



Case Study

CLINICAL EVALUATION OF ERAND MOOLADI BASTI IN THE MANAGEMENT OF GRIDHRASI W.S.R. TO SCIATICA - A CASE STUDY

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ABSTRACT

Background: Large numbers of the population suffer from low back pain. Prevalence increases linearly from the third decade of life on, until the 60 years of age, being more prevalent in a woman. Sciatica most commonly occurs when a herniated disk, bone spur on the spine or narrowing of the spine (spinal stenosis) compresses part of the nerve. It commonly occurs due to the compression of lumbar nerves L4 or L5 or sacral nerves S1, S2 or S3 or by the compression of the sciatic nerve itself. *Gridhrasi* is the one amongst the 80 types of *Nanatmaja* disorders of *Vatavyadhi*. It starts from *Kati-prishta* (pelvic region and Lumbosacral) radiating to *Jangha* (thigh) and *Pada* (feet) with impairment of lifting the leg. The gait of the person is very similar to the vulture (*Gridhra*) hence the name is given as *Gridharsi*. **Material and Method:** A case-controlled clinical study on a known case of *Gridharsi* has been done in All India Institute of Ayurveda Hospital. The treatment was planned on the basis of principles of Ayurveda mentioned in the context of *Gridharsi* including *Erand-mooladibasti* and oral medications. **Result:** After the whole course of treatment, the patient got 50% relief in all sign and symptoms and changes in gait limping gait to normal gait. **Conclusion:** It can be concluded that *Erand-mooladi Basti* and oral medications is more effective in *Gridharsi* management.

KEYWORDS: *Gridhrasi*, *Vatavyadhi*, *Sciatica*, *Erand-Mooladi basti*.

INTRODUCTION

In sciatica, there is pain along the distribution of sciatic nerve, which begins from buttock and radiates downwards to the posterior aspect of thigh, calf and to the outer border on foot. There is often a history of trauma, as twisting of the spine, lifting heavy objects or exposure to cold. Sciatica is basically a symptom that arises due to compression or inflammation of the sciatic Nerve. In general, an estimated 5%-10% of patients with low back pain have sciatica. The annual prevalence of disc related sciatica in the general population is estimated at 2.2%.^[1] Modern medicine mainly suggests the use of NSAID and surgical correction in this condition. Uses of NSAID have temporary relief with severe adverse effects and surgical correction includes major surgery which is expensive and risky. According to Acharya charak, it can be correlated with *Grihdrasi*. The disease initially affects *Sphik* (buttock) as well as the posterior aspect of *Kati* (waist) and then gradually radiates to posterior aspects of *Uru* (thigh), *Janu* (knee), *Jangha* (calf) till *Pada* (foot).^[2] The symptoms are *Stambha* (stiffness), *Toda* (Pricking Sensation), *Ruk* (pain), *Muhuspandan* (Tingling) and In *Vata-Kaphaja* type of *Gridharsi*- *Tandra*, *Gaurava*

and *Arochaka*. *Basti* is the most important among *Panchkarma* due to its multiple effects. It is not only best for *Vata* disorders, but also equally effective in correcting the morbid *Pitta*, *Kapha* and *Rakta*. Charaka has considered *Basti* therapy as half of the treatment of all the disease. In Ayurveda the treatment is to strengthen the local tissue, soothing the nerve and systemic correction of the pathology by applying radical treatment. *Gridharsi* being *Vata vyadhi* the treatment principle includes *Snehana*, *Svedana*, *Mridu Shodhana* and *Basti* karma. Hence, in the present case the patient was treated with *Eranda-mooladi Basti* and *Sahchadi Taila Anuvasana Basti* along with certain Ayurvedic medicines. This treatment provided marked improvement in clinical sign and symptoms of *Gridharsi*.

Case Report

A 41 years middle-aged female patient (UHID no.352159) was brought by her husband to Kayachikitsa OPD of All India institute of Ayurveda on 26 February 2019 and got admitted on the same day presenting with complaints of pain over lower Back which radiates towards right leg along with tingling sensation and numbness since 1 year and

difficulty in walking and pain in left leg also last 2 month. History of present illness, according to the patient, she was asymptomatic last 1 year back then she noticed right leg numbness, tingling sensation, for this she took allopathic medicine for private physician, but not get permanent relief, last 6 month she took pain killer when the pain is increased, after 6 months in winter season she feels tingling sensation in right lower limb, which starts from the lower back radiate from lumber to heel, numbness, low backache and unable to walk from right leg then after few months (2 months) start radiating towards her left leg also. The pain is of a sharpshooting nature which increases more while bending. She took allopathic treatment for this but could not get relief, so she came here for needful treatment. History of past illness revealed that she had a history of a

hypothyroidism year back and hemorrhoids 5 years back.

