

## Investigating the Effect of High Intensity Laser and Dry Needling in Patients with Chronic Neck Pain

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**Abstract :** Background: Myofascial trigger points (MTrPs) are one of the main causes of musculoskeletal pain syndromes and are associated with pain, tenderness, and limited range of motion (ROM). This study compared the effectiveness of high-intensity laser therapy (HILT) and dry needling (DN) on pain intensity, pain pressure threshold, cervical range of motion and disability in people with chronic neck pain. Method and Material: 30 patients with chronic neck pain were randomly divided into two groups: a HILT group (n=15) and a DN group (n=15). Treatment sessions were performed for three weeks, and all participants received related intervention twice a week (5 sessions). The pain level was measured using a Visual Analog Scale (VAS); the pain pressure threshold (PPT) was measured using a digital algometer; perceived disability was measured using the neck disability index (NDI); and cervical range of movements (CROMs) were measured using an iPhone app (lateral flexion) and a goniometer (Rotation). Results: In both the dry needling and high-intensity laser therapy groups, the pain and neck disability were significantly decreased ( $P < 0.05$ ). Also, the pain pressure threshold and cervical range of motions were significantly increased in both groups. However, there was no significant difference between the two groups ( $P > 0.05$ ). Conclusion: Both high-intensity laser therapy and dry needling can be used to treat chronic neck pain.

**Keywords :** chronic neck pain, dry needling, high intensity laser therapy (HILT), pain, pain pressure threshold

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