



**MANAGEMENT OF *VATAJ GRIDHRASI* W.S.R. SCIATICA WITH
AGNIKARMA (THERMAL CAUTERY) – A SINGLE CASE REPORT**

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ABSTRACT

Sciatica, also known as *gridhrasi*, is a painful condition that can limit a patient's ability to move their spine and legs. Long-term treatment is necessary for sciatica, however despite these advancements, only symptomatic solutions, such as analgesics, anti-inflammatory medications, steroids, exercise, and physiotherapy, are currently accessible. Steroids, anti-inflammatory medications, and analgesics used long-term can have a variety of negative effects. In the majority of these cases, a "wait-and-see policy" of therapy has been advised.

Aim: To comprehend the effectiveness of the *Agnikarm* management (Thermal Cautery) in *Gridhrasi* (Sciatica)

Materials and methods: The patient, a 53-year-old woman, had lower back pain that travelled down both legs, a burning sensation in her chest, and abdominal discomfort. For that she took

ayurvedic treatment but she didn't get relief in lower back. So, she came to Parul Ayurved Hospital for further management and there, *Agnikarma* had been planned.

Observation and result: WOMAC scoring was done before and after doing *agnikarma* (thermal cautery). Before treatment, the WOMAC score was $51/96 = 53\%$, while after doing *agnikarma* (thermal cautery), it reduced to $14/96 = 14.58\%$, and I got relief from symptoms like morning stiffness, difficulty walking, while ascending and descending stairs, etc.

Conclusion: The present case study revealed that among all ayurveda treatments like *panchkarma* and internal medicine; *agnikarma* (thermal cautery) is superior and provides significant relief in pain management.

Keywords: *Gridhrasi, Agnikarma, Thermal cautery, Ayurvedic management, anushashtra karma*

INTRODUCTION

The symptoms of *gridhrasi* initially affect *Kati* (Lumber) and then pain gradually radiates to *Sphik* (buttock) *Uru* (thigh), *Janu* (knee), *Jangha* (calf) and *Pada* (foot) simultaneously [1]. *Acharya Sushruta* mentioned that when two *Kandara* in the leg gets suffer cause of *Vata Dosha* and it limits the extension of leg along with radiation of pain resulting in *Gridhrasi* [2]. The symptoms are- [3] *Stambha* (stiffness or rigidity), *Ruk* (pain), *Toda* (Pricking Sensation), *Muhuspandan* (frequent Tingling). In *Vata-Kaphaja* type of *Gridhrasi-Tandra* (Sleepiness), *Gaurava* (heaviness) and *Arochaka* (Anorexia). Sciatica has different names like sciatic neuritis, sciatic neuralgia and lumbar radiculopathy etc. and having pain felt going down the leg from the back [4]. Sciatica is a symptom that arises due to inflammation or compression of sciatic nerve.

In general, an estimated 5%-10% of patients with low back pain have sciatica. The annual prevalence of disc related sciatica in the general population is estimated at 2.2% [5]. It is dull and diffuse type of pain which get worse by exertion, forward bending, sitting or standing in one position for long time. Sciatic pain radiates to gluteal region, back of thigh and leg. If there is compression in S1 root then pain radiates to posterolateral calf and heel and if compression is in L5 root then pain radiates to anterolateral aspect of leg and ankle. in case of femoral root pain due to disc prolapse; pain will happen in L2-L3 level of lower back which radiates to front of thigh [6]. Extrinsic and intrinsic compression on sciatic nerve can cause sciatic neuropathies can cause flail foot along with numbness which can occur due to injection injury, fracture or dislocation of hip, in case of comatose patient

due to prolong pressure on hip etc. [7] as ayurveda classics and modern science showing same symptoms; sciatica can be correlate with *gridhrasi*.

CASE REPORT

A 53-year-old female came to *Kayachikitsa* OPD with below mentioned chief complaints.

