



COMPARATIVE STUDY OF AABHADI CHURNA WITH AND WITHOUT KATI VASTI IN THE MANAGEMENT OF GRIDHRASI

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ABSTRACT

Gridhrasi (Sciatica) is a common disorder characterized by pain radiating along the course of the sciatic nerve. Aabhadi Churna, a classical Ayurvedic formulation, is indicated in Vata disorders, and Kati Vasti is a well-known local therapeutic procedure.

Aim: To evaluate the efficacy of Aabhadi Churna alone and in combination with Kati Vasti in Gridhrasi.

Methods: An open randomized clinical trial was conducted on 40 patients diagnosed with Gridhrasi. Patients were randomly allocated into two groups: Group A received Aabhadi Churna 5 gm twice daily with lukewarm water, while Group B received Aabhadi Churna with Kati Vasti using Saindhavadi Taila for 45 minutes daily. The treatment was given for 21 days, with assessments on the 7th, 14th, and 21st days. Subjective parameters (Ruja, Stambha, Aruchi, Spandana, Gaurava) and objective parameter (SLR test) were assessed. **Results:** Both groups showed significant improvement in subjective and objective parameters. Mann-Whitney test revealed that Group B (Aabhadi Churna + Kati Vasti) showed statistically significant improvement in Ruja ($p=0.008$) and Spandana ($p=0.010$) compared to Group A. **Conclusion:** Aabhadi Churna is effective in the management of Gridhrasi, and its efficacy is enhanced when combined with Kati Vasti.

Keywords: Gridhrasi, Sciatica, Aabhadi Churna, Kati Vasti, Ayurveda

INTRODUCTION-

Gridhrasi, correlated with Sciatica in modern medicine, is one of the commonest disorders affecting the locomotor system. It is classified under Vata Nanatmaja Vyadhi in Ayurveda, with clinical features such as Ruja (pain), Stambha (stiffness), Spandana (twitching), Gaurava (heaviness), and Aruchi (loss of appetite). The condition is characterized by pain radiating from the Kati (lumbar region) to the Pada (lower limb), often associated with restricted movements.

In contemporary science, Sciatica is primarily due to compression or irritation of the sciatic nerve, most commonly resulting from lumbar disc herniation or degenerative spinal changes. The condition significantly impairs the quality of life and work capacity of patients.

Ayurveda emphasizes the correction of vitiated Vata Dosha in the management of Gridhrasi. Aabhadi Churna, mentioned in Yogratnakar (यो. र. वा. व्या.), is a classical Ayurvedic formulation used for Vata disorders. It possesses properties that pacify Vata and reduce pain and stiffness. Kati Vasti, a local therapeutic procedure where warm medicated oil is retained on the lumbar region, is also considered highly effective in alleviating pain and stiffness.

Although both Aabhadi Churna and Kati Vasti are individually used in practice, clinical evaluation of their combined efficacy in Gridhrasi is limited. Hence, this study was undertaken to evaluate the effect of Aabhadi Churna alone and in combination with Kati Vasti in the management of Gridhrasi.

AIM OF STUDY-

Aim: To evaluate the efficacy of Aabhadi Churna with or without Kati Vasti in Gridhrasi.

MATERIALS AND METHODS-

Sources of data- 40 patients of *Gridhrasi* disease were registered and informed consent was obtained. Patients were randomly divided into two groups:

Group 1- 20 patients treated with *Aabhadi churna* 5gm orally with luke warm water twice a day after meal for 21 days.

Group 2- 20 patients treated with *Aabhadi churna* 5 gm orally with luke warm water twice a day after meal with *Kati Vasti* with *Saindhava Taila* for 45 minutes for 21 days.

Study Design- An open randomized clinical trial was conducted.

Study Setting & Duration- The study was carried out in the OPD/IPD of Ayurveda Hospital for a period of 18 months.

