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"A RANDOMIZED COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFECT OF KATI BASTI WITH SEPHALIKA PATRA KWATHA AND TAILA IN THE MANAGEMENT OF GRIDHRASI W.S.R. TO SCIATICA"

Dr. Shivkumar N.[1]*, Dr. Rajalaxmi M. G.[2] and Dr. Niranjan Rao[3]

[1]3RD P.G. Scholar Dept. of Panchakarma, Sri Dharmasthala Manjunatheshwara College of Ayurveda, Kuthpady, Udupi.

[2]Associate Professor, Dept. of Panchakarma, Sri Dharmasthala Manjunatheshwara College of Ayurveda, Kuthpady, Udupi.

[3]Professor and HOD, Dept. of Panchakarma, Sri Dharmasthala Manjunatheshwara College of Ayurveda, Kuthpady, Udupi.

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***Corresponding Author**
Dr. Shivkumar N.
3RD P.G. Scholar Dept. of Panchakarma, Sri Dharmasthala Manjunatheshwara College of Ayurveda, Kuthpady, Udupi.

ABSTRACT

Nonspecific low back pain of mechanical origin is second only to common cold as a cause of self limiting symptoms and disability in the community. Back pain is a human condition with 60-80% of the world's population experiencing pain at sometime in their lives. Low back pain is the highest prevalence in persons aged 45 to 65yrs. Gridhrasi is a Vatavyadhi, commonly seen due to changing life style and nature of work and is characterized by Low backache with radiating pain to foot and with restricted movements of the spine. Gridhrasi is correlated to Sciatica in Modern Sciences. In the present day, man expects miraculous effects with treatments which are easily available at less cost with more efficacies and with less restriction in routine work. Taking these into account, this study was planned to explore safe and cost effective treatment for the patients of Gridhrasi which can give better relief from pain. Thus Kati basti was selected to evaluate the therapeutic effect in the management of Gridhrasi.

Objectives: To evaluate and compare the efficacy of Katibasti by Shephalika Patra Taila & Shephalika Patra Kashaya clinically. **Study Design**: It is a comparative study to assess the pre & post test design where minimum of 30 patients each suffering from Gridhrasi will be

selected & randomly distributed to kati basti with Shephalika Patra Kashaaya & Shephalika Patra Taila **Results: SPT Group:** It showed Statistically Significant Change in the following attributes– Stambha, Ruk, Toda, Spandana, Grahanati, Gaurava, Pain, Functional ability, Functional disability, Tandra. **SPK Group**: It showed Statistically Significant Change in the following attributes– Stambha, Ruk, Toda, Spandana, Grahanati, Pain, Functional ability, Functional disability, Gaurava, Tandra. Comparing the both groups SPT and SPK both groups showed significant results in all attributes, Relatively Shephalika Patra Taila (SPT) group showed more effect than Shepahlika Patra Kashaya (SPK) group.

KEYWORDS: Gridhrasi; Sciatica; Kati basti; Shephalika patra taila; Shepahlika patra kashaya.

INTRODUCTION

Man learnt the art of walking from his ancestors which were four legged animals. To maintain the erect posture, walking in two legs induces more strain to spine. Nonspecific lowback pain of mechanical origin is second only to common cold as a cause of self limiting symptoms and disability in the community. It has been calculated that more than three quarters of the world's population back pain at some or other time in their lives and in developed western countries.[1]

Backpain is a human condition with 60-80% of the world's population experiencing pain at some time in their lives. Although there is no evidence that back pain prevalence has increased, reported disability and absence from work due to back pain have increased significantly in the last 30 yrs. In the UK 7% of the adult population each year with back pain, at a cost of $500 million and 80 million working days lost.[2] Low back pain is the most common pain syndrome in industrial countries with highest prevalence in persons aged 45 to 65 yrs.

The incidence in the industrial sector in India is 11% in textile workers. Back is sensitive to 4 to 8 Hz. Vibration and whole body vibration produces buckling and slipping of the lumbar disc and degeneration.[3] Now a day's most common disorder which affect the movement of the leg, particularly in the middle age is the low back ache, out of which 40% are the radiated pain which comes under sciatica syndrome.[4] More than 90% of backpain episodes usually affecting patients aged 20-55years.Onset are often associated with lifting or bending. The life time incidence of low back pain ranges from 50-70%, where as incidence of sciatica ranges

from 30-40%.[5] In Ayurveda Gridhrasi is considered as vatajananatmaja vyadhi.[6]

The word 'Gridhrasi' itself suggests the gait of the patient which is similar to Gridhra (vulture) due to pain. Gridhrasi is considered as Shoola Pradhana Vatavyadhi. The cardinal sign and symptoms of Gridhrasi are Ruk (Pain), Toda (Pricking sensation), Stambha (Stiffness) and Muhurspandana (Involuntary Movements) in the Sphik, Kati, Uru, Janu, Jangha and Pada in order and Sakthishepan-nigraha i.e. restricted lifting of the legs.

