



Research Article

CLINICAL EVALUATION OF *SIRAVEDHA* IN THE MANAGEMENT OF *GRIDHRASI* WITH SPECIAL REFERENCE TO SCIATICA

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ABSTRACT

Gridhrasi (sciatica) is pain dominant lifestyle disorder, in which the pain starts from *Sphik Pradesha* (back region) and radiates towards the foot. According to *Charaka* it can be managed by the process of *Siravedha*, *Snehana*, *Bastikarma* and *Agni karma*.

Siravedha is considered as half of the therapeutic measure in *Shalyatantra* like *Basti* in *Kayachikitsa*. *Siravedha* is an emergency management in *Vataja nanatmaja vyadhi* like *Gridhrasi* to achieve better results. It has been done at the site of four *Angula* above and below the *Janu sandhi*.

The present study was carried out on clinical evaluation of *Siravedha* in *Gridhrasi* as cited by *Sushruta* in the context of management of *Gridhrasi*. For the study 15 patients were randomly selected from OPD and IPD of JIAR hospital, Jammu. It was single blind clinical study to evaluate the efficacy of *Siravedha* by subjective and objective criteria i.e. pain, pricking sensation, stiffness, tingling sensation, anorexia, torpor, heaviness, SLR angle and walking time. The study revealed that, there were significant results found in *Gridhrasi* by *Siravedha*. It destroyed the *Avarana* (obstruction) which helped in normal movement of *Vata* and therefore restored the normal circulation and function of *Vata*. Ultimately; it reduced pain, pricking sensation, stiffness, tingling sensation, heaviness and quick relief of symptoms. It was simple economical and highly effective procedure without producing any adverse effects.

KEYWORDS: *Gridhrasi*, Sciatica, pain, *Siravedha*, management.

INTRODUCTION

Ayurveda is the practical science of life, which speaks about the longevity of life. But the changing lifestyle of modern human beings has created several disharmonies in his biological system as the advancement of busy professional and social life, improper sitting postures and over exertion jerking movements during travelling etc. factors creates undue pressure to spinal cord which leads to low backache and Sciatica likewise progressive disorders affecting pelvis and also the nearer structures. Thus, the disease now becomes threat to working population.

Sciatica is characterized by constant aching pain which felt in the lumber region may radiate to the buttock, thigh, calf and foot¹. Sciatic pain radiates along the course of the sciatic nerve². According to Stanlay J. Swierzewski, low backache affects 80-90% of people during their life time but sciatica occurs in about 5% of cases. It is common between 30-40 yrs of age and affects both the sexes (male and female) equally³.

Treatment in the modern medicine and surgery includes.

- 1) Conservative treatment
- 2) Epidural steroid injection
- 3) Peri-radicular infiltration
- 4) Surgical treatment

But all these treatments have adverse effects, complications and also possibility of more reoccurrence rate.

On the basis of symptoms, Sciatica can be correlated with *Gridhrasi* in Ayurveda. *Gridhrasi* is included in *Vataja Nanatmaja Vyadhi* and also considered as *Maharoga* by Acharya *Charaka*⁴. In all Ayurveda classic, the description of disease is available.

In *Ayurvedic* texts, the treatment described⁵

- 1) *Siravedha*
- 2) *Agni karma*
- 3) *Basti karma*
- 4) *Snehna*
- 5) *Swedana*
- 6) Oral medication

Siravedha is accepted as half of the therapeutic measure in *Shalya tantra*, like *Basti* in *Kayachikitsa*⁶. And here also in this disease it has spontaneous effects. The cardinal symptoms of *Gridhrasi* like pain (*Ruk*), stiffness (*Stambha*), pricking sensation (*Toda*), tingling sensation (*Muhuspandanama*), are relieved by *Siravedha* procedure⁷. It is done at the site of four *Angula* above and below the *Janu sandhi*⁸. *Dalhana*, while commenting on *Siravedha* in *Gridhrasi* clarified that *Siravedha* will be beneficial in *Avrita vatajanya* *Gridhrasi*⁹. *Sushruta* has mentioned the diseases, which are not relieved so quickly by *Snehana*, *Lepanadi* measures; in this situation *Siravedha* is an emergency management to achieve the better results⁶. An effort was made to know the efficacy of *Siravedha* for the management of *Gridhrasi*.

