

CLINICAL EVALUATION OF *SIRAVEDHA* IN THE MANAGEMENT OF *GRIDHRASI* W.S.R TO SCIATICA

Dr. Jitender Kumar Rana*

M.S (Shalya), Assistant Professor, Kunwar Shekhar Vijendra, Ayurved Medical College and Research Centre, Shobhit University.

Article Received on
30 April 2017,

Revised on 20 May 2017,
Accepted on 10 June 2017

DOI: 10.20959/wjpr20177-8795

*Corresponding Author

**Dr. Jitender Kumar
Rana**

M.S (Shalya), Assistant
Professor, Kunwar
Shekhar Vijendra,
Ayurved Medical College
and Research Centre,
Shobhit University.

ABSTRACT

Gridhrasi is a frequently encountered problem in the present era produced commonly due to the changed life style. Sciatica is characterized by severe pain which starts in the back and radiates down one or both lower limb. It is prevalent all over the world. On the basis of the symptoms, Sciatica can be correlated with *Gridhrasi* in *Ayurveda*. *Gridhrasi* is included in *Vataja Nanatmaja vyadhi* and also considered as a *maharoga* by *acharya Charaka*. In all *Ayurveda* classics, the description of the diseases is available, but *Sushruta*, the father of surgery has described all the details about the disease. *Acharya Sushruta* described *Siravedha* in the management of *Gridhrasi*. In the present study, *Siravedha* is selected for *Gridhrasi*. The present study was carried out on clinical evaluation of *Siravedha* in the management of *Gridhrasi* as cited by *Sushruta* in the context of

management of *Gridhrasi*. For the study 30 patients were randomly selected from OPD and IPD of Jammu institute of Ayurveda and research hospital, Raipur Nardani Jammu. It was single blind clinical study to evaluate the efficacy of *Siravedha* by subjective and objective criteria i.e. *Ruk*, *Toda*, *Sthambha*, *Muhuspandanam*, *Aruchi*, *Tandra*, *Gaurava* 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, Siravedha, Sciatica, Ayurveda.*

INTRODUCTION

Changing of life style of modern human being has created several disharmonies in his biological system as the advancement of busy, professional and social life, improper sitting posture in offices, factories continuous and over exertion jerking movements during travelling and sports –all these factors creates an undue pressure to the spinal cord and play a chief role in producing low backache and sciatica. Likewise progressive disorders affecting the pelvis and nearer structure are also precipitating in this condition. In this way, this disease has now become a significant threat to the working population.

Sciatica is characterized by constant aching pain which felt in the lumber region may radiate to the buttock, thigh, calf and foot.^[1] Sciatic pain radiates along the course of the sciatic nerve.^[2] According to Stanley 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) equally.^[3]

DISEASE REVIEW

In all *Ayurveda* classic, the description of the diseases is available. In this disease *Nitamba* (gluteal region), *Kati* (lumber), *Prushtha* (posterior of thigh), *Uru* (knee), *Jangha* (calf) and *Pada* (foot) are affected respectively. *Sthambha* (stiffness), *Ruk* (pain), *Toda* (pricking sensation) and *Muhuspandanam* (tingling sensation) found in *Vataja* type of *Gridhrasi* whereas in *Vata-Kaphaja* type of *Gridhrasi* *Tandra*, *Gaurava* and *Arochaka* in addition of *Vataja* type are found.

Sushruta has given elaborated descriptions of aetiopathogenesis, symptomology, management and various other aspects of *Gridhrasi* in his treatise, named *sushruta samhita*.

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.

MODERN VIEW

The treatment of sciatica is a challenge for the modern medicine and surgery. The treatment option for sciatica is present time includes.

1. Conservative treatment

2. Epidural steroid injection
3. Peri-radicular infiltration
4. Surgical treatment

All these treatment options have their own side-effect and complication. In spite of all the complication, the cure is not certain and there is possibility of recurrence.

AYURVEDIC VIEW

Time and again, it has undoubtedly been proved in past that *Ayurveda* has got the capacity of proving safe and sure recipes for numerous disease, which afflict the humanity all over the world. In *Ayurvedic texts*, there are various type of treatment described for *Gridhrasi*.^[5]

There are following.

1. *Siravedha*
2. *Agni karma*
3. *Basti karma*
4. *Snehana*
5. *Swedana*
6. Oral medication

SIRAVEDHA

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 (*Sthambha*), pricking sensation (*Toda*), tingling sensation (*Muhuspandanam*), are relieved by *Siravedha* procedure.^[7] 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 results.^[6] An effort was made to know the efficacy of *Siravedha* for the management of *Gridhrasi*. Now a day's, *Ayurvedic* Para surgical procedure like *Siravedha*, *Agni karma* are the most popular in the society because of many research work has been carried out regarding its efficacy and well fruitful data available. Keeping above all the point under consideration the research work has been done.

