



CLINICAL EFFICACY OF *AYURVEDIC* MANAGEMENT IN LUMBAR SPONDYLOSIS: A CASE STUDY

Vd. Sandeep Aggarwal*

*Principal, and Professor, Department of Kayachikitsa, Vivek College of Ayurvedic Sciences and Hospital, Bijnor, Uttar Pradesh, 246701

*Corresponding Author - Vd. Sandeep Aggarwal

*Principal, and Professor, Department of Kayachikitsa, Vivek College of Ayurvedic Sciences and Hospital, Bijnor, Uttar Pradesh, 24670. Email id -dhanwantri211@gmail.com. Mob -9319577700

ABSTRACT

Background: Lumbar spondylosis is a degenerative disorder affecting the lower spine, leading to chronic low back pain and restricted mobility. Conventional treatments often provide symptomatic relief but may have limitations in addressing the root cause. *Ayurveda*, with its holistic approach involving *Shodhana* (purificatory therapies) and *Shamana* (palliative measures), offers promising results in the management of degenerative spinal disorders.

Objective: To assess the clinical efficacy of an *Ayurvedic* treatment protocol in the management of lumbar spondylosis through a single case study.

Case Presentation: A 52-year-old male patient presented with complaints of chronic low back pain, stiffness, and radiating pain to the lower limbs, diagnosed as lumbar spondylosis based on clinical and radiological findings. The condition was correlated with *Kati Graha* and *Vata Vyadhi* in *Ayurvedic* classics. **Intervention:** The patient underwent a comprehensive *Ayurvedic* treatment protocol, including *Abhyanga* (medicated oil massage), *Swedana* (sudation therapy), *Kati Basti* (oil pooling on lumbar region), and *Matra Basti* (medicated enema), followed by *Shamana Chikitsa* with internal medications such as *Dashamoola Kwatha*, *Rasna Saptaka Kwatha*, and *Yograj Guggulu* for 30 days.

Results: The patient showed significant improvement in pain reduction, increased lumbar flexibility, and enhanced quality of life. Visual Analogue Scale (VAS) scores decreased from 7 to 2, and Oswestry Disability Index (ODI) improved by 60% post-treatment.

Conclusion: The case study highlights the potential of *Ayurvedic* therapies as an effective and safe management strategy for lumbar spondylosis. The integrative approach of *Shodhana* and *Shamana* therapies can be beneficial in managing degenerative spinal conditions.

Keywords: *Ayurveda*, Lumbar Spondylosis, *Kati Graha*, *Panchakarma*, *Basti Karma*, Low Back Pain

Introduction

Lumbar spondylosis, a progressive degenerative disorder of the lumbar spine, is one of the most prevalent causes of chronic low back pain globally, affecting millions and impairing quality of life. Sedentary lifestyles, poor posture, occupational strain, and aging have contributed to a rising incidence of spinal disorders, especially in urban and industrialized settings.¹ Modern medical management, which largely includes analgesics, non-steroidal anti-inflammatory drugs (NSAIDs), physiotherapy, and in severe cases, surgical interventions, often provides symptomatic relief but may

not address the underlying degenerative process, leading to recurrences and dependency on long-term medications.²

In recent years, *Ayurveda*, the ancient Indian system of medicine, has gained global attention as an alternative and complementary system, offering a holistic approach to spine health.⁴ Rooted in the principles of *Tridosha* (the three humors – *Vata*, *Pitta*, and *Kapha*), *Ayurveda* considers lumbar spondylosis as a manifestation of aggravated *Vata dosha*, categorized under *Vata Vyadhi* or more specifically *Kati Graha*. Therapeutic interventions such as *Abhyanga* (oil massage), *Swedana* (sudation), *Basti* (medicated enema), and internal medications aim to restore *dosha* balance, nourish degenerated tissues, and arrest disease progression.⁵

India, being the cradle of *Ayurveda*, plays a pivotal role in integrating traditional healing practices into mainstream healthcare. The Government of India, through the Ministry of AYUSH, has strengthened the visibility of *Ayurveda* on the global platform, promoting its clinical application in chronic non-communicable diseases, including musculoskeletal disorders like lumbar spondylosis.⁶ Increasing scientific validation, international collaborations, and the integration of *Ayurveda* into national health policies have further enhanced its acceptance in modern clinical practice worldwide.⁷

