

The efficacy of TECAR therapy in the treatment of lateral epicondyle enthesopathy

ABSTRACT

The purpose of the study was to gain knowledge of the effect of TECAR therapy on patients with lateral epicondyle enthesopathy.

Forty individuals with the condition were randomly placed into two groups of 20 patients (A and B), which received 9 TECAR therapy treatments and 9 sham TECAR therapy treatments, respectively. Additionally, all patients were administered deep transverse friction massage.

At baseline and at weeks 1, 6 and 12 post-intervention, pain intensity, upper limb function, and the grip strength and the strength of the wrist and finger extensors and flexors of the affected and unaffected limbs were measured in the participants. Additionally, correlations between the duration of the condition and percentage changes in pain intensity during exercise, total PRTEE and DASH scores, and the grip strength of the affected limb were determined after weeks 1, 6 and 12.

Measurements performed at week 12 showed statistically significantly lower pain intensity during exercise and PRTEE and DASH scores as well as significantly improved grip strength and the strength of the extensor muscles of the wrist and fingers of the affected limb in both groups. The percentage changes in these parameters were not significantly different between the groups. Also not significant were the correlations between the duration of the condition and percentage changes in pain intensity during exercise, total PRTEE and DASH scores, and the grip strength of the affected limb.

The results lead to the conclusion that TECAR therapy (9 sessions) applied using a capacitive mode (500 kHz, 5 min) and a resistive mode (500 kHz, 2 x 5 min) during each session does not reduce pain intensity or improve the function and muscle strength of the affected limb in patients with lateral epicondyle enthesopathy, and that the changes in pain intensity during exercise, muscle function and the grip strength of the affected limb it brings about are not correlated with the duration of the condition.

Keywords: TECAR, quasi-TECAR, lateral epicondyle enthesopathy, lateral elbow tendinopathy, deep transverse massage, treatment