



TO EVALUATE THE EFFICACY OF VAITHARANA BASTI AND ERANDAMOOLADI NIROOHA BASTI IN GRIDHRASI W.S.R. TO SCIATICA

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ABSTRACT

Gridhrasi can be equated with sciatica, where pain, weakness, numbness, and other discomforts along the path of the sciatic nerve often accompanies low back pain. It is a common affliction of adults, costing billions of dollars in healthcare and resulting in more lost days of work than any other illness but the common cold. A herniated disc, spinal stenosis, piriformis syndrome, etc., can all cause sciatica. The treatment available for sciatica in modern medicine is not very satisfactory. The role of research in Ayurveda is to elucidate the underlying principles and to explain them in modern parameters. The present study was aimed at establishing clinically the effect of Vaitharana Basti and Erandmooladi Nirooha Basti the management of Gridhrasi. A total of 40 patients were registered for the study, 20 patients in group A (Vaitharana Basti) and 20 in group B (Erandamooladi Nirooha Basti). The results show that both treatments had a good effect on Gridhrasi, but there was better relief of the signs and symptoms in group B. Erandamooladi Nirooha Basti might be more effective in the recovery of the patient.

Key words: Gridhrasi, Sciatica, Vaitharana Basti, Erandamooladi Nirooha Basti.

INTRODUCTION

Present day's lifestyle and nature of work are putting added stress and strain on the usual health. Improper sitting postures in office, jerking movements in travel, heavy labor work have led to low back pain and sciatica due to extra straining on spine. Low back pain is an extraordinarily common complains, second only to the common cold. About 50% of working adults experience a back injury each year.¹ The prevalence of sciatica ranges from 11% -40%.²

In sciatica there is spinal nerve irritation producing pain in the area of distribution of sciatic nerve which is often associated with lumbago. The symptoms of sciatica can be correlated to the disease called *Gridhrasi*, mentioned in *Ayurvedic* text under *Vata Vyadhi*, having symptoms like *Toda* (piercing pain), *Spandana* (twitching), *Graham* (rigidity), *Stambha* (stiffness) and *Vedana* (pain) radiating from *Kati-Pradesh* (lumbosacral region) to *Padanguli* (foot)³. In modern medicine, the management of sciatica includes analgesics, epidural steroid injections, peri-radicular infiltration and surgical treatment at the cost of their own limitations and complications. While in *Ayurveda* there are therapies like *Bheshaja*, *Snehana*, *Swedana*, *Siravedha*, *Agnikarma* and *Basti karma* which are simple, safe and cost effective.

As mentioned in classics, *Siravedha*, *Basti* and *Agni karma* are considered as main therapeutic tools for *Gridhrasi*⁴.

Basti is considered as half of the entire therapeutic measures. Our classical texts have demonstrated the effectively of *Basti* as an important line of treatment in *Gridhrasi*.

Many *Basti* formulations have been mentioned by our Acharyas in the texts which, are yet to be tried. To fulfill our aim study *Vaitharana Basti* and *Erandamooladi Nirooha Basti* has been selected as described in *Charaka Samhita*.

OBJECTIVES

1. To evaluate the efficacy of *Vaitharana Basti* in *Gridhrasi*.
2. To evaluate the efficacy of *Erandamooladi Nirooha Basti* in *Gridhrasi*.
3. To evaluate and comparative effect of *Vaitharana Basti* and *Erandmooladi Nirooha Basti* in *Gridhrasi*.

MATERIALS AND METHODS

Source of Data

Minimum 40 patients of *Gridhrasi* 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 *Gridhrasi*, the screened patients were randomly divided into two groups group A and group B with 20 patients in each group.

Inclusion Criteria

1. Patients with lakshanas of *Gridhrasi* like Ruk (continuous pain), toda (intermitent pain), stambha (stiffness), spandana (frequent tingling) over sphik, kati, prishta, uru, janu, jangha extending upto pada.
2. Patients with age group of 16-60 years and both the genders.

Exclusion Criteria

1. Patient with history of trauma causing fracture.
2. Infective conditions of the spine.
3. Neoplastic & Metastatic conditions of the spine.
4. Patient with other systemic disorders and serious illness
5. Patient aged below 16years and above 60years

Diagnostic Criteria

- Patients with the lakshanas of *Gridhrasi*.
- SLR Test Positive.

