

The Combined Effect of Flexion Exercises Along with Stationary Bicycling on Neurological Claudication in Lumbar Canal Stenosis

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ABSTRACT

Background: Lumbar canal stenosis is defined as any narrowing of lumbar spinal canal, nerve root canal or intervertebral foramina. In patients older than 60, lumbar canal stenosis is found magnetic resonance imaging in more than 20% of Cases. Walking tolerance decreases because of Neurological claudication and is often cited as the reason for seeking medical attention. Previous study shows that flexion-based exercise program has positive outcome in lumbar canal stenosis in older adults. Based on the observation that cycling on stationary bicycle dose not elicits pain in people with Neurogenic claudication.

Aim: To find out the combined effect of Flexion Exercises along with Stationary Bicycling on Neurological claudication in Lumbar canal stenosis.

Methodology: Total 20 patients of age Group above 50 years diagnosed with lumbar canal stenosis were included as per inclusion criteria and randomly divided into two Groups. Group A received Flexion Exercises along with stationary bicycling and conventional therapy (hot pack, intermittent lumbar traction) and Group B received Flexion Exercises with conventional therapy (hot pack, intermittent lumbar traction).

Outcome Measures: VAS on 6minute walk test and M.O.D.I. for functional disability were assessed at the baseline and 4th week post intervention.

Results: The mean of VAS on 6 min walk test (Group A=3.9, Group B=21.4, (p<0.0400)) and the mean of M.O.D.I. (Group A=21.4, Group B=34.4, p<0.0329). Group A showed more significant difference when compared with Group B.

Conclusion: Flexion Exercises along with stationary bicycling were more effective in reducing Neurological claudication symptom and improving functional status by decreasing disability of patients with lumbar canal stenosis in comparison with Flexion Exercises only.

Keywords: Lumbar canal stenosis, Neurological claudication, VAS, 6-minute walk test, MODI, Functional disability

