

AYURVEDIC MANAGEMENT OF GRIDHRASI WITH SPECIAL REFERENCE TO
SCIATICA: A CASE REPORTBhavya Khatri^{1*}, Akshay Solanki², Harish Bhakuni³ and Ajay Kumar Sahu⁴^{1,2}MD Scholar, Department of Kayachikitsa, National Institute of Ayurveda, Jaipur, Rajasthan.³Associate Professor, Department of Kayachikitsa, National Institute of Ayurveda, Jaipur, Rajasthan.⁴Associate Professor, Department of Kayachikitsa, National Institute of Ayurveda, Jaipur, Rajasthan.

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ABSTRACT

Background: One of the most prevalent *Vata* illnesses, *Gridhrasi* is characterised by pain or discomfort connected to the sciatic nerve and is quite similar to Sciatica. In the working population, the prevalence of sciatica is 3.8%, while it is 7.9% in the nonworking population. Contemporary medicine has limitations giving short-term relief in pain or surgical intervention with side effect. **Aim and Objectives:** The aim of this study was to assess the efficacy of *Ayurvedic* management including *Shodhana* and *Shamana Chikitsa* in *Gridhrasi*. **Materials and Methods:** It is a single case study a 34-year-old man who was already diagnosed with Disc desiccation with intervertebral disc bulge in L4-L5, and disc desiccation with diffuse disc bulge with ligamentum flavum hypertrophy and posterocentral extrusion at L5- S1 level and compression on bilateral sided exiting nerve roots which correlated with *Gridhrasi* of left leg since 1 year approached to *Ayurvedic* hospital and was treated with *Panchakarma* treatment including *Dashmooladi + Rasnasaptaka kwath niruha vasti, Nirgundi tail anuvasana vasti, Kati vasti, Patra panda pottali sweda* and *Agni karma* along with *Shamana Chikitsa*. The treatment was continued for consecutive one month. **Results:** Symptomatic assessment of patient was carried out after one month and satisfactory outcome was there and overall quality of life of patient was significantly improved. **Conclusion:** The treatment described above helps manage *Gridhrasi* symptoms.

KEYWORDS: Sciatica, *Gridhrasi* and *Shamana Chikitsa*.

INTRODUCTION

The typical health is under additional stress due to the way we live and the type of our jobs nowadays. Low back pain is brought on by the aggravating causes, which include overexertion, sedentary employment, abrupt movements during travel, and lifting. Intervertebral disc prolapse (IVDP)^[1] is one of the primary causes of low back pain.

The symptoms of sciatica syndrome are present in IVDP because the pain may just be in the low back or may also radiate to the leg, buttock, or hip.^[2] A strike-like pain called sciatica makes it difficult to walk. It disrupts daily life and lowers the patient's quality of life. In 95% of the lumbar disc herniation, L4-L5 and L5-S1 discs are most commonly affected.^[3] Sciatica is extremely common, with a prevalence rate ranging from 3.8% in the working population to 7.9% in the nonworking population.^[4] Men tend to be affected more frequently than women, and it is most common in persons in their 40s and 50s. The third most frequent reason for surgery and the fifth most frequent reason for hospitalization, respectively, is

low back discomfort.^[5] The symptoms and signs of "Sciatica" that are used in modern medicine subtly resemble those of quietly mimic with the condition of *Gridhrasi* mentioned in *Ayurveda*. *Gridhrasi* comes under *Nanatanja Vata vyadhi*.^[6] *Gridhrasi*, the name itself indicates the way of gait shown by the patient due to extreme pain, that is, *Gridha* or *Vulture*. The cardinal signs and symptoms of *Gridhrasi* are *Ruk* (pain), *Toda* (pricking sensation), *Muhuspandan* (Tingling sensation), *Stambha* (stiffness) in the *Sphik, Kati, Uru, Janu, Jangha, and Pada* in order and *Sakthikshepanigraha* (i.e., restriction in upward lifting of lower limbs).^[7] In *Gridhrasi*, *Tandra* (Drowsiness), *Gaurav* (Heaviness), and *Aruchi* (Anorexia) may be present if *Kapha* is associated with *Vata*.^[8] The management provided by the contemporary medicine for this condition is either conservative or surgical in nature.^[9] By taking into consideration, more prevalence rate of *Gridhrasi* and to overcome the above expensive therapeutics; there is great need to find out effective management of *Gridhrasi*. In this case study, a 34-year old man with IVDP in lumbar region was prescribed for different *Shanik* (local) and

Sarvadaihiik Shodhan Chikitsa (systemic putative therapy) and *Shamana Chikitsa* (palliative treatment), which resulted in excellent symptomatic relief.

