

A Comparative Study between Postisometric Relaxation and Isometric Exercises in Non-Specific Neck Pain

Gupta*, S., Jaiswal, P. and Chhabra, D.

FIT, Department of therapies and health sciences,
M. D. University, Rohtak. *Email: *shilpygupta15@yahoo.co.in*.

Abstract

Postisometric relaxation is commonly used to treat patients with neck pain. No randomized controlled trial examining the outcomes of this treatment in symptomatic populations has been reported in the literature. The objective of the study was to evaluate the efficacy of postisometric relaxation in patients with non-specific neck pain. A Convenient sample of thirty seven subjects diagnosed with non-specific neck pain was randomly allocated to one of the two treatment groups on the basis of the inclusion criteria. The experimental group (n=19) received postisometric relaxation and control group (n=18) received isometric exercises. Visual analogue scales (VAS), range of motion (ROM) and neck disability index (NDI) scores were recorded on 1st, 8th, 15th and 22nd day. Both groups received the selected treatment for three weeks. Non-parametric tests demonstrated a statistically significant difference with experimental group showing greater improvement in ROM, VAS and NDI than the control group and significant difference within group also. Conclusion: Postisometric relaxation may be more effective in decreasing pain and disability and increasing cervical range of motion in patients with non-specific neck pain. In order to generalize the results, the studies should be done on wider population including different subjects with different age group.

Key words: Non-specific neck pain, Postisometric relaxation, range of motion, neck disability index

Introduction

Neck pain is a common musculoskeletal disorder in the general population. Although probably not as frequent and disabling as low back pain, neck pain still constitutes a major burden on patients in terms of pain, disability and absence from work. *Cote & Cassidy (1998)* reported lifetime prevalence of neck pain up to 67%.

Non-specific neck pain is defined as mechanical pain located anywhere between the occiput and upper thoracic spine and surrounding muscles without any specific etiology (*Gemmel and Miller, 2006*). The International Association for the Study of Pain (IASP) has defined neck pain as: "Pain perceived as arising from anywhere within the region bounded superiorly by superior nuchal line, inferior by an unoriginally

transverse line through the tip of first thoracic spinous process, and laterally by saggital plane tangential to the lateral border of neck. A frequently seen cause of the neck pain is awkward occupational postures, heavy lifting and physically demanding work (*Douglas and Bope, 2004*).

Neck muscles show a strong tendency to develop hypertonus and spasm and alter proprioceptive input. Therefore; common cause of neck pain is muscle tightness. Clinically positive signs include tenderness in the posterior neck region, asymmetry, increased tension and restriction of movements (*Grant, 2002*). The diagnosis is mainly based on clinical examination. Various imaging techniques may be helpful in diagnosing specific conditions responsible for neck pain. Usually they are of little help when no