

An Ayurvedic Approach in Combined Effectiveness of Shodhana and Shamana in the Management of Gridhrasi W.S.R to Sciatica: A Single Case Study

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ABSTRACT

Low back pain is the most common problem faced by the present generation in their routine life is due to the factors like excessive travelling on motor cycles and low intake of calcium rich diet and less exposure to the sun light and improper intake of nutritious food. There are factors which results in pain in the low back region because of strain over the low back region which results in compression over the lumbar vertebra associated with sacral involvement. Sciatica is a disease in which the compression over the Lumbar and sacral spine which results in radiating pain from lower back and buttock down the posterior thigh, leg and often to the foot, tingling sensation and numbness. In ayurveda Sciatica is correlated to the symptoms similar in classics to the Gridhrasi where the symptoms are similar as explained as per modern. Th symptoms include Ruk, Stambha, Toda, Muhuspandana, Sakthi Utkshepa-nigraha were explained. The vulture gait (eagle) was explained as the patient feels pain radiating to Sphik (buttock), Uru (thigh), Janu (knee), Jangha /(calf), pada(foot) in ascending manner where the patient resembles it. In this case study the ayurvedic management of Gridhrasi was treated both with shamana and shodhana karma which gives successful results in treating the diseased condition. The symptomatic assessment both in subjective and objective parameters shown a good result.

KEYWORDS: Ayurveda, Gridhrasi, Sciatica, Shamana, Shodhana, Vulture gait.

INTRODUCTION:

In ayurveda Gridhrasi was explained one of the nanatmaja vata vikara disease solely caused by vitiated vata in Charaka Samhitha Sutra Sthana maha Rogadhyaya 20th chapter¹. He also explained the two types of Gridhrasi i.e.; Vataja Gridhrasi where symptoms like Ruk (intense pain), Toda(pricking pain) , Stambha (stiffness), and Muhuspandana(twitching/pulsations) in Sphik (buttock), Kati(waist), Prishtha(back), Uru(thigh), Janu, Jangha(calf) and Pada(foot) in ascending manner² and vulture like gait often slight bend in the body while moving and Vata Kaphaja where Tandra, Gaurava and Arochaka are present². While Acharya Sushruta also explained the symptoms in Vatanubandi like Ruk, Toda, Sthmbha and

Muhuspandana, Utkshepa-nigraha (restriction or inability to lift the leg-straight leg raising limitation) and in Vata-Kaphanubandhi symptoms like ‘Tandra, Gaurava and Arochaka’³.

Gridhrasi is compared to Sciatica in modern medicine. The degenerative disc disease and Osteo Arthritic changes in the lumbar spine which causes the pain distribution over the lumbar or sacral roots is Sciatica. It explained it is because of the protrusion of the lumbo sacral vertebrae⁴. The clinical features mainly may be sudden or gradual, repeated episode of low back pain, constant aching pain is felt in the lumbar region and may radiate to the buttock, thigh, calf and foot. Pain is exacerbated by coughing or straining and relieved by lying flat⁵. Sciatica, is known by a group of symptoms where sometimes known as sciatic neuritis, where general compression or irritation of the sciatic nerve happens. The treatments include NSAIDS, Analgesics, local Anaesthetic injections and corticosteroids and Physiotherapy and rest may be useful. If the conservative treatment doesn’t give proper results going with the progressive neurological deficits surgery may be chosen. The prevalence of Sciatica ranges usually from 3.8% in the working population and 7.9% in non-working population⁶. Sciatica is most prevalent between the age groups of 40 years and 50 years. Men are more commonly affected than women. Low back pain listed as fifth most common cause for hospitalization and third most reason for undergoing surgical procedure⁷.

In modern life style conservative medical practises opted by patients before going to the surgery. The conservative practises well organized in Ayurveda by treating the patients with both Shodhana and Shamana Aushadhas using both internal medications and external treatments. As the prevalence of low back pain increasing in the present generations because of sedentary lifestyles, excess usage of motor vehicles, increased body weight, mental stress, improper life style practises and excess usage of computers which are contributing for the strain over the lower back region. The Ayurvedic principles which are very much useful for the management of Gridhrasi very found very effective hence used in this case study was discussed here.

MATERIALS AND METHODS:

Patient information:

It is a single case study. Informed consent was taken from the patient in his own language.

Patient Details: A 38 years old male patient reported at Kayachikitsa OPD of Dr. B R K R Government Ayurvedic Hospital, Erragadda, Hyderabad in March 2024 the case details of which has been discussed here.

Marital Status - Married, Religion - Hindu, Occupation – Bank employee, Address: Sanga Reddy, Hyderabad, Registration No: -17384/1134, D.O.A: - 24/03/2024, D.O.D: - 26/04/2024.

