



## SCIATICA (GRIDHASI): CASE REPORT IN DISCUSSION ON GRIDHASI W.S.R SCIATIC NERVE NEUROPATHY (ROLE OF AYURVEDIC MEDICINE AND PANCHKARMA IN SCIATIC NERVE NEUROPATHY :CASE STUDY)

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**ABSTRACT** Sciatic nerve neuropathy and dysfunction is commonest cause of sciatica (also c/a Gridhasi in ayurveda). It is a cause of lower extremity symptoms in a musculoskeletal system. We present the case of a man who comes with lower extremity weakness, pain, numbness. He came to us after spinal surgery failure case. On RTA (road traffic accident) his lumbar vertebrae fractured. Operation has been done at that time. His operation was not successful. After operation he had unable to walk properly due to nerve compression. Electro diagnostic testing revealed an isolated right sciatic neuropathy .we had given ayurvedic medicines (especially ekangaveerrasa, sameerpanagarasa) and panchakarma therapy. Panchakarma therapy includes katibasti, adharangasnehanswadan, anuvasanabasti, asthapanabasti. Anuvasanabasti was given by sahacharaditaila and asthapanabasti was given by erandmuladiketha. The effect of therapy shows a drastic improvement on patient.

**KEYWORDS :** Sciaticnerve, Neuropathy, Electrodiagnosis, Gridhasi.

### 1. INTRODUCTION

#### 1) SCIATICA (GRIDHRASI)

The sciatic nerve derives its fibres from L4, L5, S1, S2 and S3 nerve arises from the lumbosacral plexus and is composed of two distinct trunks. The lateral (peroneal division) and the medial (tibial division). The peroneal and the tibial division lie next to each other to form the sciatic nerve. The divisions physically separate from each other at the mid thigh to the distal thigh to form the common peroneal and tibial nerves. Occasionally the divisions separate at the proximal thigh (1).

Sciatic neuropathy can be the result of any focal lesion of the nerve in the hip or thigh, distal to the lumbosacral plexus but proximal to the separation of nerve into its distal branches. The lesion can involve demyelination injury, axonal injury, mixed axonal and demyelination injuries, or partial or complete nerve discontinuity (2). Etymologies of sciatic neuropathy can include traumatic, compressive, ischemic, neoplastic, or idiopathic etymologies. Traumatic injuries can include injury to the sciatic nerve in association with femur fracture, hip dislocation or fractures, laceration, gunshot wound, or posterior thigh compartment syndrome. Compressive injuries can include compression from compartment syndrome, hematoma, hamstring injuries, fibrous bands, persistent sciatic artery, or controversially, pirofomis syndrome (3,4 and 5). Reported injuries relating to the preoperative period include injury from ischemia and positioning during cardiac surgery, lithotomy position, vaginal delivery, prolonged sitting as in some craniotomy or other neurosurgical operative positions, or nerve injury from a variety of causes during and after hip arthroplasty (6,7)

#### 2) BASTI & KATIBASTI

Panchakarma therapy is very effective in the treatment of gridhrasi. Acharya Caraka described that basti can be used as universal tool for all type of disease and conditions. (8, 9) It shows broad spectrum and multidimensional aspect regarding effects. Basti has two types' niruha or asthapanabasti and sneha or anuvasanabasti. (10). Niruha basti is a mixture of oil, honey, kwatha (decoction) and kalka. These ingredients are immiscible with each other. A homogenous mixture is required for actual administration of basti whereas anuvasanabasti is snehabasti. We had given karma basti. total number of basti given were 30 in 30 days. anuvasanabasti given by sahacharadi taila and niruha basti was given by erandmuladi kwatha.

#### KATIBASTI

Katibasti was given by sahacharadi taila. adharanga swedan and snehana was also done.

#### 3) AYURVEDA MEDICINES

We had given ekangaveer ras and sameerpanaga ras .it is specially indicated in sciatica.

#### 2. PATIENT INFORMATION

Patient presentation- A patient named Irfhan Khan age 24 years came OPD on 15 /7/ 16 OPD number 28982 in our hospital. He was suffering

from spinal surgery failure case on RTA (road traffic accident) his lumbar vertebrae fractured operation has been done at that time. Operation was not successful. After operation he had unable to walk properly due to sciatic nerve compression. History of present illness- due to RTA road (traffic accident patient) was unable to walk the main reason due to sciatic nerve compression.

Other medication- patient has not taken any other medication for any disease.