Grouping

Groups	No of Patients	Trail Drugs	Duration of The Study
Group A	20	Vaitharana Basti Krama	30 days
Group B	20	Erandamooladi Nirooha Basti Krama	30 days

Mode of administration of Vaitharana Basti (Group A)

Poorvakarma:

Abhyanga- Sthanika abhyanga with Tila Thaila. Swedana- Nadi Sweda.

Pradhana Karma:

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

Anuvasana Basti (Sarangadhara 5/20)	
Moorchita Tila Thaila	1.5pala (72 ml)
Vaitharana Basti	
Guda	½ Pala (24gm)
Saindhava Lavana	1 Karsha (12 gms)
Tila Taila –	Eshat (60-70 ml)
Amleeka (Chincha)	1 Pala (48gms)
Surabhipayasa or Godugdha	1 Kudava (192ml)

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.

Parihara kala:-16 days

Mode of administration of Erandamooladi Nirooha Basti (Group B) Poorvakarma:

Abhyanga- Sthanika abhyanga with Tila Thaila. Swedana- Nadi Sweda.

Pradhana Karma:

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

Anuvasana Basti (Sarangadhara 5/20)	
Moorchita Tila Thaila	1.5pala (72 ml)
Erandmooladi Nirooha Basti	
Rasna	1 pala – 48 grams
Ashwagandha	1 pala – 48 grams
Atibala	1 pala – 48 grams
Guduchi	1 pala – 48 grams
Punarnava	1 pala – 48 grams
Aragvadha	1 pala – 48 grams
Devadaru	1 pala – 48 grams
Madanaphala	1 pala – 48 grams

Assessment Criteria

Assessment of the condition was done based on the detailed proforma adopting standard methods of scoring for subjective parameter and objective parameters.

- Pre test assessment- Before the commencement of treatment (0 day).
- Post test assessment- After the completion of treatment (16th and 30th day).

PARAMETERS OF THE STUDY:**Subjective Parameters:**

- Ruk in sphik, Kati, Uru, Janu, Janga and Pada
- Toda in sphik, Kati, Uru, Janu, Janga and Pada
- Stamba in sphik, Kati, Uru, Janu, Janga and Pada
- Spandana in sphik, Kati, Uru, Janu, Janga and Pada

- Aruchi
- Tandra
- Gourava

Objective Parameters:

- SLR test

Assessment Scoring System

Sl. No	Signs and symptoms	Criteria	Score
1	Ruk (Pain)	No pain	0
		Painful, walks without limping	1
		Painful, walks with limping but without support	2
		Painful, can walk only with support	3
		Painful, unable to walk	4
		Severe pain needs medications	5
2	Stambha (Stiffness):	No stiffness	0
		Mild stiffness	1
		Moderate stiffness	2
		Severe stiffness	3
3	Toda (Pricking Sensation)	No pricking sensation	0
		Mild pricking sensation	1
		Moderate pricking sensation	2
		Severe pricking sensation	3
4	Spandana (Fasciculation)	No fasciculation	0
		Mild fasciculation	1
		Moderate fasciculation	2
		Severe fasciculation	3
5	Aruci (Anorexia)	No anorexia	0
		Mild anorexia	1
		Moderate anorexia	2
		Severe anorexia	3
6	Tandra (Torpor)	No torpor	0
		Mild torpor	1
		Moderate torpor	2

