

A COMPARATIVE CLINICAL STUDY ON THE EFFECT OF SHEPHALIKA KWATA AND BRIHAT PANCHAMULA KWATA IN THE MANAGEMENT OF GRIDHRASI VIS-À-VIS SCIATICA

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ABSTRACT

Gridhrasi is one among the 80 types of nanatmaja vata vikaras which has been explained in all the samhitas. It is of two type vataja and vatakaphaja. It is characterized by lowback ache with radiating pain to the leg and with restricted movements of spine. It is commonly seen due to changing life style, bad posture and nature of work. Gridhrasi can be well correlated to Sciatica in contemporary science. As Gridhrasi is a ruja pradhana vatavyadhi, particularly seen in most active period of life causing hindrance in routine life. In ayurvedic classics, various therapeutic measures have been explained for vata vyadhi among which two different Kashaya's was taken for clinical trial. This study was planned to give better relief from pain along with other clinical features like stiffness, heaviness and tenderness in patients of Gridhrasi. This is acomparative clinical study on Shepalika kwata and Brihat panchamula kwata in Group A and Group B respectively.

KEYWORDS: Gridhrasi, Sciatica, Kashaya, Shephalika Kwata, Brihat Panchamula Kwata

INTRODUCTION

Gridhrasi which was known as an ancient curse is now known as a modern international epidemic. Among the galaxy of causitive factors, most common cause of low backache seems to be the lumbar disc disease. 80% of population is affected by this symptom at sometimes in life. Impairment of back and spine are ranked as the most frequent cause of limitation of activity in people younger than 45 years. In 2% of population backache is the presenting complaint in general practitioner's clinics. Life time incidence of low backache is said to be 50-70%.Where as an incidence of sciatica ranges from 30-40%.In 1/3rd cases

of sciatica precedes backache and in 1/4th of cases both backache and sciatica are complained of simultaneously¹.

In Ayurveda, Gridhrasi is a ruja pradhana nanatmaja vata vyadhi. The word "Gridhrasi" itself suggests that of the gait of Gridhra(vulture) due to pain². It is of 2 types Vataja Gridhrasi and Vata Kaphaja Gridhrasi³. In Vataja Gridhrasi patients suffer from Dehasyavakrata and also associated with Spurana in Janu, Jangha, uru. In VataKaphaja Gridhrasi patients suffer from Tandra, Gourava and Arochaka⁴. The symptoms seen in Gridhrasi can be well corelated with sciatica in contemporary science. Sciatica is a

very painful condition in which pain begins in lumbar region and radiates along the posterolateral aspect of thigh and leg⁵. Hence movement of the affected leg is restricted and patient is not able to walk properly.

Sciatica carries little threat to life, but it interferes greatly with living. These all make the patient to seek medical advice.

An Ayurvedic approach is helpful to improve quality of life in the patient of Gridhrasi and for certain extent, by administering the Ayurvedic treatment, surgical intervention can be avoided. While going through the treatments of Gridhrasi sequential Administration of *Snehana*, *Swedana*, *Basti*, *Siravedha* and *Agnikarma* are lines of treatment explained in Ayurvedic classics. Apart from these procedures, certain *Shamana yogas* for oral administration are also explained. In Contemporary system of medicine, management of sciatica is still a medical problem where no permanent medical treatment is available except some palliative measures. Chances of recurrences are also high even after surgery.

AIM AND OBJECTIVES

-To evaluate clinically the efficacy of Shephalika kwata in Gridhrasi.

-To evaluate clinically the efficacy of Brihatpanchamula kwata in Gridhrasi.

-To compare clinically the efficacy of Shephalika kwata and Brihatpanchamula kwata in Gridhrasi.

MATERIALS AND METHODS

INTERVENTIONS:

40 patients were selected. Patient's were randomly distributed into 2 groups i.e. 20 patients in each group. A special case

proforma containing all the necessary details pertaining to the study was prepared.

