



Research Article

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COMPARATIVE STUDY OF BASTIKARMA AND SIRAVEDHA IN THE MANAGEMENT OF GRIDHRASI (SCIATICA)

Pankaj Sharma ^{1*}, Vishakha R Wetal ², Arun Gupta ³

¹ PG Scholar, Department of Panchkarma, Chaudhary Brahm Prakash Ayurved Charaka Sansthan, Khera Dabar, New Delhi, India

² Associate Professor, Department of Panchkarma, Chaudhary Brahm Prakash Ayurved Charaka Sansthan, Khera Dabar, New Delhi, India

³ Professor and Head, Department of Panchkarma, Chaudhary Brahm Prakash Ayurved Charaka Sansthan, Khera Dabar, New Delhi, India

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*Corresponding author

E-mail: gopalpankaj203@gmail.com

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ABSTRACT

Low back pain and Sciatica is the major cause of morbidity throughout world. In reference to management of sciatica syndrome medical science has only symptomatic management with analgesics like NSAIDS. Even after surgery also patients have to take analgesics for longer duration. There is the need of time to find a safe and effective management for the treatment of Sciatica and here comes the role of *Ayurveda*. In *Ayurveda acharya Charaka* has mentioned “*antrakandragulfamsirabastyagnikarmach*” in the management of *Gridhrasi*. The aim of this study is to study the efficacy of *Bastikarma* with *Siravedha* in the management of *Gridhrasi*. It's an open randomized clinical trial. A total 60 patients, divided randomly into two groups, were treated by *Siravedha* in 30 patients and *Bastikarma* in 30 patients. *Siravedha* was done at the site of *antrakandragulfa* (near ankle joint) by scalp vein no.20 and *Basti* was given in the form of *kala basti* with *Erandmooladiniruha* and *Saindhavadianuvasanbasti*. Wilcoxon matched-pairs signed ranks test was used for efficacy within group and Mann-Whitney test was used to compare the efficacy of two groups. Both groups show mild to moderate efficacy while comparing effect of *Siravedha* is immediate and effect of *Basti* is not immediate, but it lasts for longer in the management of *Gridhrasi* (Sciatica).

Keywords: *Siravedha*, *Bastikarma*, Sciatica, *Gridhrasi*.

INTRODUCTION

Gridhrasi is an unmanageable physical condition which affects the ambulatory functions of the patient. The patients suffering from *Gridhrasi* are unable to sit or stand properly due to pain. *Gridhrasi* word itself suggests the gait similar to bird Vulture. *Gridhrasi* is one among 80 types of *nanamajvatavyadhi* having vitiation of *vata* and sometimes *kaphadosha*. The main features of *Gridhrasi* are *Stambha* (stiffness), *Ruka* (Pain), *Toda* (Pricking pain) and *Mhuspandan* (twitching) in *sphik, kati, uru, janu, jangha, pada* in order. In *kapha-Vataja* types of *Gridhrasi Tandra, Gaurav, arochak* are present. In the management of *Gridhrasi* Charaka said “*antrakandragulfamsirabastyagnikarma ch*”¹.

In modern science Sciatica resembles to features of *Gridhrasi*. The chances of occurrence of Sciatica expected to be increasing through the upcoming time due to increasing tendency for sitting jobs and the hectic routines which results in postural abnormalities, increasing body weight, mental stress etc., all of which leads to the occurrence of *Gridhrasi*.

It found that 84% of adults experience Lower back pain at some point of time during their life but approximately 2% to 8% of these individuals will develop chronic disabling. By contrast, the lifetime prevalence of true sciatica is between 2 and 4%.

MATERIAL AND METHODS

Study Design

Open labeled, Randomized, Experimental study.

Selection of Patients

Total 60 patients suffering from *Gridhrasi* attending *Panchakarma* OPD and IPD of Ch. Brahm Prakash Ayurved Charaka Sansthan, New Delhi, India were registered randomly irrespective of their age, sex, religion, occupation etc. It is an open randomized clinical trial. Study was approved by Institutional Ethics Committee of CBPACS, Khera Dabar. This trial is registered with CTRI wide reference no. 2018/02/017295.