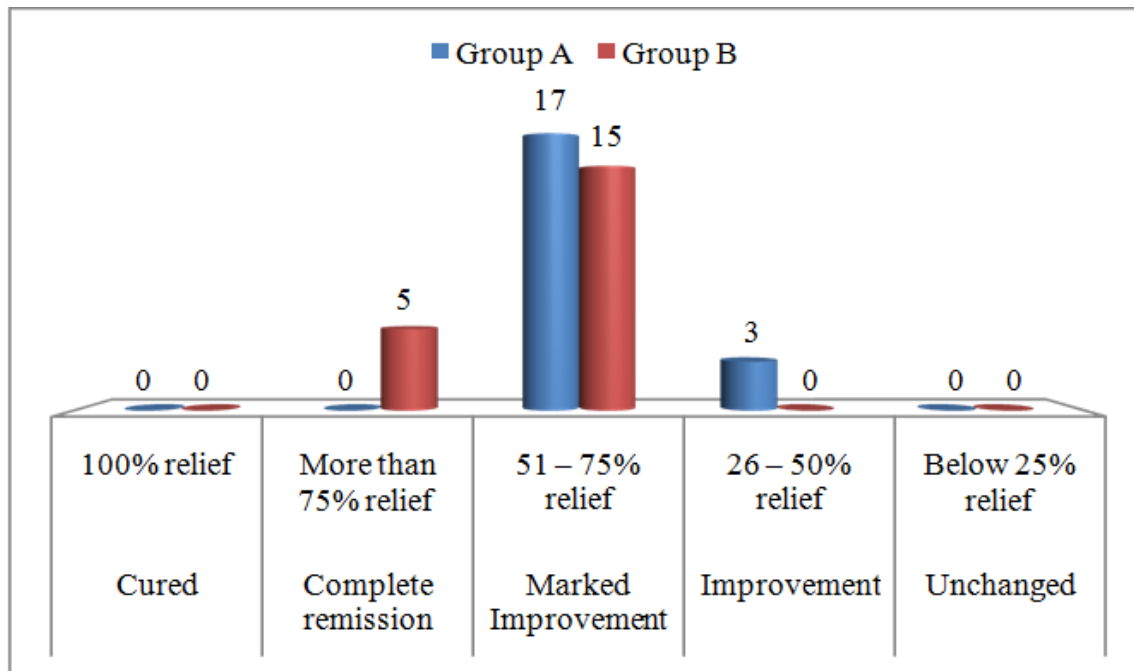
		Severe torpor	3
7	Gaurava (Heaviness)	No heaviness	0
		Mild heaviness	1
		Moderate heaviness	2
		Severe heaviness	3
8	Straight leg raise test	More than 90°	0
		71°-90°	1
		51°-70°	2
		31°-50°	3

RESULTS

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

Symptoms	Group	Mean		Diff.	%	SD	SE	't'	P
		B.T.	A.T.						
Ruk	A	2.60	0.90	1.70	65	0.65	0.14	11.5	<0.05
	B	2.55	0.70	1.85	72	0.36	0.08	22.8	<0.05
Stambha	A	2.55	0.85	1.70	66	0.57	0.12	13.3	<0.05
	B	2.45	0.75	1.65	68	0.48	0.10	15.0	<0.05
Toda	A	2.20	0.65	1.55	70	0.60	0.13	11.4	<0.05
	B	2.50	0.65	1.85	74	0.74	0.16	11.1	<0.05
Spandana	A	2.40	0.95	1.45	60	0.82	0.18	7.8	<0.05
	B	2.65	0.75	1.90	71	0.44	0.10	19	<0.05
Aruci	A	2.45	1.00	1.45	59	0.60	0.13	10.7	<0.05
	B	2.40	0.65	1.75	73	0.63	0.14	12.2	<0.05
Tandra	A	2.30	0.95	1.35	59	0.48	0.10	12.3	<0.05
	B	2.45	0.95	1.50	61	0.51	0.11	13.0	<0.05
Gaurava	A	2.55	1.15	1.40	55	0.59	0.13	10.4	<0.05
	B	2.55	1.00	1.55	61	0.51	0.11	13.5	<0.05
SLR	A	2.50	0.90	1.60	64	0.50	0.11	14.2	<0.05
	B	2.40	0.65	1.75	73	0.55	0.12	14.2	<0.05

Graph-28 Overall effect of the Therapies



Overall effect of the Therapies: The overall effect of each therapy was assessed at the end of completion of the therapy.

Complete remission: In Group A no patient gained complete remission & in Group-B 5(25%) patients Complete remission.

Marked improvement: In group-A, 17(85%) patients were showed marked improvement. In Group B, 15(75%) showed marked improvement in signs and symptoms.

Improvement: improvement was seen in 3(15%) patients in Group-B. No patient remains unchanged at the end of therapy in both the groups.

Thus, both the therapies proved to be effective in combating the disease Gridhrasi. But on Comparison, Group B i.e. Erandamooladi Nirooha Basti Krama therapy showed better results than Vaitharana Basti Krama therapy in Group A.

