IJAPC

Volume 11 Issue 2,
2019

www.ijapc.com

2350-0204

GREENTREE GROUP PUBLISHERS

Int J Ayu Pharm Chem

RESEARCH ARTICLE

www.ijapc.com

e-ISSN 2350-0204

A Clinical Study in the Management of *Gridrasi* with *Siravyadha*

Mathews John[1*], K R Ramachandra [2] and Sahana Kamath[3]

[1-3]Dept. Of PG Studies in Shalya Tantra Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital,Kuthpady, Udupi, KA, India

ABSTRACT

Due to changes in life style, the humanity suffers from various diseases related to musculoskeletal system. In Ayurvedic classics Gridrasi has been described as Vatavyadhi. Gridrasi can be correlated to Sciatica based on Symptoms. The incidenc varies from 30% to 40% and annual incidence is 5% in the world. Even though many therapeutic modalities are available none of them are promising. In Ayurveda one of the treatment modality for Gridrasi is Siravyadha. Hence an open label randomized clinical trial were carried out. Based on Inclusion and exclusion criteria 20 patients were selected and conventional Siravyadha Technique were followed. The most important results observed in the study was pain relief and improvement in range of movement.

KEYWORDS

Gridrasi, Sciatica, Siravyadha

Greentree Group Publishers

Received 15/07/19 Accepted 21/08/19 Published 10/09/19

INTRODUCTION

Gridhrasi is one among the vatavyadhis.It is characterized by *Ruk, Toda, Stambha, and Spandana*[1].This primarily starts from the region of *Sphik* pradesha and radiates downwards through the Prushtabhaga of *Kati, Uru, Janu, Jangha, and Pada* gradually and progressive in nature i.e starting from prushtabhaga to pada[2]. This is of two types-one by *vataja* and the other

By *vata* associated with *kapha*[3]. In vatajavariety pain will be severe in nature, whereas vata- kaphaja *sthambha* is predominant feature. Gridhrasi can be correlated to Sciatica, as there is close resemblance in the manifestation of symptomatology in both. Sciatica designates a syndrome characterized by pain beginning in the lumbosacral region ,radiating to the lower limb through buttock ,posterior aspect of thigh, leg and foot till toe[4].The severity of the disease

hampers the quality of life of individual and affect the day to day activities. Siravyadha is one of the variety of Rakthamokshana. Acharya Sushruta and Acharya Charaka mentioned Siravyadha as a treatment modality for *Gridhrasi*. In Hareeta Samhitha *Gridhrasi* has been explained in detail[5] .In that vitiation of *Vyanavata* and *Rakta* were explained and that leads to the disease process of *Gridhrasi*. Siravyadha is one of the best treatment for Gridrasi, because it needs only short duration, less intervention, economical and immediate symptomatic relief is also there. It is having least adverse effects when compared with prolonged use of NSAIDs, Steroids, Local injection of glucocorticoids and Analgesics. Hence a clinical study of Management of Gridhrasi with *Siravyadha* is carried out to understand the effectiveness of siravyadha in Gridhrasi. The study has shown encouraging results. There by *Siravyadha* therapy as an adjuvant modality of treatment in the management of *Gridrasi.*

MATERIALS AND METHODS

Objective

1.A thorough study of effectiveness of *Siravyadha* in the management of *Gridhrasi.*

Study Design: This is an open label randomized single blind clinical study carried out with pre test and post test design.

Source Of Data: 20 patients were selected from the OPD and IPD of Shalyatanthra Department, SDM Ayurveda, Hospital Udupi were subjected to clinical trial.

Method of collection of Data: In the selected patients, Siravyadha was carried out and findings were documented with a specialized clinical performa, designed for

the study. Single sitting of Siravyadha was carried out using 18 Number Surgical Needle and the findings were documented as per proforma. The patients were reviewed after 14 days and 28days. The changes in symptamatology and the parameters were documented. As per Figure 1-5

Statistical Analysis

The data obtained were recorded, tabulated, and statistically analysed using Graphpad software for computing, Paired t test for comparison between groups and Wilcox on Signed Rank Test to have a evaluation.

Inclusion Criteria

- Selection of patients was done irrespective of sex and religion.
- Patients were selected from the age group of 25 to 50 years
- Patients with clinical signs and symptoms of Gridhrasi

Exclusion Criteria

- Patients contraindicated for siravyadha as per classics[6]
- Systemic disorders like Tuberculosis, Leukaemia and HIV etc.
- Anaemic conditions (For Males Hb<10g%, For Females Hb<9g%)
- Fractures of bones of foot
- Patients diagnosed with bleeding disorders like Haemophilia.

