

A COMPARATIVE CLINICAL STUDY TO EVALUATE EFFICACY OF MULAKADI TAILA ABHYANGA AND SHAMAN SNEHA IN GRIDHRASI W.S.R TO SCIATICA

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Abstract: Low back ache has been cited as the second most frequent reason to visit a physician for a chronic condition. The fifth most common cause for hospitalization and the third most frequent reason for a surgical procedure. The annual prevalence of low back ache is 15-40% with a point prevalence of approximate 80%³. Life style has a major role in the causation of plethora of illness, and the *Gridhrasi* leads the list. The modern era decisively demands speed and accuracy in once aptitude as well as activity for mere survival. To cope up with the situation each and every person in the population at large ought to face hectic competitive stressful life, Irregular food habits, suppression of natural urges, lack of proper sleep and less time for relaxation are the enforced part of present life and also these are the factors favoring ill health. Somewhere within the core of this lifestyle prevails the unique cause of *Gridhrasi*, which is also known by the name Sciatica in the realm of medicine.

KEY WORDS: *Gridhrasi, Sthanik Abhyanga, Shamana Sneha, Mulakadi Taila.*

INTRODUCTION

Panchakarma is a unique therapeutic procedure because of its preventive, promotive, prophylactic and rejuvenative properties as well as providing a radical cure.^{1, 2}. The prime cause of *gridhrasi* is vitiated *vata*. Sometimes *kapha* may be associated with vitiated *vata*. Various etiological

factors for the derangement of *vata* have been mentioned such as excessive walking, exercise, sleeping on uncomfortable bed, with holding of natural urges, trauma to vital organs, jerky vehicles etc. All these factors lead to an increasing incidence of '*Gridhrasi*'. It is having following symptoms *sphik purva kati prushtha*

ruja janu, jangha, pada, stambana, toda, spandana. There are two types of *Gridhrasi*: *Vataja Gridhrasi* and *Vatakaphaja Gridhrasi*.

A study of 295 Finnish concrete workers aged 15-64yrs revealed that 42% of men and women as many as 60% of men aged 45yrs or older reported having 'Sciatica' when interviewed approximately 5yrs later, the lifetime prevalence had increase from 42% to 59%³. When we analyze the conditions which precipitate 'Gridhrasi' it is known that any *abhighatha* affecting the lower part of the spinal cord can produce this disease. But even mild stress induced in the above part can make considerable alterations in the functions of locomotor system. This may predispose the condition similar to 'Gridhrasi' in due course. The aim of treatment of 'Sciatica' is reduction in sign and symptoms, prevention of disability in locomotor system.

The formulation *Mulakadi Taila* has mentioned by *Caraka* in *vata vyadhi* and *Vangsen* mentions the use of *Mulakadi Taila* in *Gridhrasi*.

Hence in the present study "A Comparative Clinical Study to Evaluate the Effect of Mulkadi

Taila Abhyanga and Shamana Saneha in Gridhrasi W.R.S To Sciatica." an effort is made to evaluate effect of *Mulakadi Taila Abhyanga* and *Shamana Sneha* in 'Gridhrasi'.

MATERIAL & METHODS

30 Patients aged between 20 and 60 years suffering from *Lakshanas* of *Gridhrasi* were Patients are selected from OPD and IPD of Panchakarma and S.V.M. A.M.C and Hospital, Ilkal after fulfilling the inclusion and exclusion criteria and divided in 2 groups of 15 patients each.

INCLUSION CRITERIA

- The patients with symptoms *sphik purva Kati, Prushtha ruja, uru, Janu, Janga, Pada*
- *Stambana*
- *Toda*
- *Spandana*
- Tenderness along the course of sciatic nerve
- Patient fit for *Abhyanga* & *Shamana sneha*
- Patients between the age of 20-60 yrs are selected with irrespective of sex
- Patient with S.L.R test positive till 10°-60°³

EXCLUSION CRITERIA

- Pregnant women and lactating mother

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- Patients diagnosed with Severe *Agnimandya*
- Tuberculosis of spine
- Prolepses of intervertebral disc which is recommended for surgery
- Patient with Ca of spine
- Patient unfit for *Abhyanga* and *Shamana Sneha*
- Patient with other severe systemic metabolic disorders like Diabetes Mellitus, Hyperthyroidism, Cardiac disease, Hypertension and *Amlapitta* also
- Degenerative disorders with marked deformity

DIAGNOSTIC CRITERIA

On the basis of signs & Symptoms:

- *Sphik purva kati prushta ruja, uru, janu, jangha and pada.*
- *Toda, Spandana, in kati, prushta, uru, janu, Jangha and Pada*
- Straight leg raising (SLR) Test being positive
- *Stambha* of affected *Sakthi*

STUDY DESIGN

This study was conducted as a prospective, single centre and open Label trial with pre-set and Post-set design. Patients diagnosed were allocated number were given and divided in 2 groups. Both groups will

receive *Deepana Pachana chikitsa* with *Panchakola churna* according to need.