DISCUSSION

In Ayurvedic texts, there are various methods for treatment of sciatica, some of which are effective, simple, safe and affordable for common patients. *Snehana*, *Swedana* and *Mridu Shodhana* are the line of treatment in all *Vatavyadhis*. Because, *Snayu* and *Rakta Dhatu* are involved as *Dushya*, the *Siravedha* and *Basti Karma* have been indicated as the chief lines of treatment⁵.

Acharya Charaka has described *Siravyadha*, *Basti karma* and *Agnikarma* in the management of *Gridhrasi*. *Acharya Sushruta* has described treatment of *Gridhrasi* in *Vata Vyadhi Chikitsa Adhyaya*. For both *Sarvanga Vata* and *Ekanga Vata*, he has advised *Raktamokshana*⁶. *Acharya Sushruta* has mentioned that those diseases which are not relieved quickly by *Snehana*, *Lepanadi* therapeutic measures; *Siravedha* should be

instituted to achieve definite results.⁵ The *Siravedha* itself is also accepted as half of the therapeutic measure in *Shalya Tantra* like *Basti* in *Kayachikitsa*⁷.

Mode of Action of Erandamooladhi Niruha Basti:

Erandamoola is said to be a Shreshta Vatahara dravya. Erandamooladi Niruha Basti is indicated in Trika, Prishtha Shoola (pain in low back) and acts as Maruta Nigraha (controls Vata). Anti-inflammatory, anti-oxidant, central analgesic, antinociceptive and bone regeneration activity are found in *Ricinus communis* (Eranda) which is the main content of Erandamooladi Niruha Basti. This Basti contains drugs which are having Ushna Veerya and are Vatakaphahara in nature. Drugs are also possessing Ushna, Teekshna and Sukshma Guna (qualities) which helps in the elimination of obstruction of Srotas (channels) which further helps in the formation of Prakrita Dhatu. It is also indicated in Kaphavrita condition, by which it played major role in pacifying the Kapha Dosha and reducing the symptoms like Stambha (stiffness) and Gaurava (heaviness). Most of the drugs are Agni Deepaka which helped to improve the Agni (digestive fire) of the patient, thereby increase in appetite was observed.

Mode of action of Vaitarana Basti Karma

Vaitarana Vasti is considered as a variant of Niruha but does not satisfy the classical combination of ingredients in Niruha Vasti. In Vaitarana Vasti the ingredients are Saindhava, Guda, Chinchu, Taila, and Drava Dravya. Both the Vastis have Saindhava as the common ingredient. In Vaitarana Vasti, Guda is mentioned instead of Makshika. This may be due to the influence of Jainism as they might have consciously avoided the Jangama Dravya. Apart from this while describing the Abhava Dravya, in the absence of Makshika, Purana Guda can be substituted.

In Vaitarana Vasti, Chinchu serves the role of Kalka. Since it is a Rooksha Vasti the amount of Sneha should be minimal. That might have been the reason for stating “Eeshat Taila” or “Taila Yutho” without stating the exact quantity of Sneha Dravya by Acharyas. The action of Vasti is not localized but it has a systemic effect. In Ayurveda, it is said that the Veerya [potency] of Vasti Dravyas administered into Pakwasaya reaches the whole body through Srotas [channels] just like water when poured into the root of the tree reaches the whole plant. Vasti administered into Pakwasaya draws out the morbid matters from the body just like a cloth while colouring absorbs only colour not water.

Properties of the ingredients in Vaitarana Vasti

1. Saindahava Lavana (Rock salt): According to Ayurveda, it is salty and slightly sweet in taste; Madhura Vipaka, Sheeta Veerya, light and unctuous in nature. It is Tridosahara, Agni Deepaka, Rochaka, Pachaka, Pathya, Vrishya, Chakshusya, Avidahi, and Hikkahara. It helps in digestion, relieves constipation, flatulence, and maintains body electrolytes. It is good for respiratory disorders, joint

disorders and stiffness, skin ailments, gastritis and bloating. In Vasti therapy during Panchakarma, while preparing the Vasti liquid, rock salt is added to prepare an emulsion. It helps to dissolve and expel Doshas from the intestines. It helps in absorption of other nutrients into the body from GI tract. It also eliminates toxins from the body and used during sudation therapy. It strengthens the body, fortifies the bone and connective tissue and relieves muscle cramps, worm infestation, and halitosis.

