



# CLINICAL APPROACH OF UPASTAMBHITA VATA IN CONTEXT OF LUMBER SPINE DISC HERNIATION INDUCED SCIATICA-A CASE STUDY

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## ABSTRACT

**Background:** Sciatica is defined by pain or discomfort affecting to back, hip and outer side of leg till heal caused by compression of spinal nerve root. Disc herniation which refers to a problem with a rubbering disc between the spinal bones. Herniated disc can irritate nearby nerves and result in pain, numbness or weakness in leg. **Aim and Objectives:** To analyze the efficacy of *Vata* pacifying treatment (*Kala Basti*) along with *Deepana*, *Pachana*, *Vatanulomana*, *Abhyanga*, *Swedana Chikitsa*. **Materials and Methods:** A 52-year-old female diagnosed case of *Gridhrasi* of both leg since 18 years, with chief complaint of Back Pain (radiates towards back of the both legs up to both ankle joint and heal), tenderness, stiffness, walking difficulty and right lower limb heaviness approached to Ayurvedic hospital and was treated with *Vata* pacifying treatment for 30 days. **Results and Conclusion** After completion of 30 days treatment, the patient got moderate symptomatic relief in backpain, stiffness and complete relief in tenderness and walking difficulty. SLR test found improved in both leg (Right leg-45° to 75° and in left leg-30° to 60°. Relief in the symptoms like Pain, tenderness, stiffness, walking difficulty was improved by 75%,100%,75%,100%.So, it can be concluded at the end of 1 month treatment of sciatica associated with mild to moderate disc herniation and lumber spine spondylosis, moderate improvement can be achieved by *Vata* pacifying treatment (*Kala Basti*) along with *Deepana*, *Pachana*, *Vatanulomana* but for complete remission longer period management is required.

**KEYWORDS:** *Gridhrasi*, *Kala Basti*, disc herniation, sciatica.

## I. INTRODUCTION

Sciatica is a disease considered as *Gridhrasi* in Ayurveda, in which patient having pain in lumber region radiates only one or sometime both of leg along with pricking pain, tingling sensation, stiffness. About 90% of sciatica occurs due to lumber spine disc bulge, disc herniation or disc degeneration.<sup>1</sup> spondylolisthesis, spinal stenosis, piriformis syndrome are the other possible causes of the disease.

## II. MATERIAL AND METHODS

### CASE REPORT

#### PATIENT INFORMSTION

A 52-year-old female patient, by occupation house wife, a diagnose case of sciatica came to institution OPD on June 9,2020 for chief complaint of Pain in lower back region radiating to both leg (L>Rt), Stiffness in lower back region and both leg for 18 years (increased by 2-3 years), heaviness in right leg, numbness in both sole and pain while walking and bending forward since 2-3 years.

#### PAST HISTORY

Patient was having past history of heavy weight bearing during house hold work before 18 years. No history of trauma or any injury related to spine was found.

#### Detailed history of present illness

Patient was having chief complaints of Pain and stiffness in lower back region radiating to both leg (L>Rt) for 18 years as she had heavy house hold work bearing history before 18 years. For this she had consulted allopath doctor who suggested her allopath medicines. These complaints were mild in nature when started and hence it was neglected. For 2-3 years these complaints aggravated by walking, climbing

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stairs and doing house hold work. Other complaints like Heaviness in Right leg, numbness in both sole and pain while walking and bending forward with associated complaints of no desire for food, distension of abdomen after dissatisfactory bowel (1-2time/day) for 2-3 years were also there. She consulted orthopedic and underwent for MRI. The MRI report revealed lumber spondylosis along with posterior and bilateral paracentral disc herniation. So prescribed allopath medicine and advised for surgical intervention. The allopath medicines gave her relief in pain, but pain recurred which was continuous in nature and used to aggravate after strenuous work. So, the patient came to the OPD and got admitted on consultant advice in Institution IPD, on July 16th 2021 for 1 month.

### Treatment history

Before 2 years patient was on chlorzoxazone-500mg (Muscle relaxant), diclofenac sodium 50mg & paracetamol 325mg (as NSAID), vitamin B-complex in oral form and Diclofenac sodium gel for Local application for 1 month.

### Family history

No significant family history found.

## CLINICAL FINDINGS

### Personal history

Detailed case history revealed that the patient was taking *Ahara* (~food- three times/day of vegetarian type). Her *Agni* (digestive /metabolic factors) was *Avara* (~less) with less desire for food, *Kostha* (~nature of bowel) was *Krura* (~irregular or constipated bowel nature and dissatisfactory), *Mala*(~stool) was *Samavastha*(~with *Ama*) and sticky in nature, required *Pravahana* (~straining to defecate),*Mutra* (~urine) was *Samyaka*(~appropriate), *Nidra* (~sleep) was *Samyaka*, *Jihva* (~Tongue) was *Sama* (~ with *Ama*, white coated) and work schedule was heavy house hold work. She was in menopausal state.

