



## COMPARATIVE CLINICAL EFFICACY OF *SIRAVEDHA* AND *VAITARANA BASTI* IN *GRIDHRASI* (SCIATICA)

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### ABSTRACT

*Gridhrasi* is a very painful condition which affects all sources of occupations ranging from heavy manual worker to a housewife. The explanations of *Gridhrasi* in Ayurvedic texts are very much similar to the condition sciatica in modern texts. The incurability of this condition is well known. So there is a need to explore an effective solution to manage this ailment. The present study was aimed at comparing the effect of *Siravedha* and *Vatrana Basti* in the management of *Gridhrasi*. A total of 40 patients were registered for the study, out of which none discontinued the treatment: 20 patients in group A (*Siravedha*) and 20 in group B (*Vatrana Basti*). The results show that both treatments had significant effect on *Gridhrasi*, but Group B showed better relief in the cardinal symptoms in group B. *Siravedha* and *Vatrana Basti* both procedures might be helpful in the recovery of the patient.

**KEYWORDS:** *Gridhrasi*, Sciatica, *Siravedha*, *Vatrana Basti*.

### INTRODUCTION

Each and every human being desires to live a blissful and healthy life but the shifting lifestyle, increased and prevalent improper food habits, demanding and overexerting day to day job in addition to deficient proper sleep has rendered the modern-era man to an increased incidence of musculoskeletal disorders, among which Sciatica is high on the list. It is a result of extra straining on spine which is attributed by improper sitting postures in office, jerking movements in travel, heavy labor work etc. The prevalence of sciatica ranges from 11%-40%<sup>[1]</sup>. Pathology involves spinal nerve irritation generating pain in the area of distribution of sciatic nerve which is often associated with lumbago. The symptoms of sciatica can be correlated to the disease called *Gridhrasi*, mentioned in *Ayurvedic* text under the umbrella of *Vata Vyadhi*, manifesting as *Toda* (piercing pain), *Spandana* (twitching), *Graham* (rigidity), *Stambha* (stiffness) and *Vedana* (pain) radiating from *Kati-Pradesh* (lumbosacral region) to *Padanguli* (foot)<sup>[2]</sup>. Management provided by the Allopathic system is either conservative treatment or surgical intervention. Conservative treatments include rest, immobilization, analgesic and anti-inflammatory drugs, physiotherapy; manipulation etc. The surgical interventions like laminectomy and discectomy

are also not the ultimate solution owing to the post surgical complications and recurrence. While *Ayurveda* provides therapies like *Bheshaja*, *Snehana*, *Swedana*, *Siravedha*, *Agnikarma* and *Basti karma* which are efficacious, safe and also cost effective. As mentioned in the Ayurvedic classics, *Siravedha* is one of the fascinating subjects and satisfactory answers for *Gridhrasi-Roga* (Sciatica). *Siravedha* is accepted as half of the therapeutic measure in *Shalya Tantra* like *Basti* in *Kayachikitsa*<sup>[3]</sup>. *Acharya Sushruta*, cited that the diseases in which *Snehana*, *Swedana* and *Lepadi Kriya* are ineffective, *Siravedha* can give quick relief<sup>[4]</sup>. The indicated place for application of *Siravedha* is four *Angulas* (width of the patient's index finger) above or below *Janu Pradesh* (knee joint)<sup>[5]</sup>. According to *Acharya Charaka*, *Gridhrasi* is caused predominantly due to the vitiation of *Vata* or *Vata-Kapha* and *Acharyas* have appreciated *Basti* as the best therapeutic modality for the management of *Vatavyadhi*.

*Acharya Vangasena* encourages the use of *Vaitarana Basti* in the management of *Gridhrasi*<sup>[6]</sup>. In this work, a comparative study of the efficacy of *Siravedha* and *Vaitarana Basti* in the management of *Gridhrasi* (sciatica) was carried out to find out which procedure is more effectual in *Gridhrasi*.

### **AIMS AND OBJECTIVES**

- 1) To evaluate the efficacy of *Siravedha* in management of *Gridhrasi*( Sciatica).
- 2) To evaluate the efficacy of *Vaitarana Basti* in management of *Gridhrasi* (Sciatica) And to compare the efficacy of *Siravedha* and *Vaitarana Basti* in management of *Gridhrasi* (Sciatica).

### **MATERIALS AND METHODS**

A total of 40 patients suffering from *Gridhrasi*, diagnosed on the basis of signs and symptoms, from the outpatient and inpatient department of Panchakarma were selected irrespective of caste, sex or religion.

