

CURBING THE PROGRESSION OF DEGENERATIVE LUMBAR SPONDYLOSIS (*KATI GRAHA*) BY HERBOMINERAL DRUGS AND *KATI BASTI*: A CASE STUDY

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ABSTRACT

Today lower back pain has become the most common musculoskeletal symptom and represents a major socio economic burden. Epidemiologically around 80% of the population experiences back pain during their lifetime specially in late 40's. lower back pain usually originates from the lumbar spine. In Classical texts of *Ayurveda* it is well correlated as *kati shoola or kati graha*..Here is a case of 45 year old hypertensive patient having chief complaint of severe lower back pain with stiffness, ch. Constipation, loss of appetite for 2 years. She was unable to perform her daily routine work. she took NSAIDs, but the symptoms got relapsed after drug withdrawal. On radiological

examination X-ray LS spine showed reduced disc spaces at L4/5 and L5/S1 level with multi level end plate changes & osteophytes, suggestive of lumbar spondylosis. In *Ayurveda*, procedure of retaining warm medicated oil within a specially ring shaped frame on lumbosacral region is known as *kati Basti*. It is form of fomentation of *kati pradesh*. Assessment was done on the basis of Oswestry's Low Back Pain Disability Questionnaire. Before treatment her Oswestry's disability scoring was 30 and after treatment her score was reduced to 6. Thus the treatment module shown here, gave the significant relief in the symptoms by 81.37%.

KEYWORD: Lumbar Spondylosis, *Katishoola*, *Katibasti*, *Kati Graha*.

INTRODUCTION

Nowadays Overexertion and Sedentary lifestyle added a major contribution to Low back pain. Global burden of Disease studies defined LBP as pain in the area on the posterior aspect of the body from the lower margin of the 12th ribs to the lower gluteal folds with or without pain referred into one or both lower limbs that lasts for at least one day.^[1] Low back pain can be classified by the underlying causes as mechanical, non mechanical or referred pain. Around 95% of LBP is mechanical. Mechanical pain in lower back is due to an anatomical abnormality, generally as a result of degenerative changes in the lumbar spine that increases with physical activity and relieved by the rest while systemic disease like infection neoplasm and spondyloarthritis accounts only for one 1- 2% of LBP.^[2] The most common cause of mechanical LBP is degenerative changes occur in the intervertebral disc and the facet joint it generally increases with age and is often asymptomatic. With the advancement in treatment modalities maximum patients having lower back pain got relief by 6 weeks. In some patients sclerotomal pain that radiates buttocks and lower extremities, also develops due to the impingement of nerve. Surgical interventions like Spinal decompression, nerve root decompression and spinal fusion are mostly providing the symptomatic relief for short term but eventually it most of the patients have don't show benefit after surgery. Low back pain in *Ayurveda* is well correlated as *kati shoola*. In *Ayurveda* classics *katipradesh* is described as an important seat of *vata dosha*.^[3] *Acharya charak* mentions a disease *Trikaprushtha graha* under *vata Nanatmaja Vikara*, which is quite similar to lumbar spondylosis. According to *Gadanigraha* when *vata* is affected by *Ama* and gets lodged in *kati Pradesh*, it exhibits the symptoms of *katigraha*.^[4] *Acharya Bhava Prakash* also has explained *Kati graha* and *Trika Shoola* as a separate disease. He has defined *Trika* the joint between two hip bones and spinal column, has explained *Trika Shoola* Lakshana, and its management in *Madhyamakhand* 24th chapter.^[5] There is no any impeccable treatment protocol for such disparate range of patients complaining this type of clinical symptoms. We are reporting a case study of curbing the progression of degenerative Lumbar Spondylosis (*Kati Graha*) and it's management through *Ayurveda*.

