

Clinical evaluation of Siravyadha in the Management of Gridhrasi

Dudhamal Tukaram Sambhaji*

Gupta Sanjay Kumar**

Chaturbhuja Bhuyan***

ABSTRACT

Gridhrasi is one of the Vata disorders out of 80 Nanatmaja Vatavyadhi and difficult to treat as per Charaka. Nidan of Gridhrasi in Indian system of medicine is due to systemic vitiation of Vata Dosha as well as local site involvement. The symptoms of the Gridhrasi can be correlated with sciatica at par with modern medicine. The involvement of sciatic nerve may be there due to factors like simple irritation to compression of the sciatic nerve with or without fracture of the vertebrae. Prevalence rate of the disease increases due to the continuous sitting, hard work and degenerative changes in the bone as well as in the whole body.

Total 60 patients were registered and divided in to two groups of 30 patients in each. Patients of first group were treated with **Raktamokshana by Siravyadha**, once weekly for two times for a period 15 days. 100 ml of Dushita Rakta was drained out during each sitting and relief of symptoms was recorded as per the proforma specially prepared for that. The patients of second group were treated with local **Abhyanga & Nadisvedana** for 15 consecutive days and the observations were recorded as per the proforma. Follow up of patients was done for two months. Data related to the disease – Gridhrasi / sciatica and Raktamokshana were collected from ancient & modern text and interpreted comprehensively. Finally it was concluded that the Raktamokshana by Siravyadha shown better result in comparison to local Abhyanga & Nadisvedana in the disease of Gridhrasi.

Key Words: Abhangya, Gridhrasi, Nadisvedana, Raktamokshana, Sciatica, Siravyadha.

INTRODUCTION

Nanatmaja diseases are caused due to disequilibrium of one particular Dosha as in cases of Gridhrasi (sciatica), Kamala (jaundice), Medoroga (obesity) due to the only involvement of Vata, Pitta or Kapha Dosha respectively. Nanatmaja diseases are basically Asadhya (incurable) diseases because there is a problem of single Dosha¹ involvement. In

the Samhita (s) there are many different disorders & its treatment described according to the Dosha involvement. In present era, there are many challenging diseases like AIDS, Hepatitis B, Swine flu, SARS, etc. and different modalities of treatment have been developed but still prognosis of some diseases are bad. The many disorders described in the Samhita (s) also have the similarities with modern nomenclature of diseases and among them, one of is the Gridhrasi (sciatica).

Further, Gridhrasi is a well known Vata Vikara with pain as a predominant symptom which starts from Sphik (Hip) and radiates to Uru (Thigh), Janu (Knee), Jangha (Calf) and Padatala (Foot) Predesh (Region) posteriorly.^{2,3,4,5} Agnivesh, Charak Samhita, vidyotini, Kashinath Shastri, Chaukhambha Bharati Academy,^{4,5} As per modern science, the pain of sciatica radiates from lumbar region to

Author's Affiliation: *Assistant Professor, **Reader,***Prof. Professor and Head, Department of Shalya-Tantra, Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurveda University, Jamnagar. Gujarat

Reprint's request: Dr. Dudhamal Tukaram Sambhaji, Assistant Professor., Dept. of Shalya Tantra, I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar - 361008, Gujarat.

Mob.-09428671939, Off-02882552014, Fax-02882676856, Email- drtsdudhamal@gmail.com.

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down the toes of affected side. The treatment of sciatica in modern medicine is the use of anti-inflammatory & analgesics like NSAID, steroids in the form of tablets & injections. But the effect of such drugs is limited to only symptomatic relief and has much adverse effects like gastric ulceration, renal toxicity etc.