Inclusion criteria-

- Patients belonging to the age group of 20-60 years
- Diagnosed cases of *Gridhrasi* (Sciatica)
- Patients having classical symptoms of *Gridhrasi*
- Patients having Positive SLR test

Exclusion criteria-

- Patients below 20 years or above 60 years.
- Uncontrolled Diabetes Mellitus and Hypertension.
- T.B. of spine and hip joint.
- Malignancy of spine or other organs.

- History of spine fracture (trauma).
- Anaemic patients having Hb < 8 gm/dl
- Pregnancy.
- Any other severe illness.

CRITERIA FOR ASSESSMENT-

The assessment of trial will be done on the basis of following parameters before and after the treatment.

1. Subjective Criteria-

- Ruja (Pain)
- Stambha (Stiffness)
- Aruchi (aversion of food)
- Spandana (Pulsating)
- Gaurava (Heaviness)

2. Objective Criteria-

SLR Test

Numeric rating scale for pain (Ruja) (by VAS)

No pain	0
Mild pain but no difficulty in walking	1
Moderate pain and slight difficulty in walking	2
Severe pain with severe difficulty in walking	3

Stambha (Stiffness)

No stambhata	0
Stambhata for few minutes after sitting for long duration but relieved by mild movements and routine works are not disturbed.	1
Stambhata lasting for more than 1 hour or many times a day mildly affecting the daily routine.	2
Episodes of Stambhata lasting for 2-6 hours daily and daily routines are hampered severely.	3

Aruchi (Dislike/aversion of food)

Normal taste in food, feeling to eat food in time	0
Anannabhilasha – not feeling to take food even if hungry	1
Bhaktadvesha – irritability to touch, smell, seeing and listening about food	2
Complete Aversion to food because of anger, stress, etc	3

Spandana (Throbbing/Pulsating):

No spandana at all	0
For few minutes occasionally which is relieved spontaneously	1
Daily at least once for few minutes without affecting daily routine	2
Many times in a day affecting daily routine	3

Gaurava (Heaviness/Lassitude):

No feeling of Gaurava	0
Occasional feeling of Gaurava not affecting the normal movements	1
Frequent feeling of Gaurava affecting the normal movements	2
Feeling of Gaurava throughout the day severely affecting the normal movements	3

Objective Criteria- The objective assessment was done on the basis of-

1. Gradation for S.L.R –

Equal to or greater than 90°	0
71° - <90°	1
51° - 70°	2
31° - 50°	3
<30°	4

OVER ALL ASSESSMENT OF THERAPY

The result thus obtained from individual patient was categorized according to the following grades:

Complete remission : 100% relief

Marked improvement : $\geq 75\%$ relief to 99% relief

Moderate improvement : $\geq 50\%$ upto 75% relief

Mild improvement : $\geq 25\%$ upto 50% relief

No improvement : $< 25\%$ relief

OBSERVATION AND RESULTS

GROUP- 1(AABHADI CHURNA)

Table No.-1

Effect in Group- 1 on Subjective Parameter (Wilcoxon Signed Rank Test)

Group 1	N	Mean		SD		% Change	W	P Value	Result
		BT	AT	BT	AT				
<i>Ruja</i>	20	1.9	0.3	0.2	0.4	84.6	0.0	<0.001	HS
<i>Stambha</i>	20	1.5	0.3	0.5	0.5	80.0	0.0	<0.001	HS
<i>Aruchi</i>	20	1.2	0.4	0.4	0.5	66.6	0.0	<0.001	HS
<i>Spandana</i>	14	0.9	0.5	0.7	0.6	44.4	0.0	<0.05	S
<i>Gaurava</i>	17	1.0	0.5	0.6	0.6	52.3	0.0	<0.01	S

RESULT OF GROUP- 1 (SUBJECTIVE ASSESSMENT)

The Wilcoxon Signed-Rank Test showed statistically significant improvements across all evaluated clinical parameters after the intervention.

- ❖ **Highly Significant ($p < 0.001$)-** Improvements *Ruja*, *Stambha*, *Aruchi*
- ❖ **Significant ($p < 0.05$)-** Improvements *Spandana*, *Gaurava*

Percentage wise, maximum results seen in the symptoms of *Ruja* (84.6%), *Stambha* (80%), *Aruchi* (66.6%) followed by *Gaurava* (52.3%) and *Spandana* (44.4%).

