

A Case Discussion on Lumbar Spinal Stenosis

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Abstract

Introduction: Lumbar spinal stenosis (LSS) is an abnormal narrowing of spinal canal at lumbar region, resulting in a neurological deficit that reports pain, weakness, numbness in legs while walking, or the combination thereof. The classical presentation of patient with LSS include lower back pain, radiating leg pain (unilateral /bilateral) that is relieved by rest and bending forward. Low back pain (LBP) is second only to upper respiratory illness as a cause of visiting a physician. The prevalence ranges 10.1-8.9% and mostly affects the age group of 35 to 55years. **Chief complaints of patient:** Fourtytwo-year old female patient came to us with complaints of low back ache, leg pain while walking and inability to sit in erect posture for long duration. She alsohad difficulty in continuing her daily work as a homemaker.

Materials and Methods: Ayurveda explains thisdisease under the title vatavyadhi as katishoola andkatigraha. The treatment available for the disease in modern medicine is not very satisfactory. The present study was aimed at establishing the holistic approach of management by Ayurveda. Therefore,*abhyang*, *swedan*, *katibasti*, *tiktakshirbasti* followed by erandmuladi and sahachar tail basti along with specific *yoga posture* and diet were selected for the present case. **Results:** After treatment patients recovered symptomatically, the backache was very mild and intermittent. In addition, the patient was able to keep erect posture and to carry out the daily routine.

Conclusion: The treatment regimen given was effective and showed substantial improvement in the patient.

Keywords

Lumbar spinal stenosis, Tiktak shirbasti, Erandmuladi, Sahachar tail basti



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INTRODUCTION

Lumbar canal stenosis is abnormal narrowing of spinal canal at lumbar region. It causes restriction to the spinal canal resulting in a neurological deficit may produce symptom like pain, numbness, parasthesia and loss of motor function. Low back pain (LBP) is second major complaint after upper respiratory illness as a cause of visiting a physician in outer patient department.¹ Up to two third of the total population have low back symptom in their lives. Globally, about 40% of people have LBP at some point in their lives², with estimates as high as 80% of people in the developed world. Difficulty most often arises between 20 – 40 years of age and is more common among people aged 40-80 years of age, with the overall number of individuals affected; expected to increase as the population ages. It is a symptom common in various vertebral and extra vertebral diseases. The origin of LBP derives from a pathology localized in the spine, as in the case of degenerative lesion, neoplastic lesion, infections, fractures, metabolic diseases like osteoporosis, or more rarely rheumatologic diseases. The causes of extra vertebral LBP may be renal, pancreatic, gastrointestinal, or of the female genital system. The cause is often unknown; the risk is increased in overweight individuals. Disc disease is most likely to occur at the L4-L5 or L5-S1 levels³. Low back pain that lasts at least one day and limits activity is a common complaint. The diagnosis starts with a careful examination,

followed by consideration for neuroimaging studies and electro diagnostic studies. Examination of back is completed by assessing straight leg raising (SLR) and strength, sensation and reflex activity in legs⁴. Specific management decisions are based on the duration of the symptoms and the presence or absence of neurological deficits.

The classical text of Ayurveda explains these symptoms under the heading of vatvyadhi⁵ and vatadosha imbalance disorders⁶. Katigatvata is the condition which causes katishoola. Kati refers to low back and shoola refers to pain. Basti is established treatment of pain caused by vatadosha therefore it was selected for the present case.

Case Report:

Patient name: ABC

Age and sex: 42 years female

Built: medium

Date of first visit: 21/02/2015

Chief complaints:

1. Low backache and leg pain while walking since two and half years.
2. Radiating leg pain relieved by rest for short time span since two and half years.
3. Inability to sit in erect posture for long duration since six months.

H/O present illness:

Patient was asymptomatic two and half years back. Gradually the patient noticed pain in her lower back region. Although she carried out her daily work as a homemaker after few months, pain got aggravated with moderate stiffness and restriction of movements.

Past history:

Patient is a known case of hypothyroidism and since one year she is on treatment. No history of any major illness.

On examination clinical findings:

The straight leg raising test was of right leg 40° and that of left leg 50°. Walking was painful and other systemic examinations were within normal limits.

Radiological investigations:

MRI scan of spine was suggestive of borderline bony canal and lateral recess stenosis from L3-4 to L4-5. Diffuse posterior disc protrusions at L3-4, L4-5

All other routine investigations were in normal limits.

Modern Diagnosis:

The patient was diagnosed as a case of lumbar canal stenosis.

Ayurvedic diagnosis:

On the basis of clinical presentation patient was diagnosed as a case of katigatvata (katigraha and katishool).

Assessment criteria:

Date of admission: 21/02/2015

Date of discharge: 18/04/2015

TOTAL TREATMENT SCHEDULE

Shodhanchikitsa:

1. Sarvangsnehanaswedana- daily during bastichikitsa.
2. Bastichikitsa-Panchatikshirbasti- 23/02/2015 to 15/03/2015
Kala basti with erandmooladiniruha and sahacharadianuwasana- next 15 days.

