Effect of \textit{Yi Jin Jing} (Sinew-transforming Qigong Exercises) plus tuina on scapulohumeral periarthritis

易筋经锻炼配合推拿治疗肩关节周围炎的临床观察

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Abstract

\textbf{Objective:} To investigate the effect of \textit{Yi Jin Jing} (Sinew-transforming Qigong Exercises) plus tuina on scapulohumeral periarthritis (SP).

\textbf{Methods:} A total of 30 cases with SP were randomized into an observation group and a control group. Those in the observation group practiced \textit{Yi Jin Jing} (Sinew-transforming Qigong Exercises) plus tuina therapy; whereas those in the control group received only tuina therapy. Tuina therapy was conducted every other day, 20 min every time for 1 month and \textit{Yi Jin Jing} (Sinew-transforming Qigong Exercises) was conducted once a day for 1 month. The therapeutic effects were assessed by visual analogue scale (VAS) and Constant-Murley scale.

\textbf{Results:} After treatment, the VAS score and Constant-Murley scale were substantially improved, showing statistical significances ($P<0.01$); the Constant-Murley scale in the observation group was better than that in the control group, showing a statistical significance ($P<0.01$); the effective rate in the observation group was higher than that in the control group, between-group comparison showed a statistical significance ($P<0.01$).

\textbf{Conclusion:} \textit{Yi Jin Jing} (Sinew-transforming Qigong Exercises) plus tuina and tuina alone have a verified effect in treating SP, and the former can achieve a better effect than the later.

\textbf{Keywords:} Tuina; Massage; Yi Jin Jing; Frozen Shoulder; Periarthritis; Shoulder Pain; Pain Measurement; Visual Analogue Scale

Scapulohumeral periarthritis (SP) is an aseptic inflammation affecting soft tissue of the shoulder joint. SP is more common in people at about 50 years old. Its main symptoms include joint pain and stiffness, coupled with functional impairment. Severe SP can affect the patients’ daily living. Currently, treatments are focused on pain relief and improvement of joint movement. The main therapy includes drug and non-drug therapy, and also functional exercise. As a traditional external therapy, Chinese tuina is both safe and convenient, and therefore, \textit{Yi Jin Jing} (Sinew-transforming Qigong Exercises) is conducted as the main therapy in treating SP. It is a common exercise among tuina practitioners, as it has the merits of softening tendons and facilitating joint movement. We’ve observed the effect of \textit{Yi Jin Jing} (Sinew-transforming Qigong Exercises) plus tuina on SP. The results are now summarized as follows.

1 Clinical Data

1.1 Diagnostic criteria

This was based on the diagnosis of SP in the \textit{Criteria of Diagnosis and Therapeutic Effects of Diseases and Syndromes in Traditional Chinese Medicine} \cite{1}: a chronic onset, history of injury, deficiency of qi and blood coupled with external contraction of wind, cold and dampness; common in people at about 50 years old, female priority; shoulder pain, aggravated at night,
induced by weather change or fatigue, limited shoulder joint movement, incidence of shoulder muscle atrophy, pressing pain on the front, back and lateral side of the shoulder joint, limited abduction movement, showing typical shoulder lifting symptom; negative X-ray result, osteoporosis may exist in long-term SP.

1.2 Inclusion criteria

Met the diagnostic criteria above; didn’t receive any other therapies over the recent 2 months, aged below 75 years old; informed consent.

1.3 Exclusion criteria

Experienced acute inflammation of shoulder, showing red and swollen local skin with severe pain; shoulder injury or bone fracture; shoulder tumor; severe heart, brain or kidney diseases; a history of mental disorder.

1.4 Rejection criteria

Failed to stick to the treatment; those with poor compliance.

1.5 Statistical methods

All data were processed by SPSS 13.0 version software. Measurement data of normal distribution were described by mean ± standard deviation (X±s) and analyzed by t-test. Data not in normal distribution were analyzed by non-parametric test. The enumeration or rank data were analyzed by Chi-square or non-parametric test. A P value less than 0.05 indicated a statistical significance.

1.6 General data

A Total of 30 SP cases treated in Tuina Department of our hospital were included in this study. The cases were allocated into an observation group of 15 cases [5 males and 10 females with an average age of (55.3±6.7) years and duration of (81.2±5.6) d] and a control group of 15 cases [7 males and 8 females with an average age of (57.6±8.7) years and duration of (58.5±5.3) d]. Since there were no significant differences in gender, age and disease duration between the two group (all P>0.05), indicating that the two groups were comparable.

2 Treatment Methods

2.1 Observation group

2.1.1 Tuina treatment

Relaxing method: The patient took a sitting position, and the practitioner stood on the affected side, held and slightly extent the upper limb with one hand, and performed Gun-rolling, Na-grasping and Rou-kneading manipulations on the shoulder with another hand, focused on the front, back and deltoid region of the shoulder joint. Passive extension, pronation and supination were combined to relax the muscle and facilitate remission of adhesion.

Relieving spasm and analgesic method: Digital An-pressing and Tanbo-plucking manipulations were performed separately on Jianjing (GB 21), Bingfeng (SI 12), Tianzong (SI 11), Jianelling (Extra), Jianzheng (SI 9) and Jianyu (LI 15) to generate a feeling of soreness; Tanbo-plucking manipulation was given to the adhesive and pain region to relieve spasm and pain, and remove adhesion.

Joints movement method: The practitioner held patients’ shoulder with one hand, and held the waist or elbow with the other hand, and then took shoulder joint as the center to rotate the arm with gradually increased amplitude. After that, Bashen-pulling and Dou-shaking manipulations were performed in the adduction, abduction, backward extension and internal rotation phases of the shoulder joint to remove adhesion and smooth joint movement.

Relax sinews and blood-activation: Cuo-twisting, Rou-kneading, Na-grasping and Nie-pinching manipulations were performed surrounding the shoulder joint; the practitioner held the patients’ waist, lifted the affected arm gradually and then gave Bashen-pulling and Dou-shaking manipulations; finally Cuo-twisting manipulation was conducted from the shoulder to the front arm for 3-5 times to relax shoulder region and thus, relax sinews and activate blood[2].

The tuina treatment cost 20 min each time, and was given once every other day.

2.1.2 Yi Jin Jing (Sinew-transforming Qigong Exercises)

The revised Yi Jin Jing (Sinew-transforming Qigong Exercises) for SP patients were designed on the basis of the 12 original Yi Jin Jing (Sinew-transforming Qigong Exercises) postures in Exercise and Techniques of Tuina[3], which included A: preparation posture; B: Wei Tuo presenting the pestle I; C: Wei Tuo presenting the pestle II; D: grabbing and resetting a star; E: dragging nine oxen by their tails; F: showing claws and spreading wings; G: nine demons drawing their swords; H: three plates falling to the floor; I: a bluish dragon extending claws; J: bowing in salutation; K: a hungry tiger at its prey; L: wagging the tail; M: conclusion posture (Figure 1).

Note: Wearing a loose dress, a pair of exercise shoes or shoes with a soft sole; ridding distraction, and making sure the movement must be gradual and gentle instead of rough. Staying away from wind and keeping warm after exercise. Took exercise once a day to get a feeling of sweating slightly.

2.2 Control group

Tuina treatment same as that in the observation group was applied to those in the control group, meanwhile combined with shoulder joint functional exercise during treatment.