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Research Article

AYURVEDIC MANAGEMENT OF LUMBAR SPONDYLOSIS WITH SPONDYLOLISTHESIS: A CASE REPORT

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ABSTRACT
Lumbar Spondylosis (LS) is defined as degenerative condition affecting the discs, vertebral bodies and associated joints of the lumbar spine. Low back pain affects approximately 60 – 85 % of adults and LS is responsible for about 10 % of all the back pain conditions. The present article deals with a case diagnosed lumbar spondylosis with spondylolisthesis of L5 over S1 and got advised for surgery. The Ayurvedic diagnosis of kati graha was made and udwartana, patra pottali pinda sweda and yoga vasti schedules were prescribed. Two assessments were taken before and after treatment on Oswestry disability index and Roland-Morris disability questionnaire. Patient showed improvement of 52 % on Oswestry disability index and 47.8 % on Roland-Morris disability questionnaire. Vasti plays a pivotal role in the management of kati graha. Ayurvedic panchakarma procedures along with internal medicines give hope as non invasive intervention in the management of lumbar spondylosis with spondylolistheis.
Keywords: Lumbar spondylosis, Spondylolisthesis, Kati graha, Oswestry disability index, Roland-Morris disability questionnaire, Low back pain

INTRODUCTION

Lumbar Spondylosis (LS) is defined as degenerative condition affecting the discs, vertebral bodies and associated joints of the lumbar spine. Low back pain affects approximately 60 – 85 % of adults during some point in their lives and LS is responsible for about 10 % of all the back pain conditions.[1] Surgical procedures like spinal decompression, nerve root decompression and spinal fusion are mostly providing short term outcomes, yielding conflicting results and questionable patient benefit in degenerative conditions of the spine. Most patients with back pain will not benefit from surgery.[2] One previous study correlated LS with 'Kati vata'.[3] 'Kati graha' explained as a separate disease in Ayurvedic classical text 'Gada nigraha', can be correlated with LS because of similarity in clinical manifestation and pathogenesis of both conditions. Unfortunately there is no gold standard, concrete treatment approach available in Ayurveda to the diverse range of patient presentations of Kati Graha / LS.[4] Even though lumbar spondylosis cases are common in Ayurvedic practice the present case was challenging as the patient came for Ayurvedic treatment as a last option and to avoid surgery, bed ridden at the time of admission and having multiple associated pathological conditions like diabetes, hypertension, osteoporosis and osteoarthritis of both knee joints. Here we are reporting a case of Lumbar spondylosis with spondylolisthesis of L5 over S1 diagnosed as 'Kati graha' according to Ayurveda. Written informed consent was obtained from the patient for the publication of this case report.

Case Description

A 55 years aged female patient residing at vadodara, India house wife, came to parul sevashram hospital, vadodara, Gujarat, India, (08.08.2014) with the complaints of, low back ache, pain in both knee joints, burning sensation in both the heels and loose motions intermittently. Patient was unable to walk, stand and do her regular activities without support because of severe low back pain. These problems have been developed gradually and progressive in nature since 06.08.2014. Patient has been suffering with low back ache since 13.06.2004 with intermittent exacerbations and remissions. Patient complained that the low back pain sometimes radiates to both the hips, back of the thighs and legs with severe intensity. The nature of the pain is aching and increases with movements and decreases with rest or in supine position. During this period patient took allopathic consultation and treatment but didn't get relief. She is advised for surgery (spinal fusion) but she doesn't want to proceed with surgical intervention. To avoid surgical intervention and for pain relief she opted Ayurvedic treatment. Patient was non smoker, non alcoholic and not having allergy to any drug or food item. No past history of any major medical illness found. No family member had similar problem. She underwent total abdominal hysterectomy with salpingo-oophorectomy on 2002. Patient is known diabetic (since 2010), hypertensive (since 2002) and having osteoarthritis, she has been taking hypoglycemic and anti hypertensive drugs. Blood pressure was 150/90 mm of Hg. At the time of examination, patient was found anxious and came by wheel chair. Palpation revealed tenderness at lumbar region and muscle spasms were noted at back of thighs during movements of the hips. Range of movements was restricted (flexion, extension, lateral bending, rotation etc) at hip and both of the knee joints. Straight leg raising test was not performed due to severe pain. Crepititions were found in both knee joints. There was no tingling, numbness or weakness of muscles in lower extremities and no bowel / bladder incontinence were reported. Hematological reports (total erythrocyte count, total leukocyte count, differential leukocyte count and platelet count and erythrocyte sedimentation rate) were within normal limits (23.08.2014). Fasting blood glucose was 188 mg/dl and post prandial blood glucose level 292 mg/dl was found (18.08.2014). Peripheral smear for malaria parasite test was found negative (23.08.2014). CT (Computed Tomography) scan of lumbo-sacral spine revealed, grade 1 spondylolisthesis of L5 over S1 and reduced inter-vertebral disc space between L5-S1. Marginal osteophytes noted involving lumbar spine and 6 mm calculus noted in mid pole of left kidney (26.08.2014).

