

MANAGEMENT OF LUMBER CANAL STENOSIS THROUGH PANCHAKARMA: A
CASE STUDYAbhay Chaubey^{1*}, Pankaj Meshram², Prashant Tiwari³, Shuchita Singh⁴^{1,2}PG Scholar, ³Professor, ⁴Assistant Professor

PG Department of Panchakarma R. D. Memorial Ayurveda PG College & Hospital, Bhopal (M.P.)



*Corresponding Author: Dr. Abhay Chaubey

PG Scholar, PG Department of Panchakarma R. D. Memorial Ayurveda PG College & Hospital, Bhopal (M.P.).

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ABSTRACT

Lumbar canal stenosis occurs due to a congenital narrowing of the lumbar spinal canal, exacerbated by the degenerative changes that commonly occur with age. The symptoms of spinal stenosis are thought to be due to local vascular compromise secondary to the canal stenosis, rendering the nerve roots ischemic and intolerant of the demand for increased neural activity that occurs on exercise. The prevalence of symptomatic lumbar spinal stenosis gradually increases with age. The present case study deals with a 26-year-old female who noticed severe low back pain and weakness of right lower limb. In the MRI report of lumbosacral spine, it was found to have moderate (Grade 2) Lumbar canal stenosis. In *Ayurveda* the disease is not mentioned as it is but it can be correlated to *Vatika Gridrasi*. This case study is about management of lumbar canal stenosis with multi-modality treatment in the form of *Panchakarma* procedures such as *Sarvanga PPS*, *Katibasti*, *Sarvanga SPS*, *Erandamooladi Yoga Basti*, *Panchatikta Yoga Basti* along with oral medications. Treatment shown remarkable result especially in reducing pain, paresthesia and weakness of limbs.

KEYWORDS: Lumbar canal stenosis, *Vatika Gridrasi*, *Panchakarma*.

INTRODUCTION

The term spinal canal stenosis covers any type of narrowing of the spinal canal, but it usually affects the lumbar spinal canal. Most often it is congenital, but the patient becomes symptomatic later in life due to the development of other pathological changes that result in the compression of neurovascular tissues. Males are generally affected more than females. L5 and S1 roots, which run a long oblique course within the spinal canal before changing direction to emerge through the exit foramina, are most affected. In *Ayurveda* Lumbar canal stenosis can be interrelated to *Vatika Gridrasi*. Various *Panchakarma* procedures and internal medicines were adopted in the present case study which gives a promising result especially in reducing pain, paresthesia and weakness of limbs.

Lumbar canal stenosis is the medical condition in which the spinal canal narrows and compresses the nerves and blood vessels at the level of the vertebrae of lumbar area. Lumbar spinal stenosis causes pain in the low back or buttocks, abnormal sensations and the numbness in the legs, thighs, feet or buttocks or loss of function of bladder and bowel. The annual incidence of Lumbar canal Stenosis is reported to be five cases per 100,000 individuals which is fourfold higher than the incidence of

cervical canal stenosis.^[1] A population-based study in Japan^[2] found that the LSS incidence was increased by age, about 1.7–2.2% in 40–49 years old population, and 10.3%–11.2% in 70–79 years old population. Acquired lumbar canal stenosis occurs due to degenerative joint disease related with vertebra and spinal cord. A community based cross sectional study in Wardha it was observed that most (82%) of the workers, who performed the activities of brick making experienced musculoskeletal symptoms any time during last one year in shoulder (s) followed by lower back (71%)³. Therefore, causes of lumbar canal stenosis are occupational over use of joint, metabolic diseases (hyperparathyroidism, hemochromatosis, and ochronosis). Lumbar canal stenosis can also be caused by osteophytes, osteoporosis, tumor, trauma or various skeletal dysplasia, such as with pseudo achondroplasia and achondroplasia. The most common form of degenerative canal stenosis generally becomes symptomatic during or after the seventh decade of life.^[3] It is more common in women than in men.^[4] In a study people of 100 patients, Amundsen et al. found the occurrence of back pain and sciatica in 95%, and claudication in 91% of the patients. Obesity is a major risk factor.^[5] Conservative treatment of lumbar canal stenosis includes physiotherapy, anti-inflammatory

medications, lumbar corsets and epidural injectables.^[6] It is generally accepted that surgery is indicated if well conducted conservative management fails.^[7]