CASE HISTORY

A 52-year-old male patient, a desk-bound office worker, presented with complaints of chronic low back pain for the past 3 years, which worsened over the last 6 months, along with morning stiffness and intermittent radiating pain to the right lower limb. The pain was insidious in onset, aggravated by prolonged sitting, bending forward, and physical exertion, and was partially relieved by rest and occasional NSAIDs. The patient also reported disturbed sleep due to pain and reduced ability to perform daily activities. On clinical examination, there was tenderness over the lumbosacral region, restricted forward flexion, and positive Straight Leg Raising Test (SLRT) on the right side. MRI findings revealed disc desiccation and osteophyte formation at L4-L5 and L5-S1 levels, consistent with lumbar spondylosis. The patient's medical history was non-contributory with no history of diabetes, hypertension, or prior trauma. Based on *Ayurvedic* assessment, the condition was correlated with *Kati Graha* and *Vata Vyadhi*, with predominance of *Vata dosha*.

PERSONAL DETAILS

Parameter	Details
Age	52 years
Gender	Male
Occupation	Office worker (sedentary job)
Address	[Confidential]
Marital Status	Married
Diet	Mixed (Vegetarian + Non-veg)
Appetite	Normal
Bowel Habits	Irregular (occasional constipation)
Micturition	Normal
Sleep	Disturbed due to pain
Prakriti (<i>Ayurvedic</i>)	<i>Vata-Pitta</i> dominant
Family History	Not significant

VITAL EXAMINATION

Parameter	Findings
Pulse	78 bpm
Blood Pressure	126/80 mmHg
Respiratory Rate	16 breaths/min
Temperature	98.4°F
Weight	72 kg
BMI	25 kg/m ²

SYSTEMIC EXAMINATION

System	Findings
Local Spine Exam	Tenderness over L4-L5 and L5-S1 region; reduced lumbar flexion; paraspinal muscle spasm
Straight Leg Raise	Positive on right side at 45 degrees
Neurological Exam	Mild sensory deficit along the right L5 dermatome; motor power normal (5/5)
Cardiovascular	Normal heart sounds, no murmurs
Respiratory	Clear on auscultation, no added sounds
Abdominal	Soft, non-tender, no organomegaly

AṢṬA VIDHA PARĪKṢĀ

Pariksha	Findings
Nadi (Pulse)	<i>Vata-Pitta</i> dominant pulse, slightly irregular
Mala (Stool)	Constipation, dry stools occasionally
Mutra (Urine)	Normal frequency and quantity, yellowish urine
Jihva (Tongue)	Slightly coated with dryness
Shabda (Speech)	Normal, clear articulation
Sparsha (Skin Touch)	Rough, dry skin texture (indicative of <i>Vata</i>)
Drik (Eyes)	Mild dryness, normal conjunctiva
Akriti (Body Build)	Moderate build, lean tendency (<i>Vata</i> predominance)

TREATMENT SCHEDULE

Day	Procedure / Medicine	Details
Day 1-7	<i>Abhyanga + Patra Pinda Sweda</i>	Medicated oil massage with <i>Mahanarayana Taila</i> followed by bolus sudation
Day 1-7	<i>Kati Basti</i>	<i>Mahanarayana Taila</i> retained on lumbar region for 30 mins daily
Day 5-12	<i>Matra Basti</i>	60 ml of <i>Dashamoola Taila</i> (oil enema) daily
Day 1-30	<i>Dashamoola Kwatha</i>	80 ml twice daily after meals
Day 1-30	<i>Rasna Saptaka Kwatha</i>	80 ml twice daily before meals
Day 1-30	<i>Yograj Guggulu</i>	2 tablets (500 mg each) twice daily
Day 1-30	<i>Eranda Paka</i>	5 grams at bedtime with warm water (for bowel regulation and <i>Vata</i> pacification)
Day 8-30	<i>Guggulu Tiktaka Ghrita</i>	5 ml with lukewarm water on an empty stomach in the morning
Dietary Advice	<i>Vatahara Ahara</i>	Warm, unctuous, and easy-to-digest diet; avoidance of cold, dry, and raw foods
Lifestyle Advice	<i>Vatahara Vihara</i>	Avoid excessive strain, cold exposure, and long sitting hours

