

# **P112 - OUTCOME OF SEQUENCED, MULTIDISCIPLINARY REHABILITATION OF LUMBAR PROLAPSED INTERVERTEBRAL DISC ASSOCIATED WITH MYOFASCIAL PAIN SYNDROME**

*Sharan D.*

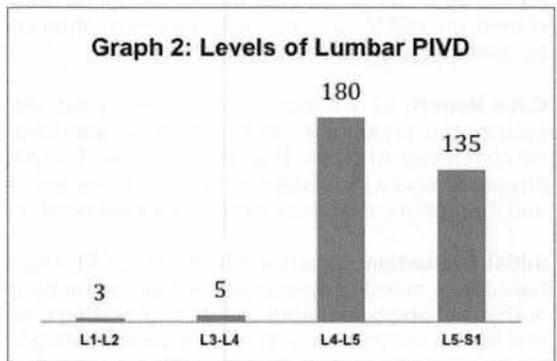
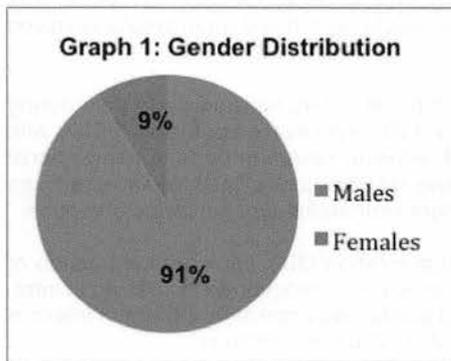
*Dept. of Orthopaedics and Rehabilitation, RECOUP Neuromusculoskeletal Rehabilitation Centre, Bangalore, India*

**Introduction:** Myofascial pain syndrome (MPS) is described as the sensory, motor and autonomic symptoms caused by myofascial trigger points (TrPs). TrP is a hyperirritable spot in skeletal muscle that is associated with a hypersensitive palpable nodule in a taut band. Prolapsed intervertebral disc is commonly referred to as slipped disc and are more frequently reported in the lumbar region. Usually, the disc prolapse happens posteriorly or posterolaterally. The symptoms exhibited after the disc prolapse depend on the structure affected by the prolapsed disc. There are anecdotal reports of the presence of TrPs with lumbar prolapsed intervertebral disc (LPIVD) but no study is available that had studied this association or described its treatment outcome.

**Aim:** The purpose of this study was to assess the outcome of sequenced, multidisciplinary rehabilitation of lumbar prolapsed intervertebral disc associated with myofascial pain syndrome.

**Materials and Methods:** A retrospective study was performed at a tertiary level rehabilitation centre. The records of 310 patients treated for MPS who also had LPIVD, from January 1, 2005 to December 1, 2015, were included in the study. Their medical records were analysed for demographic details, co-morbidities, clinical presentation and MRI scan findings. The primary outcomes used were Visual Analog Scale (VAS) to measure pain intensity and Oswestry back disability index (OBDI) to measure the functional level. A single Rehabilitation Physician performed the clinical assessment and made the diagnosis of MPS using the modified Simons Criteria. All the subjects were treated with a sequenced rehabilitation protocol by a multidisciplinary team involving physiotherapist, clinical psychologist, yoga therapist and dietician in a sequenced protocol for a period of 4 to 8 weeks. The treatment included interferential therapy, sensory desensitisation, myofascial release, positional release therapy, muscle energy technique, McKenzie Lumbar Mechanical diagnosis and therapy, Kinesio taping, relaxation training, cognitive behavioural therapy, stretches, core stabilisation and strengthening exercises and yoga. Measurements were taken before and after the treatment and follow up was done 6 months later.

**Results:** The participants were between the ages of 23 to 60 years. 291 participants were IT professionals, and the remaining housewives and teachers. All the patients were found to have TrPs in multiple locations in the longissimus and iliocostalis lumborum, quadratus lumborum, psoas, rectus femoris, gluteus maximus, medius and minimus, hamstrings, vastus lateralis, and gastrocnemius muscles. Common co-morbidities were fibromyalgia (9.7%), low vitamin D (4%) and hyperuricemia (4%). Significant decrease in the pain level: VAS ( $p < 0.01$ ) and increase in functional status: OBDI ( $p < 0.01$ ) was noted in all the subjects following a sequenced rehabilitation protocol. No patient underwent surgery for LPIVD during the course of the study.



**Discussion:** With LPIVD, secondary TrP activity may develop in the lower back and leg muscles supplied by the damaged nerve roots leading to the development of superimposed MPS. This is postulated to be because of the effect motor nerve compression has on motor endplates at TrP sites in the muscles supplied by the nerve root.

**Conclusion(s):** This study is the first to report the association of LPIVD with MPS. Sequenced, multidisciplinary rehabilitation produces significant relief of pain and functional restoration.

**Keywords:** Myofascial pain syndrome, prolapsed lumbar intervertebral disc, discogenic low back pain, rehabilitation, outcome