

Clinical Study on the Treatment of Cold Dampness Arthralgia Type Periarthritis of Shoulder



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Abstract: *Objective:* To evaluate the clinical efficacy of "Jingjin Dongci" combined with "Jian Yu Zhi Tong Decoction" in the treatment of wind-cold-damp-type periarthritis of the shoulder. *Methods:* A total of 90 patients with wind-cold damp arthralgia-type periarthritis of the shoulder who met the inclusion criteria from the Rehabilitation Medicine Department outpatient clinic of Changle People's Hospital from March 2024 to October 2024 were included. They were randomly divided into a treatment group, an observation group 1, and an observation group 2 at a 1:1:1 ratio. The treatment group received "Jingjin Dongci" combined with "Jian Yu Zhi Tong Decoction" for acupuncture and medication treatment. Observation group 1 received electroacupuncture treatment. Observation group 2 received loxoprofen sodium treatment. After 2 weeks and 4 weeks of treatment, the differences in pain visual analog scale (VAS) scores, Constant–Murley shoulder function (CMS) scores, traditional Chinese medicine symptom (TCMS) scores, and clinical efficacy rates among the three groups were compared, and safety evaluations were conducted. *Results:* Within-group comparisons revealed that after treatment, the VAS scores, CMS scores, TCMS scores, and clinical efficacy rates of all three groups were significantly better than those before treatment ($P > 0.05$). Between-group comparisons revealed that after 2 weeks of treatment, the VAS scores, CMS scores, TCMS scores, and clinical efficacy rates in the treatment group were significantly better than those in observation group 1 and observation group 2 ($P < 0.05$). After 4 weeks of treatment, the VAS scores, CMS scores, TCMS scores, and clinical efficacy rates in the treatment group were significantly better than those in observation group 1 and observation group 2, with highly significant differences ($P < 0.01$). *Conclusion:* "Jingjin Dongci" combined with "Jian Yu Zhi Tong Decoction" is effective in treating wind–cold-damp-type periarthritis of the shoulder, can relieve shoulder pain, promote the recovery of shoulder joint function, and has good safety, indicating its clinical application value.

Keywords: Periarthritis of the Shoulder; Wind–cold-damp Arthralgia Syndrome; Jingjin Dongci;
Jian Yu Zhi Tong Decoction

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1 Background

Periarthritis of the shoulder, also known as periarthritis of the shoulder joint, is characterized mainly by shoulder pain and limited movement, with lesions located in the shoulder muscles and bones [1]. The literature reports that the prevalence of periarthritis of the shoulder is approximately 2–5%, with a higher incidence in women than in men [2]. Western medicine considers periarthritis of the shoulder to be a chronic aseptic inflammation of the shoulder joint capsule and surrounding soft tissues, leading to adhesions in the shoulder soft tissues, thereby restricting the functional activities of the shoulder joint. Periarthritis of the shoulder can be triggered by factors such as trauma, endocrine disorders, overuse, invasion of wind, cold, dampness, and long-term immobility due to certain diseases (such as trauma, subacromial bursitis, and supraspinatus tendinitis). Traditional Chinese medicine views it as belonging to the categories of "bi syndrome" and "shoulder bi," with causes mainly being "pain due to obstruction" and "pain due to lack of nourishment." Externally, it may be due to invasion by wind, cold, dampness or overexertion; internally, it may be due to deficiency of the liver and kidney, weakness of the spleen and stomach, and deficiency of qi and blood. Therefore, elderly individuals and those with a weak constitution and deficiency of qi and blood are more susceptible to invasion by wind, cold, and dampness.

Periarthritis of the shoulder severely affects the normal life of patients, making activities such as grooming, dressing and undressing, and lifting heavy objects difficult, causing significant challenges and suffering. In recent years, with poor lifestyle choices, fast-paced work, and increasing social and economic pressures, the incidence of periarthritis of the shoulder has been rising and becoming younger. The treatment of this condition with Western medicine is limited to symptomatic management with analgesics, which have poor efficacy and significant gastrointestinal side effects [3]. Traditional Chinese medicine (TCM) theory suggests that the invasion of wind, cold, and dampness leads to poor circulation of qi and blood, resulting in malnourishment of the tendons and meridians, thereby triggering periarthritis of the shoulder. Therefore, the treatment of wind-cold-damp-type periarthritis of the shoulder with TCM decoctions mainly follows the principles of dispelling wind, scattering cold, removing dampness, promoting qi circulation, invigorating blood, and tonifying the liver and kidney. Acupunc-