Investigations

Hb- 9.8 gm/dl, ESR- 39 mm, CRP- Negative and other hematological parameters were normal, renal parameters and blood sugar and urine investigation also within normal limits.

Diagnosis has been done on the basis of-

- X-ray pelvis with both hips(AP)- Mild sclerosis seen in bilateral sacroiliac joints along the iliac surface
- MRI Lumbosacral spine - Early spondylotic and disc degenerative changes. Disc bulge at L4/L5 level Caudal migration at L5/S1 level compression on bilateral exiting nerve root (right>left)

Table 1: General Examination

General Examination	Dashavidha Parikasha	Systemic Examination
<ul style="list-style-type: none"> • Appetite-normal • Bowel-regular • Bladder-normal • Sleep- normal • Temperature-normal • Pallor, Icterus, Clubbing, Lymphadenopathy-absent • Menstrual history- Regular • Blood pressure-130/86mmHg • Pulse-88 beats per minute. • Tongue-clear 	<ul style="list-style-type: none"> • Prakriti-pittakaphaja • Vikriti- samanyarthakari • Saara-madhayama • Samhana-madhyama • Pramana-madhyama • Satmya-madhyama • Satva-avara • Ahara Shakti-madhyama • Vyayama Shakti-avara • Vaya-madhayama 	<ul style="list-style-type: none"> • Cardiovascular system- NAD • Respiratory system-B/L chest clear no added sound. • Gastrointestinal system-NAD • Locomotor system- difficulty in walking, limping gait. Straight leg raising test-positive in right legs at 20° and left leg at 50°. League's test was positive on right leg. Power in right lower limb was lesser than left side. • Central nervous system- Higher mental function: normal • Motor function-normal Cranial nerves-normal

According to all the signs and symptoms this case is diagnosed as *Gridhrasi*.

TREATMENT

The treatment was carried out with following *Panchkarma* Procedures along with other supporting medicines for 8 days.

Panchkarma Procedure includes

- *Sarvang Abgyang* with *Saindhavadi Taila* for 8 days
- *Sarvang Swedana* with *Dashmool kwath* for 8 days
- *Basti (Yoga Basti Schedule)*
Niruha Basti by *Erand Mooladi* (350 ml)
Anuvasan Basti by *Sahcharadi Taila* (60ml)
Erand- mooladi Niruha basti- 350 ml

Table 2: Contains of Eranda- mooladi Niruha basti

S No.	Contains	Quantity
1.	<i>Kwath dravya</i> - 250 ml <i>Erandmool</i> (<i>Ricinus communis</i>) <i>Dashmool kwath</i> <i>Punarnava moola</i> (<i>Boerhaavia diffusa</i>) <i>Rasna</i> (<i>Pluchea lanceolata</i>) <i>Ashwgandha</i> (<i>Withania somnifera</i>) <i>Guduchi</i> (<i>Tinospora cordifolia</i>) <i>Madanphal</i> (<i>Randia dumetorum</i>)	20gm 10gm 10gm 10gm 10gm 10gm 8 in number
2.	<i>Kalka dravya</i> - 10 gm <i>Shatpushpa</i> (<i>Pimpinella anisum</i>) <i>Pippali</i> (<i>Piper longum</i>) <i>Nagarmotha</i> (<i>Cyperus rotundus</i>) <i>Mulethi</i> (<i>Glycyrrhiza glabra</i>)	4gm 2gm 2gm 2gm
3.	<i>Sneha dravya</i> - <i>Erand taila</i>	20ml
4.	<i>Saindhav</i>	5gm
5.	<i>Madhu</i>	10ml
6.	<i>Gomutra</i>	20ml

Anuvasan basti – *Sahcharadi taila* (60 ml)

Table 3: Contains of Anuvasan basti

S no.	Contains	Quantity
1.	<i>Sahcharadi taila</i>	60 ml
2.	<i>Shatapushpa</i> (<i>Anethum sova</i>)	3gm
3.	<i>Saindhav</i> (Rock salt)	1 gm

Yoga *Basti* schedule consisting of 8 number of *Basti* in which first *Basti* was *Anuvasan Basti* (oil enema) followed by alternate administration of three *Anuvasan Basti* and three *Niruha Basti* (decoction enema) and lastly one *Anuvasana Basti* were administered.