CHIEF COMPLAINTS:

- lower back pain radiating to both legs -for 1 year (Right > Left)
- difficulty in walking
- morning stiffness lasts for 20-25 mins
- Blood pressure: 100/60 mmHg
- Pulse rate: 90 / min

Patient is a regular house wife having medium built and following vegetarian diet and dwelling in rural area

HISTORY OF PRESENT ILLNESS: The patient was apparently normal a year ago. Then she gradually developed pain in her lower back, and it started radiating to both legs. Also, she develops complaints of sour belching and burning sensations in the chest and epigastric region, along with abdominal discomfort.

She was taking allopathic medicine for this and got temporary relief from her symptoms, but after discontinuing medicine, she developed symptoms again. For that also she took ayurveda treatment like *abhyanga*, *basti*

but she didn't get relief in her backpain. So, she come to PAH for the further treatment.

SURGICAL HISTORY: There was no any surgery was done to patient till date of admission.

MEDICAL HISTORY: There is no any history of ongoing medicine and no any k/c/o DM, HTN.

FAMILY HISTORY: All family members of patient are said to be healthy.

Ashtavidh Pariksha

- **Nadi:** *Vaat-pitta pradhan*
- **Mutra:** 6-7 times / day; 1-2 times / night
- **Mal:** *Asamyak* (Constipated)
- **Jihwa:** *Alpa-lipta*
- **Shabda:** *Prakrit*
- **Sparsh:** *Prakrit*
- **Druk:** *Prakrit*
- **Akruti:** *Prakrit*

DIAGNOSIS:

On Examination: SLR was positive on both legs at the angle of 45 degrees.

Range of motion of spine is restricted while flexion and extension of lumbar spine.

Faber's test was negative.

On Palpation of lower back: Tenderness was present on L4-L5, L5-S1, S1-S2 region.

Management and follow up

Agnikarma had been planned, prior doing *agnikarma* WOMAC Scoring of patients has been done.

AGNIKARMA (THERMAL CAUTERY):

Agnikarma was given in single sitting.

MATERIAL:

- *Panchdhatu shalaka* 7 cm long, 2mm width, 4mm width at the end.

- Forceps: to handle *shalaka*
- Stove: to give heat to *shalaka*
- Betadine: to clean the local area
- Ghee: application on local area
- Cotton: for cleansing the local area and for application of ghee



Image 1: *Panchdhatu Shalaka*

PROCEDURE OF AGNIKARMA:

The procedure performed in three stages as *purva karma* (pre – procedures), *Pradhan karma* (main procedures), *paschat karma* (post – procedures) mentioned by *Acharya Shushrut*.

PURVA KARMA: *snigdha picchila annapan* (rice with ghee) was given prior to the procedure [8].

Site of *agnikarma* was cleaned with the help of betadine and wiped with dry sterilized cotton.

Panchdhatu shalaka was heated up to red hot, marking of the articulating tender area has been done and ghee has been applied to the marked area which is around L4, L5, S1, S2 area.

PRADHAN KARMA: patient was asked to sit on the stool, exposing her lower back. Regardless of a specific site, *agnikarma* was

done at the maximum tender site affected at the lower back. *panchdhatu shalaka* was given heat until it became red hot and applied to most tender areas with the help of forceps in *bindu* (dot) form [9], and *samyak twak dagdha lakshana* (appropriate burn symptoms) was achieved [10].

PASCHAT KARMA: Application of ghee has been done again to relieve burning sensation. patient was observed for 30 mins after procedure and patient was strictly advised. Pain was measured on the Western Ontario and McMaster Universities Osteoarthritis

Index (WOMAC) scoring before and after treatment. there is noticeable improvement in symptoms [11].

in WOMAC rating of activities in each category according to the following scale of difficulty.

