

Clinical Evaluation of Katibasti with Agnitaila in Gridhrasi (Sciatica): A Case Series

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ABSTRACT:

Gridhrasi, classified as a *Vataja Nanatmaja Vyadhi*, closely resembles Sciatica in modern science and presents with symptoms such as radiating low back pain, *Stambha*, *Ruk*, *Toda*, and *Spandana*. Though primarily *Vata*-dominant, *Kapha* involvement is also noted in certain cases, leading to subtypes—*Vataja* and *Vatakaphaja Gridhrasi*. *Snigdha Swedana* in the form of *Katibasti* is a widely practiced therapeutic procedure for *Vata*-related conditions of the lower back. The present study, titled "**Clinical Evaluation Of Katibasti With Agnitaila In Gridhrasi (Sciatica)**", aimed to evaluate the efficacy of *Agnitaila* in managing *Gridhrasi*.

Objectives: Primary: To see the therapeutic efficacy of *Katibasti* with *Agnitaila* through Clinical Gradings, VAS Scale, SLR Test & ODI Questionnaire method.

Secondary: To enhance the quality of life by reducing the pain, dependency & improving the functionality.

Methodology: A total of 15 patients were selected and *Katibasti* was administered for 45 minutes daily for 10 days using *Agnitaila*

Observations & Interpretation: The highest incidence was observed in the 36–45 age group (60%), with a slightly higher prevalence in males (53.3%). The majority of patients were IT professionals and homemakers, with *Vataja Gridhrasi* being more common (70%). Majority of the patients were having <1 year duration of illness.

Discussion & Results: Statistical analysis within the groups showed significant improvement in all parameters, with *Agnitaila* showing better results in relieving *Ruk*, *Stambha* and *Toda*, slightly less effective in reducing *Spandana* and *Gaurava*.

Conclusion: The findings suggest that *Katibasti* with *Agnitaila* is a safe and effective treatment for *Gridhrasi*, providing significant symptomatic relief without worsening *Kaphaja* symptoms.

Keywords: *Gridhrasi*; *Swedana*; *Katibasti*; *Agnitaila*

INTRODUCTION:

Increasing professional and social demands, faulty sitting posture, prolonged physical strain, sudden jerky movements during travel, and sports activities impose excessive stress on the lumbar spine. These factors play a major role in the development of low back pain, with or without radiation to the lower limb. Degenerative and progressive disorders of the lumbopelvic region further worsen this condition, making it a significant health concern, particularly among the working population¹.

Gridhrasi is a Shoola Pradhana Nanatmaja Vata Vyadhi², named after the vulture-like gait (*Gridhra*). It manifests as Vataja or Vatakaphaja³, characterized by radiating pain (*Kramatah Shoola*) from *Sphik* to *Pada*, along with *Stambha*, *Toda*, restricted movements, and *Sakthiskhepa Nigraha*⁴. The Vatakaphaja type presents with *Tandra*, *Gourava*, and *Aruchi*. Classical texts recommend Basti, Siravyadha, and Agnikarma.

Gridhrasi closely correlates with **Sciatica** in modern medicine, commonly resulting from lumbar disc pathology. Ayurvedic management emphasizes **Snehana, Swedana and Mridu Shodhana**⁵, with **Snigdha Ekanga Swedana** being especially effective in localized Vata-dominant conditions.

Katibasti⁶, a form of *Snehayukta Swedana* under *Bahiparimarjana Chikitsa*, combines the therapeutic effects of *Snehana* and *Swedana* to relieve pain, stiffness, and functional impairment of the lumbar region. The use of **Agnitaila**, endowed with *Ushna Veerya* and *Vatahara, Shoolahar* and *Stambhahara* properties, enhances the therapeutic outcome.

Thus, **Katibasti with Agnitaila** emerges as a rational and effective Ayurvedic intervention for the management of Gridhrasi, warranting systematic clinical evaluation.

DIAGNOSTIC CRITERIA:

- Presence of clinical signs & symptoms of *Vataja & Vatakaphaja Gridhrasi* includes *Kramatah ruk, muhurspandana in Sphik, Kati, Prishtha, Uru, Janu, Janga, & Pada* associated with *Stambha, Toda, Tandra, Gourava, Aruchi & Sakthikshepa nigraha*.
- Presence of symptoms of Sciatica that includes low back pain with radiating to buttocks, back of thigh, and downward into legs associated with numbness.
- Patients with positive physical signs / special test of Sciatica (SLR Test, Bragard's sign, Lasegue's sign & Femoral nerve stretch test) were taken for the study.

