

Homoeopathic management in the cases of lumbar spondylosis

Manejo homeopático en los casos de espondilosis lumbar.

Puja Turkar¹, Jyoti Patil^{2*}

¹ Department of Repertory, Bharati Vidyapeeth Deemed to be University, Pune, Maharashtra, India

² BHMS, MD(HOM), India

* Author for correspondence, email: jyoti.patil@bharativedyapeeth.edu

ABSTRACT

Background - Lumbar spondylosis, also known as osteoarthritic spinal disease of the lumbar vertebrae, is a degenerative disease that usually occurs with age and is characterized by lower back pain that worsens with movement. It is a common problem seen in the general population. If left untreated, the disease can lead to disabilities and affect the quality of life. This study aims to demonstrate the usefulness of homeopathic medicines in patients with lumbar spondylosis using Murphy repertory as a tool for prescribing medicines. **Materials and method** -To conduct this study, 30 patients in the age group of 30 to 70 years with a diagnosis of lumbar spondylosis were selected. Treatment response was determined by ROM, SLR and pain score before and after treatment. Repertorization was done with the help of Murphy repertory using the RADAR software, and the remedy was prescribed to the patients. **Result** - The study found that the pain score before treatment was 7.00 ± 0.98 , after treatment the pain score was reduced to 3.10 ± 1.37 . Paired t-test was used to assess treatment efficacy. The statistical value of the test is 17.60 and the p-value (0.000**) is very small, suggesting that Murphy Repertory is useful in treating cases of lumbar spondylosis. **Conclusion** - The medicines, which were selected and prescribed based on totality of symptoms considering sign and symptom of lumbar spondylosis, after the repertorization from murphy repertory, showed significant result in the treatment of lumbar spondylosis. The results support new avenues for future studies of lumbar spondylosis and homeopathic treatment.

Keywords - Low back pain, Lumbago, Pain Measurement, Homoeopathy.

RESUMEN

Antecedentes: la espondilosis lumbar, también conocida como enfermedad osteoartítica de la columna lumbar, es una enfermedad degenerativa que generalmente ocurre con la edad y se caracteriza por dolor lumbar que empeora con el movimiento. Es un problema común visto en la población general. Si no se trata, la enfermedad puede provocar discapacidades y afectar la calidad de vida. Este estudio tiene como objetivo demostrar la utilidad de los medicamentos homeopáticos en pacientes con espondilosis lumbar utilizando el repertorio de Murphy como herramienta para la prescripción de medicamentos. **Materiales y método** -Para realizar este estudio se seleccionaron 30 pacientes en el grupo etario de 30 a 70 años con diagnóstico de espondilosis lumbar. La respuesta al tratamiento se determinó mediante ROM, SLR y puntuación de dolor antes y después del tratamiento. La repertorización se realizó con la ayuda del repertorio de Murphy utilizando el software RADAR y se prescribió el remedio a los pacientes. **Resultado:** el estudio encontró que la

puntuación de dolor antes del tratamiento era de $7,00 \pm 0,98$, después del tratamiento la puntuación de dolor se redujo a $3,10 \pm 1,37$. Se utilizó la prueba t pareada para evaluar la eficacia del tratamiento. El valor estadístico de la prueba es 17,60 y el valor p (0,000**) es muy pequeño, lo que sugiere que el Repertorio de Murphy es útil en el tratamiento de casos de espondilosis lumbar. Conclusión - Los medicamentos, que fueron seleccionados y prescritos basándose en la totalidad de los síntomas considerando los signos y síntomas de la espondilosis lumbar, después de la repertorización del repertorio de Murphy, mostraron resultados significativos en el tratamiento de la espondilosis lumbar. Los resultados respaldan nuevas vías para futuros estudios sobre la espondilosis lumbar y el tratamiento homeopático.

Palabras clave - Dolor lumbar, Lumbago, Medición del dolor, Homeopatía.

INTRODUCTION

Back pain is one of the most common complaints in general practice. Therefore, the differential diagnosis covers most disease states. The first major division is acute and chronic back pain. If the back pain persists for several days, possible causes should be clarified and further investigated. The possible causes can be traumatic, mechanical, degenerative, metabolic, neoplastic (benign or malignant), infectious conditions of the bones, joints, psychogenic conditions such as anxiety, depression, cardiac and vascular diseases, gynaecological, gastrointestinal, renal, or urogenital, blood diseases, etc(1).

The 2010 Global Burden of Disease study estimates that back pain is among the top ten most common diseases and injuries accounting for the most disability-adjusted years of life worldwide(2). Lifetime incident of low back pain ranges from 50% to 70%(3).

