Effect of Wrist Manipulation & Cyriax Physiotherapy Training on Pain & Grip Strength in Lateral Epicondylitis Patients

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Abstract

The purpose of the study was to evaluate the effect of manipulation of wrist technique and Cyriax physiotherapy training in reducing pain and improving grip strength in lateral epicondylitis. A total of 30 patients (male =16; female=14) were selected as subjects and they were further divided into 2 groups. Each group comprising of 15 subjects (male=8; female=7). Results of this study suggest that there was an improvement in the mean values of Numeric Pain Rating Scale and Grip Strength after treatment in both groups. But the improvement was statistically more significant in wrist manipulation group than the Cyriax physiotherapy training receiving group. It was concluded that the patients of lateral epicondylitis procured more substantial benefits from wrist manipulation as compared to Cyriax physiotherapy after three weeks.

Keywords: Lateral Epicondylitis, Manipulation, Cyriax, Strength, Pain

Introduction

Lateral epicondylitis (LE) is the second most frequently diagnosed musculoskeletal upper extremity disorder in a primary care setting *(Harr & Andersen, 2003)*. The most commonly affected structure is the Extensor Carpi Radialis Brevis (ECRB) tendon that is characterized by the increased presence of fibroblasts, vascular hyperplasia and disorganized collagen and the average duration of a typical episode of LE is 6 months – 2 years *(Stasinopoulos & Johnson, 2004)*. Lateral epicondylitis occurs 7 to 20 times more frequently than medial epicondylitis *(Brotzman & Wilk, 1996)*. The dominant arm is commonly affected with the prevalence of 1-3% in general population, but this increase to 19% at 30-60 years of age *(Allender, 1974)*.The condition is not differing between men and women *(Vicenzino, 1996)*. There has been a well defined clinical presentation, the main complaints being pain and decreased grip strength. Diagnosis is simple and can be confirmed by the tests that reproduce pain such as palpation over the facet of the lateral epicondyle, resisted wrist extension, resisted middle finger extension and passive wrist flexion *(Kamein, 1990)*. Traditional treatment program for people with lateral epicondylitis have focused primarily on the pain control by ultrasound, anti-inflammatory medication, iontophoresis or phonophoresis followed by rehabilitation program which ranges from flexibility to strengthening and endurance training. Numerous treatments