INCLUSION CRITERIA:

Patients fulfilling the diagnostic criteria of *Gridhrasi* (Sciatica).

- Age group 30-50 years.
- Patients with positive physical signs / special test of Sciatica.
- Patients who are voluntarily signed consent form are included for the study.

EXCLUSION CRITERIA:

- Congenital deformities of the lumbar spine
- Malignant conditions of the lumbar spine
- Infective, inflammatory diseases of lumbar spine
- Traumatic conditions of the lumbar spine like Compressive fractures, Quada equina compression
- AVN head of femur

- Pregnancy
- Any other systemic illness like uncontrolled DM, HTN etc which interfering the treatment
- Post-surgical conditions of lumbar spine are excluded from the study.

ASSESSMENT CRITERIA

Patients were evaluated both before and after the treatment using subjective and objective criteria based on the standard grading methods

The parameters assessed are:

<p>A. SUBJECTIVE PARAMETERS⁷</p> <ul style="list-style-type: none"> • <i>Ruk</i> (pain) – VAS Scale • <i>Stambha</i>(stiffness) • <i>Toda</i>(pricking sensation) • <i>Spandana</i>(throbbing/pulsation) • <i>Tandra</i> (drowsiness) • <i>Gourava</i> (heaviness) • <i>Aruchi</i> (anorexia) 	<p>B. OBJECTIVE CRITERIA</p> <ul style="list-style-type: none"> • Straight Leg Rising test • Functional disability by Oswestry Disability Index
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SLR TEST⁸

ADES	GREE
de 0	90 degree
de 1	75 degree
de 2	60 degree
de 3	45 degree
de 4	30 degree

ODI INDEX⁹

SCORE	DISABILITY LEVEL
0-4	No disability
5-14	Mild disability
15-24	Moderate disability
25-34	Severe disability
35-50	Completely disabled

VAS SCALE¹⁰

SCORE	GRADES	SEVERITY
0	0	No pain
1	1-3	Mild pain
2	4-6	Moderate pain
3	7-9	Severe pain
4	10	Worst pain

OBSREVATIONS :

Case No.	Age	Gender	Religion	Occupation	SES	Diet	Chronicity	Diagnosis	Prakruti	Sara	Samhanana	Satva	Satmya	Pramana	Aharashakti	Vyayamashakti			
A1	45	F	Hindu	Homemaker	MC	MIX	10M	V	VK	M	M	M	M	M	M	M		DIAGNOSIS	PRAKRUTI
A2	38	M	Muslim	Farmer	MC	MIX	8M	VK	VK	P	M	P	M	P	M	M		V-vataja gridhrasi	VP-vatapitta
A3	40	F	Hindu	Teacher	UMC	MIX	1M	VK	KV	M	M	M	M	M	P	M		VK-vatakaphajagridhrasi	VK- vatakapha
A4	40	M	Hindu	IT	UMC	VEG	6M	VK	VK	M	M	M	M	M	P	M			
A5	50	M	Hindu	IT	UMC	VEG	2Y	VK	VP	P	M	P	M	A	P	M		STATUS	
A6	40	M	Hindu	IT	MC	VEG	4M	V	VPK	M	M	M	M	M	M	M		UMC-uppermiddleclass	
A7	29	F	Hindu	Homemaker	UMC	VEG	8M	VK	PK	P	P	P	M	M	P	M		LMC-lowermiddle class	
A8	44	F	Hindu	Homemaker	MC	MIX	6M	V	VK	M	M	M	M	M	P	M		MC-middle class	
A9	37	M	Hindu	IT	MC	MIX	1Y	V	V	M	M	M	M	M	M	M			
A10	34	F	Hindu	Teacher	MC	MIX	7M	V	VP	M	M	M	M	M	M	M		VYAYAMASHAKTI	
A11	38	F	Hindu	Homemaker	LMC	MIX	5M	V	V	M	M	M	M	A	M	M		P-pravara	
A12	43	F	Hindu	IT	MC	MIX	3M	V	VK	M	M	M	M	A	P	M		M-madyama	
A13	46	F	Muslim	Homemaker	UMC	MIX	1.5Y	V	VKP	M	M	M	M	M	M	A		A-avara	
A14	38	M	Hindu	IT	UMC	MIX	3M	V	VP	P	M	M	M	M	P	M			
A15	49	M	Hindu	Driver	MC	VEG	9M	V	VK	P	M	M	M	M	P	M		AT-after treatment	RT-Right
																		BT-before treatment	LT-Left

