

# A CLINICAL CASE STUDY TO EVALUATE THE EFFICACY OF VIDDDHA AGNI KARMA IN GRIDHRASI W.S.R TO SCIATICA SYNDROME

## Abstract

*Gridhrasi* (Sciatica Syndrome) is one of the *Vatavyadhi* and the most prevalent disorders that affects the lower limb and causes morbidity throughout the productive years of life, making it difficult to walk. It is characterized by pain, stiffness, and recurrent twitching sensation felt along the course of sciatic nerve in the buttocks, low back, thighs, back of knee, calf region, and foot, along with restricted movement of the affected body parts, as it is caused by aggravated *Vata Dosha*. If the disease is caused by both *Vata* and *KaphaDosha*, it results in drowsiness, heaviness and anorexia as additional symptoms. Sciatica Syndrome have become a disorder with a high prevalence, estimated to have 10 million cases reported annually from India. Especially in the 40–60year age group in males.

Both Acharya Sushruta and Acharya Charaka mentioned *AgnikarmaChikitsa* in the management of *Gridhrasi* (Sciatica Syndrome) at the site of *Antara-Kandara-GulphaPradesha*. Considering these, in present study *Gridhrasi* was treated with *Viddha Agni Karma* and the results were evaluated for the study at each stage.

**Materials and Methods:** This is a single case study about the effective management of *Gridhrasi* with *ViddhagniKarma*. The duration of the treatment was 21 days with follow up for next 2 months. Assessment criteria was done before treatment, on 7<sup>th</sup>, 14<sup>th</sup> and on 21<sup>st</sup> day.

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**Result and Conclusion:** It can be concluded from this article that Viddhagni Karma can be utilised for symptomatic treatment of Gridhrasi as it blocks the pain by activating a variety of bioactive chemical through peripheral, spinal and supraspinal mechanisms.

**Keywords:** *Gridhrasi, Viddhagnikarma, Sciatica Syndrome, Ayurvedic management*

## I. INTRODUCTION

*Gridhrasi* is one of the 80 varieties of *NanatmajaVatavyadhi*. The word itself refers to the abnormality in gait that patient's exhibit while they are in excruciating pain. Similar to the vulture *Gridhra*, this illness not only produces discomfort but also makes walking difficult, which the patient finds extremely annoying. The Cardinal symptoms and indicators are *Ruk, Toda, Spandana* in the *Sphik, Sthamba, Kati, Uru, Janu, Jangha*, and *Pada, Tandra, Aruchi, Gaurav*.<sup>1</sup> *Gridhrasi* can be co-related to Sciatica Syndrome based on its cardinal symptoms. Sciatica Syndrome is a debilitating condition characterised with pain and/or paraesthesia in the sciatic nerve distribution or an associated lumbosacral nerve root. Symptoms aggravates with flexion of lumbar spine, twisting, bending or coughing. Sciatica Syndrome can be diagnosed by thorough history, physical examination and clinical features. Hence proper clinical examination is necessary.

Treatment of Sciatica syndrome in conventional system of medicine are a course of corticosteroids, localised corticosteroid injections, NSAIDs, Spinal manipulation, Opioids and non-opioids analgesics, Deep tissue massage, muscle relaxants, surgical corrections for disc herniation, epidural abscess or tumour. All these treatments have complications and adverse reactions like paraesthesia, loss of strength, loss of bowel and/or bladder functions, aggravated pain or even permanent nerve damage.

Hence there is need to check treatments which are cheap, simple, effective and safe for patients in other system of medicines. Ayurveda explains line of treatment including *Siravyadha, Agnikarma, Basti Chikitsa, Snehana, Swedana* etc.

Site of *Agnikarma* for *Gridhrasi*, as per Acharya Charaka is *Antara-Kandara-Gulpha*. Whereas Acharya Sushruta explains usage of *Agni Karma* for treatment of *Sira, Snayu, Asthi* or *Sandhi* including *Gridhrasi*.<sup>5</sup>

Many research works have been carried out on various Ayurvedic para-surgical procedures like *Shashtra Karma, Kshara Karma, Raktamokshana* etc regarding its efficacy. Not much studies have been conducted on *Agni Karma Chikitsa* and there is no pinpoint description about scientific approach of *Agni Karma Chikitsa*. Hence its yet to gain popularity. That's why keeping view the importance of the disease as well the treatment and above all points, it was decided to carry out *Agni Karma Chikitsa* specially *Viddhagni Karma* for the effective management of *Gridhrasi*.