CASE REPORT

A 45 year old obese, hypertensive female patient with chief complaints of severe lower back pain, chronic constipation, loss of appetite for around 2 years, came to OPD of *kayachikitsa* department, Govt Ayurved College Hospital Patna, Bihar. She was unable to perform her daily routine work. she took anti inflammatory and muscle relaxants for temporary relief but

the symptoms got relapsed after drug withdrawal. The progression of symptoms got worsen with course of time. After losing all hopes and taking umpteen treatments she visited us.

On physical examination the patient presented the negative straight leg raising test. On Radiological examination; X-ray LS spine shows reduced disc spaces at L4/5 and L5/S1 level with multi level end plate changes & osteophytes, suggestive of lumbar spondylosis.

General Examination

Temperature : **98 °F**

Lymph nodes : **Non-palpable**

Respiratory rate : **18/min**

Blood pressure : **160/80mm Hg**

Examination of hip joint & Spine

Inspection

- Antalgic gait.
- No asymmetry in legs
- Obese, highly muscular
- No changes in skin, No muscle wasting.

Palpating

- Mild raised temperature in pain areas.
- Tenderness over lumbosacral joint.

Movement

- Forward bending is very painful with restrictions.
- Backward bending is very restricted.
- Straight leg test is negative

MATERIALS AND METHODS

Sources of data:- Diagnosed patient is selected from the OPD of kayachikitsa department, Govt Ayurved College, Patna.

Various *Ayurvedic Samhitas*, database such as PubMed, Google Scholar, DHARA, and related research works were searched and reviewed.

Study design :-Single case study. Consent was obtained from patient prior to the treatment.

METHODS

Patient was advised to stop the drugs that she was using before except for anti hypertensive drug. Here we have opted *katibasti* as panchkarma procedure. *Katibasti* is a type of *snigdha sweda*. It is a procedure of applying heat to the lumbosacral region by retaining warm medicated oil within a specially formed ring shaped frame (made by *Maasha*) on the area. Medicated oil is heated up to tolerable condition. After pouring the oil, a gentle massage was performed in the affected region (within frame) for 10 minutes. The medicated oil changed as it gets cooled after sometime. The complete procedure of heating low back continued for half an hour. And then oil was soaked with cotton and the frame was removed. After removing the frame, a message was continued by moving the palms in circular fashion on the lambosacral region. After the massage, the affected region was subjected to *sthanik Swedana* through cotton towel socked in boiling water. This procedure was continued for 5 minutes. It completes the procedure of *katibasti*.

Katibasti was applied for 15 days with *Bala tail* and *Mahanarayan tail* in alternate manner. After 15-20 minutes she was advised to take bath with Luke warm water. After the *Panchkarma* procedure, internal medicine was prescribed for 45 days.

Tab no -01: Oswestry's Low Back Pain Disability Questionnaire.^[6]

<p>Section 1 – Pain intensity</p> <ol style="list-style-type: none"> 0. I have no pain at the moment 1. The pain is very mild at the moment 2. The pain is moderate at the moment 3. The pain is fairly severe at the moment 4. The pain is very severe at the moment 5. The pain is the worst imaginable at the moment 	<p>Section 2 – Personal care (washing, dressing etc)</p> <ol style="list-style-type: none"> 0. I can look after myself normally without causing extra pain 1. I can look after myself normally but it causes extra pain 2. It is painful to look after myself and I am slow and careful 3. I need some help but manage most of my personal care 4. I need help every day in most aspects of self-care 5. I do not get dressed, I wash with difficulty and stay in bed
<p>Section 3 – Lifting</p> <ol style="list-style-type: none"> 0. I can lift heavy weights without extra pain 1. I can lift heavy weights but it gives extra pain 2. Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed eg. on a table 3. Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned 4. I can lift very light weights 5. I cannot lift or carry anything at all 	<p>Section 4 – Walking*</p> <ol style="list-style-type: none"> 0. Pain does not prevent me walking any distance 1. Pain prevents me from walking more than 2kilometres 2. Pain prevents me from walking more than 1 kilometre 3. Pain prevents me from walking more than 500 metres 4. I can only walk using a stick or crutches 5. I am in bed most of the time

