

“A Comparative Randomised Open Label Clinical Study of Kati Basti and Matra Basti with Kubj Prasarni Taila in the Management of Gridhrasi W.S.R. to Sciatica”

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ABSTRACT- Now a day's most common disorder which effects the movements of leg particular in middle age is low backache pain which effects daily routine work. Gridhrasiis one among Vatajananatmajavyadhi. It is pain dominant lifestyle disorder in which the pain starts from Sphik Pradesh & radiates down to foot, here piercing type of pain which restricts the movement of the affected leg, make his walking pattern-like bird vulture and put him in disgraceful condition. Gridhrasiis a shoalapradhanavyadhiand it is considered one of the eighty types of Vatajananatmajavikaras. It afflicts adhakayaand hampers the gatiof the patient resulting in disturbed daily routine activities. The name itself indicates the painful character of this disease. Sakthiutkshepanigrahanais an important feature to differentiate this disease. This condition can be related to sciatica in which pain radiates from the low back to the buttock along the postero-lateral aspect of the lower limb. On the basis of the symptoms sciatica can be correlated with Gridhrasiin Ayurveda. About 80–90% of people get affected by low back pain and 5% of those become victims of sciatica. It is common between 30-40 yrs. of age & affects both the sex. It is a pain dominant disease and reduces human activity in terms of personal as well as social and professional life. Ayurveda categorized Gridhrasias one of diseases caused by vitiation of Vatawhich is responsible for the movement and functions of the body, even Kaphavitiation along with Vataalso causes Vata-KaphajaGridhrasi. The conventional treatment for sciatic pain is limited to analgesics and anti-inflammatory drugs. Whereas a wide range of effective treatments both internal and external has been mentioned in Ayurveda. Ayurveda gives better options in the management of this painful disorder.

Key words: Gridhrasi, Sciatica, Snehana, Swedana, Basti.

I. INTRODUCTION-

Gridhrasiis one among the Vatajananatmajavikara.The derivation of the word Gridhrasihas got various interpretations based on the gait of the patient or the pain felt by them. It is said that the pain is similar to that experienced by the prey when it gets pierced by a vulture. The gatiof the patient resembles that of a Gridhrwhich can be related to the limping gait in Sciatica.Gridhrasiis a condition in which the patient experiences sthamba,ruk, toda, and spandanaover the sphik, kati, prushta, uru, janu, jangha, and padain an order as described by AcharyaCharaka.Susrutacharyaand VagbhatacharyaexplainsSakthiutkshepanigrahaas a clinical feature which means restricted leg raising. This can be related to the straight leg raising test used in the diagnosis of Sciatica. Specific nidanafor Gridhrasiis not mentioned in any of the classical literatures. As it is a Vataavyadhi, samanyavatavyadhinidana and vataprakopakarana's can be considered as its nidana. Vatavyadhinidanahas been described in detail by Acharya Charaka.

The term 'Sciatica' is derived from the Greek word 'Ischion' and a Latin word 'Ischiadicus' which means pertaining to the hip joint or hip pain (Lars Gr).Sciatica is a syndrome characterized by pain ra-diating from the low back into the buttock and along the posterior or lower aspect of the lower limb. Most commonly caused due to the protrusion of the degenerated L5-S1 disc that impinges upon the S1 nerve root. Various terms like Lumbar disc pro-trusion, Sciaticneuralgia or neuropathy, Cotugno dis-ease, etc have been attributed as synonymous to Sciatica. The factors which affect the integrity of the

lumbar spine like lifting heavy weights, sudden jerky movements to the lumbar region, and sudden or heavy fall hitting the gluteal region or low back are considered to be the main causative factors. The lesions like a lumbar canal or foraminal stenosis, tumors affecting the lumbar spine, hemorrhage, abscesses, fracture, cysts, etc are some of the conditions leading to Sciatica.

Aim

A comparative RANDOMISED OPEN LABEL clinical study of Kati Basti & Matrabasti with KubjPrasarnitaila in the management of Gridhrasi.

Objectives

- To evaluate the efficacy of Kati basti with KubjPrasarnitaila in the management of Gridhrasi.
- To evaluate the efficacy of Matrabasti with KubjPrasarnitaila in the management of Gridhrasi.
- To study Gridhrasiw.s.r. to sciatica as per classical & modern literature.
- To compare the effect of Kati basti & Matrabasti with KubjPrasarnitaila in the management of Gridhrasi.