- 0 – none
- 1 – Slight
- 2 – moderate
- 3 – very
- 4 – Extremely

Below **Table 1** Showing womac score before and after treatment

Table 1: Womac score before and after treatment

S. No.	Criteria	Score (Before <i>agnikarma</i>)	Score (After <i>agnikarma</i>)
Pain Scoring			
1.	Walking	2	1
2.	Stair Climbing	2	0
3.	Nocturnal	2	0
4.	Rest	0	0
5.	Weight bearing	4	2
Stiffness			
1.	Morning stiffness	4	0
2.	Stiffness occurring later in day	0	1
Physical function			
1	Descending Stairs	3	0
2	Ascending Stairs	1	1
3	Rising From Sitting	4	0
4	Standing	4	2
5	Bending To Floor	3	0
6	Walking On Flat Surface	1	0
7	Getting In / Out Of Car	3	0
8	Going shopping	1	0
9	Putting On Socks	0	0
10	Lying In Bed	3	0
11	Taking Off Socks	0	0
12	Rising From Bed	4	2
13	Getting In/Out Bath	1	1
14	Sitting	4	1
15	Getting on/off toilet	4	2
16	Heavy Domestic Duties	0	0
17	Light Domestic Duties	1	1
TOTAL SCORE		51 / 96 = 53 %	14 / 56 = 14.58 %

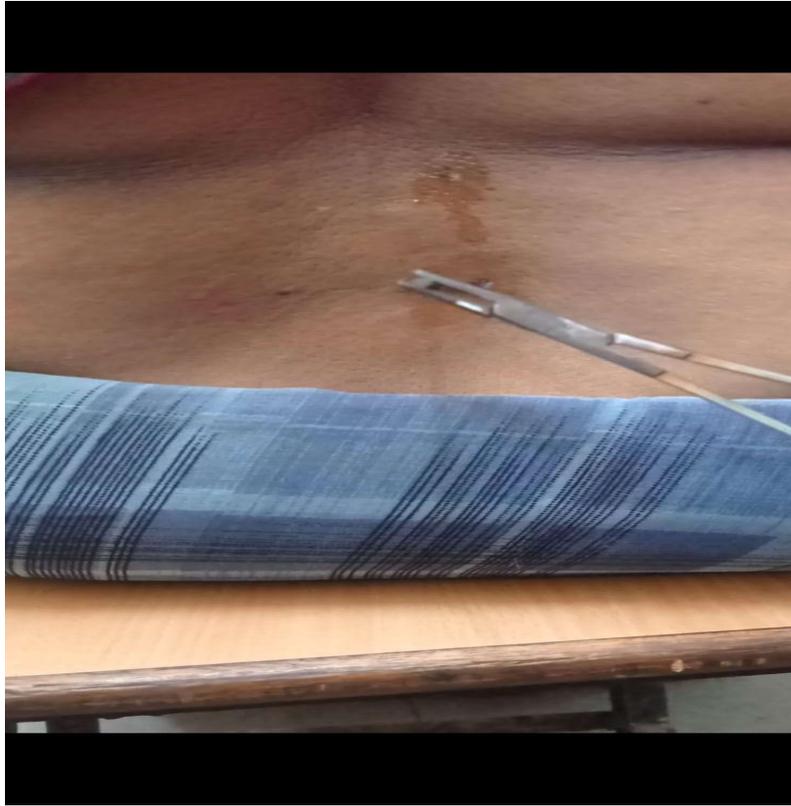


Image 2: Site of *Agnikarma*

DISCUSSION:

Sciatica occurs when the sciatic nerve becomes pinched. The cause is usually a herniated disk in the spine or an overgrowth of bone, sometimes called bone spurs, form on the spinal bones [12]. Thus, there will be pain in whole course of sciatic nerve. In this case, treatment was given mentioned in *vaatvyadhi* and *yograj guggulu*, *erand sneh* etc medicine were used to treat this condition but severity of disease was more so *agnikarma* was selected and after it, there is significant relief in pain from 53% of WOMAC scoring to 14.58% of WOMAC scoring. The probable mode of action can be described in the form of

pharmacological actions that ultimately relieve the disease. the application of the *agnikarma* procedure physically by red hot *shalaka*, which counts with its various properties as *ushna* (hot), *tikshana* (sharp), *ashukari* (fast acting), and *shukshma* (minute). All this property is transferred to *twacha* (skin) in the form of *dagdha* (burn), while the continuation of *agnikarma* (thermal causation) penetrates to further levels like *mamsa dagdha* (muscle burn), etc., and acts probable in the following forms, like,