ture can relax tendons and meridians, promote qi circulation, dispel cold and relieve pain, resolve adhesions, reduce tissue swelling, increase joint mobility, and alleviate symptoms. This study focused on the clinical efficacy of "Jingjin Dongci" combined with "Jian Yu Zhi Tong Decoction" for treating wind-cold-damp-type periarthritis of the shoulder, demonstrating that the combination of "Jingjin Dongci" and "Jian Yu Zhi Tong Decoction" not only specifically alleviates the symptoms of wind-cold-damp-type periarthritis of the shoulder but also significantly improves the quality of life of patients.

2 Materials and Methods

2.1 General Information

From March 2024 to October 2024, a total of 90 patients with periarthritis of the shoulder (cold dampness arthralgia) who met the diagnostic criteria for this disease and were willing to participate in the trial were enrolled in the outpatient department of the Rehabilitation Medicine Department of Changle People's Hospital. The patients were randomly divided into a treatment group, observation group 1, and observation group 2 at a 1:1:1 ratio according to the order of patient visits.

The treatment group included "Jingjin Dongci" combined with "Jian Yu Zhi Tong Decoction".

Observation Group 1: Electroacupuncture treatment.

Observation Group 2: Lornoxicam treatment.

In the treatment group, there were 9 males and 21 females, with a maximum age of 70 years, a minimum age of 26 years, and an average age of 53.7 ± 10.68 years, with a course of disease of 1–3 years.

In observation group 1, there were 8 males and 22 females, with a maximum age of 72 years, a minimum age of 28 years, and an average age of 58.8 ± 13.3 years, with a course of disease of 1–3 years.

In observation group 2, there were 12 males and 18 females, with a maximum age of 72 years, a minimum age of 35 years, and an average age of 60.3 ± 9.9 years, with a course of disease of 1–3 years.

Before the implementation of this clinical study, the research plan was reported to the hospital's medical ethics committee, and it could proceed only after consent was obtained. After ethical approval, all the researchers confirmed their signatures on the informed consent form.

Analysis of the basic data of the three groups of patients before treatment revealed no significant differences ($P>0.05$). Refer to Table 1.

Table 1 Comparison and analysis of baseline data before Treatment in the Three Groups of Patients

Group	Number	Male	Female	Age (Years)	Duration of Illness (Years)
Treatment group	30	9	21	53.7±10.6	1-3
Observation group 1	30	8	22	58.8±13.3	1-3
Observation group 2	30	12	18	63.3±9.9	1-3

2.2 Diagnostic Criteria

2.2.1 Western Medicine Diagnostic Criteria

"Classification, Diagnosis, and Treatment of Periarthritis of the Shoulder" [4]: No obvious cause or shoulder pain, which may radiate to the forearm or upper arm, worsens with movement or at night, and a shoulder external rotation test or chest expansion test may induce pain. X-ray examination indicates calcification shadows in the supraspinatus tendon area, or the results are negative.

2.2.2 Traditional Chinese Medicine Diagnostic Criteria

According to the "Diagnostic Efficacy Criteria of Traditional Chinese Medicine" [5], the differentiation standard for "Wind-Cold-Dampness Bi Syndrome" is as follows: shoulder pain, pain increases with cold, alleviates with warmth, aversion to wind and cold, limited joint activity, lower skin temperature, skin numbness, tongue pale, thin white or white greasy coating, pulse wiry and deep.

2.2.3 Inclusion Criteria

- (1) Patients meeting the above Western and traditional Chinese medicine diagnostic criteria.
- (2) Age between 40 and 70 years, regardless of sex.
- (3) Duration of illness ≥ 12 months.
- (4) Shoulder joint function rating between levels 2 and 5.
- (5) Able to actively cooperate with examinations and treatments.
- (6) Patients who voluntarily signed an informed consent form.

2.2.4 Exclusion Criteria

- (1) Patients who did not meet the above Western and traditional Chinese medicine diagnostic criteria.

- (2) Patients with organic diseases such as shoulder joint tuberculosis, local tumors, etc.
- (3) Patients with severe cardiovascular, liver, kidney, autoimmune, or other underlying diseases.
- (4) Allergic constitution or allergy to multiple Chinese herbal medicines.
- (5) Participants in other clinical studies.
- (6) Patients who did not cooperate with treatment plans and refused to participate.