Table 4: Basti chart

Days	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th
Type of <i>Basti</i>	A	A	N	A	N	A	N	A

A- *Anuvasan basti*, N- *Niruha basti*

Table 5: Supportive Treatment (Medicines)

S no.	Medicine	Dose	<i>Anupana</i>	Schedule
1.	<i>Dashmula kwath</i>	20 gm	-	Twice a day
2.	<i>Abhayarishta</i>	30 ml	With equal amount of water	Twice a day
3.	<i>Panchkola churna</i>	2 gm	Water	Twice a day
4.	<i>Trivrit churna</i>	3 gm	Warm water	Bedtime
5.	Tablet Azaraki	1 tablet	Water	As needed

Table 6: Criteria of assessment for observation

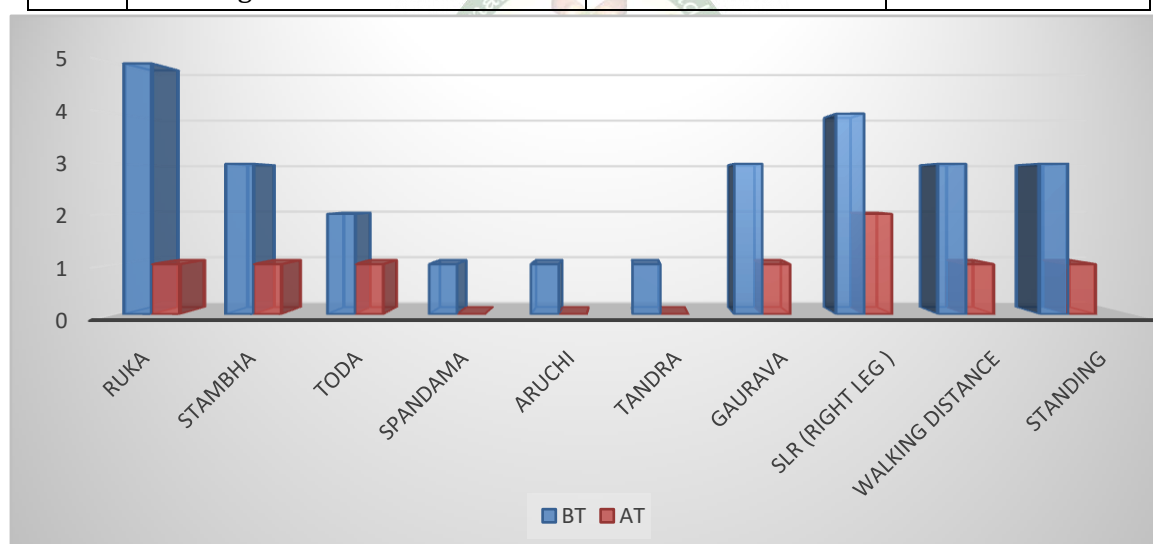
S No.	Subjective symptoms	Parameters	Gradation
1.	<i>Ruka</i> (pain)	No pain Painful, walks without limping Painful, walks with limping but without support Painful, can walk only with support Painful, unable to walk Sever pain needs medications	0 1 2 3 4 5
2.	<i>Stambha</i> (Stiffness)	No stiffness Mild stiffness Moderate stiffness Severe stiffness	0 1 2 3
3.	<i>Toda</i> (pricking sensation)	No pricking sensation Mild pricking sensation Moderate pricking sensation Sever pricking sensation	0 1 2 3
4	<i>Spandana</i> (fasciculation)	No fasciculation Mild fasciculation Moderate fasciculation Sever fasciculation	0 1 2 3
5.	<i>Aruchi</i> (anorexia)	No anorexia Mild anorexia Moderate anorexia Sever anorexia	0 1 2 3
6.	<i>Tandra</i> (torpor)	No torpor Mild torpor Moderate torpor Sever torpor	0 1 2 3
7.	<i>Gaurava</i> (heaviness)	No heaviness Mild heaviness Moderate heaviness Sever heaviness	0 1 2 3
8.	Straight leg raise test	More than 90° 71°-90° 51°-70° 31°-50° up to 30°	0 1 2 3 4
9.	Walking distance	Pain does not present walking any distance Pain present walking more than 1 mile Pain present walking more than 0.5 miles Pain present walking more than 0.25 miles I can only walk using a stick or crutches	0 1 2 3 4
10.	Standing	Can stand as long as I want without extra pain Can stand as long as I want but it gives me extra pain Pain prevent me from standing for more than 1 hour Pain prevent me from standing for more than 30 minutes	0 1 2 3

