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SYSTEMATIC REVIEW

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SYSTEMATIC REVIEW ON EFFICACY OF DIFFERENT NIRUHA BASTI'S IN GRIDHRASI (SCIATICA).

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ABSTRACT

Background: Gridhrasi (Sciatica) is the most complex and prominent diseases among 80 types of Nanatmaja Vyadhi's. Gridhrasi is a painful condition in which a person cannot sit or walk properly, which interferes with their normal activities. Even though so much research was conducted on this disease, the search for a better intervention is still relevant. In the past, different studies are carried out at various centers across the country to evaluate the clinical efficacy of various Basti preparations in Gridhrasi. Present review is an effort to analyse the efficacy of different Basti combinations in treatment of Gridhrasi. Objective: To review the articles published on Gridhrasi for setting guidelines for further research and improving the healthcare practice. Methods and materials: The articles are screened from Google Scholar and PubMed. Google Scholar from 2015 to 2022 and PubMed from 2014 to 2022 were searched using a strategy designed to optimize the retrieval of CTs, Case Series, and Case Reports. The search terms used were Gridhrasi, Vaitarana Basti, Erandamuladi Niruha Basti, Vrishyadi Niruha Basti, Panchatiktaka Ksheera Basti, Mustadi Yapana Basti. Conclusion: The review depicts that most of the studies lack the use of standard scales for the assessment of efficacy. We suggest standardization of procedures with standard parameters like the Basti mixing method, method of Basti administration etc.

KEYWORDS: Gridhrasi, Vaitarana Basti, Erandamuladi Niruha Basti, Vrishyadi Niruha Basti, Panchatiktaka Ksheera Basti, Mustadi Yapana Basti

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INTRODUCTION:

Gridhrasi is the most complex and prominent diseases among 80 types of Nanatmaja Vyadhi's. Gridhrasi is a painful condition in which a person cannot sit or walk properly, which interferes with their normal activities. Almost all the signs and symptoms of Gridhrasi resemble the condition of sciatica as described in modern texts.

With changing lifestyle, back pain is now increasing day by day in every age group. A large study reported an incidence of 28.0 episodes per 1,000 person/years and 11.6 cases per 1,000 person/years for sciatica. Back pain affects men slightly more than women and is more common in the working population, with the highest incidence among those aged 25-64. There is no specific treatment for sciatica in modern medicine.

Basti Karma is considered as most important treatment for many ailments according to the classical literature of Ayurveda. It is the best remedy for all types of Vata Vyadhi's. The desired effect of Basti depends on several determinants like Bastidana Kala, mixing method of Basti Dravya, method of administration of Basti, Dosage, Medications etc.

Many articles have been published for understanding and managing *Gridhrasi*.

RESULTS:

Searching and regularly reviewing such articles gives better results by understanding the available evidence. A detailed analysis of latest studies advances in clinical practice helps to understand the limitations and shows the rarely explored area of research. so here is the article review has been done to gain in-depth knowledge of the *Basti Karma* and to arrive at an appropriate treatment protocol in *Gridhrasi*.

AIMS AND OBJECTIVES:

To review the articles published on *Gridhrasi* for setting guidelines for further research and improving healthcare practices.

METHODS:

The articles are screened from Google Scholar and PubMed. Google Scholar from 2015 to 2022 and PubMed from 2014 to 2022 were searched using a strategy designed to optimize the retrieval of CTs, Case Series, and Case The search terms used Reports. were Gridhrasi, Vaitarana Basti, Erandamuladi Niruha Basti, Vrishyadi Niruha Basti, Panchatiktaka Ksheera Basti, Mustadi Yapana Basti.