Low back pain with radiation is known as Gridhrasi. The line of management includes basti chikitsa, Agnikarma and siravyadha.[7] As Vata involvement is evident with or without kapha as pain and disability, snehana and swedana chikitsa is also advised as a treatment.[8] Kati basti is a snigdha sweda and possesses both snehana and swedana effect.

Shephalika patra kashya has direct indication in Gridhrasi by Chakardatta having vata kaphahara property is selected for the study.

There is lot of treatments for Gṛdhrasī, in Ayurveda texts. But most of the Ayurvedic and native physicians used "Śephalika Dala Kvātha" mentioned in Bhaīṣajya Ratnāvalī. Here it is said that leaves of Śephalika should be boiled along with the water over mild fire and intake of this Gṛdhrasī is a one of diseases which can be commonly seen among the patients who are treated with Ayurvedic medicine today. Though there are lot of Ayurvedic formulas for treating Gṛdhrasī, "Śephalika Dala Kvātha" mentioned in Bhaīṣajya Ratnāvalī has a specific practicable value.[9]

MATERIAL AND METHODS

Source of Data: Total 30 patients, who are having gridhrasi randomly divided into two groups of 15 each for Katibasti with Shephalika Patra Kashya & Shepahlika Patra Taila will be taken from IPD & OPD of S.D.M Ayurveda Hospital, Udupi.

Method of collection of Data: It is a randomized open clinical trial with pre test post test and in between the groups. The complete profile of the patient was prepared as per the detailed Performa consisting of all the relevant data like symptoms of Gridhrasi, physical signs and patient's constitution along with assessment of pain, Neurological deficit, functional ability and functional disability using standard questionnaire.

Design of the study: An Open label Double group clinical study.

Table no. 1.

Intervention	
Drug	Shepahlika Patra Taila and Kashaya
Procedure	Kati Basti
Route of Drug Administration	Transdermal Route
Duration of the Procedure	45 mins
Duration of the Study	7 days
Total Duration of hr study	14 days

Assessment criteria

Subjective parameters like Pain Neurological Deficit, Functional ability and disability will be assessed by using standard scoring methods. Assessment done before, after and follow up of treatment.

On the basis of these methods

- Greenough and Fraser scoring method.
- Sugarbaker and Barofsky clinical mobility scale.
- Oswestry Disability assessment Questionnaire.

Subjective Parameters

Pratyatma lakshana of Gridhrasi.

Objective Parameters

Will be assessed by maneuvers and signs like

- SLR[straight leg raising test]
- Lassegue sign
- Bowstring sign.
- Flip test
- Genslen's test
- Schober's test.

Inclusion and exclusion Criteria

Table no. 2.

Sl. No	Inclusion	Exclusion
01	Patients are within age group of 16 to- 60 years.	Neo Plastic conditions of Spine
02	Patients were having Prathyatma lakshanas of Gridhrasi.	Trauma to Spine
03	Patients having the positive	Infections related to

	physical signs of Radiation pain to either of legs or both the legs	Spine
04	Patients with IVDP, Disc Herniation, Lumbar spondylosis	

OBSERVATIONS AND RESULTS

Showing the effect on Stamba within the group

Parameter STAMBA	Negative ranks			Positive ranks			Ties	Total	Z value	P value	I.F
	N	MR	SR	N	MR	SR					
GROUP A– ShephalikaPatraTaila Kati Basti											
BT-14th Day	14	7.50	105.0	0	0.0	0.0	1	15	-3.442	**0.001**	**HS**
BT-AT	11	6.00	66.00	0	0.0	0.0	4	15	-3.071	**0.002**	**HS**
GROUP B– ShephalikaPatraKashaya Kati Basti											
BT-14th Day	15	8.00	120.0	0	0	0	0	15	-3.573	**0.000**	**HS**
BT-AT	12	6.50	78.00	0	0.0	0.0	3	15	-3.464	**0.001**	**HS**

Showing the effect on Ruk within the group

Parameter RUK	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– ShephalikaPatraTaila Kati Basti											
BT-14th Day	15	8.00	120.0	0	0.0	0.0	0	15	-3.477	**0.001**	**HS**
BT-AT	12	6.50	78.00	0	0.0	0.0	3	15	-3.217	**0.001**	**HS**
GROUPB– ShephalikaPatraKashaya Kati Basti											
BT-14th Day	15	8.00	120.0	0	0	0	0	15	-3.520	**0.001**	**HS**
BT-AT	12	6.50	78.00	0	0.0	0.0	3	15	-3.517	**0.001**	**HS**