II. MATERIALS AND METHODS

- **Study design:** It is an open, simple, random clinical study having 60 patients. Of 2 group UnPaired 't-test' was used.
- **Source of data**
Patients who attended the O.P.D. and I.P.D., Department of Panchakarma of Shubhdeep Ayurved Medical College & Hospital

DIAGNOSIS CRITERIA

- **Subjective Parameters**

S.No.	Subjective Symptoms	Parameters	Gradation
1	Toda (Pricking Pain)	Absent Mild Occasionally in a day Moderate after movement daily frequent not persist Severe, persistant	0 1 2 3
2	Stambha (Stiffness)	0 0-10 min 10-120 min 2-8 hour	0 1 2 3
3	Spandan (Twiching)	No twiching Sometime for 5-10 min. Daily for 10-30 min Daily for 30-60 min Daily for more than 1 hour.	0 1 2 3 4

(P.G. Institute), Indore (M.P.) were screened. Among them 60 patients fulfilling the inclusion criteria of the present study were taken. Detailed history taking and physical examinations were carried out in these patients. Relevant data were registered in the designed case proforma. Patients were divided into two groups. Group A treated with Matrabasti and Group B treated with Kati basti. With KubjPrasarniTaila.

- **Therapy:** Matrabasti & Kati basti with kubjPrasarniTaila.
- **Instruments:** Nasya asana (Chair/cot), Dropper, Stethoscope, Goniometer, Blood pressure apparatus.
- **Preparation of trial drug kubjPrasarniTaila:** The raw drugs (Table 1) were purchased from the local market.

INCLUSION CRITERIA

- Diagnosed case of Gridhrasi with symptoms.
- Patient willing to participate in clinical trial (Consent duly filled).
- Patients aged between 20-70 years with irrespective of gender & fit for Basti Karma.

EXCLUSION CRITERIA

- Patients having any kind of anomalies (anatomical / congenital) & need surgical assessment.
- Patients not willing for clinical trial.
- Patient who are suffering from Tuberculosis of spine, carcinoma of spine any kind of tumor, uncontrolled diabetes mellitus, known pregnancy etc.
- Patient above 70 years.

4	Aruchi (Anorexia)	Normal desire for food Desire for food little later than normal time The desire for food only after long interval No desire at all	0 1 2 3
5	Gaurva (Heaviness)	No feeling of Heaviness Occasional Heaviness in body but does usual work Continuous heaviness which hamper usual work Unable to work due to heaviness	0 1 2 3

• **Objective Criteria**

- SLR Test
- Reflex
- Bragard’s test

1. SLR Scoring	More than 90 degree 71-90 degree 51-70 degree upto 30 degree	0 1 2 3
2. Reflex (knee jerk)	Normal Diminished Exaggerated absent	0 1 2 3
3. Bragard’s test	Absent Mildely positive Moderately positive Highly positive	0 1 2 3

- For assessing the improvement of symptomatic relief and to analyze statistically, the observations were recorded before, after the treatment and after the follow ups. The mean percentage, S.D, SE and t-value (paired) were calculated.

Method of Treatment-

Group – ‘A’ Matrabastiwith KubjPrasarniTaila

- **Poorvakarma** :Abhyangwith MurchitTilaTaila&Nadisweda will be done.
- **PradhanKarma** :Matrabastiof KubjPrasarnitaila30 ml after breakfast for 7 days.
- **PaschatKarma** : Lie in supine position for 15 min. & avoid day sleep.

Total study period – Till completion of last enrolled patient.

- Treatment Period - 7 days

- Follow up Period – 14th day, 21st day, 28th day
- Dose – 30 ml¹⁴¹

Group – ‘B’ Kati basti with KubjPrasarniTaila

- **PoorvaKarma** :Preperation of mashpishti&SthanikAbhyang withmurchittilatailamraduswedan .
- **PradhanKarma**:Katibasti with KubjPrasarniTaila (45 min.) for 7 days.
- **PaschatKarma** : 1.Area will be wiped off & cleanse properly.
2. Patient is advised to rest for 1 hour later to take hot water bath.

Total study period – Till completion of last enrolled patient.

