

Lumbosacral Radiculopathy Conservative Management Outcome in 80 consecutive patients

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Abstract

Eighty (80) patients with Lumbosacral Radiculopathy were treated conservatively. The patients were followed up for a period of three years (1986-1989). Out of 80 patients, only 8 (10%) had undergone surgery. The Conservative management included, complete bed rest for a period of 2-3 weeks, with use of antiinflammatory medication, and Lumbosacral support. Repeated clinical evaluation indicated significant improvement in nearly 90% of patients. It is concluded that surgery is rarely indicated in Lumbosacral Radiculopathy.

Introduction

The patients with Lumbosacral Radiculopathy occupy a large part of time in Physical Therapy Department. The management of the lumbosacral radiculopathy secondary of disc disease is controversial^{1,3,5} and the influence of Physiotherapy on speed of recovery and out-come is uncertain².

A wide range of therapeutic measures have been used but do not seem to confer any long term benefit. There is a general agreement that conservative treatment, which may include bed rest, analgesic medication, exercises and education has a favourable outcome in a majority of cases.⁶ Surgery is indicated in only a small percentage of cases^{8,9} and delaying surgery is appropriate in most patients⁹.

The aim of this study was to evaluate the outcome of conservative treatment in patients of lumbosacral radiculopathy.

Patients & Diagnosis :

Eighty (80) patients with Back Pain were studied. The Lumbosacral Radiculopathy was considered in patients with history of Back Pain, worsened with coughing, sitting and often radiating down the leg.

The pain was poorly localized and deep in myotomal or dermatomal pattern.

Most of the patients had past history of Back-ache or lumbosacral sprain. All the patients had gross paravertebral spasm and spinal movements were markedly restricted especially the lateral flexion on the affected side.

The patients with hip and sacroiliac arthritis, ischial bursitis, Coccydynia, thrombophlebitis, intermittent claudication, malignant or infective disease, Gynacacological disorders, vertebral collapse, and gross structural abnormality of spine were excluded from this study.

The clinical finding of these patients are shown in Tables I & II.

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Table - I
History of Patients with Lumbosacral Radiculopathy.

History	No. of Patients
A) No. of episodes of Radiculopathy.	
1.	60
2.	12
3.	8
B) Precipitating factors	
Not identified	12
Heavy lifting	40
Pushing /Pulling	15
Sports activity	6
Auto accidents	7
C) Location of Pain	
Back and gluteal region	70
Post. thigh	15
Leg	50
Foot	20

The number of patients is more than 80, because patients had multiple areas of pain.

Lasegue's straight leg raising test⁷ and Popliteal compression test was helpful in diagnosis and in follow up in these patients.

Management of Patients :

The patients were treated using the following principles of treatment.

- 1) Complete rest for 2-3 weeks
- 2) Anti-inflammatory medication
- 3) Exercise therapy and
- 4) Lumbosacral support.

The patients with acute onset (2-4 weeks) were advised complete bed rest, and Anti-inflammatory medication. The Physical measures advised during bed rest period were application of hot packs, cold packs (using ice) and infrared.

The following exercises programme⁴ was designed after the patient was free from pain

In the first week of bed rest treatment, only knee to chest and pelvic tilt was advised. During the 2nd (or if the patient was not able to perform sit ups from level position) the patient was

Table - II
Physical Finding in 80 patients with Lumbosacral Radiculopathy.

Root	No of Patients	Reflexes	Sensory Changes	Weakness
L4	6	↓Knee	Antero-medial aspect of leg.	Grade 3-4 Quadriceps.
L5	40	-	Antero-lateral aspect of leg. Dorsal aspect of foot and great toe.	Grade 3-4 EHL.
L5, S1	24	↓AJ	Lateral aspect of leg. lateral border of sole. Lateral toes and great toe.	Grade. 3 extensors of toes.
S1	10	↓AJ	Postero-lateral aspect of leg. Lateral border of sole and lateral toes.	Planter flexors of foot.

instructed to begin from a sitting position and descend to supine position. Sit ups were done, in hook lying position taking 3 seconds for he sit ups, 3 seconds to hold, and 3 seconds to slowly descend.

The patients were instructed to begin with the sit ups they could perform comfortably and progress to 20 repetitions, twice daily. Then the patients were advanced to a slant board with three adjustments from 10°-30°. The patients who could perform 20 sit ups at 30° slant were allowed to place sand bags in padded fashion around the neck, and perform sit ups.

The next part of the treatment was a lumbosacral corset. The patients put on the corset in recumbent position, then rose. The corset is worn full time until 20 sit ups can be done, comfortably, usually 1½ to 2 months. Then corset is worn in the early afternoon. After the period of 4-6 months the corset is worn only during activities, like long drives, gardening, heavy works and sports activities.

The corset provides circumferential pressure, and limits the extremes of lumber movements, and a reminder not to abuse the back.

Results and Discussion

50 patients were symptom free and had started the light activities, within 3 months from the beginning of the treatment. 15 of these patients had returned to light work, only after one month of the treatment.

Additional 22 patients who were pain free feared activity, for nearly 6 months, the back education helped them to overcome the fear.

The improvement in these patients was recorded by history of diminution of pain, increase in angle of straight leg raising and improvement in muscle power.

Only 8 patients had under gone surgery (laminectomy).

The majority of these patients were followed up for a period of 3 years, with some exceptions all these patients remained symptom free and active.

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