

Role of *Patrapinda Sweda* and *Matrabasti* in management of *Katishoola* (Low back pain)- A case study

Case Report

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Abstract

Low back pain (LBP) is the most common chronic musculoskeletal disorder. It has symptoms like pain, swelling, stiffness or limited range of motion and these symptoms lie very close to the entity *Katigraha* & *Katishoola* in *Ayurveda* which is coming under *Vatavyadhi* (diseases of Nervous system and musculoskeletal system). The Contemporary management has little effect on the disease. It is an important clinical, social, economic and public health problem affecting the population indiscriminately. It is a disorder with many possible aetiologies, occurring in many groups of the population, and with many definitions. The prevalence of LBP in Indian population has been found to vary between 6.2% (in general population) to 92% (in construction workers). This problem supposedly has a favourable natural history, although it can markedly disable, and has challenged the health care providers. Understanding the role of different medical systems in the management of backache, it is important for the cost-effective management of the disease. Ayurveda treatment modality, exercise, regimen may result in low backache recovery. Here in this article, the diagnostic and treatment aspects are discussed and applied critically using *Ayurvedic* therapy.

Key Words: Low back pain, *Katishoola*, *Patrapinda sweda*, *Matrabasti*, *Panchakarma*.

Introduction

Kati Shoola (LBP) is a disease which is mainly caused by vitiation of *VataDosh*. Some ancient texts also describe *Kati Shoola* as a symptom of some disorders such as *KatiGraha*, *TrikaGraha*, *PrushtaGraha*, *KatiVayu*, *TrikaShoola*, *PrushtaShoola*, *VatajaShoola*, *TrikaVedana*, and *GrudrasiVata*. And it is mainly caused due to *Vata Prokopaahara* (diets), *Vihara* (regimen) and *Abhighata* (infliction of trauma) [1].

It can be correlate with Low back pain. According to ICD 10, classification of low back pain comes under 2021 ICD-10-CM Diagnosis Code M54.5 criteria. Clinically it is defined as Acute or chronic pain in the lumbar or sacral regions, which may be associated with musculo-ligamentous sprains and strains; intervertebral disc displacement; and other conditions. [2] Sometimes pain in the low back, thighs, which radiates into the buttocks, muscle spasms, leg pain, or weakness, tight hamstring muscles, and irregular gait can be seen.

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Many treatment regimens are described classically to treat patients suffering from *Katishoola*. like *snehana*, *swedana*, *Basti* etc. *Acharya Charaka* has explained, 13 types of *swedana* in *Swedadhyaya*. *Patrapinda Sweda* is a form of *swedana* which is included under the category of *Pindasweda*. Application of the heat and there by inducing perspiration by using heated pack of special herbal leaves like *eranda*, *arka*, *nirgundi* etc. is known as *Patrapinda sweda*. Following *Abhyanga* (Oleation) procedure may be subjected to *swedana* procedure by the method of *Patrapinda sweda*. As the oil is applied before the *swedana* procedure, this belongs to the category of *snigdha- ushnasweda*. [3]

As we understood this pathogenesis in broad spectrum due to above etiological factors there is disturbance in *Katipradesha* which is the *Vatasthana* occurs due to *asthidhatuvaishamyata*. As we know that *Bastichikitsa* is main therapy of *Vatadosha* also known as *Ardhachikitsa*. It is directly act on *Vatasthana* which regulates the *Apanvayu* [4]. So, to breakdown this pathogenesis (~*Sampraptivightana*), In the present study, we have selected *panchakarma* therapy i.e., *snehana* (oleation), *swedana* external application of *Patrapinda sweda* along with internal administration of *Matrabasti* in management of *Katishoola*.

Case report

A 49-year-old woman, who attended the Outdoor Patients, department of Panchakarma, R.K

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University Ayurvedic college Hospital, Rajkot, for treatment of her lower back pain., who presented with complaints of Pain, swelling in low back since 1years. Sometime it worsens after daily routine activity. On examination, mild Swelling, Tenderness were present in lumbar region and showing painful movements with SLR 60 Degree. She had no history of trauma and her symptoms were increased gradually.