For such notorious problem, Sushruta has described the treatment by Raktamokshana in general for all Vatavyadhi including Gridhrasi. The Raktamokshana is the half treatment as for as the surgical diseases are concerned.⁶ Rakta is said to be the fourth dosha⁷ & presumed as the ultimate causative factor for the surgical diseases by Sushruta. Gridhrasi occurs due to the vitiation of Vata Dosha & considered as a Nanatmaja Vata Vikara^{8,9}. Hence, the Samprapti of Gridhrasi is considered finally due to vitiation of Vata as well as Rakta.

Raktamokshana by Siravyadha is the choice of treatment for Gridhrasi as per the Sushruta.¹⁰ Sushruta, Sushruta samhita, Ayurved Tatva Sandipika, Dr. Ambikadata Shastri, Rakta is one of the Sapta Dathu(s) & the importance of Rakta is certainly at par to the life.¹¹ So that, it should be preserved from loss but in case of vitiation of Rakta by Vata Dosha, the vitiated Rakta should be removed to provide cure from the disease.

AIMS & OBJECTIVES

To evaluate the effect of Raktamokshana by Siravyadha in the management of Gridhrasi as well as to find out the non pharmacological treatment for Gridhrasi.

Conceptual Study

All conceptual data related to Gridhrasi, Raktamokshana, Abhyanga & Svedana were compiled from the Ayurved as well as modern texts.

MATERIALS & METHODS

In this study, total 60 patients suffering from Gridhrasi were selected from OPD & IPD of the department of Shalya Tantra, Govt. Ayurved College & Hospital, Nanded,

Maharashtra, and randomly divided in to two groups of treated and controlled.

Diagnostic Criteria

Patients suffering from classical sign & symptoms of Gridhrasi were included with positive SLR test. Selected patients were registered after thorough investigations and examinations.

Inclusion Criteria

1. Age between 25-60 years.
2. Patients presenting with complaints and features of Gridhrasi irrespective of sex, religion, education & socio-economic status were included.

Exclusion Criteria

1. Age below 25 & above 60 years.
2. Contraindicated conditions for Raktamokshana.^{12,13,14}
3. Patients suffering from diseases like Diabetes mellitus, Tuberculosis, Leprosy, Anemia, Cardiac insufficiency, Jaundice, Prolapsed disc, Spinal Cord injury, Fracture of spine etc. were excluded.

Duration of treatment

In both groups, treatment period was of 15 days.

In treated group, two times Raktamokshana was done with one week interval and maximum 100 ml. blood was drained out where as in controlled group, Abhyanga and Svedana was performed daily.

Follow up was 2 months for both the group.

Methods of Raktamokshana (R-M):

Pre procedure of R-M

1. Written informed consent of patients was taken.
2. Then routine investigation and fitness test of each patient was carried out.
3. BP apparatus, scalp vein No-20 & dressing materials were kept ready before hand.
4. Abhyanga with Tila Taila & Nadi Svedana was done two times i.e. one day before & half an hour before Siravyadha.

Main Procedure of R-M

1. Patient was laid down on the examination table in supine position.
2. Cuff of BP apparatus applied over the affected leg to make the veins prominent and engorged.
3. Siravyadha (venepuncture) was done with the help of 20 no. scalp vein set from the calf region of affected leg at 4 Angula (finger) below the Janusandhi (knee joint).¹⁵
4. Maximum 100 ml. of Rakta was drained out.
5. Continuous observation was made for any Marmaghata / shock or adverse effect.

Post Siravyadha Procedures

1. Pattabandhan was done at the Siravyadha site after completion of R-M with application of Haridra and Yasthimadhu powder.
2. Bed rest was advised for at least half an hour after R-M.
3. Light diet was allowed to take after one hour of R-M.

Assesment Criteria

Criteria for Assessment were fixed on the basis of relief in sign and symptoms by scoring method. Increase in the SLR height was considered as objective parameter.

