CASE REPORT

Heel Spur and Acupuncture: Does It Work?

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ABSTRACT

Heel spur is also known as a result of plantar calcaneal bone spur which is a common complaint associated with pain at heel. Heel spur is more common in females. Anti-inflammatory drugs, local steroid injections, physical therapy, low-dose radiotherapy and shock wave therapy are the commonly used treatment choices. There is no evidence that acupuncture is an effective treatment method for heel spur in the literature. However, we know that acupuncture can be used for many orthopaedic diseases like frozen shoulder, tennis elbow, sciatic pain, joint sprains, several forms of bursitis and arthritis. In this case, we aimed to demonstrate whether acupuncture is effective in a patient with heel spur. To the best of our knowledge, this is the first case in which only acupuncture is used alone for the treatment of heel spur up to date in the literature.

Keywords: Acupuncture, heel spur, plantar fasciitis

INTRODUCTION

Heel spur is a calcium deposit on the heel bone. Etiological factors of heel spur are still not clear. Usually, patients with heel spur are adults and it is more common in females (1, 2). It is a common complaint associated with pain at heel. Plettner described it radiologically in 1900 as plantar calcaneal exostosis at the insertion of the plantar fascia and muscles, resulting in painful plantar fasciitis. Fifteen percent of cases with heel spur are generally asymptomatic (3, 4). It is diagnosed by X-ray showing a protrusion of bones of the heel. Anti-inflammatory drugs, local steroid injections, physical therapy, low-dose radiotherapy and shock wave therapy are the most commonly used treatment modalities (5, 6).

Up to date, there is no evidence that acupuncture is an effective treatment method for for heel spur in the literature. However, we know that acupuncture can be used for many orthopaedic diseases like frozen shoulder, tennis elbow, sciatic pain, joint sprains, several forms of bursitis and arthritis (7). Here, we aimed to demonstrate whether acupuncture works in a case with heel spur. To the best of our knowledge; this is the first case where acupuncture is used alone for treatment of heel spur up to date in the literature.

CASE REPORT

A 38-year-old female patient who had heel spur for the last 5 years was referred to our acupuncture out-patient department from an orthopaedic outpatient department. She was treated by local steroid injections twice and by extracorporeal shock wave therapy once. But her complaints were continued. She had no known systemic disease. Also, she had no pathological signs upon physical examination. After an informed consent was obtained, she was started on acupuncture treatment.

Acupuncture treatment was applied twice weekly for 4 months, once weekly for one month and twice monthly for one month. A total of 38 sessions were applied within 6 months. No side effect was observed during the treatment. Bilateral KI-3, KI-6, KI-7, UB-60, UB-62,

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ST-44, LI-4 and GV-20 acupuncture points were selected in the first months. GB-14 and *yin tang* were added in the remaining 5 months. The needles were retained for 30 min. The patient was asked to report any change in pain or any difference noted after each acupuncture session. Radiological examination was taken before and after the treatment. There was no evidence of heel spur after the acupuncture treatment on radiological examination (Figs. 1 and 2). Also, she declared that her pain decreased after the first month of treatment and that she felt more comfortable during walking and standing since she had less pain. Pain severity was measured using a 10 point visual analogue scale (VAS) before and after acupuncture treatment. The VAS was 8 before acupuncture and it was decreased to 3 after the end of acupuncture sessions.

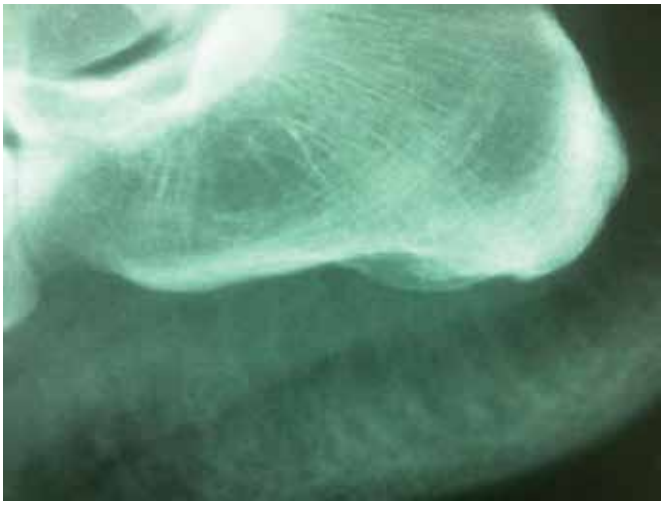

Fig. 1: Before acupuncture treatment.

Fig. 2: After acupuncture treatment.

DISCUSSION

It was observed that acupuncture was an effective treatment choice for heel spur. Heel spur is a common and often disabling condition that causes pain and decreases the quality of life. Therefore, it is very important to relieve pain and increase the quality of life in patients with heel spur.

It was reported that acupuncture may be useful as a complementary treatment of some types of musculoskeletal disease. It was shown that electro-acupuncture with conventional treatments provided a success rate of 80% in chronic plantar fasciitis. In that study, pain score and foot function index were improved by 10 sessions of acupuncture. Acupuncture was more effective than conventional treatments alone (8, 9). Thus far, only one study from China has reported the use of acupuncture for heel spur. The therapeutic effect of acupuncture combined with Chinese herbs in pyrogenic therapy on heel spur was shown in that observational study (10).

According to traditional Chinese medicine, heel spur occurs due to *qi* and *blood* stagnation in the channels and internal organ imbalances. Acupuncture can help to relax the muscles and connective tissue of the foot, decrease inflammation and stimulate the body to release endorphins (11).

According to acupuncture theory, the kidney, gall bladder and stomach *meridians* control the pain of feet. Hence we used these three meridians. Since the acupuncture points also have their own local effects, KI-3, KI-6, KI-7, UB-60, UB-62 and ST-44 were selected as the local point in the case. LI-4, GV-20 and *yin tang* were selected to provide general relaxation, wellbeing and to decrease pain in the patients (12). In our case, the pain decreased after the first month of treatment and the patient felt more comfortable during walking and standing since she had less pain. The case reported that VAS decreased from 8 to 3 after acupuncture treatment.

Acupuncture for heel spur seems effective and feasible without any side effect and maybe considered as a treatment option. Also, to our knowledge, this is the first case in which acupuncture is used alone for treatment of heel spur in the literature. Randomized controlled trials are needed to further investigate the efficacy of acupuncture for the treatment of heel spur.

AUTHORS' NOTE

The authors declare that they have no conflict of interests.

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