciatica is a fairly common illness, with lifetime incidence rates ranging from 13% to 40%. The comparable annual incidence of a sciatica episode ranges from 1% to 5% [i, ii]. Sciatica is a painful ailment caused by the pathology of the sciatic nerve or the sciatic nerve root. Pain and paresthesia in the sciatic nerve distribution or a lumbosacral nerve root are common in patients with this condition [iii]. A herniated disc with nerve root compression is the most common cause of sciatica; however lumbar stenoses and (less frequently) tumors are also probable causes.

The L4 through S2 nerve roots come together at the pelvis to produce the sciatic nerve [iv]. The sciatic nerve is the biggest in the body, with a diameter of up to 2 cm. Sciatica pain is frequently exacerbated by lumbar spine flexion, twisting, bending, or coughing.

The hamstrings and lower extremity adductors receive direct motor function from the sciatic nerve, while the calf muscles, anterior lower leg muscles, and some intrinsic foot muscles receive indirect motor function. The sciatic nerve also gives sensation to the posterior and lateral lower leg, as well as the plantar portion of the foot, indirectly through its terminal branches. It's crucial to understand that most occurrences of sciatica are caused by an inflammatory condition that causes inflammation of the sciatic nerve.

Sciatic symptoms have a close resemblance with *Gridhrasi* mentioned in Ayurvedic classics under *vata vyadhi*, wherein the pain along with stiffness, gripping, and pulsations starts in the buttocks [gluteal region] and gradually encroach the posterior aspect of *kati* (pelvis and lumbosacral regions), *uru* (thigh), *jaanu*

(behind the knee), *jangha* (leg) and *pada* (foot) in sequence[v].

Modern science's treatment of sciatica is unsatisfactory, involving the use of analgesics for pain alleviation and surgical techniques that are frequently associated with side effects. *Gridhrasi* is treated with a variety of methods described in Ayurveda. *Kati Basti* is a one-of-a-kind therapeutic technique. *Kati Basti* is a simple, non-invasive, and effective backache treatment.

For the management of the condition *Gridhrasi* or sciatica, *Kati Basti* is a successful external therapy. *Prasarini Taila* in *Ghridhrasi vyadhi* has been mentioned in the *Sharanghadharasamhita* [vi]. Basing upon this reference a clinical comparison of the efficacy of *kati basti* with *prasarini taila*, and *moorchita tila taila* in *gridhrasi* (sciatica) was conducted.

MATERIAL AND METHODS

A total of 30 Sciatica patients were chosen for the study from Ashwini Ayurvedic Medical College,

Hospital & Research Centre, Tumkur, Karnataka's O.P.D and I.P.D, regardless of their sex, religion, or other factors. Based on the types of oil used in *kati basti*, the subjects were divided into two groups randomly. The patients registered were signed an informed consent form.

Inclusion criteria

1. Age : 16 – 70 yrs
2. Sex : both
3. Patients having symptoms of sciatica

Exclusion criteria

1. Sciatica with complications
2. Uncontrolled Diabetes
3. With severe Hypertension
4. H/o : trauma, Tuberculosis
5. Mental ill patients
6. Pregnant ladies
7. who refused to follow the study's SOPs

Study design

Group	No. of patients	Treatment given	Duration	Assessment
Group -A	15	Katibasti with Prasarini taila	48 minutes daily for 7days	After treatment in group comparison was done on improvement in symptoms
Group -B	15	Katibasti with Moorchhita tila taila	48 minutes daily for 7days	

Assessment criteria

The visual analog score of pain, numerical scoring of stiffness, and the SLR (Straight leg rising) test were used to examine the nature and degree of disease, as well as compare the efficacy in *kati basti*. Each item is graded on a scale of 0 to 3 for pain and stiffness and 0 to 4 for SLR, for a total of 10 points; the higher the score, the worse the condition. Furthermore, any adverse events that occurred throughout the experiment were recorded on a form for safety reasons. Data were collected twice: once at the time of enrollment and again at the end of the treatment. Participants were also asked to submit feedback or their opinions on the overall outcome of the study once it was completed.

DATA ANALYSIS

Demographic profile and ayurvedic features were studied using descriptive statistics. Total (mean) scores and percent improvement were calculated to

ascertain the differences in outcomes. Paired t-tests were used to compare before and after the intervention.

