

Acupuntura deportiva y la moxibustión en el tratamiento del dolor en las articulaciones del hombro y las drogas

Analysis of Sports Acupuncture and Moxibustion in the Treatment of Shoulder Joint Pain and Analgesic Drugs

Liwen Li¹, Jinyuan Zhang², Lingling Ge², Yinyin Gu², Min Xu^{1*}

¹Zhangjiagang TCM Hospital Affiliated to Nanjing University of Chinese Medicine, Suzhou, 215600, China

²The Affiliated Zhangjiagang Hospital of Soochow University, Suzhou, 215600, China

*Correspondence author: Min Xu, Email: 421855757@qq.com

Resumen

Los estímulos de lesiones como la cirugía y el trauma y las reacciones inflamatorias posteriores a la lesión pueden conducir a la liberación de mediadores inflamatorios y sustancias que causan dolor, como las prostaglandinas y la bradiquinina. Además del dolor directo, también pueden causar inflamación y edema en los tejidos, lo que resulta en un círculo vicioso. La inyección intravenosa de analgésicos dirigidos tiene las ventajas de un efecto duradero y un efecto curativo claro. Después del tratamiento, el efecto del tratamiento, el puntaje del grado de dolor y el puntaje de actividad de la articulación del hombro se compararon entre los dos grupos. Resultados: La tasa efectiva total del grupo de observación fue significativamente mayor que la del grupo de control ($P < 0.05$). Al mismo tiempo, la puntuación de efecto analgésico y la puntuación de la actividad de la articulación del hombro del grupo de observación fueron significativamente mejores que el grupo control, ciudad no esteroide. Los medicamentos para el dolor pueden reducir la sensación nociceptiva de periférico a aferente central y reducir la sensibilización central. Conclusión: El tratamiento de pacientes con hombro congelado con la medicina tradicional china, la acupuntura tibial combinada con terapia de ejercicios es efectiva, lo que es útil para aliviar el dolor, mejorar el grado de actividad de la articulación del hombro y promover la recuperación de la función articular. Vale la pena su posterior aplicación en la práctica clínica.

Palabras clave: periartritis del hombro; TCM acupuntura caliente; actividad articular del hombro; drogas analgésicas

Abstract

Injury stimuli such as surgery and trauma and post-injury inflammatory reactions can lead to the release of inflammatory mediators and pain-causing substances such as prostaglandins and bradykinin. In addition to direct pain, they can also cause inflammation and edema in tissues, resulting in a vicious circle. Non-steroidal intravenous injection of targeted analgesic drugs has the advantages of long-lasting effect and clear curative effect. This article analyzes the analysis of sports acupuncture for shoulder pain and analgesic drugs. The patients in the control group were given exercise therapy, and the patients in the observation group were given traditional Chinese medicine warm acupuncture combined with exercise therapy. After treatment, the treatment effect, pain degree score and shoulder joint activity score were compared between the two groups. Results: The total effective rate of the observation group was significantly higher than that of the control group ($P < 0.05$). At the same time, the analgesic effect score and the shoulder joint activity score of the observation group were significantly better than the control group, non-steroidal town. Pain medications can reduce the nociceptive sensation from peripheral to central afferent and reduce central sensitization. Conclusion: The treatment of patients with frozen shoulder with traditional Chinese medicine warm acupuncture combined with exercise therapy is effective, which is helpful for relieving pain, improving the degree of shoulder joint activity and promoting joint function recovery. It is worth further application in clinical practice.

Key words: Periarthritis of shoulder; TCM warm acupuncture; shoulder joint activity; analgesic drugs

1. Introduction

Periarthritis of the shoulder is a clinical syndrome in which shoulder soreness and shoulder movement are limited. Traditional Chinese medicine refers to "leaking shoulder wind", "shoulder condensate", "fifty shoulders", etc., which belong to the category of sputum. Chinese medicine believes that the diseased part of the disease is in the meridians of the shoulder and the tendons[1]. Pentecostal people, lack of righteousness,

camping gradually become imaginary, if the local feels cold, or fatigue, or habitually lying on the side, the tendons are subject to long-term oppression, and the qi and blood block to form a shoulder. Shoulder pain for a long time, local blood and blood run poorly, blood stasis, resulting in swelling and adhesion of the affected area, eventually the joint is stiff, the shoulder arm cannot move[2-3]. Western medicine believes that this disease is often secondary to biceps tendonitis or upper limb trauma. The main pathological changes are chronic degenerative changes in the shoulder joint, and the surrounding tissues are extensively adhered, resulting in pain and limited function. In recent years, with the progress of the economy and society, the pace of life has accelerated, people's work nature and lifestyle have changed significantly in the early years, and the incidence of this disease has also increased year by year, and the age of onset has been advanced[4]. The disease is often lingering and difficult to heal, resulting in a long course of illness, causing great inconvenience to the patient's daily work and life[5].