Table No. 1. General Details of study

Name of <i>Basti</i>	Type of	Sample	Type of study	Scale	Observation on paramete	ers
	article	size			Subjective	Objective
Panchatikta Ksheera Basti ¹	СТ	30	Single arm study	Verbal dating scale, Visual analogue scale	Pain	Tenderness, SLR test, Bragada's sign
Mustadiyapana Yoga Basti ²	СТ	30	Two arm study	-	Pain	SLR test
Vaitarana Basti ³	СТ	20	Observational study	-	Pain, Pricking sensation, stiffness, Catching type of pain, twitching sensation, drowsiness, Gourava, Aruchi	SLR test
Bhrimhana Ksheera Basti ⁴	СТ	15	Two arm study	-	Pain, stiffness,	SLR test
Dashamula Kwata Niruha Basti ⁵	СТ	60	Two arm study	-	Pain, stiffness, pulsation, <i>Aruchi</i>	SLR test
Erandamula Ksheera Basti ⁶		10	Single arm study	-	Pain, stiffness, numbness	SLR
Dashamula Niruha Basti ⁷	СТ	50	Two arm study	-	Pain, pricking sensation, stiffness, twitching sensation	SLR Bragard's sign
Vrishyadi Niruha Basti ⁸	СТ	38	Single arm study	-	Pain, pricking sensation, numbness, twitching sensation, anorexia, drowsiness, <i>Gourava</i>	SLR test, Walking distance

Vrishyadi Niruha	СТ	60	Two arm study	-	Pain, pricking sensation,	SLR test,
Basti ⁹					numbness, twitching	Walking
					sensation, anorexia,	distance
					drowsiness, Gourava	
Vaitarana Basti ¹⁰	СТ	40	Two arm study	-	Pain, pricking sensation,	Tenderness,
					numbness, twitching	SLR test
					sensation, anorexia,	
					drowsiness, Gourava	
Erandamooladi	RCT	86	Two arm study	-	Pain, pricking sensation,	SLR test,
Niruha Basti ¹¹					numbness, twitching	Walking
					sensation, anorexia,	distance,
					drowsiness, gourava	
Karma Basti ¹²	СТ	60	Two arm study	-	Pain, pricking sensation,	SLR test
					numbness, twitching	
					sensation,	
Erandamooladi	СТ	10	Single arm study	-	Pain, stiffness, pricking	SLR test
Niruha Basti ¹³					sensation, fasciculation,	
					anorexia, heaviness,	Distance of
						walking
Erandmoola	СТ	10	Observational	-	Pain, stiffness, pricking	SLR test
Niruha Basti ¹⁴			study		sensation, twitching	
					sensation,	
Vajigandhadi	СТ	40	Two arm study	Verbal dating	Pain	Tenderness,
Taila Kala Basti ¹⁵			with <i>Agnikarma</i>	scale, visual		Bragard's sign
				analogue		
				scale		

(CT-Clinical Trial, RCT- Randomized clinical trial)

Table No. 2 Efficacy of Basti on Subjective and Objective parameters of Gridhrasi

Basti	Pain		Tende	rness	Stiffness	i	SLR te	st	Walk dista	_	Braga	ırd's sign
	ВТ	AT	ВТ	AT	ВТ	AT	ВТ	AT	ВТ	AT	ВТ	AT
Panchatikta Ksheera Basti ¹	-	88.37%	-	47.22%	-	-	-	47.22%	-	-	-	47.22%
Mustadi Yapana Basti ²	-	-	-	-	-	-	-	-	-	-	-	-
Vaitarana Basti ³	-	HS	-	HS	-	HS	-	HS	-	-	-	HS

Bhrihmana	-	55.17%	-	-	-	70.86%	-	54.71%	-	-	-	-
Ksheera Basti ⁴												
Dashamula	-	HS	-	-	-	HS	-	-	-	-	-	-
Kwata Niruha												
Basti ⁵												
Erandamuladi	-	-	-	-	-	-	1%	-	-	-	-	-
Ksheera Basti ⁶												
Dashamula	-	-	-	68% &	-	-	-	-	-	-	-	92%
Niruha Basti ⁷				76%								
Vrishadi Niruha	66.67%	ES	-	-	78.33%	ES	-	ES	-	-	-	-
Basti ⁸												
Vrishadi Niruha	-	69%	-	-	-	69.49%	-	63.64%	-	75.90%	-	-
Basti ⁹												
Vaitarana	100%	26.09%	100%	36.59%	82.5%	14.94%	100%	24%	-	-	-	-
Basti ¹⁰												
Erandamooladi	-	NS	-	-	-	S	-	NS	-	S	-	-
Niruha Basti ¹¹												
Karma Basti ¹²	100%	50.5%	-	-	100%	58.85%	100%	50.5%	-	-	-	-
Erandamooladi	-	58.3%	-	-	-	65.3%	-	44%	-	61%	-	-
Niruha Basti ¹³												
Erandmoola	-	HS	-	-	-	HS	-	-	-	-	-	-
Niruha Basti ¹⁴												
Vajigandhadi	-	88.37%	-	47.22%	-	-	-	47.22%	-	-	-	47.22%
Taila Kala												
Basti ¹⁵												

