

Effect of Shockwave Therapy on Neck Pain in Patients with Levator Scapulae Syndrome: A Pilot Study

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ABSTRACT

Introduction: Levator Scapula Syndrome (LSS) can be defined as motor, sensory, and autonomic symptoms that cause by Myofascial Trigger Points (MTpPs) in levator scapulae muscle that are associated with a hypersensitive palpable nodule in taut bands. The prevalence of LSS among beauticians is 38.5%. LSS is characterised by pain, stiffness in cervical and upper thoracic region, with decreased Range of Motion (ROM) and tenderness on palpation of superior angle of scapula.

Aim: To examine the effect of shockwave therapy on neck pain in patients with LSS.

Materials and Methods: Twelve patients with neck pain due to trigger point in levator scapulae muscle will be recruited by convenient sampling method. The patients aged between 20 to 40 years with trigger point in levator scapulae muscle were included in this study. The exclusion criteria include: epilepsy, traumatic injury of cervical vertebra, surgery affecting the cervical spine, cervical herniated discs, ankylosing spondylitis and rheumatoid

arthritis. The participants were divided into two groups, Group A received shock wave therapy and Group B received conventional Transcutaneous Electrical Nerve Stimulation (TENS) therapy. Pain intensity was measured by NPRS scale, Pressure Pain Threshold (PPT) by algometer and quality of life by Neck Disability Index before and after the intervention.

Results: The results were analysed based on the pre and post values of the outcome measure i.e. NPRS, PPT and Neck Disability Index. Shapiro-wilk test was used as a normality test as total number of participants will be less than 50. SPSS version 22.0 was used for data analysis and paired t-test was used for within group analysis and unpaired test was used for between group analysis.

Conclusion: The findings of the study conclude that shock wave therapy reduce pain, tenderness and improve quality of life in patients with LSS. Group A showed statistical significant results as compare to Group B. The pain pressure threshold was also reduced after the four weeks shock wave intervention protocol.

Keywords: Neck pain, Scapula, Trigger points.