

Acupuncture and Chinese Herbal Medicine for Frozen Shoulder: A Case Report

Abstract

Frozen shoulder (FS) is a commonly seen condition in clinical practice. This case report shows evidence of the effectiveness of acupuncture and Chinese herbal medicine for FS where physical therapy (PT) exercises were not utilised as they aggravated the patient's pain. Indicators measured in the study included involved joint pain, range of motion and quality of life. Results at baseline and six week follow-up were reported in a MYMOP form. In this case, acupuncture and Chinese herbal medicine were successful in maintaining positive results and improving movement and function of the shoulder joint in a patient with FS.

By: Michelle Kim

Keywords:

Frozen shoulder, adhesive capsulitis, acupuncture

Frozen shoulder (FS) or adhesive capsulitis is a condition affecting approximately two to five per cent of the population between the ages of 45 and 60 (Uppal et al., 2015). In traditional Chinese medicine (TCM), it is termed '50 year old shoulder' because it commonly occurs in this age group, especially menopausal women (Reaves, 2011). Diagnosis is based on ruling out other joint abnormality, fracture or dislocation. FS can be of unknown cause and involves gradual loss of joint motion, and stiffness. Limited external rotation and sleep disturbance are the most common symptoms (Sun et al., 2001). The quality of the pain is often dull, diffuse or aching, and the condition is usually self-limiting within three years (Uppal et al., 2015). There is a lack of high quality studies on FS treatment using TCM and therefore, without any evidence-based treatment protocols, it is sensible to involve the patient in the treatment plan.

Case presentation

A 44-year-old Caucasian female presented to the acupuncture clinic in June 2018 with a three-month history of left shoulder pain. Her primary care physician (PCP) referred her to a physical therapist, who ruled out other conditions using orthopaedic tests (the patient said she did not have time to have any diagnostic imaging), diagnosing her condition as FS. The physical therapy, however, only aggravated the pain. She complained that the pain was waking her at night whenever she rolled onto the affected arm. The pain was of unknown cause, had a gradual onset, and was both sharp and dull in nature. On a

pain scale, it measured 8 out of 10 on a scale of zero to 10 (10 being the worst) during her initial visit.

Physical therapy only aggravated the pain...

The patient reported being under high stress at work, which she thought contributed to her 'comfort-eating' junk food. Her blood pressure was normal (120/80 mmHg) with a pulse rate of 80 beats per minute. Her body-mass index (BMI) was 28 (overweight). She had experienced a cerebral aneurysm in 1999 and was recovering from an anterior cruciate ligament replacement in her left knee. She drank on average of six glasses of alcohol a week, was a non-smoker and physically active. She enjoyed tennis, golf and skiing. Her father had heart disease and her grandparents had cancer. No one in her family had a history of diabetes or thyroid issues (which may be linked to FS - see Asheghan et al., 2016). She denied experiencing any emotional issues, and appeared upbeat, professional in attire, and reported having a strong support system of family and friends. However, her shoulder problem was impacting on her quality of life, for instance she was unable to enjoy playing tennis with her father.

Her pulse was wiry in the left cun (distal) position and deficient in the right guan (middle) position. Her tongue was pale with a red tip, scalloped edges and a moist white tongue coat. Her Chinese diagnosis was considered a damp bi-obstruction syndrome with local qi and blood stagnation and underlying

Spleen qi deficiency. The treatment principles were to dredge the channels and collaterals, promote qi and blood circulation in the affected Taiyang and hand Yangming channels, relax the sinews, stop pain and tonify Spleen qi. Key acupuncture points selected with their therapeutic rationale included:

- Yanglingquan GB-34: to benefit the sinews and tendons.
- Jianyu L.I.-15, Jianliao SJ-14, Jianzhen SI-9 and Jianqian M-UE-48: local points to improve qi and blood flow and relieve pain.
- Hegu L.I.-4 and Tiaokou ST-38: Distal points to promote qi and blood circulation in the Yangming channel.
- Houxi SI-3 and Chengshan BL-57: Distal points to promote qi and blood circulation in the Taiyang channel.

Assessment

In order to assess the treatment, three methods were used. The first was an informal face-to-face pain scale, measured from one (least pain) to 10 (most pain). However, since there can be bias when a client describes their pain level to their clinician, the MYMOP (Measure Yourself Medical Outcome Profile) questionnaire was also used (with a pain scale from one to six). According to the patient's initial MYMOP, as well as improving her shoulder pain, her stated goals were to improve sleep and lose weight. Finally, range of motion (ROM) tests were also performed at baseline and after six weeks of treatment.

After six weeks of treatment, the patient showed great satisfaction as she was able to resume playing tennis with her father.