(HS- Highly significant, ES- Effectively significant, NS- Not significant S-Significant)

Table No. 3 Efficacy of Basti on Subjective parameters of Gridhrasi

Type of <i>Basti</i>		Pricking sensation		Numbness		Twitching		Anorexia Drowsi		siness Heavines		ness
	ВТ	AT	ВТ	AT	ВТ	AT	ВТ	AT	ВТ	AT	ВТ	AT
Panchatikta Ksheera Basti ¹	-	-	-	-	-	-	-	-	-	-	-	-
Mustadi Yapana Basti ²	-	-	-	-	-	-	-	-	-	-	-	-
Vaitarana Basti³	-	-	-	-	-	-	-	-	-	-	-	-
Bhrihmana Ksheera Basti ⁴	-	-	-	100%	-	-	-	-	-	-	-	-

5 / / /	I	1	1			1	1			Τ	1	
Dashamula Kwata	-	-	-	-	-	HS	-	HS	-	-	-	-
Niruha Basti ⁵												
Erandamuladi	-	-	-	-	-	-	-	-	-	-	-	-
Ksheera Basti ⁶												
Dashamula Niruha	-	-	-	-	-	-	-	-	-	-	-	-
Basti ⁷												
Vrishadi Niruha	-	ES	78.3	ES	48.	ES	51.6	ES	26.67	ES	36.6	ES
Basti ⁸			3%		33%		7%		%		7%	
Vrishadi Niruha	-	78.9	-	69.49	-	85.71%	-	79.17	-	90%	-	86.67
Basti ⁹		5%		%				%				%
Vaitarana Basti ¹⁰	55%	76.5	-	-	52.	81.81%	22.5	71.42	-	100%	15%	87.15
		5%			5%		%	%				%
Erandamooladi	-	NS	-	S	-	S	-	S	-	S	-	S
Niruha Basti ¹¹												
Karma Basti ¹²	100	55%	100	58.8%	55.	11.12%	-	-	-	-	-	-
	%		%		88%							
Erandamooladi	-	60%	-	50%	-	-	-	66.6%	-	47.8%	-	60.8%
Niruha Basti ¹³												
Eranda moola	-	HS	-	-	-	HS	-	-	-	-	-	-
Nirhua Basti ¹⁴												
Vajigandhadi Taila	-	-	-	-	-	-	-	-	-	-	-	-
Kala Basti ¹⁵												

Table No. 4 Efficacy of Basti on Objective parameters (Verbal dating scale and VAS)

Name of <i>Basti</i>	Verba	l dating scale	Visual analog scale		
	ВТ	AT	ВТ	AT	
Panchatikta Ksheera Basti¹	-	88.37%	-	88.37%	
Vajigandhadi Taila Kala Basti ¹⁵	-	88.37%	-	88.37%	

Table No. 5 Data related Basti Karma

Name of <i>Basti</i>	Dose	Mixing method	Average Retension time	Anuvasana Basti	Method of <i>Basti</i>	Samyak Nirudha Laxana	Duration of <i>Basti</i>	Pattern of <i>Basti</i>
Panchatikta	260ml	Classical	-	-	-	-	16 days	-