2.3 Treatment Methods

2.3.1 Treatment Group: Acupuncture Combined with Chinese Medicine

- (1) The Jingjin Dongci method is used to acupuncture Zhongfu, Jianyu, Zhongzhu, Jianliao, Houxi, Yujie, Hegu, Jianzheng, and Ashi points. Acupuncture for 30 minutes, with 7 minutes of activity followed by 3 minutes of rest, once a day, 5 times a week, for a 4-week cycle. (Note: Disposable acupuncture needles are used for treatment; the manufacturer is Beijing Zhongyan Taihe Medical Equipment Co., Ltd., specification 0.25*40 mm.)
- (2) The formula for "Jian Yu Zhi Tong Decoction" consists of the following: *Notopterygii Rhizoma et Radix (QiangHuo)* 30 g, *Pueraria lobata (GeGen)* 30 g, *Angelica pubescens (DuHuo)* 15 g, *Saposhnikovia divaricata (FangFeng)* 15 g, *Spatholobi Caulis (JiXueTeng)* 10 g, *Turmeric (JiangHuang)* 10 g, *Angelica dahurica (BaiZhi)* 10 g, *Chuanxiong Rhizoma (ChuanXiong)* 10 g, *Cinnamon twig (GuiZhi)* 10 g, *Morus alba L. (SangZhi)* 15 g, and *Licorice (GanCao)* 6 g.

Usage: The decoction is prepared uniformly by the Chinese Medicine Pharmacy of Changle People's Hospital via an automatic decoction machine (Tianjin Sanyan Machinery Co., Ltd.), in which the herbs are soaked in cold water for approximately 30 minutes. The amount of water

generally covers the herbs by 1–3 cm, boiling and decocting for 20 minutes, then bagging, and each bag is 100 ml, which is taken twice daily for 4 weeks.

2.3.2 Observation Group 1

Electroacupuncture at the Zhongfu, Jianyu, Zhongzhu, Jianliao, Houxi, Yujie, Hegu, Jianzheng, and Ashi points, with electrical stimulation for 30 minutes after acupuncture, and electroacupuncture once daily, 5 times a week, for a 4-week cycle. (Note: Disposable acupuncture needles are used for treatment; the manufacturer is Beijing Zhongyan Taihe Medical Equipment Co., Ltd., specification 0.25*40 mm.)

2.3.3 Observation Group 2

Loxoprofen sodium, one tablet at a time, was orally administered three times a day. (Loxoprofen sodium, manufacturer Eisai Co., Ltd., National Drug Standard H20041923, 60 mg/tablet).

2.4 Observation Methods

This clinical observation lasted for 4 weeks after treatment, was conducted at the Rehabilitation Medicine Outpatient Department of Changle People's Hospital, and employed regular observation and follow-up. During the treatment process, assessments were made before treatment, at 2 weeks, and at 4 weeks posttreatment regarding pain safety, syndrome, and efficacy (VAS scores, CMS scores and TCMS scores), as well as efficacy.

2.4.1 Safety Observation Changes in Overall Condition and Vital Signs

Three routine laboratory tests (conducted before treatment and at 2 weeks and 4 weeks after treatment); liver and kidney function tests; electrocardiogram (conducted before treatment and at 2 weeks and 4 weeks after treatment); and possible adverse reactions, such as discomfort and pain in the mandible, dizziness, and inability to concentrate, as well as local skin itching and pain.

2.4.2 Disease Assessment Grading Criteria

The clinical symptoms of patients before and after treatment were observed, syndrome scores were quantified via the main syndrome grading table in TCM, and conditions were evaluated on the basis of the total syn-

drome score as mild, moderate, or severe. A total score of <6 is classified as mild, a score of 6–10 as moderate, and a score of >10 as severe.

2.4.3 Efficacy Observation

- (1) Visual analog scale (VAS) scores. Patients are asked to mark the position corresponding to their pain level on a 10 cm long piece of hard paper. The research team then accurately calculated the pain values recorded by the patients. This pain rating method visually represents the level of pain. The VAS is one of the most commonly used pain assessment methods in clinical practice, and its reliability and validity have been confirmed in various fields [6]. A score of 7–10 indicates severe pain, significantly affects normal life and is intolerable. A score of 4–6 indicates moderate pain, which is bearable but slightly affects normal life. A score of 1–3 indicates mild pain that does not affect normal life and is tolerable. A score of 0 indicates no pain. See Figure 1.