Motor and sensory functions were normal in right and left legs and both deep and superficial reflexes were also normal. All details of the patient including present history, past history, treatment history, dietary habits, lifestyle, and addictions were recorded before the treatment. Necessary examinations and X-rays in lumbo-sacral region were done and finding was recorded. Visual analogue Scale was assessed for pain and WOMAC Scale was assessed for pain, Stiffness and physical function of the Low back. Patient was kept on a normal diet without any specific restrictions and was advised not to lift any weight. The patient was treated with *Ayurvedic* treatment regimens for 14 days. Details are as below.

General examination

General built was Normal, Blood pressure was 130/90 mmHg, Respiratory rate 18-20 /Min, BMI 31kg/m².

Table 1: Examination

1	Pain	low back pain Pain radiates bilaterally up to the thigh only.
2	Stiffness	Movement restricted due to stiffness.
3	Numbness/ Paraesthesia	Mild Numbness in both leg
4	SLR Test	60 degree
5	Gait	Normal
6	Sensory loss	No sensory loss
7	Weakness	Moderate weakness on movement of thigh, Dorsi flexion of foot and plantar flexion was normal
8	Reflex	Knee, Hamstring, Ankle Reflexes normal
Range of movement		
1	Flexion	60 ⁰
2	Extension	35 ⁰
3	Lateral Flexion	20 ⁰

Table 2. Systemic Examination

Central nervous System	Normal
Respiratory System	Chest Clear, No added sound
Cardiovascular System	Trachea centrally placed, no dilated or engorged veins, no scars or other visible pulsation, Apical impulse felt, S1 S2 sound heard, no Thrill-Murmur.
G.I. Examination	P/A Inspection: No abnormality seen Palpation: Soft abdomen, Abdomino-thoracic movement is Normal, No bulging during expiration, No Hernia, No splenomegaly/hepatomegaly.

AshatvidhaPariksha(~eight-fold examination)

Nadi (~pulse) was 86 beats/min, *Mala* (~stool) was *Asamyak* (~constipated, 1 time a day, unsatisfactory bowel habit), *Mutra* (~urine) was *samyak*, *Jeeva* (~tongue) was *Niram*(~uncoated), *Shabda*(~speech) was *Spashta*(~clear), *Sparsha* (~Touch) was *anushnasheeta*(~normal), *Druka* (~eyes) was *Prakruta* (~no pallor and no Icterus), *Akruti* (~body structure) was *uttama*(~obesity with high body weight).

Dashavidha pariksha(~Ten-fold examination)

Prakruti was *Vatakaphaj*, *Sara* was *Madhyam*, *Samhanana* was *Madhyam*, *Pramana* was *Madhyam*, *Satmya* was *sarvaras*, *Satva* was *Madhyama*, *Aharashakti* was *hina*, *jaranashakti* was *hina*, *Vyayamshakti* was *Madhyama*, *vaya* was *Madhyamavastha*.

Nidanapanchaka(~diagnostic quintet)

- **Nidana:** Due to the intake of *vatakara ahara*, *vihara*, the *vatakara nidanas* like *ativyayaama*, stressfull activities, etc. leads to vitiation of *Vatadosha*, which is confined to its own location.
- **Purvarupa:** The occurrence of symptoms at minimal severity was the *Purvarupa* for *vatavyadhi*. So, here in the context of *katishoola* the occasional occurrence of back pain, stiffness was the *Purvarupa*. [5]
- **Rupa:** The excited *vata* spreads to the *katipradesha* i.e., the *snayu*, *peshi*, *asthi* of *katipradesha* occasionally causing pain, stiffness at the *katipradesha* and restricted range of movement of *kati*. [6]
- **Samprapti:** The vitiated doshas get residence at the afflicted places in the body. The various *Vatakara Nidana* specially those giving on due strain to the *katipradesha* produces *srotovigunata* in the channels. The vitiated *vatadosha* undergoes localization at the site of *kha-vaigunya*. The *dosha* vitiates the *dushya* (*asthi*, *snayu*, *peshi*, *majja*) by confining itself to the *katipradesha*. Therefore symptoms of pain and stiffness are occurring in a mild form distinctive of *poorvaroopa* of *vatavyadhii.e.katishoola*. [7]
- **Vyaktaavastha:** The *dosha* vitiates the *dushya* (*asthi*, *snayu*, *peshi*, *majja*) by confining itself to the *katipradesha* and manifest as a disease. This stage is marked by the presence of pain, stiffness and restricted range of movement. [8]
- **Bhedavastha:** As the negligence continues the disease proceeds into more severe forms due to extensive *dhatukshaya*. It finally attains *asadhyata* in this stage. This stage can make the condition worse by manifestation of degenerative changes in the *dushyaas* (*asthi*) which are irreversible. [9]

