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Research Article

Astakatvar Taila

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A comparative study of the effect of Kati Basti and Kati Pichu with Astakatvar Taila in the management of Gridhrasi w.s.r. to Sciatica

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Gridhrasi, commonly equated with Sciatica in modern medical terminology, is a debilitating condition characterized by radiating pain along the course of the sciatic nerve. Ayurveda describes Gridhrasi as a disorder predominantly caused by vitiation of Vata Dosha, often accompanied by Kapha, resulting in pain, stiffness, and restricted mobility. The condition derives its name from the characteristic limping gait of affected individuals, resembling a vulture (Gridhra). Modern medical science attributes Sciatica to nerve root compression or irritation, frequently due to herniated discs, spinal stenosis, or degenerative changes in the lumbar spine. Though technological advancements have improved diagnostics and treatment modalities, the chronic and recurrent nature of Sciatica necessitates a holistic management approach. Ayurveda offers a unique perspective through Panchakarma therapies, Shamana Chikitsa (palliative care), and lifestyle modifications. The integration of Ayurvedic practices with contemporary medical interventions has demonstrated promising results, warranting further exploration of their combined efficacy. This review article aims to provide a comprehensive analysis of Gridhrasi, examining its etiology, pathophysiology, and therapeutic approaches from both Ayurvedic and modern perspectives. By analyzing classical references alongside current evidence, this work endeavors to underscore the relevance and effectiveness of traditional practices in addressing this persistent clinical challenge. The study specifically focuses on the Ayurvedic classification, underlying pathophysiology, and etiological factors of Gridhrasi, contributing to a deeper understanding of its holistic management.

Keywords: Gridhrasi, Sciatica, Radiating Pain, Nerve Root Compression, Herniated Discs, Panchakarma Therapy, Holistic Approach

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Introduction

Low back pain (LBP) is one of the most prevalent musculoskeletal disorders, significantly impacting mobility and productivity during an individual's most active years. Among affected individuals, approximately 40% experience radicular pain, commonly classified under Sciatic syndrome.**[1]** This condition, recognized in ancient medical traditions, is referred to as *Gridhrasi* in Ayurveda, categorized as *Shoola Pradhana Vatavyadhi*. Despite extensive research efforts, a complete cure remains elusive.

The term *Gridhrasi* derives from the characteristic gait resembling that of a vulture (*Gridhra*), reflecting the condition's debilitating effects on movement. The cardinal symptoms - *Ruka* (pain), *Toda* (pricking sensation), *Stambha* (stiffness), and *Muhurspandana* - progress sequentially through *Sphika* (hip), *Kati* (lower back), *Uru* (thigh), *Janu* (knee), *Jangha* (calf), and *Pada* (foot), ultimately leading to *Sakthishepan-Nigraha* (restricted leg movement).**[2]** In modern medical terminology, *Gridhrasi* closely parallels *Sciatica*, a painful condition characterized by radiating pain from the lumbar spine along the posterolateral aspect of the lower limb, significantly impairing mobility.

Sciatica poses a substantial challenge for healthcare providers due to its disabling nature. A small subset of patients with LBP radiating to the lower limb disproportionately contributes to medical and economic burdens, yet early diagnosis and effective intervention often remain inadequate in both conventional and complementary medical systems. High-risk patients frequently undergo extensive diagnostic evaluations while receiving suboptimal therapeutic attention, ultimately leading to chronic conditions. Current treatment approaches primarily rely on analgesics and surgical interventions, which often carry adverse effects and exhibit limited long-term efficacy. Consequently, Sciatica impacts not only an individual's social and economic stability but also results in significant productivity losses, placing a strain on national resources.**[3,4]**

Given the severity and widespread impact of Sciatica, an ideal therapeutic approach should focus on alleviating pain, enhancing functional recovery, preventing disability, and ensuring cost-effectiveness. The efficacy and safety of such interventions must be rigorously evaluated through systematic pathological investigations.**[5]**

Ayurvedic literature prescribes a sequential approach for managing *Gridhrasi*, incorporating *Snehana* (oleation), *Swedana* (sudation), *Basti* (enema therapy), *Siravyedha* (venesection), and *Agnikarma* (thermal cautery). While these procedures provide significant relief, an easily administrable, outpatient-based treatment modality remains to be firmly established.**[6-9]** This study seeks to explore:

1. A viable substitute for *Shodhana* (purification) that provides *Shamana* (palliative) effects, specifically through *Kati Basti* and *Kati Pichu*.
2. A cost-effective, outpatient-based management strategy that ensures efficacy without disrupting patients' daily activities.

