

Management Of Gridrasi and Katigraha W.S.R. To Spinal Canal Stenosis Through Ayurvedic Interventions: A Case Report

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Abstract— Background: Spinal canal stenosis is a degenerative condition characterized by narrowing of the spinal canal leading to compression of neural structures, resulting in pain, neurological deficits, and functional disability. It commonly affects the cervical and lumbar regions and significantly impacts quality of life. From an Ayurvedic perspective, it can be correlated with Gridhrasi and Katigraha, involving vitiation of Vata dosha with Kapha association and Margavarana/Dhatukshaya pathology. Aims And Objectives: To evaluate the effectiveness of Ayurvedic management in a diagnosed case of spinal canal stenosis and to assess its role in reducing symptoms and improving functional ability, thereby exploring non-surgical treatment potential. Materials And Methods: A single case study of a 50-year-old male patient presenting with chronic low back pain radiating to bilateral lower limbs, associated with numbness, stiffness, and difficulty in walking. Diagnosis was confirmed through clinical evaluation and MRI findings indicating cervical and lumbar canal stenosis. The patient was treated with a combination of Ayurvedic therapies including Snigdha Udwarthana, Sarvanga Abhyanga, Swedana, and Basti chikitsa (including Ksheera Vaitarana Basti), along with internal medications such as Rasnasaptaka Kashaya, Trayodashanga Guggulu, and others. Assessment was done using standard scales like the Roland-Morris Disability Questionnaire (RMQ) and Oswestry Disability Index. Results: The patient showed significant clinical improvement with reduction in pain, stiffness, and improved mobility. The RMQ score reduced from 22 to 14, indicating approximately 36% improvement. And Oswestry Low back pain disability questionnaire improved from 68% to 78%, Functional capacity and quality of life were notably enhanced, and the patient was able to perform daily activities with reduced discomfort. CONCLUSION: Ayurvedic management, particularly Basti chikitsa, plays a significant role in the management

of spinal canal stenosis by addressing the underlying Samprapti. It provides a safe and effective non-surgical approach in moderate cases, improving symptoms and functional outcomes. This case highlights the potential of integrative and conservative management in avoiding or delaying surgical intervention.

Index Terms— Gridhrasi, Katigraha, Sciatica, Udwarthana, Basti Karma, Patra Pinda Sweda, Shamana Chikitsa.

I. INTRODUCTION

Spinal canal stenosis is a progressive degenerative disorder characterized by narrowing of the vertebral canal, leading to compression of the spinal cord and nerve roots, resulting in pain, sensory disturbances, and functional limitation¹. It is most commonly observed in the cervical and lumbar regions, particularly among middle-aged and elderly individuals, due to age-related degenerative changes such as intervertebral disc degeneration, osteophyte formation, facet joint hypertrophy, and ligamentum flavum thickening. The reduction in canal diameter compromises neural and vascular elements, leading to ischemia and neurogenic symptoms². Clinically, patients often present with low back pain radiating to the lower limbs, numbness, tingling sensation, muscle weakness, and neurogenic claudication, which worsens on walking and is relieved by rest or forward bending³.

Conventional management includes analgesics, anti-inflammatory drugs, physiotherapy, and surgical decompression in severe or refractory cases. However, long-term use of medications may have adverse

effects, and surgery carries risks and may not always yield satisfactory outcomes, making conservative and integrative approaches increasingly relevant⁴.

In Ayurveda, this condition can be correlated with Gridhrasi and Katigraha, which fall under Vatavyadhi⁵. The etiopathogenesis involves Vata prakopa due to factors such as Atichankramana (excessive walking), prolonged standing, improper posture, and Ratri jagarana. This aggravated Vata either gets obstructed by Kapha (Margavarana) or leads to degeneration of tissues (Dhatukshaya), resulting in pain (Ruk), stiffness (Stambha), and restricted movements (Graha)⁶. The involvement of Asthi, Majja, Snayu, and Kandara dhatus reflects the structural and functional impairment seen in spinal canal stenosis.

Ayurvedic management focuses on Samprapti Vighatana by pacifying Vata and removing obstruction. Therapies such as Snehana (oleation) and Swedana (sudation) help in relieving stiffness and improving circulation, while Basti chikitsa is considered the most effective treatment for Vata disorders due to its systemic action on Vata dosha. Procedures like Ksheera Vaitarana Basti provide both nourishing (Brimhana) and cleansing (Shodhana) effects, thereby reducing nerve compression, improving mobility, and enhancing quality of life.

