



A CLINICAL STUDY ON SIRAVEDHA IN THE MANAGEMENT OF *GRIDHRASI* WITH SPECIAL REFERENCE TO SCIATICA

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ABSTRACT

Background: Sciatica is known as sciatic neuritis, sciatic neuralgia, or lumbar radiculopathy, is when pain is felt going down the leg from the back. This pain may go down the back, outside, or front of the leg. Typically, symptoms are only on one side of the body. About 90% of the time sciatica is due to a spinal disc herniation pressing on one of the lumbar or sacral nerve roots. Sciatica is a neuralgia disease and Ayurveda addresses it as *Gridhrasi*. *Gridhrasi* is one of the *Vatavyadhi* caused by aggravated *Vatadosha*. It is characterized by radiating pain, tingling sensation & numbness at the posterior aspect of the leg, which makes the patient difficult to walk. There is no specific curative remedy in modern medical science except pain killers. Ayurveda mentioned *Siravedha* in the management of *Gridhrasi* and Acharya Sushruta has mentioned *Siravedha* as a superior therapeutic procedure among others as it gives instant relief. **Aims:** To evaluate the efficacy of *Siravedha* in the management of *Gridhrasi* w.s.r. to sciatica. **Materials and Methods:** A total of 20 patients suggesting *Gridhrasi* on the basis of sign and symptom and clinical examination were selected from O.P.D. and I.P.D. of Dept. of Panchakarma was treated with 4 sittings of *Siravedha* (weekly one sitting). Assessment was done after the completion of therapy on the basis of subjective criteria (pain, stiffness, tingling and pricking sensation, numbness and twitching) and objective criteria (SLR, scoliosis). **Results:** *Siravedha* was found to be significantly effective in reducing pain and other symptoms. **Conclusion:** *Siravedha* gives instant relief in *Gridhrasi*.

KEYWORDS: Ayurveda, *Gridhrasi*, Sciatica, *Siravedha*.

INTRODUCTION

Due to the increased and prevalent improper food habits, busy and overexerting day to day work in addition to lack of proper sleep, the modern-era man has been precipitated to an increased incidence of musculoskeletal disorders. Improper sitting postures in office, jerking movements in travel, heavy labor work have led to low back pain and sciatica due to extra straining on the spine. Low back pain is an extraordinarily common complaint, second only to the common cold. About 50% of working adults experience a back injury each year.^[1] The prevalence of sciatica ranges from 11% -40%.^[2]

The symptoms of sciatica can be correlated to the disease called *Gridhrasi*, mentioned in Ayurvedic text under *Vata Vyadhi*, having symptoms like *Toda* (piercing pain), *Spandana* (twitching), *Graham* (rigidity), *Stambha* (stiffness) and *Vedana* (pain) radiating from *Kati-Pradesh* (lumbosacral region) to *Padanguli* (foot).^[3] In modern medicine, the management of sciatica includes analgesics, epidural steroid injections, peri-radicular infiltration and surgical treatment at the cost of their own

limitations and complications. While in Ayurveda there are therapies like *Bheshaja*, *Snehana*, *Swedana*, *Siravedha*, *Agnikarma* and *Basti karma* which are simple, safe and cost effective.

As mentioned in classics, *Siravedha*, *Basti* and *Agnikarma* are considered as main therapeutic tools for *Gridhrasi*.^[4]

Siravedha (one technique of bloodletting) is one of the fascinating subjects and satisfactory answers for *Gridhrasi-Roga* (disease). The indicated place for application of *Siravedha* is four *Angulas* (width of the patient's index finger) above or below *Janu Pradesh* (knee joint).^[5] Acharya Sushruta, mentioned that the diseases in which *Snehana*, *Swedana* and *Lepadi Kriya* are ineffective, *Siravedha* can give quick relief.^[6] Hence, *Siravedha* treatment modalities are taken in this clinical trial to assess their approach.

Siravedha is one of the fascinating subjects and satisfactory answers for *Gridhrasi Roga*. The place for *Siravedha* in *Gridhrasi* is located four *Angulas* above or

below *Janu Pradesh*.^[7] (Knee joint) in the *Antra Kandra Gulpha Sthana*.^[8] Though *Sushruta* and *Charaka* mention different places for *Siravedha*, the ultimate goal is to remove the vitiated *Dosha & Rakta*.

MATERIALS AND METHODS

Selection criteria

20 patients suffering from *Gridhrasi* diagnosed on the basis of signs and symptoms, attending the O.P.D. and I.P.D. of I.P.G.T. & R.A. hospital, Jamnagar, were selected randomly irrespective of their age, sex, religion, caste, occupation etc.