Assessment Criteria

- The condition of patient was assessed before and after the treatment.
- Subjective and objective parameters were assessed on before the treatment (1st day), immediately after the treatment (1st day),1st follow up(14th day) and 2nd follow up (28th day)

Subjective parameters

- Ruk(continuous pain) in the sphik, Kati, Uru, Janu, Jangha and Pada
- Toda(pricking pain) in the sphik, Kati, Uru, Janu, Jangha and Pada
- Stambha (stiffness) in the sphik, Kati, Uru, Janu, Jangha and Pada
- Spandana (fasciculation) in the sphik, Kati, Uru, Janu, Jangha and Pada. The parameters were scored as follows-

1.No – Grade 0

2.Mild – Grade 1

3.Moderate – Grade 2

4.Severe – Grade 3

Objective parameter

- *Degree of Straight leg raising*

The grades were given as below on the degree of SLR.

1.More than 90 degree – Grade 0

2.Between 71 to 90 degree – Grade 1

3.Between 51 to 70 degree – Grade 2

4.Between 31 to 50 degree – Grade 3

5.30 degree and below 30 degree – Grade 4

INVESTIGATIONS:

1) Hb%, TLC, RBC count, Platelet count

2) CT and BT.

3) Other investigations if required

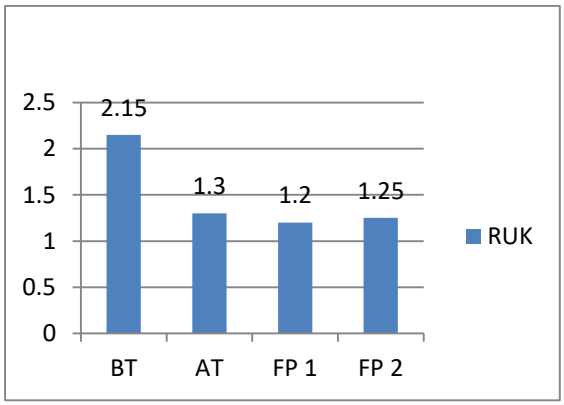
RESULTS

Results of the study were analyzed using Graphpad Instat software. And the statistical tests used were Wilcox on Rank test and Paired t test.

Table 1 Statistical Analysis-Effect on Treatment on Ruk:

Group	N	BT Mean			Diff D	%	Wilcoxon Signed Rank Test			
							SD	SEM	P	Significant
	20	2.15	AT	1.30	0.85	39.5	0.47	0.10	<0.0001	ES
			FP 1	1.20	0.95	44.1	0.52	0.11	<0.0001	ES
			FP 2	1.25	0.90	41.8	0.78	0.17	0.0005	ES

BT-Before Treatment, AT-After treatment, FP-Follow up, ES-Extremely Significant



Graph 1 Effect of Treatment on Ruk

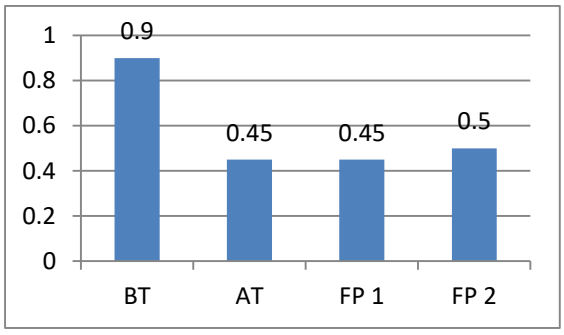
BT- Before Treatment, AT-After Treatment, FP-Follow up

Before treatment the Ruk score was 2.15.After treatment, the Ruk value was reduced to 1.25, and the effect of treatment showed 41.8 % improvement in Ruk score with statistically extremely- significant (P=0.0005).As per Table 1 and Graph 1.

Table 2 Statistical Analysis-Effect on Treatment on Toda:

Group	N	BT Mean			Diff d	%	Wilcoxon Signed Rank Test			
							SD	SEM	P	Significant
	20	0.90	AT	0.45	0.45	50	0.60	0.13	0.0039	VS
			FP 1	0.45	0.45	50	0.68	0.15	0.0156	S
			FP 2	0.50	0.40	44.44	0.76	0.17	0.0313	S

BT-Before Treatment, AT-After treatment, FP-Follow up,VS-Very significant S- Significant