Thus, Ayurveda offers a holistic, non-invasive, and effective approach in the management of spinal canal stenosis, especially in patients unwilling or unfit for surgical intervention.

II. CASE REPORT

Chief complaint

Patient complains of low back ache radiating to bilateral lower limbs along with Difficulty in walking since 6 months

Associated complaints

Patient complains of Numbness, Tingling sensation, Stiffness since 6 months.

History of present illness

A Male patient named Neelappa of age 50years, N/K/C/O DM, HTN Was apparently normal 6 months ago. He gradually developed low back pain while performing his routine Agricultural field work. The pain was gradual in onset and progressively worsened, radiating to both lower limbs and associated with

numbness, stiffness and tingling sensation. Initially, he neglected the symptoms and continued working without seeking medical attention. After about a week, due to persistent discomfort, he visited a nearby hospital and was prescribed medications. His symptoms showed improvement within two days, but the pain recurred after 15 days with increased severity. He was then referred to a neurosurgeon in Hubli, where he was admitted for eight days and evaluated in detail and diagnosed as Cervical and Lumbar canal Stenosis. Spinal surgery was advised, but the patient refused surgical intervention and returned home. Over the following weeks, his symptoms worsened with persistent low back pain, bilateral numbness and tingling sensation, stiffness, and increasing difficulty in walking and performing daily activities. Due to the progressive nature of his symptoms and functional limitations, he was admitted to Government Ayurveda Medical College and Hospital, Mysuru, for further evaluation and better management.

History of past illness

Not a Known case of Type 2 diabetes Mellitus and Hypertension

No history of trauma or heavy weight lifting

No history of any regular medication

Personal History

Table 1: personal history

Bala	Avara
Appetite	Unaltered
Diet	Mixed diet (Frequency of non veg diet-once /15 days)
Bowel habit	Hard stool (once in 2 days)
Micturition	Frequency-3-4 times /day, 1-2 times/night
Sleep	Disturbed-Difficulty to initiate and maintain sleep due to pain
Addiction	Nil

Clinical Findings

Table 2: Ashta Vidha Pareeksha

Nadi	Kaphaja nadi / 75 bpm
Mutra	Prakruta
Mala	Grathita
Jihwa	Alipta
Shabda	Prakruta
Sparsha	Anushna
Druk	Vikrutha
Akruti	Prakruta-Madhyama

Dasha Vidha Pareeksha

Table 3: Dasha Vidha Pareeksha

Prakriti	Kapha Vataja	
Vikriti	Vata,Kapha	
Sara	Madhyama	
Samhanana	Madhyama	
Pramana	Madhyama	
Satmya	Madhyama	
Satva	Madhyama	
Ahara shakti	Abyavara Shakti	- Vyadhi purva-Madhyama - Vyadhikalina-Madyama
	Jarana Shakti	- Vyadhi purva-Madhyama - Vyadhikalina-Madyama
Vyayama Shakti	- Vyadhi purva-Madhyama - Vyadhikalina-Avara	
Vaya	50 years, Madyama	

General Examination

Pulse Rate: 75bpm

Respiratory Rate: 16 cycles/min

Blood Pressure: 130/90mmHg

Temperature:97.6°F

Built: Normosthenic

Nourishment: Moderately Nourished

Pallor: Absent

Icterus: Absent

Clubbing: Absent

Cyanosis -Absent

Edema: Absent

Lymphadenopathy: Absent

Systemic Examination

Cardiovascular System: S1 and S2 heard. No added sounds/Murmurs heard.

Respiratory System: Bilateral Normal vesicular breath sounds heard, Added sounds absent.

Per abdominal examination: Soft, no tenderness, no organomegaly

Central Nervous System: Conscious and oriented to time, place and person.Higher mental function-Intact,

Cranial Nerve Examination – Intact

Motor System Examination-Muscle tone, Muscle power and Muscle bulk are normal

Superficial and deep tendon reflexes are normal

Sensory system examination- Superficial sensation, deep sensation and Cortical sensation –Intact

Co-ordination Tests-Able to perform

Cerebellar signs- Unable to perform Rombergs test and tandem walking due to pain.