Group A– *Sthanika Abhyanga* with *Mulakadi Taila*.

Group B– *Shamana Sneha* with *Mulakadi Taila*.

After 8 days of procedure both groups will be given placebo capsules 16 days.

Follow up will be done on 8th days & 16th days after treatment.

Therefore total duration of treatment will be:

- *Sthanika Abhyanga* (Group A) and *Shaman Sneha* (Group B) 8days
- First follow up (after treatment) 8days
- Second follow up (after 1st follow up) 8days
- So Total Duration of the study will be 24days

DATA COLLECTION AND CRITERIA OF ANALYSING RESULTS

All data were collected for analysis on before intervention, after the end of intervention and follow-up. The improvement was assessed mainly based on relief in the chief symptoms of the disease.

SUBJECTIVE

The patients with symptoms *sphik purva Kati, Prushtha ruja, uru,*

Janu, Janga, Pada, Stambana, Toda, Spandana, Tenderness along the course of sciatic nerve

OBJECTIVE

Movement of lumbar spine (FF), (RLF), Walking Time, Visual analogue

scale are effective. In group B *Ruk*, Movement of lumbar Spine (FF), (RLF), (LLF), Walking Time & Visual Analogue scale are effective. In inferential stat (comparison of both groups)

Table No: 1 Showing Grading for Subjective Parameter

Nil/absent	0
Mild (discomforting but can do his/her work)	1
Moderate (Distressing, I can do usual activity but I can't ignore it.)	2
Severe (forced to stop work, but no need to take medicine)	3
Very severe (forced to take medicine and rest)	4

DATA ANALYSIS

Statistical analysis was done after accessing the pre-test & post-test data's of Subjective and Objective parameters. $P < 0.001$ was considered significant and statistically analysed data were pictorially presented in double bar diagram

OBSERVATION AND RESULTS

All of 30 patients completed the therapy and follow up period. So, in this study result were assessed on all 30 patients. The results mentioned in dissertation within groups and with comparison of each other by using Annova Test.

In Group A In group A *Sthamba, Ruk*, movement of lumbar spine (FF), (RLF), Walking Time, Visual analogue scale are effective.

In Group B In group B *Ruk*, Movement of lumbar Spine (FF), (RLF), (LLF), Walking Time & Visual Analogue scale are effective.

In inferential stat (comparison of both groups) total 9 symptoms (subjective and objective) were statistically significant found. Overall Group B (*Shamana Sneha*) has found more effective.

Table No 2 Distribution of Patients by Incidence of Stambha

	STHAMBA											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	0	0	0	0	0	0	3	20	3	20	3	20
1	0	0	9	60	14	93.3	0	0	6	40	6	40
2	9	60	5	33.3	0	0	6	40	6	40	6	40
3	6	40	1	06.7	1	06.7	6	40	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	20.79						3.862					
P Value	0.0001 Significant						0.0289 not significant					
F Value	7.101											
P Value	< 0.0001											

When compared between the group A and B a highly significant statistical difference was Observed, (< 0.0001) which indicates that the improvement in Stambha is not by chance.

Table No 3 Distribution of Patients by Incidence of Ruk.

	RUK											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	4	26.6	7	46.6	0	0	2	13.3	3	20
2	4	26.6	8	53.3	7	46.6	2	13.3	9	60	8	53.3
3	8	53.3	3	20	1	6.6	5	33.3	4	26.6	4	26.6
4	3	20	0	0	0	0	8	53.3	0	0	0	0
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 15.58						f 17.55					
P Value	p=0.0001 significant						p 0.0001 Significant					
F Value	14.62											
P Value	< 0.0001 Significant											

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When compared between the group A and B it founds that there was highly significant statistical difference was observed,

Table No 4 Distribution of Patients by Incidence of Toda

TODA(PRICKING SENSATION)												
	Group A						Group B					
	BT		AT		AF		BT		AT		AF	
Grade	No	%	No	%	No	%	No	%	No	%	No	%
0	10	66.6	14	93.3	14	93.3	4	26.6	9	60	10	66.6
1	5	33.3	1	6.6	1	6.6	11	73.3	6	40	5	33.3
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 2.872						f 2.932					
P Value	p= 0.0678 not significant						P 0.0643 not significant					
F Value	5.117											
P Value	0.0004 Significant											

It was observed that there was no statistical significance with the group A and B at before treatment, after treatment and after follow, where as a highly significant difference was observed between the groups with p value of 0.0004

Table No 5 Distribution of Patients by Incidence of Tod

	TODA (TINGLING SENSATION)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	12	80	14	93.3	15	100	10	66.6	10	66.6	10	66.6
1	3	20	1	6.6	0	0	5	33.3	5	33.3	5	33.3
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 1.960						f 0.40					
P Value	p 0.153 not significant						p 1.00 not significant					
F Value	2.086											
P Value	0.0751 Not significant											

In Group A and Group B, it was found that there was no statistically significant difference between before treatment, after treatment and after follow groups.