Graph 2 Effect of Treatment on Toda

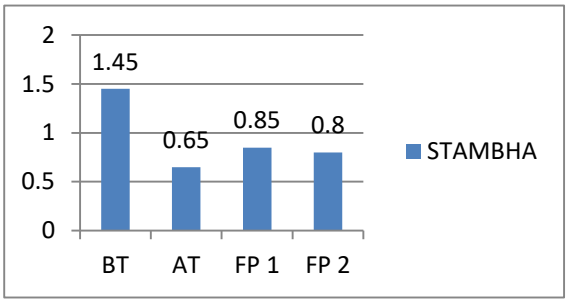
Before treatment the Toda score was 0.90. After treatment, the Toda value was reduced to 0.40 and the effect of treatment showed 44.44% improvement in Toda score with statistically significant (P=0.0313). As per Table 2 and Graph 2

Table 3 Statistical Analysis-Effect on Treatment on Stambha:

Group	N	BT Mean	Diff D	%	Wilcoxon Signed Rank Test			
					SD	SEM	P	Significant

	20	1.45	AT	0.65	0.80	55.17	0.58	0.13	<0.0001	ES
			FP 1	0.85	0.60	41.38	0.58	0.13	0.0020	VS
			FP 2	0.80	0.65	44.83	0.69	0.15	0.0039	VS

BT-Before Treatment, AT-After treatment, FP-Follow up, ES-Extremely Significant,VS-Very Significant



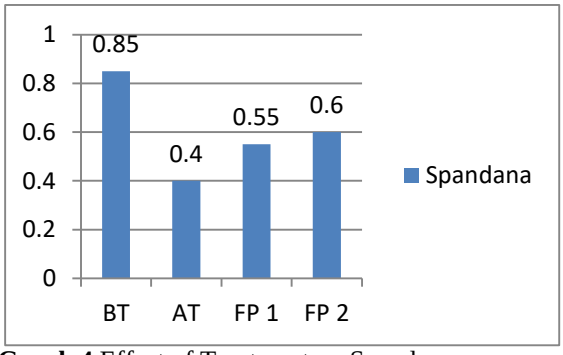
Graph 3 Effect of Treatment on Stambha

Before treatment Stambha score was 1.45. After treatment, Stambha value was reduced to 0.80 and the effect of treatment showed 44.83 % improvement with statistically significant (P=0.0039) As per Table 3 and Graph 3

Table 4 Statistical Analysis-Effect on Treatment on Spandana:

Group	N	BT Mean		Diff d	%	Wilcoxon Signed Rank Test SD	SEM	P	Significant
	20	0.85	AT	0.40	0.45	52.94	0.75	0.16	0.0039	VS
			FP 1	0.55	0.30	35.29	0.68	0.15	0.0313	S
			FP 2	0.60	0.25	29.41	0.75	0.16	0.1094	NS

BT-Before Treatment, AT-After Treatment, VS-Very Significant, S-Significant, NS-Not Significant



Graph 4 Effect of Treatment on Spandana

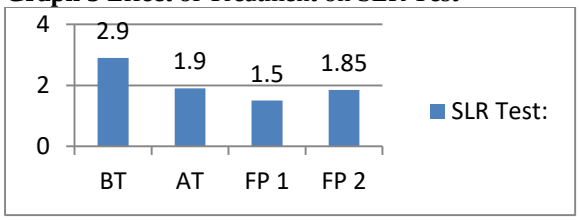
Before treatment the Spandana score was 0. 85. After treatment the Spandana value was reduced to 0.25and the effect of treatment showed 29.41% improvement in Spandana score but it was statistically not-significant (P=0.1094)As per Table 4and Graph 4

Table 5 Statistical Analysis -Effect on Treatment on SLR Test:

Group	N	BT Mean		Diff D	%	Wilcoxon Signed Rank Test SD	SEM	P	Significant
	20	2.90	AT	1.90	1.00	34.48	0.44	0.10	<0.0001	ES
			FP 1	1.50	1.40	48.28	0.94	0.21	<0.0001	ES
			FP 2	1.85	1.05	36.21	1.26	0.28	0.0012	VS

BT-Before Treatment, AT-After treatment, FP-Follow up, ES-Extremely Significant,VS-Very Significant

Graph 5 Effect of Treatment on SLR Test



Before treatment the SLR test was 2.90. After treatment the SLR value was reduced to 01.85,and the effect of treatment showed 36.21% improvement in rotation score with

statistically very -significant (P=0.0012)As per Table 5and Graph 5

Among 20 patients, majority of the patients (60%) shown response in the form of relief from symptoms like Ruk, Toda, Stambha, and Range of movements. Walkable distance and sitting time got increased after treatment. Others shown only symptomatic relief (30%) immediately after and later on aggravated in the follow up period, and a few (10%) shown no relief at all.