### **INCLUSION CRITERIA**

1. Diagnosed cases of *Gridhrasi* (Sciatica)
2. Patients in the age group of 20-65 years

### **EXCLUSION CRITERIA**

1. Malignancy of spine or other organs
2. Fracture related to spine
3. T.B. of spine or hip joint
4. Uncontrolled Diabetes, Hypertension and pregnancy

## DIAGNOSTIC CRITERIA

**Subjective Parameters:** Patients were diagnosed on the classical signs and symptoms of *Gridhrasi* like pain radiating from *Sphika* (Hip) to *Pada* (foot) region. Other symptoms of *Gridhrasi* like *Stambha* (stiffness), *Suptata* (numbness and tingling), *Gaurava* and tenderness along the course of sciatic nerve.

### Objective Parameters

1. SLR test in affected leg
2. X-ray Lumbosacral Spine (Anteroposterior and Lateral view).

## INVESTIGATIONS

Routine investigations were done in all cases included hemoglobin, total leukocyte count, differential leukocyte count, erythrocyte sedimentation rate, fasting blood sugar, and RA factor; routine examination of urine and stool; and x-ray of lumbosacral region (anteroposterior and lateral view).

## GROUPING OF PATIENTS

Patients were randomly divided into following two groups:

**GROUP A:** *Siravedha* was done at the site four *Angulas* below the *Janu Sandhi* (Knee joint) by scalp vein no. 20 (1 sitting per week- total 4 sittings).

**GROUP B:** Classical *Vaitrana Basti* was administered to the patients after meal continuously for 15 days.

### POSOLOGY:

1. **Group A (*Siravedha*):** *Tila taila* was used for *Abhyanga* in *Purvakarma*  
**Haridra Churna (Turmeric powder) in *Paschata Karma***
2. **Group B (*Vaitrana Basti*):** *Tila taila* was used for *Abhyanga* in *Purvakarma*

**Table 1: Contents of *Vaitrana Basti***

Content name	Latin/English name	Quantity	Quantity (in gm or ml-Approx.)
<i>Amlika</i>	<i>Tamarindus indica</i> Linn.	1Pala	48 g
<i>Saindhava</i>	<i>Sodii chloridum</i>	1Karsha	12 g
<i>Guda</i>	<i>Jaggery</i>	½ Pala	24 g
<i>Go-payah</i>	<i>cow milk</i>	1 Kudava	192 ml
<i>Tila Taila</i>	<i>Sesamum indicum</i> Linn	Ishat Taila	50 ml

## DURATION OF TREATMENT

**Group A (*Siravedha*):** 1 month

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**Group B (*Vaitrana Basti*):** 15 days

**FOLLOW UP:**

After completion of the treatment, patient was advised to visit weekly for follow up for 1 month.

**ETHICAL CLEARANCE:**

The study was started after obtaining ethical clearance from the Institutional Ethics committee, IPGT &RA, Jamnagar, Ref. PGT/7-A/2012-2013/1964 on dated 21/09/2012.

**CTRI REGISTRATION:**

This clinical trial is registered under CTRI (Clinical Trial Registry- India) (Reference No. REF/2014/02/006549)

**CRITERIA FOR ASSESSMENT**

The assessment was done by adopting the gradation system and relief depicted in terms of percentage. For statistical evaluation, paired 't' and 'Chi' square tests were applied to draw the scientific conclusion.

The obtained results were classified as:

Marked improvement: 75%–100% relief

Moderate improvement: 51%–75% relief

Mild improvement: 26%–50% relief

Unchanged: <25% relief

**OBSERVATIONS**

Out of 40 patients 20 were registered in each group. None of them discontinued the treatment. Important features were as follows: 35% were from the age-group of 41-50 years, 57.5% were females, 92.5% were married, 87.5% were Hindus, 50% were housewives, 80% were from urban areas, 50% had *Vata-Pittaja Prakriti*, 35% had *Pittakaphaja*, and 15% had *Vata-Kaphaja Prakriti*. *Aharaja Nidana*, maximum number of patients i.e. 83% were having *Katu Dravya* predominant diet, followed by 70% having *Laghu Dravya* predominant diet. In *Viharaja Nidana*, maximum patients i.e. 75% had habit of *Diwa Swapna* and 42.5% patients had *Vishamasana* as *viharaja nidana*. While considering the *Mansika Nidana*, maximum patients i.e. 72% were having *Chinta* and 42.5% were suffering from *Shoka*. Cardinal symptom *Ruka Lakshana*, was found in all the patients while 92.5% patients reported *Stambha* and *Suptata* respectively. 82.5% patients had *Spandana* and 77.5% patients had suffered from *Sakthanaha kshepham Nigrahniyat*. Only 15% patients had history of injury. Pain was aggravated in 82.5% patients in standing posture of body; in 72.5% while lifting weight, 85% felt relief in pain in lying supine position. Tenderness at lumbo-sacral spine was found in 85% patients, and at sacro-iliac joint in 32.5% of

the patients. 100 % patients were having painful range of movement in forward flexion whereas 60% and 50% of the patients having painful range of movement in right and left lateral flexion respectively.