MATERIAL AND METHODS

It is a single case study. Informed consent was taken from the patient in his own language.

History of Present Illness: Demographic detail of the patient is mentioned in Table 1. A 34- years-old man was apparently healthy before 1 year, then suddenly he started complaints of pain in lower back region and then gradually radiates to posterior aspect of thigh, knee, calf region, and foot of left leg since 1 year when move from sitting to standing position. He also had complaints of stiffness in lower back region and left leg since six months,

tingling sensation in left leg, and difficulty while walking and bending forward since six months, these chief complaints are briefly mentioned in Table 2. Simultaneously, he had gaseous distension of abdomen, constipation. Patient had also taken contemporary medicine for low backache, but didn't get satisfactory relief and there was increase in the intensity of symptoms since last month. So he approached to Kayachikitsa OPD, National institute of Ayurveda, Jaipur, Rajasthan for *Ayurvedic* treatment, and all his previous medicines were advised to stop and *Ayurvedic* management with *Shodhana* and *Shamana Chikitsa* was prescribed to him. Examination of the patient including Vitals examination, *Ashatavidha pariksha* and specific locomotor system examination are mentioned in Table 3, 4 and 5 respectively.

Table 1: Demographic detail.

Name	Subhash yadav
Age	34 years
Sex	Male
Address	Jaipur
OPD	33202200051330
Marital status	Married
Socioeconomic status	Middle class
Weight	62 kg
Height	5'7" feet (170.8cm)

Table 2: Chief complaints.

S. N.	Chief complaints	Grade	Duration
1.	Pain in lower back region radiating to left leg	9+ (VAS score)	Since 1 year
2.	Stiffness in lower back region and left leg	7+	Since 1 year
3.	Tingling sensation in the left leg	4+	Since 1 month
4.	Difficulty and pain while walking and bending forward	9+	Since 6 month

Table 3: Vitals examination.

Blood pressure (B.P.)	140/80mm/Hg
Pulse (PR)	78/min
Respiratory rate (R.R.)	18/min
Body mass index (BMI)	21.45 kg/m ²

Past history

Continuous jerk to low back region while bike driving for long distance, that is, around 70- 80km daily. No history of trauma or fall. No history of major medical illness (e.g., HTN/DM/ bronchial asthma/dengue). No any surgical intervention.

Medication history

Patient had taken painkiller for low backache for one month.

Personal history

Food habits: Mixed diet, Craving for pungent food items
Sleep: Disturbed sleep due to pain
Addiction: Not any

Family history

Not significant

Nidana panchak

Hetu (Etiology or causative factors)

Ahara: Ruksha and Katu Rasatmak ahara

Vihara: Systemic *Vata prakopa* due to travelling, Jerky movements during bike driving, which induces *Srotovaigunya*.

Aggravating factor—constipation

Purvarupa (Prodromal symptoms): Stiffness in lower back region and left leg, vague low back Pain and Mild discomfort in left leg.

Rupa (Manifestation): Pain in lower back region radiating to left leg, stiffness in lower back region and left leg, tingling sensation in the left leg, difficulty while walking and bending forward.

Upashaya (Relieving factors): Rest in left lateral

position and after taking analgesic medicine.

Samprapti (Patho-physiology of the disease): Due to *Vataprakopa ahara* (*Vata* vitiating food items) and *Marmabhighata* at *Kati pradesha* due to jerky movements while travelling and excess vitiation of *Apanavayu* due to constipation, which leads to vitiation of *Vata Doshas* along with vitiation of *Rakta* (blood),

Sira (veins), and *Dhamani* (arteries). This ultimately causes obstruction to the neural conduction (*Vatavahini Nadi*) and elicited as radiating pain from *Kati* (lumbar region), *Prushtha* (back), *Uru* (thigh), *Janu* (knee), *Jangha* (calf), and *Pada*(foot), and leads to generation of *Gridhrasi* (sciatica). In this disease, the main *Dushya* are *Rakta, Kandara*.^[10]

Table 4: Ashtavidha pariksha.