Figure 1 Visual analog scale (which can be precise to millimeters)

- (2) Shoulder joint function scores (CMS scores). This test is used mainly to assess the functional ability of the shoulder joint in daily life. This scoring system integrates multiple aspects, such as pain, range of motion, muscle strength, and activities of daily living, providing a comprehensive reflection of the functional status of the patient's shoulder joint. The modified CMS scores include four main parts: the pain score, range of motion score, strength score, and function score. The pain score is usually based on the patient's subjective feelings, the range of motion score is assessed by measuring the active range of motion of the shoulder joint, the strength score is evaluated through specific muscle strength tests, and the function score is based on the patient's performance in daily life [7].
- (3) Traditional Chinese medicine symptom scores (TCMS scores). The "Standards for Diagnosis and Therapeutic Effects of Traditional Chinese Medicine" were used for scoring [8]. It includes five items: shoulder pain, aversion to wind and cold, limited activity, low skin temperature, and local

skin numbness. The main symptoms are scored from 0 to 6 points, and the secondary symptoms are scored from 0 to 3 points, with symptom scoring statistics conducted for both groups. The sum of the main and secondary symptom scores constitutes the total score of TCM syndromes, with higher scores indicating more severe conditions.

2.4.4 Efficacy Evaluation Criteria

On the basis of the "Guidelines for Clinical Research of New Traditional Chinese Medicines" and combined with the scoring of TCM symptoms for efficacy evaluation, the specifics are as follows [9]:

- (1) Cure. Clinical symptoms and signs disappear or are essentially absent, with an efficacy index $\geq 90\%$.
- (2) Significant effect. Clinical symptoms and signs significantly improved, with a $70\% \leq$ efficacy index $< 90\%$.
- (3) Effective. Clinical symptoms and signs show some improvement or partial improvement, with a $30\% \leq$ efficacy index $< 70\%$.
- (4) Ineffective. Clinical symptoms and signs significantly improve or even worsen, with an efficacy index $< 30\%$.

The calculation formula was as follows: efficacy index = $[(\text{pretreatment score} - \text{posttreatment score}) \div \text{pretreatment score}] \times 100\%$.

2.5 Data Analysis and Data Input

All the data were analyzed via SPSS 23.0 statistical software, and all the data are expressed as the means $\pm$ standard deviations ($\bar{x} \pm s$). Correlation analysis was performed via Spearman correlation analysis. Judgment analysis: $P > 0.05$ indicates no statistical significance, $P < 0.05$ indicates statistical significance, and $P < 0.01$ indicates statistical significance.

3 Results

3.1 Comparison of Pain Visual Analog Scale (VAS) Scores

Before treatment, the VAS scores of the treatment group, observation group 1, and observation group 2 were significantly greater than 0.05. After 2 weeks of treatment, the VAS scores of the treatment group, observation group 1, and observation group 2 were significantly different ($P < 0.05$). After 4 weeks of treatment, the VAS scores of the treatment group, observation group 1, and observation group 2 were significantly different ($P < 0.01$). The "combination of acupuncture and medicine" can significantly alleviate the pain symptoms of patients with periarthritis of the shoulder, with remarkable clinical efficacy. Refer to Table 2.

Table 2 VAS scores

Group	Before treatment scores	2 weeks after treatment scores	4 weeks after treatment scores
Treatment group	5.46 $\pm$ 2.38	3.6 $\pm$ 1.22	4.71 $\pm$ 1.29
Observation group 1	5.16 $\pm$ 2.1	4.43 $\pm$ 1.4	3.53 $\pm$ 1.25
<i>P</i> value	0.6	0.01	0.001
Treatment group	5.46 $\pm$ 2.38	3.6 $\pm$ 1.22	2.26 $\pm$ 1.2
Observation group 1	4.93 $\pm$ 1.98	4.46 $\pm$ 1.59	4.06 $\pm$ 1.57
<i>P</i> value	0.3	0.02	0.001

Note: Comparison within groups before and after treatment: $p < 0.05$ indicates statistical significance. $P < 0.01$ suggests that all variables are statistically significant.

3.2 Comparison of Shoulder Joint Scores (CMS Scores)

Before treatment, the CMS scores of the treatment group, observation group 1, and observation group 2 were not significantly different ($P > 0.05$). After 2 weeks of treatment, the CMS scores of the treatment group, observation group 1, and observation group 2 were significantly different ($P < 0.05$). After 4 weeks of treatment, the

CMS scores of the treatment group, observation group 1, and observation group 2 significantly increased, with the treatment group showing a more pronounced increase in shoulder joint scores ($P < 0.01$), indicating statistical significance. The "combination of acupuncture and medicine" can significantly relieve shoulder periarthritis pain and promote the recovery of shoulder joint function, with remarkable clinical efficacy. Refer to Table 3.

