# Headache Medicine

DOI: 10.48208/HeadacheMed.2024.Supplement.113



# Manual Therapy as a Comprehensive Treatment Strategy for Cervicogenic Headache Associated with Temporomandibular Dysfunction

Letícia Pereira Arce, Anna Victoria Alves da Silva, Carolina Muller Dias, Juliana Cristina Bertaggia, Kauany Viaceli, Pablo Guarisco Ferreira, Rafaela Rina Uekubo Ogawa, Valentina Miotto Gasparim, Alcântara Ramos de Assis César, Giselle Hech

Federal University of Paraná

## Introduction

Cervicogenic headache (CH) is a secondary headache that can be related to temporomandibular joint (TMJ) disorders due to anatomical and functional links, and is associated with sensitization of the trigeminocervical nucleus. Both temporomandibular dysfunction (TMD) and CH impact quality of life and have non-pharmacological treatment strategies such as manual therapy. Thoracic and cervical spine manipulation can be part of a comprehensive treatment strategy for cervicogenic headaches associated with TMD to enhance patient outcomes.

#### Objectives

Summarize the findings of an integrative review on the role of manual therapy in CH associated with TMD.

#### Method

A comprehensive search of MEDLINE, PubMed, and PEDro databases was conducted in June 2024 using "Temporomandibular disorder" AND "Headache" AND "Cervicogenic" AND "Manual therapy" as descriptors and operators. It yielded 10 results, of which 5 met the inclusion criteria for analysis.

#### Results

This review encompasses 5 studies conducted in Germany, the Netherlands, and the United Kingdom between 2010 and 2016, comprising a literature review, a cross-sectional study, and three randomized controlled trials (RCTs). The RCTs included male and female participants with previous diagnosis of headache and/or without head or facial pain. Manual therapies encompass a range of techniques used by physical therapists to treat musculoskeletal dysfunctions through hands-on manipulation. These techniques aim to enhance mobility, reduce pain, restore function, and promote overall health and well-being. Among the main techniques are joint mobilization, joint manipulation, myofascial release, therapeutic massage, and muscle energy techniques. Manipulation or mobilization of the thoracic spine demonstrated efficacy in neck pain management, as did cervical spine manipulation when combined with exercises. However, the evidence remains inconclusive regarding the efficacy of isolated cervical spine manipulation or mobilization for neck pain of any duration and for temporomandibular disorders (TMDs). Additionally, manual therapy for TMD appears to enhance patient outcomes more effectively when associated with orofacial physiotherapy.

## Conclusion

Despite methodological inconsistencies, studies indicate the benefits of manual therapy in the treatment of CH when associated with TMD. Further research is needed to elucidate the role of therapy in the physiology of these conditions. However, the multidisciplinary treatment of CH, including physiotherapy, is well established in literature.

