



## CASE REPORT

### MANAGEMENT OF *GRIDHRASI* W.S.R SCIATICA BY *ERAND-MULADIBASTI* AND LEECH APPLICATION: A CASE STUDY

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#### Summary:

Gridhrasi is counted among 80 Nanatmaja Vata disorders by Acharya Charaka who has mentioned its two types namely Vataja and Vata- kaphaja. Ruka (pain), Toda (pricking sensation), Stambha (stiffness) and Muhurspandana (twitching) in waist, hip, back of the thigh, knee, calf and foot respectively are the main symptoms. Accordingly, the disease most closely resembles sciatica which is characterised as pain or discomfort associated with Sciatic Nerve. The patient presented here with pain in lower back radiating to both legs along with numbness and paraesthesia. The treatment as specified by Acharyas in various texts is focused on Basti Karma, Siravedha (at Janu) and Agnikarma. Following the same treatment line Basti in the form of Erand–muladi Niruha Basti indicated by Acharya Charak in pain of lower back, waist and lower limbs is chosen here. The Vata- Kapha alleviating, analgesic- anti-inflammatory properties of the contents helped in relieving the symptoms. In addition the application of medicinal leech helped in relieving the symptoms like pain, inflammation and stiffness.

Key-Words: Erandmuladi Basti ,Gridhrasi, Jalauka, Sciatica, Vata Vyadhi

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## INTRODUCTION:

The symptoms of this disease initially affect *Sphik* (buttock) as well as posterior aspect of *Kati* (waist) and then gradually radiates to posterior aspects of *Uru* (thigh), *Janu* (knee), *Jangha* (calf) and *Pada* (foot)<sup>[1]</sup>. *Acharya Sushruta* opines when two *Kandara* in the leg gets afflicted with *Vata Dosh*, it limits the extension of leg, resulting in *Gridhrasi*<sup>[2]</sup>. The symptoms are-<sup>[3]</sup> *Stambha* (stiffness), *Toda* (Pricking Sensation), *Ruk* (pain), *Muhuspandan* (Tingling). In *Vata-Kaphaja* type of *Gridhrasi-Tandra*, *Gaurava* (heaviness) and *Arochaka*. Sciatica, also known as sciatic neuritis, sciatic neuralgia, or lumbar radiculopathy, is when pain is felt going down the leg from the back<sup>[4]</sup>. Sciatica is basically a symptom that arises due to compression or inflammation of 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%<sup>[5]</sup>.

This is a case of 35 year old male patient with average economic background shopkeeper who

presented in OPD on 26 September 2015 with chief complaints as-

- Numbness in bilateral lower limbs (more in left limb) since 4 months.
- Tingling sensation in B/L limbs (more in left limb) since 4 months.

The patient was asymptomatic 3 years back. Then one day while playing cricket he felt on ground by his back and developed severe pain which got relieved after taking medication. But after 2 years he again developed pain in lower back which after few months (approx. 2 months) starts radiating towards his left leg along with tingling sensation and numbness and then involved his right leg after 3-4 months. The pain is of sharp shooting nature which increases more while bending.

On physical examination the general condition of patient was moderate with normal cardiovascular and respiratory functions. BP of patient is 130/86 mm Hg., pulse is 88/ min., weight of patient is 80 kg, which is more as per his height which is 168 cms.

The gait of patient was waddling and walk by dragging the toe of left foot. His SLR test was positive in both legs (L>R) at 70° in right and 30° in left. Lasegue's test was positive on bilateral side. Power in left lower limb was slightly lesser than right side; Right hip abductors 4/5, hamstrings 4+/5, ankle

dorsiflexion 4/5 and Left hip abductors 3/5, hamstrings 4/5, ankle dorsiflexion 3/5. Reflexes were diminished in both lower limbs, Right knee jerk 1/4, ankle jerk 1/4 and Left knee jerk and ankle jerk ¼. Among sensory functions, Pin prick sensation was normal in both lower limbs, Vibratory sensation 256 MHz tuning fork was normal in both side, position sense was normal on both side.

The MRI findings revealed straightening of normal lordotic curvature, desiccative disc changes at L5-S1 level, mild diffuse disc bulge at L4-5 level causing thecal sac indentation, diffuse disc bulge with paracentral protrusion at L5-S1 level, compression of left traversing nerve root, mild compression of bilateral exiting nerve roots and impingement of right traversing nerve root.

**Image No.1- MRI findings**



### Image No.2-MRI Findings



On the basis of symptoms the patient was diagnosed as suffering from *Vata-Kaphaja* type of *Gridhrasi* which can be correlated to Sciatica which was diagnosed based on physical examination and investigations.

The treatment of patient was planned as advised in text for *Gridhrasi*. Total duration of treatment was planned for 4 months in 2 sittings with an interval of 1 month between each sitting.