Nadi	140/80mm/Hg
Mala (Stool)	Asamyak (Unsatisfactory bowel evacuation)
Mutra (Urine)	Samyak
Jeeva (Tongue)	Saam (Coated)
Shabda (Speech)	Spashta
Sparsh (Touch)	Anushnasheeta
Druka (Eyes)	Prukruta
Akruti (Posture)	Madhyama

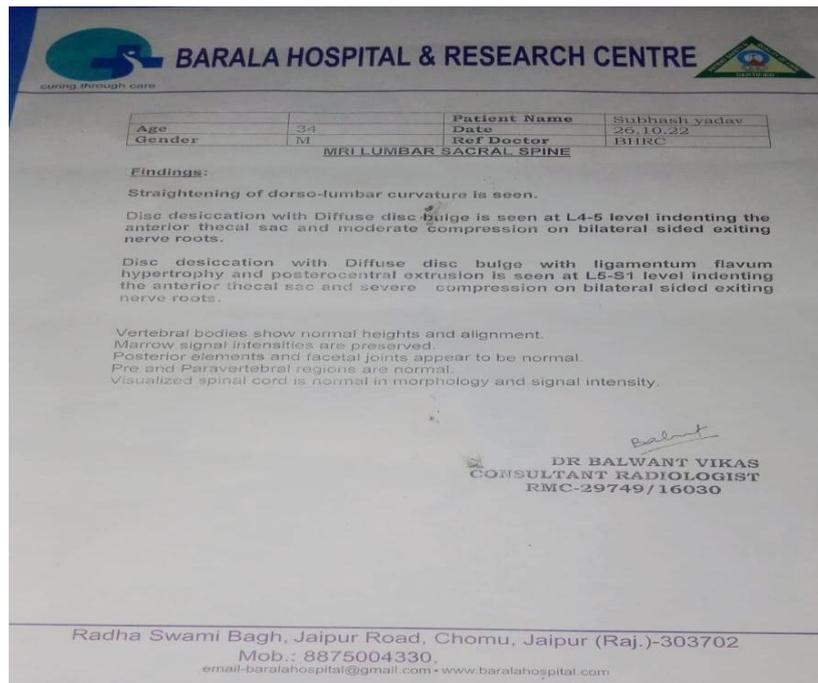
Table 5: Examinations specific to diagnosis locomotor system examination.

Inspection	Limping gait Discomfort in walking and sitting for long duration No localized swelling No varicosities Reflexes are intact.
Palpation	Tenderness 2 + at L4-L5 region Muscle tone-good Muscle power grade-right extremities (upper and lower)-5/5 left extremities (upper and lower)-5/5
Range of movement of Lumbar spine (ROM)	Forward flexion of lumbar spine is limited to 10 cm above ground Right lateral flexion is limited to 25° with pain Left lateral flexion is limited to 20° with pain Extension is limited to 10° with pain
Special test	SLR (active): Right leg: positive at 25° Left leg: positive at 10° Bragard’s test: positive at left leg

Investigations done

Magnetic resonance imaging (MRI) Lumbosacral spine with screening of whole spine dated on October 22, 2022 reveals straightening of dorso-lumbar curvature, disc desiccation with diffuse bulge at L4-L5 and disc

desiccation with diffuse bulge with ligamentum flavum hypertrophy and posterocentral extrusion at L5-S1 level indenting the anterior thecal sac and severe compression on bilateral sided exiting nerve roots.



Samprapti ghatak*Dosha: Vata**Dushya: Rasa, Rakta, Asthi, Majja, Sira, Kandara, and Snayu**Srotas: Rasavaha, Asthivaha, Majjavaha, and Purishavaha**Srotodushti: Sanga**Rogamarga: Madhyama and bahya**Agnimandya: Ama, Jathargnimandya and Dhatvagnimandya**Udbhavasthana: Pakvashaya**Adhishtana: Kati and Prushthavamsha**Vyaktasthana: Sphik, Kati, Prushtha, Uru, Janu, Jangha, and Pada.*^[12]**Diagnosis***Vataj Gridhrasi (Sciatica due to IVDP)***Treatment advised**

By analysing the above pathogenesis of disease in this patient following treatment plan was prescribed, which can be sub classified under two categories, that is, *Shodhana* and *Shamana Chikitsa* shown in Tables 6 and 7, respectively.

