



# Sciatic Neuralgia an Agonising Encumbrance and its Modern Approach



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## Abstract

Sciatica not a medical diagnosis but is a symptom of an underlying vertebral condition i.e.,-lumbar herniation. dislocated disc, Spondylolisthesis and spinal stenosis where usually practiced medicine. Physical therapy, surgery and even alternative therapy fails to ensure cure but present regime a composite of intravenous Calcium supplementation, cholecalciferol and bio neurogen composite achieved grade I clinical response in 93% cases without any withdrawal. Drug adversity, hepatorenal alteration and recurrence in 5 yrs of post therapy follow up with excellent quality of life.

**Keywords:** Sciatic neuralgia; Radiculitis; Spondylolisthesis; Spinal stenosis; Lumbar disc herniation; Bio neurogen

## Introduction

Sciatica a clinical condition presenting with leg pain, tingling and numbness, weakness in the lower back radiating down wards up to legs both front and outside which is usually due to either lumbar herniated disc, degenerative disc disease, Spondylolisthesis or spondylolithiasis or spinal stenosis. This affect 2%-40% of population presenting with encumbrance at same point of life in the age group of 40-50 years and men outnumber women [1].

The literature reveals use of analgesics, steroids to relieve pain, may relieve pain but fails to alleviate presentation, though use of Gabapentine for acute is quite in vogue but non ensure satisfactory clinical relief or improved quality of life. In addition, alternative therapy like Spinal manipulation and surgery are also in vogue with intent to alleviate agonising state [2]. Thus, in this agonising disease having no secured curative therapeutic modality a clinical evaluation program is conducted at RA.Hospital & Research Centre, Warisaliganj (Nawada) Bihar.

## Aims and Objectives

Asses the clinical efficacy of a combo therapeutic modality in cases non responsive to Sciatica of varied origin and etio pathogenesis.

## Materials & Method

Patients of sciatica of various etiopathogenesis attending medical OPD of RA. Hospital & Research Centre, Warrisaliganj (Nawada) Bihar been selected as per following index-Patients with-

- A. Constant pain in only one side of the leg or buttock [3]
- B. Pain originates in low back or buttock and continues along the path of sciatic nerve down the back of the thigh, lower leg and foot.
- C. Pain becomes worse on sitting or standing, exacerbate on sneezing or coughing
- D. Pins and needle sensation, numbness, weakness or pricking sensation
- E. Weakness Or numbness on moving the leg or foot
- F. Severe or shooting pain in the leg
- G. Pain and other symptoms in toes.

All the selected patients were thoroughly interrogated, examined and assessed for straight leg raising test (Positive Lasegue's Sign) i.e.- Pain in the distribution of Sciatic nerve, blood sugar, hepato renal status to ascertain post therapy drug related adversity.

Based on clinical presentation and its severity patients were classified in Table 1. Patients having associated hypertension, myxoedema (hypothyroidism) and diabetes mellitus are duly controlled with dietary restriction and drug therapy. In diabetes mellitus and hypertension carbohydrate and high fat diet are duly restricted, in addition all the cases with hyper lipidemic state baked

seed of Linseed (*Linum usitatissimum*) in dose of 5gm morning and evening to be chewed daily. Prior to advocation of trial drug patients were re assured for bio regulated blood sugar, serum

cholesterol and blood pressure. In addition, persons with body weight >IBW been suggested for dietary control to ensure IBW to alleviate pressure over the vertebral column due to overweight [4].

**Table 1:** Clinical presentation and its severity of the patients.

Straight leg raising test (Lasegue’s sign ): Presence of Pain in the Distribution of Sciatic Nerve on Passive Flexion of Straight Leg between 30-70 Degree Elevation	
Grade I (Mild)	Pain on sneezing, coughing, walking
Grade II (Moderate)	Sneezing and coughing causes intractable agonising pain in leg needs medication
Grade III (Severe)	Agonising pain on standing, walking and make crippled

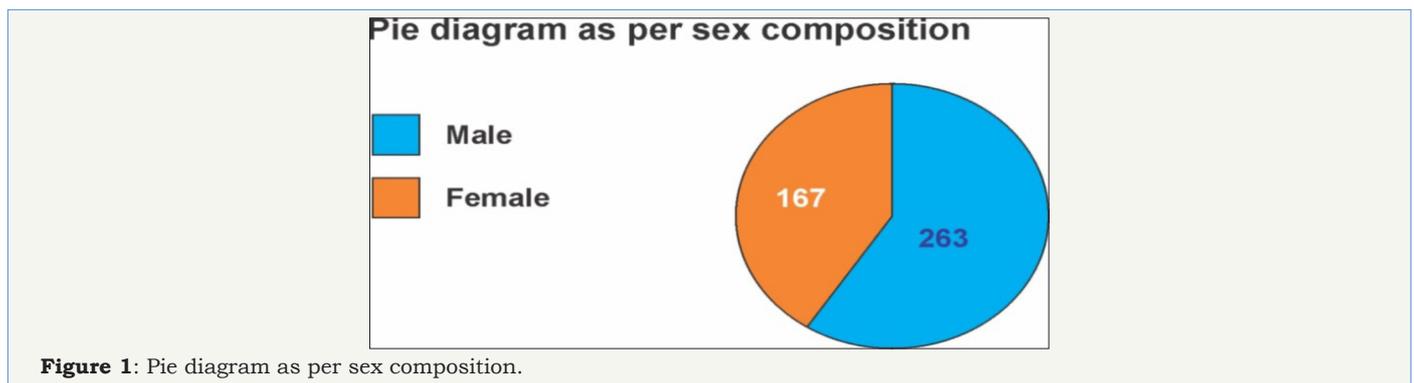
**Regime prescribed**

Injection Calcium Gluconate 1 ampoule intravenous very slow with 24 numbered scalp vein set (Measure blood pressure, in hypertensive Calcium should be avoided)