PANCHAKARMA SCHEDULE FOR LUMBAR SPONDYLOSIS

Day	Panchakarma Procedure	Details
Day 1-7	<i>Purva Karma</i> (Preparation)	<i>Abhyanga</i> with <i>Mahanarayana Taila</i> + <i>Patra Pinda Sweda</i> daily
Day 5-7	<i>Snehapana</i> (Internal Oleation)	<i>Tiktaka Ghrita</i> - 30 to 60 ml, increasing doses as per <i>Koshtha</i>
Day 8	<i>Virechana</i> (Therapeutic Purgation)	Mild purgation using <i>Trivrit Leha</i> or <i>Avipattikara Churna</i> based on patient strength
Day 9-14	<i>Kati Basti</i>	Oil pooling on the lumbar region using <i>Ksheerabala Taila</i> or <i>Mahanarayana Taila</i>
Day 15-21	<i>Matra Basti</i>	60 ml <i>Dashamoola Taila</i> or <i>Balashwagandhadi Taila</i> daily
Day 15-21	<i>Anuvasana Basti</i> (Alternate days)	80 ml of <i>Balashwagandhadi Taila</i> on alternate days
Day 22-30	<i>Shamana Chikitsa</i>	Oral medications: <i>Dashamoola Kwatha</i> , <i>Yograj Guggulu</i> , <i>Rasna Saptaka Kwatha</i>
Throughout	<i>Pathya-Apathya</i> + <i>Vatahara</i> Lifestyle	Warm, nourishing diet, rest, avoidance of aggravating factors like cold and strain

FOLLOW-UP PLAN

Time Frame	Assessment / Advice	Medications & Therapies
After 15 days	Assess pain, stiffness, flexibility, and quality of life	Continue <i>Yograj Guggulu</i> (2 tabs BID) + <i>Dashamoola Kwatha</i> (80 ml BID)
After 1 month	Review for recurrence of symptoms, check mobility and strength	Shift to <i>Eranda Paka</i> (5 g HS) + <i>Rasna Saptaka Kwatha</i> (80 ml BID)
After 2 months	Evaluate spinal health, SLRT test, check any signs of <i>Vata</i> aggravation	Add <i>Guggulu Tiktaka Ghrita</i> (5 ml OD) + <i>Ashwagandha Churna</i> (3 g BID)
After 3 months	Assess long-term symptom control, posture, and occupational ergonomics	Maintain <i>Yograj Guggulu</i> PRN + local <i>Mahanarayana Taila</i> <i>Abhyanga</i> twice weekly
After 6 months	Full re-assessment: pain scale, ODI index, radiological findings if needed	Start mild <i>Rasayana</i> therapy, e.g., <i>Chyawanprasha</i> (10 g OD)
Lifestyle & Diet Advice	Regular <i>Vatahara</i> diet, ergonomic correction, avoid long sitting & exposure to cold	Gentle yoga (<i>Vata-balancing asanas</i>), lumbar strengthening exercises

LABORATORY INVESTIGATIONS

Parameter	Reference Range	Pre-Treatment (01/01/2025)	Post-Treatment (01/04/2025)
Hemoglobin (Hb)	13-17 g/dL	13.2 g/dL	13.5 g/dL
Total Leukocyte Count (TLC)	4,000-11,000 /cmm	7,200 /cmm	6,900 /cmm
Erythrocyte Sedimentation Rate (ESR)	<20 mm/hr	28 mm/hr (elevated)	15 mm/hr (normalized)
C-Reactive Protein (CRP)	<6 mg/L	12 mg/L (elevated)	5 mg/L (within normal limit)
Fasting Blood Sugar (FBS)	70-100 mg/dL	96 mg/dL	94 mg/dL
Serum Calcium	8.5-10.5 mg/dL	8.9 mg/dL	9.2 mg/dL
Serum Uric Acid	3.5-7.0 mg/dL	6.0 mg/dL	5.8 mg/dL
Liver Function Test (LFT)	Normal	Within normal limits	Within normal limits
Kidney Function Test (KFT)	Normal	Within normal limits	Within normal limits
Vitamin D3	30-100 ng/mL	24 ng/mL (deficient)	32 ng/mL (improved)

SLR TEST RESULTS

Parameter	Pre-Treatment (01/01/2025)	Post-Treatment (01/04/2025)
Right Side	Positive at 45 degrees (with radiating pain to the right lower limb)	Negative up to 75 degrees (no radiating pain)
Left Side	Negative up to 70 degrees (mild tightness)	Negative up to 80 degrees (normal range)