Demographic data & observations

The study was completed by all 30 participants. Out of the 30 patients in this series, 40 percent were between the ages of 31 and 40, 33.33 percent were between the ages of 41 and 50, 16.67 percent and 10% were between the ages of 51 and 60, and 16.67 percent and 10% were between the ages of 20 and 30. The majority of the patients, 63.33 percent, were male, while the rest, 36.67 percent, were female. The majority of the patients, 60 percent, were laborers and servicemen, 16.67 percent were housewives, 13.33 percent were businessmen, and 10% were from various backgrounds. *Ruk* (pain in the sciatic nerve distribution) and SLR test positive were observed in nearly all of the patients (96.67 percent and 100%, respectively). In 53.33 percent of the patients, *stambha* (stiffness) was evident (Table 01).

Table-01: Demographic and symptomatology of the study participants.

S. No.	Character	Types	Percentage
01.	Age	20 – 30	10.00%
		31 – 40	40.00%
		41 – 50	33.33%
		51 – 60	16.67%
02.	Gender	Male	63.33%
		Female	36.67%

03.	Occupation	Business Man	13.33%
		Serviceman	30.00%
		Household	16.67%
		Labor	30.00%
		Others	10.00%
04.	Sign and symptoms	<i>Ruk</i> (Pain)	96.67%
		<i>Stambha</i> (Stiffness)	53.33%
		<i>Sakthanah Kshepam</i>	100%
		<i>Nigrahaniyat</i> (SLR test)	

Comparison of efficacy of oils in kati basti

Pain: Group A had a mean B.T of 3.5, which was decreased to 1.6, while Group B had a mean B.T of 3.6, which was lowered to 1.9. Group a saw 52.6 percent relief, while Group B experienced 47.2 percent relief. There was no significant difference in results between *prasarini taila kati basti* and *moorchita tila taila kati basti*. However, in terms of percentages, group a outperformed group B (Table 02).

Stiffness: Group A had a mean B.T of 2.6, which was decreased to 1.2, while Group B had a mean B.T of 3.4, which was lowered to 1.8. Group A had 53.7 percent relief, while Group B had 48.5 percent. There is no significant difference in results between

prasarini taila kati basti and *moorchita tila taila kati basti*. However, in terms of percentages, group an outperformed group B (Table 02).

SLR Test: In Group A, the mean B.T was 2.8, which was decreased to 1.7, while in Group B, the mean B.T was 2.8, which was reduced to 2.4. Group A has had 37.3 percent relief, while Group B has experienced 13.6 percent alleviation. Because the P-value for the A.T. comparison is 0.05, there is a significant difference in the results between *Prasarini taila Kati basti* and *Moorchita tila taila Kati basti*. *Prasarini taila Kati basti* performed better than *Moorchita tila taila Kati basti* in SLR test improvement (Table 02).

Table-2: (Statistical analysis of improvement in symptoms in both groups of patients)

Signs & Symptoms	Type of oil	n	Mean Score		%	S.D.	S.E.	‘t’	P
			B.T.	A.T.					
<i>Ruk</i> (Pain)	Group A	15	3.5	1.6	52.6	0.568	0.178	10.58	<0.001
	Group B	15	3.6	1.9	47.2	0.516	0.163	8.587	<0.001
<i>Stambha</i> (Stiffness)	Group A	15	2.6	1.2	53.7	1.076	0.341	4.117	<0.02
	Group B	15	3.4	1.8	48.5	0.751	0.223	7.230	<0.001
SLR Test	Group A	15	2.8	1.7	37.3	0.568	0.181	6.126	<0.001
	Group B	15	2.8	2.4	13.6	0.521	0.159	2.45	<0.05