Case No.	SUBJECTIVE PARAMETERS										OBJECTIVE PARAMETERS				VAS SCALE	SLR TEST		
	Ruk (VAS)		Stambha		Toda		Spandana		Gourava		SLR TEST		ODI INDEX					
	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT				
A1	3	1	3	1	3	0	2	0	0	0	RT-4, LT-3	RT-2, LT-2	35	12				
A2	3	2	3	2	4	2	3	2	3	1	RT-4, LT-4	RT-3, LT-3	42	22	grade 0(0)	No pain	Grade 0	75-90 degree
A3	3	1	3	1	3	1	3	0	4	1	LT-4	LT-1	36	8	grade1(1 to 3)	Mild pain	Grade 1	60-75 degree
A4	2	1	4	1	3	1	0	0	3	1	RT-3	RT-1	31	5	grade2(4 to 6)	Moderate pain	Grade 2	45-60 degree
A5	2	1	2	0	3	1	0	0	3	0	RT-2	RT-0	28	4	grade3(7 to 9)	Severe pain	Grade 3	30-45 degree
A6	3	1	4	1	3	0	0	0	0	0	RT-3	RT-1	33	7	grade4(10)	Worst pain	Grade 4	15-30 degree
A7	3	1	3	0	0	0	3	0	3	0	LT-2	LT-0	26	3				
A8	3	1	3	1	2	0	0	0	2	0	RT-3, LT-2	RT-1, LT-1	26	5				
A9	2	1	0	0	3	1	3	1	0	0	RT-2	RT-0	26	5				
A10	3	1	3	1	0	0	0	0	4	1	LT-4	LT-2	34	9				
A11	3	1	0	0	3	0	0	0	0	0	RT-2	RT-0	26	4				
A12	3	1	0	0	3	1	2	0	0	0	RT-3	RT-1	30	8				
A13	3	1	3	1	3	1	0	0	0	0	RT-2	RT-0	28	6				
A14	3	1	3	0	3	0	0	0	0	0	RT-3	RT-1	29	10				
A15	3	1	0	0	3	1	3	2	0	0	LT-4	LT-1	33	8				

OSWESTRY DISABILITY INDEX	
SCORE	DISABILITY LEVEL
0-4	No disability
5-14	Mild disability
15-24	Moderate disability
25-34	Severe disability
35-50	Completely disabled

RESULTS:

DISTRIBUTION OF SUBJECTIVE DATA: Following tables presents the effect of *Katibasti* with *Agnitaila* on clinical gradings of *Gridhrasi* symptoms, namely *Ruk* (pain), *Stambha* (stiffness), *Toda* (pricking pain), *Spandana* (twitching), and *Gourava* (heaviness).

Symptom	SCORE	BT	AT
<i>Ruk</i> (VAS)	0	0	0
	1	0	15
	2	3	0
	3	12	0
	4	0	0
<i>Stambha</i>	0	2	8
	1	0	6
	2	1	1
	3	8	0
	4	2	0
<i>Toda</i>	0	2	7
	1	0	7
	2	1	1
	3	11	0
	4	1	0
<i>Spandana</i>	0	8	12
	1	0	1
	2	2	2
	3	5	0
	4	0	0
<i>Gourava</i>	0	8	11
	1	0	4
	2	1	0
	3	4	0
	4	2	0

Symptoms	% Improvement	Z test	P-Value
<i>Ruk</i> (VAS)	64%	-0.0170	0.865
<i>Stambha</i>	71%	-0.9617	0.0337
<i>Toda</i>	68%	0.7861	0.0429
<i>Spandana</i>	36%	-1.099	0.0271
<i>Gourava</i>	39%	-0.7693	0.441

There was a marked shift of scores from higher grades (3–2) Before treatment to lower grades (0–1) After treatment, indicating significant symptomatic improvement.

- For *Ruk* the majority of patients are improved from grade 3 at baseline to grade 1 post-treatment, with complete absence of grade 3 cases after therapy.
- *Stambha* & *Toda* showed highly significant improvements ($p < 0.01$), as seen by reduction in grade 3 cases to nearly zero after treatment.
- *Spandana*, which was present in several patients at baseline, showed a remarkable reduction with most patients attaining grade 0 after treatment ($p < 0.01$).
- *Gourava* also reduced substantially, with more patients shifting to grade 0 after treatment in both groups.

Overall, *Katibasti* with *Agnitaila* effect in reducing clinical symptoms, with p-values showing statistical significance for most parameters, suggesting that therapeutic benefit in Gridhrasi.