Diagnosis and Assessment

Lumbar spondylosis was diagnosed by the presence of pain, stiffness, restricted movements at lumbar region and by CT

scan findings like, disc degeneration in between L5 – S1, spondylolisthesis of L5 over S1 and osteophytes formation at lumbar spine. A criterion of assessment was based on the scoring of Oswestry low back pain disability questionnaire and Roland-Morris low back pain and disability questionnaire. The Oswestry low back pain disability questionnaire also known as 'the Oswestry Disability Index' is an extremely important tool to measure patient's functional disability and it is considered as the 'gold standard' of low back functional outcome tools. This is composed of 10 sections (Questions). Each question is rated on 6 point (0-5) scale measuring activities like, personal care, sleep, social life etc;[5] The Roland-Morris low back pain and disability questionnaire contains 24 statements and patient should mark the sentences which describes to him on that particular day of measurement.[6] Total two assessments were carried out before treatment and at the time of discharge on both of these scales. The patient was initially diagnosed as having 'Saama kati graha' according to Ayurveda.

Treatment

Treatment primarily conservative in nature mainly focused on to relieve the pain at low back region and at both knee joints. The associated pathological conditions like diabetes and hypertension were also managed. Treatment initially started with rookshana procedure like udwartana later snehana and swedana (patra pottali pinda sweda) followed by two yoga vasti schedules with two days gap in between them (Table 1).

Table 1: Intervention

Duration	Medicine	Dose	Frequency
08.08.2014 to 15.08.2014	1.Dhanwantaram 101 soft gels	250 mg × 2 cap	Thrice a day
	2. Trayodashanga guggulu	500 mg × 2 tab	Thrice a day
	3. Maha rasnadi kwath	100 ml	Twice a day
16.08.2014 to 06.09.2014	1. Cardostab / Sarpagandha Ghana vati	500 mg × 2 tab	Twice a day
	2. Sudarshan Ghana vati	500 mg × 2 tab	Thrice a day
	3. Samshamani vati	500 mg × 2 tab	Thrice a day
	4. Diarid tab / Mamejava Ghana vati	500 mg × 2 tab	Thrice a day
Panchakarma intervention			
08.08.2014 to 17.08.2014	Udwartanam with Kola kuluthadi choornam		
	Upanaha sweda with Kottamchukkadi choornam on both knee joints		
19.08.2014 to 26.08.2014 (Yoga vasti schedule – 1) and 29.08.2014 to 06.09.2014 (Yoga vasti schedule – 2)	1. Patra pottali pinda sweda with Kottamchukkadi tailam		
	2. Bashpa sweda (in steam chamber)		
	3. Niruha vasti (A. Saindhava lavana - 6 g B. Madhu - 100 ml C. Maha Narayana tailam - 200 ml D. Satapushpa kalkam - 25 gm E. Erandamoola kwatha - 500 ml F. Gomutra arka - 100 ml) (or) 4. Anuvasana vasti with Pippalyadi anuvasana tailam – 100 ml		