- Treatment Period - 7 days (45min. per sitting)
- Followup Period – 14th day, 21st day, 28th day

Showing incidence of Age of patients –

Age	No. of Persons				Total	Total Percentage (%)
	MatraBasti	(%)	Kati Basti	(%)		
20-30	6	20	4	13.33	10	16.67
31-41	10	33.33	16	53.33	26	43.33
42-52	9	30	7	23.33	16	26.67
53-63	3	10	2	6.66	5	8.33
64-70	2	6.66	1	3.33	3	5

Showing incidence of Agni of patients –

Agni	no. of patients				Total	Total Percentage (%)
	Matrabasti	(%)	Kati basti	(%)		
Mandaagni	12	40	10	33.33	22	36.67
Vishmaagni	11	36.66	9	30	20	33.33
Tikshna Agni	6	20	5	16.66	11	18.33
Sama	1	3.33	6	20	7	11.67

Showing incidence of Prakriti of patients –

Prakriti	no. of patients				Total	%
	MATRA BASTI	%	KATI BASTI	%		
Kapha-vataj	1	3.333	2	6.66	3	5
Kapha-Pittaj	2	6.66	2	6.66	4	6.67
Pitta- Vata	8	26.6	6	20	14	23.33
Pitta- Kaphaj	7	23.3	7	23.33	14	23.33
Vata- Kaphaj	11	36.66	13	43.33	24	40
Vata-Pitta-Kaphaj	1	3.3	0	0	1	1.67

• COMPARATIVE EFFECT OF BOTH DRUGS:

UNPAIRED T-TEST

Toda (Pricking Pain)

Group	Mean	S.D	Difference	SE	t value	P value
KATI BASTI	0.9	0.305	0.2	0.055	1.97	≤0.05
MATRA BASTI	0.7	0.466		0.085		

Conclusion: As results of MatraBasti andKati Basti with Kabjprasarni Tail both were not statistically highly Significant in improving **Toda (Pricking Pain)**, unpaired t test was applied to find which therapy was more efficacious. The

difference in the mean values of the two groups is not greater than would be expected by chance; there is no statistically significant difference between the input groups (P value ≤ 0.05).

Stambha (Stiffness)

Group	Mean	S.D	Difference	SE	t value	P value
KATI BASTI	0.73	0.449	0.13	0.082	1.09	≤0.05
MATRA BASTI	0.6	0.498		0.090		

Conclusion: As results of MatraBasti andKati Basti with Kabjprasarni Tail both were not statistically highly Significant in improving **Stambha (Stiffness)**, unpaired t test was applied to find which therapy was more efficacious. The

difference in the mean values of the two groups is not greater than would be expected by chance; there is no statistically significant difference between the input groups (P value ≤ 0.05).

Spandan (Twiching)

Group	Mean	S.D	Difference	SE	t value	P value
KATI BASTI	0.53	0.507	0.14	0.092	-1.05	≤ 0.05
MATRA BASTI	0.67	0.479		0.087		

Conclusion: As results of MatraBasti andKati Basti with Kabjprasarni Tail both were not statistically highly Significant in improving **Spandan (Twiching)**, unpaired t test was applied to find which therapy was more efficacious. The

difference in the mean values of the two groups is not greater than would be expected by chance; there is no statistically significant difference between the input groups (P value ≤ 0.05).

Aruchi (Anorexia)

Group	Mean	S.D	Difference	SE	t value	P value
KATI BASTI	0.77	0.430	0	0.078	0	≤ 0.05
MATRA BASTI	0.77	0.430		0.078		

Conclusion: As results of MatraBasti andKati Basti with Kabjprasarni Tail both were not statistically highly Significant in improving **Aruchi (Anorexia)**, unpaired t test was applied to find which therapy was more efficacious. The

difference in the mean values of the two groups is not greater than would be expected by chance; there is no statistically significant difference between the input groups (P value ≤ 0.05).

Gaurva (Heaviness)

Group	Mean	S.D	Difference	SE	t value	P value
KATI BASTI	0.77	0.430	0.04	0.078	0.29	≤ 0.05
MATRA BASTI	0.73	0.449		0.082		

Conclusion: As results of MatraBasti andKati Basti with Kabjprasarni Tail both were not statistically highly Significant in improving **Gaurva (Heaviness)**, unpaired t test was applied to find which therapy was more efficacious. The difference in the mean values of the two groups is not greater than would be expected by chance; there is no statistically significant difference between the input groups (P value ≤ 0.05).