Shaman chikitsa:

1. Sthanik(local) karma: Katibasti with til tail- daily in morning
Upanahasweda –daily in afternoon
2. Rasarajeshwarras 1 tab twice a day.
3. Mahayogarajguggul 2 tabs twice a day.
4. Dashmoladiquath 20 ml thrice a day.

Yoga chikitsa:

(initiated and duration increased with tolerance)

1. Bhujangasana–2-5 min.
2. Pavanmuktasana- 1-3 min
3. Suryabhedi pranayama – 7-10 min.
4. Shawasana 10-15 min.

Table 1

Sr No.	Subjective Symptoms	Parameters	Gradations
1	Pricking Pain	Absent	0
		Mild	2
		Moderate	4
		Severe	6
2	Pulling Pain	Absent	0
		Mild	2
		Moderate	4
		Severe	6
3	Stiffness	Absent	0
		Mild	2
		Moderate	4
		Severe	6
4	Subjective Signs Tenderness At Lumbar Region	No tenderness	0
		Grade 1 Says	2
		Grade 2 Winses	4
		Grade 3 Widraws	6
5	SLR Scoring	0	54
		10	48
		20	42
		30	36
		40	30
		50	24
		60	13
		70	12
		80	6
		90	0
6	Pressing Power	Upto 10 Kg	3
		10-20kg	2
		20-25kg	1
		>25kg	0
7	Walking Speed Time Taken To Walk 20 meter	Upto 20 Sec	0
		21-40 Sec	1
		41-60 Sec	2
		>60 Sec	3
8	Sensory Impairment	Present	2
		Absent	0
9	Posture	1. No Complaints	0
		2. Patient Walks Without Difficulty But Experience Difficulty From Getting Up From Squatting.	1
		3. Difficulty To Squat.	2
		4. Difficulty In Climbing Up Stairs.	3
		5. Limping Gait.	4
		6. Can Stand On Both Limbs But With Pain	5
		7. Can Stand Without Touching The Affected Limb On Floor.	6 7
		8. Can Sit On Bed Without Support But With Pain And Difficulty.	8
		9. Lying On Bed With Pain Affected Limb Flexed By Supportive Pillows.	

OBSERVATIONS

Table 2

Sr No.	Signs And Symptoms	Score Before Treatment	Score After Treatment	Percentage of Result
1	Pricking Pain	4	0	100%
2	Pulling Pain	2	0	100%
3	Stiffness	6	2	67%
4	Tenderness At Lumbar Region	4	0	100%
5	SLR Scoring	30	6	83%
	Rt	24	0	100%
	Lt			
6	Pressing Power (Both Lower Limbs)	2	0	100%
7	Walking Speed	2	0	100%
8	Sensory Impairment	0	0	100%
9	Posture	5	1	60%

DISCUSSION

The general principle of treatment of vata dosha is adopted in case of katigatvata. Basti is best treatment for vatvyadhi⁷. Asthi is being the site of vata and basti materials purify purishdharakala. Asthivahastrotas is purified and vitiated vatadosha is subsided by basti karma. According to aachryacharakiktadravyaghrita and kshir should be given in asthivaha strotas⁸. Therefore, panchatiktakshirbasti was selected.

Karma basti schedule was followed with sahacharadi tail⁹ anuvasanabasti and erandmooladiniruha basti¹⁰. Sahacharadi tail pacifies the vatadosha. It possesses the characteristics of analgesic as well as anti-inflammatory activity. Furthermore, it prevents the recurrence of disease. Erandmoola and all other ingredients of this basti are having the property of lightening the gastric fire, relieving pain and stiffness in kati, uru (thigh), jangha (calf region)¹⁰.

Asanas (yoga postures) done with proper breathing practice have the potential to improve the vertebral alignment, increase the range of movement and correct the posture. These all help to slow down the progression of spinal stenosis. Bhujangasana (snake posture) produces extension of lumbar spine therewith strengthening back and arm muscles. This always increases the bodily heat (agni), destroys all diseases¹¹. Pavanmuktasana encourage lumbar spine flexion; also contribute in reducing abdominal fat and to pass excess of gases. Surbhedi pranayama is mind and body relaxing breathing exercise. Sabasana is mandatory after performing every set of asana. This calm and relax posture is beneficial to mind and body therefore the Asanas are explained as 'shtiram sukham aasamam'¹².

CONCLUSION

According to the observations in the present study, this can be safely concluded that

Lumbar canal stenosis can be compared with katishoola on the basis of symptoms. The results replicate the original study and showed substantial improvement for the patient as she improved her function. (Table no. 1 and 2) Hence, the Ayurveda management regimen used is effective on the disease. However, further work should be done by conducting clinical trials on large samples to draw the final conclusion.

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