Among the various Ayurvedic therapeutic modalities, *Snehana* and *Swedana* are pivotal *Upakramas* in managing *Vata Vyadhi*. In *Kati Basti* and *Kati Pichu*, *Sukhoshna Taila* is applied to the *Kati Pradesha* (lumbar region), facilitating spinal oleation and muscular reinforcement. The *Sneha* component, characterized by *Snigdha* (unctuous), *Guru* (heavy), and *Ushna* (warm) properties, counteracts the *Rooksha* (dry), *Laghu* (light), and *Sheeta* (cold) attributes of *Vata*, while its *Ushna* and *Sukoshna* properties aid in pacifying *Kapha*. The deeper absorption through *Srotas* contributes to symptom relief and functional improvement. *Kati Pichu* and *Kati Basti* effectively address the *Snehana* and *Swedana* requirements in *Katigraha* management. While *Kati Pichu* covers a larger surface area, enhancing drug absorption, its simplicity makes it preferable in outpatient settings. If *Kati Pichu* demonstrates efficacy comparable to or exceeding that of *Kati Basti*, it could be adopted as a routine treatment modality for *Gridhrasi*. This study, evaluates the effectiveness of *Astakatvar Taila***[10]** in managing *Gridhrasi*. Hence, the research titled "A comparative study of the effect of *Kati Basti* and *Kati Pichu* with *Astakatvar Taila* in the management of *Gridhrasi* w.s.r. to Sciatica" aims to assess and compare the therapeutic effects of *Kati Basti* and *Kati Pichu* using *Astakatvar Taila* in *Gridhrasi*.

Objectives of the study

1. To evaluate the effect of *Kati Basti* with *Astakatvar Taila* in *Gridhrasi*.
2. To evaluate the effect of *Kati Pichu* with *Astakatvar Taila* in *Gridhrasi*.

3. To compare the efficacy of *Kati Basti* and *Kati Pichu* with *Astakatvar Taila* in *Gridhrasi*.

Materials and Methods

Source of data

Patients of either sex diagnosed to be suffering from *Gridhrasi* with special reference to Sciatica were selected from OPD, IPD, by conducting special camps and other referrals at Suryamukhi Dinesh Ayurved Medical College and Hospital, Ranchi, Jharkhand.

Source of drug

The *Astakatvar Taila* was prepared in college pharmacy authentically as per classical methods.

Method of collection of data

Patients of either sex were selected based on the classical symptoms of *Gridhrasi* with special reference to Sciatica, patients are divided into 2 groups.

Group - A (15 patients) and Group - B (15 patients)

Group - A: *Kati Basti* with *Astakatvar Taila* Group (KBG)

Each patient will be subjected to *Kati Basti* on *Kati Pradesh* with *Astakatvar Taila.*

Duration: 7 consecutive days, daily 30 minutes.

Procedure: A *Basti* is constructed with dough of *Masha* powder on *Kati Pradesha*. Warm *Astakatvar Taila* is poured into it and constant temperature will be maintained.

Preparation of *Astakatvar Taila*

Ingredients

Drug	English Name	Latin Name	Quantity
Sarshapa Taila	Mustard oil	Brassica campestris	4 kg
Pippali Mula	Piper root	Piper longum	1 kg
Shunthi	Dried Ginger	Zingiberofficinale	1 kg
Katvar	Buttermilk with cream	-	4 kg
Dadhi	Curd	-	4 kg

All the ingredients were identified and collected from local areas and from market and good manufacturing was followed for preparation and it was prepared at the Dept. of RS & BK of Suryamukhi Dinesh Ayurved Medical College and Hospital, Ranchi, Jharkhand.

Group - B: *Kati Pichu* with *Astakatvar Taila* Group (KPG)

Each patient will be subjected to *Kati Pichu* on *Kati Pradesh* with *Astakatvar Taila.*

Duration: 7 consecutive days, daily 30 minutes.

Procedure: Two *Pichu* (cotton swab) as required size are taken and are soaked in hot *Astakatvar Taila* one of them is taken out and placed over *Kati Pradesha.* When the temperature comes down it is exchanged with the hot *Pichu*.

Study duration: Total 21 days.

Procedure: 7 days.

Follow up: 14 days.

Readings will be taking on: 0, 7th, 14th and 21s" day.

Inclusion Criteria

1. Diagnosed cases of *Gridhrasi* (Sciatica)
2. Patients, belonging to the age group of 40 - 65 years.
3. Patients with *Pratyatma Lakshana* of *Gridhrasi*e., *Ruk, Toda, Stambha, Spandana* in the *Sphik, Kati, Uru, Janu, Jangha, Pada.*

Exclusion Criteria

1. Uncontrolled Diabetes Mellitus
2. Uncontrolled T.B. of spine & hip joint
3. Malignancy of spine or other organs
4. Fracture related to spine
5. Uncontrolled Hypertension
6. Cardiac diseases
7. Pregnancy
8. Other systemic diseases.
9. Patients contraindicated for *Siravedha* & *Basti* in classics.
10. Age below 40 and above 65 years.

Diagnostic Criteria

Patients were diagnosed on the basis of classical signs and symptoms of *Gridhrasi* like pain radiating from *Sphika* (hip) to *Pada* (foot) region, Other symptoms of *Gridhrasi* like *Stambha* (stiffness), *Suptata* (numbness & tingling) and *Gaurava*, Tenderness along the course of sciatic nerve, S.L.R. test in affected leg as objective measure were also included for diagnosis. X-Ray for Lumbar spine in AP or Lateral view was done in every patient.