Discussion on Kubjprasarni Tail –

According to Ayurveda, therapeutic effects of a drug depend on certain pharmacodynamic properties like its Rasa, Guna, Veerya, Vipaka and Prabhava.

PHARMACODYNAMIC PROPERTIES –

Pharmacodynamic properties as described in various Ayurvedic text is as follows –

Pharmacodynamic Properties

Sr. No.	Name	Rasa	Guna	Virya	Vipaka
1.	Gandhaprasarni	Tikta	Guru	Ushna	Katu
2.	Tila	Madhur, kasaya, Tikta	Guru	Ushna	Madhura
3.	Chitraka	Katu	Laghu	Ushna	Katu
4.	Pippali	Katu	Laghu	Ushna	Madhur
5.	Yastimadhu	Madhur	Guru	Shita	Madhura
6.	Bala	Madhur	Laghu	Shita	Madhur
7.	Shatpushpa	Madhur	Laghu	Shita	Madhur
8.	Devdaru	Tikta	Laghu	Ushna	Katu
9.	Rasna	Tikta	Guru	Ushna	Katu
10.	Bhallataka	Katu	Laghu	Ushna	Madhur
11.	Gajapippali	Katu	Laghu	Ushna	Katu
12.	Jatamanshi	Tikta	Laghu	Sita	Katu

The pharmacology of the kubjprasarni Tail drug when analysed on Ayurvedic parameters

- Rasa of combination is predominantly Tikta, katu Rasa.
- Guna is predominantly Laghu.
- Virya is predominantly Ushna.
- Vipakais predominantly Madhur.
- Doshaghanta of the combination is dominantely Vata - Kapha Shamak, followed by Tridoshshamaka.

Gridhrasiis a VataPradhanaVyadhi and along with VataDosha, sometimes there may be involvement of KaphaDoshaas AnubandhiDosha. **Vatadosha vitiation may be due to Dhatukshaya or Margavarodha.** In this formulation most of the drugs have following properties- VatakaphaShamaka, Tridoshashamaka, Shothaghna, Deepana, Pachana, Vedanasthapaka and Anulomaka.

These pharmacodynamic actions are helpful in breaking the pathogenesis of 'GridhrasiRoga'.

The probable mode of action of ingredients is summarized as below:

- **Kapha- Vatahara properties-** It is observed that the all ingredients of 'Kubjprasarni Tail' having Vata-Kaphashamaka property. Thus the drugs have a potential properties of alleviating Kapha by Kashya, Tikta Rasa UshnaVeerya, KatuVipaka and Laghu, RukshaGuna, and VataDosha by virtue of UshnaVeerya of all ingredients
- **UshnaVeerya** – It reduces Vata and KaphaDosha . All ingredients of 'KubjprasarniTail' have UshnaVeerya property, which will treat the Doshikapathology.
- All these factors show Vatahara and Kaphahara action of this along with Strotoshodhan and Amahara properties. It breaks the pathogenesis

behind VatakaphajaGridhrasiand work on the systemic symptoms like Gaurava, Tandra and Arochaka. Vatahara action reduces Ruk, Toda, Stambha and Spandana in Gridhrasipatients.

- Taila itself being the principle pacifier of Vatadosha and also deep penetrating property when processed with such drugs like Rasna, Devadaru, Balamoola having pharmacotherapeutics properties opposite to the qualities of VataDosha, become more potent Vatahara, so neutralising the vitiated VataDosha hence alleviate pain, stiffness and other related symptoms of Gridhrasi.

Discussion on Effect of therapies-

This study was conducted on 60 patients of Gridhrisi randomly dividing them into two groups viz. Group A (Matrabasti with Kubjprasarni Tail) and Group B (Kati basti with Kubjprasarni Taila).

Effect on Toda-

- Patients of Toda treated with Kati basti, mean score of Toda was 2.47 before treatment which reduce to 0.9 after treatment and after first follow up 0.7 which was statistically significant and the relief was 70.28 %.
- Patients of Toda treated with Matrabasti mean score of Toda was 2.27 before treatment which reduce to 0.7 after treatment and after first follow up 0.63 which was statistically significant and the relief was 73.33 %.
- The study says Matrabasti is more effective in relieving Toda then Kati basti.