AIMS AND OBJECTIVES

- 1) To study the role of *Siravedha* in the management of *Gridhrasi*.
- 2) To evaluate the efficacy of *Siravedha* in the management of *Gridhrasi*.

MATERIALS AND METHODS

The present study deals with the critical evaluation and analysis of effect of *Siravedha* in *Gridhrasi*.

SELECTION OF PATIENT

It is a single blind clinical study with a pre-test and post test design, wherein 30 patients suffering from sciatica were selected from Jammu institute of Ayurveda and research hospital, Raipur Nardani Jammu. Patients were diagnosed on the basis of signs and symptoms as per *Ayurveda* as well as modern texts.

PLAN OF THE STUDY

SELECTION OF THE PATIENTS

➤ INCLUSION CRITERIA

1. Patients of either sex in the age group of 20 to 70 years.
2. Classical signs and symptoms of *Gridhrasi* like *Ruk*, *Toda*, *Sthambha*, *muhuspandanam*, starts from *Sphik pradesa* and radiating towards foot were included.
3. Chronicity less than two years

➤ EXCLUSION CRITERIA

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

MATERIALS

- Scalp vein set/disposable syringe
- Kidney tray
- Cotton
- Bandage
- Tourniquet

- A straight vein was made prominent and the IV canula (*Vrihi Mukha Shastra*) was inserted by puncturing the vein and blood was allowed to flow and collected in kidney tray.
- After some time flow of blood was arrested without any external influence.

PASCHAT KARMA

- IV canula was removed
- Tourniquet was removed
- The place of *Siravedha* was applied with *haridra churna* and vital data checked and patient was shifted to ward.
- Advised not to carry out heavy work and to avoid straining of the back during the day of Treatment.
- Advised to Follow *Pathya Apathya*.

PERIOD OF STUDY

The duration of study was for 60 days after treatment. The assessment of *Ruk*, *Toda*, *Sthambha*, *Muhuspandanam*, *Aruchi*, *Tandra*, *Gaurava* SLR angle and walking time after treatment were observed and recorded on 15th day, and 60th day after treatment in the proforma of case sheet of *Gridhrasi* designed for the study. Patients were instructed to report back immediately in case of recurrence or aggravating the *Lakshanas* during this period.

ASSESSMENT CRITERIA

1. *Ruk* (Pain)

- No pain - - 0
- Mild pain - - 1
- Moderate pain - - 2
- Severe pain - - 3

2. *Toda* (Pricking Sensation)

- No pricking sensation - - 0
- Mild pricking sensation - - 1
- Moderate pricking sensation - - 2
- Severe pricking sensation - - 3

3. Sthambha (Stiffness)

- No stiffness - 0
- Mild stiffness - 1
- Moderate stiffness - 2
- Severe stiffness - 3

4. muhuspandanam (tingling sensation):

- No tingling sensation - 0
- Mild tingling sensation - 1
- Moderate tingling sensation - 2
- Severe tingling sensation - 3

5. Aruchi (Anorexia)

- No anorexia - 0
- Mild anorexia - 1
- Moderate anorexia - 2
- Severe anorexia - 3

6. Tandra (Torpor)

- No Torpor - 0
- Mild Torpor - 1
- Moderate Torpor - 2
- Severe Torpor - 3

7. Gaurava (Heaviness)

- No heaviness - 0
- Mild heaviness - 1
- Moderate heaviness - 2
- Severe heaviness - 3

8. S.L.R. ANGLE

- Patient raises his leg up to 90⁰ - 0
- Patient raises his leg up to 70⁰ - 1
- Patient raises his leg up to 40⁰ - 2
- Patient raises his leg up to 20⁰ - 3

9. WALKING TIME

- Patient can walk 50 feet within 50 sec - 0

- Patient can walk 50 feet between 50-100 sec - 1
- Patient can walk 50 feet between 100-150 sec - 2
- Patient can walk 50 feet more than 150 sec - 3

Comparatives observations in symptoms of PAIN reduction in different follow-up.

Table No.1.

	MEAN	Difference in mean	% of Symptom reduction
BT	2.03	1.33	65.5
AT 15 Day	0.70		

The comparative observations in reduction of pain, it's found that in 1st follow-up (15 days) 65.5% of pain was reduced. The same results were observed during 2 month study.

Comparatives observations in symptoms of SLR angle increase in different follow-up.

Table No.2.

