

# Effectiveness of Mulligan's Spinal Mobilization With Leg Movement (Smwlm) and Specific Exercise Conditioning on the Clinical Outcome in Individuals with Lumbar Radiculopathy

Prathap R<sup>1</sup>, Subbiah K<sup>2</sup>

<sup>1</sup>Post graduate Student, <sup>2</sup>Associate Professor, Faculty of physiotherapy, Sri Ramachandra institute of higher education and research,(SRIHER) Porur, Chennai, India.

**Email Id:** prathapravichandran100@gmail.com

## Abstract

**Introduction:** low back pain (lbp) is a common musculoskeletal problem affecting the general population and involvement of sciatic nerve is the common cause for leg pain dominance. mulligan suggested a spinal mobilization with leg movement (smwlm) technique for the management of low back related leg pain.

**Methods:** around 60 participants were included in the study after receiving the informed consent and are divided into 3 groups. the leg pain intensity using visual analog scale (vas), numerical pain rating scale (nprs), disability using Oswestry disability index, abdominal core muscle strength, passive straight leg raise and lumbar range of motion (rom) were measured before and after treatment. the group 1 received neural mobilisation, lumbar spine range of motion exercises and electrotherapy for pain modulation. the group 2(smwlm) received spinal mobilisation with leg movement, neural mobilization, lumbar spine range of motion exercises and electrotherapy for pain modulation. the group 3(smwlm+lumbar rotational exercise) received spinal mobilisation with leg movement, neural mobilization, lumbar spine range of motion exercises, core strengthening exercises and lumbar rotation exercise. the treatment was given to all the three groups for 1 week, and the global rating of change (groc) scale was evaluated after 1st treatment and end of therapy.

**Results:** the statistically significant differences between the three groups were identified using paired t test and anova. the findings reveal that smwlm with lumbar rotational strengthening group shows greater improvement in the post treatment analysis. ( $p < 0.01$ )

**Conclusion:** the smwlm with rotational exercise group have a greater improvement in terms of pain relief, range of motion and disability.