Table No 6 Distribution of Patients by Incidence of Toda (Burning Sensation)

	TODA (BURNING SENSATION)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	11	73.3	12	80	13	86.6	7	46.6	10	66.6	11	73.3
1	4	26.6	3	20	2	13.3	8	53.3	5	33.3	4	26.6
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 0.3962						f 1.213					
P Value	p 0.6753 not significant						p 0.30 not significant					
F Value	1.4											
P Value	0.2327 Not significant											

Inter and intra group analysis showed no statistically significant difference with p value being more than 0.05

Table No 7 Distribution of Patients by Incidence of Suptata

	SUPTATA											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	8	53.3	13	86.6	13	86.6	6	40	8	53.3	9	60
1	7	46.6	2	13.3	2	13.3	9	60	7	46.6	6	40
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 3.241						f 0.5976					
P Value	p 0.049 not significant						p 0.5548 not significant					
F Value	2.563											
P Value	0.033 Significant											

In Group A statistically it was not found significant difference between before treatment, after treatment and after follow groups ($P < 0.05$) where as in group B also

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there was no significance observed. When compared between the group A and B a significant statistical difference was observed ($p = 0.033$).

Table No 8 Showing Incidence based on SLR in group A and group B.

	SUPTATA											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	4	26.7	4	26.7	6	40	6	40	8	53.03	8	53.3
1	2	13.3	6	40	5	33.3	3	20	4	26.7	5	33.3
2	6	40	4	26.7	4	26.7	3	20	3	20	2	13.3
3	3	20	1	6.7	0	0	3	20	0	0	0	0
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 0.1426						f 0.1055					
P Value	p 0.8676 not significant						p 0.99001 not significant					
F Value	0.3331											
P Value	0.8916 Not Significant											

No statistical difference was observed between the groups and within the groups.

Table No 9 Showing Incidence based on SLR in group A and group

	SLR (RIGHT LEG)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	8	53.3	9	60	10	66.7	7	46.7	8	53.3	9	60
1	1	6.7	3	20	3	20	0	0	5	33.3	4	26.7
2	4	26.7	3	20	2	13.3	7	46.7	2	13.3	2	13.3
3	2	13.3	0	0	0	0	1	6.7	0	0	0	0
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 0.01078							f 0.3441				
P Value	p 0.0893 not significant							p 0.7109 not significant				
F Value	0.4178											
P Value	0.8352 Not Significant											

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When compared between the group A and B it founds not significant statistical difference was observed.

Table No 10 Showing Incidence based on Movement of lumbar spine in group A and Group B

	MOVEMENT OF LUMBER SPINE (FF)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	0	0	0	0	0	0	0	0	0	0	0	0
1	6	40	2	13.3	4	26.7	3	20	5	33.3	6	40
2	7	46.7	9	60	8	53.3	10	66.7	7	46.7	8	53.3
3	2	13.3	4	26.7	3	20	2	13.3	3	20	1	6.7
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 5.5719							f 16.23				
P Value	p 0.0071significant							p 0.0001 significant				
F Value	8.663											
P Value	< 0.0001 Significant											

When compared between the group A and B a highly significant statistical difference was observed (< 0.0001)

**Distribution of Patients by Incidence of Movement of lumbar spine (RLF)
Showing Incidence based on Movement of lumbar spine in group A and group B**

Table No 11

	MOVEMENT OF LUMBER SPINE (RLF)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	2	13.3	0	0	1	6.7	1	6.6	1	6.6	1	6.6
1	4	26.7	3	26.7	2	13.3	10	66.7	8	53.3	9	60
2	8	53.3	9	60	11	73.3	2	13.3	4	26.7	3	26.7
3	1	6.7	3	26.7	1	6.7	2	13.3	2	13.3	2	13.3
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 4.090						f 5.958					
P Value	p 0.0238 significant						p 0.0053 significant					
F Value	5.177											
P Value	0.0003 Significant											

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The difference observed between the groups was significant statistically (0.0003) whereas within group analysis showed no significant difference.

