DEVELOPING PROCESS FOR MULTI-MODAL SUSTAINED PRESSURE TRIGGER POINT

Abstract

Introduction: Myofascial torment disorder presents as clinically alluded torment, a restricted scope of movement in the joints, and is related with a nearby jerk reaction and engine endplates following mechanical incitement of the MTRP. **Objective** of the present disclosure is to provide a multi-modal sustained pressure trigger point release process intended to treat myo-fascial trigger points (MTrP's) in both static as well as dynamic ways. **Method:** The multimodal sustained pressure trigger point release process comprises the steps of keeping the muscle in shortened or contracted position and applying apply gradual pressure over the MTrP using the thumb pad of the dominant side. **Result:** The MTrP is located by superficial palpation throughout the length of the muscle. **Conclusion**: The patients who were observed after giving treatment under MRTP have showed better recovery when compared with those who were not given such treatment.

Keywords : AROM, Myofascial torment, MTrP, Shoulder and Hand Disability

1. Introduction

Myofascial torment disorder is characterized as tactile, engine and autonomic side effects that emerge from excruciating spots in the belt encompassing skeletal muscle known as myofascial trigger focuses (MTRPs)[1]. This condition presents as clinically alluded torment, a restricted scope of movement in the joints, and is related with a nearby jerk reaction and engine endplates following mechanical incitement of the MTRP. MTRP can be named dynamic trigger point and secret trigger point [1].

A functioning trigger point is a space of extreme delicacy that is typically found in a muscle and can Causes Weakness or limitation in development. Idle trigger focuses are latent and cause no aggravation during exercises except for are delicate to the touch. These focuses can be initiated when a muscle is stressed, exhausted or harmed. The positional delivery strategy or strain counter-strain procedure is an inactive

mediation pointed toward mitigating musculoskeletal agony and related brokenness. Post-isometric Relaxation Therapy consists of placing the patient in a comfortable position and passively extending the affected muscle to its maximum pain-free length [2].

While holding this position, the patient is asked to tense the muscle with little force (10-25%). After 10 seconds, he/she is asked to inhale deeply, then exhale and release the muscle tension. The reliability of Post-isometric relaxation technique has been questionable as it has failed to establish statistically significant results in most of the control trials conducted. Spray and Stretch Therapy is one of the intervention used for treating MTrP's. In this particular therapy, the patient is placed in a comfortable position, either sitting or lying. The skin at the site of MTrP as well as the area of the referred pain were sprayed with chlorethyl in parallel lines. Then the affected muscle is stretched carefully. The Spray and Stretch Therapy focuses more on the utilization of drug (chlorethyl) and thus the role of physiotherapy intervention is very less [3]. As far as conventional PRT is concerned, the treatment part is taken in a position of ease and maintained for a period of 90 seconds. It is very exhausting for the therapist as well as the patient. Also to keep the thumb pressed for 90 long seconds is ergonomically not good as may lead to compressive over-load on the therapist's thumb. In this technique, the treatment duration has been divided into three sessions of 30 seconds each with a rest period of 10 seconds between each step. Studies have shown that low pressure and a long duration, or high compression and short duration, may be more effective for immediate pain reduction. In this technique, the reduced treatment time has been compensated by the application of high compressive pressure over the MTrP's. Various conventional manual therapy techniques which are intended to treat MTrP's are generally administered by keeping the muscle either in shortened position or position of ease. But for functional activities and for improving the overall quality of life, it is very important to train a muscle dynamically which has been addressed in this innovative technique [4].

The present research is directed to a multi-modal sustained pressure trigger point release process intended to treat myofascial trigger points (MTrP's) in both static as well as dynamic ways, wherein the muscle is treated for static component in complete flexion & complete extension and for the dynamic component which involves treating throughout the available Active Range of Motion (AROM) [5]. According to embodiment of the present research, the multi-modal sustained pressure trigger point

