



Research Article

ROLE OF AGNIKARMA IN THE MANAGEMENT OF GRIDHRASI W.S.R. TO SCIATICA

Chandreshwar Prasad Sinha*¹, Leeladhar Sahu² and N Parida³

^{1,2} Department of Kayachikitsa, Rajiv Lochan Ayurveda Medical College,
Chandkhuri, Durg, Ayush University Raipur

³Department of Dravyagun, Rajiv Lochan Ayurvedic Medical College
Chandkhuri Durg, Chhattisgarh

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ABSTRACT

Sciatica is one of the most common painful neuromuscular disorders in which sciatic nerve of one or both the legs is involved. The primary symptoms are back pain and walking difficulty, pain begins in lumbar region and radiates along the postero-lateral aspect of thigh to the leg. The characteristic sign and symptoms of this disease are closely resembles to the clinical features of gridhrasi. In Ayurveda, various methods used in treatment of gridhrasi are bsheshaja, snehana, swedana, siravedha, agnikarma and basti. Agnikarma is one of the para- surgical procedures which is very effective, simple, safe, having quick action and inexpensive. Acharya Sushrut mentions Agnikarma as superior most than other therapeutic procedures as it gives instant relief in pain. In this study 15 patients were treated by Agnikarma therapy along with parijat patra kashay (50 ml twice a day) for duration of one month. Agnikarma therapy was carried out in the interval of 10 days in total three times in a month. Total efficacy of the procedure was assessed by statistical analysis. The signs and symptoms were assessed before and after the treatment based on the grading score of sign and symptoms. There was observed a highly significant reduction in the parameters like pain, walking distance, stiffness, SLR test seen in the study. Visual Pain Analogue Scale was used for analysis of overall effect of treatment. Results obtained were analyzed by the statistical significance using paired t test, which revealed that there is statistically significant improvement in symptoms of Gridhrasi.

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INTRODUCTION

Back pain is a global problem with 80% of the world population suffering from it. 8 out of 10 people are affected with back pain at some stage of their life.¹ In which Sciatica is a chronic and recurrent radiating low back pain caused by compression of sciatic nerve. It is a very painful condition in which pain begins in lumbar region and radiates along the postero-lateral aspects of thigh and leg, due to which the patient is unable to walk properly. The most common disorder affecting the movement of leg in most productive period of life is low back pain. In this nearly 40% of persons will have radicular pain, which comes under the umbrella of Sciatic syndrome.² In sciatica there is pain in the region of distribution of Sciatic nerve, which ends to the outer border of foot. Sciatica is a major cause of illness among the working population in developing countries.³ The signs and symptoms of 'Sciatica' are similar to those of 'Gridhrasi' in Ayurvedic classics. Gridhrasi is a Shulpradhana Nanatmaja Vatavyadhi 1 which affects the daily routine of patients.⁴ The Patient suffering from Gridhrasi is not capable to walk properly.

*Corresponding author: **Chandreshwar Prasad Sinha**
Department of Kayachikitsa, Rajiv Lochan Ayurveda
Medical College,

According to Acharya Charaka, Stambha (stiffness), Ruka (pain), Toda (pricking sensation) and Spandana (twitching) are the signs and symptoms of Vataja Gridhrasi. While Aruchi (anorexia), Tandra (drowsiness) and Gaurava (heaviness) are the additional symptoms which is known Vatakaphaja Gridhrasi. Ancient Acharyas given the name Gridhrasi as a disease, it may because of patient's gait become similar to the gait of the Gridhra (Eagle).⁵