RESULT

In this case, the patient received only 1 *Anuvasan Basti* followed by alternate administration two *Anuvasan basti* and two *Niruha Basti* because her menses was started on the 6th day so this *Basti* procedure was stopped. At the time of discharge, the patient was prescribed medicine and follow up every 15th day. After completion of 5 days of treatment, results were assessed which showed a significant increase of SLR of right leg 50° left leg 60° changes in sign and symptoms have been shown in table 7. After giving the above treatment for 5 days the patient's complaint of pain got slightly reduced. The condition of the patient got improved and the limping gait changed to normal gait. She was able to walk more efficiently than before.

Table 7: Subjective symptoms before and after treatment

S NO.	Subjective Symptoms	Before treatment	After treatment
1.	<i>Ruka</i> (pain)	5	1
2.	<i>Stambha</i> (stiffness)	3	1
3.	<i>Toda</i> (pricking sensation)	2	1
4.	<i>Spandana</i> (fasciculation)	1	0
5.	<i>Aruchi</i> (anorexia)	1	0
6.	<i>Tandra</i> (torpor)	1	0
7.	<i>Gaurava</i> (heaviness)	3	1
8.	Straight leg raise test	Right leg - 4 Left leg - 3	Right leg - 3 Left leg - 2
9.	Walking distance	3	1
10.	Standing	3	1



This is the graph showing improvement and changes seen in the patient before and after treatment.

Table 8: Follow up oral Medications: for 15 days

S no.	Medication	Dose	Anupana	Schedule
1.	<i>Panchtikta ghrta guggulu + Panchkola churna</i>	5 gm 2 gm	Warm water	Twice a day
2.	<i>Dashmula kwath</i>	10 gm	-	Twice a day
3.	<i>Abhayarishtha</i>	30 ml	With equal amount of water	Twice a day
4.	<i>Trivrit churna</i>	3 gm	Water	Bedtime
5.	Tablet Azaraki	1 tablet	Water	As needed

Advice: To take proper Rest. *Snigdha, Drava, Laghu Ahara* (unctuous, liquid and light diet) including rice, roti, green gram etc. with Milk and ghee as *Rasayana*.

Avoid: Complex and heavy food for digestion.

DISCUSSION

Gridhrasi is *Shoolapradhana Nanatmaja Vata-vyadhi*, intervening with the functional ability of low back & lower limbs. In this disease onset of *Ruk* (pain), *Toda* (numbing pain) and *Stambha* (stiffness) is initially in *Kati* (lumbosacral region) and radiates distal to *Pristha, Janu, Jangha* till *Pada*.^[3] Arundutta in his commentary defined clearly that due to *Vata* in *Kandara* (tendon) the pain is produced at the time of raising leg straight and it restricts the movement of thigh.^[4] This is an important clinical test for the diagnosis of sciatica known as SLR. In *Madhava Nidana, Dehasyapi Pravakrata* (Lumbar scoliosis) is considered in *Vataja* type of *Gridhrasi*.^[5] The patient was diagnosed with *Gridhrasi* on the basis of signs and symptoms and the main investigation. *Erand-mooladi basti* is told as *Deepan* and *Lekhana* in nature which helps in pacifying *Kapha* and reducing symptoms like heaviness and stiffness. Anti-inflammatory, anti-oxidant, central analgesic, antinociceptive activity, bone regeneration activity are found in *Ricinus communis* (*Erand*).^[6] Treatment was planned according to the principles of *Gridhrasi* mentioned in Ayurveda classics.