### Dashvidha pariksha (~Tenfold examination)

On examination *Prakriti* (~ physical constitution) of the patient was *Kapha* dominant *Vata and Vikriti* (~morbidity) was *Kaphanubandha Vata* (~predominant of *Vata* associated with *Kapha*),*Sara*(~ excellence of *Dushya* or tissue elements),*Pramana* (~measurement of body constituents), *Samhanana*(~compactness of tissues and organs), *Satva*(psychic condition) *Satmya* (~homologation) and *Vaya* were *Madhyama*; *Vyayamsakti*(~power of performing exercises),*Abhyavaranshakti*(~food intake capacity) and *Jaranashakti* (digestive and metabolic capacity) found *Avara* (~less).

### Physical Examination:

Patient weighted 65 kg and 156 cm height with BMI 26.74 kg/m<sup>2</sup>. Patient found afebrile (Temp.-96.4°F) with vitals, pulse rate 80/min, respiratory rate 14/min and Blood pressure 110/80mm/hg. The gait was analgetic.

### Systemic Examination

On systemic examination, no pallor, icterus, cyanosis, clubbing, lymphadenopathy or oedema were found. No abnormality was detected on Cardio Vascular System (CVS), respiratory system examination and per abdominal examination. No kyphosis or scoliosis found on spinal examination. Sciatic nerve tenderness was present +2 at low back L4-L5 to the buttocks (Left &Right) and the back of the left thigh and calf region. Muscle tone found equal and normal at both legs. Muscle power in both upper and lower extremities remained 5/5. Forward flexion of lumbar spine was limited to 20 cm above ground. Right, left lateral flexion and extension was limited to 30°, 30° and 10° respectively that again remained painful. Straight Leg Raising test remained positive in both legs (Right leg at 45° and Left Leg at 30°). Braggard's test was positive in both leg at 45° and 30° respectively.

### Investigations

Magnetic Resonance Imaging (MRI) of Lumbosacral spine with screening of whole spine dated May 20, 2020 suggestive of lumber spondylosis with posterior and bilateral paracentral disc herniation of Grade-1 to 2 at L3-L4, L4-L5 and L2-L3 level along with anterolisthesis of L3 and L4 level.

### Hematological and Biochemical parameters

Her Complete Blood Count, RBS, LFT, RFT were within normal limits. Erythrocyte Sedimentation Rate was 28 mm/hrs. In Lipid profile Serum cholesterol, serum triglyceride, HDL (High Density Lipoprotein), LDL (Low Density Lipoprotein) and VLDL (Very Low-Density Lipoprotein) were 211 mg/dl, 106 mg/dl, 55.2 mg/dl, 134.6 mg/dl was 21.2 mg/dl respectively.

Table No-2.1 Timeline

Date	Events
May 20, 2020	Diagnosed as Sciatica associated with lumber spine disc herniation.
June 9, 2020	The patient visited Institution OPD with symptoms of sciatica & diagnosed with <i>Gridharsi</i> considering <i>Upastambhita</i> stage of <i>Vata</i> .
July 16, 2021 to August 17, 2021	Assessed thoroughly & got admitted. Patient treatment started with <i>Kala Basti &amp; Deepana, Pachana, Abhyanga, Sweadana Chikitsa</i> at Institution hospital, for further management.
August 17, 2021	One month treatment completed and assessment was done.

## DIAGNOSTIC ASSESSMENT

The symptoms presented in the patient like pain, stiffness, tenderness, walking difficulty were assessed as subjective parameters. The SLR test, Braggard Sign and spine movement limitations were assessed as an objective parameter on day zero and after one month of intervention.

Sr. No	Symptoms	Severity	Grade
1.	Pain	-No pain - Occasional pain 1-3 times in 24hrs. - Frequent Pain with slight difficulty in walking - Severe pain with marked difficulty in walking	0 1 2 3
2.	Tenderness	-No tenderness - Tenderness on pressure - Tenderness on touching - Patient winces and not allow to touch	0 1 2 3
3.	Walking difficulty	-Walk up to 1 km without pain - Walk up to 500m without pain - Patient feels pain on standing -Patient cannot stand	0 1 2 3
4.	Stiffness	No stiffness: 0 Sometimes for 5–10 min:1 Daily for 10–30 min: 2 Daily for 30–60 min: 3 Daily more than 60 min: 4.	0 1 2 3 4
5.	Constipation	Straining with >25%of bowel movements Sense of incomplete evacuation with >25%of bowel movements Hard or Pellet stools with >25%of bowel movements Manual evaluation maneuvers with >25%of bowel movements	1 2 3 4
6.	Anorexia	Normal Loss of appetite without alteration in eating habits (Mild) Oral intake altered without significant weight loss or malnutrition (Moderate) Associated with significant weight loss or malnutrition (Severe)	0 1 2 3

