IS THERE ANY EFFECT OF KINESIOTAPING ON RADIAL NERVE IN PATIENTS WITH UNILATERAL LATERAL EPICONDYLITIS? A RANDOMIZED-SINGLE BLIND STUDY

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Objectives: Lateral epicondylitis is characterised by pain in the lateral epicondyle of the humerus and common extensor tendon (CET). It was reported that radial nerve cross-sectional area were increased in refractory lateral epicondylitis measuring with ultrasonography, although nerve conduction studies were normal. In literature, it is indicated that kinesiotaping is effective at the treatment of lateral epicondylitis. In this study, we aimed to evaluate the effect of kinesiotaping with the larger sample size and using ultrasonography in addition to clinical parameters with patients lateral epicondylitis.

Methods: Eighty-five patients with unilateral lateral epicondylitis who completed the inclusion criteria were randomised into two groups. The non-steroidal anti-inflammatory drug (NSAID) was administered to the control group (CON) twice daily for 10 days, while kinesiotaping (KT) was performed 3 times a week for 2 weeks, in addition to the same NSAIDs. Clinical and ultrasonographic evaluation was performed before treatment, at 2 weeks (at the end of treatment) and at 6 weeks. Visual analogue scale (VAS), Nirschl grading, and PRTEE (Patient Based Tennis Elbow Evaluation Test) were used for clinical evaluation. The radial nerve cross-sectional area (RNCSA) were measured at two levels: spiral groove, just before bifurcation and CET thickness was calculated by ultrasonography. Clinical evaluation, ultrasonographic evaluation and management of treatment were performed by blind investigators.

Results: The study was completed with 80 patients and there were 40 patients in both groups. There were no significant difference age, gender, education, occupation, symptom duration and body mass index in both groups. The improvement of VAS was significant in CON at 2nd week (p<0.05), but not at 6th weeks. In KT group, improvement of VAS was significant both at the 2nd and at 6th weeks (p<0.00). Significant improvement was observed in spiral groove RNCSA and CET thickness in both groups. In the KT group, RNCSA at the level of pre-bifurcation was decreased significantly at the 2nd and 6th weeks (p<0.00), but there was no descreation in the CON. When the groups were compared, significant differences were observed in clinical parameters, CET thickness, and bifurcation RNCSA values at 2 and 6 weeks in the KT group (p<0.01).

Conclusions: Kinesiotaping improves clinical parameters and descreases ultrasonographic parameters such as CET thickness and radial nerve cross-sectional area. Therefore, kinesiotaping may be an alternative method that can be used in the treatment of lateral epicondylitis.