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Immediate effect of Upper Trapezius Muscle Fatigue on neck muscle activity and rotation in asymptomatic participants: A randomized study

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Background: The effect of interventions to the Upper Trapezius Muscle(UTM), as an important element of neck movement which is overactive in individuals with Myofascial Trigger PointMTrP), are unknown.

Objective: The aim of the current study is to investigate the effects of UTM fatigue on range of motion in individuals with MTrP.

Methods: In this study, individuals with MTrP were randomized 1:1 to parallel UTM-Group (n = 22) or control group (CG) (n = 22). Conventional physiotherapy was applied to CG. In addition to the same interventions applied to the CG, classical massage and stretching exercises were applied to the UTM muscle in the UTM-Group. Cervical rotation was evaluated. Both prior to and immediately following the treatments. Mixedmodel repeated measured ANOVAs were then employed to determine if a group*time interaction existed on the effects of the treatment on each outcome variable for each group as the between-subjects variable and time as the within-subjects variables.

Results: Improvements in ROM (right/left-rotation) was found to be greater in the UTM-Group compared to the CG ($p < 0.05$).

Conclusion: Fatigue applied to the UTM-muscle, can increase ROM in individuals with MTrP. This treatment may therefore be considered for use as an alternative method in treating MTrP.

References

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Biography

Mehdikhani Roya has over 13 years of experience in clinical research and clinical settings as a clinical research scientist. She is a graduate of Tehran University of Medical Sciences and currently holds a position as a professor and researcher in an academic environment. Throughout her career, she has demonstrated her ability to collaborate effectively with cross-functional teams, resulting in multiple publications, conferences, and presentations. She is a dynamic team player who possesses strong communication skills.

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