Lumbar spondylosis is a degenerative disease of the lumbar spine characterized clinically by insidious onset of pain and stiffness and radiographically by osteophyte formation. Degeneration mainly begins in the intervertebral joints, followed by a reduction in the disc space and the formation of marginal osteophytes. Osteophytes around the intervertebral foramen can invade the nerve root canal and thus impair the function of the exiting nerve(4).

The most common cause of lumbar spondylosis is bad posture and chronic back strain. Other causes include previous spinal injuries and spinal disorders, birth defects, and old herniated discs(4). Symptoms begin as lower back pain that initially gets worse during activity but is then almost always present. There may be a feeling of a catch when rising from a seated position, which is relieved while walking a few steps(5). Constant pain is felt in the lower back and may radiate to the buttocks, thighs, calves, and feet (4).

Clinically, patient should be examined in the standing and sitting and lying down position for spine curvatures, spasms, stiffness, and herniated disc due to lumbar spondylosis.

To access the Range of Motion (ROM) in the spinal column, patients are instructed to bend forward and try to touch the feet, bend back as far as possible, rotate from side to side, bend to the side from the waist(6).

ROM in quantitative terms represents the indirect measure of muscle extensibility. Limited or restricted ROM is considered an important intrinsic and modifiable risk factor for injury to the anterior cruciate ligament (limited hip rotation) as well as low back pain (limited hip flexion, extension, and/or internal rotation ROM(7)).

Another examination, the straight leg raise test is a basic manoeuvre during the physical examination of a patient with back pain. The aim is to assess the irritation of the root of the lumbosacral nerve. This test can be positive under a variety of conditions, although herniated discs are the most common(8).

Lumbar spine radiographs may show signs of disc space narrowing, osteophyte formation, facet joint space narrowing, and spondylosis of one vertebra over another(5). Further diagnostic examinations are computed tomography and magnetic resonance imaging(4) .

Successful treatment of chronic low back pain addresses both anatomical and psychosocial factors. Physical therapy is beneficial for improving flexibility, strength, and endurance. The TENS(transcutaneous electrical nerve stimulation) unit relieves pain in some patients. Antidepressants and counselling can help patients with depression. Local anaesthetics or epidural/caudal corticosteroids can relieve pain in a small number of patients with chronic symptoms, but are much more effective in relieving acute symptoms of back and radicular pain(3). Surgery may be considered in cases of failure to respond to conservative therapy or progressive neurological deficits(4) .

Homeopathy accepts the concept of the biological whole, so it tries to treat the patient as a whole(9) . It is the greatest treatment modality in terms of purpose and practice. Homeopathy aims to treat back pain along with related diseases with an individualistic approach. It is both a science and an art, and the repertory is the artistic compilation of the results of scientific testing of remedies, recorded in the materia medica and then reproduced in the repertory(10) .

In this study, medicines were prescribed by using homoeopathic medical repertory as a tool of study to find out the effectiveness of the Homoeopathic Medicine as well as repertory in cases of Lumbar spondylosis.

MATERIAL AND METHODS

Trial design: Prospective, single-arm, single-blind, randomized clinical study without control.

Eligibility Criteria: It includes patients having activity related changes occurring in the lumbar disc and adjacent ligaments, bone and nerve root which result in low back pain, sciatic pain, or any kind of pain sensation in the lower limb. Eligible patients were all adults, age group of between 30 to 70 years and both genders. Patients suffering from life threatening diseases who needed emergency medical intervention and patients with severe concomitant illness like hemiplegia, paraplegia or kidney failure who may not be able to come for regular follow ups, were not been considered. Any patient with gross neurological defects and patient with unbearable pain were also excluded from the study.

Study setting: Bharati Vidyapeeth Homoeopathic Hospital, Dhanakwadi, Pune.

Intervention: The patients were informed and enrolled after taking voluntary consent. After careful case taking and local examinations including, presence of spasm, ROM (range of movement), SLR (straight leg test) totality of the case was drawn out. With the help of Murphy repertory, repertorization was done and remedy was selected, with further reference to the homeopathic materia medica. Selected remedy along with potency was administered orally in the form of globules and powder as per the requirement of the case. In each follow up the response of the remedy was determined by accessing intensity of pain along with changes in local examinations. Follow up of each patient varied from 1 week to 3 weeks according to severity of the case.

Outcome Assessment: It was done by doing Local examination in each follow up and improvement of symptoms in terms of pain [Figure 1] as primary outcome and mobility & quality of life as secondary outcome.