Musculoskeletal system Examination

Inspection

Gait-Antalgic gait

Discomfort in walking and sitting for short duration

No scar marks

Curvature of the spine –Normal

No visible mass

No signs of inflammation

No muscle wasting

Palpation

Tenderness present at L3-L4 and L4-L5 vertebrae and left paraspinal muscles.

Warmth and swelling absent

Table 4-Range of movement of Lumbar spine (ROM)

Forward flexion	50 degrees with pain
Extension	10° with pain
Right lateral flexion	20° with pain
Left lateral flexion	20° with pain

Table 5-Special Tests

Test	Right	Left
SLR(Active)	Positive at 30°	Positive at 30°
Cross SLR	Positive	Positive
Bragard's test	Positive	Positive
Bowstring test	Positive	Positive
Femoral Nerve stretch test	Positive	Positive
Flip test	Positive	Positive
Pelvic compression test	Positive	Positive

Pain Assesment-

Site-Lowback region

Onset-Gradual and Progressive

Character- Sharp aching

Radiation-To bilateral lower limb

Associated with stiffness in lowback region, numbness and Tingling sensation in bilateral lower limb.

Time- Since 6 months

Exacerbate on walking and sitting even for short duration

Relieves by lying in supine position

Severity -VAS Score-9

Radiological findings:

MRI Report suggest

Diffuse disc bulge at C2-3 level with disc osteophyte complex indenting anterior thecal sac

Diffuse disc bulge with posterolateral annular fissure with superior migration of herniated central disc at L1-2 with disc dessication with left ligamentum flavum hypertrophy with focal canal indenting anterior thecal sac

Asymmetric disc bulge at L2-3 level with disc dessication with left foraminal and extraforaminal disc protrusion with superior migration of disc noted with focal canal with bilateral ligamentum flavum hypertrophy indenting anterior thecal sac with

narrowing of bilateral inferior neural foramina with compression on bilateral Exiting nerve roots.

Diffuse disc bulge with posterolateral annular fissure with superior migration disc at l3-4 level with focal canal stenosis at l3-4 level with right facet joint arthropathy indenting anterior thecal sac with narrowing of bilateral inferior neural foramina with compression on bilateral Exiting nerve roots.

Diffuse disc bulge with posterolateral annular fissure at L5-S1 level indenting anterior thecal sac bilateral neural foramina normal.

Diagnosis:

Vataja Gridhrasi and Kati graha

III. MATERIALS AND METHODS

Table 6-Therapeutic Intervention-

Date	Treatment
16/5/25 to 19/5/25	Sarvanga Abhyanga with Mahanarayana Taila F/B Kolakulattadi churna Udwarthana, Kolakulattadi Churna + Saindava Pinda sweda
20/5/2025 to 26/5/2025	Sarvanga Abhyanga with Mahanarayana Taila F/B Patrapinda Sweda Matrabasti with Sahacharadi Taila (25ml) and Panchatiktha Ghrutha (25ml)
24/5/25 to 9/6/25	Ksheera vaitarana kala basti
31/5/2025 to 7/6/2025	Sarvanga Abhyanga with Mahanarayana taila F/B Mashapinda Sweda, Upanaha Shamanoushadi Rasnasapthaka kashaya 30ml-0-30ml B/F Gandarva hastadi eranda taila 10ml-0-10ml B/F Trayodashanaga Guggulu 2-0-2 A/F Amavathari Rasa 1-0-1 A/F

Advice on discharge

Trayodashanga guggulu 2-0-2 A/F

Mustadi marma kashaya 10ml-0-10ml B/F

Cap Lashuna Rasayana 1-0-1 A/F

Tab Nurod 1-0-1 A/F

Cap Murchita Eranda Taila 1-0-1 B/F

Panchasakara churna 1tsp HS H/S

VI. OBSERVATION AND RESULTS

Subjective Parameter

Table 7 – Showing Assessment based on Symptom scoring

Symptom	Grade	Before Treatment	After Treatment
Ruja (Pain)	VAS Scale-0 to 10	9	4
Toda (Pricking sensation)	No – 0 Mild-1 Moderate-2 Severe -3	2	1
Sthambha (Stiffness)	No – 0 Mild-1 Moderate-2 Severe -3	2	1