Inclusion criteria

- The presence of *Ruka, Toda, Stambha* and *Spandana* in the *sphik, kati, Uru, Janu, Jangha* and *pada*.
- Tenderness along the course of Sciatic nerve.
- Patients of either sex between age group of 20 years to 50 years were included.
- SLR test in affected leg as objective measure for diagnosis and assessment was taken.

Exclusion criteria

- Contra-indicated for *Basti karma* and *Siravedha*.
- Known cases of any major illness e.g. DM, TB, AIDS and Malignancy.
- Surgical indications such as progressive neurological deficit.
- Pregnancy
- Anemia (Hb % < 10.0 gm %)

Grouping

60 clinically diagnosed and registered patients of *Gridhrasi* (Sciatica) were divided randomly into two group viz. Group A and Group B irrespective of religion, sex, occupation, caste etc. In both groups' patient was given pachana with *chitrakadivati* for first two days.

Group A

Kala Basti was administered as per schedule. *Erandmooladiniruhabasti* and *Saindhavadi oil anuvasanabasti* was given in this group.

Group B

Siravedha was done twice with the gap of 7 days. *Siravedha* was done with disposable scalp vein No.20 with all aseptic

precautions at the site of *antra-kandra gulf*. 40 ml of bloodletting was done.

Duration of clinical study

Initial assessment – 0 day,
Follow up on – 15th, 30th, 60th days

Assessment criteria

The patients were observed for changes in symptoms as well as general condition of patients were noted before and after treatment following points were taken into consideration for the assessment of the results. Both subjective and objective parameters were employed for assessment of the impact of the treatment.

- Clinical features such as *Ruka*, *Toda*, *Stambha*, *Spandana* etc. before and after treatment.
- Improvement in range of motion of lumbar spine by SLR test.
- Pain intensity of low back pain was assessed.
- Oswestry disability index was calculated before and after treatment.

Assessment of cardinal symptoms

Table 1: Subjective criteria

S. No.	Sign and symptoms	Criteria	Score
1.	Ruka (Pain)	No pain Painful movement without limping Painful movement with limping gait but without support Painful, can walk only with support Painful, unable to walk Severe pain needs medications	0 1 2 3 4 5
2.	Stambha (Stiffness)	No stiffness Mild stiffness for 5-10 minutes Moderate stiffness for 10- 60 minutes Severe stiffness more than 1 hour	0 1 2 3
3	Toda (Pricking sensation)	No pricking sensation Mild pricking sensation Moderate pricking sensation Severe pricking sensation	0 1 2 3
4	Aruchi (Anorexia)	Normal taste, feeling to eat food on time Anannabilasha – not feeling to take food even if hungry Bhktadvesha – irritability to touch, smell, seeing and listening about food Abhaktachchanda – aversion to food because of anger, stress etc.	0 1 2 3
5.	Tandra (Drowsiness)	No Drowsiness Mild with no interference in daily activities Moderate with manageable interference in daily activities Severe with unmanageable interference in daily activities	0 1 2 3
6.	Gaurava (Heaviness)	No feeling of heaviness Mild with no interference in daily activities Moderate with manageable interference in daily activities Severe with unmanageable interference in daily activities	0 1 2 3
7.	Supatata (Numbness)	Absent Mild Moderate Severe	0 1 2 3

Oswestry low back Pain Disability Questionnaire

The scale was used to assess the functional disability level before and after treatment. Below scoring pattern used to evaluate the pain in changing posture.