Inj Methyl cobalamin 1500mcg+Nicotinamide+Pyridoxin 1 ampoule every 4<sup>th</sup>day very slow Cap Bio neuragen 1cap daily Or Syrup 10ml 12hrly for adult [Bio neuragen constitutes natural resource i.e.- equal part of powder of *Acorus calamus* (rhizome), *Herpestismomnieri* (leaf), *Nardostachysjatamansi* (flower), *Convolvulus pluricaulis* (Flower)either in capsule form or syrup constituting 500mg each capsule or 500mg each 10ml].

Proton pump inhibitor and analgesic anti arthritic (Aceclofenac sustained release with rabiprazol(Cap Dolostat +R OrRaceclo1cap daily). Active and passive exercise Cap Cholecalciferol D3 60K every week, Each patient been given a follow up card with facility to enter in Table 2. On every 3 months patient’s blood analysis for blood sugar, hepatic, haematological and renal function were assessed to ascertain any drug adversity and safety profile of the advocated regime. Based on therapeutic response, clinical achievement been graded in Table 3.

**Observations**



**Figure 1:** Pie diagram as per sex composition.

Selected patients were of age group above 20 years and among them majority (20.5%) were of age group 30-35 years while 18% patients were of age >50 years Table 4. Out of all 65.7% were male and 34.25% were female Figure 1.

Out of all 47% patients were suffering since >5 years and 4.5% were from >10 years while majority (21.25%) patients since last 3-4 years Table 5. As per occupation majority (127) were house hold workerwhile 85 were labourer, 116 were motor cyclist and 29

**Table 2:** Follow up card.

Particulars	Date of Achievement	Any Unusual
Leg pain		
Back pain		
Agony on sneezing/coughing		
SLR		

**Table 3:** Grading of clinical achievement based on therapeutic response.

Grade I (Excellent)	Improvement in pain and agony within a week of therapy with complete normalcy in gait in 3 months therapy without any adversity or adjuvant.
Grade II (Good)	Relief in agonizing pain and improvement in other presenting features
Grade III (Poor)	Symptomatic relief with recurrence

were cyclist, and 55 were leading sedentary life style Table 6. Among them 210(52.5%) were of severe degree of clinical presentation while 180(35%) moderate and 10(2.5%) mild Figure 2. As per clinical diagnosis majority (71.5%) were of radiculitis while 12.5% were of spinal disc herniation Table 6. 2.75% patients were with low body weight while 40% were obese and overweight, 62.25% were normotensive while 0.5% was hypertensive Table 7. 64.2% male and 74.5% female were with fasting blood sugar<100mg%while

2.6% male and 4.3% female with blood sugar >150mg. 35.7% male and 25.5% female were with haemoglobin concentration <10gm %, 2.3% male and 3.6% female were with SGOT and SGPT >35IU, 22.4% male and 5.1% female were with blood urea >30mg % and Serum creatinine >1.5mg%. 93% patients had grade I clinical response while 6.5% shows grade II with relapse in 0.5% cases [5]. None shows any drug adversity or needed any adjuvant or had acute surge of presenting agony Table 8.

**Table 4:** Age and sex wise distribution of patients of sciatic neuralgia.

Age Group (in years )	Number of Patients		
	Male	Female	Total
20-25	35	20	55
25-30	38	12	50
30-35	58	24	82
35-40	31	19	50
40-45	27	16	43
45-50	29	19	48
>50	45	27	72
Total	263	137	400

**Table 5:** distribution of patients as per duration of illness.

Duration in Years	Number of patients		
	Male	Female	Total
< 1yr	7	10	17
01-02	17	6	23
02-03	29	15	44
03-04	56	29	85
04-05	28	15	43
05-06	20	8	28
06-07	19	11	30
07-08	31	17	48
08-09	28	12	40
09-10	16	8	24
>10	12	6	18

**Table 6:** Distribution of patients as per occupation.

Occupation	Number of Patients		
	Male	Female	Total
Labourer	76	9	85
Motor cyclist	107	9	116
Cyclist	29	0	29

House hold worker	23	104	127
Sedentary life style	40	15	55

**Table 7:** Distribution of patients as per their body weight and blood pressure.

Body Weight Blood Pressure	Number of Patients Average Blood Pressure(mmHg)				
	< 100	100-110	110-120	120-130	>130
IBW	99	24		-	-
IBW+ 1SD	120	4	-	-	1
IBW+ 2SD	17	3	2	1	-
IBW+3SD	10	2	-	-	-
IBW+4SD	4	2	-	-	-
IBW-1SD	4	7	-	-	-