DISTRUBUTION OF DATA W.S.R TO SLR TEST:

SLR Angle	BT n	AT n	% Change	χ^2	P-Value
<30°	5	0	100%	10	0.0067
30–60°	10	10	0%		
>60°	0	5	100%		

This shows remarkable improvement in SLR, with all patients achieving >60° after treatment. The change was statistically significant ($p < 0.01$) suggesting the therapy/intervention used in was highly effective.

EFFECT OF KATIBASTI ON QUALITY OF LIFE(Secondary Outcomes):

Outcome	AT	Z test	P-Value
Pain Relief (VAS)	53%	-0.0548	0.5601
Functional Activity (SLR)	74%	-2.3046	0.0214
Dependency (ODI)	77%	-2.2649	0.0238

This shows significantly greater reduction in disability index (75%, $p = 0.003$), making its treatment more effective in restoring overall functional independence.

DISCUSSION:

Gridhrasi is described by Acharya Charaka under the 80 Nanatmaja Vatavyadhis and is classified as a Shoola Pradhana Vatavyadhi. The etiological factors include Viprakrishta Nidana such as improper diet, faulty posture, excessive exertion, and Sannikrishta Nidana like trauma, heavy lifting, and jerky movements, leading to Vata Prakopa and Dhatu Kshaya. Injury to Kukundara and Nitamba Marma contributes to sensory and motor impairment of the lower limbs. The Samprapti follows Vatavyadhi pathology, wherein Abhighata causes local Dhatu Dushti and Dhatu Kshaya results in aggravated Vata localizing in the Kati Pradesha. Acharya Sushruta emphasizes Kandara involvement, producing the characteristic vulture-like gait. Clinically, Gridhrasi presents with Ruk, Stambha, Muhurspandana, Sakthikshepa Nigraha, and Deha Pravakrata, while Gaurava, Tandra, and Arochaka are seen in Vata-Kaphaja type. The condition closely correlates with sciatica caused by intervertebral disc pathology, where disc degeneration and nerve root compression result in radiating pain and functional disability. Swedana is indicated for the alleviation of *Stambha*, *Gaurava*, and *Sheeta* and is employed in *Poorvakarma*, *Samshamana* and *Paschatkarma*. It improves circulation, induces perspiration, and

relieves pain and stiffness in Gridhrasi. Classical texts describe 13 types of Swedana, broadly classified by Acharya Sushruta into *Tapa*, *Ushma*, *Drava*, and *Upanaha*. Swedana acts through *Stambhaghata*, *Gauravaghata*, *Sheetaghata*, and *Swedakarakata*, thereby pacifying Vata and Kapha, relieving *Srotorodha*, enhancing *Agni*, and improving joint mobility.

Katibasti is a localized *Snigdha Ekaanga Sweda* performed by retaining warm medicated oil over the *Kati Pradesha*. Its effect is attributed to transdermal absorption through *Romakupa* and *Swedavaha Srotas* facilitated by *Bhrajaka Pitta*, along with the *Ushna* and *Snigdha* properties of the oil. In Gridhrasi due to lumbar disc pathology, Katibasti pacifies aggravated Vata or Vata-Kapha, relaxes *Snayu*, reduces *Shoola* and *Stambha*, improves local circulation, and aids *Samprapti Vighatana*.

Agnitaila is a proprietary Ayurvedic formulation containing *Tila*, *Punnaga*, *Nirgundi*, *Lavanga*, *Maricha*, *Lashuna*, and *Sarshapa*. The majority of these drugs possess *Laghu* and *Ruksha Guna*, *Katu* and *Tikta Rasa*, *Ushna Veerya*, and *Katu Vipaka*, which facilitate deeper penetration through *Swedana* due to their *Prabhava*. These properties collectively impart *Vatahara*, *Shoolahara*, *Stambhahara*, and *Kaphahara* actions, making Agnitaila effective in the management of Gridhrasi.

CONCLUSION:

Snigdha Swedana is pivotal in the management of Vata Vyadhi, with Katibasti being especially effective in Vata-dominant disorders of the lower back. Gridhrasi, a Vataja Nanatmaja Vyadhi, presents with *Stambha*, *Ruk*, *Toda*, and *Spandana*, and is classified into Vataja and Vata-Kaphaja types, with Kapha playing a secondary role in its pathogenesis. Considering the Vata-Kapha Shamana properties of Agnitaila. Hence, the present study was undertaken to evaluate therapeutic efficacy through Snigdha Swedana in the management of Gridhrasi (Sciatica).

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