Table 3: Samprapti Ghatakas of Katishoola

Dosha	VātaVyanaApana (Vrudhi)
Dushya	Dhatu Asthi, Mamsa, Majja UpadhatuSnayu
Udbhavasthana	Pakwashaya
Vyaktasthana	Kati
Sancharasthana	Sharira
Srotas	Asthivaha

Investigations

Haemoglobin was 14.2 %, White blood count was 9500 Cells/Cu mm, ESR was 15 - mm in 1hr, Blood urea nitrogen was 9.89mg/dl, Serum Creatinine was 0.82 mg/dl, uric acid was 6.11 mg/dl, and calcium was 9.67 mg/dl. Other blood investigations like RA, ASO, CRP were done to rule out other disease conditions.

X-Ray lumbo sacral spine AP-LAT View

Degenerative changes in lumber vertebra, osteophytes developed in L3, L4, L5vertebrae.

Diagnosis based on the sign and symptom, VAS score, WOMAC scale, X-ray and blood investigation.

Materials and Methods

Snehana and swedana are the main line of treatment in *vatavyadhi*, and in *katishoola* vata is the prime factor for pain. So treatment planned was *Snehana* (oleation)in the form of *Abhyangha*(massage) externally and internally *Matrabasti* (Oil enema). And *Patrapindasweda* as *swedana* was planned for the case. Assessment of condition of the patient before and after treatment was done based on Subjective parameters (pain, stiffness, swelling) and Objective parameter (Visual analogue scale and WOMAC)scale for pain and physical activity grading, to evaluate efficacy of the treatment. Based on the assessment parameters, significant improvement was seen in the subjective symptoms and pain scale after the completion of a schedule of 14 days of treatment and follow up after 1 month. The physical activity grading also improved significantly.

Treatment Protocol

Snehana and *Swedana* are the main treatment planned for this case. *Snehana* as *Abhyanga* with *Ksheerabala taila* , *swedana* with *Patrapinda sweda* for 7 days. *Abhyantara Snehana Matrabasti*-Administration of Medicated oil through the rectal route . In this case study, *ksheerabala taila* was used for *Matrabasti* for 7 days.Treatment done for a total period of 14 days. The ingredients of above-mentioned medications are given below in the tables.

Table 4: Interventional Schedule

Days	Treatment	Durations	Dose & Drugs
1 ST Day to-7days	Abhyanga and Mrudusweda	45 min	Ksheerabala Taila 100ml
1 ST Day to-7days	Patrapinda sweda	45 min	Vatahara leaves like Eranda, Nirgundi, Arka Ksheerabala taila
8 th Day to-14 th days	Abhyanga and mruudu sweda followed by Matrabasti	1Hr	Ksheerabala taila 72 ml

Table 5: Ingredients of KsheerabalaTaila

Sl.no.	Drug	Botanical Name
1	Balamulam	Sida cordifolia
2	Tilataila	Sesamum indicum
3	Ksheeram	

Oil was prepared with the above ingredients for external and internal application

Subjective and Objective assessment was done before treatment and after treatment.