### 1. Aims And Objectives:

- To study in detail about *Gridhrasi* and Sciatica Syndrome
- To study in detail about *Viddha Agni Karma*.
- To evaluate the efficacy of *ViddhAgniKarma* in *Gridhrasi*

## II. CASE DESCRIPTION

A female patient 36 years old OPD reg no 23-1649 residing in Shivakote visited Panchakarma OPD, Sri ParipoornaSanathana Ayurveda Medical Hospital on 2<sup>nd</sup> February

2023 presenting with low back pain radiating to bilateral lower limbs since 2 years associated with numbness in both hands since 1 year.

### 1. Chief Complaints

- Low back pain radiating to bilateral lower limbs and stiffness since 2 years.
- Numbness in both the hands since 1 year.

### III.HISTORY OF PRESENT ILLNESS

Patient was apparently normal 2 years back. Patient fell from 4 feet tall wall on her back which resulted in pain in low back region. Patient gradually started to develop radiating type of pain, started in left lower limb from low back region till the great toe. 3 months later, experienced same radiating type of pain in right lower limb. Patient told that pain used to aggravate after strenuous work and used to reduce after taking rest in supine position. Patient also developed with numbness in both the hands along with stiffness in both the lower limbs. Consulted Allopathic hospitals for the same, was prescribed with oral medications and advised to take complete rest. Partially pain used to subside for 2-3 days, later on again pain used to recur and was continuous in nature. So, for all the above said complaints patient came to SPSAMCH & RC for a better treatment.

#### 1. History of Past Illness:

- H/O Migraine 15 years back – not under medications
- Not K/C/O DM, HTN, Thyroid disorder
- Surgical history – Underwent Tubectomy 14 years back

#### 2. Family History: Nothing Significant

#### 3. Personal History:

- *Ahara - KatuRasa Pradhana Ahara*(mixed diet)
- *Vihara – AtiAsana, Avyayama, Diwaswapna, Ratri Jagarana*
- *Agni – Mandagni*
- *Koshta– Mrudu Koshta*
- *Mala – SamhataMala*
- *Mutra – Peeta Varna*(4-5 times/day)
- *Nidra – Alpa Nidra*(due to pain)

#### 4. Treatment History:

- Tab. Marshel 0-0-1
- Tab. Pregabalin 1-0-0
- Tab. Ultracet 1-0-0

### Gynaecological and Obstetric History

- Menarche – 12 years
- Menstrual cycle – 28-30/3-4 days
- Associated complaints – Abdominal cramps (1<sup>st</sup> day)
- LMP – 12/1/23
- OBG – G2 P2 A0 L2 D0
- Nature of Delivery – Normal delivery

### IV. PSYCHOLOGICAL HISTORY

Manobhavas	Present	Absent
<i>Krodha</i>	+	
<i>Shoka</i>	+	
<i>Bhaya</i>		-
<i>Harsha</i>	+	
<i>Vishada</i>		-
<i>Kama</i>	+	
<i>Lobha</i>	+	
<i>Ershya</i>	+	
<i>Matsarya</i>		-
<i>Moha</i>	+	

#### 1. Ashta Sthana Pareeksha

- Nadi – Chapala gati (72bpm)
- Mutra – Peeta varna (4-5 times/day)
- Mala – Samhata mala (once/day)
- Jihwa – Alipta
- Shabda – Prakruta
- Sparsha – Sheetha
- Drik – Prakrutha
- Akrti – Sthoulya [BMI – 32.8 kg/m<sup>3</sup> – Obese Class 1]

#### 2. Dashavidha Pareeksha

- Prakriti – Vata-Kapha
- Vikrti – Vata Pradhana Tridosha
- Satva – Madhyama satva
- Sara – Avara sara
- Samhanana – Pravara
- Satmya – Katu rasa pradhana
- Pramana – Pravara (sthula)
- Ahara Shakti – Abhyavarana Shakti – Pravara
- Jarana Shakti – Pravara
- Vyayama Shakti – Avara

- Vaya – Madhyama vaya

### 3. General Examination

- BP – 110/70 mm Hg
- Pulse – 72 bpm
- Temperature – 97.6°F
- Height – 158 cm
- Weight – 82.7 kg
- Saturation – 98%
- Pallor – absent
- Icterus – absent
- Cyanosis – absent
- Clubbing – absent
- Koilonychia - absent
- Lymphadenopathy – absent
- Edema – absent

