

A CLINICO-COMPARATIVE STUDY OF PATRAPINDA SWEDA WITH AND WITHOUT INTERFERENTIAL THERAPY (IFT) IN GRIDHRASI WITH SPECIAL REFERENCE TO SCIATICA

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ABSTRACT

Introduction: *Gridhrasi* is a *RujaPradhanaNanatmajaVataVyadhi*, the *Lakshanas* of disease are *Ruk, Toda, Muhurspanda*, and *Stambha* in the *Sphik, Kati, Uru, Janu, Jangha* and *Pada* which may be co-related to sciatica in which neuralgia along the course of Sciatic nerve often produces radiating pain into the buttock and lower limbs. About 50-70% of people get affected by low back pain with incidence of Sciatica. To compare and evaluate the effect of *PatraPindaSweda* with and without Interferential Therapy on *Gridhrasi*. **Method:** 40 Patients (excluding two drop outs) fulfilling the diagnostic and inclusion criteria belonging to either sex were selected for clinical study. They were randomly allocated into 2 equal groups A & B. Patients will be assessed on the 0th day (Before treatment) and 7th day (After treatment) and on 14th day for follow up. **Result:** Pre-Post comparison done by Paired 't' test, Unpaired 't' test was applied for comparison between the groups. Effect of treatment on *Ruk, Toda, Stambha, Spandana, Aruchi, Tandra, Gourava*, SLR, and Distance of walking both groups showed highly significant results. But, the comparison between the groups, symptoms like *Ruk, Stambha, Spandana* and Distance of walking showed significant change in Group 'A'. So an overall comparison between both the groups, showed effective result of Group B over Group A after treatment and after follow-up. **Conclusion:** Clinically, marked effect seen in Group B- that is *PatraPindaSweda* with Interferential Therapy showed effective changes in all criteria and marked relief, when compared to Group A- *Patra PindaSweda* without Interferential Therapy

Keywords: *PatraPindaSweda*, Gridhrasi, Sciatica, Interferential therapy

INTRODUCTION

Currently people fall victim of various diseases because of the gradual shifting of lifestyle

from a healthy living. Sedentary lifestyle, stress, improper posture, continuous jerky

movements, long travelling etc. put maximum pressure on the spine and lower portion of the pelvis¹. Low back pain is more common among people aged 40-80 years, with the overall number of individual affected expected to increase as population ages². Approximately 9 to 12% of people have low back pain at any given point in time, and nearly 25% report having it at some point over any one-month period³. About 40% of people have low back pain at some point in their lives². with estimates as high as 80 % among people in the developed world⁴. About 50-70% of people get affected by low back pain with incidence of Sciatica more than 40%⁵.

Gridhrasi is a *RujapradhanaNanatmajaVataVyadhi*⁶. “*Gridhrasi*”- as the term meaning goes indicates the typical gait that resembles a “*Gridhra*” or “*Vulture*”, which is often seen in *Gridhrasi*. The *Lakshanas* of disease are *Ruk*, *Toda*, *Muhurspanda*, and *Stambha* in the *Sphik*, *Kati*, *Uru*, *Janu*, *Jangha* and *Pada*⁷ which may be co-related to sciatica in which neuralgia along the course of Sciatic nerve often produces radiating pain into the buttock and lower limbs⁸. Sciatica, a form of nerve dysfunction occurs when there is a compression on, or damage to the sciatic nerve. It is a very painful condition in which pain begins in lumbar region and radiates along the posterolateral aspect of thigh and leg⁹. As far as treatment of the disease Sciatica is concerned, use of analgesics and physiotherapy will help to certain extent but are not the ultimate cure¹⁰. Surgeries are moreover expensive and again there are chances of recurrence as well¹¹. Sequential administration of the *Snehana*, *Swedana*, *Basti*, *Siravyadha* and *Agnikarma* are lines of treatment of *Gridhrasi* as expounded in the Ayurveda literature¹².

Snehana and *Swedana* are considered as a general line of treatment for *VataVyadhi* which can be taken as a line of treatment for *Gridhrasi* also. *Patra PindaSweda* is one such treatment modality comes under *Snehana* and *Swedana* are considered as a general line of treatment for *VataVyadhi* which can be taken as a line of treatment for *Gridhrasi* also. *Patra PindaSweda* is one such treatment modality comes under *Snehana* and *Swedana* and is known for its instant efficacy in relieving the symptoms. *Narayana Taila* is having *VataKaphaShamaka* and *Shoolahara* action. Interferential therapy (IFT) is a form of electrical treatment in which two medium frequency currents are used to produce a low frequency effect. A rhythmical frequency of 50-60 Hz has a suppressing effect on the autonomic nervous system and also has analgesic property¹³. So in this study an effort was made to compare the efficacy of *Patra PindaSweda* without Interferential Therapy and *Patra PindaSweda* with Interferential Therapy on *Gridhrasi* w.s.r to Sciatica.