Muhuspandana (Numbness)	No numbness-0 Occasional intermittent numbness noticed during particular activity-1 Persistent numbness in specific area-2 Profound numbness with complete sensory loss in the affected area-3	2	1
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Objective parameter

Table 8- Showing Assessment based on objective parameters

1)ROM of lumbar spine	Before Rx	After Rx
Forward flexion	50° with pain	35° with pain
Extension	10° with pain	10° with pain
Right lateral flexion	20° with pain	10° with pain
Left lateral flexion	20° with pain	10° with pain
2) SLR(Active)	Right-30° Left-30°	Right-45° Left-50°
3) Bragard's Test	Right-Positive Left-positive	Right-Negative Left-positive

V. DISCUSSION

Discussion on Samprapti

In the present case, the clinical features of low back pain radiating to bilateral lower limbs, stiffness, numbness, and difficulty in walking can be correlated with Gridhrasi associated with Katigraha, which are classified under Vatavyadh⁷. The Samprapti primarily involves Vata prakopa with associated Kapha leading to obstruction and degeneration.

The etiological factors (Nidana) in this case include Atichankramana (excessive walking), prolonged standing during agricultural work, improper posture, and Ratri jagarana, which contribute to aggravation of Vata dosha⁸. Additionally, continuous strain on the lumbar region leads to Dhatu kshaya, particularly affecting Asthi, Majja, Snayu, and Kandara, resulting in structural degeneration similar to spinal canal narrowing⁹.

The aggravated Vata undergoes two major pathological mechanisms: Margavarana and Dhatukshaya. In Margavarana, Kapha dosha and structural changes such as disc bulge and ligament hypertrophy obstruct the normal pathway of Vata, leading to pain and restricted movements¹⁰. In Dhatukshaya, depletion of supporting tissues causes instability and degeneration of the spine, further aggravating Vata and producing chronic symptoms¹¹.

The vitiated Vata, particularly Vyana Vata, localizes in the Kati pradesha (lumbar region), which is considered a site of Vata sthana. This leads to manifestations such as Ruk (pain), Toda (pricking sensation), Stambha (stiffness), and Spandana (tingling sensation), along with radiating pain to the lower limbs due to involvement of Snayu and Nadi (sciatic nerve), reflecting the classical features of Gridhrasi¹².

The Samprapti ghatakas involved include Vata (predominant) and Kapha dosha, Asthi and Mamsa dhatu, Vatavaha, Mamsavaha, and Asthivaha srotas with Sanga type of srotodushti. The Udbhava sthana is Pakwashaya, and Vyakta sthana includes Kati, Prushta, Uru, Jangha, and Pada.

Thus, the condition represents a chronic, progressive Madhyama rogamarga disorder with features of both obstruction and degeneration, correlating with spinal canal stenosis. Management principles aim at Samprapti vighatana by alleviating Vata, removing Avarana, and nourishing depleted Dhatus, where Basti chikitsa plays a key role due to its direct action on Vata dosha¹³.

Discussion on Mode of Action of Therapeutic Intervention

1. Sarvanga Abhyanga with Mahanarayana Taila followed by Kolakulattadi Churna Udwarthana (with Saindava Lavana): Sarvanga Abhyanga provides Snehana, which pacifies aggravated Vata, reduces Ruk (pain), Stambha (stiffness), and improves circulation. Mahanarayana Taila is Vatahara and Balya, acting on Snayu and Sandhi, thereby relieving neuromuscular stiffness. Udwarthana with Kolakulattadi Churna mixed with Saindava Lavana performs Ruksha and Ushna guna karma, helping in Kapha vilayana and removing Margavarana¹⁴. It improves local circulation, reduces heaviness, and facilitates better penetration of medicaments.

2. Patrapinda Sweda: Patrapinda Sweda provides Swedana (sudation)¹⁵, which relieves Stambha and Gaurava, enhances flexibility, and reduces pain by

improving blood flow and reducing muscle spasm. The medicated leaves possess Vata-Kapha hara properties, aiding in reducing inflammation and nerve compression.