Investigations

1. X-Ray spine lumbo-sacral spine - AP and Lateral.
2. Routine investigations i.e., routine haematological, urine and stool examination will be done to exclude any other disease.
3. Routine biochemical investigations like PPBS, FBS, Serum Creatinine, Blood urea will be performed before and after treatment.

Criteria for assessment

The improvement was assessed on the basis of relief found in the cardinal features of the disease. To assess the effect of therapy all the sign and symptoms were assigned score depending upon their severity as elaborated below:

Table 1: Gradation for *Stambha* (Stiffness)

No stiffness	00
Stiffness for few minutes after sitting for long duration but relieved by mild movements	01
Stiffness more than 1 hour or more than once in a day but routine works are not disturbed.	02
Stiffness lasting for more than 1 hour or many times a day mildly affecting the daily routine.	03
Episodes of stiffness lasting for 2-6 hours \ Daily routines are hampered severely.	04

Table 2: Gradation for *Suptata* (Numbness)

No Suptata	00
Occasionally once in a day for few minutes	01
Daily once in a day for few minutes	02
Daily for 2 or more times/ 30-60 minutes	03
Daily more than 1 hour / Many times a day	04

Table 3: Gradation for *Spandana* (Throbbing / Pulsating)

No Spandana at all	00
For few minutes occasionally which is relieved spontaneously	01
Daily at least once for few minutes	02
Many times in a day affecting daily routine	03
Daily for many times severely hampering daily routine	04

Table 4: Gradation for *Aruchi* (Anorexia)

Normal taste in food, feeling to eat food in time	00
Feeling to take food but not having taste	01
Anannabhilasha - not feeling to take food even if hungry	02
Bhktadvesha - irritability to touch, smell, seeing and listening about food food	03
Abhaktachchanda - Aversion to food because of anger, stress etc.	04

Table 5: Gradation for *Tandra* (Drowsiness)

No Tandra	00
Mild Tandra occasionally but does not affect daily routine	01
Moderate Tandra frequently many times in a day that hamper daily routine	02
Moderate Tandra whole day and need to take rest so can't work	03
Severe Tandra whole day also at mental level reduced alertness etc	04

Table 6: Gradation for *Gaurava* (Heaviness)

No feeling of heaviness	00
Occasional feeling of heaviness not affecting the normal movements	01
Frequent feeling of heaviness affecting the normal movements	02
Feeling of heaviness throughout the day severely affecting the normal movements	03
Feeling of heaviness throughout the day totally hampering normal movements	04

Table 7: Gradation for SLR

Equal to or greater than 90°	00
71° - <90°	01
51° - 70°	02
31° - 50°	03
<30°	04

Observations and Results

Total 15 patients were registered each in *Kati Basti* group and Kati *Pichu* group respectively. Maximum number of patients i.e., 11 (36.67%) were registered in the age group of 30-40 years, followed by 12 (40%) patients in age group 40-50 years. 7 (23.33%) patients were registered in age group 50-60 years. In this study 17 (56.66%) were male and 13 (43.33%) were female. Maximum i.e., 18 (60%) patients observed were from Muslim religion. 10 (33.33%) were from Hindu religion while 2 (06.67%) were from Christian religion.

Most of the patients i.e., 27 (90%) of patients were married and 3 (10%) of patients were unmarried. Maximum i.e., 12 (40%) patients were house wives, while 8 (26.67%) patients were tailors, 6 (20%) of the patients were Laborers, 3 (10%) of patients were Drivers and 1 (3%) were in service. Maximum no of patients i.e., 17 (56.66%) patients belonged to Lower Middle class, while 9 (30%) patients were from poor class and 5 (16.64%) were from Upper Middle class. Maximum no of patients i.e., 23 (76.66%) patients belonged to Urban habitat and 7 (23.34%) belonged to rural habitat. Maximum no of patients i.e., 23 (76.67%) patients were having mixed diet and only 7 (23.33%) patients were having vegetarian diet. Maximum no of patients i.e., 29 (96.66%) of patients were consuming *Katu Rasa* predominantly in their diet. 14 (46.66%) patients were taking *Kashaya Rasa,* and *Madhura Rasa* predominantly. 11 (36.66%) patients were taking *Amla Rasa* and 7 (23.34%) patients were taking *Lavana Rasa.* Majority of the patients i.e., 24 (80%) patients were having *Alpanindra* while 5 (16.67%) patients were having *Samayaka Nindra,* and 1 (3.33%) patient was having *Atinindra*.

Majority of the patient i.e., 17 (56.67%) of patients were having constipated bowel habit while 13 (43.33%) of the patients were having regular bowel habit. Maximum i.e., 15 (50%) patients were with *Vata-Kaphaja Prakruti,* 10 (33.33%) patients were having *Vata-Pittaja Prakruti,* and 5 (16.67%) patients were with *Pitta-Kaphaja Prakruti.* Maximum no of patients i.e., 21 (70%) patients were of *Tamas Pradhan Prakruti*. And 7 (23.34%) patients were of *Rajas Pradhana Prakruti* and 2 (06.66%) patients were having *Satva Pradhana Prakruti.*

Maximum no of patients i.e., 25 (83.33%) patients were of *Madhyama Sara*, 5 (16.67%) patients were of *Avara Sara* and none of the patients were of *Pravara Sara.*

Maximum no of patients i.e., 25 (83.33%) patients were of *Madhayama Samahana* followed by 4 (13.34%) patients were of *Avara Samahana* and 1 (3.33%) patient was of *Pravara Samahana*.