The patient was advised to prepare shephalika patra kashaya⁶ and Brihat Panchamula kwata⁷ with 60 grams of kashayachurna to be mixed with 8 times of water (480ml) and reduced to 1/8 part (60) ml and take the prepared medicine in 2 divided doses of 30ml in the morning and evening after food.

Group A – 20 patients were given as follows.

Shephalika patra kwata

Dosage: 30ml Morning and night after food.

Duration- 14 days

Total duration of study: **14 days**

Group B – 20 patients were given as follows.

Brihat Panchamula kwata

Dosage-30ml in morning and night after food

Duration-14 days

Total duration of study: **14 days**

Total sample size-40 patients

Total study duration-30 days, including follow up on 15th day after the treatment.

ASSESSMENT CRITERIA:

Subjective parameters: Clinical features of Gridhrasi such as Ruk (radiating type) along sphik, kati, prishta, uru, janu, janga and paada, Stambha, Toda, Gourava, Spandana, Aruchi, Tandra

Objective parameters:

-Tenderness

-Straight Leg Raising test (SLRT)

-Lasegue's sign

The assessment of results of treatment was done on the basis of clinical improvement observed in patients. Numerical score was assigned for each of the following signs & symptoms.

Pathya:

Aharaja	Viharaja
To take food which is hot, fresh and has madhura, amla, lavana rasa.	Bramhacharya, snana with kosha jala.
To Consum brimhana ahara, use of sneha in the food.	Natural sleep at night. Ardha Shakti vyayama.
Meat soup, meat of marshy animals (ex.fish) and meat of carnivorous (mamsahara) boiled with grita and taila.	Tub bath Vatahara taila abhayanga, parisheka.

Apathya:

Aharaja	Viharaja
Avoid ati ruksha/laghu/sheeta/alpa ahara.	Avoid ati shrama / vyayama / sahasa / vegadharana.
Avoid excessive fast.	Avoid excessive sexual activities.
Avoid kashaya/katu/tikta rasa food.	Awakening at night, sleeping at day time
	Regular riding of bike / horse / elephant / swimming. Excessive stress / fear / irritation/weight lifting.

RESULTS

GROUP A: Comparison of Subjective /Objective parameters (With in group analysis) in Group A patients studied

Objective variable	PROSPECTIVE ANALYSIS								
	MEAN SCORE			DIFFERENCE		VARIABILITY		INFERENCE	
	BT-MEAN SCORE	TIME	MEAN SCORE	BT-AT	% CHANGE	SD	SE	Z SCORE	P VALUE
Ruk	1.55	AT	0.70	0.85	54.8%	0.37	0.08	-4.123 ^b	<0.001**
		On FUP	0.20	1.35	87.0%	0.49	0.11	-4.072 ^b	<0.001**
Toda	1.33	AT	0.55	0.75	56.3%	0.55	0.12	-3.638 ^b	<0.001**
		On FUP	0.15	1.15	86.4%	0.67	0.15	-3.758 ^b	<0.001**

Stambha	1.40	AT	0.40	1.00	71.4%	0.46	0.10	-4.066 ^b	<0.001**
		On FUP	0.10	1.30	92.8%	0.47	0.11	-4.099 ^b	<0.001**
Spandana	1.20	AT	0.55	0.65	54.1%	0.49	0.11	-3.606 ^b	<0.001**
		On FUP	0.05	1.15	95.8%	0.59	0.13	-3.906 ^b	<0.001**
Gourava	1.05	AT	0.35	0.70	66.6%	0.57	0.13	-3.500 ^b	<0.001**
		On FUP	0.10	0.95	90.4%	0.60	0.14	-3.755 ^b	<0.001**
Aruchi	0.75	AT	0.35	0.40	53.3%	0.50	0.11	-2.828 ^b	0.005* *
		On FUP	0.00	0.75	1.00	0.44	0.10	-3.873 ^b	<0.001**
SLRT	58.25	AT	66.25	-8.00	-13.7%	6.77	1.51	-3.624 ^c	<0.001**
		On FUP	77.25	-19.00	-32.6%	9.81	2.19	-3.854 ^c	<0.001**
Tenderness	0.95	AT	0.40	0.55	57.8%	0.51	0.11	-3.317 ^b	<0.001**
		On FUP	0.20	0.75	78.9%	0.44	0.10	-3.873 ^b	<0.001**