PAIN SCALE – 1 to 10 (1 to 4 - mild, 4 to 7 - moderate, 7 to 10 - severe)

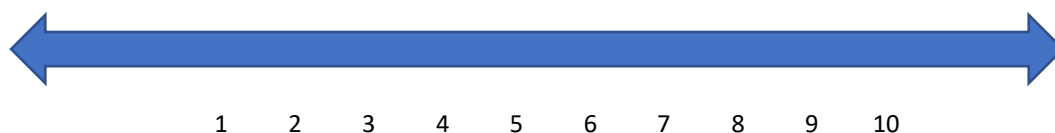


Figure 1: Pain Scale

Sample Size: Sample size used in the study was 30 patients because 30 is enough to trust the confidence interval.

Randomization: Patients coming to the OPD, suffering from Chronic low back pain were examined and based on eligibility criteria, enrolled in the study using simple randomisation method.

Blinding: It was a single blind study where participants were unaware of the remedy administered.

Statistical Method: Statistical analysis was performed as per the outcome from ROM, SLR and Pain scale before and after the treatment and administration of the Homeopathic medicine. Data is expressed in percentage [%]. To analyse the data Paired t-test was used.

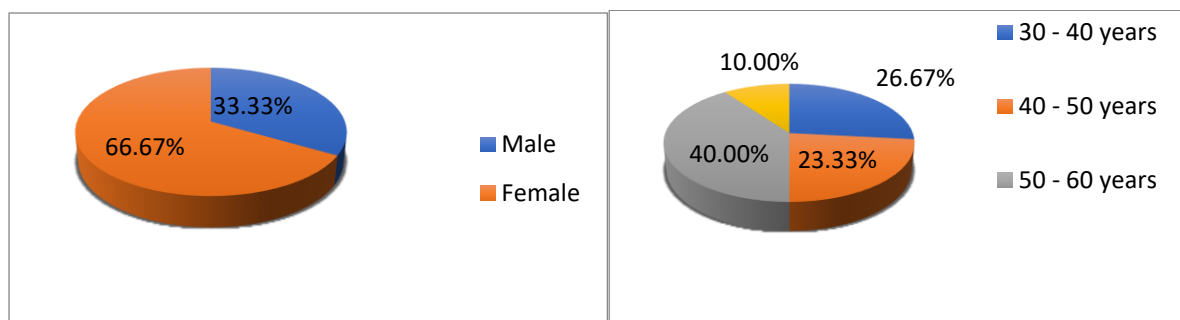


Figure 2: Gender wise distribution.

Figure 3: Age wise distribution

Table 1: distribution of patients according to medicine prescribed.

Remedy	No. of patients	%
Kali carbonic	9	30.00%
Bryonia	7	23.33%
Rhus tox	6	20.00%
Colocynth	2	6.69%
Sepia	1	3.33%
Medorrhinum	1	3.33%
Ruta	1	3.33%
Natrium muriaticum	1	3.33%
Nux Vomica	1	3.33%
Ferrum-met	1	3.33%

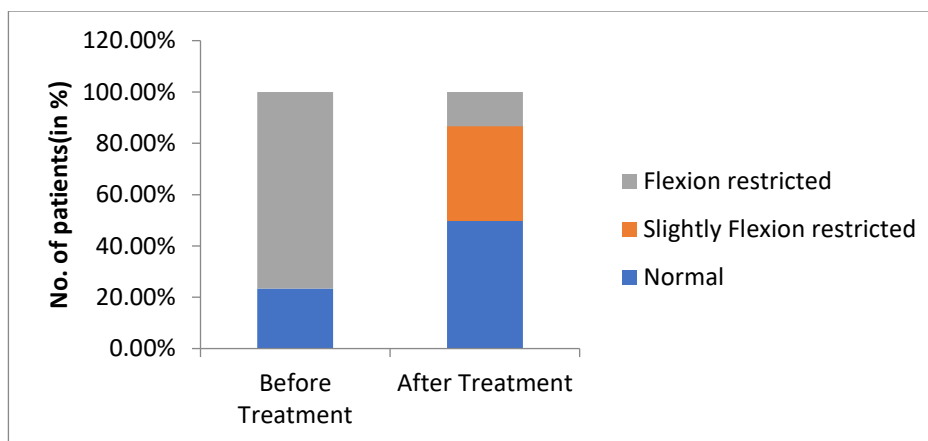


Figure 4: Distribution of patients according to examination of Range of Movement before and after treatment

Table 2: Distribution of patients according to examination of Straight leg Rise before and after treatment

