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Observation of curative effect of taijiquan for treating scapulohumeral periarthritis

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ABSTRACT

Objective: To explore the curative effect of Taijiquan for treating scapulohumeral periarthritis. 202 scapulohumeral periarthritis patients were divided into Taijiquan group and control group randomly. The Taijiquan group takes two months Taijiquan exercises in addition to the conventional therapy, control group accept the conventional treatment.. To evaluate the effect by measuring the shoulder mobility, the effective rate, the recurrence rate. The clinical symptoms of two groups improved. Compared to the control group, the effective rate and the shoulder mobility of Taijiquan group was higher, the recurrence rate was lower, the shoulder pain improve the situation is better than the control group. Taijiquan exercise can help to improve the clinical symptoms and physical characteristics of the scapulohumeral periarthritis patients and improve the function of their shoulder; it had certain adjuvant therapy effect and value of popularization for periarthritis of shoulder patients.

KEYWORDS

Taijiquan;
Adjuvant therapy;
Scapulohumeral periarthritis.

INTRODUCTION

Scapulohumeral periarthritis also known as "leakage shoulder wind", "frozen shoulder", is a common clinical joint disease. Western medicine believes mainly by the shoulder joint capsule and particular soft tissue occurs as a wide range of chronic aseptic inflammation. Chinese traditional medicine believes that the main pathogenesis of scapulohumeral periarthritis is based on the aging of liver and kidney deficiency, affected by cold. Which led to blood block of shoulder? According to foreign statistics show that scapulohumeral periarthritis occurs in 40 to 70 years of age in the elderly, mainly for long-term pain around the shoulder, shoulder dysfunction, mostly shoulder abduction, external rotation, extension functional limitations obviously, it brought great psychological burden and inconvenience to patients. At present, scapulohumeral periarthritis mainly taken massage, traction, acupuncture, outpoint injection, knife, Chinese and western medicine treatment methods, plus traditional Chinese medicine. The purpose of this paper is to use Taijiquan exercise to treat patients with scapulohumeral periarthritis, and compared with conventional treatment alone, in order to provide a basis for the adjuvant treatment of scapulohumeral periarthritis.

RESEARCH OBJECT AND METHOD

Research object

Selected the Affiliated Hospital of Dali University from scapulohumeral periarthritis patients as the research object. Inclusion criteria were age 18-60 years old, due to chronic fatigue caused by periarthritis of shoulder, duration not exceeding five years. Exclusion criteria: severe hypertension, history of myocardial infarction, cerebrovascular disease, peripheral vascular disease, and respiratory disorders, such as Taijiquan exercise contraindications. According to the above criteria, a total of 202 cases enrolled patients were randomly divided into Taijiquan adjuvant treatment group and control groups. Taijiquan adjuvant treatment group 100 cases control group 102 cases.

Methods of treatment

Control group mainly used medicated wine, massage, acupuncture and other conventional treatment methods. Taijiquan exercise group practice Taijiquan under the guidance of professional coaches, at the same time accepted the conventional treatment. Patients practice 24-style Taijiquan every day. The whole action should be natural, round living, slowly and evenly. Practice Taijiquan from Monday to Friday morning every week. The average exercise time was about 1 hour, maintain moderate exercise load, Heart rate during exercise may control between 65% ~75% of the maximum heart rate. Maximum heart rate is equal to the (220 - age). The treatment period of two groups was three months.

Evaluation of curative effect

Comprehensive evaluation of curative effect

Cure

clinical symptoms and characteristic disappeared, shoulder activity (ROM) measurements flexion > 150 ° or increase 50°, outreach >150° or increase 50°, extension > 45° or increase 30°.

Valid

clinical symptoms and characteristic disappeared basically, shoulder activity (ROM) flexion >120°~150° or increase 30°~50°, outreach >120°~150° or increase 30°~50°, extension > 30°~50° or increase 20°~30°.

Improve

clinical symptoms and signs remission, shoulder activity (ROM) flexion >90°~120° or increase 20°~30°, outreach >90°~120° or increase 20~30°, extension > 20°~30° or increase 10°~20°.

Invalid

Clinical symptoms and signs unchanged or increased, shoulder activity (ROM) < 90° or increase <20°, abduction < 90° or increase < 20°, stretching < 20° or increase <10°.

Variation of periarthritis of shoulder pain

Use visual analogue scale (VAS) as a measure of subjective feeling of pain standard, this methods is the most sensitive and reliable method.

Patients were followed up:

All patients were on therapy after 1 month, 3 months, 6 months, one year follow-up. Patients were followed up primarily to understand whether the recurrence of the symptoms of frozen shoulder, shoulder activity.

Statistical methods

All data were analyzed by using SPSS18.0 statistical software, Measurement data using (mean ± standard deviation) expressed, measurement data between the two groups were compared by using T test, Count data were compared X2 test, P <0.05 was considered statistically significant.

RESULTS

The basic situation of two groups

Two groups of patients age, gender and clinical general situation is shown in TABLE 1, the sex ratio and age of two groups is consistent, there was no statistically significant difference between two groups(P=0.5673, P=0.3452). The duration and clinical symptoms of two groups were basically consistent; it had no statistically significant difference between the two groups.