Methods and Materials

Patients were selected from OPD and IPD of PG studies in Panchakarma of Alva's Ayurveda Medical College & Hospital, Moodbidri, Medical camps and other referrals. Sample size of 40 patients fulfilling the diagnostic and inclusion criteria of either sex was selected for the comparative study. They were randomly assigned into 2 equal groups A & B. Group A consist of *Patra PindaSweda* without Interferential Therapy and group B consist of *Patra PindaSweda* with Interferential Therapy. The drugs were selected from local areas, markets after proper identification and the *Narayana-*

Taila was prepared in the Alva's Pharmacy Mijar. Diagnostic criteria included: patients having pain over *Sphik* and *Kati* as well as pain radiating to *Prishta*, *Bhaga*, *Uru*, *Janu*, *Janga* and *Pada*, Positive SLR test. Inclusion criteria included: Patient fulfilling the diagnostic criteria like pain over *Sphik*, *Kati*, pain radiating to *Prishta*, *Bhaga*, *Uru*, *Janu*, *Janga* and *Pada*. Patients between the age group of 20 and 60 years. Patient who are fit for *PathraPindaSweda* and Interferential Therapy. Exclusion criteria included: Traumatic, Infective, Neoplastic, Degenerative conditions of spine and cauda equine syndrome, Developmental anomalies, Patients with systemic disorders which interfere with the course of the

treatment, Patients contraindicated for *Sweda*, Pregnancy and lactating women. *PatraPindaSweda* was prepared on the basis of classical methods of preparation. Study duration was 14 days and intervention was done on first 7 days later from 8th to 14th day follow up. Assessment criteria were done for both subjective and Objective parameters. Subjective parameters where *Ruk*, *Stambha*, *Toda*, *Spandana*, *tantra*, *Aruchi* and *gourava*. These parameters where assessed based on grading it from (0-4). Objective parameters included: SLR test, Distance of walking and laboratory investigations including Hb%, TC, DC, E.S.R, X-ray of Lumbo Sacral Spine-AP and lateral view

Table 1: Grading for Assessment Criteria:

1) <i>Ruk</i>	2) <i>Stambha</i> (Stiffness):	3) <i>Toda</i> (Pricking Sensation):	4) <i>Spandana</i> (throbbing):	5) <i>Aruci</i> (Anorexia):	6) <i>Tandra</i> (stupour):	7) <i>Gaurava</i> (Heaviness):
0- No pain	0 –No Stiffness	0- No pricking sensation	0- No <i>Spandana</i>	0- Willing towards all Bhojanpadarth.	0- Nil.	0- No heaviness.
1- Painful, walks without limping	1 –Mild, occasionally, lasting for <1hr, not interfering with ADL.	1- Occasionally pricking sensation	1- Mild, occasional, found in either group of muscles(buttock, back of thigh, back of leg)	1- Unwilling towards some specific Ahara but less than normal.	1- Lasting for more than 2hr, not interfering with ADL.	1- Occasionally feeling of heaviness.
2- Painful, walks with limping but without support	2 –Moderate, occasionally, lasting for >1hr, interfering with ADL	2- Mild pricking sensation	2- Moderate, occasional, found in any two groups of muscles.	2- Unwilling towards some specific Rasa's i.eKatu/ Amla/ Madhura.	2- Lasting for 2-4 hr, interfering with ADL.	2- Feeling of heaviness but not affecting ADL.
3- Painful, can walk only with support	3- Moderate, oftenly, lasting for >2hr, interfering with ADL.	3- Moderate pricking sensation	3- Severe, often, present in all 3 groups of muscles.	3- Unwilling for food but could take the meal.	3- Lasting for 4-6 hr, interfering with ADL.	3- Feeling of heaviness, interfering with ADL.
4- Painful, unable to walk	4- Severe, oftenly, lasting for >3hr, interfering	4- Severe pricking sensation		4- Totally unwilling for meal	4- Lasting for >6hr, interfering with ADL.	4- Feeling of heaviness for longer duration.

	with ADL					
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Results

The study was carried out in 40 patients of Gridhrasi in 2 groups; of which 20 patients were treated using Patra Pinda Sweda without IFT and 20 patients treated using Patra Pinda Sweda with IFT. The data was collected from patient before the treatment, after 7th day treatment, and on follow up period like 14th day.