(SLR measurement: from the top of table to the bottom of the heel of raised leg in cm. before and after the treatment was recorded for objective assessment)

RESULT & DISCUSSION

Gridhrasi is a disease which can affect any person irrespective of age, sex, religion and socio-economical status. In some cases it is due to vitiation of Dosha only and sometimes due to local involvement of the vertebral column. As per the classical references the disease Gridhrasi has been described in most of the classical texts with its features as well as management. Charaka has described the Gridhrasi under 80 types of Vataja Nanatmaja Vyadhi. It denotes that Vata Dosha in such

Vikara is ultimate causative factors and Dushya may be the Mamsa or Sira but difficult to consider it in the pathogenesis of Gridhrasi. This disease is having the complex pathophysiology of radiation of pain from back to toe with whole course of sciatic nerve at the affected leg.

Patients of age groups over 45 years were found more affected and out of them male patients were found more prone to the disease sciatica. The rural based patients in comparison to urban area were found more affected because rural patients were generally used to do hard work where as urban patients have been adopted sedentary life style. Further, it is clear that heavy and strenuous work causes more strain over the lumbo-sacral region as shown in the table No. 4. As the site is concern, the majority of patients were suffering with left leg pain which might be due to the more weight bearing on left side in standing position. Out of all patients of both group had complaint of leg pain with positive SLR test, 44 patients had the tingling / numbness in the affected leg where as only 12 patients had the loss of sensation up to some extent and 18 patients had the complain of pain in lumber region. It indicated that the selected patients were had almost same symptoms in both the group.

Relief in the leg pain was observed in 50% of patients of treated group where as in control group it was only 10%. Relief in the tingling sensation was observed in 73.90% of patients of treated group and in control group it was in 47% of patients. It suggested that Raktamokshana by Siravyadha has better result as compared to Svedan and Abhyanga. In the symptom of loss of sensation the relief was found in 50% of patients in treated group where as in control group none was relieved. The pain of lumber vertebral region was relieved in all patient of treated group i.e. 100.00% but 12.50% of patient only in control group. Statistically it was found that the changes in the measurement of SLR test showed insignificant in control group where as in the Raktamokshna group it was observed highly significant as shown in the table No. 9 & 10. 46.66% of patients of the treated group have shown complete relief in all the

symptoms while remaining 53.33% patients have shown relief in some symptoms, hence, they were considered as unrelieved. In control group only 10% of patients were got complete relief and rest of the 90.00% of patients in this group were found unrelieved which suggested

that in Gridhrasi the Abhyanga and Nadisvedana had shown insignificant improvement where as the Raktamokshana by Siravyadha modality to treat the Gridhrasi had shown significant result.

OBSERVATIONS

Table 1: Age

Age	Treated Group	Control Group	Total
25-35	5 (16.66%)	06 (20.00%)	11
35-45	13 (43.34%)	11 (36.66)	24
45-60	12 (40.00%)	13 (43.34)	25
Total	30 (100.00%)	30 (100.00%)	60

Table 2: Sex

Sex	Treated Group	Control Group	Total
Male	21 (70.00%)	16 (53.34)	37
Female	9 (30.00%)	14 (46.66)	23
Total	30 (100.00%)	30 (100.00%)	60

Table 3: Habitat

Habitat	Treated Group	Control Group	Total
Urban	13 (43.34%)	13 (43.34%)	26
Rural	17 (56.00%)	17 (56.00%)	34
Total	30 (100.00%)	30 (100.00%)	60

Table 4: Type of work; n=60

Type of work	Treated Group	Control Group	Total
Strenuous work	24 (80.00%)	23 (76.66%)	37
Non strenuous work	16 (20.00%)	07 (23.34%)	23
Total	30 (100.00%)	30 (100.00%)	60

Table 5: Affected side; n=60

Affected side	Treated Group	Control Group	Total
Right	12 (40.00%)	10 (33.34)	22
Left	18 (60.00%)	20 (66.66)	38
Total	30 (100.00%)	30 (100.00%)	60

Table 6: Symptoms; n=60

Symptoms	Treated Group	Control Group	P
Pain in leg	30	30	P>0.05
Tingling sensation	23	21	P>0.05
Loss of sensation	06	06	P>0.05
Pain in lumbar region	10	08	P>0.05
SLR test +ve	30	30	P>0.05