GROUP B: Comparison of Subjective /Objective parameters (With in group analysis) in Group B patients studied

Objective variable	PROSPECTIVE ANALYSIS								
	MEAN SCORE			DIFFERENCE		VARIABILITY		INFERENCE	
	BT-MEAN SCORE	TIME	MEAN SCORE	BT-AT	% CHANGE	SD	SE	Z SCORE	P VALUE
Ruk	1.45	AT	0.60	0.85	58.6%	0.37	0.08	-4.123 ^b	<0.001* *
		On FUP	0.10	1.30	89.6%	0.57	0.13	-4.130 ^b	<0.001* *
Toda	1.15	AT	0.45	0.70	60.8%	0.47	0.11	-3.742 ^b	<0.001* *
		On FUP	0.15	1.00	86.9%	0.56	0.13	-3.879 ^b	<0.001* *

Stambha	1.50	AT	0.45	1.05	70.0%	0.39	0.09	-4.185 ^b	<0.001*
		On FUP	0.10	1.40	93.3%	0.60	0.13	-3.938 ^b	<0.001*
Spandana	1.10	AT	0.40	0.70	63.6%	0.47	0.11	-3.742 ^b	<0.001*
		On FUP	0.10	1.00	90.9%	0.56	0.13	-3.879 ^b	<0.001*
Gourava	1.15	AT	0.35	0.80	69.5%	0.41	0.09	-4.000 ^b	<0.001*
		On FUP	0.05	1.10	95.6%	0.55	0.12	-3.947 ^b	<0.001*
Aruchi	0.70	AT	0.35	0.35	50.0%	0.49	0.11	-2.646 ^b	0.008**
		On FUP	0.05	0.65	92.8%	0.49	0.11	-3.606 ^b	<0.001*
SLRT	59.25	AT	66.75	-7.50	-12.6%	5.50	1.23	-3.442 ^c	<0.001*
		On FUP	78.00	-18.75	-31.6%	8.25	1.85	-3.861 ^c	<0.001*
Tendernes	1.00	AT	0.35	0.65	65.0%	0.49	0.11	-3.606 ^b	<0.001*
		On FUP	0.15	0.85	85.0%	0.37	0.08	-4.123 ^b	<0.001*

Significant figures

+ Suggestive significance (P value: 0.05<P<0.10)

* Moderately significant (P value: 0.01<P ≤ 0.05)

** Strongly significant (P value: P≤0.01)

DISCUSSION

Ruk: This was statistically highly significant in both the groups with p value<.001. Percentage wise relief of symptoms in Group A is 80% where as in Group B is 85%.But pain in both the groups was present in some patients after treatment. The intensity of pain was reduced compare to before and after treatment. Group B shows better relief than the Group A.

The drugs involved in the medicines have Qualities of both vata kaphahara, Shothahara etc. properties. ushna veerya pacifies vata

dosha thus resulting in relieving the pain.so in both the group results obtained were almost similar.

Stambha: This was highly significant in both the groups with p value <.001. Percentage wise relief of symptoms in Group A is 90% where as in Group B is 90%. Patients with mild stiffness relieved completely after treatment and also during follow ups.Patients with moderate stiffness completely relieved after treatment. But during follow up mild stiffness was noticed but which does not interfere with any daily activities.

Stamba is due to *kapha* and *Vatadosa*, the study drug having *Laghu*, *Ruksha*, *Ushnaguna* will help in the reduction *Kapha* and clears *srotoavarodha* thus rectifies *Stambha*. This is the probable reason behind

this observation.

