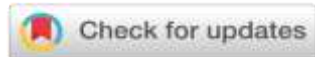


**AYURVEDIC MANAGEMENT OF CHRONIC NON-SPECIFIC LOW BACK PAIN
W.S.R KATI SHOOLA – A CASE REPORT****Karthik K.V¹, Shakti S Hiremath², Shubhangini S Kolar³**

¹Assistant professor, Department of Shalya Tantra, ²Assistant professor, Department of Rasa Shastra & Bhaisajya Kalpana, ³Assistant professor, Department of Kayachikitsa Shri Siddhivinayak Rural Ayurvedic Medical College, Hospital & Research Centre, Harugeri, Karnataka, India -591220

Corresponding Author: karthik.kv.devang@gmail.com<https://doi.org/10.46607/iamj2412052024>**(Published Online: May 2024)****Open Access**

© International Ayurvedic Medical Journal, India 2024

Article Received: 11/04/2024 - **Peer Reviewed:** 29/04/2024 - **Accepted for Publication:** 13/05/2024.**ABSTRACT**

Low back pain is the leading cause of activity limitation and work absence worldwide, including in families, communities, industries, and governments. It is a prevalent condition afflicts about 84% of people in developing countries at some point in their lifetime. An *Ayurvedic* classical term such as *Kati Shoola* describes low back pain. Low back pain is pain, tension, or rigidity between the 12th rib posteriorly and the gluteal line. Non-specific LBP (NSLBP) is defined as tension, soreness and stiffness of unknown aetiology in the lower back region with joint, disc and connective tissue involvement potentially contributing to symptoms. Treatment modalities like *Snehana* (oleation), *Swedana* (sudation), *Basthi Karma* (medicated enema), *Agnikarma* (therapeutic cauterisation), *Lepa* (local application) etc. In this case, *Basthi*, *Alabu*, Physiotherapy's integrative approach, along with *Yogaraj Guggulu*, *Rasnasaptaka Kashaya*, and *Hingwashthaka Choorna* has been selected for managing NSLBP. The present study concludes that the integrative approach of *Ayurveda* and Physiotherapy helps manage NSLBP.

Keywords: *Katishoola*, Non- Specific Low Back Pain, Physiotherapy, *Panchakarma*, *Katigraha*

INTRODUCTION

Non-specific low back pain (NSLBP) stands as the primary contributor to disability stemming from various spine-related conditions such as intervertebral disc degeneration, disc herniation, spinal stenosis, and facet arthritis^[1]. This issue of low back pain (LBP) extends its global impact, surpassing all other medical conditions in terms of global disability. Statistics indicate that a staggering 84% of adults experience LBP at some point in their lives, with over 85% of primary care patients presenting with undefined LBP. Those enduring LBP beyond the acute phase (4 weeks) transition into subacute back pain (lasting 4 to 12 weeks), with some progressing to chronic back pain (lasting more than 12 weeks)^[2].

In *Ayurveda*, Non-specific low back pain parallels cluster disorders of *Vata Vyadhi*, particularly *Katigraha*, *Gridhrasi*, and *Khalli*, exhibiting common symptoms like *Shoola/Ruja* (pain), *Stambha* (stiffness), and *Suptata*^[3]. Given that *Vata Vyadhi* inherently denotes pain as a primary symptom, the general treatment principles (*Samanya chikitsa sutra*) for *Vata Vyadhi* encompass therapies such as *Sneha*, *Sveda*, *Samshodhana*, *Agnikarma*, *Raktamokshana*, *Lepa*, *Basthi*, etc.^[4]

Case History:

Patient information:

A 58-year-old male with no known case of diabetes or hypertension presented with complaints of lower back pain and mild stiffness persisting for the past two years. He had trouble in bending, sitting on the floor, performing daily activities with increased pain over the last three months due to a heightened workload. Loss of appetite, disturbed sleep, and general weakness accompanied the pain and stiffness. The patient had been prescribed anti-inflammatory and analgesic drugs by a modern medicine consultant, providing temporary relief but with pain recurring upon strenuous activity. The treatment took place at Shri Siddhivinayak Ayurveda Hospital and Medical Research Centre, Harugeri, Belagavi, Karnataka, from 26/03/2024 to 6/4/2024 (OPD – 240317184, IPD - 2400427). Past and family medical history

