



## “EFFECTIVE MANAGEMENT OF GRIDHRASI W.S.R TO SCIATICA THROUGH AYURVEDIC SHAMAN THERAPY WITH AGNIKARMA - A CASE REPORT”

Bhavana Mawar<sup>1,\*</sup>, R.K Yadava<sup>2</sup>

Department of Kayachikitsa, All India Institute of Ayurveda, New Delhi

1.MD Scholar, 2. Associate professor, HOD & Guide

### ABSTRACT:

The main contribution of Ayurveda to the society is managing the chronic disabling diseases. When all other measures tried by them fail then people mainly come in the shelter of Ayurveda. Gridhrasi (Sciatica) is one of the Vatavyadhi which is caused by aggravated Vata dosha, Occasionally it will be associated with kapha producing vata kaphaj Gridhrasi. This disease is characterized by burning, stinging or numbing pain in the waist, back, thigh, knee and calf regions along the course of sciatic nerve. In this case report a male patient of age 73 years who suffered from Gridhrasi presenting with cardinal clinical sign and symptoms of Ruka, Toda, Stambha and Muhu Spandana in the Sphika, Kati, Uru, Janu, Jangha and Pada in order and Sakthikshepanigraha that is restricted lifting of the leg of the bilateral legs since 2-3 years was treated with combined Ayurvedic shaman therapy with 3 sittings of agnikarma and got relief in symptoms and in objective parameters with in admitted period of 21 days. This case study shows Ayurvedic shaman therapy along with agnikarma is potent and safe in the effective management of Gridhrasi.

**Key words:** Gridhrasi, Ayurvedic shaman therapy, Agnikarma, Vata dosha, Vatavyadhi

### INTRODUCTION:

Gridhrasi (Sciatica) is a disorder in which low back pain is found, that spreads through the hip, to the back of the thigh and down the inside of the leg. There are many causes for low back pain, however true sciatica is a symptom of inflammation or compression of the sciatica nerve. Sciatica is also known as sciatic neuritis, sciatic neuralgia or lumbar Radiculopathy when pain is felt going down the leg from the back<sup>i</sup>. Sciatic is basically a symptom that arises due to compression or inflammation of sciatic nerve<sup>ii</sup>. On examination SLR test is positive<sup>iii</sup>. The sciatica nerve carries impulses between nerve roots in the lower back and the muscles and nerve of the buttocks, thighs and lower legs. Compression of a nerve root often occurs as a result of damage to one of the discs between the vertebrae. Pain associated with Sciatica is characterized by severe, sharp and shooting in nature that radiating from lower back to the leg caused by compression, irritation or inflammation of the sciatic nerve. Based upon the signs and symptoms it can be correlated with Gridhrasi, one of the Vatavyadhi described in Ayurveda. It is characterized with the Onset of Ruk (Pain), Toda (Pricking) and Stambha (Stiffness) initially in Sphika (Gluteal region) and then radiating distally to Kati-Prishtha (low back), Janu (knee), Jangha (thigh) till Pada (feet)<sup>iv</sup>. The modern medicine mainly suggests the use of NSAID and surgical correction in this condition. Use of NSAID has temporary relief with severe adverse effects and surgical correction includes major surgery which is expensive and risky. In contrast Ayurveda advises

the treatment to strengthen the local tissue, soothing the nerve and systemic correction of the pathology by applying radical treatment. Pain in sciatica is very severe, which makes the patient difficult to walk; hampering the daily routine of the individual. No satisfactory treatment available in modern medical science, patients depends on pain killers which has temporary action. The annual prevalence of disc related sciatica in the general population is estimated at 2.2%<sup>v</sup> In Ayurvedic science, various modalities of treatment are explained for the management of *Gridhrasi*. *Agnikarma chikitsa* (treatment done with the use of cauterization) is said to be superior and the diseases treated effectively by *Agnikarma* do not reoccur<sup>vi</sup>