<p>Section 5 – Sitting</p> <ol style="list-style-type: none"> 0. I can sit in any chair as long as I like 1. I can only sit in my favourite chair as long as I like 2. Pain prevents me sitting more than one hour 3. Pain prevents me from sitting more than 30 minutes 4. Pain prevents me from sitting more than 10 minutes 5. Pain prevents me from sitting at all 	<p>Section 6 – Standing</p> <ol style="list-style-type: none"> 0. I can stand as long as I want without extra pain 1. I can stand as long as I want but it gives me extra pain 2. Pain prevents me from standing for more than 1 hour 3. Pain prevents me from standing for more than 3 minutes 4. Pain prevents me from standing for more than 10 minutes 5. Pain prevents me from standing at all
<p>Section 7 – Social life</p> <ol style="list-style-type: none"> 0. My social life is normal and gives me no extra pain 1. My social life is normal but increases the degree of pain 2. Pain has no significant effect on my social life apart from limiting my more energetic interests eg, sport 3. Pain has restricted my social life and I do not go out as often 4. Pain has restricted my social life to my home 5. I have no social life because of pain 	<p>Section 8– Travelling</p> <ol style="list-style-type: none"> 0. I can travel anywhere without pain 1. I can travel anywhere but it gives me extra pain 2. Pain is bad but I manage journeys over two hours 3. Pain restricts me to journeys of less than one hour 4. Pain restricts me to short necessary journeys under 30 minutes 5. Pain prevents me from travelling except to receive treatment

***Note:** Distances of 1 mile, ½ mile and 100 yards have been replaced by metric distances in the Walking section.

Table no -02: Interpretation of Oswestry's disability score.^[7]

S.No	Score	Disability level
1	0-4	No disability
2	5-14	Mild disability
3	15-24	Moderate disability
4	25-34	Severe disability
5	35-50	Completely disabled

Table no -03.

1 st day to 15 th day	1.5 months of internal medication
Kati Basti with <i>Bala tail</i> and <i>Mahanarayan tail</i>	<ul style="list-style-type: none"> • <i>Mahavatvidhwanshak Rasa</i> 500 mg BD <i>Trayodashang guggulu.</i> 500 mg BD <i>Rasa raj Rasa.</i> 125 mg BD <hr/> <p style="text-align: center;"><i>With luke warm water</i></p> <ul style="list-style-type: none"> • <i>Dashamoolarishtham.</i> 20 ml +20 ml 3 times a day • <i>Mahavishgarbh tailam</i> for local application • <i>Ksheerbala soft gel capsules</i> 2 cap BD with milk • <i>Ostoact tablets</i> 1 tab OD with milk

RESULTS

Table no 04

S.No	Signs & symptoms	Before treatment	After treatment	Result %
1	Pain intensity	5	1	80%
2	Personal care	4	0	100%
3	Lifting	3	1	66%
4	Walking	4	1	75%
5	Standing	4	1	75%
6	Sitting	1	0	100%
7	Social life	4	1	75%
8	Travelling	5	1	80%
	Total score	30	6	Avg = 81.37%

DISCUSSIONS

Since the patient is diagnosed as Lumbar spondylosis which is generally due to the degeneration of lumbar spine. It is well correlated as *katigraha* in *Ayurveda*. Here we have opted *katibasti* as a *panchkarma* procedure after proper *deepan Pachan*. *Kati Basti* is a *Bahirparimarjan chikitsa* which helps in alleviating *sthanika vata* and produces the *Bruhan* properties at the *kati* region. Talking about *brihatrayees*, *katigraha* is mentioned as *vata Nanatmaja vyadhi* and nothing much is mentioned in detail. *katibasti* is indicated in painful conditions of lower back.^[8] The procedure is proved to be effective in diseases like lumbar spondylodis, spondylolysthesis, disc prolapse, ankylosing spondylitis, Rheumatoid Arthritis, Sacroileitis, and lumbosacral strain.^[9]