OBSERVATIONS AND RESULT

After completion of one month of total *Ayurvedic* therapy (*Shodhana* and *Shamana Chikitsa*), the patient had found significantly relief in the lumbar pain, tingling sensation, and heaviness with increased range of movement of spine. Gait was also improved. The patient got symptomatic relief. Assessment of patient was carried out by specific subjective^[11] and objective criteria including on 0, 15th day, and 30th day, which are shown in Table 8. No radiological investigation was carried out after completion of therapy.

DISCUSSION*Chikitsa Sutra* (treatment principle) of *Gridhrasi*

involves *Vasti karma*, *Siravyedha*, and *Agnikarma Chikitsa*.^[12] The treatment protocol, which was planned for this patient can be divided into *Shodhana Chikitsa* with *Vasti karma* along with *Shamana Chikitsa*. The treatment principles applied for the management of this disease condition are *Vedanasthapana Chikitsa* (analgesic), *Shothahara* (anti-inflammatory), and *Vata dosha* pacifying treatment along with strengthening and nutritive therapy for the various musculatures and structures in lumbar region and lower extremities. The probable mode of action of these aforementioned *Shodhana* and *Shamana Chikitsa* can be explored as follows:

Shodhana chikitsa

Sarwanga Abhyanga with *Dashmool taila: Abhyanga* (local massage) is one of the *Purvakarma*, which acts on the roots of *mamsavahasrotas* (channels carrying muscle nutrients and waste), that is, *Snayu, twak* and *raktavahini*. It may thus nourish the superficial and deep muscles and make the joint stable. It acts on *Sparshmendriya*, which is the seat of *Vayu*.^[13] *Abhyanga* with *Dashmool taila*^[14] is having analgesic, anti-neuralgic, and anti-inflammatory properties. It is indicated in muscle spasm, joint stiffness, backache, and arthritis. *Nadisweda: Swedana* (sudation) is *Sthambhaghna* (removes stiffness), *Sandhicheshtakar* (increases joint mobility), *Srotoshuddhikar* (clearing the micro channels), and *Kapha-vata nirodhana* (removing excess *vata* and *kapha dosha*). Thus, it liquefies the *Doshas* and expand the *srotas*, helping the *doshas* to travel toward their own *sthana* leading to the *Srotosanga vighatana* (breakdown the pathogenesis by removing obstruction in the micro channels) and stiffness of the joint relieved. *Sarwanga Patrapindapottali Swedan* with *Nirgundi, Arka, Eranda, Shigru, Dashmooladi taila: Patrapinda pottali sweda* consisting of medicated leaves with oil pacifies *Vata*.

Table 6: Shodhana chikitsa.

S.N.	Type of chikitsa	Drugs	Duration
1.	<i>Sarwanga abhyanga</i> followed by	<i>Dashmool tail</i>	15 days
2.	<i>Nadi swedan</i>	<i>Dashmool kwath</i>	15 days
3.	<i>Sarwanga patrapinda pottalisweda</i>	<i>Nirgundi, arka, eranda, shigru, agnimantha, vasa dashmool taila</i>	10 days
4.	<i>Kati vasti</i>	<i>Dashmool tail</i>	15 days
5.	<i>Niruha vasti</i> followed by	<i>Dashmool + Rasnasaptaka</i> followed (700 mL), <i>saindhava lavana</i> 10 gms, <i>madhu</i> 15 gms, <i>til taila</i> 30mL	<i>Kala vasti</i> (15 days) (<i>Anuvasana vasti</i> was given for consecutive two days, then alternate <i>Niruha</i> and <i>Anuvasana vasti</i> was given for rest of the 13 days.)
6.	<i>Anuvasana vasti</i>	<i>Nirgundi tail</i> (60 ml)	

Table 7: Shamana chikitsa.

