

# Effectiveness of Integrated Neuromuscular Inhibitory Technique and LASER with Stretching In the Treatment of Upper Trapezius Trigger Points

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## Abstract

Upper trapezius trigger point is a common cause for neck pain, decreased cervical range of motion and affects functional activities. The purpose of this study was to compare the effectiveness of Integrated Neuromuscular Inhibitory Technique (INIT) and, Laser with stretching in reducing pain, improving ROM and functional activities of subjects with neck pain due to upper trapezius trigger points. Twenty-two subjects diagnosed with upper trapezius trigger point were included in the study. Seventeen subjects completed the study, in two groups. Group A (7 females, 3 males) received INIT and Group B (6 females, 1 male) received Laser with stretching. The total number of treatment was six days alternatively, within two weeks. The outcome measures were taken before and after treatment. Outcomes were measured by Visual numeric scale, cervical range of motion and neck disability index (NDI). Within the groups the VNS, NDI and cervical lateral flexion showed significant change in the mean value. The comparison of pre and post VNS in Group A, there was a significant reduction in VNS with a p value which was significant ( $p = 0.005$ ). The pre and post VNS in group B showed a significant reduction in VNS, ( $p = 0.018$ ), though there was no significant difference in the VNS score between groups ( $p = 0.166$ ). The pre and post left lateral flexion (LLF) in Group A and group B showed a significant increase ( $p = 0.012$ ) and ( $p = 0.027$ ) respectively. NDI exhibited reduction across both the groups with a significant difference between the groups ( $p = 0.045$ ). This study concluded that both INIT and Laser with stretching are equally effective in managing subjects with neck pain due to upper trapezius trigger point.

**Key Words:** Myofascial pain, Trigger point, INIT, Trigger point pressure release, PRT, MET, LASER

## Introduction

Myofascial pain syndrome is one of the common musculoskeletal pain disorders which affects almost 95% of people with chronic pain disorders and is a common finding in specially pain management centre (Skootsky, 1989; Simons et al, 1999 and Shah et. al, 2008). It is characterized by trigger points, which are defined as hyperirritable spots within taut bands of skeletal muscle fibers. The syndrome is associated with tenderness in

the muscle, characteristic referred pain, spasm and restriction of motion. Among the various muscles of the cervical region, the upper trapezius is more prone for developing trigger points due to continuous overload and micro-trauma as it has minimal antigravity function, leading to cervical myofascial pain syndrome (Simons et al, 1999; Si-Huei & Chen, 2008).

Myofascial pain syndrome responds well when treatment is targeted