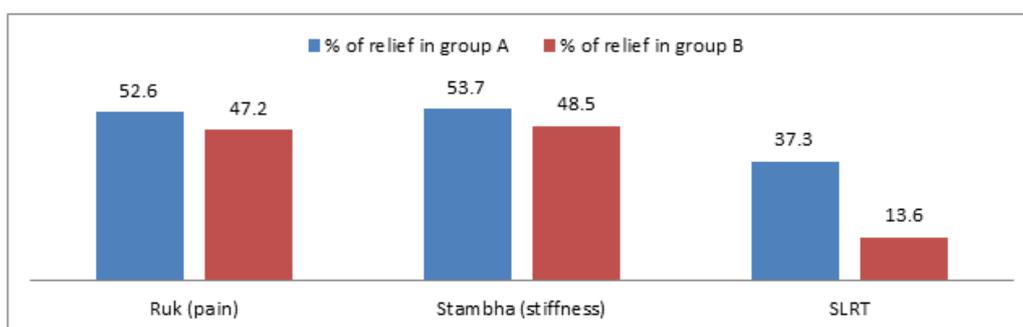


Fig-1: Percentage relief in both groups

Figure 1 shows the compared effects of *Prasarini taila* and *Moorchita tila taila* on the symptoms of *Gridhrasi*, and *Prasarini taila* showing greater outcomes in terms of *Gridhrasi* symptom relief than *Moorchita tila taila*.

DISCUSSION

The lumbar spine is the most common site of orthopedic problems in both developed and developing countries [vii]. The spine controls the central nervous

system as well as the autonomic nervous system, and the entire neurological system is ruled by it. *Gridhrasi* is a *Nanatmaja Vatavyadhi* [viii], which means that medications with *Vatahara* and *Shulahara* qualities could be beneficial in the treatment of *Gridhrasi* (sciatica). Any Muscle and skeletal stress in any area of the body has a direct impact on our *Srotas*, or circulatory channels, by obstructing the flow of poisons out of our bodies. *Kati Basti* helps the *Srotas* operate more smoothly by releasing stress from muscles and

bones. *Kati Basti* aids in improved blood circulation, improved bowel movement, relief from constipation, relief from muscular and skeletal discomfort in the back or lower area of the body, development of agility and flexibility in body movement, and many other benefits.

Prasarini oil is traditional, historically made Ayurvedic oil that has been used for thousands of years to help cure rheumatoid arthritis, sciatica, neck pain, and general muscle stiffness externally. *Prasarini* Oil is a wonderful choice for *abhyanga* because it balances both *Vata* and *Kapha Dosha*. External application of this oil, according to Ayurvedic scriptures, promotes fertility in both women and men due to its overall healing and revitalizing properties. Ayurvedic therapies such as *Kativasti*, *Greevabasti*, and *Basti* use *Prasarini* Oil.

Prasarini tailam contains the following ingredients: *Prasarini* (*Paederia foetida*), *Taila* (Oil of *Sesamum indicum*), *Dadhi* (Curd), *Kanjika* (Fermented gruel), *Ksheera* (Cow milk), Licorice (*Glycyrrhiza glabra*), *Pippalimoola* (*Piper longum*), *Chitraka* (*Plumbago zeylanica*), *Saindhava* (Rock Salt), *Vacha* (*Acorus calamus*), *Prasarini* (*Paederia foetida*), *Devadaru* (*Cedrus deodara*), *Rasna* (*Pluchea lanceolata*), *Gajapippali* (*Piper chaba*), *Bhallataka* (Purified *Semecarpus anacardium*), *Shatapushpa* (*Anethum sowa*) and *Mamsi* (*Nardostachys jatamansi*). The main ingredient in *prasarini tail* is *prasarini*. According to ancient sources, *prasarini* has astringent, aphrodisiac, laxative, bitter, and other characteristics. The term *prasarini* refers to the plant's spreading tendency. It also implies that the medicine can stretch out portions of the body that have become constricted and tight as a result of inflammation. It is a medicinal herb that has been shown to help with paralysis and a variety of other ailments, as well as *prasarini tail* is much more effective in conditions involving *Sira-Snayu Sankocha*, which is one of the most common complaints in *gridhrasi* (sciatica).

Locally, *Katibasti* gives *sneha* and *swedana* to assist reduce muscular stiffness and tightness. *Prasarini taila* having *Vatakaphahara*, *Sandhankrut*, *Shotahara*, *Vatanulomana*, *Shula Prasamana*, and *Balya* properties which made it powerful medicated oil against vitiated *vata*.

So, the *Kati Basti* treatment combined with *taila* is effective in calming the *Vata dosha* and thereby reducing the patient's problems.

CONCLUSION

When compared to *Kati Basti* with *Moorchita taila*, the current study shows that *Kati Basti* with *Prasarini taila* group gave superior relief in the symptoms of *Ruk* and *Stambha*. It also offered a great amount of relief in the S.L.R test.

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