Table 2: Oswestry low back Pain Disability Questionnaire scale

S. No.	Sign and symptoms	Criteria	Score
1	Pain intensity	I have no pain at the moment The pain is very mild at the moment The pain is moderate at the moment The pain is fairly severe at the moment The pain is very severe at the moment The pain is the worst imaginable at the	0 1 2 3 4 5
2	Personal care (washing, dressing etc)	I can look after myself normally without Causing extra pain I can look after myself normally but it causes extra pain It is painful to look after myself and I am slow and careful I need some help but manage most of my personal care I need help every day in most aspects of self-care I do not get dressed, I wash with difficulty and stay in bed	0 1 2 3 4 5
3	Lifting	I can lift heavy weights without extra pain I can lift heavy weights but it gives extra pain Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed e.g. on a table Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned I can lift very light weights I cannot lift or carry anything at all	0 1 2 3 4 5
4	Walking	Pain does not prevent me walking any distance Pain prevents me from walking more than 1mile Pain prevents me from walking more than ½ mile Pain prevents me from walking more than 100 yard I can only walk using a stick or crutches I am in bed most of the time	0 1 2 3 4 5
5	Sitting	I can sit in any chair as long as I like I can only sit in my favourite chair as long as I like Pain prevents me sitting more than one hour Pain prevents me from sitting more than 30 minutes Pain prevents me from sitting more than 10 minutes Pain prevents me from sitting at all	0 1 2 3 4 5
6	Standing	I can stand as long as I want without extra pain I can stand as long as I want but it gives me extra pain Pain prevents me from standing for more than 1 hour Pain prevents me from standing for more than 30 min. Pain prevents me from standing for more than 10 min. Pain prevents me from standing at all	0 1 2 3 4 5
7	Sleeping	My sleep is never disturbed by pain My sleep is occasionally disturbed by pain Because of pain I have less than 6 hours sleep Because of pain I have less than 4 hours sleep Because of pain I have less than 2 hours sleep Pain prevents me from sleeping at all	0 1 2 3 4 5
8	Sex life	My sex life is normal and causes no extra pain My sex life is normal but causes some extra pain My sex life is nearly normal but is very painful My sex life is severely restricted by pain My sex life is nearly absent because of pain Pain prevents any sex life at all	0 1 2 3 4 5
9	Social life	My social life is normal and gives me no extra pain My social life is normal but increases the degree of pain Pain has no significant effect on my social life apart from limiting my more energetic interests e.g. sport Pain has restricted my social life and I do not go out as often Pain has restricted my social life to my home I have no social life because of pain	0 1 2 3 4 5
10	Travelling	I can travel anywhere without pain I can travel anywhere but it gives me extra pain Pain is bad but I manage journeys over 2 hours Pain restricts me to journeys of less than 1 hour Pain restricts me to short necessary journeys under 30 minutes Pain prevents me from travelling except to receive treatment ²	0 1 2 3 4 5

For each section the total possible score is 5. If the first statement is marked the section score = 0; if the last statement is marked, it is = 5.

If all 10 sections are completed the score is calculated as follows: 16 (total scored)/50 (possible score) x 100 = 32%.

If one section is missed or not applicable the score is calculated: 16 (total scored)/45 (possible score) x 100= 35.5%. Minimum detectable change (90% confidence):10% points (Change of less than this may be attributable to error in the measurement)

Objective parameter

Straight Leg Raised test

The range of movement at hip was assessed by SLR readings in before and after treatment.

SLR test

- 0- More than 90°
- 1- 71° – 90°
- 2- 51° – 70°
- 3- 30° – 50°
- 4- Up to 30°

OBSERVATIONS

A total of 60 patients were registered in this work among them 55 patients completed the treatment and 5 patients dropped out. So, observations and assessment were made on 55 patients.