S. N.	Drugs	Dose	Time of Administration	Anupana	Duration
1.	<i>Ekanagaveer rasa</i>	125mg	After food 2 times	Lukewarm water	1 month
	<i>Vatavidhvansaka</i>	250mg			

	<i>rasa</i>				
	<i>Nagradhya churna</i>	1gm			
	<i>Godanti bhasma</i>	1gm			
	<i>Aswagandha churna</i>	3gm			
2.	<i>Chandraprabha vati</i>	500mg	After food 2 times	Lukewarm water	1 month
3.	<i>Simhanada guggulu</i>	500mg	Before food 2 times	With <i>kwath</i>	1 month
4.	<i>Rasnasaptaka kwath</i>	40ml	Before food 2 times	Lukewarm water	1 month

Without increasing *kapha* due to its *snigdha* and *ruksha* *gunas*.^[15] It induces the *Swedan* effect without increasing the *Aam* (toxic waste product) condition. It provide soothing effect to the affected region, that is, nerve and muscle relaxation may result in reduction of compression of nerve root that also reduce radiating pain and numbness. *Patrapinda sweda* is mainly used to provide relief from pain, inflammation, swelling, and stiffness associated with bone, joint, or musculoskeletal pain. In *Gridhrasi*, *Snehana*, and *Swedana* by virtue of their *Vata shamak* and *Dhatuposhaka* properties are useful in relieving the symptoms of *Gridhrasi* such as *Stambha* and *Ruja*.

Kati Vasti with *Dashmool taila*: *Kati Vasti* is a type of *Snigdha Swedana*. Application of *Kati Vasti* (L4-L5 region) was carried out to provide good nourishment and strengthen the affected part due to protrusion and alleviated *Vatavyadhi*. In this, there is degeneration of intervertebral disc and lubrication function of *Shleshak kapha* is affected, which result in compression and irritation. *Kati vasti* with *dashmool taila* is a unique combination in which, properties of both *snehana* and *swedana* are incorporated, which helps to lubricate local musculature as well as tissue of nearby affected region and also increases local blood flow that help to drain out the inflamed exudates.^[16]

Dashmool and Rasnasaptaka kwath niruha vasti followed by nirgundi taila anuvasana vasti

Vasti is the best treatment for *Vata dosha* as per *Acharya Charaka*. *Vasti* has systemic action as the active principles (*Virya*) of *Vasti* preparation are absorbed through *Pakwashaya* (intestine) and spread to various channels of the body. It reaches at the site of lesion and induces systemic effects and relieves the disease. *Vasti* helps to remove *Kapha Avarana* over *Vata* due to protrusion as well as it acts on *Vata dosha*, that is, *Pakwashaya*, which is the prime site of *Vata dosha*. It relieves constipation as well as helps to relieve edema, inflammation, necrosis due to its *Srotoshodhana* effect by *Vata kaphahara* properties of *Kwatha* drugs. *Dashmoola* is *Tridosahara*. *Guduchi* is having *Vedanasthapana*, *Vataghna* action due to *Snigdha* and *Ushnagunas*, cause stimulation of *dhatvagni* by its *tikta rasa* and provide nutrition to the *dhatu* by *Madhura vipaka*. *Punarnava* is having *Kapha vataghna* action due to *Ushna virya* and also having *Shothahara*, *Rasayana* properties. *Ashwagandha* has property to pacify *Vata* by

Madhura and *Ushna gunas*. They are *Balya*, *Vedanasthapana*, and *Shothahara*. *Anuvasana Vasti* with *Nirgundi taila* get absorbed and spread throughout the body up to subtle channels. *Nirgundi taila* is having specific property of *Gati viseshatvam* (helps to move) due to its *tikta, katu rasa* and having *Vatahara*, *Bruhana* (nourishing), and *Pachana* properties. *Nirgundi* possesses anti-inflammatory properties. It alleviates symptoms of pain and inflammations caused by different causes.