### RESULTS ON EFFECT OF THERAPIES

Both trial procedures, *Siravedha* (Group A) and *Vaitrana Basti* (Group B) showed significant improvement as shown in table.

**Table No. 2: Effect on Cardinal Symptoms**

Symptoms	Mean Difference		% change		'P' value		n (A)=20
	Group A	Group B	Group A	Group B	Group A	Group B	
<i>Ruka</i>	4.8	4.15	83	75	<0.001	<0.001	n (A)=20
<i>Stambha</i>	1.45	2.26	52.2	71.66	<0.001	<0.001	
<i>Suptata</i>	1.85	4.15	71.15	75.45	<0.001	<0.001	
<i>Spandana</i>	1.5	1.88	63.33	78.31	<0.001	<0.001	n (B)=20
<i>Sakthishephanigraha</i>	1.9	2.15	64.40	78.18	<0.001	<0.001	

**Table No. 3: Overall effect of therapy in group A and group B:**

Improvement	Group A		Group B	
	No. of Patients	%	No. of Patients	%
Unchanged	0	0	0	0
Improvement	1	5	1	5
Moderate Improvement	7	35	9	45
Marked Improvement	11	55	9	45
Complete remission	1	5	1	5

### DISCUSSION

*Gridhrasi* is such a disease having its origin in *Pakvashaya* and seated in *Sphika* and *Kati Pradesha* i.e. lumbar spine region. Though the disease *Gridhrasi* is caused by the morbidity of *Vata Dosha*, secondary involvement of *Kapha Dosha* produces symptoms like *Gaurava*, *Agnimandya*, *Tandra*, *Mukhapraseka*, *Arochaka* and *Bhaktadvesha*. Vitiated *Vata* especially

*Apana* and *Vyana* are involved in the *Samprapti* of *Gridhrasi*. *Kapha* may be the *Anubandhi Dosh*a in *Vata Kaphaja* variety of *Gridhrasi*. Vitiated *Doshas* affect the *kandara* of leg on which movements of the affected leg depends. When this *Kandara* is affected, there is pain in the leg radiating from *Sphika, Kati, Uru, Janu, Jangha* etc.

Because, *Snayu* and *Rakta Dhatu* are involved as *Dushya*, the *Siravedha* and *Basti Karma* have been indicated as the chief lines of treatment<sup>[7]</sup>.

*Suptata* is found in *Twakagat Vata* and in which *Raktamokshana* is indicated by *Sushruta*<sup>[8]</sup>. Probably due to relaxation of the surrounding muscles & ligaments there might be release of pressure on sciatic nerve after performing *Siravedha*, resulting in relief in *Suptata*. Hence, in superficial nerve involvement, *Siravedha* was found effective to relieve *suptata* in patients suffering from *Gridhrasi*.

*Siravedha* is predominantly indicated in *Pitta or Raktaja Vyadhies* or when *Pitta* is in *Anubandha* to *Vata Dosh*a. In such conditions of *Vata Prakopa* due to *Kapha* and *Pitta Avarana*, *Siravedha* can help to remove the *Avarana* of *Pitta* and *Kapha Dosh*a giving way for *Anuloma Gati* of vitiated *Vata* that indirectly cures the *Vatika* symptoms along with symptoms produced by *Kapha Dosh*a. in the pathogenesis of *Gridhrasi*, *Vata* is invariably present particularly *Vyana* and *Apana Vata*. *Gridhrasi* is a disease having its *Udbhavastana* (origin) in *Pakwashaya* and *Adishtana* in *Kati* i.e. lumbar spine. So in case of *Gridhrasi*, *Basti* may be the best mode of drug administration. *Vaitarana Basti* comprises mainly *Ksheera, Taila, Chinch*a, *Guda* and *Saindhava Lavana*. All these drugs possess mainly *Snigdha Guna, Usna Veerya* and *Vedana Sthapana, Balya, Rasayana* and *Vata Shamaka* properties, thus providing significant effect on most of the symptoms of *Gridhrasi*.

## CONCLUSION

After the logical interpretation of the results obtained in this study, it can be concluded that *Gridhrasi* can be well equated with sciatica syndrome in modern parlance. Both the procedures, *Siravedha* and *Vaitrana Basti* showed significant results in the subjective and objective parameters of *Gridhrasi* (Sciatica). Though *Siravedha* is a better treatment for management of pain (*Ruka*) but results never sustain for longer duration. No significant changes have been observed in routine investigations like blood and urine as well as plain x-ray of Lumbo-sacral spine after treatment. Both the procedures are effective, simple, cheap and safe for the patients suffering from *Gridhrasi*. But *Vaitarana Basti* is more effective in treating the cardinal symptoms of *Gridhrasi*.

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