Table-2.2: Criteria with grading for Assessment

### THERAPEUTIC INTERVENTION

Though the patient was having complaints of dissatisfactory bowel off and on since longer time along with hard consistency defecation, considering *Upastambhita* (~obstructed) *Vayu* first *Deepana*, *Pachana* and *Pakwashaya shodhana* was planned<sup>2</sup>, as in this condition *Snehana*(~olation) is advised not to advocate in spite of being best medicine for *Vayu*.<sup>3</sup> After *Pakwashya Shodhana*, local *Abhyanga*(~massage) and *Swedana* (~Fomentation) was done for 30 days. Initially 3 days *Trimada* (*Chitraka, Vidanga, Musta*) powder 3 gm twice a day before meal with warm water and *Shivakshara pachana churna* 3 gm twice a day after meal with warm water were given as *Deepana* and *Pachana*. From 4<sup>th</sup> to 19<sup>th</sup> day *Erand bhrusta haritaki* (*Terminali chebula* perical powder roasted in castor oil) 6 gm was given before bed time with warm water. *Kala Basti* (Medicated enema) in proper dosage. On 20<sup>th</sup> to 30<sup>th</sup> day gentle massage with *Bala Taila* followed by fomentation with *Dashmoola* decoction steam was given. During the whole therapy the patient was kept on *Laghu*(~Light), *Usna*(~Warm) and easy digestible diet.

### III. RESULTS

At the end of 3<sup>rd</sup> day of *Deepana*, *Pachana* mild improvement was assessed in appetite. Patient felt desire for food and bowel dis-satisfaction also reduced. On 4<sup>th</sup> day *Kala Basti* was started. With each *Asthapana Basti* good amount of fecal matter was passing and patient had feeling of lightness in lumber area as well as in *Pakvashaya*, just because of elimination of accumulated *Mala*. At the end of *Basti* treatment pain score was also reduced from grade 3 to 1. As per the assessment *Upastambhita Vayu* (~Obstructed path) was removed. (Elimination of bowel and passage of flatus also found markedly improved.) Hence local gentle *Abhyanga* (~massage) with *Bala Taila* followed by fomentation (*Dashmoola Kvatha*) given and continued at the end of treatment. Patient pain, tenderness and range of spine movement found improved.

**Assessment of patient****Table 3.1: Subjective criteria**

Criteria	Before Treatment	After completion of treatment
Pain	3	1
Tenderness	2	0
Walking difficulty	2	0
Stiffness	4	1
Constipation	3	1
Anorexia	2	0

**(B)Table 3.2: Objective criteria**

Criteria	Before Treatment	After Treatment
SLR Right Leg Left Leg	+ve at 45 +Ve at 30	+ve at 75 +Ve at 60
Braggard Sign Right Leg Left Leg	+ve at 45 +Ve at 30	+Ve at 75 +Ve at 60
Forward flexion	limited to 20cm above ground	limited to 10cm above ground
Right Lateral flexion	limited to 30° with pain	limited to 20° with pain

**IV. DISCUSSION**

Disc herniation of spine manifests symptoms like *Gridhrasi* and hence should be treated on the same line. As *Gridhrasi* is a kind of *Vata vyadhi* so common line of management of the same should be applied.<sup>4</sup> The patient was having symptoms of *Upastambhita Vayu*, hence *Deepana*, *Pachana* and *Pakwashya Shodhana* provided benefit.<sup>5</sup> *Deepana* and *Pachana* alleviated *Gaurava* and *Aruchi* further. *Niruha Basti* acts as *Shodhana* and eliminate *Mala* from *Pakwashya* and hence path of *Vayu* got cleared. This is the reason that at the end of *Basti* schedule patient not only felt marked satisfactory bowel clearance but also reduced pain and tenderness of lumbar spine and sciatic nerve.

**V. CONCLUSION**

While treating *Vata vyadhi*, status of *Vayu* movement i.e, obstructed or free (*Upastambhita* or not) should be assessed and if it is obstructed proper elimination of *Mala* and *Vayu* must be planned. Once it gets cleared than overall *Vayu* pacify treatment should be started and can be managed properly.

**Patient Perspective**

Patient reported moderate symptomatic relief and she was able to perform all her daily activities without any limitations. Before starting the treatment, she was taking analgesic medicines, but as Ayurvedic treatment started, she stopped to take it.

**Declaration of patient consent**

Authors certify that they have obtained patient consent form, where the patient has given her consent for reporting the case along with images and other clinical information in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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Nil.

**Conflicts of Interest**

There are no conflicts of interest.

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