So, there is a need and scope of Ayurveda Panchakarma treatment which can improve the quality of life hampered due to associated pain and to limit the further degeneration of spine. The explanation about *Katigata Vata* is not a separate disease entity in any Ayurvedic text. It is mentioned as one of the *Vatavyadhi* by *Charaka*.^[8] In case of *Katigata Vata*, *Dhatu Kshaya* (direct stress induced factor at the Kati region and loss of nutritional support to the *Asthis*, *Sandhis* and surrounding *Snayus* together lead to *Vata Prakopa* in *Asthivaha Srotasa*. This lead to the symptoms of numbness (*Suptata*), stiffness (*Stambha*) and restriction in movement (*Gati Avrodh*). Ayurveda can provide miraculous effect to such patient with the help of *Panchakarma*. Basti procedure is main treatment used for the vitiated *Vata*.^[9] In the management of '*Asthi Prodoshaj Vyadhi*' *Charaka* stated '*Kshir Basti*' and '*Sneha Basti*'.^[10]

MATERIALS AND METHODS

Case description: 26 years old female patient was apparently normal about one month back. She experienced severe pain and numbness on left lower limb. The symptoms were severe so that she was unable to get up from lying position. She was taken to an allopathic hospital and medications were given. Shocking pain recurred again with weakness of right lower limb. Thus, she came to OPD of Rani Dullaiya Memorial Ayurveda P.G. College and Hospital, Bhopal (MP) for better management.

History of past illness

Nothing relevant.

Personal history

1. Diet – Mixed
2. Habit – Nothing specific
3. Appetite – Normal
4. Bowel – once daily, regular
5. Micturition – With normal level
6. Sleep – Sound
7. Addiction – Nil

General examination

1. Stature– Medium
2. Built– Moderate
3. Gait– Antalgic
4. Weight– 58 kg
5. Height– 162 cm
6. BMI– 22.1
7. Pallor– Absent
8. Clubbing– Absent
9. Lymph adenopathy– Absent
10. Icterus– Absent
11. Cyanosis – Absent

On examination

1. General condition of patient was moderate and afebrile.
2. PULSE: 80/min
3. Blood pressure: 130/80 mm of hg
4. Pallor: present
5. Systemic examination:
 - a. CVS: S1 S2 Normal
 - b. CNS: Well oriented, conscious.
 - c. RS: AE=BE, clear.
 - d. P/A: Soft, non-tender; Liver, Kidney, Spleen: Not palpable.

Ashta vidha parikshan^[11]

1. Nadi- Pitta Vata
2. Mala- Malavshambha (Occasionally)
3. Mutra- Samyak Pravrutti
4. Jivha- Sama
5. Shabd- Spashta.
6. Sparsha- Anushna Sheet
7. Druk- Panduta
8. Akriti- Madhyam.

Vikrut strotas parikshan

- **Rasavaha strotas:** *Ubhaya Pindiko Dveshtan* (Cramps in both legs), *Panduta* (Pallor).
- **Asthivaha strotas:** *Katishool* (Pain in lumbar region), *Kati to Vama Pada Shool* (Radiating pain from lumbar region to left legs).
- **Majjavaha strotas:** Tingling and numbness in both upper and lower limb, difficulty in walking, slipping of chappal from right foot.

Present Illness: Patient was having above complaints from three year. She was consulted and admitted at Government hospital Bhopal for treatment and but there was no improvement in any symptoms during treatment and so they advised surgery. So that patient came to the Rani Dullaiya Memorial Ayurveda P.G. College and Hospital, Bhopal (MP) for further treatment.

Past history: No H/O- DM/HTN/IHD/PTB/BA/ Jaundice/Typhoid or any other major medical illness.