GROUP- 2 (AABHADI CHURNA WITH KATI VASTI)

Table No.- 2

Effect in Group- 2 on Subjective Parameter (Wilcoxon Signed Rank Test)

Group 2	N	Mean		SD		% Change	W	P Value	Result
		BT	AT	BT	AT				
<i>Ruja</i>	20	2.5	0.4	0.6	0.6	84.3	0.0	<0.001	HS
<i>Stambha</i>	17	1.2	0.2	0.8	0.4	83.3	0.0	<0.001	HS
<i>Aruchi</i>	14	1.0	0.4	0.9	0.8	57.1	0.0	<0.01	S

<i>Spandana</i>	16	1.2	0.2	0.8	0.5	79.1	0.0	<0.001	HS
<i>Gaurava</i>	15	1.2	0.3	0.9	0.6	75.0	0.0	<0.001	HS

RESULT OF GROUP- 2 (SUBJECTIVE ASSESSMENT)

The Wilcoxon Signed-Rank Test showed statistically significant improvements across all evaluated clinical parameters after the intervention.

❖ **Highly Significant (<0.001)**- Improvements *Ruka*, *Stambha*, *Aruchi*

❖ **Significant (<0.01)**- Improvements *Spandana*, *Gaurava*

Percentage wise, maximum results seen in the symptoms of *Ruja* (84.3%), *Stambha* (83.3%), *Spandana* (79.1%) followed by *Gaurava* (75 %) and *Aruchi* (57.1%).

Effect In Group- 1 On Objective Parameter (Paired T- Test)

Table No.- 3

SLR	N	Mean		SD		% Change	T Value	P Value	Result
		BT	AT	BT	AT				
Group 1	20	2.0	0.8	0.0	0.6	60.0	-7.71	<0.001	HS

RESULT OF GROUP-1 (OBJECTIVE ASSESSMENT)

❖ By applying the **Paired t- test** in group 1 shows **Highly significant (<0.001)** result in **SLR** parameter.

Percentage wise, maximum result seen in **SLR test** (60%).

Effect in Group- 2 on ObjectiveParameter (Paired T- Test)

Table No.-4

SLR	N	Mean		SD		% Change	T Value	P Value	Result
		BT	AT	BT	AT				
Group 2	20	2.2	0.4	0.4	0.8	75.5	-13.07	<0.001	HS

RESULT OF GROUP- 2 (OBJECTIVE ASSESSMENT)

❖ By applying the **Paired t- test** in group 2 shows **Highly significant (<0.001)** result in **SLR** parameter.

Percentage wise, maximum result seen in **SLR test** (75.5%).

INTER GROUP COMPARISON OF GROUP-1 & GROUP-2 ON SUBJECTIVE PARAMETERS (Mann**Whitney U Test)****Table No.- 5**

Subjective Parameter	Group	N	Mean	% Change	Mann Whitney U	P Value	Result
Ruja	Group 1	20	1.6	84.6	117.5	<0.01	S
	Group 2	20	2.1	84.3			
	Total	40					
Stambha	Group 1	20	1.2	80.0	234	>0.05	NS
	Group 2	17	1.0	83.3			
	Total	37					
Aruchi	Group 1	20	0.8	66.6	238	>0.05	NS
	Group 2	14	0.6	57.1			
	Total	34					
Spandana	Group 1	14	0.4	44.4	151.5	<0.05	S
	Group 2	16	0.9	79.1			
	Total	30					
Gaurava	Group 1	17	0.5	52.3	151.5	>0.05	NS
	Group 2	15	0.9	75.0			
	Total	32					

By applying the Mann Whitney U test **significant difference** seen in *Ruja*, and *Spandana* while **no significant difference** seen in *Stambha*, *Aruchi* and *Gaurava* between group 1 and group 2.