Showing the effect on Toda within the group

Parameter Toda	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– ShephalikaPatraTaila Kati Basti											
BT-14th Day	15	8.00	120.0	0	0.0	0.0	0	15	-3.477	**0.001**	**HS**
BT-AT	12	6.50	78.00	0	0.0	0.0	3	15	-3.276	**0.001**	**HS**
GROUPB– ShephalikaPatraKashaya Kati Basti											
BT-14th Day	15	8.00	120.0	0	0	0	0	15	-3.473	**0.001**	**HS**
BT-AT	14	7.50	105.0	0	0.0	0.0	1	15	-3.557	**0.001**	**HS**

Showing the effect on Spandana within the group

Parameter Spandana	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– ShephalikaPatraTaila Kati Basti											
BT-14th Day	15	8.00	120.00	0	0.0	0.0	0	15	-3.761	**0.001**	**HS**
BT-AT	13	7.00	91.0	0	0.0	0.0	2	15	-3.114	**0.001**	**HS**
GROUPB– ShephalikaPatraKashaya Kati Basti											

BT-14th Day	15	8.00	120.0	0	0	0	0	15	-3.493	**0.000**	**HS**
BT-AT	13	7.00	91.0	0	0.0	0.0	2	15	-3.358	**0.001**	**HS**

Showing the effect on Aruchi within the group

Parameter Aruchi	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– ShephalikaPatraTaila Kati Basti											
BT-14th Day	8	4.50	36.0	0	0.0	0.0	7	15	-2.828	**0.005**	**HS**
BT-AT	8	4.50	36.0	0	0.0	0.0	7	15	-2.828	**0.005**	**HS**
GROUPB– ShephalikaPatraKashaya Kati Basti											
BT-14th Day	6	3.50	21.0	0	0	0	9	15	-2.333	**0.020**	**S**
BT-AT	6	3.50	21.0	0	0.0	0.0	9	15	-2.449	**0.014**	**S**

Showing the effect on Gourava within the group

Parameter Gourava	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– ShephalikaPatraTaila Kati Basti											
BT-14th Day	14	7.50	105.0	0	0.0	0.0	1	15	-3.460	**0.001**	**HS**
BT-AT	12	6.50	78.00	0	0.0	0.0	3	15	-3.286	**0.001**	**HS**
GROUPB– ShephalikaPatraKashaya Kati Basti											
BT-14th Day	12	6.50	78.0	0	0	0	3	15	-3.542	**0.000**	**HS**
BT-AT	6	3.50	21.0	0	0.0	0.0	9	15	-3.358	**0.001**	**HS**

Showing the effect on Tandra within the group

Parameter Tandra	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– Shephalika Patra Taila Kati Basti											
BT-14th Day	15	8.00	120.00	0	0.0	0.0	0	15	-3.460	**0.001**	**HS**
BT-AT	13	7.00	91.0	0	0.0	0.0	2	15	-3.286	**0.001**	**HS**
GROUPB– Shephalika Patra Kashaya Kati Basti											
BT-14th Day	15	8.00	120.0	0	0	0	0	15	-3.542	**0.000**	**HS**
BT-AT	13	7.0	91.0	0	0.0	0.0	2	15	-3.382	**0.001**	**HS**

Showing the effect on SLR Test within the group

Parameter SLR	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– Shephalika Patra Taila Kati Basti											
BT-14th Day	15	8.00	120.00	0	0.0	0.0	0	15	-3.475	**0.001**	**HS**
BT-AT	11	6	66.00	0	0.0	0.0	4	15	-3.035	**0.002**	**HS**
GROUPB– Shephalika Patra Kashaya Kati Basti											
BT-14th Day	15	8.00	120.0	0	0	0	0	15	-3.477	**0.001**	**HS**
BT-AT	12	6.50	78.00	0	0.0	0.0	3	15	-3.357	**0.001**	**HS**

Showing the effect on of Greenough& Fraser Scoring Method within the group

Parameter	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– Shephalika Patra Taila Kati Basti											
BT-14th Day	0	0	0	15	8.0	120.0	0	15	-3.578	**0.000**	**HS**
BT-AT	0	0	0	14	7.50	105.0	1	15	-3.391	**0.001**	**HS**
GROUPB– Shephalika Patra Kashaya Kati Basti											
BT-14th Day	0	0	0	15	8.0	120.0	0	15	-3.508	**0.000**	**HS**
BT-AT	0	0	0	13	7.0	91.0	2	15	-3.314	**0.001**	**HS**

