

# DİSKOPATİYE BAĞLI NÖROPATİK AĞRIDA NON FARMAKOLOJİK BİR YÖNTEM: AKUPUNKTUR UYGULAMASI

## IN NEUROPATHIC PAIN BY DISCOPATHY A NON-PHARMACOLOGIC METHOD: ACUPUNCTURE APPLICATION

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### Özet

Akupunktur kronik ağrısı olan bireylerde güvenilir ve etkin non farmakolojik yöntemler arasında yer almaktadır. Kronik ağrılı hastalarda ve çoklu ilaç kullanan uygun hastalarda ilk sırada tercih edilmesi gereken bir analjezik yöntemdir. Biz bu çalışmada kronik ağrılı diskopatili hastalarda non farmakolojik tedavi yöntemlerinden akupunkturun etkisini araştırmayı amaçladık. GETAT polikliniğine başvuran kronik ağrılı diskopati hastaları çalışmaya dahil edildi. Hastalardan aydınlatılmış onam formları alındı. Hastalara 10 seans akupunktur uygulaması yapıldı. Hastalara tek kullanımlık steril vücut ve kulak akupunktur çelik iğneleri kullanıldı. (0.25x25mm, 0.22x13mm,0.22x1.5mm lik Hua Long) Çalışmaya katılan hastaların yaş ortalamaları  $45.90 \pm 12.5$ , D Vitamin düzeyi ortalamaları  $23.94 \pm 23.5$  ug/l, VAS 1 değerleri  $8.06 \pm 2.1$ , VAS 2 değerleri  $5.88 \pm 2.33$  idi. Hiç bir hastada yan etki görülmemiştir. VAS değerlerinde %40'ın üzerinde azalma tespit edilmiştir. Sistematik derleme ve anketlerin sonucunda akupunkturun uygun eğitimli kişiler tarafından yapıldığında güvenilir olduğunu kanıtlamıştır.

**Anahtar kelimeler:** Akupunktur, nöropatik ağrı, diskopati.

### Abstract

**Objective:** TAcupuncture is among the safe and effective non-pharmacological methods in individuals with chronic pain. It is an analgesic method that should be preferred in the first place in patients with chronic pain and suitable patients using multiple drugs. In this study, we aimed to investigate the effect of acupuncture, which is one of the non-pharmacological treatment methods in patients with chronic painful discopathy. Patients with chronic pain dyspathy who applied to the GETAT outpatient clinic were included in the study. Informed consent forms were obtained from the patients. Ten sessions of acupuncture were applied to the patients. Disposable sterile body and ear acupuncture steel needles were used. (0.25x25mm, 0.22x13mm, 0.22x1.5mm Hua Long) The average age of the patients participating in the study was  $45.90 \pm 12.5$ , the average vitamin D level was  $23.94 \pm 23.5$  ug / l, the VAS 1 values were  $8.06 \pm 2.1$ , the VAS 2 values were  $5.88 \pm 2.33$ . No patient had any side effects. A reduction in VAS values of over 40% has been detected. As a result of systematic reviews and surveys, acupuncture proved to be reliable when performed by appropriately trained people.

**Key words:** Acupuncture, neuropathic pain, discopathy.

### Introduction

Acupuncture accepts the body as a combination of soul and body, apart from a physical structure. It is a very successful treatment method in the treatment of chronic pain. Some of the factors in its success can be considered to evaluate the concept of organ functionally. Organs are alive in

acupuncture; vitality is provided by life energy called dew. Pathogens that interrupt the flow that clogs the raw flow creates diseases. Acupuncture needles are immersed in special spots on Bonghan channels and regulate the raw flow by electron transfer (1). Acupuncture is a needling method and can be used in the treatment of many diseases such as chronic pain. The effects of acupuncture can be explained by neurophysiological studies. These effects are not only local effects, but also effects on general, central nervous system. The acupuncture needle spreads from the local needling through viscerocutaneous, cutaneous-visceral, cutaneous-

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muscular reflexes. Thus, it provides a dermatomal effect. The acupuncture stimulation then reaches the upper centers via the medulla spinalis, and finally the periaqueductal neurons in the mesencephalon;  $\beta$ -endorphine, enkephalin, serotonin are released. Acupuncture points are points in close relationship with the lymphatic system and vascular structures. Acupuncture points are shown to have low electrical resistance points (Shang 1989) and calcium concentration increases as a result of needle stimulation of the point (2).

With the needling of the acupuncture point, the transition from the brain to the spinal core, the thalamus, sensory cortex, periaqueductal neurons are activated and the pain control system is activated (3, 4). Acupuncture stimulation stimulates endorphinergic and encephalinergic neurons, which are associated with the cortex and hypothalamus. With synaptic connections, serotonergic neurons in the bulb are activated (3, 4, 5, 6).

Analgesia is also important neurotransmitters enkephalin and serotonin (7). Enkephalin is released from periaqueductal neurons in mesencephalon. It shows affinity for delta and  $\mu_1$  receptors. In painful stimuli, their oscillations increase and play an important role in analgesic mechanisms. While the  $\mu_1$  receptors are abundant in the raphe nucleus and periaqueductal neurons, the delta and kappa receptors are located in the spinal cord. Enkefalins bind to  $\mu_1$  receptors at the supraspinal level and to delta receptors at the spinal level and show an analgesic effect. Enkephalins have been shown to inhibit in the posterior cord on A delta and C fibers in the presynaptic and postsynaptic area (4, 6). Electroacupuncture has its analgesic effect on serotonin receptors (5-HT (1A) and 5-HT (3) (8). In this study, we aimed to investigate the effect of acupuncture, which is one of the non-pharmacological treatment methods in patients with chronic painful discopathy.