Treatment is currently usually treated with oral Chinese and Western medicine, massage, acupuncture, physiotherapy, nerve block, manual release, exercise therapy, small needle knife, acupoint injection, arthroscopic joint mobilization and other methods to treat the disease, the main purpose is anti-inflammatory, relieve pain, reduce adhesions, and maintain joint mobility[6-8]. Traditional Chinese medicine has a long history of treatment. Ancient medical doctors put forward the argument of "one needle, two moxibustions and three medicines". In modern medical treatment, a large number of acupuncture methods are used in clinical practice. However, there is currently no specific treatment for this in clinical practice[9]. And the evaluation system of curative effect, so on the basis of strict definition and standardized classification, it is an important topic to further explore therapeutic methods with good curative effect, short course of treatment, less pain and economical. The author used traditional Chinese medicine warm acupuncture combined with exercise therapy to treat patients with frozen shoulder, and achieved good results[10]. The report is as follows. Modern medicine believes that acupuncture may improve pain and phlegm through neuromodulation, regulate the regulation of endogenous opioids, etc., and relieve pain. At the same time, it promotes local blood circulation, accelerates the discharge of inflammatory pain-causing substances, and improves the environment of joints. Improve the body's immunity and eliminate edema and improve joint function. Acupuncture may also have a benign repair process that promotes cartilage repair and accelerates injury[11-12].

Warm acupuncture is a traditional acupuncture treatment method, which can be said to be an organic combination of acupuncture and moxibustion. Warm acupuncture therapy was first seen in Zhang Zhongjing's "Treatise on Febrile Diseases" in the Eastern Han Dynasty. A method of treating a disease by heating the needle handle during a needle-needle-retaining needle. It is suitable for all kinds of deficiency syndrome, cold syndrome, pain syndrome such as rash, cold and dampness, shoulder clotting, stomach abdomen cold, which requires both needle retention and moxibustion, qi and blood deficiency, cold coagulation meridians, qi and blood stasis. Pain, dysmenorrhea, etc. In the Ming Dynasty, Yang Jizhou's "Acupuncture and MoxibustionDacheng" is described in detail in the law. "On the needles of the law, the fragrant white peony is used as a round cake, the trocar is on the needle, and the moxibustion is used to make effect. This method is carried out in the mountains. People, meridians are affected by the cold and cold, or effective, just warm acupuncture and ventilation." It has been used in the past generations. Warm acupuncture and moxibustion is a method of using the heat of moxibustion to stimulate the human body through warm stimulation. Through the function of meridian acupoints, it can achieve a method of treating diseases and preventing diseases. It has the functions of replenishing qi and blood, warming meridians, qi and promoting blood circulation. The role of dampness and cold, swelling and dispersing, reversing the sun and preventing disease and health care. "Introduction to Medicine" contains "the medicine is not enough, the needle is not enough, you must moxibustion." When there is acupuncture, it promotes the coordination of blood and blood, and the effect of passing through the activity. There is also the effect of moxibustion to regulate qi and blood, Shujintongluo, phlegm and relieving pain. Therefore, warm acupuncture therapy further improves the effect of acupuncture. Traditional Chinese medicine believes that periarthritis of the shoulder belongs to the range of wind-cold dampness. Warm acupuncture treatment can warm the cold and spread blood, promote blood circulation and collaterals, make local nutrient vasodilation, increase blood flow, relieve inflammation, thereby alleviating symptoms and improving joint function[13]. Therefore, it can achieve a more satisfactory effect. Warm acupuncture is a combination of acupuncture and moxibustion.

2. Materials and Methods

2.1 General Information

A total of 58 patients with scapulohumeralperiarthritis admitted to our hospital from June 2017 to June 2018 were randomly divided into observation group and control group, 29 cases each. In the observation group, there were 15 males and 14 females; the age ranged from 51 to 72 years, with an average of (53.6 ± 5.4) years; the mean duration of disease was (14.3 ± 3.1) months. In the control group, there were 14 males and 15 females; the age ranged from 52 to 71 years old, with an average of (53.1 ± 5.2) years; the mean duration of disease was

(14.7 ± 3.4) months. There was no significant difference between the two groups ($P < 0.05$), which enables a comparative study. See Table 1 for details.