INTER GROUP COMPARISON OF GROUP-1 & GROUP-2 ON OBJECTIVE PARAMETERS (Unpaired t- Test)**Table No.- 6**

Objective Parameter	Group	N	Mean Diff.	% Change	T Value	P Value	Result
SLR	Group 1	20	1.2	60.0	1.56	>0.05	NS
	Group 2	20	1.7	75.5			

By applying the **Unpaired t- test** in intergroup comparison between group 1 & 2 shows **no significant** difference in SLR parameter.

COMPARATIVE ASSESSMENT OF % IMPROVEMENT IN SUBJECTIVE PARAMETERS OF BOTH GROUPS

Table No.- 7

Subjective Parameters	Group 1	Group 2
<i>Ruja</i>	84.6%	84.3%
<i>Stambha</i>	80 %	83.3%
<i>Aruchi</i>	66.6%	57.1%
<i>Spandana</i>	44.4%	79.1%
<i>Gaurava</i>	52.3%	75%

COMPARATIVE ASSESSMENT OF % IMPROVEMENT IN OBJECTIVE PARAMETER OF BOTH GROUPS

Table No.- 8

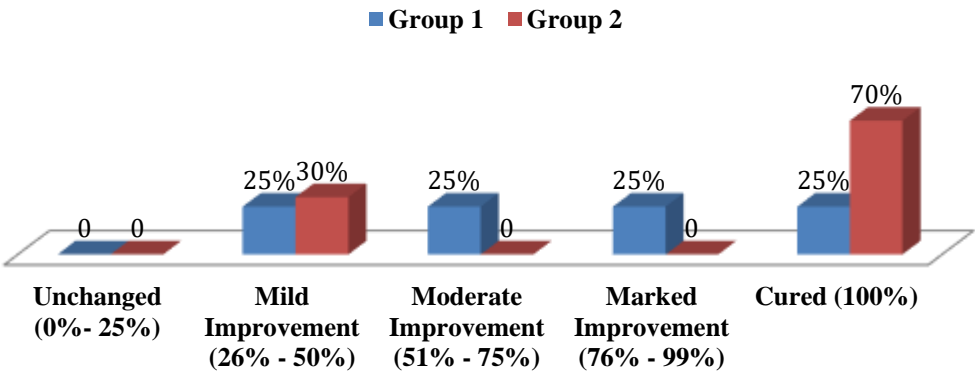
Objective Parameters	Group 1	Group 2
SLR	84.6%	84.3%

OVERALL EFFECT OF THE TREATMENT IN SUBJECTIVE PARAMETERS

Table No.- 9

IMPROVEMENT	GROUP 1		GROUP 2	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
UNCHANGED (0% -25%)	--	--	--	--
MILD IMPROVEMENT (26% - 50%)	5	25%	6	30%
MODERATE IMPROVEMENT (51% - 75%)	5	25%	--	--
MARKED IMPROVEMENT (76% - 99%)	5	25%	--	--
CURED (100%)	5	25%	14	70%