Toda: This was highly significant in group A with p value <.001. It is also highly significant in group B with p value <.001. Percentage wise relief of symptoms in Group A is 75% where as in Group B is 70%.

Group A showed better relief than Group B after treatment and also after follow up. This may be because both medicines have vatahara effect.

Spandana: This was highly significant in both the groups with p value, <.001. Percentage wise relief of symptoms in Group A is 85% where as in Group B is 75% This shows more result in Group A when compared to Group B, after treatment and follow up.

In *Gridhrasi*, *kandhara* afflicted by *Vatadosa* which is considered as *Upadhatu* of *Rakta* and that cause *Spandana*. The study drug is *Ushnaveerya* which is antagonistic to *Vata*, thus it probably helps in pacifying *Spandana*.

Gourava: This was highly significant in both Groups with p value <.001. Percentage wise relief of symptoms in Group A is 70% where as in Group B is 85%. It was found to be highly significant after treatment and also after follow up. But in group A some patient were showing the mild symptoms. Group B shown effective result than Group A.

The drugs involved in the medicines have Qualities of both vata kaphahara, Shothahara, ushna guna etc. properties thus resulting in relieving the Gourava.

Aruchi: This was significantly reduced in both the groups, after treatment and after follow up. Group A p value is .005 and Group B p value is .008. Group A shows better relief than Group B. Percentage wise relief of symptoms in Group A is 75% where

as in Group B is 65%.

Tandra: In both Group A and Group B no one had Tandra has a symptom hence this parameter is not taken for statistical analysis.

Tenderness: This was highly significant in both the groups with p value <.001, during treatment and follow up. Percentage wise relief of symptoms in Group A is 75% where as in Group B is 85%. It was more significant in Group B when compared to Group A after treatment and follow up. But mild increase in pain was complained of during follow up and not to the extent of before treatment.

SLRT: This was highly significant in both the groups with p value <.001. Positive SLR from 50-70 degrees was improved by 20degrees. This was maintained till follow ups. Positive SLR from 30-50 degrees was improved by 10 degrees and this was maintained after treatment and follow up. It is due to *Shoolaghna* and *Shothaghna* properties. These help to reduce *Pidana* of *Gridhrasi nadi*. *Vataghna* property and *Sholahara* property of *Kashaya* makes lifting of leg more easily. This is the probable reason for this observation.

Lasegue's sign: The statistical study shows significant improvement in both the groups A and Group B. It shows equal results in both the groups.

The *kaphavata* hara property relives *Amashayasthitavata*, it probably relives *Shoola*. If *Shoola* is reduced there will be an improvement in lasegue's sign.

Group A was found to be significant as compared to group B in overall assessment. This may be because of different Chronicities of illness, indulging in viharaja nidanas like atigamana, atishrama and bharavahana etc

CONCLUSION

The palliative line of treatment considered as a good modality of treatment in present busy life style. So in this context a comparative study is done in 40 patients with shaman chikitsa by administering Shephalika Kwata and Brihatpanchamula kwata in 20 patients each. Both medicine has the drugs with predominant in kapha vata shamana, pitta shodhaka, Nadishothahara, Dipana, shwasahara, Kasahara and thus specifically indicated in Gridhrasi. From the results which are obtained, following conclusion can be drawn. The study showed highly significant results for both medicines during and after the treatment. The features like stambha and Gourava seen in all the patients with 100% showing significant results with 80% and 90% in Group A and Group B respectively in each symptoms. Group A was found to be significant as compared to Group B in overall assesment. This may be because of different Chronicities of illness, indulging in viharaja nidanas like atigamana, atishrama and bharavahana etc.

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Source of support: Nil

Conflict of interest: None Declared

Cite this article as

Dr Prathibha R: A Comparative Clinical Study on the Effect of Shephalika Kwata and Brihat Panchamula Kwata in the Management of Gridhrasi Vis-A-Vis. Sciatica; IX(1): 2420-2426