Effect on Stambha-

- Patients of Stambha treated with Kati basti, mean score of Stambha was 2.13 before treatment which reduce to 0.73 after treatment and after first follow up 0.67 which was

statistically significant and the relief was 67.78 %.

- Patients of Stambha treated with Matrabasti, mean score of Stambha was 2.13 before treatment which reduce to 0.6 after treatment and after first follow up 0.5 which was statistically significant and the relief was 77.78 %.
- The study says Matrabasti is more effective in relieving Stambha then Kati basti.

Effect on Spandan-

- Patients of Spandan treated with Kati basti, mean score of Spandan was 2.73 before treatment which reduce to 0.53 after treatment and after first follow up 0.47 which was statistically significant and the relief was 82.78 %.
- Patients of Spandan treated with Matrabasti, mean score of Spandan was 2.77 before treatment which reduce to 0.6 after treatment and after first follow up 0.6 which was statistically significant and the relief was 78.33 %.
- The study says Kati basti is more effective in relieving Spandan then Matrabasti.

Effect on Aruchi-

- Patients of Aruchi treated with Kati basti, mean score of Aruchi was 2.27 before treatment which reduce to 0.77 after treatment and after first follow up 0.77 which was statistically significant and the relief was 69.44 %.
- Patients of Aruchi treated with Matrabasti, mean score of Aruchi was 2.27 before treatment which reduce to 0.77 after treatment and after first follow up 0.67 which was statistically significant and the relief was 70.56 %.
- The study says Matrabasti is more effective in relieving Aruchi then Kati basti.

Effect on Gaurva-

- Patients of Gaurva treated with Kati basti, mean score of Gaurva was 2.27 before treatment which reduce to 0.77 after treatment and after first follow up 0.77 which was statistically significant and the relief was 69.44 %.
- Patients of Gaurva treated with matrabasti, mean score of Gaurva was 2.27 before treatment which reduce to 0.73 after treatment and after first follow up 0.67 which was statistically significant and the relief was 72.78 %.
- The study says Matrabasti is more effective in relieving Gaurva then Kati basti.

III. CONCLUSION

A scientific discussion on the entire study definitely gives rise to some fruitful conclusions. A close perusal of the observations and inferences that can be drawn leads to the following conclusions:-

- ❖ Sciatica is a term often used to describe low back pain that radiates through hip to the back of thigh and descending down the inside of the leg. Although low back pain is common among 80 – 90% of people during their lifetime, but back pain due to sciatica occurs in about 5% of cases.
- ❖ It is more common between 30 – 50 years of age.
- ❖ According to Ayurveda, Gridhrasigives more resemblance to sciatica which is VataPradhanVyadhiand so Vedasthapaka, Shoolaprasamana, Vata Shaman, Snigdhakara, Brumhana,Vatanulomanais the probable choice to check Gridhrasi(Sciatica).
- ❖ ‘GridhrasiRoga’is one of the NanatamajaVatavyadhi commonly seen now-a-days and affecting a large group of the society. On the basis of their clinical manifestations it can be correlated with Sciatica described in modern medical science.
- ❖ Vitiated VataDoshais the main causative factor in ‘GridhrasiRoga’ especially Vyanaand ApanaVayu and many times Kapharemainis AnubandhiDosha.
- ❖ Doshapratyanika (Vatakaphashamaka), Vyadhipratyanik (SampraptiVighatana) Chikitsa along with Agni Deepana is the management principle of ‘GridhrasiRoga’.
- ❖ ‘Kati basti’and ‘Matrabasti’ with Kubjprasarni Tail were effective drugs in all diagnosed cases of ‘GridhrasiRoga’ (Sciatica).
- ❖ ‘Matrabasti’showed quick relief in most of the symptoms of ‘GridhrasiRoga’.
- ❖ The initial response to Ayurvedictherapies in respective groups was slow, which increased significantly as the duration of treatment steadily progressed.
- ❖ It was observed that the patients tolerated ‘Kati Basti’&Matrabasti very well, no any side effect or toxic effect or adverse effect were reported in any of the patient.
- ❖ Contents of both therapy has anti-inflammatory property and it is useful in treatment of Pain and inflammation condition.

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