Maximum no of patients i.e., 26 (86.67%) patients were of *Madhayama Pramana* and 4 (13.33%) patients were of *Avara Pramana* and none of the patient had *Pravara Pramana*.

Maximum no of patients i.e., 16 (53.33%) patients were having *Avara Satva*, 12 (40%) patients were of *Madhayama Satva* only 2 (06.67%) of the patients were having *Pravara Satva.*

Maximum no of patients i.e., 26 (86.66%) patients were of *Madhayama Satmya* and 2 (6.67%) patients were of *Pravara Satmya* and 2 (6.67%) were of *Avara Satmya.* Maximum no of patients i.e., 18 (60%) of the patients had *Madhayama Abhyavarna* and *Jarana Shakti.* 9 (30%) patients were having *Avara Abhyavarna* and *Jarana Shakti*. Only 3 (10%) of patients were having *Pravara Abhyavarna* and *Jarana Shakti.*

Maximum no of patients i.e., 16 (53.33%) patients were of *Madhayama Vyayamashakti*, 11 (36.67%) patients were of *Avara Vyayamashakti* and 3 (10%) patients were having *Pravar Vyayamashakti.*

Maximum no of patients i.e., 13 (43.33%) patients had *Vishama Agni*, 10 (33.33%) patients were of *Manda Agni*, 3 (10%) patients of *Sama Agni* and 4 (13.34%) patients were of *Tikshna Agni.*

Maximum no of patients i.e., 19 (63.34%) of patients were having *Krura Koshta* 9 (30%) of *Madhyama Koshta*, and 2 (6.66%) *Mrudu Koshta.*

Disease related observation

Maximum no of patients i.e., 21 (70%) patients had *Vata-Kaphaja* type of *Gridhrasi* and 9 (30%) patients had *Vataja* type of *Gridhrasi*.

Maximum no of patients i.e., 9 (30%) of patients were having 1 to 6 months of chronicity, 6 (20%) patients were having 1- 2 yrs and more than 2 yrs of chronicity, 5 (16.66%) of patients were having Chronicity up to 1 months.

Maximum 11 (36.66%) patients were having symptoms in both legs and 11 (36.66%) patients were having symptoms in left leg and 8 (26.67%) right leg respectively.

Aharaja Nidana wise distribution shows that 21 (70%) patients were consuming *Vishtambhi Anna,* while 25 (83.33%) were consuming *Guru Anna* and 15 (50%) *Vishamashana*, 6 (20%) patients with *Adhyashana*, 10 (33.33%) patients with *Anashana* 6 (20%) patients with *Alpashana*, 3 (10%) patients were consuming *Laghu Ahara*.

Viharaja Nidana wise distribution shows that 21 (70%) patients *Diwaswapana*, 17 (56.67%) patients with *Atiprajagrana*, 16 (53.33%) patients had *Vegodharana*, 13 (43.33%) patients had *Vegodeerna*, 11 (36.67%) *Atigamana* and *Atyasana* each, 4 (13.33%) patients with *Bharavahana* and *Dukhasana* and 0% patients with *Dukhashayya*.

Manasika Nidana wise distribution shows that *Chinta* as the *Manasika Hetu* was present in 25 (83.33%) patients. Also, *Shoka* and *Bhaya* found in 14 (46.66%) patients and 1 (3.33%) patients respectively.

Agantuja Nidana wise distribution shows that *Abhighata* and *Prapatana* were found in 2 (06.67%) and 3 (10%) patients respectively as the cause for *Gridhrasi*.

Cardinal symptoms wise distribution shows that *Ruk* and *Shakti Kshepa Nigraha* (S.L.R) each were found in 30 (100%) of the patients, while *Stambha, Toda,* and *Muhuh Spanda,* were found in 29 (96.66%), 27 (90%), 12 (40%) of the patients respectively.

Associated symptoms wise distribution shows that *Gaurava, Supti, Tandra, Arochaka,* and *Graha* were found in 25 (83.33%), 22 (73.33%), 13 (43.33%), 8 (26.66%), and 3 (10%) of the patients respectively.

SLR test was positive in left leg in 12 (40%) patients, in both legs in 11 (36.67%) patients, in, while in right leg in 7 (23.33%) patients.

Lasegue sign was positive in left leg in 12 (40%) patients, in both legs in 11 (36.67%) patients, in, while in right leg in 7 (23.33%) patients.