2. Chinch / Tamarind (*Tamarindus indica* L.) It possesses Guru and Ruksha Guna, Usna Veerya, Amla in Vipaka, Vata Pitha Samaka. It has Rochana- Deepana (Appetizing-Digestive), Trisnani-grahana (suppresses thirst), Yakrtituttejaka (liver stimulant) Sothahara (anti-inflammatory) Mutrala (diuretic) Vishaghna (anti-dote to certain poisons) Vastisodhaka (urinary antiseptic) Klamahara (anti-fatigue) Sothahara (anti-inflammatory).
3. Guda (Jaggery): It doesn't increase Kapha Dosha. It is a rich source of minerals like potassium, iron, magnesium, zinc, selenium, calcium, vitamins and antioxidants. Jaggery is a very useful substance for oedema. It is also good for dysuria, constipation, cardiac problems, asthma, allergies, chronic fever, piles, throat and lung infections, malabsorption syndrome (Grahani) and Kapha Vataja Rogas
4. Gomutra (Cow urine): It is told as „Sanjivani“ and „Amrita“ in Ayurveda. It is good for worm infestation, skin disorders, and pruritus. It is pungent (Katu) in taste, Tiktsna, Usna, alkaline (Kshara), Agnideepaka, Medhya, Kaphavatahara, Pithavardhaka and beneficial in Sula, Gulma, Udara, Anaha. It is useful for Virechana and Asthapana Karma. It is useful in obesity, certain cardiac and renal diseases, indigestion, stomach ache, diarrhoea, oedema, jaundice, anaemia, haemorrhoids and skin diseases including vitiligo.
5. Gudugdha (Cow milk): Cow milk has been described as nutritive (Jeevaniya) and good for vital organs such as eyes, brain and heart. It possesses sweet taste (Madhura Rasa), Sheeta Veerya (Cooling). It acts as Rasayana (immuno modulator) and Oja Vardhaka (increases vitality).
6. Dhanyamla: Since Gomutra is very much Ruksha and Goksheera is Mridu, in spite of these Drava Dravyas in clinical practice Dhanyamla is seemed to be used as Drava Dravya which is neither too Teekshna nor too Mridhu and is indicated for Asthapana. It can be used in Vata and Vata Kaphaja conditions.
7. Kulatha (*Macrotyloma uniflorum*L): It is endowed with astringent (Kashaya) and Amla (sour) taste and hot in nature (Usna Veerya). It is Kapha Vatahara (reduces aggravated Kapha and Vata Dosha). It is useful in Rukshana Karma (emaciating Body). It has carminative, diuretic, antipyretic and anthelmintic properties.
8. Tila Taila (Sesame oil): Tila Taila or gingelly oil is a vegetable oil obtained from sesame seeds. Sesame is Katu-Tikta-Madhura in taste, Guru, Snigdha in nature, Vatahara, Kaphapittakara, anodyne, tonic (Balya), Keshya (hair vitlizer) and Garbhasaya Sodhakam.

CONCLUSION

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

- In symptoms like *Ruka, Toda, Spandana, Stamba and SLR* derived statistically significant result on comparison between two groups but Group B i.e. *Erandamooladi Niruha Basti* shows more percentage relief than Group A i.e. *Vaitharana Basti*.
- On comparison between two groups, *Erandamooladi Niruha Basti* was found more effective than *Vaitharana Basti* in *Ruk, Stambha, Todha, Spandana, Aruchi Tandra, Gaurava, SLRT*
- Both the procedures are effective, simple, cheap and safe for the patients suffering from *Gridhrasi*, but *Erandamooladi Niruha Basti* is more effective in treating the cardinal symptoms of *Gridhrasi*.
- The overall effect of each therapy was assessed at the end of completion of 30 days of therapy.
- In Group A 85% patients were showed marked improvement, & 15% gained just improvement. In Group B, 25% got complete remission, and 75% patients showed marked improvement in signs and symptoms was observed. No patient remain unchanged at the end of therapy in both the groups.
- In this study we shall reject null hypothesis i.e. **H₀**: Neither *Vaitharana Basti* nor *Erandamooladi Nirooha Basti* is effective in *Gridhrasi* and accept the alternative hypothesis i.e. **H₂**: *Erandamooladi Nirooha Basti* is significantly effective in *Gridhrasi*.

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