

Short-Term Efficacy of Static Isometric Neck Exercise and Cervical Muscle Stretch among College Students with Cervicogenic Headache

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Abstract

Introduction: Cervicogenic headache, distinct from migraine or tension headache, is characterized by pain localized in any cranial region, arising from a nociceptive origin musculoskeletal tissues innervated by cranial nerves. This results in the symptoms of CGH, such as pain on one side or both sides, often described as dull or throbbing and possibly accompanied by discomfort, stiffness and limited neck movement.

Methods: A total of 30 samples were included in the study based on the inclusion and exclusion criteria. They were divided into 2 groups, namely Groups A and B, with 15 subjects. Group A received static isometric exercise, while Group B received cervical muscle stretching exercises for 4 weeks. The outcome measures were for pain and Neck ROM, respectively.

Results: The results obtained for Group B, who underwent cervical muscle stretch, showed a greater mean difference than Group A (static isometric exercise). Pain levels in group B decreased by a mean difference of 4.06 points on the NRS ($p < 0.05$). Neck extension and lateral flexion improvement in group B was significant, with mean difference values of -28.76 and -26.66 in goniometric scores ($p < 0.05$) than group A (static isometric exercise).

Conclusion: Cervical muscle stretching is more effective in improving pain, neck extension and lateral flexion range of motion among subjects with cervicogenic headache.