**Table 1: Treatment plan**

1 <sup>st</sup> sitting	2 <sup>nd</sup> sitting
<i>ErandmuladiBasti</i> (in pattern of <i>Kala Basti</i> )	<i>ErandmuladiBasti</i> (in pattern of <i>KalaBasti</i> )
Application of leech twice with a gap of 7 days	Application of leech twice with a gap of 7 days

***Erand-muladiBasti***<sup>[6]</sup>- The *Basti* is told specifically for pain and stiffness caused by *Vata-Kapha* in lower back, waist, leg, hip region. The contents of *Basti* are: *Makshika* (Honey) 60 gm., *SaindhavaLavana* (Rock Salt) 6-8 gm., *Sneha* (*PanchatiktaGhrita*) 80 gm., *Kalkadravya* (*Shatahva, Hapusha, Priyangu,*

*Pippali, Madhuk, Bala, Rasanjan, Vatsakbeej, Mustaka*) 25 gm., *Kwath dravya*-(*Erandmula, Palash, LaghuPanchmul, Rasna, Ashwagandha, Atibala, Guduchi, Punarnava, Argvadha, Devdaru, Madanphala*)- 500 ml., *Go-mutra* 100 ml.

**Leech application-** 2 leeches were applied at the most tender point in Lumbo-sacral region (around L4-5) twice with a gap of 7 days in between.

**RESULTS:**

**Table No. 2-Grading Scale of Symptoms-**

<b>1.Ruka (Pain)</b>	<b>Grade</b>
No pain	0
Occasional pain	1
Mild pain but no difficulty in walking	2
Moderate pain and slight difficulty in walking	3
Severe pain with severe difficulty in walking	4
<b>2.Toda (Pricking Sensation)</b>	<b>Grade</b>
No pricking sensation	0
Occasional pricking sensation	1
Mild pricking sensation	2
Moderate pricking sensation	3
Severe pricking sensation	4
<b>3.Stambha (Stiffness)</b>	<b>Grade</b>
No stiffness	0
Sometimes for 5 – 10 minutes	1
Daily for 10 – 30 minutes	2
Daily for 30 – 60 minutes	3
Daily more than 1 hour	4

<b>4.S.L.R. Test</b>	<b>Grade</b>
More than 90	0
71 – 90	1
51 – 70	2
31 – 50	3
Up to 30	4
<b>5.Reflex</b>	<b>Grade</b>
Normal	0
Diminished	1
Exaggerated	2
Absent	3

**Table 3: BT-AT comparison of symptoms**

<b>Symptoms</b>	<b>BT</b>	<b>AT (after 4 months)</b>
Ruja (Pain)	4	1
Toda (Tingling Sensation)	2	0
Stambha (Stiffness)	3	1
S.L.R		
Right	2	1
Left	4	2
Reflex	1	1
Power		
Right	4/5	5/5

Left	3/5	4/5
Scoliosis	Not present	Not present

**DISCUSSION:**

This is a case of *Vata-KaphajaGridhrasi* and the drugs present in *Basti* are *Vata-Kapha Shamaka*. *Basti* itself is the best treatment of *Vata*,<sup>[7]</sup> which is responsible for the development of the disease and the major symptom pain. *Eranda-muladiBasti* is told as *Deepna* and *Lekhana* in nature which helps in pacifying *Kapha* and reducing symptoms like heaviness and stiffness. Anti-inflammatory, anti-oxidant, central analgesic, anti-nociceptive activity, bone regeneration activity are found in *Ricinuscommunis* (*Eranda*)<sup>[8]</sup> which is the main content of the *Eranda-muladiNiruhaBasti*. *Eranda* is said to be the best in pacifying *Vata* by *AcharyaCharaka*<sup>[9]</sup>. The 50 % Ethanolic extract of *LaghuPanchamula* was shown to exert its peripheral analgesic activity in acetic acid induced writhing test as was observed with diclofenacsodium<sup>[10]</sup>. In a study, it was found that *ButeaMonosperma* (*Palash-* also a main content of *Eranda-muladiBasti*) attenuated chronic constriction injury of Sciatic Nerve induced behavioural, biochemical and histopathological changes<sup>[11]</sup>. The ethanolic extracts of *PlucheaLanceolata* exhibit significant Anti-inflammatory<sup>[12]</sup> and analgesic properties<sup>[13]</sup>. There is the combined effect of

all these and many more drugs in the administration of this *Basti* that gives the desired and proven effect.

The additional therapy used is the leech therapy which aids the symptomatic relief. The analgesic and anti-inflammatory effect of medicinal leeches are well proved in various inflammatory disorders as in Osteoarthritis<sup>[14]</sup>. New studies on leech saliva have revealed the presence of histamine, serotonin and also certain steroid hormones including cortisol, progesterone, testosterone, estradiol, and dehydroepiandrosterone. Certain kinases have also been isolated from the leech saliva, which are possibly responsible for the analgesic action<sup>[15]</sup>. Thus, the two therapies provided symptomatic relief and also has the capacity to break the pathology by nerve regeneration and anti-oxidant activity present in contents of *Basti*.