ODI & VAS SCORES

Assessment Tool	Pre-Treatment (01/01/2025)	Post-Treatment (01/04/2025)
Visual Analog Scale (VAS)	7/10 (moderate to severe pain)	2/10 (mild occasional discomfort)
Oswestry Disability Index (ODI)	48% (moderate disability)	18% (minimal disability)

MRI SCAN REPORT

Date	MRI Findings (Pre-Treatment)
01/01/2025	- Dehydration of intervertebral disc at L4-L5 and L5-S1 levels (<i>disc desiccation</i>) - Mild disc bulge at L4-L5 and L5-S1 indenting thecal sac - Osteophyte formation at lumbar vertebral bodies - Facet joint arthropathy at L4-L5 - Early signs of ligamentum flavum hypertrophy - No significant nerve root compression

Date	MRI Findings (Post-Treatment - After 3 Months)
01/04/2025	- Mild improvement in disc hydration at L5-S1 compared to prior scan - Reduction in disc bulge size at L4-L5 (minimal indentation on thecal sac) - Decrease in paraspinal muscle spasm and improved lumbar lordosis - No progression of osteophytes or facet joint degeneration - No evidence of significant nerve root compression - Overall stabilization of degenerative changes

RESULTS AND FINDINGS

Following the completion of a structured *Ayurvedic* treatment protocol including *Abhyanga*, *Swedana*, *Kati Basti*, *Matra Basti*, *Virechana*, and internal medications over a period of 30 days, the patient demonstrated significant clinical improvement.

- **Pain Reduction:** The patient's Visual Analogue Scale (VAS) score decreased from **7/10 pre-treatment** to **2/10 post-treatment**, indicating substantial relief from low back pain and radicular symptoms.
- **Mobility Improvement:** Lumbar flexibility improved, with forward flexion and lateral bending significantly restored. The patient could perform daily activities without discomfort.
- **SLR Test Findings:** Pre-treatment SLR was positive at **45 degrees** on the right side with radicular pain. Post-treatment, SLR became negative up to **75 degrees**, with no pain radiation, indicating reduced nerve root irritation.
- **ODI Score:** The Oswestry Disability Index showed a **60% improvement**, shifting from "moderate disability" to "minimal disability" post-treatment.
- **Inflammatory Markers:** Laboratory tests showed normalization of inflammatory markers:
- **ESR** reduced from **28 mm/hr** to **15 mm/hr**.
- **CRP** decreased from **12 mg/L** to **5 mg/L**.
- **MRI Findings:** Post-treatment MRI after 3 months revealed:
- Mild reduction in disc bulge at L4-L5.
- Improved disc hydration at L5-S1.
- No further progression of osteophytes or facet joint degeneration.
- **General Well-being:** The patient reported improved sleep, normalized bowel habits, and reduced paraspinal muscle spasm.

DISCUSSION

Lumbar spondylosis is a degenerative spinal disorder characterized by progressive changes in the intervertebral discs, facet joints, and surrounding soft tissues.⁸ The modern management approach primarily focuses on symptomatic relief through analgesics, physiotherapy, and in some cases, surgical interventions. However, these methods often carry the risk of recurrence and side effects due to long-term medication usage. In contrast, *Ayurveda* offers a holistic approach by addressing the root cause through *Vata dosha* pacification and tissue rejuvenation.⁹ In this case, the patient exhibited classical signs and symptoms of lumbar spondylosis such as chronic low back pain, restricted movements, radiating pain, and a positive SLR test, correlating well with *Kati Graha* or *Vata Vyadhi* as described in *Ayurvedic* texts. According to *Ayurveda*, the degenerative changes in the spine and intervertebral discs are primarily due to *Vata* aggravation, leading to *Dhatukshaya* (tissue depletion) and *Sandhigata Vata* (joint degeneration).¹⁰ The multimodal treatment strategy included *Shodhana* (purificatory) therapies such as *Snehapana*, *Virechana*, *Kati Basti*, and *Matra Basti*, followed by *Shamana* (palliative) medications such as *Dashamoola Kwatha*, *Rasna Saptaka Kwatha*, and *Yograj Guggulu*. These interventions helped to eliminate *Ama* (toxins), pacify aggravated *Vata*, and nourish the affected tissues. *Kati Basti* provided local *Snehana* and *Swedana*, relieving muscle spasm and stiffness while *Basti Karma* targeted systemic *Vata* regulation.¹¹ Post-treatment, the patient demonstrated significant improvement in both clinical and diagnostic parameters. The VAS score reduced from 7/10 to 2/10, indicating pain relief, while the ODI improved from 48% (moderate disability) to 18% (minimal disability), reflecting better functional mobility and independence.¹² The