Inclusion criteria

- Diagnosed cases of *Gridhrasi* (Sciatica)
- Patients, belong to the age group of 20 - 65 years.

Exclusion criteria

- Uncontrolled Diabetes Mellitus
- Uncontrolled T.B. of spine & hip joint
- Malignancy of spine or other organs
- Fracture related to spine
- Uncontrolled Hypertension
- Cardiac diseases
- Pregnancy
- Other systemic diseases.
- Patients contraindicated for *Siravedha & Basti* in classics.
- Age below 20 and above 65 years.

Diagnostic criteria

Patients were diagnosed on the basis of 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 & tingling) and *Gaurava*. Tenderness along the course of sciatic nerve, S.L.R. test in affected leg as objective measure were also included for diagnosis. X-Ray for Lumbar spine in AP or Lateral view was done in every patient.

Drugs

- Tila Taila* was used for *Abhyanga* in *Purvakarma*
- Haridra* (Turmeric) powder in *Pashchat Karma*

Procedure: *Siravedha* was done using scalp vein no 20 on affected leg.

Duration: The duration of the treatment was 1 month.

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

OBSERVATION

Age wise distribution

In the present study maximum number of patients i.e. 55% belonged to age group between 41-50 years, followed by 30% patients in 31-40 years. 10% of patients

were observed in age group of 20- 30 years and 51-60 years is 5%. (Table No 1).

Table No 1: Age wise distribution of patients

Age	No of patients	Percentage
20-30	02	10%
31-40	06	30%
41 – 50	11	55%
51 – 60	01	5%
61-65	00	00%

Nature of Work wise distribution

75% of the patients were having moderate physical activity in their work whereas heavy physical work in 5% of the patients and sedentary lifestyle was found in 20% patients. Nature of Work wise distribution (Table No 2)

Table 2: Nature of Work wise distribution of patients.

Heavy	01	5%
Moderate Physical	15	75%
Sedentary	04	20%

Chronicity of disease

Maximum number of the patients i.e. 75% of the patients were having less than 1 years of chronicity, 25% patients were having 1-5 years chronicity. (Table No 3)

Table No 3: Chronicity of disease wise distribution (in year).

<1	15	75%
1– 5	05	25%
> 5	00	00%

Lakshana (symptoms) wise distribution

Observed data from the table no 4 reveals that, all the patients were having the *Ruka Lakshana* i.e 100 %, while 90%, 100%, 90% patients were found under *Stambha*, *Suptata* Spandana respectively and 85% patients had suffered from *Sakthana Kshepham Nigrahniyat*. *Gaurava* was found in 55% patients, *Tandra* in 55% patients and *Aruchi* in 60% patients. Other symptoms like *Dehasyapravakrata* were observed in 55% patients.

Table No 4: Lakshana (symptoms) wise distribution of patients.

Lakshana (symptoms)	No of patients	Percentage
<i>Ruka</i> (Pain)	20	100%
<i>Stambha</i> (Stiffness/Spasm)	18	90%
<i>Spandanubhuti</i> (Twitching/ pulsating)	18	90%
<i>Suptata</i> (Numbness/ Tingling)	20	100%
<i>Sakthana Kshepham Nigrahniyat</i> (Restricted movement of leg)	17	85%

<i>Tandra</i> (Stupor)	11	55%
<i>Gaurava</i> (Heaviness)	11	55%
<i>Aruchi</i> (Anorexia)	12	60%
<i>Dehasyapi Pravakrata</i> (Deformity in body)	11	55%

Onset of Pain

As observed in 20 patients, maximum i.e. 85% had started feeling of pain gradually and 15% had sudden onset of pain. (Table No 5).

Table No 5: Onset of Pain wise distribution of patients

Onset of Pain	No of patients	Percentage
Sudden	03	15%
Gradual	17	85%

Course of pain

The data from table 6 shows that 90% patients had felt of continuously pain. In 5% patient, pain was felt intermittent episodes during the course of disease.

Table No 6: Course of pain wise distribution of patients.

Course of pain	No of patients	Percentage
Continuous	18	90%
Intermittent	01	5%

History of Injury

Out of 20 patients observed in this study, only 10% patients had history of injury whereas it was absent in 90% of patients. (Table No 7).

Table No 7: History of Injury wise distribution.

History of Injury	No of patients	Percentage
Present	02	10%
Absent	18	90%

Nature of pain

Maximum patients 05% had throbbing type of pain, 20% had stabbing type and 25% had shooting type of pain. The squeezing and crushing type of pain was seen in 5% and 15% of the patients respectively, 20% of the patients were unable to explain about the nature of pain. (Table No 8).