were unremarkable. Physical examination revealed a thin build, moderate nourishment, and no signs of pallor, icterus, cyanosis, clubbing, or lymphadenopathy. Systemic examination, including the cardiovascular, central nervous system, and respiratory was regular, with blood pressure at 110/70 mmHg, pulse rate at 80/min, height at 157 cm, weight at 56 kg and BMI at 22.7 Local examinations of the lumbar region showed tenderness and stiffness at the paraspinal region, along with restricted lower back movements: forward flexion at 50 degrees, right lateral flexion at 25 degrees, left lateral flexion at 25 degrees, and extension at 15 degrees. The Straight Leg Raising Test (SLR test) was positive at 50 degrees on both sides, and the pain was rated at 8/10 on the Numerical Pain Rating Scale (NPRS), 9/10 on the Visual Analogue Scale (VAS), and 9/10 on the Verbal Rating Scale (VRS). Schober's test indicated a range of movements at 3.5 cm. Routine blood investigations, including Complete Blood Count and Urine examination, yielded the expected results. X-rays of the lower back region, both anterior-posterior and lateral views, showed no significant changes.

Timeline:

In 2023, the patient began experiencing pain and mild stiffness in the lower back and was prescribed analgesic drugs. An X-ray was conducted, revealing no notable changes. By March 2024, exacerbated pain prompted further medical evaluation, leading to routine blood tests and another X-ray.

Diagnosis:

The diagnosis was reached by considering *Kati Shoola* and *Kati Graha* as the primary symptoms for differential diagnosis of *Vataja Gridhrasi (Kati-shoola)* and *Vata-Kaphaja Gridhrasi (Kati shoola + Kati Stambha)* and *Kati Graha (Kati Shoola + Stambha)*. Since the patient did not exhibit radiating pain, indicative of *Sphik Poorva Kati Prishtha uru janga paadat kramat*, *Vataja* and *Vata-Kaphaja Gridhrasi* were ruled out. With low back pain and stiffness as the main symptoms and no radiological changes in the

lumbar spine, the case was diagnosed as non-specific low back pain, leading to the development of an integrated treatment plan.

Treatment:

The treatment approach was tailored based on the patient's medical history, symptoms and the specific *Dosha* and *Dushya* involved in the disease presentation. An integrated treatment protocol comprising *Ayurveda* (including *Basthi* therapy and oral medications) and physiotherapy was devised. *Ayurvedic*

treatment included *Dashamula Niruha Basthi*, *Alabu Karma* (cupping therapy), and oral medications such as *Yogaraja Guggulu*, *Rasnasaptaka Kashaya* and *Hingvastaka choorna*.

Follow up and outcome.

The patient was discharged on the 12th day, and pain and stiffness were assessed every 0-day up to 21 days. It took 14 days to reduce complaints of Pain and difficulty in movements of the Lower back.

Table 1: Therapeutic intervention and oral medicines

Plan of care	Procedure			
		1 – 9	14	21
<i>Niruha Basthi</i>	<i>Dashamoola Niruha Basthi</i> <i>Madhu -50ml, Saindhava- 5gm</i> <i>Sneha-</i> <i>Sahacharadi Taila- 70ml</i> <i>Kalka-Shatapushpa-10gm</i> <i>Rasna-10gm, Guduchi – 10gm</i> <i>Yastimadhu – 10gm</i> <i>Kashaya- Dashamoola Kashaya -300ml Go Arka -50ml</i>	✓		
<i>Anuvasana Basthi</i>	<i>Dhanwantara Taila – 50ml</i>	✓		
Physiotherapy	HMT, TENS	✓		
<i>Rasna Saptaka Kashaya</i>	10ML AFTER FOOD (MORNING AND NIGHT)	✓	✓	✓
<i>Hingavastaka choorna</i>	½ TSP BEFORE FOOD (MORNING AND NIGHT)	✓	✓	✓
<i>Yogaraja guggulu</i>	One tablet after food (morning and night)	✓	✓	✓
Exercise	BRIDGING TRUNK ROTATION CAT AND CAMEL EXERCISE BACK EXTENSION STATIC BACK EXTENSION	✓	✓	✓
<i>Alabu Rakta mokshana - cupping therapy</i>		9 th day		

TABLE 2

PARAMETERS								
	1	3	5	7	8	9	14	21
FORWARD FLEXION (in degree)	50	55	60	75	75	80	80	80
RIGHT LATERAL FLEXION (in degree)	25	25	30	30	35	35	35	35
LEFT LATERAL FLEXION (in degree)	25	30	30	30	35	35	35	35
EXTENSION (in degree) (20 TO 30)	15	20	25	30	30	30	30	30
VAS	9/10	7/10	6/10	4/10	4/10	2/10	0/10	0/10
STIFFNESS	✓	✓	-	-	-	-	-	-