Mode of action of Basti

Basti dravya enters into the *Pakwashaya*, it is the place where the water and minerals are absorbed in proximal colon. Sodium and potassium are the essential factors for the development and proper functioning of the nervous system are also absorbed from the colon i.e., *Pakwashaya*. *Basti karma* helps to increase the absorbing capacity of the colon by its actions. Approximately 50% of the drugs that is absorbed from the rectum will bypass the liver, the potential of hepatic first pass the rectum.^[7] It is possible the *Veerya* of the *Basti dravya* pass through the autonomic nervous system and expel out vitiated *Dosha* from the body. It is described in the modern physiology that the wall of the rectum has pressure receptors. Whenever the stool enters the rectum, these receptors are stimulated and the defecation reflex is initiated. When *Basti netra* introduced in the rectum the same phenomenon may take place, which results in initiation of defecation reflex due to visceral distention and pressure response.

Mode of action of drug

Panchatikta Ghrita Guggulu have *Tikta Rasa, Ushna Virya* and *Madhura* and *Katu Vipaka*. The *Tikta Rasa* increases the *Dhatvagni* (metabolic stage). As *Dhatvagni* increase, nutrition of all the *Dhatu*s will be increased. As a result *Asthi dhatu, Majja Dhatu* may get stable and *Asthi Dhatu* and *Majja Dhatu Kshaya* will be decreased. So degeneration in the *Asthi Dhatu* may not occur rapidly. It can be said, it slows down

the degeneration processes. *Tikta Rasa* has got *Deepana, Pachana* and *Rochana* properties. So it helps in the improvement of the general condition of health and thus strengthen the whole body as well as joints.^[8] *Tikta Rasa* is also has got *Jwaraghna* and *Daha Prashamana* properties that it may act as anti-inflammatory agent and can reduce the pain and swelling of the joints. *Ghrita* is *Vata-pittashamaka, Balya, Agnivardhaka, Madhura, Saumya, Sheeta Virya, Shula, JwarAhara, Vrishya* and *Vayasthapaka* also.^[9] *Ghrita* is having property like *Yogavahi* which is helpful in increasing bio-availability of other drugs without losing its own property. *Ghrita* also contains vitamin D which plays an important role to utilize calcium and phosphorous in blood and bone building.^[10] *Dashmoolakwath* are used by in various conditions for relief of pain and swelling related to arthritis, pyrexia, abdominal distension and costochondral pains. It is described as an analgesic, anti-arthritis and anti-rheumatic combination.^[11] It is believed that the 10 ingredients in *Dashamoola* may be serving different roles like adjuvant, carrier agent and stabilizer etc.^[12] Some of these ingredients have been evaluated in experimental models of inflammation and pain and have shown to possess anti-inflammatory and analgesic activities.^[11,13,14] *Abhayarishtha* has mild laxative action and mild diuretic characteristics, it promote proper peristaltic movements of intestine and help in easier defecation. It also used as intestine detox to eliminate toxins from the alimentary canal. *Panchkola Churna* contains an equal part of *Pippali, Pippalimula, Chavya, Chitrakand Sunthi*. It is one of the famous poly-herbal formulation used for improving appetite, promoting digestion, curing different GI disorders.^[15] *Trivritchurna* is loaded with cleaning and purgative properties. It helps in easy passage of stool and also increase the bowel movements. Being purgative in nature use of this drug quite good in arthritis and osteoarthritis. It helps to reduce in swelling and inflammation of joints. Moreover it is anti-inflammatory properties help in the pain reduction.

Tablet Azaraqi contains are *Kuchla* (*Strychnos Nux-vomica*), *Maricha* (*Piper nigrum*) and *Pippali* (*Piper longum*). It is also used in rheumatic pain, gout, paralysis etc. as it reduces *Vata* inside body, gives relief in pain, and digests *Ama* (toxic waste produced in the body to incomplete digestion). *Kuchla* main chemical is strychnine, it stimulates all parts of the CNS and particularly the anterior horn cells of spinal cord causing greatly increased reflex excitability. Normal inhibition of motor cell stimulation is lost so that any slight stimulus such noise, light, or air breeze causes violent generalized muscle spasms.

CONCLUSION

In this study we have got good results of *Panchakarma* and *Ayurvedic Shamana Chikitsa*. Relief in symptoms of disease and also an attempt to provide safe and effective treatment to the patient.

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