MATERIAL AND METHOD

It is a single blind clinical study wherein 15 patients suffering from sciatica were randomly selected from OPD and IPD of JIAR hospital, Nardini, Jammu.

A detailed clinical proforma was prepared, to study the patient and disease. Blood investigations are also preformed.

SELECTION OF PATIENTS

INCLUSION CRITERIA

- Patient of either sex with age group of 20-70 years.
- Classical signs and symptoms of *Gridhrasi* like pain, pricking sensation, stiffness and tingling sensation starting from *Sphik pradesha* (back) and radiates towards the foot were included.
- Chronicity less than 2 years.

EXCLUSION CRITERIA

- *Gridhrasi* due to traumatic injuries.
- *Gridhrasi* developed due to any post surgical complication.
- *Gridhrasi* associated with systemic /metabolic disorders.
- Congenital deformity of vertebral column.
- Pregnant and lactating women.

MATERIALS

- 1) Scalp vein set 18No.

ASSESSMENT CRITERIA

- 2) Kidney tray
- 3) Cotton
- 4) Bandage
- 5) Tourniquet

METHODOLOGY

In this study of 15 patients, signs and symptoms before and after treatment were recorded in the proforma of case sheet of *Gridhrasi*. The treated patients were advised not to carryout strenuous work and avoid straining of the leg during treatment.

POORAVKARMA¹⁰

- *Abhyanga* with *Moorchita Tailam* and *Nadi swedana* was given on the day of *Siravedha*.
- Patients were given *Yavagu* 48 minutes prior to procedure.

PRADHANA KARMA¹¹

- Patient was made to lie down in prone position with knee flexed and draping done.
- Regular checkup of vitals.
- Tourniquet was applied 4 *Angulas* above the *Janu sandhi*.
- 4 *Angulas* below the *Janu sandhi* i.e. at the site of *Siravedha* was cleaned with antiseptic solution.
- A straight vein was made prominent and the needle of scalp vein 18 No. (*Vrihi Mukha Shastra*) was inserted by puncturing the vein and blood was allowed to flow and is collected in kidney tray.
- Then after sometime the flow of blood was arrested itself without any external influence.
- The amount of blood taken should be 50-100 ml.

PASCHAT KARMA

- Scalp vein was removed.
- Tourniquet was removed.
- *Haridra churna* was applied at the site of *Siravedha* and patient was shifted to ward.
- Advised not to carryout heavy work and to avoid straining of the leg during the day of treatment.
- Advised to follow *Pathya-Apathya*.

PERIOD OF STUDY : 60 days.

Table 1: Assessment criteria & Grading

Symptoms	Grade 0	Grade 1	Grade 2	Grade 3
Pain	No pain	Mild	Moderate	Severe
Pricking sensation	No sensation	Mild	Moderate	Severe
Stiffness	No stiffness	Mild	Moderate	Severe
Tingling sensation	No tingling	Mild	Moderate	Severe
Anorexia	No anorexia	Mild	Moderate	Severe
Torpor	No torpor	Mild	Moderate	Severe
Heaviness	No heaviness	Mild	Moderate	Severe
SLR Angle rises up to degree	90	70	40	20
Walking (50 ft.)	in 50sec	In 51-100 sec	In 101-150 sec	More than 150

RESULT

The present study revealed that incidence of *Gridhrasi* was more common in age group of 31-40 yrs and 41-50 yrs i.e. 33.33% followed by 20% in age group of 21-30 yrs. Maximum patients were male i.e. 60%. Maximum patients were Hindus i.e. 93.33%. Maximum were from rural area. Maximum patients have moderate type of life style i.e. 53.33%.

