



Kinesiological Taping Effects After Carpal Tunnel Syndrom Surgeries

Karpal Tünel Sendromu Operasyonları Sonrası Kinezyolojik Bantlama Etkileri

Selçuk Sayılır

Muğla Sıtkı Koçman University Faculty of Medicine, Department of Physical Medicine and Rehabilitation, Muğla, Turkey

To the Editor;

A 44-year-old, right-handed female patient presented with a 3-year history of left hand numbness and pain in the median nerve distribution and who was operated for right carpal tunnel syndrome (CTS) two months ago, applied to our clinic. She did not report any trauma to the wrist before symptoms onset and after the surgery. Her pain was not responsive to non-steroidal anti-inflammatory drugs or any other drugs. The medical history was otherwise noncontributory. On the physical examination; Tinel's sign was positive on the left wrist operation area. There was not significant atrophy of the thenar muscles; paresthesia in the lateral three and a half digits in the distribution of the median nerve existed. Fifteen minutes of transcutaneous electrical nerve stimulation, and 10 minutes of therapeutic exercise, including wrist common extensor-flexor stretching and self-massage were given her. After 10 sessions programme there was not a significant decrease in her symptoms. Because of this situation a magnetic resonance imaging (MRI) was planned. MRI showed a possible triangular fibrocartilage complex damage. She was consulted to orthopedic clinic due to MRI findings and she was not advised for a new operation. After all, performing of kinesiological taping for median nerve relaxation was included to the programme and her symptoms were dramatically decreased. After 20 session of therapy and 10 day kinesiological taping for median nerve relaxation her visual analog scale values was decreased 8 to 4. CTS is a neurological condition caused by compression of the median nerve at the wrist due to increased pressure with in the carpal tunnel (1). Patients with CTS usually present with sensory or motor symptoms, or both, in the hand and wrist. CTS symptoms include pain in the hand, loss of strength, atrophy of the hand muscles, and dysesthesia (2). The prevalence of CTS in the general population is 3.8% when diagnosed clinically and 2.7% when diagnosed neurophysiologically (3). Some authors have reported that occupational risk factors, such as vibration, force and repetition (4). Other risk factors for CTS are obesity, diabetes mellitus, previous wrist fracture, and arthritis (5). Although the pathophysiology is still remain unclear increased

pressure with in the carpal tunnel was suspected of CTS and it depends either on compression or on the volume increase is founded with patient with CTS (6). In this report, we presented an operated CTS patient who had significant benefits due to kinesiological taping for her remaining symptoms after CTS surgery, to our best notice, such a concomitance was not reported before. The effect may come from the upholding of soft tissues by tapes. Overall, since optimal management of CTS needs early diagnosis and immediate treatments, we underscore the fact that kinesiological taping should be considered in the treatment of CTS, especially after surgeries. Accordingly, additional high-quality studies with larger sample sizes and longer study duration are needed in order to further assess the effects of kinesiological taping on CTS and after CTS surgeries.

Keywords: Carpal tunnel syndrome, kinesiological taping, pain

Anahtar kelimeler: Karpal tünel sendromu, kinezyolojik bantlama, ağrı

Ethics

Peer-review: Internally peer-reviewed.

References

1. Peters S, Page MJ, Coppieters MW, Ross M, Johnston V. Rehabilitation following carpal tunnel release. *Cochrane Database Syst Rev* 2016;2:CD004158.
2. Galasso O, Mariconda M, Donato G, Di Mizio G, Padua L, Brando A, et al. Histopathological, clinical, and electrophysiological features influencing postoperative outcomes in carpal tunnel syndrome. *J Orthop Res* 2011;29:1298-304.
3. Atroshi I, Gummesson C, Johnsson R, Ornstein E, Ranstam J, Rosen I. Prevalence of carpal tunnel syndrome in a general population. *JAMA* 1999;282:153-8.
4. Barcenilla A, Lmarch LM, Chen JS, Sambrook PN. Carpal tunnel syndrome and its relationship to occupation: a meta-analysis. *Rheumatology (Oxford)* 2012;51:250-61.
5. van Rijn RM, Huisstede BM, Koes BW, Burdorf A. Associations between work-related factors and the carpal tunnel syndrome - a systematic review. *Scand J Work Environ Health* 2009;35:19-36.
6. Ettema AM, Amadio PC, Zhao C, Wold LE, An KN. A histological and immunohistochemical study of the subsynovial connective tissue in idiopathic carpal tunnel syndrome. *J Bone Joint Surg Am* 2004;86-A:1458-66.