DISCUSSION

Kati graha is a vata vyadhi showing features like sosha (degeneration), stambha (stiffness) and shula (pain). The pain is produced due to stiffness which is produced by saama (with ama dosha) or niraama (without ama dosha) vayu and its movement in to kati (lumbar region) hence this suggests of presence of dhatu kshayatmaka (degenerative) and marga avarodhaka (obstructive) type of samprapti (pathology). Eranda muladi yapana vasti is beneficial in the management of kati graha.[7] Patient had the vata prakopa lakshana's[8] like, ushnakaamita (likes hot things), nidra nasha (sleeplessness), balopaghata (fatigue), mala sanga (constipation), aadhmana (abdominal bloating), aatopa (borborygmi), dainya (depression) and shoka (weeping); based on these lakshana's initial diagnosis of 'vata vyadhi' was made. Saama vata lakshana's[9] like, vibandha (constipation), agni saada (loss of digestive capacity), aantra kujana (borborygmi), vedana (pain) and aggravation during the time of cloudy weather and at night were present in the patient. Based on these features the diagnosis of 'Saama kati graha' was established and for ama pachana purpose rookshana procedure like udwartanam with kola kuluthadi choornam was selected. After ten days of udwartana, patient felt lightness in body, increased appetite and relief in low back pain. After attaining niraamavastha by udwartana, snehana and swedana by patra pottali pinda sweda was started by using kottam chukkadi tailam. Upanaha sweda with kottam chukkadi choornam is done on both knee joints to manage pain and swelling. Diabetes and hypertension were managed with diarid and cardostab tablets respectively. Sudarshana Ghana vati and samshamani vati were given to treat intermittent night time fever. Dhanwantaram – 101 soft gels, Maha rasnadi kwath and trayodashanga guggulu were prescribed to pacify vata dosha. Along with patra pottali pinda sweda and bashpa sweda, two yoga vasti schedules were prescribed with two days rest between the two schedules. Each yoga vasti schedule contains eight vasti's (five anuvasana vasti's and three niruha vasti's). Yoga vasti schedule starts with anuvasana vasti followed by six vasti's (three niruha vasti's and three anuvasana vasti's alternatively) and ends with anuvasana vasti. At the time of discharge patient was very happy as she was able to walk, stand and do her regular activities without pain and support. At the time of discharge (06.09.2014), Maha tiktaka ghrita was prescribed as shamana snehapana along with other internal medicines (Table 1). During follow up on 21.09.2014, patient reported relief in pain at low back region but not in both knee joints. Before treatment, total score on Oswestry low back pain disability questionnaire was 50 (100 % disability) and at the time of discharge the score was 24 (48 %). On Roland-Morris low back pain and disability questionnaire, the before treatment score was 23 and at the time of discharge it was reduced to 12. Patient showed improvement of 52 % on

Oswestry low back pain disability questionnaire and 47.8 % on Roland-Morris low back pain and disability questionnaire. Better improvement was observed in items like 'Pain intensity', 'personal care', 'sleeping', 'sitting' and 'standing' on Oswestry disability index. During the course of treatment two times patient got fever during night time and it was managed by sudarshana Ghana vati and samshamani vati. The present case report substantiates the classical Ayurvedic diagnosis of 'Saama kati graha' and by udwartana the saamavastha can be converted in to niraamavastha. 'Niraama kati graha' can be managed by vasti procedure along with snehana and swedana. Patients advised for surgery for the conditions like lumbar spondylosis and spondylolisthesis can be managed by Ayurvedic panchakarma procedures along with internal medicine. Further randomized controlled trials with large sample are required to substantiate the present findings.

CONCLUSION

Saama kati graha and Niraama kati graha are clinically diagnosable conditions. Udwartana like rookshana procedures are helpful to bring niraamavastha from saamavastha in kati graha patients. Vasti plays a pivotal role in the management of kati graha / lumbar spondylosis. Patients advised for surgery to manage lumbar spondylosis with spondylolistheis can get benefit with Ayurvedic panchakarma procedures along with internal medicines.

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