OVERALL EFFECT OF THE TREATMENT IN
SUBJECTIVE PARAMETERS

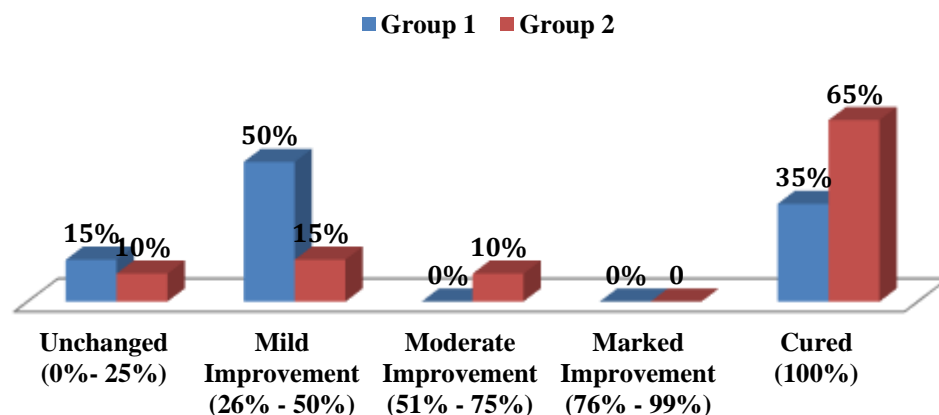


OVERALL EFFECT OF THE TREATMENT IN OBJECTIVE PARAMETER

Table No.- 10

IMPROVEMENT	GROUP 1		GROUP 2	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
UNCHANGED (0% -25%)	3	15%	2	10%
MILD IMPROVEMENT (26% - 50%)	10	50%	3	15%
MODERATE IMPROVEMENT (51% - 75%)	--	--	2	10%
MARKED IMPROVEMENT (76% - 99%)	--	--	--	--
CURED (100%)	7	35%	13	65%

OVERALL EFFECT OF THE TREATMENT IN OBJECTIVE PARAMETER



Results

A total of 40 patients of Gridhrasi completed the study, with 20 patients in each group. Both groups showed improvement in subjective and objective parameters after treatment.

Subjective Parameters:

In **Group 1 (Aabhadi Churna alone)**, all subjective symptoms showed statistically significant improvement after 21 days of treatment. *Ruja* (pain) decreased from a mean of 1.9 to 0.3, reflecting an **84.6% improvement** ($p < 0.001$, highly significant). *Stambha* (stiffness) improved by **80%** ($p < 0.001$, HS), *Aruchi* (anorexia) by **66.6%** ($p < 0.001$, HS), *Spandana* (twitching/pulsation) by **44.4%** ($p < 0.05$, S), and *Gaurava* (heaviness) by **52.3%** ($p < 0.01$, S).

In **Group 2 (Aabhadi Churna + Kati Vasti)**, all parameters also showed significant improvement, with a greater magnitude compared to Group 1. *Ruja* decreased from 2.5 to 0.4, an **84.3% reduction** ($p < 0.001$, HS). *Stambha* improved by **83.3%** ($p < 0.001$, HS), *Spandana* by **79.1%** ($p < 0.001$, HS), *Gaurava* by **75%** ($p < 0.001$, HS), and *Aruchi* by **57.1%** ($p < 0.01$, S).

Objective Parameter (SLR Test):

The **Straight Leg Raise (SLR)** test showed significant improvement in both groups. In Group 1, the mean SLR increased from 2.0 to 0.8, indicating a **60% improvement** ($t = -7.71$, $p < 0.001$, HS). In Group 2, the mean SLR improved from 2.2 to 0.8, showing a **75.5% improvement** ($t = -13.07$, $p < 0.001$, HS).

Summary: Both treatments were effective in reducing the symptoms of Gridhrasi. However, the combination of **Aabhadi Churna with Kati Vasti (Group 2)** provided superior results in both subjective and objective parameters compared to **Aabhadi Churna alone (Group 1)**.

DISCUSSION

Gridhrasi (sciatica) is characterized by pain (*Ruja*), stiffness (*Stambha*), heaviness (*Gaurava*), pulsation (*Spandana*), and anorexia (*Aruchi*), primarily due to vitiation of *Vata Dosha* affecting the *Medas* and *Snayu*. The present study evaluated the efficacy of **Aabhadi Churna alone** and in combination with **Kati Vasti** in relieving these symptoms.

Subjective Outcomes:

Both treatment groups showed significant improvement in all subjective parameters. In Group 1, Aabhadi Churna alone produced substantial relief in pain, stiffness, and heaviness, indicating its **Vata-pacifying, analgesic, and anti-inflammatory properties** as described in classical texts (भे. रे. 29/57-61). The addition of **Kati Vasti** in Group 2 enhanced the efficacy, particularly in *Spandana* and *Gaurava*, suggesting that **localized oil therapy provides additional lubrication, nourishment, and Vata-pacifying effect at the affected site**, consistent with Ayurvedic principles.