## V. MUSCULO – SKELETAL SYSTEM EXAMINATION

### 1. Low Back Examination

#### 2. Inspection

- Skin color – normal
- Texture – dry
- Swelling – absent
- Posture – normal
- Gait – Abnormal gait (due to pain)

#### 3. Palpation

- Temperature – warm
- Tenderness – present
- Crepitus – absent

#### 4. Range Of Motion

- Lumbar joint - Flexion – not restricted possible with pain
- Extension – not restricted possible with pain
- Hip joint – Internal and External rotation – not restricted possible with pain
- Abduction and Adduction – not restricted possible with pain
- Knee joint – Flexion and Extension – not restricted possible with pain

5. **Percussion:** No significant findings

6. **Auscultation:** No significant findings

### Tests

	<b>Left lower limb</b>	<b>Right lower limb</b>
SLR Test (Active)	Positive at 90 degree	Negative at 90 degree
Faber's Test	Positive	Negative
Femoral Nerve Stretch Test	Positive	Negative

### 7. Investigations

- ESR – 37 mm/hr.
- R.A Factor – 5.1 mg/dl - negative
- CRP – 9.4 mg/dl – positive

### 8. Diagnosis: VatajaGridrasi

9. **Study Design:** It will be a single blind Pilot study with pre-test and post- test design. The parameter of signs and symptoms will be scored on the basis of standard method and will be analysed statistically.

10. **Duration of Study:** Study to evaluate the effect of Viddhagni Karma in Gridhrasi is done on 7-14-21 days after proper examination of the patient.

11. **Follow up:** 60<sup>th</sup> day after completion of treatment.

12. **Study Duration:** 80 days

## VI. VIDDHA-AGNI KARMA

### 1. Purvakarma

- **SambharaSangraha:** Needle, Sterile Gauze, Surgical Spirit, Betadine Solution, Sponge holding forceps, Cotton swab, Jathyaditaila, Earthing plate, Cautery machine, pen.
- **Atura Pariksha:** Dashavidhpariksha, Ashtasthanpariksha, Rogi-Rogapariksha, CT-BT, MRI LS spine
- **AturaSiddhata:** Patient was made to lie in prone position. Earthing plate was placed under abdomen. Lumbar region was cleaned with Betadine solution and Surgical spirit using Cotton swab and Sponge holding forceps.
- **Manasopachara** was done.
- **Swastivachana** was told.

### 2. Pradhana Karma

- Area of pain was demarcated using pen before starting with the procedure.
- After proper Aseptic procedures, Viddhagni Karma is carried out by piercing needles at maximum tender points. Needles are pierced about 0.5 cm through the skin of the lumbar area.

- Depending upon the capacity and pain threshold exhibited by the patient, using a cauter machine 0.50 MHz till 2 Mhz is administered to each needle shaft for 2-5 seconds. This is repeated 3 times.

### 3. Paschata Karma

- After completing the necessary cycles, jathyaditaila was applied and bandaging was done.
- Viddhagni karma was administered to the patient for 3 sittings, with a 7-day interval in between each, over the duration of 21 days and follow up on 60<sup>TH</sup> day after completion.

## VII. CRITERIA FOR ASSESSMENT

The patient was evaluated for all signs and symptoms before, during and after the procedure of Viddhagni karma.

Assessment criteria is as follows:

### 1. Stambha {Stiffness}

- No. stiffness lasting for 5 minute: 0
- 5 minute to one hour: 1
- 1 hour to 2 hours: 2
- 2 hours to 4 hours: 3
- More than 4 hours: 4

### 2. Ruk {Pain}

- No pain 0
- Mild pain 1
- Moderate pain 2
- Severe pain 3

### 3. Toda {Pricking Sensation}

- Absent 0
- Mild 1
- Moderate after movement frequent, but not persistent 2
- Severe persistent 3

### 4. Muhuspandana {Twitching pain}

- Absent 0
- Occasional 1
- Continuous after movement 2
- Spontaneous and frequent 3



**Shamana Aushadhi**

S No.	Medicine	Dosage	Duration
1.	Sahacharadi Kashaya	15 ml BD with warm water on empty stomach	2 months
2.	Ekangaveera rasa	1 BD after food	2 months
3.	Sahacharaditaila	E/A	2 months

**VIII. RESULT**

Criteria	Before Treatment	7 <sup>TH</sup> Day	14 <sup>TH</sup> Day	21 <sup>ST</sup> Day
Low back pain radiating to Right leg	3	2	1	0
Low back pain radiating to Left leg	3	2	1	0
Stiffness	4	3	2	0