Table 7: Relief in symptoms; n=60

Symptoms	Treated Group		Control Group	
	No. of pt	Relief & %	No. of pt.	Relief & %
Pain in leg	30	15 (50.00%)	30	03 (10.00%)
Tingling sensation	23	17 (73.90%)	21	10 (47.60%)
Loss of sensation	06	03 (50.00%)	06	00 (00.00%)
Pain in lumbar region	10	10(100.00%)	08	01 (12.50%)

Table 8: SLR height Measurement; n=60

Day of observation	Treated Group		Control Group	
	Mean (x)	SD	Mean (x)	SD
1 st Day	49.73	09.61	48.53	08.08
3 rd Day	49.73	09.61	48.70	07.90
6 th Day	52.63	09.90	49.30	07.58
9 th Day	58.30	10.63	49.90	07.74
12 th Day	64.97	13.36	50.36	08.61
15 th Day	71.30	17.27	51.86	10.58

Table 9: Difference between two SLR height measurements (Treated Group)

Difference	Mean between two difference	SD	SE	t	P
1 st - 3 rd	0	0	0	0	p>0.05
3 rd - 6 th	2.87	2.42	0.44	6.52	p>0.001
6 th - 9 th	5.56	5.85	1.07	5.19	p>0.001
9 th - 12 th	6.67	6.52	1.19	5.60	p>0.001
12 th -15 th	6.33	7.39	1.35	4.68	p>0.001
Before - After T/T	21.53	17.89	3.27	6.59	p>0.001

Table 10: Difference between two SLR height measurements (Control Group)

Difference	Mean between two difference	SD	SE	t	P
1 st - 3 rd	1.53	4.84	0.88	1.74	p>0.05
3 rd - 6 th	1.26	3.77	0.68	1.85	p>0.05
6 th - 9 th	1.10	3.36	0.61	1.80	p>0.05
9 th - 12 th	1.20	2.99	0.55	2.18	p>0.05
12 th -15 th	1.33	3.49	0.64	2.08	p>0.05
Before - After T/T	4.00	9.18	1.67	2.39	p>0.05

Table 11: Result

Group	Relieved pts.	%	Unrelieved pts.	%
Treated group	14	46.66%	16	53.33%
Control group	03	10.00%	27	90.00%

In this study it was noticed that there was Avarana of Pitta & Kapha Dosha and due to that there were Daha and heaviness respectively in the leg along with pain. The patients were not got complete relief where such Anubandha was not noticed (i.e. pure

Vataj) where as in Pitta and Kapha Anubandha cases, they got relief completely. The relief in the symptoms due to Raktamokshana by Siravyadha was observed which may be due to bloodletting there would have been increase in the blood circulation to

that site and by that increased blood circulation the Ushna Guna of the Rakta was increased which may acts against the Sheet Guna of the Vata Dosha. Hence, due to opposite Guna there was Vata Shaman and ultimate relief was observed in the symptoms.

Raktamokshana by Siravyadha is the non-pharmacological modality of treatment so there are no chances of adverse drug reaction. The version of Sushruta seems to be true that if a person follows the bloodletting regularly he or she will definitely be free from all Rakataj disorders particularly in Pitta vitiation period.

CONCLUSION

In this study, the patients suffering from the Gridhrasi were got complete relief in which if there is Anubandha of Kapha, Pitta or Rakta as a Dushya. In cases of pure Vataj Gridhrasi, they got relief in some symptoms but not complete cure. In treated group, total 17 out of 30 patients had got complete remission in the tingling sensation and lumbar pain which was the main symptom of Gridhrasi. No much difference was observed in the symptoms of sensory loss in both the groups. Lastly it was concluded that overall Raktamokshana by Siravyadha is the best treatment for the Gridhrasi.

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