Original Article

EFFICACY OF MULLIGAN'S TWO LEG ROTATION AND BENT LEG RAISE TECHNIQUES IN HAMSTRING FLEXIBILITY IN SUBJECTS WITH ACUTE NON-SPECIFIC LOW BACK PAIN: RANDOMIZED CLINICAL TRIAL.

Pratik .A. Phansopkar *[1], Vijay Kage[2].

[*1] M.P.T. Orthopaedics Physiotherapy, Institute of Physiotherapy, KLE University, Belgaum, Karnataka, India.

[2] Assistant Professor, Institute of Physiotherapy, KLE University, Belgaum, Karnataka, India.

ABSTRACT

Background and objectives: Adequate flexibility of the Hamstring muscles and Core muscle strength is necessary for a healthy lower back. Mulligan's techniques are fascinating Physiotherapy approach in treatment of hamstrings tightness in NS-LBP such as Mulligan's Bent Leg Raise (BLR) technique, Limited Literature is available on the efficacies of Mulligan's Two Leg Rotation (TLR) technique in Hamstrings flexibility. The objective of the present study was to determine the effectiveness of Mulligan's TLR and BLR in treatment of acute NS-LBP.

Methods: The present randomized clinical trial was conducted among 40 subjects which included both male and female symptomatic subjects between the age of 18 to 35 years with acute NS-LBP and they were randomly allocated into 2 groups namely Group A[SWD, HMP, Mulligan's TLR, MCE] , Group B[SWD, HMP, Mulligan's BLR, MCE]. Pre-interventional and 7th day Post-interventional outcome measurements were taken in the form of Visual Analogue Scale (VAS), Modified Oswestry Disability Questionnaire (MODQ), Active Knee Extension (AKE) Measurement, Lumbar ROM and Core muscle strength.

Results: Intra-group comparison for all the outcome parameters in both the groups showed statistical significance ($p<0.001$). Inter group comparison for all the outcome parameters had differences but showed no statistical significance.

Conclusion: Mulligan's Two Leg Rotation and Bent Leg Raise techniques are effective in increasing the hamstrings flexibility in subjects with acute non specific low back pain in terms of pain, range of motion and functional disability.

KEYWORDS: Acute Non-specific low back pain; Hamstrings tightness; Mulligan's Two Leg Rotation; Mulligan's Bent leg Raise; Motor Control Exercise, CTRI No.: CTRI/2014/09/005068.

Address for correspondence: Pratik .A. Phansopkar, M.P.T. Orthopaedics Physiotherapy, KLES Institute of Physiotherapy, JNMC campus, Nehru nagar, Belgaum-590010 Karnataka, India.
Email: tiku7277@gmail.com, vijaykage@yahoo.in

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INTRODUCTION

The term low back pain refers to pain in the lumbo-scaral area of spine encompassing the distance from 1st lumbar vertebra to the 1st sacral vertebra. This is the area of the spine where the lordotic curve forms.[1] Low back pain has been with humans since at least the Bronze Age.[2] Low back pain (LBP) is a problem world-wide with a lifetime prevalence reported to be as high as 84% by World Health Organization (WHO).[5] It occurs in similar proportions in all cultures, interferes with quality of life and work