DISCUSSION

According to classics, the modalities of treatment for Gridrasi are Siravyadha,Bastikarma, and Agnikarma[7].In Gridrasi, the *kandaras* of *parshni* and *angulies* get vitiated by vatadosha and results in functional disability of the lower limb[8].

Kandara is the upadhatu of *Rakthadhatu*.So involvement of *Rakthadushti* is clear. Acharyas mentioned Siravyadha is one of the treatment choice for Rakthadushti. Siravyadha is also considered as Ardhachikitsa in Shalyatanthra, in the same way as, Basti is the Ardhachikitsa in Kayachikitsa[9]. After doing Siravyadha the blood which was drained had the features of *Vatakaphadushta Rakthalakshana* in 9 (45%) patients, *Vatapittadushta Raktha Lakshana*in 8 (40%) patients and 3 patients were having Kaphapitta dushtaraktha lakshana (15%). So here *rakthadushti* is clear and *siravyadha* is one among the best treatment modality for Rakthadushti.

PROBABLE MODE OF ACTION OF SIRAVYADHA

In Gridrasi *Vata,Pitta* and *Kapha* dosha were involved in the manifestation of the disease. Other entities *snayu, kandhara, peshis* are also affected. *Kandara* is upadhatu of *Raktadhatu*-the causative factors provocate *pitta* and *Raktadhatu*-leading to vitiation of Rakta and Rakthavaha Srotas. The vyanavayu is responsible for movements in the body .The vitiation of *V*ata in general and vyanavata in particular leads to further manifestation of the disease. The Siravyadha is indicated in *Rakta Dushti* and *Raktavaha Sroto Vikar as*. By Siravyadha *malabhutapitta* is removed and thereby vitiation of the Rakta by vatadidosha has are reduced. Thereby the symptoms of disease like Ruk, Toda, stambha, Spandana, are getting relieved.

CONCLUSION

Assessment of *Gridrasi* had shown some similarity with the signs and symptoms of the disease condition Sciatica. Majority of them were having difficulty in walking and sitting due to pain. *Siravyadha* was found to

be effective in controlling the pain of the individuals and made them to walk freely and sit comfortably without much side effects when compared to other treatment modality of modern medicine. And *Siravyadha* is also a simple, safe, cost effective, less invasive IPD procedure and helps in providing quick relief for the symptoms.

Ethical committee clearance number- SDMCAU/ACA-49/ECA80/16-17 Date: 24/05/17

REFERENCES

1.Agnivesha, Charakasamhitha, revised by Charaka and Dridabala with Ayurveda dipika commentary of Chakrapanidatta, edited by Yadavji Trikamji acharya,5th edition-2001, Chaukambha Sanskrit sansthan, Chikitsasthana, Vatavyadhi Chikitsa Adhyaya, 56th and 57th sloka, Pp.738,Page no.619

2.Agnivesha, Charakasamhitha, revised by Charaka and Dridabala with Ayurveda dipika commentary of Chakrapanidatta, edited by Yadavji Trikamji acharya, 5th edition-2001, Chaukambha Sanskrit sansthan, Chikitsasthana, Vatavyadhi Chikitsa Adhyaya, 56th and 57th sloka, Pp.738,Page no.619

3.Sushruta, Sushrutasamhita, text with English translation, Dalhana commentary, Edited by Priya Vrat Sharma, Reprint: Year 2010, Chaukhambha Visvabharathi Varanasi, Vol 2, Nidanasthana, Vatavyadhi Nidana Adhyaya, 74thsloka, 695 ,Page No:15

4.Michael Donography, Brain's disease of Nervous system, 11th Ed. U.K : Oxford University Press;2001 ,p.422.(6)

5.Harita, Haritasamhita, text with Hindi commentary, edited and translated by Vaidya Jaimini Pandey, 1st edition,2010,Chaukhambha visvabharati Varanasi,Pp-544,Page no.381

6.Susruta, Susruta Samhita, with English translation edited by G. D. Singhal, 1st Ed. Delhi: Chaukhambha Sanskrit Pratishthan; 2015, p. 96.

7.Sushruta, Sushrutasamhita with Nibandha Sangraha commentary of shri Dalhanacharya, edited by vaidyayadavjitrikamji Acharya, Ed. 2003, pp824, pg 381

8. Susruta, Susruta Samhita, with English translation edited by P.V. Sharma Vol 2,1st Ed. Varanasi, Chaukhambha Bharati Academy; 2010, Page no.15

9. Susruta, Susruta Samhita, with English translation edited by P.V. Sharma Vol 2,1st Ed. Varanasi, Chaukhambha Bharati Academy ; 2010, Page no.214