

CASE REPORT EXERCISE, MANUAL THERAPY AND POSTURAL RE-EDUCATION FOR UNCONTROLLED EAR TWITCHING AND RELATED IMPAIRMENTS AFTER WHIPLASH INJURY: A CASE REPORT

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ABSTRACT

Background and Purpose: Whiplash Associated Disorders and the interventions used to remediate them are well documented in physical therapy literature. However, specific interventions for spasms of the neck musculature that also involve constant ear twitching have yet to be addressed. The purpose of this case report is twofold. First, to describe comprehensive physical therapy management and outcomes for a subject with uncontrolled ear twitching and related musculoskeletal impairments, and second, to discuss the physical therapist's approach to evidence-based care when faced with a paucity of literature addressing physical therapy interventions for subjects with uncontrolled ear twitching.

Case Description: The subject was a 14-year-old female who sustained a right anterolateral whiplash injury when struck in the head by a volleyball seven months prior to physical therapy. Beginning five months after that injury, she experienced uncontrolled and constant superior/inferior movement of her right ear (hereafter described in this report as a twitch) in addition to facial and cervical pain from her initial injury. She was unable to participate in high school athletics due to her pain. A multimodal treatment approach including exercise, manual therapy, and postural reeducation was utilized during the subject's episode of care.

Outcomes: After eight treatment sessions, the subjects's cervical range of motion and upper extremity strength improved. The reported frequency of ear twitching decreased, as did reports of neck and shoulder pain. In addition, her Neck Disability Index improved from a score of 22, indicating moderate disability, to 9, indicating mild disability and she was able to return to sport activity.

Discussion: With limited research to direct intervention, clinical reasoning was utilized to formulate an effective therapeutic intervention. A combination of manual therapy, exercise, and postural reeducation intervention was effective for this subject and could assist in guiding interventions for similarly unique clinical presentations in the future. Further research is needed to examine the etiology of ear twitching caused by muscle spasm and to develop additional evidence-based interventions for Whiplash Associated Disorders.

Level of Evidence: Level 4

Key words: Ear twitching, manual therapy, postural reeducation, sternocleidomastoid muscle spasm, whiplash associated disorders

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