SCHOBER'S TEST	✓	✓	-	-	-	-	-	-
----------------	---	---	---	---	---	---	---	---

DISCUSSION

Low back pain is categorised into three groups based on the duration of pain. Acute low back pain lasts for less than four weeks, subacute lasts for four to eight weeks, and chronic lasts more than eight weeks [5,6]. Treatment options for low back pain include both pharmacological and nonpharmacological approaches. Pharmacological treatments encompass analgesics, anti-inflammatory drugs, muscle relaxants, etc., while nonpharmacological treatments include surgical and nonsurgical methods [7]. Among nonsurgical treatments, thermotherapy is commonly used nowadays as an adjuvant to relieve pain, targeting either superficially (for the skin) or deeply (for joints and muscles) [8].

Kati Shoola can be considered under the heading of *Vata Vyadhi*, characterised by pain as a predominant symptom, is addressed according to the *Samanya Chikitsa Sutra*, which includes various treatments such as *Snehana*, *Svedana*, *Samshodana*, *Agnikarma*, *Raktamokshana*, *Lepa*, and *Basthi* [4]. *Basthi Chikitsa* is considered a crucial treatment in vitiated *Vata* disorders, often referred to as *Ardha Chikitsa* (half line of treatment) and *Shrestha Chikitsa* for pacifying aggravated *Vata*. *Acharya Parashara* elucidates *Basthi*'s mode of action, stating that it gets absorbed through the rectal route and exhibits systemic effects akin to water nourishing a plant through its roots [9].

Transcutaneous electrical nerve stimulation (TENS) alleviates pain intensity by delivering pulsed electrical currents across the skin, stimulating peripheral nerves. Physiological research indicates that TENS reduces the activity and excitability of central projection neurons, thereby decreasing nociceptive input to the brain and modulating the pain experience [10]. There is moderate-quality evidence supporting the efficacy of manipulation and mobilisation in reducing pain and improving function for patients with chronic low back pain, with manipulation appearing to have a more significant effect than mobilisation [11].

Dashamoola, containing roots of ten different plants, is used as *Kwatha*. It is believed that the ten ingredi-

ents in *Dashamoola* may serve various roles, such as adjuvant, carrier agent, and stabiliser, with some ingredients showing anti-inflammatory and analgesic activities [12]. *Yogaraja guggulu*, a herbo-mineral preparation with *Kapha Vatahara* properties, targets *Asthi Majjagata Vata*, clearing the *Srothas* (channels) due to its *Ushna* and *Ruksha Guna* [13]. *Hingvastaka Choorna*, a herbomineral preparation, is indicated for digestive impairment, colicky pain, abdominal lump, and diseases due to *Vata dosha* [14]. *Rasnasaptaka kashaya* is mentioned in *Bhaisajya Ratnavali*. Its ingredients are *Rasna*, *Amruta*, *Aragwadha*, *Devdaru*, *Gokshura*, *Eranda* and *Punarnava*; it is observed that the drugs were arranged Systematically and Logically that it is having the properties of *Vatakaphahara*, *Deepana*, *Rasayana* and *Vedanahara* effects [15]. Exercise programs for low back pain management remain inconsistent [16]. *Alabu Raktamokshana*, Cupping works on the principle of vacuum extraction. Cupping targets soft tissue by applying local pressure to pain points and areas of swelling. It helps to extract blood from the body, which may be harmful and, in turn, overcome the potential adverse effects, leading to physiological well-being. Loss of blood and vasodilation tend to increase parasympathetic activity and relax body muscles.[17]

CONCLUSION

Low back pain clinical guidelines recommend non-pharmacological and non-invasive management. These include advice to stay active, patient education, and exercise therapy. The aim of physical treatments is to improve function and prevent disability from getting worse. In lower back pain that is more significant than 12 weeks, nonsurgical therapy, bio purification methods like enema, and physiotherapy are the best treatments that should be considered for routine use.