Probable mode of action of drugs

Mahavatavidhwanshaka Rasa: It is a herbomineral preparation contacting heavy metals hence should be taken under strict medical supervision. It has vatakaphahara, vednasthapana, shoolaprashmana, Tarpan, balya, Rasayana, Srotoshodhana and also improves the quality of Asthidhatu and reformation of tissue.^[10]

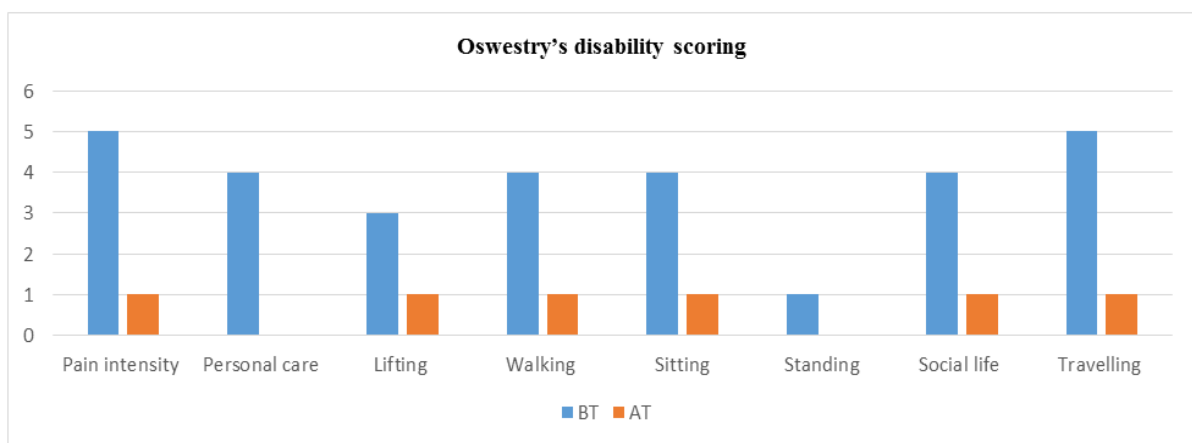
Rasa raj Rasa: It is a mineral based herbal medicine can be used in the treatment of neuromuscular conditions such as paralysis, hemiplegia, locked jaw, facial palsy, hearing defects.^[11] It also helps in strengthening the nerves and muscles.

Tryodashang guggulu is a guggulu based herbal drug that provides strength to nerves, bone joints, muscle and ligaments.^[12] **Dashamool kwatha** pacifies mainly *vata* dosha and also normalises *kapha* dosha functions. It is indicated in chronic disease like arthritis, which helps to boost immune system and prevents headache and fatigue.^[13] **Mahavishgarbh tailam.**^[14]

This tail is used in all types of vata vikara and is best indicated in Gridhrasi, Mahavat, sarwangwat. It Removes the stiffness, dandaptanak etc.

Ksheerbala capsules:- It is used to treat broad spectrum of disease of Musculoskeletal disorders like sciatica, spondylosis, CNS disorders and insomnia.^[15] It helps to treat neuromuscular and Neurodegenerative disorders.

Ostoact tablets:- It is a unique proprietary formulation containing optimal calcium and natural mineral supplementation. It is very useful in osteoporosis and degenerative conditions of bone.^[16]



Graph -01

CONCLUSION

Degeneration of lumbar spine with advancement of age, mechanical exertion and sedentary lifestyle have added a major prevalence to lumbar spondylosis. According to classics, Lumbar spondylosis is correlated to *katigraha* or *Trikprushtha graha*, but here the presenting symptoms of patient is of *vatakapha* dominant. Although *katigraha* is not explained in detail in any of *classical Samhitas*. In this particular case study, by applying the above treatment protocol, we see significant and promising results of about 81.37% relief achieved in patients and it also prevented the progression of this particular degenerative disorder. Since it is a single case study, so it is essential to conduct large sample studies for better inference of results and for establishment of this treatment protocol.

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