Table 1: Analysis of the Basic Situation of the Two Groups of Patients

Group	Number of cases	Male to female ratio	Average age	Mean course
Observation group	29	15/14	(53.6 ± 5.4) years	(14.3 ± 3.1) Month
Control group	29	14/15	(53.1 ± 5.2) years	(14.7 ± 3.4) Month

The study was approved by the ethics committee of our hospital and informed consent was obtained from all patients.

Inclusion criteria: ① In accordance with the provisions of "Shoulder and Shoulder and Back Pain Movement Therapy", there are provisions on periarthritis of the shoulder; ② According to the "Diagnostic and Efficacy Standards for TCM Syndrome", the TCM syndrome differentiation of patients belongs to "stagnation of blood stasis type" and "wind and cold Resistance type, and "blood deficiency and cold coagulation type"; ③ Clinical data is perfect and combined with treatment and follow-up.

Exclusion criteria: ① Patients with severe liver and kidney dysfunction and tumor disease; ② Patients in pregnancy and lactation; ③ Patients with difficult systemic treatment and abnormal mental status.

2.2 Treatment Method

Anesthesia was anesthetized with propofol. Surgery 5 to 10 minutes, 5 to 10 minutes after surgery, awake to reach an outpatient anesthesia for a certain standard before leaving the hospital.

Control group: Exercise therapy was given: active shoulder training was performed on patients who could tolerate pain. Mainly include: ① Finger climbing wall practice: through the front or side to make the patient stand and lift the affected side forearm, so that the middle finger and forefinger stick to the wall to do the wall climbing exercise; ② Gymnastics practice: make the patient hold the gymnastic stick with both hands, the arm is straight and lift up, repeat exercise; ③ Arm lift motion: put the patient's affected arm behind the body, repeatedly lift and touch the back. The above exercise is performed 2 times to 3 times a day for 15 minutes each time.

Observation group: The patient was given exercise therapy combined with traditional Chinese medicine warm acupuncture. Sports therapy is the same as above, Chinese medicine warm acupuncture: take the patient's side shoulder, shoulder, hand Sanli, shoulder, Ashi, Hegu, Waiguan, Quchi, Brachial and Yanglingquan. After local disinfection of the affected side of the patient, acupuncture was performed on the selected acupuncture points using a needle of 0.35 mm × 40 mm, and acupuncture was performed using a 0.35 mm × 25 mm needle. Align the selected acupoints and puncture them vertically. Select 2 cm strips of the upper side of the patient's arm, shoulder and shoulder, shoulder and other acupuncture points and ignite. Use the paper on the lower side to separate the lit moxa from the patient's skin. The needle is 1 course for every 10 days and 4 courses for continuous treatment. The interval between each course was 4 days.

2.3 Observation Index

After the end of treatment, the following indicators were compared between the two groups of patients: ① Therapeutic effect: According to the "Traditional Chinese Medicine Clinical Diagnosis and Treatment Efficacy Standard". Cure: the patient's shoulder joint activity is basically normal and the pain disappears; improvement: the patient's shoulder joint activity function is improved, the pain degree is reduced; invalid: the patient's shoulder joint activity is not improved, and the pain condition is unchanged or even worse. Total treatment efficiency = (healing + improvement) / total number of people × 100%. ② According to the CMS score, the degree of shoulder joint activity was scored by the shoulder joint pain. The pain of the patient and the activities of daily living are based on the subjective feelings of the patient, the activity of the shoulder joints, and the indicators of muscle strength according to the objective examination of the physician. The muscle strength score ranged from 0 to 25 points, the hand position score ranged from 0 to 10 points, the daily living activities scored between 0 and 10 points, and the shoulder joint activity scored from 0 to 10 points. A higher score indicates that the patient's shoulder joint activity and pain improvement are better, and vice versa.

2.5 Statistical Method

Statistical software SPSS 22.0 was used, the count data was analyzed by χ^2 test, and the measurement data was analyzed by t test. The test level was $\alpha = 0.05$.

3. Results

3.1 Comparison of Treatment Effects between the Two Groups

After comparing the effects of the two groups, the total effective rate of the observation group was better than that of the control group and the difference between the groups was statistically significant ($\chi^2 = 13.211$, $P = 0.0003$). See Table 2.