## CASE REPORT:

A 73 years male patient visited Opd of Kayachikitsa department of AIIA with complaints of lower backache radiated towards bilateral legs, pain in bilateral hip joint and bilateral legs since 2-3 years, Numbness in bilateral legs since 1 yr and difficulty in walking and difficulty in standing straight since 6 months. On examination-general condition of the patient was found normal, antalgic gait was present. He was not able to walk and stand for more than one minute due to severe pain. The posture of the patient was not straight standing, he was bending forward, SLR was 45° of left side and 30° of the right side. After the proper examination by Ayurvedic principle (Rogapariksha and Rogi pariksha) physician provisionally concluded as Gridhrasi and patient can be managed after admission in the IPD.

General physical examination	Dashvidha Pariksha	Asthavidha pariksha	Systemic examination
<ul style="list-style-type: none"> <li>➤ Appetite : poor</li> <li>➤ Bladder :6-7 times/ day</li> <li>➤ Bowel habit: Irregular, constipated</li> <li>➤ Sleep : disturbed(4-5 hrs)</li> <li>➤ B.P : 120/70mm Hg</li> <li>➤ Respiratory rate: 18/min</li> <li>➤ Pulse rate: 75/min(rhythm-N, character- N)</li> <li>➤ Clubbing: Absent</li> <li>➤ Lymph adenopathy: Absent</li> <li>➤ pedalodema: Absent</li> <li>➤ icterus: Absent</li> </ul>	<ul style="list-style-type: none"> <li>• Prakriti: Vaat-Pittaj</li> <li>• Vikriti: vataja kaphaj</li> <li>• Saara: Madhyam</li> <li>• Samhanan: Madhyam</li> <li>• Satva: Madhyam</li> <li>• Aharshakti: Madhyam</li> <li>• Vyayamashakti: Avara</li> <li>• Pramana: Madhyam</li> <li>• Vaya: pravara</li> </ul>	<ul style="list-style-type: none"> <li>✚ Nadi:RegularVaat-pittaj</li> <li>✚ Mala: Malabaddhata</li> <li>✚ Mutra: Samyaka</li> <li>✚ Jihva: Sama</li> <li>✚ Sparsha: Samanya</li> <li>✚ Drika: Samanya</li> <li>✚ Akriti: Krish</li> </ul>	<ul style="list-style-type: none"> <li>❖ Respiratory system – chest, bilateral clear, no abnormality detected</li> <li>❖ Cardio-vascular System: S1S2 normal</li> <li>❖ Gastro-intestinal System: P/A-no abnormality detected</li> <li>❖ Nervous System: Patient was conscious, well oriented, no abnormality detected</li> <li>❖ Locomotor System: Tenderness- b/l legs,, Pain in b/l legs</li> <li>❖ Gait: antalgic gait</li> <li>❖ SLR: Positive in b/l legs</li> <li>❖ Lasegues test: Positive</li> </ul>

## HISTORY OF PRESENT ILLNESS:

3 yrs back patient developed sudden onset of radiating pain in lower back, from right thigh to ankles usually developed after walking for ½ hr & sitting for long time. Patient feels comfortable on rest. Tingling sensation was in Right thigh & calf which develops after walking for 20 min & after long standing. He approached local doctors, got treated and was comfortable for 1 yr. Again complaints reoccurred with higher intensity and found difficulty in walking & sitting for longer duration. Then both the limbs were involved, pain in the lower back was severe, Radiating pain turned continuous, Unable to sit and walk for 5 min. Tingling sensation developed after walking for 5 minutes, patient was unable to stand straight due to severe pain in lower back, standing in forward position for 10-15 seconds & sitting for 5 minutes. Patient underwent MRI of LS spine and was advised for Surgery. So he came here in AIIA for his better management

**Criteria for diagnosis:**

- Positive SLR test in the affected leg
- Patients having cardinal features of the disease such as presence of dull or piercing pain, twitching and stiffness in back, lumber region, buttock, thigh, back of knee, calf, feet area in successive order.