Chief complaints and duration:

Pain with numbness and tingling sensation in right lower limb, radiating to right lower limb up to foot since four months. The pain was increased in low back region along with tingling sensation and numbness since last one month.

Associated Complaints:

Patient had mild numbness, tingling sensation and pain in lower back and radiating pain in right lower limb since one month. Unable to walk properly due to pain from one month. Piercing type of pain in lower back and right posterior thigh and calf region.

History of present illness:

Patient was asymptomatic four months back gradually developed piercing pain in low back region, numbness and tingling sensation and radiating pain in right lower limb up to foot. From last one month

increased low back pain and tingling sensation and numbness in right lower limb. He was not able to do his daily works properly. Initially consulted a nearby allopathic hospital and diagnosed Sciatica and used medications and taken rest. In spite of taking medications, he got only temporary relief, but the symptoms persisted. Hence, he came to Dr. BRKR Government Ayurvedic hospital for further treatment. Hence, he was admitted under Kayachikitsa department for further management.

Purva Vyadhi Vrutanta (Past History): No H/O T2DM//Thyroid disorder
K/C/O -Hypertension for one month on Tablet. Stamlo 5mg OD

Kula Vyadhi Vrutanta (Family History): No relevant family history.

Shalya karma Vrutanta (Surgical History): No surgical history.

Vyaktika Vrutanta (Personal History): Non-alcoholic, Non-Smoker

Appetite -Good

Bowel -Regular

Micturition -Normal

Sleep -Disturbed

Diet -Mixed diet

Built -Moderate

Pallor - Absent

Cyanosis -Absent

Consciousness - Conscious and oriented

Addiction -Tea/ 3 Times a day

Ahara - Katu-Lavan rasa, Ruksha Ahara, Viruddha Ahara, Adhyashana, Vishamsana.

Vihara – Bank job rigorous work, prolong sitting, improper sitting postures.

General examination:

BP. – 140/90 mm Hg

PR - 88/Min

RR - 20/Min

Height - 5 feet 5 inches

Weight - 74 kg

Temperature - Afebrile

Oedema / lymphadenopathy /icterus / clubbing –Absent

Systemic examination:

Respiratory- Centrally placed trachea, Normal breathing sounds and airway entry.

CNS - Fully conscious and well oriented to time, place and person, all cranial nerves are intact.

CVS- S1, S2 + Heard, No Murmur.

GIT - P/A - Soft, non-tender, no organomegaly.

Uro genital system: no abnormality detected.

Musculo-skeletal system:

Gait – Limping

Lower limbs -Right leg- Stiffness in the right calf and thigh region with restricted range of motion with positive SLR test at 40 Degree and Bragard's Sign at 40 Degree.

Redness and warmth / Weakness / Swelling / Deformity - Absent

Inspection - No visible deformity or sign of trauma

Palpation - Tenderness over L1 to L4 level.

Lumbosacral - Flexion Restricted,
Extension - Restricted, Left lateral flexion - Restricted, right lateral flexion - Not possible.
SLR test (active) -Positive at 40° on the Right leg
Negative on the Left leg.
Bragard's test - Positive at the Right leg.
Negative on the Left leg.

MRI Lumbo Sacral Spine:

Impression: Degenerative changes lumbar spine with diffuse disc bulge with postero-central disc protrusion causing thecal sac indentation at L1 to L2 with mild spinal canal narrowing.
Circumferential disc bulge with broad based postero-central disc protrusion and thecal sac indentation noted at L2 to S1 with spinal canal stenosis.

Assessments:**Ashta Sthana Pariksha**

Nadi - 88 / min
Mutra - 4-5 Times / day
Mala - Saam, once daily
Jihwa – Nirlepa
Shabda - Prakrita
Sparsha - Samaseethoshna
Drik - Prakrita
Akriti – Madhyama

Dasha Vidha Pariksha

Prakriti - Vata-Kaphaja
Vikriti - Hetu- Long hours of sitting and working, Ruksha, Seeta and Viruddha Ahara, weight gain, Vega dharana.
Dosha - Vata-Kaphaja
Dushya - Rasa, Rakta (Kandara), Asthi, Majja
Sara - Madhyama
Samhanana - Madhyama
Pramana - Madhyama
Satmya - Madhyama
Satva - Madhyama
Ahara shakti – Jarana Shakti - Avara, Abhyavaharana Shakti - Madhyama
Vyayama Shakti - Avara
Vaya – Madhyama

Investigations

Haemoglobin	- 15.8 grams
Erythrocytic sedimentation rate	- 30 mm/hr
C-reactive protein	-6.4 mg/dl
RA Factor	-12 U/ml
ASO	- 187 IU/ml
FBS	- 95 mg/dl
PPBS	- 112mg/dl