Assessment Criteria

Table 6: Subjective criteria

Sl.no	Lakshana	Grading
1	Pain	0 = None, 1 = Slight,
2	Morning stiffness	2 = Moderate, 3 = Very,
3	Swelling	4 = Extremely

Objective criteria

Table 7: VAS Scale Grading

Range of Pain	Vas score	Grade
No pain	0	0
Mild Pain	1-3	1
Moderate Pain	4-6	2
Severe Pain	7-9	3
Worst pain	10	4

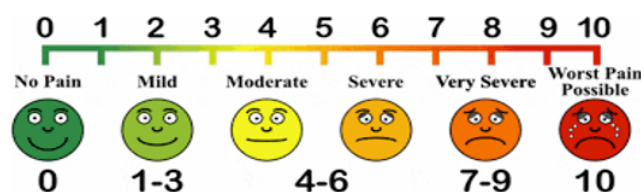


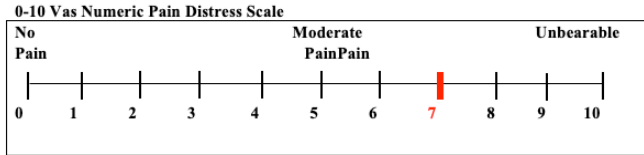
Table 8: WOMAC Scale Grading

WOMAC question	WOMAC score	Grade
None	0	0
Mild	1-24	1
Moderate	25-48	2
Severe	49-72	3
Extreme	73-96	4

Observation and result

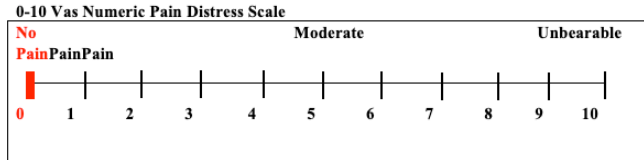
Visual analogue scale to assess severity of pain Before and After Treatment

Before Treatment



After Treatment - Vas scale

Visual analogue scale (consolidated) represented in line diagram shows improvement



Sum and average of WOMAC grading before and after treatment are calculated and compared.

Table 9: WOMAC Scale (Western Ontario and McMaster Universities) shows drastic improvement

S.No	Symptoms	Activity	BT	BT
1	Pain	Walking	0	0
		Stair Climbing	2	0
		Nocturnal	2	0
		Rest	0	0
		Weight bearing	2	0
2	Stiffness	Morning stiffness	2	0
		Stiffness occurring later in the day	0	0
3	Physical functions	Descending Stairs	1	0
		Ascending Stairs	3	1
		Rising from sitting	2	0
		Standing	1	0
		Bending to floor	3	1
		Walking on flat surface	0	0
		Getting in or out of car	0	0
		Going shopping	3	1
		Putting on socks	0	0
		Lying in bed	0	0
		Taking of socks	0	0
		Rising from bed	2	0
		Getting in/out of bath	0	0
		Sitting	1	0
		Getting in/out of Toilet	1	0
Heavy domestic duties	3	1		
Light domestic duties	2	0		
Total Score		Out of 96	30	4

Table 10 Overall effect of the therapy

Sno.	Lakshana	Before Treatment	After Treatment
1	Pain	3	1
2	Morning stiffness	2	0
3	Swelling	1	0
4	Pain VAS SCALE	2	0
5	WOMAC Scale	2	0

BT -Before treatment, AT -After treatment -WOMAC Scale

Follow up period – 1month

Treatment was administered as per the prescribed schedule.

Discussion

As *Vata* is the most important factor causing *Katishoola*(Low back pain) and *Snehana-Swedana* is the first line of treatment of *Vatadosha*. And as in this case degenerative changes were observed. The *Abhyanga* carried out before the *swedana* are likely to correct the imbalances of *Vatadosha*. [11] In addition to this, the sudation procedure helps in rectifying the morbid *doshaas* well. The *Patrapinda sweda* is very much efficacious in such clinical conditions. [12] It Alleviates the pain and swelling. So, *Abhyanga* with the *Ksheerbala Tail*, *Patrapinda Sweda* followed by *Matrabasti* with *ksheerbala Tail* was effective and markedly improved in the sign and symptoms of *Katishoola*(Low back pain).