	Mean	Difference in mean	% of Symptom reduction
BT	1.76	1.13	64.5
AT 15 Day	0.63		

The comparative observations in increasing of SLR angle, it's found that in 1st follow-up (15 day) 64.5% of SLR angle was increased The same results observed during 2 month study

Comparatives observations in symptoms of TODA reduction in different follow-up

Table No.3

	Mean	Difference in mean	% of Symptom reduction
BT	1.06	0.66	62.2
AT 15 Day	0.40		

The comparative observations in reduction of *Toda*, it's found that in 1st follow-up (15 day) 35% of *Toda* was reduced. The results were observed same during 2 month study.

Comparatives observations in symptoms of STHAMBHA reduction in different follow-up.

Table No.4

	MEAN	Difference in mean	% of Symptom reduction
BT	0.63	0.40	63.4
AT 15 Day	0.23		

The comparative observations in reduction of *Sthambha*, it's found that in 1st follow-up (15 days) 63.4% of *Sthambha* was reduced. The same results observed during 2 month study.

Comparatives observations in symptoms of *MUHUSPANDANAM* reduction in different follow-up.

Table No.5

	MEAN	Difference in mean	% of Symptom reduction
BT	0.63	0.33	52.3
AT 15 Day	0.30		

The comparative observations in reduction of *muhuspandanam*, it's found that in 1st follow-up (15 days) 52.3% of *muhuspandanam* was reduced. The same results were observed during 2 month study.

Comparatives observations in symptoms of *ARUCHI* increase in different follow-up

Table No.6.

	MEAN	Difference in mean	% of Symptom reduction
BT	0.60	0.20	33.3
AT 15 Day	0.40		

The comparative observations in reduction of *Aruchi*, it's found that in 1st follow-up (15 days) 33.3% of *Aruchi* was reduced. The same results were observed during 2 month study.

Comparatives observations in symptoms of *GAURAVA* reduction in different follow-up

Table No.7.

	MEAN	Difference in mean	% of Symptom reduction
BT	0.56	0.36	64.2
AT 15 Day	0.20		

The comparative observations in reduction of *Gaurava*, it's found that in 1st follow-up (15 days) 64.2% of *Gaurava* was reduced. The same results were observed during 2 month study.

Comparatives observations in symptoms of WALKING TIME in different follow-up

Table No.8

	Mean	Difference in mean	% of Symptom reduction
BT	1.40	0.87	62.2
AT 15 Day	0.53		

The comparative observations in walking time, it's found that in 1st follow-up (15 day) 62.2% of walking time was improved. The same results were observed during 2 month study.

Table Shows amount of Blood flow

Table No.9.

Amount o blood flow in ml	No. Of patient	% age
40-60	7	23.3%
61-80	8	26.6%
81-100	5	16.6%
101-120	10	33.3%
Total	30	100%

In present clinical study it is observed that varying amount of blood is flowed as *Samyaka Siravedha Lakshanas* observed in individual. In 10 patients 100-120ml of vitiated blood was flowed whereas in 8 patients 60-80ml was flowed. 7 patients blood was flowed 40-60ml. 5 patients was flowed 80 to 100 ml blood.

Overall Effect of *Siravedha* on *Gridhrasi* after 60 days of treatment

Table No.10.

SYMPTOMS	Percentage of improvement
<i>PAIN</i>	65.5
<i>SLR</i>	64.2
<i>TODA</i>	62.2
<i>STHAMBHA</i>	63.4
<i>MUHUSPANDANM</i>	52.3
<i>ARUCHI</i>	33.3
<i>GAURAVA</i>	64.2
<i>WALKING TIME</i>	62.1

After 60 day of treatment, in 65.5% of cases Pain, 64.4% *Toda*, 63.4% *Sthambha*, 52.3% *muhuspananam*, 64.2% *Gaurava* was reduced and 62.1 patients had increased walking time, whereas SLR angle was improved up to 62.1%.

CONCLUSION

Observation, analysis and results of the present study entitled “clinical evaluation of *Siravedha* in the management of *Gridhrasi* w.s.r to sciatica” can be concluded as follows: *Gridhrasi* is commonly seen in society as prominent problem. There is no direct reference regarding *Nidana* and *Samprapti*. *Vyana Vayu* is essential factor for manifestation of the disease. *Siravedha* is found efficacious in the management of *Gridhrasi*. It acts as the

breakdown of *avrana* (obstruction) which helps in normal Function of *Vata*. *Siravedha* has *artihara* properties it said to produce quick relief from symptoms. *Siravedha* also acts in removing the congested blood in the area of *shonita avrita Vata*. *Siravedha* reduces *Ruk, Toda, Sthambha muhuspandanam Gaurava* and increase the angle of SLR, walking time in the management of Gridhrasi. *Siravedha* is simple, economical and highly effective procedure for the treatment of Gridhrasi. The patients did not require long duration of bed rest. So *Siravedha* can be considered as superior treatment procedure for the treatment of Gridhrasi

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