The demographic data shows that that maximum patients in study were between 36-45 (43%) years of age, 22 patients (40%) were between 25-35 years of age and 9 patients (17%) were between 46-55 years of age. Prevalence of the disease was in females 34 (61.81%) and in males 21 (38.18%) patients. Majority of patients were Hindu 53 (96%), 53 (96%) patients were married. Majority of patients 47 (85%) were belongs to middle class, 40 (73%) were urban area dwellers. 51 (96%) patients were literate, housewives

are 34 (62%) and office workers are 15 (27%). Maximum patients 32 (58%) were of *vata-kaphaja prakriti*, 25 (45%) patients were of *mamsa sarata* and 18 (33%) were of *medosarata*. 47 (85%) patients were of *madhyama samhanana*, 27 (49%) patients were of *madhyama satmya*. Majority of patients have *madhyama ahara shakti* 24 (44%), 29 (52%) patients have *madhyama koshttha*. 43 (78%) patients have vegetarian diet, 28 (51%) patients were of *tamsik prakriti* and 27 (49%) were of *rajsik prakriti*. Maximum 34 (62%) patients were of *madhyama satva*, 29 (53%) patients were of *mandagni*. 40 (73%) patients having *avara vyayama shakti* which plays an important role in pathogenesis of *Gridhrasi*, 38 (69%) patients having normal bowel habits. 49 (89%) patients were of *madhyama vaya*, 40 (73%) patients having gradual onset of disease, 40 patients (73%) were of *vata-kaphaja* type of *Gridhrasi*. In 24 patients right leg was affected and in 24 patients left leg was affected. In 34 patients walking and stansing was the aggravating factor. In all 55 patients *ruka* and *stambha* was present as chief complaint. In 35 patients ODI Scale was between 60-80. 31 patients (56%) patients was having duration of illness between 1-5 years.

In *Aharaja Nidana* maximum 24 patients (43.6%) used *Adhyashana* excessively in their diet. *Katu rasa atisevana* and *Kashaya rasa atisevana* in their diet each have predominantly 22 patients (40%). In this study as *Viharaja Nidana* maximum 29 patients (52.7%) had habit of *atisthana* followed by 23 patients (41.8%) have *atichankramana* habit. 22 patients (40%) have habit of *chinta* and *ratrijagrana*.

Table 3: Observations

Observations Maximum	Group A	Group B	Total	Percentage
Age (36-45 years)	10	14	24	43%
Sex (Female)	17	17	34	61.82%
Religion (Hindu)	27	26	53	96%
Socio-economioic status (Middle Class)	23	24	47	85%
Dwelling (Urban)	21	19	40	73%
Occupation (Housewives)	18	16	34	62%

RESULTS

Group – A (*Siravedha*)

In subjective parameters there was a relief of *Ruka*- 68.5%, *Toda*-63.8%, *Stambha*- 58.1%, *Aruchi* -78.1%, *Tandra*- 71.3%, *Gaurava* – 56.1%, *Suptata*- 56.7%, ODI scale- 43.1%.

In objective parameters there was a relief of 59.9% in SLR right and left leg.

Table 4: Effect of *Siravedha* on sign and symptoms

Variables	BT Mean	Mean		Diff. of mean	Relief %	Wilcoxon rank test			
		AT	FU			SD	SEM	P	Significant
<i>Ruka</i>	3.75	AT	1.17	2.57	68.5%	0.47	0.08	< 0.0001	ES
		FU1	1.17	2.57	68.5%	0.47	0.08	< 0.0001	ES
		FU2	1.50	2.25	60%	0.63	0.12	< 0.0001	ES
<i>Toda</i>	2.85	AT	1.03	1.82	63.8%	0.33	0.06	< 0.0001	ES
		FU1	1.07	1.07	37.5%	0.26	0.04	< 0.0001	ES
		FU2	1.75	1.75	61.4%	0.51	0.09	< 0.0001	ES
<i>Stambha</i>	2.75	AT	1.14	1.60	58.1%	0.52	0.09	< 0.0001	ES
		FU1	1.14	1.60	58.1%	0.52	0.09	< 0.0001	ES
		FU2	1.21	1.53	55.6%	0.41	0.07	< 0.0001	ES
<i>Aruchi</i>	1.92	AT	0.42	1.50	78.1%	0.50	0.09	< 0.0001	ES
		FU1	0.42	1.50	78.1%	0.50	0.09	< 0.0001	ES
		FU2	0.42	1.50	78.1%	0.50	0.09	< 0.0001	ES
<i>Tandra</i>	1.64	AT	0.46	1.17	71.3%	0.63	0.12	< 0.0001	ES
		FU1	0.46	1.17	71.3%	0.63	0.12	< 0.0001	ES
		FU2	0.46	1.17	71.3%	0.63	0.12	< 0.0001	ES
<i>Gaurava</i>	2.92	AT	1.28	1.64	56.1%	0.65	0.12	< 0.0001	ES
		FU1	1.14	1.78	60.9%	0.44	0.08	< 0.0001	ES