Therapeutic Intervention

The patient received six acupuncture treatments over the course of one and a half months starting on 18th June 2018. She was positioned in the right lateral recumbent position and distal points on the same side of the painful shoulder were first needled. Tiaokou ST-38 (threaded to Chengshan BL-57) and Yanglingquan GB-34 were needled and connected to electro-stimulation (five hertz), along with Hegu L.I.-4 and Houxi SI-3. Then the local points Jianzhen SI-9, Naoshu SI-10, Tianzong SI-11, Bingfeng SI-12, Binao L.I.-14, Jianyu L.I.-15 and Jugu L.I.-16. Needles were inserted perpendicularly to a depth of one centimetre using even method, and after elicitation of deqi were retained for 20 minutes. A heat-lamp was applied to the shoulder while the needles were in situ. Needle brand was DBC, size 0.25 x 30 millimetres. A standing pendulum or Codman's home exercise was also recommended with 100

rotations per day (Healthline, 2016), although the patient was not compliant with this for more than a few days due to pain and restriction.

Based on the idea that acupuncture would work best in conjunction with herbal medicine, after gaining the patient's trust during the initial treatment *Juan Bi Tang* (Remove Painful Obstruction Decoction, KPC Brand) was prescribed at the second treatment on 25th June. We also discussed her home and work environment, and ways to improve posture and diet, such as reducing damp producing foods and incorporating probiotics.

Follow-up and outcomes

The patient committed to weekly treatments, except one week when she travelled for work. After six weeks of treatment her pain had reduced from eight out of ten to three out of ten on the informal face-to-face scale, and her MYMOP pain rating went from five out of six to two out of six. Her ROM also significantly improved - see Table 1. No adverse effect from treatment was reported. The week when the patient travelled she experienced a urinary tract infection (UTI) and her PCP prescribed her antibiotics for 10 days. That week was the only week when she reported the no improvement in the pain level of her shoulder.

Motion	Baseline (degrees)	Six weeks (degrees)
Abduction	90	170
Adduction	40	60
Flexion	150	180
Extension	20	45
Internal rotation	45	60
External rotation	45	80

Table 1: Range of motion at baseline and after six weeks treatment

After six weeks of treatment, the patient showed great satisfaction as she was able to resume playing tennis with her father. It seemed that their bonding lifted her spirit; such improvements in quality of life are an optimal outcome measure when treating FS.

Discussion

This case report reflects successful treatment of FS using acupuncture and Chinese herbal medicine without emphasis on remedial exercise. Much of the current evidence from randomised controlled trials (RCTs) of acupuncture's effect on FS have potential methodological flaws and significant heterogeneity. A meta-analysis found encouraging evidence for the effectiveness of acupuncture at Tiaokou ST-38 for FS (Yang et al., 2018). Sun et al. (2001) concluded that acupuncture and physical exercise may be an effective option for FS. In addition, an RCT by Zhang et al. (2015) concluded that contralateral acupuncture showed beneficial effect in chronic shoulder pain. In the study published here, the

ipsilateral side was treated with positive results; the effects of treatment in terms of range of motion were similar to those found by Asheghan et al. (2016), who concluded there was more improvement in flexion and abduction than other variables after acupuncture treatment.

Conclusion

Acupuncture combined with Chinese herbal medicine is an effective stand-alone treatment that can ameliorate pain, increase range of motion, and enhance quality of life in people suffering from FS. Although most studies recommend physical therapy exercises in conjunction with acupuncture as the gold standard of treatment, this case suggests that TCM treatment can work alone effectively when shoulder exercises are not possible.

Michelle Kim earned her doctorate in acupuncture and Chinese medicine from the Pacific College of Oriental Medicine and bachelors in arts from Wellesley College in psychology and was pre-med. She currently resides in Cambridge, MA.

References

- Asheghan, M., Aghda, A.K., Hashemi, E. et al. (2016). Investigation of the effectiveness of acupuncture in the treatment of frozen shoulder, *Materia Socio-Medica*, 28(4), pp. 253-257
- Reaves, W. (2011). *The Acupuncture Handbook of Sports Injuries and Pain: A four step approach to treatment*. Hidden Needle Press: Boulder, CO
- Sun, K.O., Chan, K.C., Lo, S.L. et al. (2001). Acupuncture for frozen shoulder, *Hong Kong Medical Journal*, 7(4), pp. 381-391
- Uppal, H.S., Evans, J.P. & Smith, C. (2015). Frozen shoulder: A systematic review of therapeutic options, *World Journal of Orthopedics*, 6(2), pp. 263-268
- Yang, C., Lv, T.T., Yu, T.Y., et al. (2018). Acupuncture at tiaokou (St38) for shoulder adhesive capsulitis: What strengths does it have? A systematic review and meta-analysis of randomized controlled trials, *Evidence-Based Complementary and Alternative Medicine*, doi:10.1155/2018/4197659
- Zhang, H., Sun, J., Wang, C., et al. (2016). Randomized controlled trial of contralateral manual acupuncture for the relief of chronic shoulder pain, *Acupuncture Medicine*, 34, pp. 164-170.