Assessment of the condition was done based

on detailed performa adopting standard scoring method of subjective and objective parameters. The assessment parameters include a mixture of qualitative and quantitative data. Two groups are compared for pre and post values using following statistical analysis.

Student t Test was done for comparing the effectiveness of treatment between Group A and B. Paired t-test was performed for proving the effectiveness of Group A and B.

EFFECT OF TREATMENT IN SIGNS AND SYMPTOMS ON 7thDAY

In Group A:

Signs and Symptoms	Mean		%	SD ± SE	“t” Value	“p” Value
	BT	AT				
Ruk	3.4	2.85	16	0.510 ± 0.114	4.818	0.001
Stambha	3.35	2.45	27	0.307± 0.068	13.076	<0.001
Toda	3.35	2.55	24	0.410 ± 0.091	8.717	<0.001
Spandana	2.85	2.1	26	0.444 ± 0.099	7.549	<0.001
Tandra	0.9	0.7	22	0.410 ± 0.091	2.179	0.04
Aruchi	1.25	0.95	24	0.470 ± 0.105	2.853	0.01
Gaurava	0.9	0.65	28	0.444 ± 0.099	2.516	0.01
SLR test	43	47.5	10	0.538 ± 0.344	13.076	<0.001
Distance of walking	28.55	31.45	10	1.333 ± 0.298	9.723	<0.001

In Group B:

Signs and Symptoms	Mean		%	SD ± SE	“t” Value	“p” Value
	BT	AT				
Ruk	3.4	2.85	16	0.510 ± 0.114	4.818	0.001
Stambha	3.35	2.45	27	0.307± 0.068	13.076	<0.001
Toda	3.35	2.55	24	0.410 ± 0.091	8.717	<0.001
Spandana	2.85	2.1	26	0.444 ± 0.099	7.549	<0.001
Tandra	0.9	0.7	22	0.410 ± 0.091	2.179	0.04
Aruchi	1.25	0.95	24	0.470 ± 0.105	2.853	0.01
Gaurava	0.9	0.65	28	0.444 ± 0.099	2.516	0.01
SLR test	43	47.5	10	0.538 ± 0.344	13.076	<0.001
Distance of walking	28.55	31.45	10	1.333 ± 0.298	9.723	<0.001

Comparative effect in group A and B

Signs and Symptoms			Percentage Relief		“t” Value	“p” Value
	Mean Difference		%			
	Group A	Group B	Group A	Group B		
Ruk						

<i>Stambha</i>	0.55	0.9	16	26	2.306	0.02
<i>Toda</i>	0.9	1.1	27	32	2.054	0.04
<i>Spandana</i>	0.8	0.95	24	31	1.179	0.24
<i>Tandra</i>	0.75	0.95	26	33	1.798	0.08
<i>Aruchi</i>	0.2	0.3	22	33	0.716	0.47
<i>Gaurava</i>	0.3	0.4	24	35	0.649	0.52
<i>SLR test</i>	0.25	0.3	28	33	0.345	0.73
<i>Distance of walking</i>	4.5	5.75	10	13	2.336	0.02
	2.9	4.85	10	17	4.408	0.001

OVERALL EFFECT OF THE TREATMENT

The effect of the treatment is classified into five as mentioned in the chapter Clinical Study. Out of 40 patients, 52.5 % got moderately improved relief and 47.5% got partially improved relief

COMPARATIVE EFFECT OF THE TREATMENT

In Group A, 3 patients 15 % got 100 % relief whereas in Group B, 8 patients 40 % got 100 % relief. In Group A, 10 patients 50 % got more than 75 % relief and in Group B, 12 patients 60 % got more than 75 % relief. 7 patients 35 % of Group A got relief in between 50-75 % and 2 patients of Group B got relief in between 60-90 %

DISCUSSION

Gridhrasi is a *RujapradhanaNanatmajaVata-Vyadhi*, intervening with the functional ability of low back and lower limbs. It is particularly seen in most active period of life, involving working class people causing hindrance in routine life. The *Lakshanas* of disease are *Ruk*, *Toda*, *Muhurspanda*, and *Stambha* in the *Sphik*, *Kati*, *Uru*, *Janu*, *Jangha* and *Pada* which may be co-related to sciatica in which neuralgia along the course of Sciatic nerve of-

ten produces radiating pain into the buttock and lower limbs. Low back pain is the major cause of morbidity throughout the world affecting mainly the young adults.