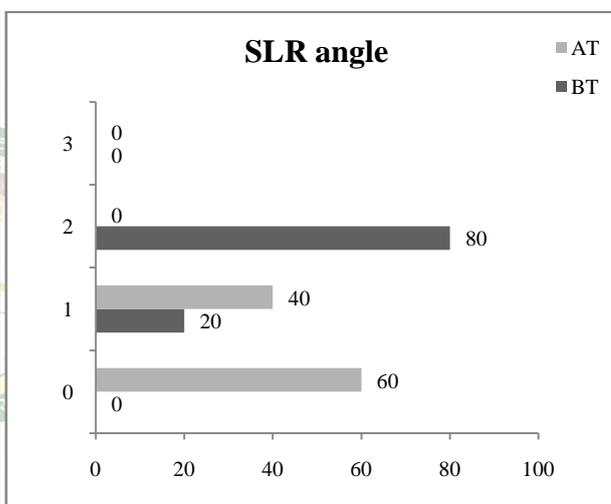
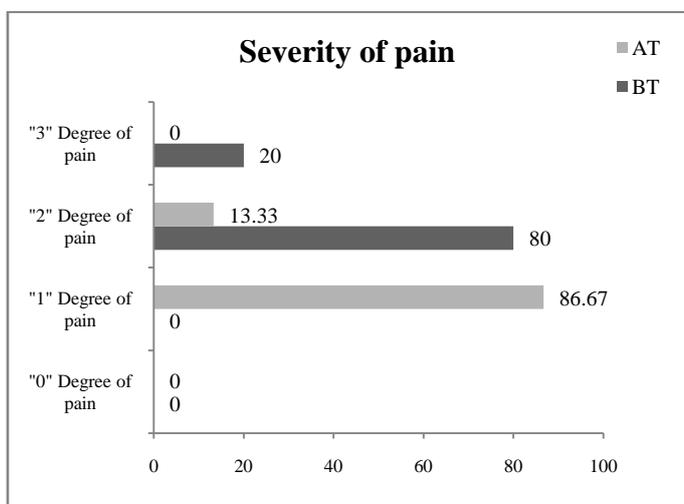
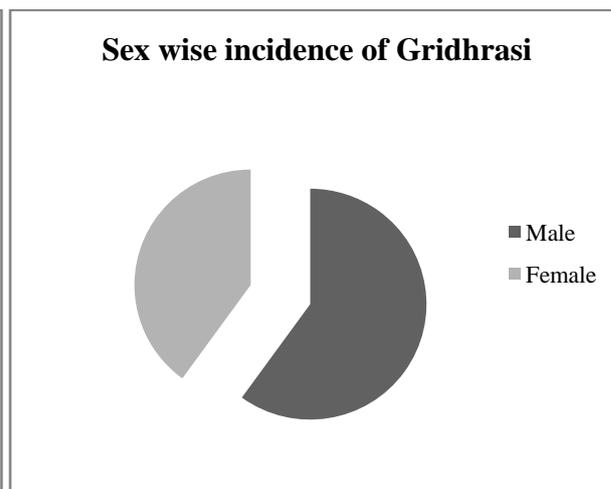


Table 2: Statistical analysis on overall parameters

Symptoms	Mean		SD		SE		t	df	p
	BT	AT	BT	AT	BT	AT			
<i>Ruk</i>	2.2	1.13	0.414	0.352	0.107	0.091	16	14	0.000
SLR	1.8	0.4	0.414	0.507	0.107	0.131	8.573	14	0.000
<i>Toda</i>	1.13	0.33	0.915	0.488	0.236	0.126	5.527	14	0.000
<i>Stambha</i>	0.93	0.33	0.704	0.488	0.182	0.126	4.583	14	0.000
<i>Muhuspandanam</i>	0.73	0.2	0.704	0.414	0.182	0.107	3.228	14	0.006
<i>Aruchi</i>	1	0.33	0.845	0.488	0.218	0.126	3.568	14	0.003
<i>Tandra</i>	0.47	0.2	0.516	0.414	0.133	0.107	2.256	14	0.041
<i>Gaurav</i>	0.6	0.2	0.507	0.414	0.131	0.107	3.055	14	0.009
Walking time	1.4	0.4	0.507	0.507	0.131	0.131	10.247	14	0.000