- No H/O-Any major surgical illness.
- No H/O- Accident
- H/O- fall from 5-foot height before 3 years.

Clinical examination of spine

Inspection: No scoliosis, no lordosis, no kyphosis was found in the patient. No any other major abnormality was seen in spinal examination of patient. No any swelling and surgical marks were seen in spinal examination of patient.

Gait: Waddling gait.

Palpation and other clinical examinations

- SLR- Right + at 45° and left + at 50°.
- VAS score- 10.
- 6MWT- 50 m
- Oswestry low back pain disability Index¹²- 45%

Investigation

- Haemoglobin % - 9.5gm %
- Total Leucocyte Count- 8200 cu/mm
- Differential Leucocyte Count- Polymorph- 55%, Lymphocyte- 47%, Eosinophil + Monocyt-3%
- Urine examination
- ❖ Albumin-Nil
- ❖ Sugar-Nil
- Microscopic examination- NAD
- RBS (random blood sugar)-108 mg/dl.

MRI of Lumbar Spine: MRI on dated 2/12/2022 reported that Marginal osteophytes at multiple level. L3-L4 disk reveals diffuse posterior bulge compressing thecal sac without neural compression. L4-L5 disk reveals broad based posterior central protrusion compressing thecal sac and bilateral L5 nerve root. Facetal arthropathy and ligamentum flavum thickening is noted at this level, contributing to central canal stenosis.

Panchakarma chikitsa^[13]: for *Katigata Vata* case Table No.1

Panchakarma procedure	Methods of preparation	Method of administration	Duration of treatment
<i>Sarvanga Patrapinda Potali Swedana</i>	Leaves of <i>Erenda</i> , <i>Nirgundi</i> , <i>Amlika</i> , <i>Shigru</i> , <i>Karanja</i> etc <i>Vatahara Dravya</i> cooked with <i>Methika</i> and <i>Shatapushpa Churna</i> and tied in cotton cloth in the form of <i>Pottali</i> .	The <i>Pottali</i> is dipped in warm <i>Tila Tailam</i> and applied all over body in 7 positions of <i>Abhyanga</i>	8 Days
<i>Katibasti</i>	Ring shaped cavity made at center of low back by dough prepared by black gram flour.	Warm <i>Tila Tailam</i> and <i>Sahacharadi Tailam</i> in equal quantity is filled in the ring repeatedly up to 45 minutes.	8 Days
<i>Sarvanga Shastishali Pinda Swedana</i>	500 gm <i>Shashtika</i> rice cooked in 1.5-liter <i>Balamoola Kashaya</i> and 1.5 liter of milk and boiled till it becomes semisolid. Tie in cotton cloth in the form of <i>Pottali</i> .	The <i>Pottali</i> is dipped in warm milk <i>Balamoola Kashaya</i> mixture and applied all over body in 7 positions of <i>abhyanga</i> .	8 days
<i>Erendamooladi Niruha Basti</i>	<i>Erendamooladi Kashaya</i> 300ml + <i>Shatapushpadi Kalka</i> 30 gm + <i>Sahacharadi Tailam</i> 50 ml + Honey 50 ml + <i>Gomutra</i> 30 ml + <i>Saindhava</i> 15 gm	Administered in left lateral position with <i>Basti Yantra</i> before meal.	Total 3 <i>Basti</i> for 1 st round of <i>Yoga Basti</i> manner.
<i>Panchatikta Ksheera Basti</i>	<i>Guduchi</i> , <i>Nimba</i> , <i>Vasa</i> , <i>Patola</i> , <i>Kantakari Ksheera Kashaya</i> 200 ml + honey 40 ml + <i>Sahacharadi Tailam</i> 60 ml	Administered in left lateral position with <i>Basti Yantra</i> before meal.	Total 3 <i>Basti</i> for 2 nd round of <i>Yoga Basti</i> manner.
<i>Anuvasana Basti</i>	60 ml of warm <i>Sahacharadi Tailam</i>	Administered in left lateral position with <i>Basti Yantra</i> before meal	Total 10 <i>Basti</i> for two rounds of <i>Kala Basti</i>

Table No. 2: First round of Yoga Basti.