In Ayurvedic texts, there are various method used as a line of treatment, some of which are effective, simple, safe and cost effective for the patient e.g. Siravedha (Venesection), Agnikarma (kind of cautery), Basti chikitsa (Enema and katibasti), Snehana, Swedana and palliative medicines are used successfully.^{6,7} Among these, Agni karma procedure seems to be more effective by providing timely relief.⁸ In Chakradatta & Yogratanakara, we find direct reference of Agnikarma indicated for Gridhrasi which is to be done over the Paadakanistakam (little toe).^{9,10} Patients treated with Agni karma procedure never suffers from the same disease again, i.e. it never reoccurs.¹¹ Several researches have shown that Agnikarma Chikitsa is more effective compared to the other treatments such as oral drugs, kshar karma, siravyadha or even surgeries etc. The process of Agnikarma is normally done by using gold, silver, Pancha Dhatu, Iron shalaka or even with

metal coins, ring or with seeds of bhallatak, pippali etc.¹² It is a classical fact that this pain is effectively relieved by the Agni karma and there is no fear of putrifaction and bleeding. Parijat leaves contains D-Mannitol, B-sitosterol and has analgesic and anti-inflammatory in action.¹³ Keeping all this in mind we ushered agnikarma therapy along with Parijat patra kashay in Sciatica.

MATERIALS AND METHODOLOGY

The study was performed in the OPD and IPD department of Kayachikitsa, Rajiv Lochan Ayurvedic college Hospital Chandkhuri Durg Chhattisgarh. We selected 15 patients of clinically diagnosed Gridhrasi on the basis of signs and symptoms given in texts.

Agnikarma Procedure

After placing the patient in agnikarma table the marking of agnikarma point was done with the normal white board marker along the course of Sciatic nerve innervations from its origin point up to toe dermatologically as seen in below image. Panch dhatu agnikarma shalaka, Alovera fresh leaves and Madhuyashthi powder were used during procedure of agnikarma.

Inclusion Criteria

Patients were diagnosed mainly on the basis of signs and symptoms available in Ayurveda and modern medicine.

- Ruka (Pain), Toda(pricking pain), Stambh(stiffness), Spandana (Tingling),¹⁴
- Sakthanah kshepam nigrahanityat¹⁵- S.L.R. test, Laseuge sign, sitting test in affected leg for diagnosis as well as prognosis of the treatment.
- Local tenderness in lumbar region and affected lower limb.
- Planter flexion test.
- Popliteal compression test.
- Impairment of perception in different dermatome.
- X-ray (A/P view, lateral view of lumbar spine) and routine hematological and biochemical test were done to exclude other pathogenesis.

Exclusion Criteria

Cases of spondylolisthesis, sacroiliac arthritis, known cases of tuberculoma, Herpes simplex infection causing radiating pain or cyst compressing the nerve root, diabetic neuropathies, fracture of vertebra, destructed vertebral bodies and people of paittik constitution and pregnancy patients having multiple wounds where Agnikarma is contraindicated.

Study Design

In this study, 15 patients who satisfied the study criteria included in the study

Out-come variables were recorded before treatment and on 10th day, on 20th day, and on 30th day after treatment.

Criteria for Assessment – The improvement in the patient was assessed mainly on the basis of relief in the cardinal symptoms of the disease. To assess the effect of therapy objectively, following scoring pattern was used.

Symptoms	Grade				
	0	1	2	3	4
Ruka	No pain	occasionally	Mild pain	Moderate pain	Severe pain
Toda	No pricking sensation	occasionally	Mild	Moderate	Severe
Stambha	No stiffness	Occasionally 5-10 min.	Daily 10-20min.	Daily 21-60min.	>1 hours
Spandan	No stiffness	Occasionally 5-10 min.	Daily 10-20min.	Daily 21-60min.	>1 hours
Numbness	No numbness	occasionally >75- <90 degree	Mild >60- <75 degree	Moderate >45- <60 degree	Severe <45 degree
SLR test	>90 degree	>75- <90 degree	>60- <75 degree	>45- <60 degree	<45 degree

Photography of Agnikarma Procedure



Image 1 Agnikarma Points



Image 2 Agnikarma Procedure

RESULTS

Sign and symptom	Total no.of Pts.	Mean score		Mean Diff.	% of relief	SD±	SE±	t-value	p value	Remark
		BT	AT							
Ruka	15	2.93	0.93	2.000	68.2	0.75	0.19	10.24	<0.001	HS
Toda	15	2.53	1.00	1.53	60.4	0.91	0.23	6.48	<0.001	HS
Stambha	15	2.86	1.33	1.53	53.4	0.99	0.25	5.55	<0.001	HS
Spandan	15	1.86	0.40	1.46	78.4	0.51	0.13	11.00	<0.001	HS
Numbness	15	2.93	1.20	1.73	59.0	0.88	0.22	7.59	<0.001	HS
SLR test	15	3.33	2.06	1.27	38.1	0.70	0.18	11.37	<0.001	HS