Table 8: Effect of *Kati Basti* on cardinal symptoms

Cardinal symptoms	Mean Score		%	SD	SE	t value	P value
	BT	AT					
Ruka	2.93	0.86	70.64	0.79	0.20	10.30	<0.001
Toda	2.20	0.60	72.72	0.69	0.22	7.27	<0.001
Stambha	1.85	0.64	65.40	0.89	0.23	5.20	<0.001
Muhuspandana	2.23	0.85	63.82	0.72	0.20	7.50	<0.001
Sakthikshepnigraha (S.L.R)	2.80	0.60	78.57	0.86	0.22	10	<0.001

Effect on *Ruk*: The mean score for severity of *Ruk* was 2.93 which reduced to 0.86 after therapy showing 70.64 % improvement and highly significant statistical results (P < 0.001).

Effect on *Toda*: The mean score for *Toda* was 2.2 before treatment and reduced to 0.6 after treatment. Relief was 72.72 % and results were highly significant at P< 0.001

Effect on *Stambha*: The initial mean score was 1.85 which reduced to 0.64 after treatment which indicates 65.40 % improvement. The statistical analysis proves that it is highly significant at P < 0.001.

Effect on *Muhuspandana*: The initial mean score for *Muhuspandana* was 2.35 which showed reduction to 0.85 after treatment. The % relief was 63.82 %. The result was highly significant (P < 0.001).

Effect on SLR: The initial mean score for SLR was 2.8 which reduced to 0.6. The % relief was 78.57 % and it was highly significant at P < 0.001.

Table 9: Effect of *Kati Basti* on Associated symptoms

Associated symptoms	Mean Score		%	SD	SE	t value	P value
	BT	AT					
Tandra	2.10	0.70	70	0.54	0.24	5.23	<0.01
Gaurava	2.20	0.56	82	0.50	0.30	5.43	<0.001
Arochaka	2	0.42	79	0.53	0.34	4.61	<0.001
Agnimandya	2	0.33	83.50	0.50	0.30	5.53	<0.001
Supti	2	1	50	0.60	0.19	5.26	<0.001
Graha	1.69	0.69	59.17	0.55	0.15	5.60	<0.001

Effect on *Tandra*: The score for Tandra reduced to 0.7 from its mean score 2.10 before treatment. Relief was 70 % and was statistically significant (P < 0.01).

Effect on *Gaurav*: The initial mean score for *Gaurav* was 2.20 which reduced to 0.56 showing 82 % improvement. On statistical analysis it was highly significant at P < 0.001.

Effect on *Arochaka*: The intial mean score was 2 which reduced to 0.42 having 79 % improvement. The results was statistically significant (P < 0.001.

Effect on *Agnimandya*: The intial mean score was 2 which reduced to 0.33 having 83.50 % improvement. The results was statistically significant (P < 0.001.

Effect on *Supti*: The initial score was 2 which reduced to 1 showing 50 % relief and statistically highly significant at P < 0.001.

Effect on *Graha*: The mean score for *Graha* was 1.69 before treatment which was reduced to 0.69 after treatment. 59.17 % was the relief percentage and it was highly significant (P < 0.001).

Table 10: Effect of *Kati Pichu* on cardinal symptoms

Cardinal symptoms	Mean Score		%	SD	SE	t value	P value
	BT	AT					
Ruka	2.60	1.06	59.23	0.74	0.19	7.80	<0.001
Toda	2.00	0.66	67	0.77	0.22	6.04	<0.001
Stambha	1.46	0.73	50	0.55	0.15	5.60	<0.001
Muhuspandana	2.06	0.80	61.16	0.70	0.18	6.66	<0.001
Sakthikshepnigraha (S.L.R)	2.40	01	58.33	0.73	0.19	7.36	<0.001

Effect on *Ruk*: Mean score for severity of Ruk was 2.6 initially. It then reduced to 1.06, showing 59.23 % relief. Result was highly significant (P < 0.001).

Effect on *Toda*: The initial mean score of Toda was 2 which reduced to 0.66, showing 67 % relief. The difference was found to be highly significant at the level (P < 0.001).

Effect on *Stambha*: The symptom had initial mean score of 1.46 which reduced to 0.73, showing 50% improvement. It was found be highly significant (P < 0.001).

Effect on *Muhuspandana*: Initial score was found to be 2.06 which reduced to 0.8 showing 61.16 % relief. The result was highly significant (P < 0.001).

Effect on SLR: The initial mean score for SLR was 2.4 which reduced to 1. It improved by 58.33 %. It was statistically highly significant (P< 0.001).

