

Case Report

Case report: Dry needling for the management of the unilateral trapezities

¹Dr. Poonam Sanjay Rathod , ²Dr. Krishna B. Gawande

¹Master of Physiotherapy (Musculoskeletal Physiotherapy) . MVP College of Physiotherapy, Nashik, Maharashtra,

²Master of Physiotherapy (Musculoskeletal Physiotherapy), MGM School of Physiotherapy, Aurangabad, Maharashtra

Corresponding author : Dr Poonam S Rathod



Creative Commons Attribution
4.0 International license

CC BY 4.0

Abstract:

Trapezius pain is a classic stress pain and is one of the most common musculoskeletal disorders during regular OPD patients in physiotherapy. It is usually caused due to placing too much stress or strain over the area of trapezius muscle. Dry needling reduces such kind of pain and changes MTrP status. Change in trigger point status is associated with a statistically and clinically significant reduction in the pain. Herewith we reported a case of 26 years computer operator female patient attended OPD with severe pain in her right sided trapezius region since last one week alongwith difficulty in movements of right hand. Actually the pain was started since last three months, however goes on increasing in severity. The pain was increasing in severity with restrictions in movements. She was unable to move her hands freely , while the pain was strongly feel during the regular movements. She had earlier history of similar form of pain since last two – three years. She explained her working pattern as continuous seating on computer daily for 6 to 7 hours since last three years. She also found with decreased ROM , limited joint movements on clinical examination. There is also observed overall improvement in her neck disability index (NDI) as well as in NPRS and SPADI.

Keywords: Trapezius pain , Dry needling

Introduction:

Trapezius pain is a classic stress pain and is one of the most common musculoskeletal disorders during regular OPD patients in physiotherapy. It is usually caused due to placing too much stress or strain over the area of trapezius muscle.¹It is more common in people working on a computer or driving for long distance. Pain and stiffness due to Trapezitis is episodic and last for 3 to 5 days. Most patients who complain of neck pain or shoulder pain will be invariably showing the pain to be at slope between the base of the neck and the

shoulder, in the region of upper trapezius.² The percentage of Indian population to be affected with neck pain depends on the work environment and posture that is acquired all day long. The Ratio of prevalence in males and females in India is 1:10. and 3-5% of the population is affected worldwide^{3,4}. Roughly two thirds of the general population have neck pain at some time in their lives and the prevalence is highest in middle age⁵. Dry needling reduces pain and changes MTrP status. Change in trigger point status is associated with a statistically and clinically significant

reduction in pain. Reduction of pain is associated with improved mood, function, and level of disability.

Case Report:

Herewith we reported a case of 26 years computer operator female patient attended OPD with severe pain in her right sided trapezious region since last one week alongwith difficulty in movements of right hand. Actually the pain was started since last three months, however goes on increasing in severity. The pain was increasing in severity with restrictions in movements. She was unable to move her hands freely , while the pain was strongly feel during the regular movements. She had earlier history of similar form of pain since last two – three years. She explained her working pattern as continuous seating on computer daily for 6 to 7 hours since last three years. She also found with decreased ROM, limited joint movements on clinical examination. There is also observed overall improvement in her neck disability index (NDI) as well as in NPRS and SPADI.

After clinical examination, we finalized her treatment with dry needling , hence dry needling can reduces pain and changes MTrP status. Change in trigger point status is associated with a statistically and clinically significant reduction in pain.

In subsequent settings, she was found highly benefited with reduction of pain is associated with improved mood, function, and level of disability.

Discussion:

Work related neck pain are common problems in office workers, especially among those who are intensive computer users with long duration sitting job. Prolonged computer use is a potential risk of stress and strain on the musculoskeletal structures of the neck and upper extremity, due to repetitive work and non-neutral work postures⁶. Professionals

working at desks and computers, or individuals who drive for a long period of time are more prone for this condition as the upper trapezius muscle becomes painful and spasmodic. Limitation of range of motion along with neck pain and a feeling of stiffness may be experienced by the person which is precipitated or aggravated by neck movements^{2,4}. Neck pain prevalence varies widely on different studies with a mean point prevalence of 13% (range 5.9%-38.7%) and mean lifetime prevalence of 50% (range 14.2% - 71.0%). Trapezitis pain occurs for when person does neck extension, it is occurred due to faulty posture during walking, watching time, prolonged use of phone². Trapezitis is mainly due to fatigue, stress, tension, forward neck posture, sitting for prolonged period of time. Post isometric relaxation is based on the active work of the patient and therapist who exerts an optimal resistance. PIR is a muscle energy technique used to relax and lengthen a hypertonic and shortened muscle. This gentle stretching technique is typically used on postural muscles. Due to gravity these muscles often become short and tight and can lead to muscle imbalances. This can lead to limitation of range of motion and cause joint restrictions. When trapezius muscle become shortened they can restrict ROM in the head, neck and shoulder and often become painful. By using the PIR technique the therapist can relax and lengthen the muscle to increase the passive and active ROM and decrease the pain. Thus the study is important role for improving the restricted range of motion and lead a better life.

Trapezius pain is the most common muscular pain due to increased stress which results in trapezitis. The trapezius muscle is postural muscle diamond shape highly susceptible to overuse. It helps in extension, neck rotation, and side bending. Trapezitis is frequently caused by bad posture,

watching TV or working on computer for a long and use of thick pillow.^{2,3}

Gender seems to play an important role in the development of neck disorders since the prevalence is much higher among women.⁵ Women more often experience neck pain and develop persistent pain than men do. This difference might be explained by the content of their jobs. Women's work tasks involve more static load on the neck muscles, high repetitiveness, low control, and high mental demands, which are all risk factors for developing neck disorders.^{3,6}

Conclusion:

Dry needling is a non-pharmacological treatment commonly used for reducing pain. It is frequently performed by a clinician using a 32 gauge acupuncture needle inserted into the palpably painful nodule using a superficial (10-20 mm) or deep (25-40mm) needling technique. Elicitation of one or more local twitch responses is a goal of dry needling and often benefits those with pain. The effectiveness of dry needling has been difficult to demonstrate due to the lack of objective measures of pain.

References:

1. El-Metwally A et.al Risk factors for development of non-specific musculoskeletal pain in preteens and early adolescents; a prospective 1-year follow up BMJ musculoskeletal Disorder May 2007; 8:46.
2. Cagnioe B et.al individual and work related risk factors for neck pain among office workers a cross sectional study European Spine Journal May 2007 16(5) 679-686
3. Nagrale AV et.al the efficacies of an integrated neuromuscular inhibition technique on upper trapezius trigger points in subjects with non-specific neck pain: a randomized controlled trial. J Man Manip There. 2010;18.
4. Chaitow L. Muscle energy techniques. 2nd ed. Edinburgh: Churchill Livingstone; 2006:1-187[4].
5. Graham N, Gross AR, Goldsmith C, et al. Mechanical traction for mechanical neck disorders: a systematic review. J Rehabil Med 2006; 38:145–152.
6. Gerber LH, Shah J, Rosenberger W, et al. Dry Needling Alters Trigger Points in the Upper Trapezius Muscle and Reduces Pain in Subjects With Chronic Myofascial Pain. PM R. 2015;7(7):711-718. doi:10.1016/j.pmrj.2015.01.020

Date of Publication: 30 September 2021

Author Declaration: Source of support: Nil , Conflict of interest: Nil

Plagiarism Checked: Plagiarism

Author work published under a Creative Commons Attribution 4.0 International License



Creative Commons Attribution

CC BY 4.0