**IX. DISCUSSION**

Samprapti of Gridhrasi shows vitiation of Vyana Vayu. Acharya Charaka and acharya Sushruta explains Avarana of Vyana Vata by Kapha Dosha<sup>4,5</sup>. This leads to restricted movement of affected limb. VyadhiAdhisthana in Gridhrasi are KandaraofParsni and Pratyanguli. Viddhagni Karma has the property of Ushna, Tikshna and Sukshma Guna. By these virtue of these Guna, it does SampraptiVighatana of KaphaAvrita Vyana Vayu and release the Vata to perform its normal functions, leading to reduction of symptoms like Stambha, Ruk and Toda. Gridhrasi is Prakriti SamvetSamavayaVyadhi meaning all the symptoms of Vyadhi is similar to VyadhiUtpattikara Bhava. Thus Viddhagni Karma can be utilised for Dodha-Dushya SammurcchanaVighatana in Gridhrasi.

Agni Karma is considered best treatment for diseases which cannot be cured by any other treatment modalities. Viddhagni Karma stimulates peripheral, spinal and supra spinal mechanism and blocks the pain by activating a variety of bioactive chemicals<sup>6</sup>. It desensitize peripheral nociceptors and reduce pro-inflammatory cytokines peripherally. It also decreases spinal n-methyl-d asparatae receptor subunit GluN1 phosphorylation to inhibit pain.

Sl. No	Shamana Aushadi	Contents	Doshagnata
1.	Sahacharadi kashaya <sup>7</sup>	Sahachara [Strobilanthes ciliates] Suradaru [Cedrus deodara] Nagara [Zingiber officinale]	Vata Kaphashamaka
2.	Ekangaveera Rasa <sup>8</sup>	Shuddha parada [Purified Mercury] Shuddha gandhaka [Purified Sulphur] Kantalohabhasma [Manganese calx]	Vata Kaphashamaka

		<p>Vangabhasma [Tin calx]  Naga bhasma [Lead calx]  Tamrabhasma [Processed Copper]  Abhrakabhasma [Processed Mica]  Tikshna lohabhasma [[Processed Iron]  Nagara [Zingiber officinale]  Maricha [Piper nigrum]  Pippali [Piper longum]  Haritaki [Terminalia chebula]  Vibhitaki [Terminalis bellerica]  Amalaki [Embelica officinalis]  Nirgundi [Vitex negundo]  Chitraka [Plumbago zeylanica]  Shigru [Moringa oleifera]  Kushta [Saussealappa]  Vishamushti [Purified Strychnos nuxvomica]  Arka [Calotropis procera]  Dhatura [Datura metel]  Bhringaraja [Eclipta alba]</p>	
3.	Sahacharadi taila <sup>9</sup>	<p>Sahachara [Strobilanthes ciliates]  Bilva [Aegle marmelos]  Agnimantha [Premnamucronata]  Shyonaka [Oroxylum indicum]  Gambhari [Gmelina arborea]  Patala [Stereospermumsuaveolens]  Shalaparni [Desmodium gangeticum]  Prishnaparni [Urariapicta]  Gokshura [Tribulus terrestris]  Brihati [Solanum indicum]  Kantakari [Solanum xanthocarpum]  Abhiru [Asparagus racemosus]  Sevya [Vetiverazizanoides]  Nakha [Capparis sepiaria]  Kushta [Saussealappa]  Hima [Santalum album]  Ela [Elettaria cardamomum]  Sprikka [Anisomeles malabarica]  Priyangu [Callicarpa macrophylla]  Nalika [Hibiscus cannabidis]  Ambu [Pavonia odorata]  Shaileya [Parmeliaperlata]  Lohita [Rubia cordifolia]  Nalada [Nardostachys jatamansi]  Agaru [Aquilaria agallocha]  Surahva [Cedrus deodara]  Choraka [Angelica glauca]</p>	Vata shamaka

		Mishi [Anethum sowa] Turushka [Amber orientalis] Nata [Valeriana wallichii] Ksheera Tilataila [Sesamum indicum]	
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## X. CONCLUSION

Gridhrasi is the most prevalent disorders that affects the lower limb and causes morbidity. Hence the present study was conducted to evaluate the efficacy of Viddhagni Karma in management of Gridhrasi. From the present study it can be concluded that Viddhagni Karma can be used as treatment modality of Gridhrasi without any side effect. Viddhagni Karma effectively reduces all the symptoms of Gridhrasi and it is safe, convenient and cost effective

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