Thyroid function test	- Normal
Serum creatinine	-1.0mg/dl
Total cholesterol	-188 mg/dl
HbA1c	-5.0
Serum calcium	- 8.2 mg/dl
Vitamin D3	-18.72 mg/dl
Vitamin B12	-212 mg/dl

Vyadhi Vyavachedana:

Gridhrasi	Kati Graha ⁸	Khalli vata ⁹	Kati vata ¹⁰
Ruk (Radiating in Spik, Kati, Uru, Janu, Jangha, Padam Kramat), Stambha Toda Muhuspandana Sakthi-Utkshapanigraha	Kati Shoola Kati Sthambha	Ruk, Thoda, Sthamba, Karma kshaya, Chesta paharana in hand and Pada- peeda Jangha- peeda Uru peeda Uru-moola- Peeda in leg	Kati Shola Kati Stambha Chimchimayana

It was excluded with other diseases with low back conditions after eliciting the clinical examinations of the patient. The Kati graha, Khalli vata and Kati vata differentiated with Gridhrasi, where the radiating pain was observed apart from other clinical symptoms in the patient.

Vataja Gridhrasi: Ruk, Toda, Stambha, Muhuspandana in Sphik, Kati, Prishtha, Uru, Janu, Jangha.

Vata-Kaphaja Gridhrasi: Vataja Gridhrasi symptoms associated with Gaurava (+), Arochaka (+), Tandra.

Vyadhi Vinischaya: (Final Diagnosis): Vata-Kaphaja Gridhrasi.

Chikitsa (Treatment plan):

Shamana Chikitsa:

1. Yogaraj Guggulu - 500mg 2 tablets BD with lukewarm water after food
2. Sarpa Gandha vati -250mg BD with water after food
3. Shanka vati - 250mg BD with water before food
4. Ashwagandha churna -6gms BD with milk after food
5. Karpoor taila - For external application

Shodhana chikitsa:

1. Abhyanga with Dhanvantari Taila and Nadi Sweda for 7 days.
2. Kati vasti with Kottamchukkadi taila and Dhanvantari taila in 1:1 ratio for 7 days.
3. Matra vasti with Bala ashwagandha taila for 7 days.

Discharge advice for 30 days

1. Yogaraj Guggulu - 500mg 2 tablets BD with lukewarm water after food
2. Sarpa Gandha vati -250mg BD with water after food
3. Shanka vati - 250mg BD with water before food

4. Ashwagandha churna -6gms BD with milk after food
5. Karpoor taila - For external application

Pathya

Madhura, Amla, Lavana Rasa Ahara, Godhuma, Masha, Shali, Kulattha, Mamsa rasa, Sarpi, Jambira, Draksha, Pada Abhyanga.

Apathya

Katu, Tikta, Kashaya Rasa Ahara Ati sevana, Late night food, Chinta, Vega dharana, Ratri jagarana, Ati Shrama, Abhighata, Anashana, Adhyashana.

Follow Up: Assessment was done was done after one month with a follow up gap of 15 days.

OBSERVATION AND RESULTS:

Assessment Criteria:

The improvement was assessed on basis of relief in sign and symptoms of Gridhrasi. All sign and symptoms will be assigned for scoring depending upon their severity to assess effect of treatment. Objective and subjective parameters were explained in details as given below.

SUBJECTIVE PARAMETERS:

S.no	Parameters	Criteria	Score	Before treatment	After treatment
1	Ruk (Low back pain)	Grade 0- no pain	0	3	0
		Grade1(1-3 VAS score)	1		
		Grade2(4-6 VAS score)	2		
		Grade3(7-10 VAS score)	3		
2	Sthamba (Stiffness)	Grade0-no stiffness	0	4	0
		Grade1-stiffness more than 6 hrs	1		
		Grade2-stiffness more than 12 hrs	2		
		Grade3-stiffness mora than 24hrs	3		
3	Toda (Pricking pain)	Grade0-no pricking pain	0	3	1
		Grade1-Mild pricking pain	1		
		Grade2-moderate pricking pain	2		
		Grade3-severe pricking pain	3		
4	Gaurava (Heaviness)	Grade0-no heaviness	0	2	0
		Grade1-mild heaviness	1		
		Grade2-moderate heaviness	2		
		Grade3-severe heaviness	3		

OBJECTIVE PARAMETERS:

S. No	Parameters	Criteria	Score	Before treatment	After treatment
1	SLR TEST Right leg	Equal or greater than 90 degrees	0	2	0
		60 to 90 degrees	1		
		30 to 60 degrees	2		