<i>Suptata</i>	2.89	FU2	1.82	1.10	37.6%	0.39	0.07	< 0.0001	ES
		AT	1.25	1.64	56.7%	0.44	0.08	< 0.0001	ES
		FU1	1.32	1.57	54.3%	0.47	0.08	< 0.0001	ES
ODI Scale	59.89	FU2	1.35	1.53	52.9%	0.48	0.09	< 0.0001	ES
		AT	34.03	25.86	43.1%	6.39	1.20	< 0.0001	ES
		FU1	43.32	16.57	27.6%	7.11	1.34	< 0.0001	ES
SLR Rt.leg	2.92	FU2	43.32	16.57	27.6%	7.11	1.34	< 0.0001	ES
		AT	1.17	1.75	59.9%	0.39	0.07	< 0.0001	ES
		FU1	1.42	1.50	51.3%	0.50	0.09	< 0.0001	ES
SLR Lt Leg	2.92	FU2	1.42	1.50	51.3%	0.50	0.09	< 0.0001	ES
		AT	1.17	1.75	59.9%	0.39	0.07	< 0.0001	ES
		FU1	1.42	1.50	51.3%	0.50	0.09	< 0.0001	ES
		FU2	1.42	1.50	51.3%	0.50	0.09	< 0.0001	ES

Group- B (Bastikarma)

In subjective parameters there was a relief of *Ruka*- 45.3%, *Toda*- 44.2%, *Stambha*- 61.3%, *Aruchi*- 67.8%, *Tandra*- 76.1%, *Gaurava*- 59.1%, *Suptata* – 62.4%, ODI Scale – 39.6%.

In objective parameters there was a relief of 58.3% in SLR in right and left leg.