Shamana chikitsa

Yoga: *Ekanag Veer Rasa* is an *ayurvedic* medicine that is primarily used for the treat *vata dosha* i.e. Paralysis, Sciatica, Facial Paralysis. The key ingredients of *Ekanag Veer Rasa* are *Chitrak*, *Amla*, *Bhringaraja*, *Dhatura*, *Kushta*, *Black Pepper*, *Pippali*, *Ginger*, *Trikatu*, *Triphala*, *Vangbhasma*, *Abhrak bhasma*, *Lauh bhasma*, *Shuddha Gandhak*, *Ras Sindoor*, *Tamra bhasma*, *Naga Bhasma*. *Vatavidhvansak rasa* useful to promote strength of bone and joints, excellent anti-inflammatory and analgesic property.

Simhanada guggulu

Imbued with strong analgesic, anti-inflammatory, and pain-relieving properties of the bio- active components, *simhanada guggulu* offers extensive relief from pain and inflammation, thereby reducing the chances of chronic autoimmune inflammatory diseases like joint pain, rheumatoid and osteo arthritis which occurs due to the vitiation of *Vata Doshas*. Being a natural vasodilator, it is also used to treat painful muscle spasms, sore muscles, arthritic conditions, and other inflammatory situations. Studies report that uses of horsetail has improved the symptoms of arthritis and even regulated the immune response to a vast extent

Rasnasaptaka kwatha: Is having an excellent *Vata Shamaka* property. Along with *Aampachana*, all these herbs are known for their anti-inflammatory activity, analgesic, and anti-arthritic activity viz. *Rasna*, *Gokshura*, and *Eranda*. Some of them even known for their immunomodulatory activity like *Guduchi*, *Aragvadha* is having *Vata-Kapha Shamaka* properties and is *Mridu Virechaka*, so helps to remove constipation and also does antioxidant activity.^[17]

chandraprabha vati: Help in cleaning the blood and improving oxygenation of the blood. Since

Chandrprabha vati contains iron, therefore, it may be used in cases of anaemia. *Chandrprabhavati*, due to its anti-inflammatory and analgesic properties helps in conditions like spinal arthritis and lower back pain.

By taking all the aforementioned discussion into consideration that the overall effect of all treatment

regime planned in this patient induces *Vatashamana*, *Srotoshodhana*, and *Shothahara* effects, that is, it can be used as an excellent analgesic, anti-inflammatory, and nutritive therapy for such degenerative entity.

Table 8: Assessment of patient.

S. N.	Type of assessment	Before treatment	After treatment	
			After 15 days	After 1 month
A	Subjective criteria			
1.	Radiating pain from lumbar region to left leg	9+ (VAS score)	5+	1+
2.	Stiffness in lower back region and left leg	7+	4+	2+
3.	Tingling sensation in the left leg	4+	2+	1+
4.	Difficulty and pain while walking and bending forward	9+	5+	3+
B	Objective criteria			
1.	SLRT (active)			
	Right leg	positive at 25°	40°	55°
	Left leg	positive at 10°	30°	45°
2.	Bragard's test			
	Right leg	Negative	Negative	Negative
	Left leg	Positive	Positive	Negative
3.	Gait	Limping gait	Improve	Improve
4.	ROM of lumbar spine			
	Right lateral flexion	25° with pain	35° with pain	35° without pain
	Left lateral flexion	20° with pain	30° with pain	30° without pain
	Extension	10° with pain	25° with pain	25° without pain
5.	Walking Distance	100 m, with severe pain	300 m, with moderate pain	400 m, with moderate pain
6.	Walking duration	5 min taken to walk 100 m	3 min taken to walk 100m	2 min taken to walk 100m

CONCLUSION

As per the *Ayurvedic* treatment principle, *Shodhana* with *Saman* followed by *Vasti* is the line of treatment of *Vata* situated in *Adhobhaga*. The overall effect of the aforementioned therapy reveals that sciatica can be cured effectively with collaborative approach of various *Panchakarma* procedures including *Dashmool rasnasapta kwath Niruha Vasti*, *Patrapinda Pottali Sweda*, *Kati Vasti* along with *Shamana Chikitsa* without causing any adverse event and it may be an alternative therapy for sciatica in current era. Now till date there is no need to patient to undergo any surgical intervention as well as there is no recurrence in symptoms. This study is about the presentation of the single case only. An attempt must be made for further exploration of effect of these *Panchakarma* therapies in large population for establishing standard treatment protocol. To combat the disease in minimum duration, we have used multi treatment approach to get synergistic effect.

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