SLR Test	Distribution of patients (Before Treatment)		Distribution of patients (After Treatment)	
	F	%	F	%
found not POSITIVE	20	66.67%	24	80.00%
90° POSITIVE only one side	0	0.00%	1	3.33%
90° POSITIVE	4	13.33%	3	10.00%
80° POSITIVE	4	13.33%	2	6.67%
70° POSITIVE	2	6.67%	0	0.00%

Table 3: Distribution of patients according to Pain level of Lumbar Spondylosis of patients before and after treatment

Pain level	Distribution of patients (Before treatment)		Distribution of patients (After treatment)	
	F	%	F	%
Mild	0	0.00%	24	80.00%
Moderate	18	60.00%	6	20.00%
Severe	12	40.00%	0	0.00%

Hypothesis testing:

H₀: Homoeopathic Medical Repertory by Robin Murphy will not be useful in treating cases of Lumbar Spondylosis.

Vs

H₁: Homoeopathic Medical Repertory by Robin Murphy will be useful in treating cases of Lumbar Spondylosis.

Table 4: Descriptive statistics of pain score before and after intervention

Pain score	Mean \pm SD	T-value	p-value	Decision
Before treatment	7.00 \pm 0.98	17.60	0.000**	Reject H ₀
After treatment	3.10 \pm 1.37			
Difference	3.90 \pm 1.21	Difference is Highly Significant		