Table 5: Effect of Bastikarma on sign and symptoms

Variables	Mean BT	Mean	Diff. of Mean	Relief %	SD	SEM	P Value	Significant	
<i>Ruka</i>	3.66	AT	2.00	1.66	45.3%	0.48	0.09	< 0.0001	ES
		FU1	2.59	1.07	29.2%	0.50	0.09	< 0.0001	ES
		FU2	2.62	1.03	28.1%	0.56	0.10	< 0.0001	ES
<i>Toda</i>	2.51	AT	1.40	1.11	44.2%	0.50	0.09	< 0.0001	ES
		FU1	1.85	0.66	26.2%	0.36	0.06	< 0.0001	ES
		FU2	1.88	0.62	24.7%	0.32	0.06	< 0.0001	ES
<i>Stambha</i>	2.59	AT	1.0	1.59	61.3%	0.55	0.10	< 0.0001	ES
		FU1	1.48	1.11	42.8%	0.50	0.09	< 0.0001	ES
		FU2	1.85	0.740	28.5%	0.45	0.08	0.0002	ES
<i>Aruchi</i>	1.96	AT	0.62	1.33	67.8%	0.49	0.09	< 0.0001	ES
		FU1	0.62	1.33	67.8%	0.49	0.09	< 0.0001	ES
		FU2	1.22	0.74	37.7%	0.42	0.08	< 0.0001	ES
<i>Tandra</i>	2.14	AT	0.51	1.63	76.1%	0.70	0.13	< 0.0001	ES
		FU1	0.85	1.29	60.2%	0.60	0.11	< 0.0001	ES
		FU2	1.18	0.96	44.8%	0.48	0.09	< 0.0001	ES
<i>Gaurava</i>	2.62	AT	1.07	1.55	59.1%	0.47	0.09	< 0.0001	ES
		FU1	0.85	1.77	67.5%	0.60	0.11	< 0.0001	ES
		FU2	1.48	1.14	43.5%	0.64	0.12	< 0.0001	ES
<i>Suptata</i>	2.66	AT	1.0	1.66	62.4%	0.62	0.11	< 0.0001	ES
		FU1	1.33	1.33	50%	0.48	0.09	< 0.0001	ES
		FU2	1.81	0.85	31.9%	0.62	0.11	< 0.0001	ES
ODI Scale	64.59	AT	38.96	25.63	39.6%	5.69	1.09	< 0.0001	ES
		FU1	38.96	25.63	39.6%	5.69	1.09	< 0.0001	ES
		FU2	53.07	11.51	17.8%	5.82	1.12	< 0.0001	ES
SLR Rt. Leg	2.74	AT	1.14	1.60	58.3%	0.36	0.06	< 0.0001	ES
		FU1	1.51	1.23	44.8%	0.50	0.09	< 0.0001	ES
		FU2	1.51	1.23	44.8%	0.50	0.09	< 0.0001	ES
SLR Lt. Leg	2.11	AT	1.01	1.10	58.3%	0.36	0.06	< 0.0001	ES
		FU1	1.40	0.71	33.6%	0.50	0.09	< 0.0001	ES
		FU2	1.40	0.71	33.6%	0.50	0.09	< 0.0001	ES

On comparison Effect of *Siravedha* was found immediate and it doesn't lasts for long as compare to effect of *Basti karma*. On inter group comparison *Erandmooladi Niruha Basti* was better in prolong relief as compare to *Siravedha*.

Table 6: Comparison between effect of Siravedha and Bastikarma

Comparison between the Groups

Ruka

Group	N	Mean	SD	Mean diff	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
AT									
A	28	1.71	2.84	0.29	127.50	628.50	533	< 0.0001	ES
B	27	2.0	0.48				1006		
FU1									
A	28	1.17	0.47	1.42	35.50	720.50	441.50	< 0.0001	ES
B	27	2.59	0.50				1098.5		

FU2									
A	28	1.50	0.63	1.12	92	664	498	< 0.0001	ES
B	27	2.62	0.56				1042		

Toda

AT									
Group	N	Mean	SD	Mean Diff	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
A	28	1.03	0.33	0.37	243	513	649	0.0205	S
B	27	1.40	0.50		891				
FU1									
A	28	1.07	0.26	0.78	83	673	489	< 0.0001	ES
B	27	1.85	0.36				1051		
FU2									
A	28	1.75	0.51	0.13	324	432	730	0.03498	NS
B	27	1.88	0.32				810		

Stambha

AT									
Group	N	Mean	SD	Mean Diff	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
A	28	1.14	0.52	0.14	332	424	830	0.4322	NS
B	27	1.00	0.55		710				
FU1									
A	28	1.14	0.52	0.34	263	493	669	0.0499	S
B	27	1.48	0.50				871		
FU2									
A	28	1.21	0.41	0.64	148	608	554	< 0.0001	ES
B	27	1.85	0.45				986		

Aruchi

AT									
Group	N	Mean	SD	Mean Diff	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
A	28	0.42	0.50	0.2	302	454	708	0.1958	NS
B	27	0.62	0.09		832				
FU1									
A	28	0.42	0.50	0.2	302	454	708	0.1958	NS
B	27	0.62	0.09				832		
FU2									
A	28	0.42	0.50	0.8	126	630	532	< 0.0001	ES
B	27	1.22	0.08				1008		