Table No 8: Nature of pain wise distribution.

Nature of pain	No of patients	Percentage
Shooting	05	25%
Squeezing	01	5%

Table No 10: Effect of therapy on symptoms of *Gridhrasi*.

Effect of therapy on <i>Ruka</i> (pain)						
Mean B.T.	Mean A.T	Mean Diff.	%	'W'	'N'	'P'
5.75	0.95	4.8	83↓	210	20	<0.001

Stabbing	04	20%
Crushing	03	15%
Throbbing	10	50%
Burning	00	00%
Unable to Explain	04	20%

Painful Range of Movement

As the shown in table one shows that 100 % patients were having painful range of movement in forward flexion whereas 70% and 70% of the patients having painful range of movement in right and left lateral flexion respectively. 70% patients were having painful range of movement in extension, 50% having painful ROM in rotation to left, whereas 65% were having painful ROM in rotation to right. (Table No 9).

Table No 9: Painful Range of Movement.

Movement	No of patients	Percentage
Forward flexion	20	100%
Rightlateral flexion	14	70%
Left Lateral flexion	14	70%
Extension	14	70%
Rotation to right	13	65%
Rotation to left	10	50%

RESULTS AND DISCUSSION

Ruka (pain) is 83% decrease which was statistically highly significant ($p < 0.001$). *Siravedha* is effective on *Stambha* (stiffness/cramps) is highly significant ($p < 0.001$) reduction was found in *Stambha* i.e. 52.2%. *Suptata* (tingling & numbness) was statistically highly significant ($p < 0.001$) decrease in the *Suptata* by about 71.15%. Symptoms like *Spandana* (twitching) was statistically highly significant decrease ($p < 0.001$) in the *Spandana* i.e. 63.33%. *Sakthikshephanigraha* (SLR) was statistically highly significant improvement ($p < 0.001$) decrease 64.40%. Effect of therapy on *Tandra* (drowsiness) there was statistically highly significant decrease ($p < 0.001$) and *Tandra* was decrease is 47.6%. In *Gaurava* (Heaviness) was statistically highly significant decrease ($p < 0.001$) in *Gaurava* and decrease 52.5%. Effect of therapy on *Arochaka* (loss of taste) there was statistically significant decrease ($p < 0.01$) in *Arochaka* and decrease is 26.79%. (Table No 10).

Effect of therapy on <i>Stambha</i> (Stiffness/cramps)						
2.77	1.05	1.45	52.2↓	171	18	<0.001
Effect of therapy on <i>Suptata</i> (Tingling & numbness)						
2.6	0.75	1.85	71.15↓	190	19	<0.001
Effect of therapy on <i>Spandana</i> (Twitching)						
2.36	0.75	1.5	63.33↓	190	19	<0.001
Effect of therapy on <i>Sakthikshephanigraha</i> (SLR)						
2.95	1.05	1.9	64.40↓	210	20	<0.001
Effect of therapy on <i>Tandra</i> (Drowsiness)						
1.78	0.4	0.85	47.6↓	91	13	<0.001
Effect of therapy on <i>Gaurava</i> (Heaviness)						
1.71	0.3	0.9	52.5↓	91	13	<0.001
Effect of therapy on <i>Arochaka</i> (Loss of taste)						
1.57	0.15	0.42	26.79↓	28	07	<0.01

Overall effect of therapy

Overall effect of therapy (table no.3) 55% is marked improvement, moderate improvement 35%, improvement and complete remission is 5%, 5% respectively. (Table No 11).

Table No 11: Overall effect of therapy.

Improvement	No. of Patients	Percentage
Unchanged	0	0
Improvement	1	5
Moderate Improvement	7	35
Marked Improvement	11	55
Complete remission	1	5

CONCLUSION

Conclusions are drawn after logical interpretation of the results obtained in this clinical study. *Gridhrasi* can be well equated with sciatica syndrome in modern parlance. Though *Raktmokshana* is better treatment for management of pain (*Ruka*) but results never sustain for longer duration. In symptoms like *Ruka*, *Suptata*, *Spandana*, *Sakthikshephanigraha* and *Gaurava* are statistically significant decrease. *Siravedha* is found effective in *Stambha* (stiffness), *Spandana* (twitching), *Suptata* (Numbness), *Sakthikshephanigraha* (SLR) and *Gaurava* (heaviness). A *Siravedha* procedure is effective, simple, cheap and safe for the patients having *Gridhrasi*. In this study, none of the patients developed neither any adverse symptom nor any side effects during the course of treatment. These medicaments in therapeutic doses are very safe.

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