

Effectiveness of sustained natural apophyseal glides and Maitland's mobilization in facet joint syndrome: A randomized control trial

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Background: Low back pain is a major cause of disability affecting performance at work. One of the hidden and less studied culprit of chronic low back pain is facet joint syndrome. Currently, there is paucity in the literature regarding the effectiveness of physiotherapy techniques in treating facet joint syndrome. Hence this trial was undertaken to study the effectiveness of passive accessory intervertebral movement (PAIVM) such as Maitland's mobilization and passive sustained accessory mobilization, such as Mulligan's technique (SNAGs) along with conventional physiotherapy intervention as compared to conventional physiotherapy in facet joint syndrome.

Method: A single-blind, randomized control trial was conducted on participants diagnosed with lumbar facet joint syndrome. Outcome measures for the study were Visual analogue scale (VAS), Modified Oswestry disability questionnaire (MODQ), Pressure pain threshold (PPT), Back muscle endurance, Spinal flexion and extension ROM. After baseline assessment, participants were randomly assigned to Group A which received Mulligan's sustained natural apophyseal glides (SNAG'S), therapeutic ultrasound (Cont. 1MHz, 1.5W/cm²) and spinal

exercises, Group B received Maitland's spinal mobilization (PA Glides), therapeutic ultrasound and spinal exercises and Group C received therapeutic ultrasound and spinal exercises for the period of 2 Wks. Follow up was done at 3rd wk.

Result: Total 186 participants were analyzed using Kruskal-Wallis test and Dunn-Bonferroni post hoc Test. K-W test showed a significant difference in all three groups in terms of VAS, MODQ, PPT and Spinal ROM. Post Hoc test showed the significant difference ($p < 0.001$) between SNAGs and Maitland Group in terms of flexion and extension ROM and there was no significant difference ($p > 0.05$) between SNAGs and Maitland's manual therapy groups in terms of pain, MODQ and PPT.

Conclusion: SNAGs is more effective in improving spinal ROM, however SNAGs and Maitland's spinal mobilization are equally effective in reducing pain, disability and improving pressure pain threshold. Back muscle endurance improved in all the three groups, but the difference was not statistically significant.

Biography

Deepak Anap is currently working as Professor and Head of Musculoskeletal Physiotherapy Department of DVVPF, College of Physiotherapy, Ahmednagar (INDIA). He has completed his Ph.D with research in lumbar facet syndrome. He has published more than 45 research papers and co authored a chapter in book on radiology. He received long term research grant from Maharashtra University of health Sciences Nashik for his research on facet joint.

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