The efficiency of two groups

After treatment, flexion, extension, abduction degree of the Taijiquan adjuvant therapy group was higher than the control group (TABLE 2). The total efficiency of Taijiquan group is 96%, the total efficiency of con-

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trol group is 88.27% (x^2=9.781, P=0.01). Taijiquan group is better than the control group, there was significant difference between the two groups (TABLE 3)(x^2=9.781, P=0.01).

TABLE 1 : The basic situation of the two groups of patients

Project	Taijiquan group	Control group	t value or χ^2
Age (years)	42.7±5.2	43.7±4.7	0.7846
Sex (number of cases)			1.5624
Male	60	62	
Female	40	40	
Duration (months)	5.5±1.2	5.7±2.1	1.4566
Shoulder activity less than 90° (case)	25	24	1.235

TABLE 2 : Comparison of two groups of patients with shoulder activity degree

Shoulder joint activity	Taijiquan Group	Control Group	P-value
Flexion	145.54±10.45	133.56±11.44	P＜0.05
Stretch	56.34±10.54	40.32±12.56	P＜0.05
Outreach degrees	130.66±14.3	110.44±15.7	P＜0.05

The comparison of improvement of shoulder pain between two groups

From TABLE 4, the two groups of patients of scapulohumeral periarthritis pain conditions were improved. After treatment. Before treatment, the pain scores of two groups had no significant difference. After treatment, the pain scores of Taijiquan exercise group was significantly lower than the control group, the t-test was significant difference (P<0.05).

TABLE 3 : The efficiency of two groups

Group	Total case	Cure		Valid		Improve		Invalid	
		Case	Rate	Case	Rate	case	Rate	Case	Rate
Taijiquan Group	100	60	60.00%	30	30.00%	6	6.00%	4	4.00%
Control Group	102	50	49.02%	25	24.55%	15	14.7%	10	9.80%

TABLE 4 : Comparison of shoulder pain between two groups

Group	Before the experiment	After the experiment	P value
Taijiquan group	2.41±0.45	0.56±0.44•▲	P＜0.05
Control group	2.44±0.54	1.34±0.64▲	P＜0.05

Note: •P<0.05 vs control group, ▲P<0.05 vs before the experiment

TABLE 5 : The reccurance rate of two groups

		January	March	June	1 years
Taijiquan	Number of recurrence	5	15	30	50
group	Recurrent rate (%)	5.6	16.7	33.4	55.6
Control	Number of recurrence	7	20	40	60
group	Recurrent rate (%)	7.4	21.1	42.1	63.2

The recurrent rate of periarthritis of shoulder symptoms between two groups

185 cases were followed up in two groups of patients, 90 cases in Taijiquan group, 95 cases in control group. The recurrence rate of Taijiquan group is 55.6%, The recurrent rate of the control group was higher than that of Taijiquan adjuvant therapy group, there was significant difference between two groups(χ2=5.345, P=0.021).

DISCUSSION

Periarthritis of shoulder is a common disease of orthopedics and grammatology, the main reason is the chronic strain. Periarthritis of shoulder can lead to shoulder soreness, pain. The current treatment methods include massage, Scraping therapy, acupuncture, autonomy therapy and the closed treatment, cupping therapy, Chinese medicine rubbing massage and other therapy. At present, comprehensive therapy is the primary therapy.

Taijiquan exercise has the following main principles for treating scapulohumeral periarthritis: First, Taijiquan exercise can make the shoulder, elbow, knee, hip, ankle, wrist and other joints to relax, driven shoulder movement, and reach steadily throughout, Meanwhile, in the lumbar joints driven winding movement with the cyclotron, enhance the functionality of the joint cartilage and helps maintain the normal function of ligaments and joints, and to prevent the occurrence of degenerative joint. Second, Taijiquan exercise make the body in a

relaxed state, muscle movement rhythmic, can help the blood to run effectively. Third, Taijiquan exercise accelerate inferior vena cava blood flow, reduce congestion, while accelerate the blood circulation, transport the energy substances to tissues and organs, thus ensuring the vitality of the body, promote nerve and humeral regulation, ease microcirculation obstacles. Fourth, Taijiquan exercise requirements ethereal top king, Baihui gently lift, the tip of the tongue touch the palate, Thereby stimulating Jin Jin and Yu Ye two points of the tongue tie, it is beneficial to traffic the Ran Due two veins. Fifth, pay attention to the process of natural breathing combined with abdominal breathing in Taijiquan exercise, Breathing method emphasizes the use of cortical centers of random breath-conditioning systems to control the movement of breath, In Taijiquan respiration by deep slow abdominal breathing to the diaphragm lifting movement, stressed the collaboration of action and ideas, which can conducive to smooth the meridians.

In this study, The Shoulder activity degree, stretch degree, abduction degree, flexion degree were greater than the control group. Observed one year, the recurrent rate of Taijiquan group was also lower than the control group, which suggested Taijiquan had a good adjuvant therapy for scapulohumeral periarthritis. But, It should be noted that Taijiquan as an adjunct means of treating periarthritis of shoulder, it should do warming-up fully, especially related to muscle ligaments and joints, avoid sports injuries. Meanwhile, we must sense restrained, action pine whole nature, intention to force, to make the muscles and joints loose and produce good stimulation.

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