Objective Outcomes:

Improvement in the **SLR test** in both groups indicates enhanced flexibility and reduction of nerve root irritation. The greater improvement in Group 2 (75.5%) compared to Group 1 (60%) demonstrates the synergistic effect of oral and local therapy. Kati Vasti with *Saindhavadi Taila* likely improved local circulation, reduced stiffness, and enhanced nerve mobility, contributing to better functional outcomes.

MECHANISM OF ACTION:

Aabhadi Churna:

- In *Gridhrasi*, *Vata* specifically *Apana* and *Vyana Vayu Dushti* are found but most of the time *Kapha* remains associated with *Dosha*.
- Most of the ingredients in *Aabhadi churna* possess *Ushna Virya* therefore it has *Vatakapaha Shamak* properties. *Ushna veerya* helps to remove the *Avarana* of *Vayu* and restores its normal functions.
- Content such as *Ashwagandha* and *Shatavari* function as nervine tonics, nourishing the nervous system, reducing inflammation, and alleviating neuropathic pain.
- *Guduchi*, *Vridhdadaruka*, *Ashwagandha*, and *Shatavari* act as *Rasayana*, enhancing immunity, strength, and tissue repair, thereby supporting longevity.
- *Rasna* provides muscle relaxation and reduces spasms, while *Shunthi*, *Ajmoda*, and *Yavani* promote *Aampachana* (elimination of free radicals), lowering oxidative stress that contributes to cartilage damage, chronic inflammation, and premature aging.
- The bioactive compounds of *Shunthi* (gingerol and shogaol) inhibit pro-inflammatory mediators, while *Yavani*, rich in thymol, is effective against muscle spasms and pain. .

Kati Vasti:

- *Kati Vasti* is a therapy for lower back problems. It is a form of *Snehayukta Sweda* combining *Snehana* and *Swedana*, which very effective in conditions like *Gridhrasi* (sciatica), back pain, stiffness, and other *Vata* disorders.
- Warm medicated oil is kept on the lower back for 30–45 minutes, which nourishes tissues, promoting vasodilation, increased blood flow, toxin elimination, and muscle relaxation.
- The rise in local temperature enhances metabolism, and circulation, reducing edema and inflammation. Heat also improves the elasticity of connective tissues, making muscles, tendons, and ligaments more flexible, thereby reducing spasm, stiffness, and pain while supporting faster healing.
- Kati Basti provides both *Brimhana* (strengthening and nourishing) and *Samshamana* (pacifying) effects, making it highly beneficial for chronic lower back problems caused by aggravated *Vata dosha*.

Saindhavadi Taila:

- *Saindhavadi Taila*, mentioned by *Acharya Charaka* in the management of *Gridhrasi roga*.
- It is prepared with *Til taila*, *Shunthi*, *Chitraka*, *Pippali*, *Bhallataka*, *Saindhava*, and *Kanji*. The formulation is predominantly *Vata-Kaphahara* in nature, while *Saindhava* due to its *Tridosahara* and *Sukshma guna* penetrates deeply into the affected site.

- Ingredients like *Shunthi* and *Pippali* act as effective *Vedana shamaka* (pain relievers), *Bhallataka* strengthens the *nadi sansthana* (nervous system), *Chitraka* supports nerve function, and *Kanji* further pacifies *Kapha* and *Vata*.
- Collectively, the oil exhibits *Vedana shamaka*, *Balya*, and *Vata-Kaphahara* properties.
- Through local *Snehana* and *Swedana* actions, it helps relieve *Stambha* (stiffness), *Gaurava* (heaviness), and *Sheeta* (coldness), ultimately reducing the intensity of pain and improving functional ability.

Comparison and Clinical Implication:

sparameters, highlighting the importance of integrating **internal (oral) and external (local) Ayurvedic therapies** in managing Gridhrasi. These findings are consistent with classical recommendations where **oral medication along with *Snehana* and *Swedana* therapies** is advised for Vata-related disorders.

CONCLUSION:

Aabhadi Churna is effective in the management of Gridhrasi, and its combination with Kati Vasti significantly enhances therapeutic outcomes. This integrated approach addresses both systemic and local pathophysiology, providing better pain relief, functional improvement, and patient satisfaction.

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