		Less than 30 degrees	3		
2	Walking time (To cover 20 meters)	Grade0-Upto 20 sec Grade1-21 to 40 sec Grade2-41 to 60sec Grade3-More than one minute	0 1 2 3	2	0
3	BREGARDS SIGN TEST Right leg	Negative positive	0 1	1	0
4	GAIT	Normal Antalgic	0 1	1	0

Symptomatic assessment was done after one month of treatment. He was undergone for shodhana procedures for 21 days along with shamana aushadis of month duration. His right leg pain, stiffness and heaviness was completely reduced. Mild pricking pain was present. His gait was improved, able to lift the leg without pain, signs of Straight leg raise test and Bragard’s test were normal after treatment. He was able to do his routine works. The patient was able to do his daily activities comfortably and no relapse of any symptoms was there. The Oswestry Disability Index includes pain intensity, personal care, lifting, walking, sitting, standing, sleeping, sex life, social life, and travelling¹¹ was improved after the treatment. Quality of life was improved.

Percentage of Relief: $BT-AT/BT \times 100$: $18 - 1/18 \times 100 = 94.4$ % relief after treatment. It shows the remarkable improvement in before and after the treatment.

DISCUSSION

Yogaraj Guggulu formulation is having Vedana Sthapana and Shotha hara properties which reduces the pain, stiffness, swelling. It will improve the Agni and acts as Sroto Shodhana, which in turn reduces the ama and enhances the tissue nourishment. It is having vata kapha shamaka properties and helps in breaking the avarana of vata to improve the free moment of the joints¹².

Shanka vati formulation is having both Deepana and Pachana properties which helps in Agni Deepana and ama Pachana¹³. It helps in vata kapha shamana which helps in reducing the pain, Stiffness, Heaviness and restricted moments. It helps in digestion and clearing the channels and pacifying the Aggravated vata dosha.

Ashwagandha churna is having balya and vata shamaka properties helps in pacifying the vata dosha and strengthening the bodily tissues. It nourishes the dhatus in turn helps in pacifying aggravated vata dosha and strengthening of Asthi, Majja and Snayu which gives muscles and bone strength¹⁴.

Karpoor taila helps in pacifying aggravated vata and kapha dosha due to the property of its ushna and tikshna. On local application it reduces the pain and stiffness. It acts as both Vedana sthapana (Analgesic) and (Sotha hara). It helps in minimizing the pain, reduces stiffness and pricking pain and improves free range of movement in the joints.

Abhyanga with Dhanvantari Taila¹² and Nadi Sweda was performed. It was having the therapeutic actions like Vedana sthapana (analgesic), Sotha hara (anti-inflammatory), which helps in reducing the pain and stiffness in the joints. The properties of the oil are snigda, usna. guru, and sukshma which helps in deeper penetration of the drug and their absorption. This will give the strength (Balya) and nourishment (Brimhana) to the dhatus. The Nadi Sweda will help in improving the local circulation, improves blood

circulation. The gentle pressure applied during the abhyanga helps in reducing the pain, stiffness and spasm in the lumbo sacral joint.

Kati vasti with Kottamchukkadi taila¹³ and Dhanvantari taila was performed. It was having the properties like Ushna and Tikshna. It helps in reducing the pain, stiffness and inflammation and muscle spasm. It is having the properties like vata shamaka, shotha hara which relieves joint stiffness and pain. The added Dhanwantari taila helps in nourishment (Brimhana) and strength (balya) promoting actions. By adding both the oils helps in strengthening the lower back and relives the pain and stiffness and improves the Musculo skeletal performance.

Matra vasti with Bala ashwagandha taila¹⁴ was performed. It was having the properties like vata hara and balya. The oil is having the properties like Snigda, Guru, Balya which makes the nourishment of the successive dhatus mainly Asthi and Majja and Snayu. It helps in mitigating the aggravated vata and reducing the pain, stiffness and prickling pain present in the area. It majorly helps in diseases of Musculo skeletal disorders that supports to strengthens the life.

CONCLUSION:

Gridhrasi as described in Ayurvedic texts is very much similar to Sciatica as explained in modern science. It is a severely painful condition along with stiffness and unable to perform his routine daily works. Gridhrasi by nature is Kashta Sadhya, however if the patient comes earlier for the treatment can be cured or less likely to suffer from a subsequent attack of pain. In this study the management of Gridhrasi through shodhana therapies and Shamana Chikitsa was performed. As of right now, the patient is doing well with her regular routines. The considerable results of this one case study have better results in both the subjective and objective parameters, which makes a person to lead a better life. However, this is a single case study, further studies are required to evaluate the standards of treatment protocols in large samples with a randomized clinical study to verify the standard outcomes.

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