#### 3. CLINICAL FINDINGS

Physical examination- During physical examination the patient was unable to walk and dependent on wheelchair. All Dural tension sign were negative. Lumbar flexion and extension were minimally restricted and without end range pain muscle bulk was symmetric in the upper extremities and asymmetric in the lower extremities with significant right calf atrophy and with no fasciculation overall tone was normal strength was measured on MRC scale as for 1+ / 5 in the right ankle dorsiflexion, 1+ / 5 in right hamstrings and 1+ / 5 in the right hip abductors with normal strength in all other muscles group tested in the bilateral upper and lower extremities deep tendon reflexes to 2+ / 4 in bilateral to plus in the left at least and 2+ / 4 for in the left at least deep tendon reflexes where 2+ / 4 in the left upper extremities. sensation was diminished 2 pinprick along the lateral aspect of the right foot and there was no peripheral oedema. BP- 120 / 80, pulse -72 / minute, temperature -Afebrile.

#### 4. DIAGNOSTIC ASSESSMENT ASSESSMENT AND TREATMENT PLAN ASSESSMENT

Fracture of bilateral lamina of L-1 vertebrae with right sided faecal looking at D-12 L-1 level. Burst fracture with marrow oedema of L-1 vertebrae. Retropulsed fracture. Fragment is causing compression over conus medullaris with edema/contusion of underlying conus and epiconus.

#### MRI REPORT (16/12/15) ON RTA TIME

Compression collapse/Burst fracture with marrow oedema of L-1 vertebrae. Retropulsed fractures fragment is causing compression over conus medullaris with edema/contusion of underlying conus and epiconus.

Fracture of bilateral lamina of L-1 vertebrae with right sided facet locking at D-12 level

#### MRI REPORT (LS SPINE) 13/04/17 (AFTER T/T)

- 1) Metallic fixative device is seen in D-12 and L-2 causing signal void artifacts.
- 2) Deficient posterior structures/laminae at D-12/L1, L2 with fibrofatty proliferation in adjacent cauda paraspinal musculature consistent with post surgical findings.
- 3) There is seen focal thickening and T2/STIR hyperintensity at terminal most conus adjacent cauda equina nerve roots? Post

traumatic chronic arachnoiditis. Possibility of demyelination cannot be excluded in this plan study however possibility is less likely. Contrast could not be given because of metallic fixative screws barring the suppression.

- 4) Slight anterior wedging of L-1 with fatty marrow suggest chronically healed fractures.
- 5) Mild degenerative spondylotic changes in the form of small marginal osteophytes.

L-3/4 and L-4/5 IV discs show mild bulge without significant canal or foraminal compromise

Rest of the cord appears unremarkable.

Rest of the vertebral bodies/IV discs/posterior structures are unremarkable.

NCV (Nerve conduction) report

This nerve conduction study shows

Right tibial right nerve is not recordable.

Right tibial soleal reflex is not recordable.

### IMPRESSION

Abnormal nerve conduction study suggestive of right sciatic neuropathy.

### COMPLEMENTARY TEST-

- a) CBP with ESR
- b) sugar test (random)
- c) MRI (whole spine)
- d) HLAB-27
- e) nerve conduction test (NCV)

### DIFFERENTIAL DIAGNOSIS

We had done complementary tests for differential diagnosis. (e.g CBP with ESR, Sugar test random, MRI (whole spine), HLA B27, NCV. These pathological tests are essential for diagnosis.

Finally in electrodiagnosis, we conclude that patient was suffering from sciatic nerve neuropathy

### 5.) THERAPEUTIC INTERVENTION

Role of Ayurvedic medicines and panchakarma

- 1) Ayurvedic medicines - Ekangaveer ras and sameerpanga ras were given to the patient.
- 2) Panchakarma therapy - Basti (anuvasana and asthapana basti) and katibasti were given to the patient.

### 6.) FOLLOW UP AND OUTCOMES

We have seen drastic improvement in patient. After treatment he was able to walk properly.

### 7.) DISCUSSION

Electrodiagnostic studies led to the diagnosis of right sciatic nerve neuropathy. On given ayurvedic medicines and panchakarma therapy, there is drastic improvement on him. Firstly, he came in OPD in wheel chair, then he was able to walk with the help of walker and then with the help of stick and then without stick. Now a days he is able to walk properly and do his daily routine work himself.

### 8.) CONCLUSION

On given ayurvedic medicines (especially ekangaveer rasa, smeer panaga rasa) and panchakarma therapy, there were drastic improvement in patient. Panchakarma therapy includes snehan, swedan, anuvasana, asthapana basti. Anuvasana basti was given by sahach ara ditaila. Asthapana basti was given by erandmuladikwatha.

The effect of this combination shows a drastic improvement on patient. We conclude that ayurvedic therapy and treatment is very beneficial for not only gridhasi (sciatica) but also other clinical pathophysiology related to katigatavata.

### CONSENT OF PATIENT

Written information consent was obtained from the patient for publication.

### SOURCE OF FUNDING

The case was treated in Pt. Khushilal Sharma Govt. Ayurved College and Hospital, Bhopal, M.P., India

### CONFLICT OF INTEREST

none

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