Conclusion

Abhyantara and *bahyasnehana* and *swedana-Patrapindasweda* is highly effective in Low back pain. This case showed significant improvement in symptoms immediately after the treatment. After follow up no reoccurrence of symptom was noted. This indicates that *Snehana* and *swedana* both have a long way of action in the effective management in Low back pain. But a longer duration study with a large sample size must be done to get more accurate conclusions. On the basis of this single case study, it can be concluded that *panchakarma* procedures like *patrapinda sweda* and *Matrabasti* had been effective in the management of the Low back pain.

References

1. Sushruta Samhita (Purvardha), edited by Ambikadatta Shastri, Published by Chaukhamba Sanskrit Sangsthan, Varanasi Reprint Edition: 20, Su.Ni. 1/11-20.
2. <https://www.icd10data.com/ICD10CM/Codes/M00-M99/M50-M54/M54-M54.5>
3. Cakradatta of Shri Cakrapani data, Edited and translated by Dr.P.V.Sharma, Vatavyadhi Adhikara 22/83, Edition 2007, Chaukhamba publishers, Varanasi, pg193
4. Sharma R, Textbook of Ayurvediya panchakarma chikitsa vigyan, edition 2nd 2019: Jagdish Sanskrit pustkalaya, page.no. 235-238.
5. Ashtanghradaya of Vagbhata with the commentaries, Sarvangasundara of Arundatta and Ayurvedarasayana of Hemadri, edited by pt. Harisadasivasastriparadakara, Chaukhamba Sanskrit sansthan Varanasi, Reprint 2011, nidana sthana chapter15 Vatavyadhinidanshloka 5,6 p.n.530, 531.
6. Charaka samhita of Agnivesa elaborated by Charaka and Drdhabala with The Ayurvedadipika commentary by Chakrapanidatta, edited by Vaidya Jadavaji Trikamji acharya, Chaukhamba Surbharati

- Prakashan, Varanasi, edition 2008, chikitsa sthana chapter 28 vata vyadhi cikitsa, shloka 18,19 p.n.617.
7. Ashtanghradaya of Vagbhata with the commentaries, Sarvangasundara of Arunadatta and Ayurveda rasayana of Hemadri, edited by Pt. Harisadasivasastriparadakara, Chaukhamba Sanskrit sansthan Varanasi, Reprint 2011, nidana sthana chapter 15 Vatavyadhi nidana shloka 7,8 p.n.532, 533.
 8. Charaka samhita of Agnivesa elaborated by Charaka and Drdhabala with the Ayurvedadipika commentary by Chakrapanidatta, edited by Vaidya Jadavaji Trikamji acharya, Chaukhamba Surbharatiprakashan, Varanasi, edition 2008, nidana sthana chapter 1 Jwaranidana, shloka 8 p.n.194.
 9. Charakasamhita of Agnivesa elaborated by Charaka and Drdhabala with the Ayurvedadipika commentary by Chakrapanidatta, edited by Vaidya Jadavaji Trikamji acharya, Chaukhamba surbharati prakashan, Varanasi, edition 2008, chikitsa sthana chapter 28 Vatavyadhicikitsa, shloka 19 p.n.617.
 10. Charaka samhita of Agnivesa elaborated by Charaka and Drdhabala with the Ayurvedadipika commentary by Chakrapanidatta, edited by vaidya Jadavaji Trikamji acharya, chaukhamba surbharati prakashan, Varanasi, edition 2008, chikitsa sthana chapter 28, Vatavyadhicikitsa, shloka 23 p.n.617.
 11. Acharya Vagbhata, Astanga Hridayam, elaborated by Vagbhata, with joint commentaries Ayurveda Rasayana by Hemadri and Sarvanga sundara by Arunadatta, Pt. Hari Sadashiva Sastri Paradakara, Chikitsasthana, Vatavyadhi adhyaya, 21/4, Re-edition: 2012, Chaukhamba Sanskrit Sansthan, Varanasi, pg 722
 12. Charaka Samhita, Vidyotani Hindi Commentary by Kasinath Sastri 7th edition sutra stana, chapter 14, verse 39 Varanasi, Chaukhamba Sanskrit Samstan 2002.