Days	1	2	3	4	5	6	7	8
Type of <i>Basti</i>	A	A	EN	A	EN	A	EN	A

A = *Anuvasana Basti*, EN= *Erendamooladi Niruha Basti*

Table No. 3: Second round of yoga basti.

Days	1	2	3	4	5	6	7	8
Type of <i>Basti</i>	A	A	PN	A	PN	A	PN	A

A = *Anuvasana Basti*, EN= *Panchatikta Ksheera Niruha Basti*

Intervention internal medicines: For Katigata Vata case Table No.4

Medicine	Dose	Duration
<i>Gandervahastadi Kashayam</i>	20 ml BD with equal amount of LWW	15 Days After meal
<i>Rashnadi Gugulu</i>	2 Tab TDS	
<i>Vaiswanara Choornam</i>	5 gm BD	

Table No. 5 BT and AT comparison of Lumber canal stenosis.

Domain	BT	AT
VAS	10	4
Owestry disability Index	45%	20%
6MWT	50m	320m
Pin prick test for both lower limb	Numbness	Normal

DISCUSSION

Lumbar canal stenosis is the most common condition associated with lumbar spine now days and causes changes in the locomotor system. It is highly prevalent in old age, mostly advised for surgical correction. Surgical treatment has excellent effects and remission in symptoms is seen in 64% of patients.^[14] But mostly symptoms reappear after surgery and no complete cure so patients are seeking for substitute treatments such as Ayurveda can be useful. *Doshas* in this case found *Kha Vaigunya* at *Kati Pradesh*, *Sthana Samshraya* occurred in the *Asthi*, *Sandhi*, *Snayus* of *Kati* region. Hence, we have followed line of treatment of *Katigata Vata* for this case study. Ayurvedic interventions relieved the symptoms by doing *Samprampti Bhang*. After *Panchakarma* treatment, the patient got its symptoms relieved.

Patra Pinda Swedana (PPS): Made of *Vatahara Dravyas* and *Sarvanga Abhyanga* with *Tila Tailam* which when applied locally increases the permeability of the skin. *Patra Pinda Sweda* is an unparalleled treatment in painful conditions caused predominantly by *Vata Dosha*, mainly in degenerative diseases. *Patra Pinda Sweda* is mainly performed to relief from pain, inflammation, swelling and stiffness associated with bone, joint and or musculoskeletal pains.^[15]

Shashtikashali Pinda Sweda (SPS): Made of *Shashtika Shali* is prepared with milk and decoction of *Balamoola Kwatha*. In SPS heat, massage and pressure causes nourishment of joints, tendons and stimulate nerve ending. *Shashtika Pinda Sweda* will help to improve circulation, nourishment to the body and it improves the strength of the tissues of bones and muscles.^[16]

Katibasti: Involves retention of warm medicated *Tailam* over the lower part of spine for specific period. It reduces pain, numbness, strengthens the back muscles, reduces stiffness, and increases blood circulation of the local region. It also has nourishment property for muscle of spinal column.^[17]

Basti: *Pakwashya* is the *Moolasthan* of *Vata Dosha*. *Basti* by its action on *Moolasthan* get control on *Vata* all over body. *Basti* is most widely used and highly effective treatment for spine and neurological disorder. *Anuvasana Basti* has *Balya*, *Brimhana*, *Vatarogahara* property and also provides deeper nourishment to deep *Dhatu*s.^[18]

CONCLUSION

From the above case study, we can say that Ayurveda can be opted as alternative treatment in lumbar canal stenosis. The main *Dosha* vitiated is *Vata*. In this case *Katigata Vata* line of treatment has to be considered. In Ayurveda point of view if proper *Panchakarma* protocol performed the *Samprapti Bhang* can be achieved with significant relief from the disease symptoms. From this study we can suggest that *Panchakarma* therapy have effective role in lumbar canal stenosis and can be done in large population.

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