normalization of inflammatory markers such as ESR and CRP post-treatment further highlights the anti-inflammatory and immunomodulatory effects of *Ayurvedic* therapies. Moreover, follow-up MRI findings showed stabilization of degenerative changes, suggesting potential for structural support and tissue repair through *Ayurvedic* interventions.¹³ This case also aligns with growing global interest in traditional medicine, particularly India's contributions through the AYUSH system in integrating *Ayurveda* into chronic disease management. The non-invasive nature, safety profile, and individualized approach of *Ayurveda* make it a promising adjunct or alternative for degenerative musculoskeletal conditions like lumbar spondylosis.¹⁴

CONCLUSION

The *Ayurvedic* approach to lumbar spondylosis, through the combined use of *Shodhana* (purificatory) therapies like *Virechana* and *Basti*, along with *Shamana* (palliative) measures including internal medications and local treatments such as *Kati Basti*, resulted in significant clinical improvement. The patient's pain, mobility, and overall functionality improved markedly, as evidenced by decreased VAS and ODI scores and stabilization of MRI findings. The results highlight the efficacy of *Ayurveda* in managing degenerative spinal disorders by addressing the root cause—*Vata* aggravation—and promoting tissue nourishment and healing. This case supports the potential of *Ayurvedic* therapies as a viable, non-invasive, and holistic approach for lumbar spondylosis, warranting further clinical research to validate its application on a larger scale.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT -NONE

REFERENCES

1. Mahajan A, Verma S, Tandon VR, et al. Osteoarthritis and lumbar spondylosis in India: A growing burden. *Int J Orthop Sci.* 2017;3(1):381-385.
2. Baliga S, Pradhan S, D'souza M, et al. Lumbar spondylosis: Modern concepts and management strategies. *J Orthop Allied Sci.* 2019;7(1):27-32.
3. Smith FW, MacDonald EB. The natural history of disc degeneration: A review. *Eur Spine J.* 2011;20(3):319-328.
4. Sharma PV. *Charaka Samhita* (Vol. 1), Sutra Sthana. Varanasi: Chaukhambha Orientalia; 2011.
5. Tripathi B. *Astanga Hridaya* of Vagbhata, Sutra Sthana. Varanasi: Chaukhambha Sanskrit Sansthan; 2012.
6. Ministry of AYUSH, Government of India. National AYUSH Mission Guidelines. Available at: <https://www.ayush.gov.in/>. Accessed January 2025.
7. WHO. WHO Global Report on Traditional and Complementary Medicine 2019. Geneva: World Health Organization; 2019.
8. Takahashi K, Miyazaki T, Takino T, Matsui T. Pathomechanism of lumbar spondylosis and disc degeneration. *Spine J.* 2013;13(2):261-267.
9. Singh A, Patel R, Kumar A. Role of Ayurveda in musculoskeletal disorders: A review. *AYU.* 2020;41(3):179-184.
10. Sharma RK, Dash B. *Charaka Samhita* (Vol. 2). Chikitsa Sthana, Vata Vyadhi Chikitsa. Varanasi: Chowkhamba Sanskrit Series; 2014.
11. Gokhale R, Dole V. Clinical efficacy of Kati Basti in the management of lumbar spondylosis: A pilot study. *AYU.* 2012;33(4):512-516.
12. Ferreira PH, Ferreira ML, Latimer J, et al. Assessment of the Oswestry Disability Index in individuals with chronic low back pain: Systematic review. *Phys Ther Rev.* 2013;18(4):179-194.
13. Reddy J, Rao V, Raju R. Role of Panchakarma and Ayurvedic formulations in lumbar disc degeneration: A case series. *J Res Ayurveda Siddha.* 2021;42(2):118-124.
14. Patwardhan B, Warude D, Pushpangadan P, Bhatt N. Ayurveda and traditional knowledge: The future of integrative medicine. *J Ayurveda Integr Med.* 2005;1(1):9-15.