**Criteria for assessment:**

The patient was examined for their subjective, as well as objective improvement, before and after treatment. The improvement was assessed mainly on the basis of relief in the cardinal and associated symptoms of the disease. Special scoring pattern was prepared to assess subjective symptoms.

**Scoring pattern for subjective criteria**

<p><i>Ruk (pain)</i></p> <ul style="list-style-type: none"> <li>• No pain: 0</li> <li>• Occasional pain: 1</li> <li>• Mild pain but no difficulty in walking: 2</li> <li>• Moderate pain and slight difficulty in walking: 3</li> <li>• Severe pain with severe difficulty in walking: 4</li> </ul>	<p>Aruchi (Anorexia)</p> <ol style="list-style-type: none"> <li>No anorexia - 0</li> <li>Mild anorexia - 1</li> <li>Moderate anorexia – 2</li> <li>Severe anorexia – 3</li> </ol>
<p><i>Toda (pricking sensation)</i></p> <ul style="list-style-type: none"> <li>• No pricking sensation: 0</li> <li>• Occasional pricking sensation: 1</li> <li>• Mild pricking sensation: 2</li> <li>• Moderate pricking sensation: 3</li> <li>• Severe pricking sensation: 4.</li> </ul>	<p>Tandra (Torpor)</p> <ol style="list-style-type: none"> <li>No tandra - 0</li> <li>Mild tandra – 1</li> <li>Moderate tandra – 2</li> <li>Severe tandra – 3</li> </ol>
<p><i>Stambha (stiffness)</i></p> <ul style="list-style-type: none"> <li>• No stiffness: 0</li> <li>• Sometimes for 5–10 min: 1</li> <li>• Daily for 10–30 min: 2</li> <li>• Daily for 30–60 min: 3</li> <li>• Daily more than 60 min: 4.</li> </ul>	<p>Gaurava (Heaviness)</p> <ol style="list-style-type: none"> <li>No heaviness – 0</li> <li>Mild heaviness – 1</li> <li>Moderate heaviness – 2</li> <li>Severe heaviness – 3</li> </ol>
<p><i>Spandana (twitching)</i></p> <ul style="list-style-type: none"> <li>• No twitching: 0</li> <li>• Sometimes for 5–10 min: 1</li> <li>• Daily for 10–30 min: 2</li> <li>• Daily for 30–60 min: 3</li> <li>• Daily more than 1 h: 4.</li> </ul>	<p>Straight leg raise test</p> <ol style="list-style-type: none"> <li>More than 900 - 0</li> <li>710-900 – 1</li> <li>510-700 – 2</li> <li>310-500 - 3</li> <li>up to 300 – 4</li> </ol>

## Assessment of overall effect of therapy

The total effect of therapy was assessed considering overall improvement in sign and symptoms as below given criteria:

- Cure: 100% relief in signs and symptoms
- Marked improvement: >75–<99% relief
- Moderate improvement: >50–<74% relief
- Mild improvement: >25–<49% relief
- Unchanged: <25% relief in signs and symptoms of *Gridhrasi*.

## Management and observations:

When patient was admitted to the IPD he had given this **Ayurvedic herbal treatment**:

Drug	Dose	Frequency	Route	Anupaan	Special Instruction
1.Tryodashang guggul	2	Bid	Oral	Normal Water	Empty Stomach
2.Agnitundi vati	1	Bid	Oral	Normal Water	After food
3.Panchkol churn	3 Gm	Bid	Oral	Normal Water	After food
4.Ashwagandha churn	2 Gm	Bid	Oral	Normal Water	After Meal
5.Castor oil	10 ml	HS	Oral	Lukewarm water	At bedtime
6.Laghuvishgarbh oil	-	-	LA	-	Thrice a day
7.Cap. Scitilon	1	Bid	Oral	Normal Water	Anytime

## Agnikarma sittings:

1 <sup>st</sup> sitting	30.8.18
2 <sup>nd</sup> sitting	7.9.18
3 <sup>rd</sup> sitting	14.9.18