Tandra

AT									
Group	N	Mean	SD	Mean diff	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
A	28	0.46	0.63	0.05	367	389	773	0.8573	NS
B	27	0.51	0.70		767				
FU1									
A	28	0.46	0.63	0.39	250	506	656	0.0298	S
B	27	0.85	0.60				884		
FU2									
A	28	0.46	0.63	0.72	155.50	600.50	561.50	0.0002	ES
B	27	1.18	0.48				978.50		

Gaurava

AT									
Group	N	Mean	SD	Mean Diff	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
A	28	1.28	0.65	0.21	337.50	418.50	824.50	0.4857	NS
B	27	1.07	0.47				715.50		
FU1									
A	28	1.14	0.44	0.29	290.50	465.50	871.50	0.1332	NS
B	27	0.85	0.60				668.50		
FU2									
A	28	1.82	0.39	0.34	272.50	483.50	889.50	0.0714	NQS
B	27	1.48	0.64				650.50		

Suptata

AT									
Group	N	Mean	SD	Mean Diff	Mann-Whitney test				
					U	U'	Sum of rank	P	significant
A	28	1.25	0.44	0.25	301	455	861	0.1882	NS
B	27	1.00	0.62				679		
FU1									
A	28	1.32	0.47	0.01	373.50	382.50	779.50	0.9450	NS
B	27	1.33	0.48				760.50		
FU2									
A	28	1.35	0.48	0.46	232	524	638	0.0131	S
B	27	1.81	0.62				902		

ODI Scale

AT									
Group	N	Mean	SD	Mean Diff	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
A	28	34.03	6.39	4.93	202.50	553.50	608.50	0.0030	VS
B	27	38.96	5.69				931.50		
FU1									
A	28	43.32	7.11	4.36	250	506	912	0.0297	S
B	27	38.96	5.69				628		
FU2									
A	28	43.32	7.11	9.75	120	636	526	<0.0001	ES
B	27	53.07	5.82				1014		

SLR Right

AT									
Group	N	Mean	SD	Mean Diff	Mann-Whitney test				
					U	U'	Sum of rank	P	significant
A	28	3.63	9.48	0.54	425	44.50	909.50	0.8878	NS
B	27	4.17	11.39				860.50		
FU1									
A	28	4.13	10.31	0.38	399.50	470.50	864.50	0.5904	NS
B	27	4.51	11.30				905.50		
FU2									
A	28	4.13	10.31	1	398.50	471.50	863.50	0.5798	NS
B	27	5.13	13.80				906.50		

SLR Left

AT									
Group	N	Mean	SD	Mean Diff.	Mann-Whitney test				
					U	U'	Sum of rank	P	Significant
A	28	1.64	0.48	0.2	283	473	879	0.1069	NS
B	27	1.44	0.75				661		
FU 1									
A	28	1.46	0.50	0.05	357.50	398.50	763.50	0.7318	NS
B	27	1.51	0.50				0		
FU 2									
A	28	1.53	0.63	0.02	371.50	384.50	777.50	0.9182	NS
B	27	1.51	0.50				0		

DISCUSSION

In this study Maximum patients, 24 (43%) belonged to age group of 36-45 years. Sciatica is most common in the 3rd to 6th decade of life. It seems that degenerative changes which begin in early life and have been manifested as mild recurrent lumbar aches predispose towards herniation with aging. 34 patients (61.82%) were female and 21 (38.12%) patients were male. The incidence of Sciatica is equal in both male and female 1:1.³ Maximum patients were housewives 34 (62%). more numbers of female patients were females can be understood as Indian housewives have to do a lot of work at home with forward bending, lifting up of house holding etc. In office work there is prolonged sitting, lack of changing posture, stressful and busy lifestyle. Most of the

time they are ignore about their self-care and use to get busy in their work without having food, together all these factors lead to provocation of *Vata*. These may be precipitate early degeneration. Majority of patients belonged to middle class 47 (85%), higher percentage of middle-class people might be due to prolonged sitting jobs, overworks, heavy workload, stressful workplace, lack of satisfaction etc.