Table 2: Comparison of Treatment Effects between the Two Groups (%)

Group	Number of cases	Cure	Better	Invalid	Total efficiency /%
Observation group	29	19(65.52)	9(31.03)	1(3.45)	96.55
Control group	29	10(34.48)	13(44.83)	6(20.69)	79.31

3.2 Comparison of Shoulder Joint Activity after Treatment in Both Groups

The shoulder joint activity scores at different stages of treatment were compared. The scores in the observation group were significantly higher than those in the control group ($P < 0.05$). See Table 3.

Table 3: Comparison of Shoulder Joint Activity after Treatment in Both Groups

Group	Number of cases	Before treatment	Treatment for 15 days	Treatment 30 d	Treatment 45 days
Observation group	29	14.28 ± 3.04	36.79 ± 5.02	48.76 ± 6.33	54.01 ± 6.54
Control group	29	14.31 ± 3.09	29.58 ± 4.96	35.78 ± 5.64	40.15 ± 6.23
t		0.037	5.502	8.245	8.263
P		0.970	< 0.0001	< 0.0001	< 0.0001

3.3 Comparison of Analgesic Effect Scores between the Two Groups after Treatment

The analgesic effect scores of different stages of treatment were compared between the two groups. The scores of the observation group after treatment were significantly better than those of the control group ($P < 0.05$). See Table 4.

Table 4: Comparison of Analgesic Effect Scores at Different Stages of Treatment in Both Groups

Group	Number of cases	Before treatment	Treatment for 15 days	Treatment 30 d	Treatment 45 days
Observation group	29	5.42 ± 2.13	10.98 ± 2.44	13.98 ± 2.44	15.78 ± 2.14
Control group	29	5.48 ± 2.26	9.11 ± 2.37	10.39 ± 2.34	11.13 ± 2.25
t		0.104	2.961	5.719	
P		0.918	0.004	< 0.0001	< 0.0001

4. Discussion

Periarthritis of the shoulder, also known as leaky shoulder wind, shoulder stagnation, frozen shoulder or fifty shoulders, is a chronic aseptic inflammation of the joint capsule and the soft tissue surrounding the joint caused by soft tissue damage and degeneration around the joint capsule and joints of the shoulder. Clinically, shoulder pain, limited joint activity, and even local muscle atrophy are its main manifestations. Periarthritis of the shoulder is a common disease in middle-aged and elderly people, mostly in the 50s, more women than men. Patients with shoulder pain and limited mobility, seriously affecting face washing, backhand, combing and dressing, etc., bring great inconvenience to patients' daily life. Therapeutic methods include acupuncture, massage, closure, medicine, etc. Among them, the clinical application of acupuncture therapy is wide, the types of acupoints are many, the acupuncture is complicated, and the clinical curative effect has its own merits.

In Chinese medicine, there is no disease of the inflammation around the shoulder joint. According to the characteristics of shoulder pain and shoulder dysfunction, it is attributed to "shoulder condensate", "shoulder squat", "sickness" and "shoulder back". "Pain" and other areas. Because the occurrence of the disease is related to wind, cold and dampness, it is also called "slipping shoulder wind", and the disease is mostly in the bones or organs. "Nei Jing" has long been recorded as "shoulder pain" and "shoulder pain." Shoulder pain often leads to

different degrees of shoulder dysfunction. Traditional Chinese medicine is called "shoulder pain", which is characterized by shoulder pain and functional activity is normal or light, and shoulder movement is not active. Lift." "Nei Jing" attributed shoulder pain to the scope of "sickness", so it is also called "shoulder."

Traditional Chinese medicine believes that the causes of periarthritis of the shoulder have both internal and external causes. The internal cause is old and frail, liver and kidney deficiency, and qi and blood deficiency. The external cause is wind, cold and dampness. The disease occurs in middle-aged and elderly people, the elderly are more than liver and kidney deficiency, so there is liver and blood deficiency, kidney qi deficiency, bones and slacks, and the body is weak, such as the wind, cold and dampness, and the evil spirits in the shoulder meridians. The tendon veins are attracted, and the blood stasis blocks to form periarthritis of the shoulder. From the local joints, the main tendons of the liver, the tendons to nourish the liver and blood, the liver and blood deficiency, the fascia is lost, so there is a weakness, the shoulder arm cannot move, or the tendon and the shoulder arm stretch is unfavorable. The main bone of the kidney, the bone is relying on the kidney gas to fill the camp, 'kidney failure, less bone marrow deficiency, so the bones are lazy, so the limb extension exercise is weak. It can also be caused by long-term fatigue, when the sweat is out of the wind or when sleeping, the shoulders are bare, and the wind blows when it is cold. From the above discussion, we can see that the cause of periarthritis of the shoulder involves both internal and external causes. The pathogenesis is mainly based on the relationship between the old liver and kidney deficiency, and the cold and dampness of the sinus. Stagnation forms shoulder inflammation.