Table 11: Effect of *Kati Pichu* on Associated symptoms

Cardinal symptoms	Mean Score		%	SD	SE	t value	P value
	BT	AT					
Tandra	2.20	1.10	50	0.75	0.25	4.0	<0.02
Gaurava	2.0	0.87	56.50	0.83	0.29	3.92	<0.01
Arochaka	2.0	1.0	50	0.81	0.40	2.40	>0.05
Agnimandya	2.20	0.91	64.50	0.48	0.18	7.20	<0.001
Supti	2.0	1.08	46	0.79	0.22	4.10	<0.01
Graha	1.44	0.77	46.52	0.70	0.23	2.76	<0.05

Effect on *Tandra*: The initial mean score for Tandra was 2.20 which reduced by 50 % to1. It was significant at the level of P < 0.02

Effect on *Gaurav*: The mean score for Gaurav was 2 which reduced to 0.87 showing 56.50 % improvement. Statistically it was signif. at P< 0.01

Effect on *Arochaka*: The mean score before treatment was 2 which reduced by 50 % to 1. The result was statistically insignificant (P > 0.05)

Effect on *Agnimandya*: The initial mean score was 2.20 which reduced to 0.91 showing 64.50 % relief. The result was highly significant (P<0.001)

Effect on *Supti*: The mean score of Supti reduced to 1.08 from 2 showing 46 % relief. It was significant at P<0.01

Effect on *Graha*: The initial mean score was 1.44 which reduced to 0.77 . The % relief was 46.52 %. It was significant at P<0.05

Table 12: Overall effect of treatment of Group-A

Treatment effect	Total No. of Vataja Gridhrasi	Total No. Vata-Kaphaja Gridhrasi	Total No. of Patients	Total % of Patients
Cured	00	00	00	00
Marked relief	01	02	03	20
Moderate relief	03	06	09	60
Mild relief	01	02	03	20
No relief	00	00	00	00

In overall effect of treatment in Group A observed in 15 patients after completion of *Kati Basti*, Marked relief (75% or more) was found in 3 patients, One had *Vataja Gridhrasi* and two had *Vatakaphaja Gridhrasi.* Moderate relief (50% to 75%) was found in 9 patients amongst them 6 were of *Vatakaphaja Gridhrasi* and other 3 patients were of *Vataja Gridhrasi*. 3 patients were having Mild relief, one had *Vataja Gridhrasi* and two had *Vatakaphaja Gridhrasi.*

Table 13: Overall effect of treatment of Group-B

Treatment effect	Total No. of Vataja Gridhrasi	Total No. Vata-Kaphaja Gridhrasi	Total No. of Patients	Total % of Patients
Cured	00	00	00	00
Marked relief	01	02	03	20
Moderate relief	02	06	08	53.33
Mild relief	01	03	04	26.67
No relief	00	00	00	00

In overall effect of treatment in Group B observed in 15 patients after completion of *Kati Pichu*, Marked relief (75% or more) was found in 3 patients, one had *Vataja Gridhrasi* and two had *Vatakaphaja Gridhrasi*. Moderate relief (50% to 75%) was found in 8 patients amongst them 6 were of *Vatakaphaja Gridhrasi* and 2 patient was of *Vataja*, 4 patients were having Mild relief, amongst them 3 were of *Vatakaphaja* type and 1 were of *Vataja* type.

Discussion

In human body, the lumber spine is the site of most expensive orthopedic problem for the world's industrialized countries. It is the seat of miracles. The central nervous system as well as autonomic nervous system work through the spine and the entire nervous system dependent upon the spine. So, the diseases affecting lumber spine are handled very carefully. *Gridhrasi* is such a disease having its origin in *Pakvashaya* and seat in *Sphika* and *Kati* i.e., lumber spine. In classics, *Gridhrasi* is included under 80 types of *Nanatmaja Vata Vikara* under the heading of *Vatavyadhi* as a separate clinical entity. *Acharya Sushruta* has emphasized the involvement of *Kandara* from *Pasrsni* to *Anguli* in producing the disease *Gridhrasi*. He also added an important sign *Sakthanaha-Kshepamnigraniyat* i.e., restriction in lifting the affected leg. Nowadays, this sign known as S.L.R. test. It plays a major role in diagnosis of the disease and assessment of effect of therapy as an objective parameter.

Effect of therapy

The effect of therapy was assessed on each sign and symptom of the disease. These signs and symptoms were given scoring pattern before treatment and after treatment and were assessed statistically to see the significance. The effect of therapy in both the groups in each sign and symptom is as below.

Effect on *Ruk*: In Group A, the relief in Ruk was 70.64% on statistical viewpoint, this effect was highly significant ($p<0.001$). In group B, the relief in *Ruk* was 59.23%, which was statistically highly significant ($p<0.001$).

From the above discussion, it is cleared that the both the groups have reduced the pain but, in Group A slight relief in pain was seen more than group B. Pain is mainly produced due to *Vata Prakopa. Basti* is best treatment for *Vatadosha* which is main factor involved in *Gridhrasi*. Also, the ingredients of *Katibasti* were having *Ushna Virya* and *Snigdha Guna* which pacify the *Ruksha* and *Sheeta Guna* of aggravated *Vata Dosha.*

Effect on *Toda*: In Group A, 72.72% relief was found in *Toda* and it was statistically highly significant ($p<0.001$). The relief in *Toda* was 67% in Group B, and it was statistically highly significant ($p<0.001$).

Toda is a pricking type of pain caused due to *Vata*. Percentage wise Group A is more effective on *Toda*.

Effect on *Stambha*: *Stambha* is one of the Cardinal symptoms of *Gridhrasi*. The relief in *Stambha* was 50% in Group A and it was statistically highly significant ($p<0.001$). In Group B relief was 65.40% in *Stambha* and it was statistically highly significant ($p<0.001$).

