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Case Report

Acupuncture for treating adhesive capsulitis (frozen shoulder): A Case report

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Abstract

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This case study discloses acupuncture treatment performed on a patient who presented with adhesive capsulitis (frozen shoulder) for a period of 4 months. After 15 treatment sessions which also included two sessions of aquapuncture, the patient was pain free and achieved a full range of motion of the glenohumeral joint.

Key Words: adhesive capsulitis, frozen shoulder, acupuncture

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Introduction

Frozen Shoulder (FS) is a typical yet misunderstood problem that affects the glenohumeral joint and is postulated to be caused by a non-specific chronic inflammatory reaction that affects the subsynovial tissue, resulting in capsular and synovial thickening (Asheghan et al., 2016; Sun et al., 2001). It is a limitation of shoulder mobility that is not caused by joint surface abnormalities, fractures, or dislocation that usually develops gradually and is idiopathic, although it can sometimes occur suddenly and be linked with a history of mild shoulder joint injury (Ben-Arie et al., 2020).

Adhesive capsulitis is a medical term that refers to a condition rather than a diagnosis. As implied by the alternate titles, frozen shoulder, peri-arthritis, pericapsulitis, sticky capsulitis, and obliterative bursitis, it is most commonly used as a clinical phrase with pathogenetic connotations (Ben-Arie et al., 2020; Sun et al., 2001). The condition mostly affects middle-aged individuals and is typically self-limiting, however the length and severity might vary significantly (Sun et al., 2001). The clinical appearance of FS is characterized by pain and a restriction in the range of active and passive mobility of the shoulder. Pain can be intense, which can make sleeping exceedingly difficult. Range of motion (ROM) is often more restricted with external rotation but less so with abduction and internal rotation (Shaffer et al., 1992; Sun et al., 2001; Waldburger et al., 1992). We report a patient with FS with decreased range of motion.

Case Report

A 62-year-old female housewife was observed with pain in the left shoulder characterised by restriction of shoulder mobility in both active and passive motion with abduction and flexion for 4 months. She expressed a pricking and achy discomfort in her left shoulder that radiated down the left arm. Further, it influenced daily chores like cooking, sweeping and gardening. On examination, it was observed that any movement

of the left upper limb intensified her agony and that the pain kept her awake at night. Further, the pain was alleviated significantly when a hot compression was applied. She also claimed that she felt comfortable while submerged in a hot water bath. The main diagnosis was in the left glenohumeral joint active range of motion (ROM). The ROM measured were as follows: Internal rotation 15°, external rotation 10°, forward flexion 30°, extension 20°, and abduction 30°. The grade for restricted movement in the left glenohumeral joint for flexion, abduction, and internal and external rotations was 2/5. The patient's motions of the left glenohumeral joint's posterior and posteroinferior joints were also restricted, uncomfortable, and painful.

Treatment of Acupuncture

The following acupuncture points were employed for treatment: Strong lifting and thrusting stimulation were applied to *Tan'er* point, St38 (*Tiaokou*), Gb41 (*Foot-linqi*) and *Ah-shi* points for acute pain. Liv3 (*Taichong*), Li4 (*Hegu*) were needled to in a reduction method and Gb34 (*yanglinquan*) in an even method. K6 (*Zhaohai*), K3 (*Taixi*), Ren12 (*Zhongwang*), St36 (*Zusanli*), Ren6 (*Qihai*) were needled in a tonification method. These acupoints were chosen in the treatment of FS based on TCM principles. Aquapuncture was utilised on the patient twice in the whole session in addition to standard acupuncture needling. Aquapuncture was done by injecting a small amount of less than 0.1ml of sterile distilled water into *Tan'er* point and *Ah-shi* points.

Acupuncture treatment was done by introducing sterile stainless-steel needles (size: 0.25x0.25) into the muscle layer of the patient. The needles were rotated clockwise forcefully for the reduction method and counter-clockwise with a little force for the tonification method for one to two minutes within every ten minutes, and the needles were kept for 30 minutes. For five weeks, this treatment was given three times per week (15 treatment sessions). Within the entire treatment period, the patient was also given aquapuncture at *Tan'er* extra point and at *Ah-*

shi point twice. All needle placements were done by qualified Acupuncture practitioners at the KIU Acupuncture Clinic in Koswatta, Sri Lanka. Furthermore, the patient was informed about acupuncture treatment for FS and related desirable therapeutic outcomes.

Clinical Outcome

After the patient underwent 3 weeks of treatment, the active left glenohumeral abduction, flexion, and external rotation were 50°, 70°, and 15° (30°, 30° and 10° initially), whereas the passive abduction, flexion, and external rotation were 75°, 80°, and 35° respectively. After undergoing treatment for further 2 weeks, there was a remarkable relief in pain and the patient was able to obtain a full range of motion.

Discussion

The acupuncture treatment employed in this clinical study was carried out in accordance with Traditional Chinese Medicine (TCM) principles. “Qi”, or energy, is considered to flow along a complex of linked channels known as meridians. “Qi” connects the meridian systems where each internal organ is supposed to be related to a certain meridian, which is named after the organ in consideration. Diseases and discomforts, such as pain, are categorized depending on the meridians they involve, their Yin or Yang character, and whether the flow of “Qi” is excessive or inadequate (Matos et al., 2021).

FS is a disorder caused by “Qi obstruction”, commonly known as the “Bi syndrome”, and is characterized by significant locomotor abnormalities. “Bi,” also known as “Painful Obstruction Syndrome,” causes muscle, tendon, and joint pain, soreness, or numbness. It refers to discomfort, soreness, or numbness produced by an obstruction in the circulation of “Qi” and Blood in the meridians caused by an invasion of Wind, Cold or Dampness, which are referred to as external pathogenic factors in TCM. It is said to be caused by a lack of Yin and weak epidermal defence against pathogenic factors

like Wind, Cold, and Dampness entering the body. (Rebecca, 2017).

By employing acupoints K6 (Zhaohai), K3 (Taixi), Ren12 (Zhongwang), St36 (Zusanli), Ren6 (Qihai), Liv3 (Taichong), Li4 (Hegu), Gb34 (Yanglingquan), tanager point, combination point of St38 (Tiaokou), Gb41 (Foot-linqi), and Ah-shi points to treat the manifestation and the root causes; spleen yang deficiency, kidney yin deficiency and liver qi stagnation, we were able to successfully treat this patient.

Conclusion

Acupuncture treatment can successfully treat frozen shoulder.

Conflicts of interest

The authors declared that there is no conflict of interest.

Author Contributions

C. Indrapala took the lead in management of the patient. R.K.K.D. Ranasinghe, I.H.N. Hemasinghe, H.M.V.A Samaranada assisted the patient management and wrote the manuscript.

Consent

The patient’s information needed for this case report publication was collected anonymously, and the patient’s signed informed consent was obtained.

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