Note:- "BT"-Before Treatment, "AT"-After Treatment, "SD"- Standard Deviation, "SE" Standard Error, "df"- degree of freedom

Table 3: Showing total percentage of relief in overall parameters

Symptoms	Mean		Mean difference	% of relief
	BT	AT		
<i>Ruk</i>	2.2	1.13	1.07	48.64
SLR	1.8	0.4	1.4	77.78
<i>Toda</i>	1.13	0.33	0.8	70.80
<i>Stambha</i>	0.93	0.33	0.6	64.52
<i>Muhuspandanam</i>	0.73	0.2	0.53	72.60
<i>Aruchi</i>	1	0.33	0.67	67.00
<i>Tandra</i>	0.47	0.2	0.27	57.45
<i>Gaurav</i>	0.6	0.2	0.4	66.67
Walking time	1.4	0.4	1	71.43

DISCUSSION

Gridhrasi is similar condition in modern medical context as Sciatica syndrome. Distribution of pain along the course of Sciatica nerve or its component nerve roots is characteristic feature. Pain starting from Lumbo-sacral region, it radiates to postero-lateral aspect of thigh and the calf to the outer aspect of the foot, is the cardinal symptom of Sciatica syndrome. Different *Acharyas* have mentioned the disease condition *Gridhrasi* and its treatment principles. These are *Siravedha*, *Basti*, *Agnikarma*, *Snehana*, *Swedana*, *Vamana* and *Virechana*⁵. These treatments are to be implemented on considering the disease condition and stage of disease.

Siravedha is half the line of treatment in *Shalya tantra*. This procedure is both therapeutic and prophylactic. *Siravedha* as cited by *Acharya Sushruta* in the context of *Gridhrasi* is said to produce quick relief from symptoms.

By *Siravedha*, probably there may be breaking down of obstruction (*Avarana*) which helps in normal movement of *Vata*, thereby restoring the normal circulation and function of *Vata*. It removes congested blood in the area of *Shonita avarana*.

The effect of *Siravedha* on pain was highly encouraging. Pain might have reduced due to reduction of pressure over the surrounding nerves by *Siravedha*. It has significant effect on SLR test. It might be due to accumulated blood was let out through *Siravedha* and allowed free space for movement limb.

Toda, *Stambha*, *Muhuspandanam*, *Aruchi* and *Gaurava* appeared in *Rakta avrita vata*. These were improved due to letting of *Rakta avrita vata*. There was drastic improvement in walking time after *Siravedha*. Severity of pain reduced and patient was able to walk in short duration. It was shown that, *Siravedha* has ultimate effect on reduction of pain, tenderness, stiffness, increasing SLR and improvement in walking time

CONCLUSION

The present study clinical evaluation of *Siravedha* in the management of *Gridhrasi* w.s.r. to Sciatica has revealed.

- In *Gridhrasi Vyana vayu* is essential factor for the manifestation of the disease.
- *Siravedha* is found efficacious in the management of *Gridhrasi*.
- *Siravedha* acts on the breakdown of obstruction (*Avarana*) which helps in normal function of *Vata*.
- *Siravedha* help in quick relief from symptoms.
- *Siravedha* also reduces pain, pricking sensation, stiffness, tingling sensation, heaviness, walking time and increases the SLR angle.
- *Siravedha* is simple, economical and highly effective procedure and patients did not require long duration of bed rest.
- So *Siravedha* can be considered as superior treatment procedure for *Gridhrasi* treatment.

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