Though both the groups showed statistically highly significant effects, Group B showed better result in relieving *Stambha*. *Stambha* is produced by *Sheeta Guna.* Also, *Ruksha Guna* may also play a role in producing *Stambha*. *Snigdha Guna* and *Ushna Virya* of *Basti Dravyas* conquer the *Ruksha Guna* and *Sheeta Guna*. Also, the local effect of *Kati Basti* and *Kati Pichu* is seen on *Stambha* caused at *Kati Pradesh* by the application of *Ushna Taila*. But better effect on *Stambha* is by *Basti*.

Effect on *Muhuspandana*: In Group A, the relief in *Muhuspandana* was 63.82%, this effect was statistically highly significant ($p<0.001$).

Effect on *Muhuspandana* in Group B was 61.16% relief and the result was highly significant ($p<0.001$).

In this symptom also Group A shows better results because *Spandana* is produced by *Chala Guna* of *Vata*. *Kati Basti* has more effect in pacifying *Vata*.

Effect on *Sakthikshepnigraha* (SLR): In Group A, the relief in *Sakthikshepnigraha* was 78.57% shows, it was statistically highly significant ($p<0.001$). Whereas in Group B, 58.33% improvement was seen, which is statistically highly significant ($p<0.001$).

Sakthikshepnigraha occurs due to vitiated *Vata* especially *Vyana Vayu* which is responsible for *Gati*. *Basti* is the best treatment for *Vata* and it has the S*hoolaghna* and *Shothahara* properties. These help to reduce the compression of sciatic nerve. *Vataghna* property reduces *Shoola* and makes lifting of leg more easily. Hence, Group A has shown better result in reducing this symptom.

Effect on Associated symptoms

Effect on *Tandra*: In Group A, the relief in *Tandra* was 70%. Statistically it was significant ($p<0.01$). In Group B, the relief in *Tandra* 50% was found. Statistically it was highly significant ($p<0.001$). *Tandra* is an associated symptom found in *Vatakaphaja* type of *Gridhrasi*. As the *Samprapti Vighatana* takes place these symptoms also get relieved may be due to *Agnidipti* and *Amapachana*. Although the percentage relief in both the groups was same but Statistically Group B showed comparatively better results. Also, the significant result found in Group A was because the symptom *Tandra* was found in a smaller number of patients.

Effect on *Gaurava*: 82% relief was found in *Gaurava* it was highly significant statistically significant ($p<0.001$) in Group A. Whereas in Group B relief was 56.50% found in *Gaurava* it was statistically significant ($p<0.01$). In this symptom percentage wise relief was better in Group A. Because *Ushna Virya* drugs used in *Basti* acts together to remove the vitiated *Kapha* and *Laghavata* is established *Gaurava* is reduced.

Effect on *Arochaka*: In Group A, the relief in *Arochaka* was 79% found, in statistically point of view it was significant ($p<0.01$). Whereas in Group B, relief in *Arochaka* 50% was found, it was statistically insignificant ($p>0.05$).

Arochaka occurs due to *Dushti* of *Bodhak Kapha* and also *Asamyak Karma* of *Rasanendriya*. *Shaman Aushadha* has *Vatakaphaghna* property and also *Basti* enhances the power of *Indriya* (*Indriyaprasaad*). That's why better result was found in Group A. Although statistically Group B showed insignificant result.

Effect on *Agnimandya*: *Agnimandya* showed 83.5% relief in Gr. A and 64.5% relief in Gr. B. Both the therapies showed highly significant results (P<0.001). On comparison Gr. A showed better result.

Tandra, Gaurav, Arochaka and *Agnimandya* these symptoms are produced when *Kaphadosha* is involved with *Vatadosha* in the *Samprapti* of *Gridhrasi*. Observing the results, it is clear that both the therapies are effective on *Kaphadosha* as well. *Ushnavirya*, *Deepan*, *Pachan* properties of the combination help in alleviating these symptoms

Effect on *Supti*: In *Supti* 50% relief was found in Group A. it was statistically highly significant (p<0.001). While in Group B 46% relief was found in *Supti*, it was statistically significant (p<0.01). Group A shows better results in this symptom also.

Effect on *Graha*: In *Graha* 59.17% relief was found in Group A, this result was statistically highly significant (p<0.001). In Group B, it was 46.52% relief found and statistically significant (p<0.05).

Conclusion

Gridhrasi, closely aligned with Sciatica in modern medicine, remains a challenging condition due to its disabling symptoms and the limitations of conventional treatment approaches. While analgesics and surgical interventions provide symptomatic relief, they often fail to address the underlying pathology and may lead to adverse effects. As a result, integrating Ayurvedic therapeutic principles offers a promising avenue for effective management.

This study underscores the significance of *Kati Basti* and *Kati Pichu*, two Ayurvedic interventions that leverage *Snehana* and *Swedana* to alleviate pain and improve functional mobility in *Gridhrasi*. By utilizing *Astakatvar Taila*, these modalities aim to counteract *Vata* imbalance, enhance musculoskeletal strength, and restore normal movement patterns.