Showing the effect on of Sugarbaker&Barofsky Clinical Mobility Scale within the group

Parameter	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– Shephalika Patra Taila Kati Basti											
BT-14th Day	0	0	0	15	8	120.0	0	15	-3.542	**0.000**	**HS**
BT-AT	0	0.0	0.	13	7.00	91.0	2	15	-3.358	**0.001**	**HS**
GROUPB– Shephalika Patra Kashaya Kati Basti											
BT-14th Day	0	0	0	15	8.00	120.0	0	15	-3.520	**0.000**	**HS**
BT-AT	0	0	0	13	7.0	91.0	2	15	-2.889	**0.004**	**S**

Showing the effect on of Oswestry Disability Assessment Questionnaire within the group

Parameter	Negative ranks			Positive ranks			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
GROUPA– Shephalika Patra Taila Kati Basti											
BT-14th Day	15	8.00	120.0	0	0.0	0.0	0	15	-3.542	**0.000**	**HS**
BT-AT	11	6.00	66.00	0	0.0	0.0	4	15	-3.317	**0.001**	**HS**
GROUPB– Shephalika Patra Kashaya Kati Basti											
BT-14th Day	15	8.00	120.0	0	0	0	0	15	-3.578	**0.000**	**HS**
BT-AT	12	6.50	78.0	0	0.0	0.0	3	15	-3.464	**0.001**	**HS**

RESULT

SPT Group

It showed Statistically Significant Change in the following attributes–Stambha, Ruk, Toda, Spandana, Grahanati, Gaurava, Pain, Functional ability, Functional disability, Tandra (P=0.005) and in attributes Aruci (50%).

SPK Group

It showed Statistically Significant Change in the following attributes–Stambha, Ruk, Toda, Spandana, Grahanati, Pain, Functional ability, Functional disability, Gaurava (P=0.003), Tandra (p=0.005)and in attributes Aruci (50%).

Comparatively both the groups showed good and satisfied improvements in all attributes but by comparing on effects by taila and kashaya, The taila group Showed higher results or improvement during after the treatment. But this is not ultimate statistical date to conclude the effect of taila or kashya as the sample size is less.

DISCUSSION

Kati Basti

Katibasti is not mentioned in Brihatrayais. But it is one of the successful therapeutic procedures used by the Ayurvedic physicians. Snehana, Swedana, Mrudu sodhana are the principle line of treatment pertaining to Vata vyadhi. Through Katibasti, Snehana as well as Swedana qualities are achieved. Kati basti relieves the symptoms of Gridhrasi like stambha, ruk, toda etc.

Discussion about conceptual study

Gridhrasi is well known disease since period of Veda because it is caused by vitiation of vata dosha, they did not described about factors which leads to Gridhrasi but mentioned about factors pertaining to Vatavyadhi nidana.

Explained about Ruksha Aahara sevana, Vegadharna, Atiyaana, Agantuja and shokadi manasika Nidanas are responsible for vitiation of Vata dosha which leads to Vata vyadhi Like Gridharsi.

The vitiated Vata affects snayu and Kandara resulting in difficulty in walking and restricted movements of the Spine.

In sometime Vata is associated with Kapha may be seen with additional symptoms like Gurava, Aruchi, tandra etc.

This disease was named because of symptoms as well as etiological factors with numbness and paraesthesia in lower limbs leads to diagnosis. Herniation and Degerative changes in disc are most common causes. There may be history of trauma as twisting of spine due to lifting of heavy objects or weights or exposure to cold. The disability caused due to this disease hampers day today daily activities and make the person to cripple.

All Vatavyadhis, the principle line of treatment are Snehana, Swedan aand Mrudu sodhana. Snayu and Rakta are involved as Dushya. Kandara of parsani and pratyanguli have been

stated as adhishtana of disease Gridhrasi.

Agni karma and Siravyadha are chief line of treatment. Mrudu sodhana in the form of Basti forms the major treatment of Gridhrasi.

CONCLUSION

SPT Group

It showed Statistically Significant Change in the following attributes–Stambha, Ruk, Toda, Spandana, Grahanati, Gaurava, Pain, Functional ability, Functional disability, Tandra (P=0.005) and in attributes Aruci (50%).

SPK Group

It showed Statistically Significant Change in the following attributes– Stambha, Ruk, Toda, Spandana, Grahanati, Pain, Functional ability, Functional disability, Gaurava (P=0.003), Tandra (p=0.005) and in attributes Aruci (50%).

Comparatively both the groups showed good and satisfied improvements in all attributes but by comparing on effects by taila and kashaya, The taila group Showed higher results or improvement during after the treatment. But this is not ultimate statistical date to conclude the effect of taila or kashya as the sample size is less.

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