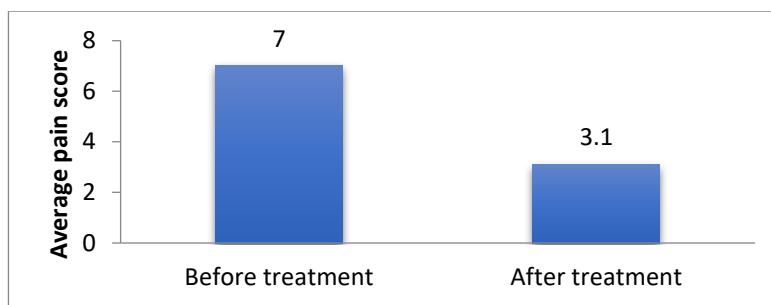


Figure 5: Average pain Score Before and After Treatment

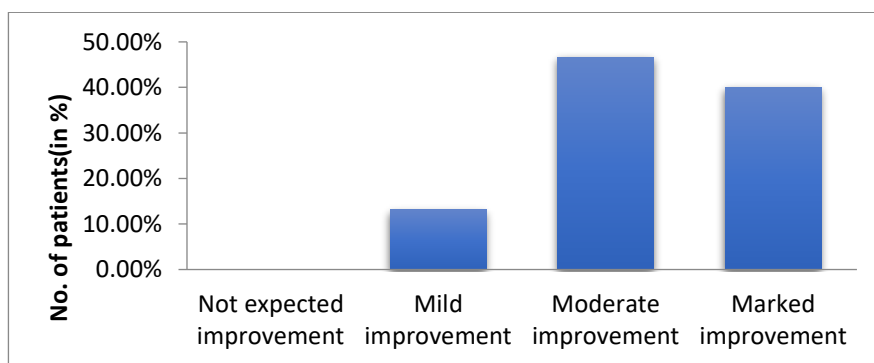


Figure 6: Distribution of patients according to improvement in the patient

RESULTS

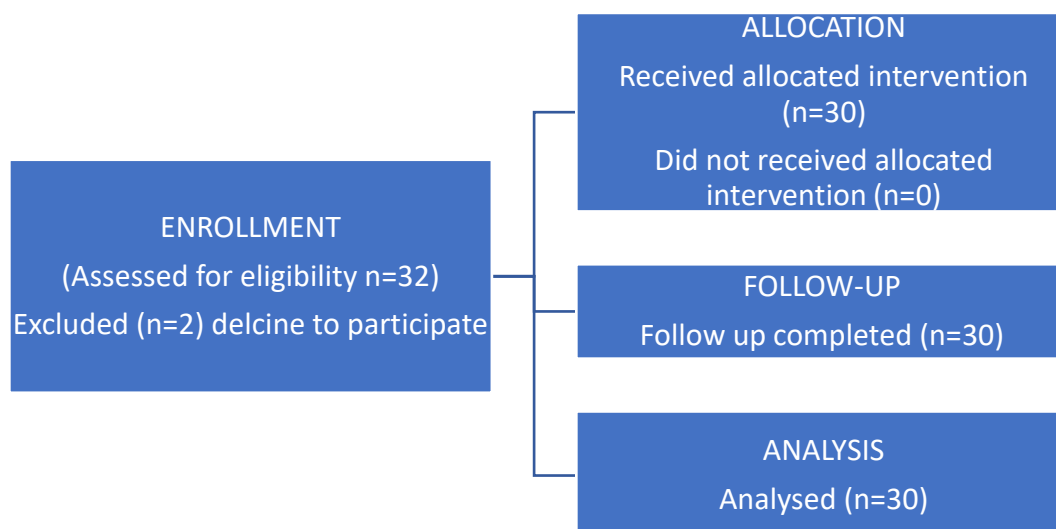


Figure 7: Participant Flow

Outcome and Estimation: In the study, before treatment pain score was 7.00 ± 0.98 , after treatment pain score reduced to 3.10 ± 1.37 . To check the effectiveness of treatment paired t-test was used. Test statistic value is 17.60 and p-value (0.000**) is very small, it suggests that Homoeopathic Medical Repertory by Robin Murphy is useful in treating cases of Lumbar Spondylosis. [Table 4]

Harm: There were no harm or worsening of the case.

DISCUSSION

Lumbar spondylosis is a degenerative disease affecting people mostly from the age of 45(11), but has now become a lifestyle disorder and affects the younger population due to their occupation and psychogenic factor. In almost all chronic cases, psychological symptoms were present, which could also be the cause.

In the present study, the Murphy repertory was used as a tool for repertorization. It is based on both a holistic and a clinical approach. In this repertory it was found that Sciatica, Spasm, Stiffness and Strain etc., were present as a direct rubric listing the number of drugs that might be useful in clinical practice. Common medicines collectively found under these headings were Arsenic, Bryonia, Berberis, Calcarea, Cimicifuga, Colocynth, Dulcamara, Ferrum, Graphites, Iris, Kali-carb, Kali-iod, Lachesis, Ledum, Mag-phos, Natrium-mur, Natrium-sulph, Nux vomica, Nux moschata, Phosphorus, Pulsatilla, Rhus-tox, Ruta, Sepia, Silicea, Sulphur, Thuja, Variolinum, etc(12). Drugs which have been validated under these in the study were Bryonia, Colocynth, Ferrum-met, Kali-carb, Natrium muriaticum, Nux Vomica, Rhus tox, Ruta, and Sepia.

In acute cases, recovery was rapid as there was no comorbidity and patients improved after 15 days of drug administration and full recovery was observed. While in chronic cases recovery has been gradual, as in chronic cases, the patient has vivid symptoms and the exact onset and progression of the disease cannot be ascertained. these cases due to the presence of many factors, the disease becomes complex and somewhat difficult to cure. But in this study, the cases showed improvement after taking the drug for a month, and full recovery was not observed because the study was short-lived and patients are still being followed up.

Interpretation: The present study includes 30 patients suffering from lumbar spondylosis. Statistical data show that 26.67% of the patients were in the age group 30-40 years, 23.33% in the age group 40-50 years, 40 in the age group 50-60 years and 10 % in the age group 60 years and above [Figure 3]. In the study, 66.67% were women and 33.33% were men. [Figure 2]. Female predominance is observed. A consistent but small improvement was seen in the SLR. [Table 2]. In majority of the patient gross improvement was seen and remaining patients some improvement was seen [Figure 4]. Before treatment, 60% of patients had moderate pain and the remaining 40% had severe pain.[Figure 5] But after the treatment, no one had severe pain, 20% of patients had moderate pain, and remaining had mild pain.[Figure 6] That is, we can say that the treatment is effective as percentage of severity reduced. Kali carb, Bryonia, Rhus tox, Colocynth, Sepia, Medorrhinum, Ruta, Natrium muriaticum, Nux Vomica, Ferrum-met were the medicines used in the entire research [Table 1]. After the intervention, 40% of the patients showed a marked improvement, 46.67% a moderate improvement and 13.13% a slight improvement. Statistical results also showed that the Murphy repertory was effective in treating lumbar spondylosis [Figure 6].

Generalisability: An acceptable external validity of the results of this study is expected as the study setting was like that we use in routine clinical practice. Due to the lack of a comparison group, low internal validity is to be expected.

Limitation: The study does not include a control group to compare the effect of placebo and was done on smaller number of patients were the major limitations.

Possible information bias was ignored due to the prospective nature of the study, and selection bias was downplayed due to the consecutive nature of case recruitment.

A follow-up of 3 months may not be sufficient to demonstrate gross improvement. Another study with larger numbers and longer follow-ups should be planned.

CONCLUSION

Homoeopathic is effective in managing the cases of lumbar spondylosis thus helps to improve quality of life. It helps in delaying the diseases progression. Murphy repertory is found to be helpful in cases of lumbar spondylosis.

Other information

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