It removes blockage of channels, aka *shrotovrodha*, which increase the circulation of dhatu and the metabolism of dhatu at the

local sites. It will act on the *shita guna of vayu as a vishesha* (opposite) factor and pacify other features of *vayu and kapha* disease. Under the above action, the disease and associated symptoms of the disease treated by *Agnikarma* are relieved. *Agnikarma sira, snayu, sandhi, and asthi* (veins, ligaments, joints, and bones) become stable. Hence, the patient is able to flex her spine and touch her feet without any discomfort. In the above case, pain was due to *vayu* and stiffness was due to *aam* and *kapha*. With the help of *agnikarma*,

there is shaman of *vayu, pachan of aam*, and *vilayan of kapha*, due to which there is relief in pain [13]. Application of ghee prior to *dahan karma* may work as *taapa swedan*, which keeps the local temperature slightly high without discomforting the patient, so dosha shaman may take place significantly, and *ghrit* is indicated in *dagdha*, as we apply it after procedure, hence the *yogwahi* quality of the *ghrit* (ghee) used here before and after treatment.



Image 3: Route of Sciatic nerve

As we can see in the image, the nerve originates from the ventral rami of spinal nerves L4 through S3 and contains fibres from both the posterior and anterior divisions of the

lumbosacral plexus [14]. After leaving the lower vertebrae, the nerve fibres converge to form a single nerve. As these sites are the roots of the sciatic nerve, *agnikarma* (thermal

causation) has been done, which can block the pathway of pain in the following route of the sciatic course. The pain threshold varies from person to person, and the reaction to pain is highly variable. There is a natural inbuilt system of the brain that suppresses the input of pain signals called the "analgesia system". There are neurotransmitters like enkephalin and serotonin released by the analgesia system. Enkephalins inhibit pre- and post-synapse synaptic C fibres and A δ -fibres when they synapse in dorsal horns, thus blocking horns and thus blocking the pain signals at initial entry into the spinal cord. The pain signals entering through the peripheral nerves are almost totally subdued by the activation of the analgesia system by neurological signals entering the periaqueductal grey and periventricular areas or by the deactivation of pain pathways by analgesics. Large-type A β sensory fibres that are involved in transmitting touch sensations have the ability to reduce the transmission of pain sensations from the same region. As a result, when stimulated concurrently, pain is suppressed. This is the theory behind and foundation for the use of liniments, massage, acupuncture, and acupressure to relieve pain [15]. Hence *agnikarma* may stimulate the analgesic system and pain sensation in body which is in articulating form can be manage. *Agnikarma*

is one of the effective treatments for *gridhrasi* along with *raktamokshana* and it is also said by *kaay sampradaya* that it's one of most effective treatment in *gridhrasi* [16] and it is one of the important Para surgical processes indicated in *Ayurved*. Superiority of *agnikarma* is indicated as once the disease treated with *agnikarma* never recurs again [17]. when used with *panchdhatu shalaka* it will give effective and long-lasting results which is convenient for the patient and also cost-effective as one study of Comparative temperature study of different *dahanupakaran* (Instruments that are used for burns) shows higher maintenance of temperature in *panchdhatu shalaka* among metallic *dahanopakaran* [18].

CONCLUSION

Patient was suffering from chronic back pain which was radiating from lower back to leg. Despite of many internal medicines and *panchkarma* procedures there was no significant relief is symptoms of back pain as well as radiation of pain after giving various *dosh pratyanyik* and *vyadhi pratyanyik chikitsa* along with *panchkarma* procedures. Hence after giving this treatment, it was decided to do *agnikarma* with *panchdhatu shalaka* which shows significant changes in WOMAC scoring. though it can be said that *agnikarma* is superior therapy in treating *gridhrasi* in

comparision of various *panchkarma* procedures. For scientific validation the study should be carried out in a greater number of cases.

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