## Investigational findings

INVESTIGATIONS	BT	AT
CBC WITH ESR	13.3 gm% and 20	13.5gm% and 17
LFT ,KFT	WNL	WNL
S.URIC ACID	4.6 mg/dl	3.3mg/dl
RBS	101 mg/dl	98 mg/dl
RA,CRP	Non reactive	Non reactive
S.Calcium	5.67 mg/dl	8.2 mg/dl

**Before treatment finding on examination and in reports:**

SLR TEST	RT-30 <sup>0</sup> , LT-45 <sup>0</sup>
LASEGUE'S TEST	POSITIVE
REDICULOPATHY	L4, L5, S1
MRI LS SPINE	Straightening of lumbar curvature suggestive of Paraspinal muscle spasm L4-L5 & L5-S1 intervertebral disc shows dessication changes , Diffuse bulge with right paracentral protrusion causing compression over L5-S1 traversing nerve roots respectively. Oestophytes seen, reduced space and disc buldge at L4,L5,S1,

**Visual analogue scale (VAS):**

S. NO	Subjective Parameters	BT	AT
1	Sphik Sula (Pain over Right hip region)	9	2
	Kati Sula (pain over Right gluteal region)	8	3
	Uru Sula (pain over thigh)	7	1
	Jangha Sula (Pain over calf region)	6	0
	Pada Sula (pain over foot)	8	2
2	Toda (pricking pain)	7	0
3	Stambha (stiffness)	5	1
4	Supti (Numbness)	6	1
5	Spandana (twitching)	3	0
6	Tenderness of sciatic nerve	6	2
7	Pressing Power	5	1
8	Sensory Impairment	0	0
9	Posture	9	1

VAS Scale- 0- No pain, 1-3 Mild, 4-6 Moderate, 7-10 Severe pain

**Straight leg raising test:**

	BT	AT
Right Leg	30 <sup>0</sup>	60 <sup>0</sup>
Left Leg	45 <sup>0</sup>	80 <sup>0</sup>

Sr.No	Symptoms	Before Treatment:	After Discharge
1	Radiating pain	Present +++	Reduced 80%
2	Tingling sensation	Present +++	Reduced 55%
3	Muscle wasting	Present +	Not present
4	Muscle strength	Reduce	Improve 50%
5	able to sit for	5 minutes	30- 40 minutes
6	Able to walk for	5 minutes	30 minutes
7	Can able to Stand without tingling sensation	10-15sec	25-30 minutes

### Observation and Result :

Marked Improvement in signs and symptoms of the patient was seen. Relief was found in back pain, numbness and tingling sensation. Gait has improved. The patient has marked relief so he can sit and stand comfortably.

Walking distance Before treatment:-Patient had severe pain after walking 90 mts. After treatment: - Patient could easily walk without pain about 180 mts.

Walking time Before treatment: Patient took around 15min. to walk 50 steps. After treatment: Patient took around 5 min. to walk 50 steps.

After the whole course of treatment the condition of the patient was markedly improved. Now patient may walk properly.



(BT)

(AT)



(BT)



(AT)

## DISCUSSION:

Gridhrasi is a Shoolapradhana Nanatmaja Vata-vyadhi<sup>vii</sup>, intervening with the functional ability of low back & lower limbs that is it is caused by the vitiation of the vata, which is the prime factor for the control of the neurological tissues. In this disease onset of Ruk (pain), Toda (numbing pain) and Stambha (stiffness) is initially in Kati (lumbosacral region) and radiates distal to Pristha, Janu, Jangha till Paada<sup>viii</sup>. Arundutta in his commentary defined clearly that due to Vata in Kandara (tendon) the pain is produced at the time of raising leg straight and it restricts the movement of thigh<sup>ix</sup>. Gridhrasi (Sciatica) is one of the commonest causes of the low back ache. Treatment of the disease is a challenge to the medical profession. It may also lead to severe disability to walk and do the normal routine works.