(Key word: IBW: Ideal body weight as per age , 1SD = 5kg)

**Table 8:** Distribution of patient as per haematological, hepatic and blood sugar status.

Particulars	Number of Patients		
	Male	Female	Total
<b>Blood sugar</b>			
Fasting:			
>100mg %	169	102	271
100-150mg %	87	29	116
150-200mg %	7	6	13
<b>Haematological</b>			
Haemoglobin (gm %)			
<10gm	94	35	129
>10gm	169	102	271
<b>Hepatic profile</b>			
SGOT (in IU):			
< 35	257	132	389
>35	6	5	11
<b>SGPT (in IU)</b>			
< 35	257	132	389
>36	6	5	11
<b>Renal profile</b>			
Blood Urea (in mg %)			
< 30	204	130	334
>30	59	7	66
<b>Serum creatinine (in mg %)</b>			
<1.5	204	130	334
>1.5	59	7	66

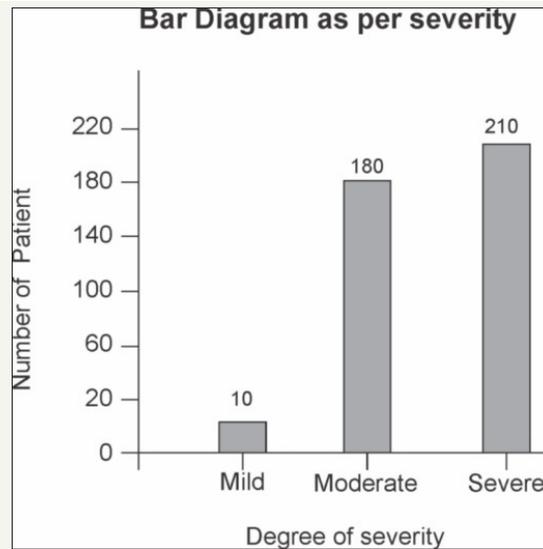


Figure 2: Bar diagram as per severity.

**Result**

Patients of sciatic neuralgia Or Sciatica of varying stage and etiopathogenetics of age group 20-50 years non-responsive to

various conventional and recommended therapeutics, had grade I clinical response in 93% patients with present therapeutic modality (Figure 3).

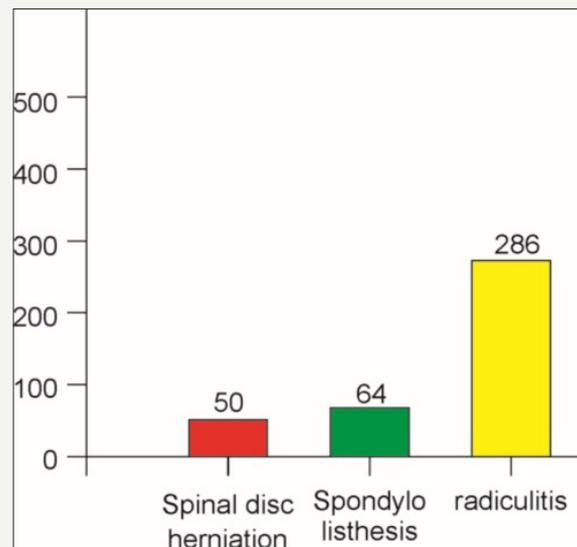


Figure 3: Bar diagram showing radiological diagnosis.

**Discussion**

Table 9: Outcome of therapy.

Particulars	Number of Patients
Any drug adversity	None
Any adjuvant required	None
<b>Status on treatment withdrawal</b>	
Relapse	2
Rebound	None
Unaltered	398
<b>Grades of clinical response</b>	

Grade I	372
Grade II	26
Grade III	2

Sciatica, an agonising presentation in area supplied by sciatic nerve i.e. back to posterior part of lower extremity up to heel, though conventional management i.e. drugs, physiotherapy and surgical intervention fails to achieve cure the present study comprising use of therapeutic modality achieve grade I clinical response in 93% patients while 0.5% cases had grade III response as etio pathogenesis of sciatic pain is usually due to decline neuro conduction, glial damage and neuronal oedema ,in addition increasing incidence is solely due to changed life style [6], presence of dietary non nutrients which causes toxic glial necrosis

or degeneration Table 9. Intravenous Calcium supplementation provide ionic calcium to boost neuro transmission and conduction, Chole calciferol helps in fatty acid bioregulation and ionic calcium concentration, biogenic neurogenic constituents i.e.-active ingredients of *Acorus calamus*, *Herpestis monnieri*, *Nardostachys jatamansi*, *Convolvulus pluricaulis* and *Cassia angustifolia* helps in neuroglial regeneration, disc repair, limit inflammation. Analgesic antarthritic aceclofenac sodium 200mg (SR) helps in acute pain relief while Proton pump inhibitor safe guard gastric mucosa. Bio regulative effect of biogenic neuragen checks recurrence or withdrawal due to its neuro generative effect [7].

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