Ksheera Basti¹		method						
Mustadi Yapana Basti ²	-	-	-	-	-	-	-	-
Vaitarana Basti³	406 ml	Khalwa	-	Dhanwantaram	Plastic	-	8 days	Yoga
		Yantra		Taila 30ml	enema			Basti
					can			
					method			
Bhrihmana	403ml	Wooden	-	-	Enema	-	8 days	-
Ksheera Basti⁴		churner			can			
					method			
Dashamula	960 ml	-	-	Mahanarayana	-	-	-	-
Kwata Niruha				<i>Taila</i> 60ml				
Basti ⁵								
Erandamoola	436ml	-	-	Murchita Tila	-	-	8 days	Yoga
Ksheera Basti ⁶				Taila				Basti
Dashamula	_	-	-	Ksheerabala	_	_	8 days	Yoga
Niruha Basti ⁷				<i>Taila</i> and			,	Basti
				Saindhavadya				
				Taila				
Vrishadi Niruha	750ml	-	_	Vajigandhadi	-	_	30 days	Karma
Basti ⁸	7301111			Anuvasana			30 days	Basti
busti	1000ml			Basti 80ml-				Busti
	1000ml							
				120ml				
Vrishadi Niruha	750ml	-	-	Vajigandhadi	-	-	18 days	-
Basti ⁹	_			Anuvasana				
	1000ml			Basti 100ml-				
				150ml				
Vaitarana Basti ¹⁰	385 ml	-	-	-	-	-	16 days	-
Erandamooladi	585 ml	-	3.68	Sahacharadi	-	-	15 days	Kala
Niruha Basti ¹¹			minutes	Taila 140ml				Basti
Karma Basti ¹²	-	-	-	-	-	-	-	-
Erandamooladi	560 ml	-	-	Sahacharadi	-	-	8 days	Yoga
Niruha Basti ¹³				Taila 75 ml				Basti

Erandamoola	656 ml	-	-	Murchita Taila	Plastic	-	-	-
Niruha Basti ¹⁴				80ml	enema			
					can			
Vajigandhadi	60ml	-	-	-	-	-	-	Kala
Taila Kala Basti ¹⁵								Basti

Table No. 6 Type of Basti Based on Potency

S.no.	Type of Basti	Numbers
1	Mridu	5
2	Madhyama	7
3	Teekshna	3

DISCUSSION

Conceptual understanding of Samprapti of Gridhrasi:

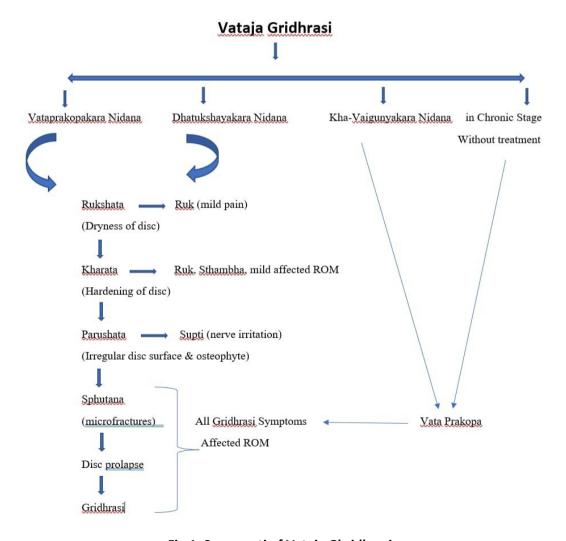


Fig.1: Samprapti of Vataja Ghridhrasi

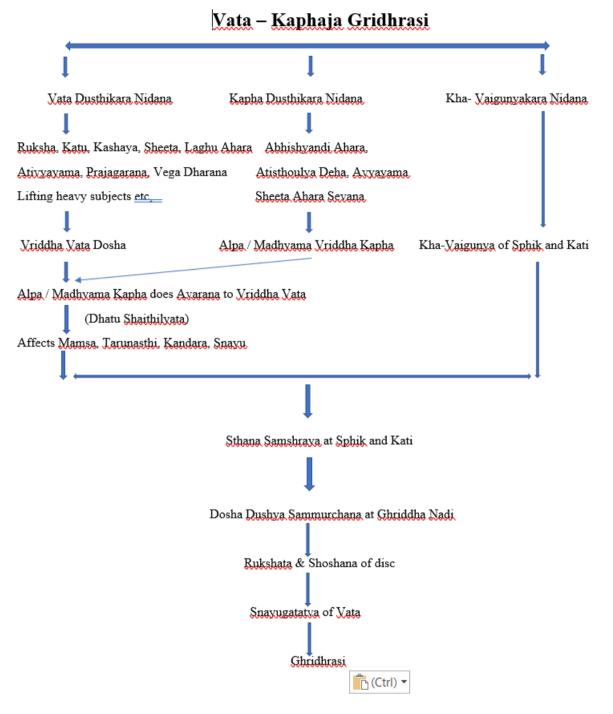


Fig. 2: Samprapti of Vata-Kaphaja Ghridhrasi

Out of 15 reviewed articles, 14 were clinical trials, and one article was randomized controlled trial. Among 15 articles, 5 were single arm studies, 8 were double arm studies, 2 were observational studies.