In this present study effect of therapy shows highly significant with p value <0.001 results in Ruk, Stambha. There was improvement in SLR test, Toda, Spandana and Numbness which also gives highly significant results with p value < 0.001. It is found that patients were clinically improved with the treatment of Agnikarma with no side effect of the therapy. About 68.2% relief found in case of pain immediately after the

treatment which is one of cardinal symptom due to which patient became very comfortable and mentally satisfied. 60.4% relief in Toda, 53.4% relief in stambha, 78.4% relief in spandana, 59% relief in numbness and about 38.1% relief was seen in SLR test just after the therapy.

DISCUSSION

Sciatica is one of painful condition which hampers the daily routine of the patient. As described by Acharya Charak it is of predominance of vata dosha and may have Kapha Anubandh.¹⁶ Thus radiating pain from lumber region to the lower extremities may show stiffness in the lower limb and patient got difficulty in walking or continuous standing even for short period. As Ushna treatment acts against the qualities of Vata and Kapha Doshas, cures all the Vataja and Kaphaj disorders. In this condition Agni karma (ushna chikitsa) acts against the properties of Vata and Kapha Doshas, so by their virtue, they help in dissolving the Samprapti of Gridhrasi as it is a Vata-Pradhana and Kapha-Vata pradhana disease¹⁷. The drugs (parijat kashaya) chosen for the clinical trial are having Ushna Virya and Kapha-Vata Shamaka, Vedanasthapana, Shothahara, amapachan, Anuloman properties.¹⁸ Its pharmacological activities include Anti-inflammatory, Analgesic, Anti-oxidant and Immunostimulant etc.¹⁹ Therefore it helps in relieving the pain and inflammation of nerve. Relief from Pain and decreased SLR test with treatment were observed in this case in fixed duration of treatment (1 month). According to Dr Ven Hanff *et.al*, the place where heat burns the local tissue metabolism is improved with various metabolic and rejuvenating changes which takes place at the site of heat burns, thus it leads to increase demand of oxygen and nutrients of the tissues at the site of heat burns. It also excretes the unwanted metabolites and toxins.²⁰ Due to increased local metabolism, the waste products (metabolites) which are produced gets excreted, which normalize the blood circulation thus resulting in reduction in intensity of pain.

Rationality of Agnikarma Procedure

Agnikarma also explained in various ancient texts as very simple, harmless, and effective technique which has mainly indicated for Muscle, tendon, ligament, joint and bone pain (musculoskeletal pain). It also required no hospital staying for concern patients without involvement of any exogenous drugs or medications. Technically and skillfully if performed most of the time it is devoid of any major complications. The effectiveness can be easily noticed within 2-4 weeks. Agnikarma is performed by a special pointed metallic instrument known as Shalaka. This is heated and applied on the tenderest points marked with a marker. As per research on Agnikarma, there is a transfer of heat energy (Proton-neutron-electron theory). Apart from this, the following local effects can be seen such as:

CONCLUSION

From the present study, it may be concluded that Agnikarma therapy shows highly significant results in all signs and symptoms, especially in case of pain as it is one of the most uncomfortable factor for the patient. In all treatment procedure was indulged comfortably by the patients. There were no side effects noticed in any of the patients in all treatment procedure. All the procedure of agnikarma was simple, cheap and can be done in OPD level gives instant relief to most of the patients. Parijata Patra Kashay also gives good results in Gridhrasi.

Present Clinical study reveals that Agnikarma and Parijat patra Kashaya on 15 Sciatica patients shows statistically significant favorable result, in the clinical management of Sciatica.

Footnotes

Contributors: C.P. Sinha and L.D.Sahu did the writing of the manuscript and performed the Agnikarma procedure.

N. Parida was responsible for the editing and revision of its contents.

Conflict of interest: None

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