Probable mode of action of *Basti* therapy

The *Basti* which eliminates the vitiated *dosha* from the body and increases the strength of the body because of its potency is called *Niruha-Basti*.⁴ *Asthapana* means to sustain life and holds importance in degenerative conditions. Therefore, it can be said

that this particular therapy itself has rejuvenation effect. *Niruha Basti* removes the only *mala* from the body as explained by *Charaka* by example; the cloth sucks up the pigment only from the water dyed with saffron-flower and similarly only the waste substances are eliminated from the body by the *Basti*.⁵ *Erandmooladiniruha* increases digestive fire due to which it helps to control *doshavridhi* in pathogenesis of *Gridhrasi*. This *Basti* is also having *lekhanaguna*, helps in providing relief in *Jangha*, *Uru*, *Pada*, *Trika*, *Pristha Shoola* that is cardinal feature of *Gridhrasi*.⁶ *Erandmooladi Basti* is effective in *Gridhrasi* especially in *Vatakaphaja* due to its *kaphaavritaguna* and relief in obstruction of *Vatadosha* that typically makes *samprativightana* of *Gridhrasi*. It relieves pain caused due to *mala*, *mutra*, *apanavayu avrodha*.⁷

Main constituent of *Erandmooladi Niruha Basti* is *Erandamoola*. For *Erandmoola Charaka* said “*Erandmoolama Vrishyavatharanama*”. *Eranda* have *Madhura rasa* and *Katu* and *Kashaya* as *anurasa*, *Madhura vipaka* and *Ushanavirya*. It is *Kapha Vatashamaka*. As *Gridhrasi* is *Vata* and *Vatakaphaja* types it can be used in both types of *Gridhrasi*. *Sushruta* said that *Eranda* is *adhobhagdoshahara*, *Gridhrasi* mainly affect the *adhoshakha* so use of *Eranda* gives relief in symptoms of *Gridhrasi*.

Probable mode of action of *Siravedha*

The *Raktjanya Avarana* is removed in *Gridhrasi* by *Siravedha* hence the pain reduces immediately. As mentioned in the *Samprapti* of *Gridhrasi* it is having *Ashukari Swabhava*, *Siravedha* provides *Ashuvyadhi Shanti*. *Siravedha* was done near *Gulpha* in this study. *Gulpha*, which is a *Rujakara Marma* probably, reduces the pain soon. The symptoms of *Samyak Siravedha* are *Laghvam* (feeling of lightness) and *Vednashanti* (pain reduction), *Visravitrakta* will stop itself, it means the pain arising from a disease condition get subsided followed by disease in the symptoms of the disease, So *Siravedha* can be used in pain predominant diseases. According to *Sushruta Samyak Siravedha Lakshanas*, ‘*Samyagatwa Yada Raktam Swayammeva Avatistati, Shuddam Tadavijaaneyat Samyag Visravitam*’ for this to happen again there is a direct reference to introduce the needle in such a way that it should be *Riju*, *Asankeerna*, *Suksham*, *Samam*, *Anavaghadam*, *Anuttanam*, *Aashu*, *Sandhi-Marma-Sira* should be kept in mind while doing *Siravedha* so that they should not be damaged. *Toda*, *Stambha*, *Muhuspandanam*, *Aruchi* and *Gaurava* appeared in *Raktaavrita Vata*. These were improved due to letting of *Raktavrita Vata*. There was significant improvement in walking after *Siravedha*. In *Gridhrasivyanavayu* is essential factor for the manifestation of the disease. *Sushruta* indicated *Raktmokshana* in *Supti Vata*.⁸ So, there is improvement in numbness after *Siravedha*.

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CONCLUSION

Both the groups showed mild to moderate relief in management of *Gridhrasi*. But Effect of *Siravedha* was immediate and doesn't lasts for long as compare to effect of *Basti karma*. On inter group comparison *Erandmooladi Niruha Basti* was better in prolong relief as compare to *Siravedha*. There is no need to hospitalize patient in case of *Siravedha*. No major adverse or side effects were encountered during the course of the study.

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