Table No. 7 Sample size

Sample size	Number of studies
≤20	5
≥21 ≤40	5
≥41 ≤60	4
≥61 ≤80	0
≥81 ≤100	1

Pain Assessment Scales used

In only two studies verbal dating scale and visual analogue scale were used.

Subjective Parameter

Pain is considered as a subjective parameter in all 15 studies. Pricking sensation was considered as subjective parameter in 9 studies, stiffness in 5 studies, twitching sensation in 8 studies, drowsiness in 5 studies, *Gourava* in 6 studies, *Aruchi* in 7 studies.

Objective Parameter

SLR Test is considered as objective parameter in 14 studies, Bragard's sign was considered as objective parameter in 3 studies, Tenderness in 3 studies, walking distance in 4 studies.

Most commonly used Basti's:

Among 15 Studies, In 2 Studies *Vaitarana Basti*, in 2 studies *Erandamooladi Niruha Basti* and in 2 studies *Vrishyadi Niruha Basti* was used.

Table No. 8 Dosage of Niruha Basti

Dosage	Type of		
Minimum	Maximum	Average	Basti
dose	dose	dose	
260ml	-	-	Pancha Tikta
			Ksheera
			Basti
-	-	750ml –	Vrishadi
		1000nl	Niruha Basti

-	-	395.5 ml	Vaitarana
			Basti
-	-	572.5 ml	Erandmoola
			di Niruha
			Basti

Mixing method- only 2 studies reported the mixing method i.e., by *Khalva Yantra* and by wooden churner. In only 1 trial reported retention time was reported and in only 2 trials *Basti* administration method was reported and *Samyak Nirudha Lakshana's* were not reported in any trial among 15 reviewed articles

Table No.9 Schedule of Basti

Schedule of Basti	Number of Studies
8 days	4
15 days	1
16 days	2
18 days	1
30 days	1

Most commonly used *Sneha* for *Niruha* was *Murchita Tila Taila* and in all studies *Anuvasana Basti* was administered with different *Sneha*'s. After analyzing the 15 articles based on improvement in subjective and objective parameters *Vaitarana Basti, Bhrimhana Ksheera Basti, Dashamula Niruha Basti, Vrishadi Niruha Basti* were given statistically significant results.

A lot of research is being carried out on single herbs, poly-herbal formulations or herbo-mineral compounds, pharmaceutical products, combined treatments, and disease

specific therapies. However, the path remains uncertain in terms of standardization of procedures along with safety and efficacy for universal acceptance. There is increasing interest and eagerness to look for solutions from Ayurveda Medicine to treat chronic and difficult-to-cure diseases. There is a concern about the quality and dependability of Ayurvedic therapies. Validation of procedures and their safety aspects are crucial for acceptance of specific therapeutic claims.

The efficacy of *Basti Karma* may vary according to many reasons like method of administration, *Pratyagaman Kala*, drugs selected, condition of the disease in which *Basti* is given, age of the patient, *Matra* and quality of *Bastidravya*, season and time of administration, skill of the person who is administering the *Basti* etc. Among 15 studies which were screened to evaluate the clinical efficacy of various *Basti* preparations in *Gridhrasi* had shown different outcomes, because of lack of selection of standardized parameters.

CONCLUSION:

It is believed that drifting away from the fundamental principles and concepts had a negative impact and therefore integration at the basic level of development of hypothesis of research is felt necessary. Research as part of learning and essential postgraduate training is expected to contribute towards overall growth of the sector. A Standard protocol should be followed to conduct the trials as efficacy of procedures depends on many factors. The review depicts that most of the studies lack the use of standard scales for the assessment of efficacy. We suggest standardization of procedures with standard parameters like the *Basti mixing method*, method of Basti administration etc.

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