Foreign research on periarthritis of shoulder has a long history. In 1872, Duplay first proposed the diagnosis of periarthritis of the shoulder. It is believed that changes in shoulder sac inflammatory inflammation, degeneration, adhesion, etc. are the causes of shoulder pain and joint movement limitation. In 1934, Codman studied the shoulder pain without clear cause of trauma with pathological manifestations of shoulder dysfunction, collectively referred to as frozen shoulders. In 1943, Lippmann emphasized that the so-called frozen shoulder is caused by the long-headed visceral sphincteritis of the biceps muscle. In 1951, the Mclaughlin study pointed out that the scapular bursitis and the supraspinatus muscle are the main causes of frozen shoulder. Depalma, 1952 The correlation between biceps long head inflammation and rotator cuff lesions was studied.

The treatment of frozen shoulder has two main purposes: to relieve pain and to restore joint mobility. In terms of pain relief, non-steroidal anti-inflammatory drugs have a significant effect on relieving pain in shoulder periarthritis. Steroids are often used clinically because of their strong anti-inflammatory effects, but are used with caution in patients with osteoporosis, infection, diabetes, severe ulcers, and renal insufficiency. A randomized blinded trial was performed in 109 patients with pain in the period of shoulder scapulohumeral. Of these, 56 were treated with physical therapy and 53 were treated with triamcinolone acetonide, which was considered to be in terms of pain relief and functional recovery. Injection therapy is superior to physical therapy, but it is also pointed out that injection of triamcinolone acetonide may cause side effects such as irregular menstrual bleeding. In addition, you can also choose the relevant Chinese medicine for internal or external use, to relieve the pain and promote blood circulation, dissipate the pain and relieve pain. In terms of restoring joint mobility, Miller et al. used functional exercise rehabilitation to treat 50 patients with scapulohumeral periarthritis with an average duration of 3 months (39 of them were primary) and functional activities averaged 14 months (3 to 6 months). After recovery. Zhou Zhendong and others believe that in the acute phase of the lesion, it is not appropriate to perform shoulder function exercise in the case of extreme pain. Otherwise, the development of lesions in the shoulder joint will be aggravated, and the pain will be more severe. After the acute phase, the patient's pain will be relieved or improved.

The efficacy evaluation system used in this study is mainly based on the two main symptoms, namely the improvement of pain and dysfunction. Pain is one of the two main symptoms of frozen shoulder. Therefore, it is necessary to evaluate the improvement of pain in the evaluation of curative effect. Because pain is a subjective symptom, quantitative assessment is difficult, and pain has obvious individual differences. Different people have different experiences of pain, so the assessment of pain is a complicated task. This study uses the visual analog scale method, also known as the visual analog scale method, which is currently the most widely used pain single-dimensional measurement tool and the shoulder joint function assessment using the CMS method, which is a comprehensive, scientific and simple method. Evaluation index for routine application of the European Society of Shoulder and Elbow Surgery. The evaluation method is simple, the credibility is high, and the sensitivity is high, which can truly reflect the shoulder function of the patient to a certain extent. Compared with the control group, the treatment group was significantly better than the control group. From the observation of the efficacy observation index, the absolute value of the VAS score reduction and the absolute increase of the CMS shoulder function score were higher in the treatment group than in the control group. The results of this study showed that the effect of acupuncture combined with exercise therapy was significant. The total effective rate, joint activity and pain score of the observation group were significantly better than those of the control group (all $P < 0.05$).

5. Conclusion

In summary, TCM warm acupuncture combined with exercise therapy can effectively improve the function of shoulder joint activities, reduce pain and improve the quality of life of patients, and it is worth further application in clinical practice. However, this study only carried out the clinical efficacy observation of TCM warm acupuncture combined with exercise therapy. The accurate mechanism of this method has not been further explored. This aspect needs further study to clarify its precise mechanism of action. At the same time, the sample size of this study is small. Due to the limitations of the study itself, the design of the test failed to conduct a rigorous double-blind study. In the evaluation of the efficacy of the study, it was subjectively influenced by patients and researchers, and affected to some extent. The objectivity of the research results. In the future research direction, the use of scientific design and selection of a sufficient number of samples to seek the best solution for the treatment of frozen shoulder, pending further research and discussion.

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