**Table No 12 Distribution of Patients by Incidence of Movement of lumbar spine (LLF)
Showing Incidence based on Movement of lumbar spine in group A and group B**

	MOVEMENT OF LUMBER SPINE (LLF)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	0	0	0	0	0	0	0	0	1	6.7	1	6.7
1	4	26.7	6	40	8	53.3	1	6.7	8	53.3	9	60
2	4	26.7	6	40	5	33.3	10	66.7	5	33.3	5	33.3
3	7	46.7	3	20	2	13.3	4	26.7	1	6.7	0	0
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 2.227						f 9.480					
P Value	p 0.1204not significant						p 0.004 significant					
F Value	4.57											
P Value	0.001 Significant											

The difference in observation between the groups were significant statistically (0.001)

Distribution of Patients by Incidence of Movement of lumbar spine (EXT)

Table No 13 Showing Incidence based on Movement of lumbar spine in Group A and group B

	MOVEMENT OF LUMBER SPINE (EXT)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	1	6.7	3	20	6	40	1	6.7	4	26.7	5	33.3
1	14	93.3	12	80	9	60	14	93.3	11	73.3	10	66.7
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 2.558						f 1.685					
P Value	p 0.0895 not significant						p 0.1977 not significant					
F Value	1.691											
P Value	0.1458 Not Significant											

The observations showed no statistical significant difference.

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**Distribution of Patients by Incidence of Movement of lumbar spine (ROT)
Table No 14 Showing Incidence based on Movement of lumbar spine in group A and group B**

	MOVEMENT OF LUMBER SPINE (ROT)											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	4	26.7	6	40	7	46.7	2	13.3	4	26.7	6	40
1	11	73.3	9	60	8	53.3	13	86.7	11	73.3	9	60
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 0.6364						f 1.355					
P Value	p0.5342 not significant						p 0.2690 not significant					
F Value	1.017											
P Value	0.4128 Not Significant											

The differences in observations were not significant statistically.

**Distribution of Patients by Incidence of Walking Time
Showing Incidence based on Walking Time in group A and group B -Table No 15**

	WALKING TIME											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	0	0	0	0	0	0	0	0	1	6.7	1	6.7
1	3	20	4	26.7	12	80	1	6.7	3	20	7	46.7
2	8	53.3	8	53.3	3	20	3	20	8	53.3	7	46.7
3	4	26.7	3	20	0	0	11	73.3	3	20	0	0
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 34.25						f 13.77					
P Value	p 0.0001 significant						p 0.0001 significant					
F Value	17											
P Value	< 0.0001 Significant											

A highly significant difference was observed between and within the groups with p <0.0001

Table No 16 Showing Incidence based on Walking Time in group A and group B

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	Visual Analogue Scale											
	Group A						Group B					
Grade	BT		AT		AF		BT		AT		AF	
	No	%	No	%	No	%	No	%	No	%	No	%
0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	4	26.7	7	46.7	0	0	1	6.7	6	40
2	10	66.7	10	66.7	8	53.3	9	60	14	93.3	9	60
3	5	33.3	1	6.7	0	0	6	40	0	0	0	0
Total	15	100	15	100	15	100	15	100	15	100	15	100
F Value	f 9.116						f 12.51					
P Value	p 0.0005 significant						p 0.001 significant					
F Value	8.571											
P Value	< 0.0001 Significant											

There was no difference observed within the group but a statistically

OVERALL EFFECT OF TREATMENT

Out of 30 patients, 1 patient got Mild Improvement, 10 patients got

DISCUSSION

The study shows 53.33% of patients belonged to the age group 35-44, 60% were female patients, Majority of Hindu religion (90%), Labour (70%), Poor (50%), 56.6% patients had severe pain aggravated on sitting, 46.6% patients having Chronicity from above 18 months, (76.6%) had No addiction habits, (53.33%) having left

significant difference was observed between group A and B (< 0.0001)

Moderate improvement, 14 patients got Marked Improvement and 5 patients got Complete Remission.

leg affected, 53.3% patients were with mixed diet habit and (33.3%) patients had Manda Agni and (50%) patients had Madhya Koshta.

Conclusion

Following conclusions drawn from the present study with treatment and observations.

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- Based on symptomatology Gridhrasi is compared to Sciatica in modern science.
- In case of sciatica analgesic will give temporary relief in chronic cases surgery is inevitable in the context of Ayurveda we have many therapies shodhan and shaman therapies for the cure of gridhrasi vyadhi and even agni karma can also be practices.
- Drugs used in chikitsa having deepana, pachana, Grahi and mainly vatakapsha shamaka.
- Rate of females (60%) & left leg (53.3%) effected are high which correlates with modern textual references.
- Both groups are highly significant so concluding on symptoms. In group A Sthamba, Ruk, movement of lumbar spine (FF), (RLF), Walking Time, Visual analogue scale are effective. In group B Ruk, Movement of lumbar Spine (FF), (RLF), (LLF), Walking Time & Visual Analogue scale are effective. In inferential stat (comparison of both groups) total 9 symptoms (subjective and objective) were statistically Significant found. Overall Group B (Shamana Sneha) has found more effective.
- Patients with c/o Stambha & Ruk can be selected for Sthanik Abhyanga & c/o Ruk & Difficulty in walking and movement for Shamana Sneha.

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