Efficacy of Fascial Manipulation and Eccentric Exercise for Lateral Elbow Pain

Background: Lateral Elbow Pain (LEP) is a common painful condition affecting the working population, however, its aetiology and best treatments remain as yet unknown. Wrist extensors intratendinous modifications are commonly reported\(^1\), albeit changes in the innervation and vascularisation of the fascial layers superficial to the tendon itself have been observed too\(^2\). Common treatment of LEP includes exercise therapy, targeting the wrist extensor’s tendinopathy\(^3\). Fascial Manipulation\(^\text{®}\) (FM) is a manual method for the treatment of musculoskeletal painful conditions\(^4\). Its purpose is to normalize restricted fascial gliding through deep friction over specific points of the deep fascia, thus restoring the physiological afference to the nervous system and the distribution of forces around the periarticular tissues.

Objective: to verify the efficacy of FM in addition to a programme of eccentric exercise, compared with eccentric exercise only.

Methods: 29 patients (15M 14F, mean age 47) with clinical diagnosis of LEP were recruited and randomly assigned to two groups. The intervention group (17) underwent an individual 27-day eccentric exercise programme and 3 sessions of FM, distributed over one month. The control group (12) underwent 30 sessions of eccentric exercise only. Outcome measures were Maximum Grip Strength and Pain Free Grip measured with a hydraulic dynamometer, Pain Pressure Threshold measured with a pressure algometer on the common extensor tendon and function measured with the DASH scale. Assessments were performed by a blinded examiner before and after the intervention, and at a follow-up of 1 and 3 months after completion of the treatment. The protocol conformed to the Declaration of Helsinki.

Results: both groups significantly improved all outcomes at 3-months follow-up (p<0.05). The intervention group improved more than the control group at all follow-ups, but significant difference was reached only for DASH scale at 1-month follow-up (p=0.025) and for Pain Pressure Threshold after the treatment (p=0.029) and at 3-months follow-up (p=0.045).

Conclusion: eccentric exercise over one month has been shown to be effective for all outcome measures. Data trend seem to indicate that adding FM to exercise may add further benefits for pain relief. However, the small sample size stands as a limitation and hinders further statistical significance.


