



Chiropractic Treatment of Lateral Epicondylitis: A Case Report Utilizing Active Release Techniques



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Abstract

Objective: The purpose of this report is to describe the chiropractic management of a case of lateral epicondylitis with active release techniques (ART).

Clinical features: A 48-year-old white man presented to a chiropractic clinic with a complaint of left lateral elbow pain that began 2 years previous with insidious onset. The patient reported an inability to play 18 consecutive holes of golf due to the pain.

Intervention and outcome: Treatment consisted of 5 sessions of ART (a soft tissue technique that is applied to muscles, fascia, tendons, ligaments, and nerves) applied to the left elbow soft tissue over a duration of 3 weeks. The patient reported an absence of pain and ability to consistently play 18 consecutive holes of golf up to 3 times per week at 4 and 8 weeks post-treatment.

Conclusion: This patient with lateral epicondylitis responded favorably to chiropractic treatment using the application of ART, as demonstrated by reduced pain and increased functional outcomes.

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Introduction

Lateral epicondylitis, commonly known as tennis elbow, is described as a painful condition affecting the lateral aspect of the elbow that is aggravated by active and resisted wrist extension and direct palpation of the lateral epicondyle of the humerus, the radiohumeral joint space, or the proximal forearm extensor muscles.^{1–4} This condition is most notably reported in

athletes participating in racquet sports such as tennis. However it has been reported to affect other athletes as well such as golfers.^{5–7} Despite its well known relationship with athletes, lateral epicondylitis is primarily seen in workers engaging in repetitive rotation, extension and/or flexion of the forearm. It has been reported that lateral epicondylitis affects 1% to 3% of the general population and affects women more so than men.^{5,8–13}

Generally, lateral epicondylitis is considered a self-limiting condition and recovery is seen with 1–2 years of conservative management. In some instances the condition may continue longer, with approximately

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10% of cases requiring surgical treatment.^{14–17} The choices of conservative treatment options are diverse and best management strategies remain controversial.⁹ This may be due to a current absence of universally accepted pathophysiological understanding, poor or biased methods of current studies, the existence of multiple variables which may influence outcomes, and the mere self-limiting character of the condition.^{18,19}

This study describes the chiropractic management of a patient with chronic lateral epicondylitis using the application of active release techniques (ART).

Case Report

A 48-year-old white man presented to a chiropractic clinic with left lateral elbow pain. The complaint originated 2 years previously with an insidious onset. Self-management strategies including over-the-counter non-steroidal anti-inflammatory medication, ice, and stretching were unsuccessful. The patient reported a slow progression of symptoms culminating in intense pain following playing 18 holes of golf 3 days prior to initial consultation. At the time of presentation, the patient described an achy pain in the left elbow and an intense sharp pain upon pressing on lateral portion of the elbow joint. He denied any sensation of numbness, tingling, burning and/or muscles weakness. Pain was reported as a 7/10 on a numeric pain rating scale. The patient described golfing as the only consistent provocative activity with other random activities which require the use of the left hand and forearm cause pain intermittently. Review of past medical, health, and family histories revealed no previous history of related complaints, no additional co-morbidities, or additional items of note.

Physical examination revealed a decrease in left elbow extension active range of motion due to pain, a positive resisted wrist extension test (ie, Cozen's Test), pain upon palpation of the lateral epicondyle of the left humerus and hypertonicity of the following musculature: left flexor carpi ulnaris, left pronator teres, left common extensor group, and left extensor digitorum. Upper extremity deep tendon reflex testing and sensory and motor strength testing revealed no abnormal findings.

The patient was prescribed a treatment plan consisting of 2 treatments weekly for duration of 3 weeks with treatment consisting of ART addressing the following tissues: left flexor carpi ulnaris musculature, left pronator teres musculature, left extensor retinaculum, common extensor musculature of the left forearm, and left extensor digitorum musculature. Abnormal tissues

were treated by applying tension by hand to the dysfunctional areas combined with specific patient movements to encourage normal tissue motion. The patient reported a gradual decrease of symptoms following each visit. Five treatment sessions were administered in a duration of 2 1/2 weeks. Upon re-examination at the fifth visit, the patient reported the only provocative activity as "strongly pushing directly on an extremely localized area of the lateral epicondyle." The patient rated his pain upon provocation as a 1/10 on a numeric pain rating scale. Re-examination revealed full active range of motion of the left elbow in all ranges, negative resisted wrist extension test (Cozen's Test), absence of palpatory findings and no hypertonicity of the left elbow and forearm musculature. At this time the patient additionally reported he had played 18 holes of golf 3 times in the previous week without any pain. The patient was released from care following the fifth visit and was instructed to return for care on an as needed basis.

The patient was contacted via telephone for follow up at 4, 8, and 16 weeks post treatment and reported no pain and stated that he had been golfing 2 to 3 times per week with no pain. No adverse events were reported throughout care. The patient gave consent for his health information to be reported in this study.

Discussion

Chronic tendon injuries are a common reason for presentation to health care providers and may significantly impact one's ability to work, exercise, and perform routine activities of daily living.^{21–23} Lateral epicondylitis is typically attributed to activities that require the repetitive use of the soft tissues. Although chronic tendon injuries, such as lateral epicondylitis, are traditionally described as a "tendonitis", this term may not be appropriate. The term "epicondylitis" implies a response of bleeding and successive inflammation. However overuse or chronic tendon injuries show no evidence of acute or chronic inflammation.^{21,24} Overuse soft-tissue injuries and chronic tendon injuries typically appear in tissues with poor vascularity and repetitive muscle contraction.²¹ Upon repetitive use, these tissues produce elastic forces within a tendon that may cause micro-traumatic injury.¹⁸ This type of cumulative micro-traumatic injury has been shown to yield angiofibroblastic degeneration and collagen disarray, which contrasts the typical cellular and protein responses linked to traditional inflammatory processes.^{2,21,25–28}

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