Swedana is a procedure which stimulates the body temperature by contact with the external heat source, there by producing *Sweda*. "*PindaSweda*" is a form of *SankaraSweda*. The word *Sankara* as it suggests the mixture of different medicines or drugs when used in the form of *Pinda/ Pottali* called as *PindaSweda*. *PindaSweda* as a line of treatment mentioned not only for *VataVyadhi* but also in other diseases like *KarnaRoga*, *ShiroRoga* and *Arshas* etc. Even in *Sthira*, *Katina* and *MandalayuktaKushthaPindaSweda* are indicated. These suggests the utility of *PindaSweda* in broad spectrum of diseases, performed either in the form of *Sarvanga* or *EkangaSweda*. *PrasarniTailawas* selected because of the direct action on disease of *Vata* and *Kapha*. The present study on *Patra PindaSweda* shows following analysed factors.

It is *BahyaSthanikaSnehana* and *Swedana* procedure. *Snehana* mainly acts against the *RookshaGuna* caused by *Vata* and *Swedana* mainly acts against the *SheetaGuna*. It also reduces the *Sthambha*. *Sushrutha* in *Shareera*

Sthaana-(*DhamaniVyakaranaShareeram*) describes that, out of four *TiryakDhamani*, each *Dhamani* divides into hundred and thousand times and become innumerable. These *Dhamani* form a network and spread all over body. They have their openings in the *Loma Koopa*. The *Dravya* applied over the skin is absorbed through these openings and undergo *Pachana* by the help of *BhrajakaPitta* which is situated in the skin. The *Dravya* can be applied in various forms such as *Abhyanga*, *Parisheka*, and *Avagaha* etc. All the drugs applied in any of these forms undergo *Pachana* in the way explained above.

After treatment in both *Patra PindaSweda* without Interferential Therapy and *Patra PindaSweda* with Interferential Therapy group all criteria were significant. During follow up on 14th day in both *Patra PindaSweda* without Interferential Therapy and *Patra PindaSweda* with Interferential Therapy group all criteria were significant.

The comparison between the groups showed that the criteria *Ruk*, *Stambha*, SLR and Distance of walking were found to be statistically significant on 7th day and all other criteria like *Toda*, *Spandana*, *Tandra*, *Aruchi* and *Gaurava* were statistically insignificant. The comparison between the groups on 14th day showed that the criteria *Ruk*, *Stambha*, *Spandana*, SLR and Distance of walking were found to be statistically significant. All the other criteria like *Toda*, *Tandra*, *Aruchi*, and *Gaurava* were statistically insignificant.

Overall effect of therapy shows majority of patients were moderately improved i.e. 52.5% and 47.5% patients showed partial improve-

ment. On comparison between the both groups 65% patients from Group B and 40% patients from Group A got moderately improvement and 35% patients from Group B and 60% patients from Group A got partial improvement.

Ruk, *Stambha*, *Toda*, *Spandana*, is produced mainly by *VataPrakopa* and *Swedana* is one of the best treatments for *Vata*. So the *Snigdha* and *Swedana* therapy *Patra PindaSweda* helped to improve the conditions of the patients in Group A. In Group B the patients received the Interferential therapy along with *Patra PindaSweda*, so it helped more to improve the patients' conditions even better than Group A.

CONCLUSION

This clinical study reveals that both *Patra PindaSweda* without Interferential Therapy and *Patra PindaSweda* with Interferential Therapy procedures were effective in the management of *Gridhrasi* in signs and symptom like *Ruk*, *Toda*, *Stambha*, *Spandana*, *Aruchi*, *Tandra*, *Gourava*, SLR test and Distance of walking. But on comparison between both the groups after the treatment on 7th day, *Patra PindaSweda* with and without Interferential therapy showed insignificant changes in *Toda*, *Spandana*, *Tandra*, *Aruchi*, and *Gaurava*. On comparison between both the groups after 14th day showed insignificant changes in *Toda*, *Tandra*, *Aruchi*, and *Gaurava*. On comparison between the groups *Patra PindaSweda* with Interferential Therapy was found to be more effective in the management of *Gridhrasi*.

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Source of Support: Nil
Conflict Of Interest: None Declared

How to cite this URL: Sai Krishna C.V Et Al: A Clinico-Comparative Study Of Patrapinda Sweda With And Without Interferential Therapy (Ift) In Gridhrasi With Special Reference To Sciatica. International Ayurvedic Medical Journal {online} 2017 {cited September, 2017} Available from: http://www.iamj.in/posts/images/upload/3306_3312.pdf