The comparative evaluation of *Kati Basti* and *Kati Pichu* provides insights into their therapeutic efficacy, feasibility in outpatient settings, and potential for widespread clinical adoption. In Group A, where patients received *Kati Basti*, highly significant relief (p<0.001) was observed in primary symptoms, including *Ruka* (60%), *Toda* (58.3%), *Stambha* (62.22%), *Shaktikshepanighraha* (SLR) (65.56%), *Supti* (56.9%), *Muhurspandana* (64.58%), *Gaurava* (82%), *Arochak* (79%), and *Graha* (59.17%). Additionally, significant improvement (p<0.01) was noted in *Tandra* (70%).

In Group B, where patients received *Kati Pichu*, highly significant relief (p<0.001) was observed in *Ruka* (59.23%), *Toda* (67%), *Stambha* (50%), *Muhurspandana* (61.16%), and *Shaktikshepanighraha* (SLR) (58.33%). Associated symptoms such as *Agnimandya* (64.50%) and *Supti* (46%) also showed remarkable improvement, while *Tandra* (50%) and *Gaurava* (58.8%) showed significant relief (p<0.01). However, *Arochaka* (33.33%) showed an insignificant response, indicating a lesser impact of the therapy on this symptom. In the overall assessment of therapeutic efficacy, Group A showed better outcomes, with 20% of patients achieving marked relief, 60% experiencing moderate improvement, and 20% reporting mild relief. In contrast, Group B presented slightly lower results, with 20% of patients achieving marked relief, 53.33% experiencing moderate improvement, and 26.66% reporting mild relief. Furthermore, follow-up evaluations indicated that patients in Group A sustained better symptom relief compared to Group B.

Thus, *Kati Basti* alone demonstrated a more pronounced therapeutic effect in alleviating symptoms and improving functional mobility in *Gridhrasi* than *Kati Pichu*. These findings suggest that *Kati Basti* could serve as a more effective treatment modality, warranting further clinical investigations to optimize protocols and enhance long-term patient outcomes.

References

1. Hoy D, Bain C, Williams G, March L, et al. A systematic review of the global prevalence of low back pain. Best Pract Res Clin Rheumatol. 2010;24(6):769-81. *[Crossref][PubMed][Google Scholar]*

2. Sharma PV, editor. Nidanasthana; Vatavyadhi Nidana Adhyaya. Sushruta, Sushruta Samhita. Chapter 1, Verse 74. *Varanasi, India: Chaukhambha Visvabharati; 2005. p. 15 [Crossref][PubMed][Google Scholar]*

3. Zhou T, Salman D, McGregor AH. Recent clinical practice guidelines for the management of low back pain: a global comparison. BMC Musculoskelet Disord. 2024;25:344. *[Crossref][PubMed][Google Scholar]*

4. National Institute for Health and Care Excellence. Low back pain and sciatica in over 16s: assessment and management. BMJ Best Practice. 2020. *[Crossref][PubMed][Google Scholar]*

5. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive treatments for acute, subacute, and chronic low back pain: a clinical practice guideline from the American College of Physicians. Ann Intern Med. 2017;166(7):514-30. *[Crossref][PubMed][Google Scholar]*

6. Pandith Kashinath Shastri, Acharya Agnivesha, Charaka Samhita. elaborated by Charaka & Dridabala with Ayurved deepika commentary by Chakrapani Datta. Edition-2012,Chaukambha Sanskrit Sansthan. Chikitsa sthana-chapter 28, shloka-101, page-708,. *[Crossref][PubMed][Google Scholar]*

7. Vaidya Yadvaji Trikamaji Aharya, Acharya Sushruth, Sushruth Samhita. with Nibandhasangraha Commentary by Dalhanacharya, Edition-2013. Chaukambha Sanskrit Sansthan. Chikitsa Sthana-chapter 5, shloka-23, page-,7. *[Crossref][PubMed][Google Scholar]*

8. Vaidya Lakshmipati Sastri, Yogaratnakara. with Vidyotini Hindi commentary, Edition 2013, Chaukambha Prakashan. Vatavyadhi Chikitsa-Gridhrasikhalayakhanja chikitsa. Shloka-1, page-522 & 523,. *[Crossref][PubMed][Google Scholar]*

9. Acharya Chakrapanidatta, Chakradatta. with Vaidyaprabha Hindi Vyakhya by Indradeva Tripathi, Acharya Ramanath Dwivedi, Vatavyadhi, Edition-1997. Chaukambha Sanskrit Bhavan, Chikitsa Prakaran. Shloka-40 to 54, page-136 to 138. *[Crossref][PubMed][Google Scholar]*

10. Agnivesha. Charaka Samhita; Vatavyadhi Adhayaya, Chikitsasthana, chap-27 verse-47 vol 5, In. Chakrapani Datta's Ayurveda Dipika; Reprint edition, English Translation on Charaka Samhita, Varanasi, Published by Chaukhambha Krishna Das Academy, 2016: 13. . *[Crossref][PubMed][Google Scholar]*