3. Matrabasti with Sahacharadi Taila and Panchatikta Ghrita: Matrabasti directly acts on Vata dosha, as Basti is considered the prime therapy for Vata vyadhi. Sahacharadi Taila¹⁶ is specifically indicated in Gridhrasi and neurological disorders, helping in relieving radiating pain and improving nerve function. Panchatikta Ghrita provides Brimhana and Rasayana effects, nourishing Asthi and Majja dhatus, thereby counteracting Dhatukshaya.

4. Ksheera Vaitarana Kala Basti: This form of Basti has a dual action of Shodhana and Brimhana. Ksheera (milk) nourishes tissues and pacifies Vata, while Vaitarana Basti helps in removing Avarana and clearing obstructed channels. It is particularly effective in conditions involving both Margavarana and Dhatukshaya¹⁷, as seen in spinal canal stenosis.

5. Mashapinda Sweda: Mashapinda Sweda provides Snigdha swedana, which is beneficial in Vata disorders with stiffness and degeneration. It strengthens muscles, improves flexibility, and reduces pain by enhancing local circulation and tissue nourishment.

6. Upanaha Sweda with Upanaha Churna and Panchatikta Ghrita: Upanaha¹⁸(poultice therapy) offers sustained Swedana and Snehana, helping in reducing localized pain, stiffness, and inflammation. Panchatikta Ghrita adds a Brimhana effect, promoting regeneration of degenerated tissues.

Mode of Action of Internal Medications

1. Trayodashanga Guggulu: This formulation is widely indicated in Vatavyadhi¹⁹, especially Gridhrasi and neuromuscular disorders. It possesses Vatahara, Shothahara, and Vedanasthapana properties. Guggulu acts as a potent Srotoshodhaka and anti-inflammatory agent, reducing nerve compression and pain. The combination of drugs helps in strengthening Snayu and Asthi dhatu, thereby improving mobility and reducing stiffness.

2. Mustadi Marma Kashaya: This Kashaya has Kapha-Vata shamana and Shothahara actions. It improves

Agni, performs Ama pachana, and clears Srotorodha. By reducing inflammation and metabolic toxins, it helps relieve pain, stiffness, and enhances tissue nourishment, particularly in musculoskeletal and neurological conditions.

3. Capsule Lashuna Rasayana: Lashuna (Garlic) is a well-known Vata-Kapha hara and Rasayana dravya. It improves circulation, reduces Avarana, and acts as a nerve stimulant. It also possesses anti-inflammatory and antioxidant properties, aiding in reducing degeneration and enhancing strength of Snayu and Asthi dhatus.

4. Tablet Nurod: This formulation (commonly used in neurological disorders) acts as a neuroprotective and Vata shamaka agent. It helps in improving nerve conduction, reducing neuropathic pain, and strengthening neuromuscular function. It complements Basti and other therapies in relieving radiating pain and paresthesia.

5. Capsule Murchita Eranda Taila: Eranda Taila is a potent Vatahara and Anulomana dravya.²⁰ It helps in regulating Apana Vata, relieving constipation, and reducing pressure effects in the lower body. Its Snigdha guna nourishes tissues and helps in alleviating stiffness and pain associated with Vata disorders.

6. Panchasakara Churna: This formulation acts as a mild laxative with Vata anulomana and Bhedana properties. It relieves constipation, reduces Ama, and facilitates proper movement of Vata, thereby indirectly reducing symptoms like pain and stiffness. It also helps in maintaining gut health, which is crucial as Pakwashaya is the main seat of Vata.

VI. CONCLUSION

The present case of spinal canal stenosis, clinically correlated with Gridhrasi associated with Katigraha, demonstrates that a comprehensive Ayurvedic approach can effectively manage symptoms and improve functional outcomes. The combination of Snehana, Swedana, and Basti chikitsa, along with appropriate Shamana aushadhi, successfully addressed Vata prakopa, relieved Margavarana, and provided Dhatu poshana.

Significant reduction in pain, stiffness, and neurological symptoms was observed, along with improvement in mobility and quality of life, as evidenced by assessment scales. The case highlights the role of Basti chikitsa as a key intervention in Vatavyadhi, particularly in conditions involving both degeneration and obstruction.

Thus, Ayurvedic management offers a safe, non-invasive, and effective alternative in moderate cases of spinal canal stenosis, with the potential to delay or avoid surgical intervention when applied with proper clinical assessment and individualized treatment planning.

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