Table 3 CMS scores

Group	Before treatment scores	2 weeks after treatment scores	4 weeks after treatment scores
Treatment group	46.56±20.86	64.2±12.77	78.56±11.68
Observation group 1	49.63±18.38	56.56±13.42	65.06±11.75
<i>P</i> value	0.5	0.02	0.001
Treatment group	46.56±20.86	64.2±12.77	78.56±11.68
Observation group 1	51.43±17.73	56.73±15.12	61.4±16.43
<i>P</i> value	0.3	0.04	0.001

Note: Comparison within groups before and after treatment: $p < 0.05$ indicates statistical significance. $P < 0.01$ suggests that all variables are statistically significant.

3.3 Traditional Chinese Medicine Symptom Scores (TCMS Scores)

Before treatment, the TCM symptom scores of the treatment group, Observation Group 1, and Observation Group 2 were not significantly different ($P > 0.05$). After 2 weeks of treatment, the TCM symptom scores of the treatment group, Observation Group 1, and Observation Group 2 were significantly different ($P < 0.05$). After 4

weeks of treatment, the TCM symptom scores of the treatment group, Observation Group 1, and Observation Group 2 were significantly different ($P < 0.01$). The "combination of acupuncture and medicine" can significantly alleviate the symptoms of patients with periarthritis of the shoulder, demonstrating notable clinical efficacy. Moreover, patients in the treatment group had the lowest scores and mildest conditions after receiving acupuncture and taking the shoulder recovery decoction. Refer to Table 4.

Table 4 TCMS scores

Group	Before treatment scores	2 weeks after treatment scores	4 weeks after treatment scores
Treatment group	13.14±3.64	6.62±1.22	4.71±1.29
Observation group 1	13.21±3.71	7.13±1.44	5.23±1.27
<i>P</i> value	0.7	0.03	0.002
Treatment group	13.14±3.64	6.62±1.22	4.71±1.29
Observation group 1	13.31±3.47	7.54±1.59	5.45±1.61
<i>P</i> value	0.6	0.04	0.003

Note: Comparison within groups before and after treatment: $p < 0.05$ indicates statistical significance. $P < 0.01$ suggests that all variables are statistically significant.

3.4 Clinical Efficacy

The clinical efficacy rates of the treatment group, observation group 1, and observation group 2 after treatment were 96.66%, 76.66%, and 60%, respectively. The total effective rate of the treatment group was significantly greater than that of observation group 1 and observation group 2, with $P < 0.05$. Refer to Table 5.

Table 5 Comparative study of clinical efficacy

Group	Number of cases	Cured cases	Significantly effective cases	Effective cases	Ineffective cases	Overall effective rate
Treatment group	30	5	10	14	1	96.66%
Observation group 1	30	2	7	14	7	76.66%
<i>P</i> value	0.03					
Treatment group	30	5	10	14	1	96.66%
Observation group 1	30	1	7	10	12	60.00%
<i>P</i> value	0.04					

Note: Comparison within groups before and after treatment: $p < 0.05$ indicates statistical significance. $P < 0.01$ suggests that all variables are statistically significant.

3.5 Safety Evaluation

During the treatment process, none of the three groups of patients experienced serious adverse reactions. The control group and Observation Group 1 reported no adverse reactions, whereas Observation Group 2 had 2 patients who experienced gastrointestinal discomfort.

4 Discussion

With the progress of society and the increasing prevalence of unhealthy lifestyles, fast-paced work rhythms, and socioeconomic pressures, the incidence of shoulder periarthritis has been increasing annually, resulting in a trend toward younger onset, which severely affects the lives and work of patients, leading to significant physical and mental trauma [10, 11]. Periarthritis of the shoulder falls under the category of "Bi syndrome" in traditional Chinese medicine. The "Huangdi Neijing" mentions the disease name Bi and records shoulder and back pain as well as pain in the anterior shoulder. In traditional medical theory, the etiology and pathogenesis of periarthritis of the shoulder can be divided into internal and external causes. Internal causes are often attributed to deficiency of the liver and kidney and deficiency of Qi and blood, whereas external causes are mostly due to invasion by wind, cold, dampness, and injuries or overuse. In summary, the etiology and pathogenesis of periarthritis of the shoulder can be described as "no nourishment leads to pain" and "no circulation leads to pain"[12].