REFERENCES

1. Patrick Morris, Kareem Ali, Mackenzie Merritt, Joey Pelletier, and Luciana G Macedo. A systematic review of the role of inflammatory biomarkers in acute, sub-acute and chronic non-specific low back pain, BMC Musculoskeletal Disorders (2020), 21:142 available from: <https://doi.org/10.1186/s12891-020-3154-3>
2. Narges Ekrami a, Mehdi Ahmadian b, Maryam Nourshahi, Hamed Shakouri G. Wet cupping induces anti-inflammatory action in response to vigorous exercise among martial arts athletes: A pilot study, Complementary Therapies in Medicine, available from <https://doi.org/10.1016/j.ctim.2020.102611>
3. dr. Sajitha k. an insight into “katigraha” (low back ache), Ancient Science of Life, Vol. No. XXI (1) July 2001
4. Chakradatta chikitsa sangraha of Cakrapani datta translated by G. Prabhakara Rao. Sanskrit text with English Translation; Vatavyadhi Chikitsa: Chapter 22, Verse53-56. Varanasi: Chaukhamba Orientalia, 2014, p.215.
5. Blount BW, Hart G, Ehreth JL. A description of the content of army family practice. *J Am Board Fam Pract.* 1993;6(2):143–52. available from [PubMed] [Google Scholar]
6. van Tulder M, Koes B, Bombardier C. Low back pain. *Best Pract Res Clin Rheumatol.* 2002;16(5):761–75. available from [PubMed] [Google Scholar]
7. Bach SM, Holten KB. Guideline update: what’s the best approach to acute low back pain *J Fam Pract.* 2009;58(12):E1. available from [PubMed] [Google Scholar]
8. Melzack R. Pain: past, present and future. *Can J Exp Psychol.* 1993;47(4):615–29. Available from [PubMed] [Google Scholar]
9. Agnivesha, Charaka samhita of Acharya Charaka, Dridhabala krit, edited by Vidyadhar Shukla Vol 2 Chaukhambha Sanskrit Pratishthan Shlok Ch. Si 1/39.p-457
10. Johnson M. Transcutaneous Electrical Nerve Stimulation (TENS). Research to Support Clinical Practice. Oxford University Press; Oxford, UK: 2014. available from [Google Scholar]
11. Coulter ID, Crawford C, Hurwitz EL, Vernon H, Khorsan R, Suttorp Booth M, Herman PM. Manipulation and mobilisation for treating chronic low back pain: a systematic review and meta-analysis. *Spine J.* 2018 May;18(5):866-879. doi: 10.1016/j.spinee.2018.01.013. Epub 2018 Jan 31. PMID: 29371112; PMCID: PMC6020029.
12. Padmavati Venkatesh, Ashwini. Effect of Dashmoola Siddha Ksheera Paka Kati Basti in Katishoola - A Single Case Study. *J Ayurveda Integr Med Sci* 2022; 4:127-132.
13. Dr. Rohitakumar | Dr. Ravi R Chavan "A Critical Review on Yogaraja Guggulu" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456- 6470, Volume-5 | Issue-5, August 2021, pp.29-31, available from URL: www.ijtsrd.com/papers/ijtsrd43744.pdf
14. Dash, Manoj & Joshi, Namrata & Dwivedi, Laxmikant & Sharma, Khemchand & Doi, (2019). Probable mode of action of Hingvastaka churna: a critical review. available from https://www.researchgate.net/publication/333776049_Probable_Mode_of_Action_of_Hingvastaka_Churna_a_critical_review
15. Pooja Sharada Jagadeesh Shanbough: Rasnasaptak Kashaya in The Management of Katigraha”- A Clinical Study. *International Ayurvedic Medical Journal* {online} 2022 {cited September 2022} Available from: http://www.iamj.in/posts/images/upload/2376_2381.pdf
16. Jorgensen JE, Afzali T, Riis A. Effect of differentiating exercise guidance based on a patient’s level of low back pain in primary care: a mixed-methods systematic review protocol. *BMJ Open.* 2018;8(1):e019742. doi: 10.1136/bmjopen-2017-019742. available from [PMC free article] [PubMed] [Cross Ref] [Google Scholar]
17. Anita A. Patil & Rutuja S. Nagawade: Effect of Raktamokshana by Cupping Therapy in The Management of Katigraha - A Case Report. *International Ayurvedic Medical Journal* {online} 2020 {cited August 2020} Available from: http://www.iamj.in/posts/images/upload/4259_4264.pdf

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Karthik K.V et al: Ayurvedic management of Chronic Non-specific Low back pain w.s.r Kati shoola – A Case report. *International Ayurvedic Medical Journal* {online} 2024 {cited May 2024} Available from: http://www.iamj.in/posts/images/upload/988_992.pdf