release process, comprises the steps of; keeping the muscle in shortened or contracted position and applying apply gradual pressure over the MTrP using the thumb pad of the dominant side increasing the pressure till it reaches the tolerance level of the patient\ and moving to next step; treating the starting position of the muscle in lengthened or stretched position and further applying pressure over the MTrP using the thumb pad of the dominant side; increasing the pressure till it reaches the tolerance level of the patient and moving to the next step, treating the muscle in dynamic position, wherein sustained pressure is applied and increased gradually till it reaches the patient's threshold; and administering each of steps a, c and e for a period of 30 seconds with a rest period or break of 10 seconds between the steps. Additional aspects, advantages, features and objects of the present disclosure would be made apparent from the drawings and the detailed description of the illustrative embodiments construed in conjunction with the appended claims that follow. The present research is directed to a multi-modal sustained pressure trigger point release process intended to treat myofascial trigger points (MTrP's) in both static as well as dynamic ways. Wherein the muscle is treated for static component in complete flexion complete extension and for the dynamic component which involves treating throughout the available Active Range of Motion (AROM) [6]. The multi-modal sustained pressure trigger point release process, comprises the steps of ;keeping the muscle in shortened or contracted position and applying apply gradual pressure over the MTrP using the thumb pad of the dominant side. The pressure is increasing till it reaches the tolerance level of the patient\ and moving to next step. It is treating the starting position of the muscle in lengthened or stretched position and further applying pressure over the MTrP using the thumb pad of the dominant side. It is to be noted that increasing the pressure till it reaches the tolerance level of the patient and moving to the next step treating the muscle in dynamic position, wherein sustained pressure is applied and increased gradually till it reaches the patient's threshold; and administering each of steps for a period of 30 seconds with a rest period or break of 10 seconds between the steps. Each step has to be administered for a period of 30 seconds with a rest period or break of 10 seconds between the steps. Overall duration of the treatment duration is 90 seconds and rest duration is 30 sec. (Total=120 seconds) The patient is asked to lie on the plinth in such a position that the part to be treated is easily accessible by the physiotherapist [7]. The MTrP is located by superficial palpation throughout the length of the muscle. Local palpatory

examination should be carried out according to the alignment of the muscle fibre of the muscle to be treated. Once the MTrP's have been identified, they should be marked by putting a small dot on it with the help of black or blue marker pen. Treatment approach should be proximal to distal in case of multiple MTrP's. Pressure applied has to be high compressive force in nature within the patient's tolerance.

2. Objective

Objective of the present disclosure is to provide a multi-modal sustained pressure trigger point release process intended to treat myo-fascial trigger points (MTrP's) in both static as well as dynamic ways. Another object of the present disclosure is to provide a multi-modal sustained pressure trigger point release process that is less fatiguing and ergonomically less burdening for the Physiotherapist. Another objective of this research is to provide a multi-modal sustained pressure trigger point release process, wherein there is no use of drug and thus there are no side effects of this technique.

3. Method

The multimodal sustained pressure trigger point release process, comprises the steps of keeping the muscle in shortened or contracted position and applying apply gradual pressure over the MTrP using the thumb pad of the dominant side; increasing the pressure till it reaches the tolerance level of the patient\ and moving to next step; treating the starting position of the muscle in lengthened or stretched position and further applying pressure over the MTrP using the thumb pad of the dominant side; increasing the pressure till it reaches the tolerance level of the patient and moving to the next step treating the muscle in dynamic position, wherein sustained pressure is applied and increased gradually till it reaches the patient's threshold; and administering each of steps for a period of 30 seconds with a rest period or break of 10 seconds between the steps.

4. Result

Each step has to be administered for a period of 30 seconds with a rest period or break of 10 seconds between the steps. Overall duration of the treatment duration is 90 seconds and rest duration is 30 sec. The patient is asked to lie on the plinth in such a position that the part to be treated is easily accessible by the physiotherapist. The MTrP is located by superficial palpation throughout the length of the muscle. Local palpatory examination should be carried out according to the alignment of the muscle

fibre of the muscle to be treated. Once the MTrP's have been identified, they should be marked by putting a small dot on it with the help of black or blue marker pen. Treatment approach should be proximal to distal in case of multiple MTrP's. Pressure applied has to be high compressive force in nature within the patient's tolerance.

While the disclosure has been presented with respect to certain specific embodiments, it will be appreciated that many modifications and changes may be made by those skilled in the art without departing from the spirit and scope of the disclosure. It is intended, therefore, by the appended claims to cover all such modifications and changes as fall within the true spirit and scope of the disclosure.

5. Conclusion

The patients who were observed after giving treatment under MRTP have showed better recovery when compared with those who were not given such treatment. In the present research a multimodal sustained pressure trigger point release process intended to treat myofascial trigger points (MTrP's) in both static as well as dynamic ways, wherein the muscle is treated for static component in complete flexion & complete extension and for the dynamic component which involves treating throughout the available Active Range of Motion (AROM). The sensitive resistive chemical NPs/Agar hybrid nanosensor, comprises of chemical nanosensor PCB, single core wire, NPs nanoparticles and about 2% Agar. The method will be beneficial for the patients.

References

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