

Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (4) – Orthopedic Disorders A

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A Shoulder Joint

1. Clinical Studies from Abroad

Concerning the efficacy of Acupuncture treatment for Conditions of the Shoulder Joint, until recently there have been many reports from abroad, mostly concerning the alleviation the pain associated with arthritis of the shoulder joint and injury of the rotator cuff. The earlier research from Moore (1976), was a randomized controlled trial treating chronic shoulder pain, they divided subjects into 2 groups, traditional Chinese acupuncture or a superficial placebo protocol, and investigated the effects of patient encouragement between the groups.

Although both groups reported less shoulder discomfort in the majority of cases, neither group reported improved range of motion.

Further, no difference in therapeutic result was seen either with or without therapeutic encouragement¹⁾. Since the late 1990s, an increase in the number of systematic reviews of acupuncture for shoulder pain have appeared as systematic reviews, especially with an increase of RCT papers. A representative report by Green (2005) will be discussed here (Table 4). Subjects were included if they met the evaluation criteria (older than 3 months of age, rheumatoid arthritis or radiating pain from the neck area, excluding fractures, etc.). The investigators analyzed results from 9 trials. Unfortunately, the small sample size, and wide variation in interventions and evaluation points diminished the clarity of the results. In conclusion, acupuncture was found to be effective in the short-term for shoulder pain and may be valid given standardized future interventions including appropriate evaluations. Recommendations for necessary future studies are proposed²⁾.

Table 4 Green et al. adopted a systematic review article

First Author / Year of Publication	Target (Subjects)	Intervention	Conclusion
Moore ME 1976	chronic shoulder pain 42 cases	*Traditional Chinese Medicine (with encouragement/ without encouragement) *Sham Treatment (with encouragement/ without encouragement)	Both groups reported improvement in their level of discomfort No significant difference between groups
Berry H 1980	shoulder - cuff lesion 60 cases	*Acupuncture needles *Steroid injection + Placebo Medication injection *Steroid Injection + Oral Medication *Ultrasonic Waves *Placebo Ultrasonic Waves + Placebo Medication Injection	All groups reported improvement No significant difference between groups
Lin ML 1994	frozen shoulder 150 cases	*Stellate ganglion block + supra-scapular nerve block *Electro-acupuncture *Electro-acupuncture + Nerve Block	Effectiveness of Electro-acupuncture + Nerve Block
Yuan 1995	periarthritis 98 cases	*Meridian Theory Based Acupoint Location *Acupoint Location based on Chinese Medical Etiology	Effectiveness of Acupoint Location based on Meridian Theory
Kleinhenz 1999	rotator cuff tendinitis 52 cases	*Acupuncture (needles) *Sham Acupuncture	Effectiveness of Acupuncture
Romoli M 2000	painful shoulder 24 cases	*Acupuncture+ Mobilization *Mobilization *Auricular Acupuncture + Mobilization	No significant difference between groups
Ceccheerelli F 2001	shoulder's myofascial pain 44 cases	*Shallow Needling (2mm) *Deep Needling (Muscle layer)	Pain was inhibited in both groups Deeper needling showed remarkable
Dyson TA 2001	chronic shoulder pain 20 cases	*Acupuncture *Trager psychophysical integration	Effective for/in both groups No significant difference between groups
Sun 2001	shoulder pain 35 cases	*Acupuncture + Exercise *Exercise	Efficacy of Acupuncture combined with Exercise

2. Prospectus and overview of Current Studies in Japan

In Japan, numerous reports are available on Shoulder joint inflammation and Frozen shoulder. Katayama et al., divided 12 subjects (thirteen shoulders) diagnosed with shoulder joint arthritis into 2 groups based on their limited range of motion. The Japan Orthopedic Society of Shoulder Joint Disease Treatment and Performance Criteria (JOA score) was used to evaluate pain, function and range of motion. Most notably, the extremely limited range of motion group reportedly experienced the greatest improvement in pain and both groups demonstrated improved results for all criteria³⁾. The treatment protocol involved treating acupuncture points and/or appropriate Trigger Points in the Deltoid, Biceps and Supraspinatus muscles; retention time was short with thrusting or embedded needles for longer retention. Hori et al. reported on the observed changes in shoulder pain and range of motion in patients following low frequency electro-acupuncture in 21 patients with Frozen Shoulder. Seventy-one percent of participants reported slight relief of their subjective symptoms, 29% of subjects with extreme pain also reported some relief⁴⁾. Also, Sakai et al. investigated 41 people with Shoulder joint inflammation. These subjects were divided into an admissible contracture group (21) and the no contracture group (20), respectively. Changes in pain scores and range of movement were re-evaluated following one month of weekly treatments. The purpose of this treatment was to reduce muscle tension and improve blood circulation in the rotator cuff, long head of the biceps and surrounding tendons. Depending on the presenting dysfunction, level of radiating pain and location of muscle tension, treatment might include needle retention and low frequency electro-acupuncture. Results suggest that, without respect to effectiveness for contracture, comparing patients presenting with spontaneous pain to those without spontaneous pain, those without spontaneous pain reported reduced pain following the treatments. In terms of effectiveness for changes in range of motion, the research confirmed that patients without significant contracture enjoyed much

greater increases in range of motion. Therefore the researchers suggested that, for best results, treatment should be instigated during the phase before spontaneous pain and contracture occur⁵⁾. There are many such reports demonstrating the effectiveness of acupuncture for shoulder joint pain and limited range of motion. However, there are several confounding points that must be addressed, 1) most of the available reports have been drawn from compilations of clinical reviews and clinical case study reports, there are no other treatment methods reported in the literature. 2) Because inflammation of the Shoulder Joint and Frozen shoulder are general terms that include a range of more specific conditions, the precise pathophysiological description of these complaints should be defined or systematized. 3) Although there is sufficient evidence pointing to the effectiveness of the treatment methods and evaluation techniques, the current conditions do not provide affirmative evidence that acupuncture and moxibustion are effective. In order to clear away these confounding factors, appropriately designed research studies allowing for collaboration with medical institutions and medical specialists are urgently needed to evaluate acupuncture treatments and research methods. Originally, acupuncture therapy was a treatment system corresponding to each patient's individual complaints, different patients with the same disease should receive unique treatment, and further it is well known that the skills of the individual practitioner greatly influence treatment efficacy. However, in an attempt to improve the level of acupuncture and moxibustion treatment efficacy in the future, other treatment methods should be compared and considered complementary and clarifying the effects of these therapies for shoulder arthritis should be a priority. Standardized evaluation criteria and treatment methods are required for specific disease stage and pathophysiology.

References

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