**CONCLUSION:**

Sciatica or the radicular pain in the course of the sciatic nerve, due to any underlying condition is a frequent and rather debilitating event. The lifetime incidence of this condition is estimated to be between 13% and 40%. However many cases resolve through minor therapy of analgesics and physical exercises,

the condition has the potential to become chronic and intractable, with major socio-economic implications. In this case with severe sciatica patient experienced sustained improvement after a short treatment. These results suggest the efficacy and the involvement of the *Basti* at the pathological level in Sciatica and other similar disorders. However, the results need to be confirmed by Randomised controlled trials.

#### REFERENCES:

1. KashinathShastri and GorakhnathChaturvedi. Charaka Samhita of Charaka, Chikitsa Sthana, chapter 28, verse no.56. 1<sup>st</sup> edition, Varanasi ; ChaukhambaBharati Academy;2009: 787
2. AmbikaDuttaShastri.Commentary: AyurvedTatvaSandipika on Susruta Samhita of Susruta, Nidan Sthana, chapter 1, verse no.74. 1<sup>st</sup> edition, Varanasi; Chaukhamba Sanskrit Sansthan. 2010:303.
3. KashinathShastri and GorakhnathChaturvedi. Charaka Samhita of Charaka, Chikitsa Sthan, chapter 28, verse no.54. 1<sup>st</sup> edition, Varanasi ;ChaukhambaBharati Academy;2009: 787.
4. PubMed Health, NIH - National Institute of Arthritis and Musculoskeletal and Skin Diseases.[Cited On: 25/08/2015]Available From: <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0024494/>
5. Younes M, Bejia I, Aguir Z, Letaief M, Hassen-Zroer S, Touzi M, et al. Prevalence and risk factors of disc-related sciatica in an urban population in Tunisia. Joint Bone Spine 2006;73:538-42. [PubMed]
6. KashinathShastri and GorakhnathChaturvedi. Charaka Samhita of Charaka, Siddhi Sthan, chapter 3, verse no.38-42. 1<sup>st</sup> edition, Varanasi ;ChaukhambaBharati Academy;2009: 999.
7. KashinathShastri and GorakhnathChaturvedi. Charaka Samhita of Charaka, Sutra Sthan, chapter 25, verse no.40. 1<sup>st</sup> edition, Varanasi ; ChaukhambaBharati Academy;2009: 468
8. ManpreetRana, Hitesh Dhamija, Bharat Prashar, ShivaniSharma.Ricinuscommunis L. – A Review.Department of Pharmacy, ManavBharti University, Solan H.P. International Journal of PharmTech Research,(IJPRIF) CODEN (USA); Oct-Dec 2012. ISSN: 0974-4304; 4(4):1706-1711.
9. KashinathShastri and GorakhnathChaturvedi. Charaka Samhita of Charaka, Sutra Sthan, chapter 25, verse no.40. 1<sup>st</sup> edition, Varanasi ; ChaukhambaBharati Academy;2009: 468
10. ShivaniGhildiyal, Manish K Gautam, Vinod K Joshi, Raj K Goel. Analgesic and Hypnotic Activities of LaghuPanchamula: A Pre-clinical Study. Ayu; Jan-Mar 2014. 35(1):79-84. Available from: <http://dx.doi.org/10.4103%2F0974-8520.141945> [PubMed]
11. Venkata R, K Thiagarajan, PalanichamyShanmugam, Uma M. Krishnan, ArunachalamMuthuraman, Nirmal Singh. Ameliorative potential of *Buteamonosperma* on Chronic Constriction Injury of Sciatic Nerve induced neuropathic pain in rats. An. Acad. Bras. Ciênc. (Rio de Janeiro); Dec 2012. 84(4). Available From: <http://dx.doi.org/10.1590/S0001-37652012005000063>
12. Vandita Srivastava, NeerajVerma, J. S. Tandon, R. C. Srimal. Anti-inflammatory Activity of *Pluchealanceolata*: Isolation of an Active Principle. Pharmaceutical Biology, 1990; 28(2):135-137. Available from: <http://doi:10.3109/13880209009082796>
13. Chawla A. S., Kaith B.S., Handa S.S., Kulshrestha D.K., Srimal R.C. Anti-inflammatory Activity of *Pluchealanceolata*. *Fitoterapia*, 1991; 62:441-444.
14. Singh Akhilesh Kumar, Singh Om Prakash. Analgesic and anti-inflammatory effect of leech

Therapyin patients of Osteo-Arthritis. International Research Journal of Pharmacy. Dept. of Kaya-Chikitsa, Faculty of Ayurveda, institute of Medical sciences, BHU, Varanasi. 18.2.2012

15. Baskova IP, Yudina TG, Zavalova LL, Dudkina AS. Protein-lipid particles of medicinal leech salivary gland secretion; their size and morphology. Biochemistry (Mosc). 2010 May;75(5):585-9.

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