

Upper quarter kinetic chain response to cervical manipulation: a case report

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Abstract

Objective

The purpose of this single subject case study is to examine the relationship between cervical spine manipulation and tender points located in the upper quarter.

Clinical Features

A 45-year-old female presented with cervical spine pain and corresponding pain points in the upper quarter following a motor vehicle collision occurring 7 months prior to testing. Inclusion criteria were 22 of 22 clinically significant pain points as measured by pressure algometry.

Intervention and Outcome

High velocity/low amplitude manual manipulation was administered to areas of joint restriction in the cervical spine. Pre- and post-treatment computerized algometry readings were taken in areas of the cervical spine and upper extremities to assess change in pain over time. Algometry points were chosen based on published upper quarter tender points associated with cervical joint fixation/immobilization.

Conclusion

Following a series of 15 cervical chiropractic manipulations, the patient demonstrated a significant increase in pain tolerance related to upper quarter pain points and demonstrated by pressure algometry. These findings correlate well with the literature, indicating that cervical spine joint dysfunction should be considered globally as part of a dynamic kinetic chain involving the upper quarter. Dysfunction in one part of the kinetic chain should direct treatment to other areas of the chain.

Key Indexing Terms: Upper Extremity , Manipulation, Chiropractic , Myofascial Pain Syndrome