Ayurvedic texts have mentioned the different types of procedures like Agnikarma etc for the treatment of the disease. Based on the same principle the present study has been designed along with the shaman treatment. Agnikarma is a procedure mentioned in the Ayurveda, in which a Shalaka (metallic rod) having different shaped tipped are used to burn the superficial tissues of the body at different sites depending on the disease condition of the patient. It is indicated that in the disease Gridhrasi Agnikarma is done 4 inches above or below the knee joint on the posterior aspect of the leg. The number of sitting depends upon the chronicity and severity of the disease<sup>x</sup>. Here in this patient only 3 sittings were sufficient ,after one by one visit patient got relief in symptoms and marked improvement was seen just after 3 sittings of Agnikarma procedure.

TRYODASHANG GUGGUL was given to the patient in shaman treatment which is guggul based herbal formulation which has Tridosahara property , by which it pacifies all the three doshas<sup>xi</sup>. It provides strength to the nerves, bones, joints, muscles and ligaments. It is effective in all types of diseases related to nervous system and musculoskeletal system. It is also beneficial in gout, pain disorders, paralysis, hemiplegia, sciatica pain and all types of joint pains.

AGNITUNDI VATI: Here it helps in easy digestion, it has deepan, paachan and shoolaghna properties. It also used in nervous disorders, effective herbal remedies for vata problems. It is a polyherbomineral compound advised generally for indigestion and fever. It contains Haritaki, Chitrak, Bhibhitak, Ajmoda, Amalaki, Cumin, Vidang, Kuchala and Vatsanabh. Strychnine and Gallic acid are main crystalline alkaloids. Strychnine is a bitter alkaloid primary affects the motor nerve in the spinal cord which control muscle contraction.<sup>xii</sup>

PANCHKOL CHURN: It combats all the 3 vitiated doshas (tridoshaghnam), helps in digestion of the Ama and removal of metabolites. *Panchakola* have the *Katu Rasa* dominance which is *Agnidipana Rasa*<sup>xiii</sup>

ASHWAGANDHA CHURN: It shows anti inflammatory, strengthen, immuno modulatory, anti stress properties. Helpful activity in musculoskeletal disorders. Supports sustained energy levels, and vitality, including with physical strength. Ashwagandha churnis used here for balavridhi purpose and as a rasayan . The clinical use of

Withania somnifera is in the prevention and treatment of many stress induced diseases like arteriosclerosis, premature ageing, arthritis, diabetes, hypertension and malignancy<sup>xiv, xv</sup>

**CASTOR OIL:** It has a variety of effects on the gastrointestinal tract, including inhibition of water and electrolyte absorption, stimulation of water secretion into the intestinal lumen and depression of small bowel contractile activity, most important medicinal oil as a cleansing laxative and purgative. Use of castor oil as a laxative is attested to in the circa<sup>xvi</sup>

**CAP SCITILON:** helpful specially in sciatica, lower back ache, ingredients in it balances vata and kapha, it contains sahadhara, rasna, bala, punarnava, chitrak, satavari, shunthi, til taila etc which helps in pacifying vata and kapha dosha, and helpful in breaking the samprapti of Gradhrasi and benefits the patients fastly and effectively.

Thus from the study it can be understood that the combination therapy has given good results to reduce the symptoms of the disease.

## CONCLUSION:

In above discussion and result we can say that this Agnikarma therapy along with shaman treatment is very effective in gridhrasi disease and it will be done in large population with more objective criterias. This case study not only gives us confidence and better understanding for treating such cases in ayurvedic hospital but also leads in the direction of further clinical trails to establish cost effective and safe Ayurvedic therapy In 21 days treatment, the patient physically and mentally feels good and healthy. Finally patient is satisfied with ayurvedic medicine. From the above study it can be concluded that Agnikarma along with the appropriate shaman treatment is effective in the management of the disease Gridhrasi.

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