## Cases

Patients with chronic pain dyspathy who applied to the GETAT outpatient clinic were included in the study (n= 28 female; 20, male; 8). Informed consent forms were obtained from the patients. Ten sessions of acupuncture were applied to the patients. Disposable sterile body and ear acupuncture steel needles were used. (0.25 x 25 mm, 0.22 x 13 mm, 0.22 x 1.5 mm Hua Long) Pathological meridians were detected primarily with the diagnosis of pulse in each patient with chronic pain. Then the Yuan points of pathological meridians were pinned. In those with cervical discopathy, cervical Back-Shu points and other relevant points were used. The needles were immersed in a depth of 0.5-1 cun by taking the feeling of dew; He stayed for 20 minutes during the session. A current of 2 Hz was given with the electroacupuncture device over the needles. In ear acupuncture, zero point, jingmen, shenmen cervical vertebra and lumbal vertebrae points were used. Permanent vaccaria seed, magnetic ball, intradermal acupuncture needles were used in the ear.

UB-10; Tianzhu; It is in the posterior hairline, where M. Trapezius adheres to the lower edge of the occiput bone. It is at the level of C1-C2 vertebrae.

UB-11; DASH; The spinous protrusion of the T1 vertebra is at the level of its lower edge, 1.5 cun lateral to the posterior midline.

UB-13; The Feishi; It is the back-Shu point of the lung. The spinous protrusion of the T3 vertebra is at the level of its lower edge, 1.5 cun lateral to the posterior midline.

DU-14; The DAZHU; It is located under the processus spinosus of the C7 vertebra.

DU-20; Baihui; both ears are at the intersection of the line drawn from the apex. This point is a general physiological and coordination point in every acupuncture treatment.

Also; Lumbar Back-Shu points were obtained in those with lumbar discopathy.

UB-21; Weishu; The Back-Shu point of the stomach is at the level of the lower edge of the T12 vertebra's spinous protrusion, 1.5 cun lateral to the posterior midline.

UB-23; The SHENSHEN; The kidney's Back-Shu point. The spinous protrusion of the L2 vertebra is at the level of its lower edge, 1.5 cun lateral to the posterior midline.

UB-24; The QIAISHI; The spinous protrusion of the L3 vertebra is at the level of its lower edge, 1.5 cun lateral to the posterior midline.

UB-25; The DACHANGSHI; The Large Intestine is the Back-Shu point. The spinous protrusion of the L4 vertebra is at the level of its lower edge, 1.5 cun lateral to the posterior midline. Krista iliaka is the upper limit.

UB-27; The XIAOCHANGSHI; The Small Intestine is the Back-Shu point. It is 1.5 cun lateral to the posterior midline at the level of the 1st sacral foramen.

UB-28; The PANGGUANGSHI; It is the back-shu point of the bladder. At the level of the 2nd sacral foramen, 1.5 c from the posterior midline (9).

The mean age of the patients participating in the study was  $45.90 \pm 12.5$ , the average vitamin D level was  $23.94 \pm 23.5$  ug / l, the VAS 1 values were  $8.06 \pm 2.1$ , the VAS 2 values were  $5.88 \pm 2.33$ . No patient had any side effects. A reduction in VAS values of over 40% has been detected.

## Discussion

There are many Cochrane reviews on non-pharmacological interventions for pain and many Cochrane reviews evaluating acupuncture treatment under pain conditions (10). 22 relevant Cochrane reviews were found, concluding that some acupuncture therapy concluded that it was probably useful for the treatment of certain pain conditions. Low back and neck pain, osteoarthritis (OA), and headache are the most common pain conditions in the U.S. and global disability causes in most countries in 2015 (11). Most of the opioid uses (80%) used in painful conditions in America result in addiction, and after a while tolerance problems arise (12).

Non-steroidal anti-inflammatory drugs used non-opioid have gastrointestinal system problems, nausea, abdominal pain, stroke, heart attack, kidney failure and acute and chronic bleeding side effects (13). Among rheumatoid arthritis (RA) and OA patients alone, there are 16,500 deaths per year from NSAID-related gastrointestinal complications, and as of 2000, 25% of adverse drug reactions reported have been linked to prescription NSAID use (14, 15, 16). It is recommended by the Disease Control and Prevention Centers (CDC) and the USA as the first line of care. Centers such as the FDA, National Institutes of Health (NIH) make acupuncture among the first non-pharmacological methods to be tried at the top of the list in the treatment of pain (17). As a result of systematic reviews and surveys, acupuncture proved to be reliable when performed by appropriately trained people (18, 19, 20, 21, 22, 23, 24).

Vickers et al. found acupuncture superior to sham group in pain and functions. It was observed that the effect of acupuncture continued with a decrease of approximately 15% when monitored for 1 year. According to the metaanalysis, it is concluded that acupuncture is effective in the treatment of chronic musculoskeletal system, headache and osteoarthritis pain. The treatment effects of acupuncture continue over time (25, 26).

### Kaynaklar

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