Cold dampness easily invades the human body, especially under conditions of climate change or unsuitable external environments, leading to the occurrence of Bi syndrome. Patients with periarthritis of the shoulder often experience pain and stiffness in the shoulder, and some may also experience difficulties in limb movement [3]. The invasion of cold dampness can obstruct the flow of Qi and blood, resulting in blockage of the meridians. Owing to the pathological mechanisms of traditional Chinese medicine, the circulation of Qi and blood is hindered, causing local tissues to lack nutrition and oxygen, which leads to inflammatory reactions and soft tissue damage. The soft tissues around the shoulder joint, such as muscles, fascia, and ligaments, may undergo fibrosis and adhesion under the influence of cold dampness, exacerbating pain and limiting movement [7]. Pathologically, the result of obstructed Qi and blood circulation manifests as local edema and blood stasis, further leading to func-

tional impairment of the shoulder joint. Over time, the damage caused by cold dampness to the shoulder joint will worsen, resulting in chronic periarthritis of the shoulder. Therefore, timely and effective treatment measures targeting the causes and pathological changes of cold dampness-type periarthritis of the shoulder can effectively alleviate symptoms and promote recovery of the shoulder joint [7]. Chen [13] summarized the literature on traditional Chinese medicine treatment for periarthritis of the shoulder over the past decade and reported that the treatment principles have focused mainly on dispelling wind, scattering cold, eliminating dampness, promoting Qi circulation, activating blood circulation, and tonifying the liver and kidney. Periarthritis of the shoulder is often due to aging and physical weakness, Qi and blood deficiency, prolonged residence in damp areas, spleen Qi deficiency leading to inability to transform phlegm and dampness; external invasion of wind, cold, and dampness; and the combined effect of internal and external pathogens causing stasis in the meridians of the joints, emphasizing the importance of the clinical application of invigorating the spleen and promoting dampness, eliminating dampness and unblocking meridians, and dispelling wind and scattering cold methods.

The "Jingjin Dongci Method" promotes local Qi and blood circulation by needling specific acupoints, alleviating the pain and functional limitations caused by the malnourishment of Jingjin. Its mechanism of action not only involves direct physical stimulation of local pain points but also helps regulate the response of the central nervous system, thereby promoting the release of endogenous analgesic substances. This process involves the secretion of endogenous opioid peptides such as β -endorphin, which can effectively interrupt the transmission of pain signals [14]. Jingjin Dongci therapy also improves local blood circulation, promotes metabolism, and enhances the regeneration and functional recovery of muscle fibers. This method not only significantly reduces pain scores but also improves the range of motion in the shoulder joint. An analysis of the pathological mechanism of periarthritis of the shoulder revealed a close relationship between the occurrence of periarthritis and lesions in Jingjin [15]. The Jingjin-Dongci method can effectively intervene in these lesions, relax the tendons and activate the collaterals, disperse cold and relieve pain, release adhesions, reduce tissue swelling, increase joint mobility, and alleviate symptoms. Dongci therapy refers to a needling treatment method where after achieving Qi, the

practitioner simultaneously engages the patient's mental activity and guides the patient to move the related areas, thus mobilizing the patient's own ability to treat the disease [16]. Simply put, it is any method that combines acupuncture with exercise during the needling process.

Shoulder periarthritis is classified into four types on the basis of the meridian pathways: Taiyin, Yangming, Shaoyang, and Yang. Acupuncture points such as Zhongfu, Jianyu, Zhongzhu, Jianliao, Houxi, Yujie, Hegu, Jianzhen, and Ashi can be selected for treatment. The Zhongfu point is located in the anterior chest area and functions to disperse lung qi and regulate qi movement. The Jianyu point is located on the anterolateral side of the shoulder joint and is primarily used to treat shoulder pain, restricted movement, and related discomfort. It works in conjunction with Zhongfu to provide comprehensive treatment for shoulder symptoms. Acupuncture at Jianyu can improve blood circulation in the shoulder and alleviate muscle tension and pain. Zhongzhu and Jianliao are important acupoints around the shoulder joint that significantly influence flexibility and functional recovery of the shoulder joint. Houxi and Yujie play crucial roles in promoting the circulation of qi and blood. Hegu, located on the back of the hand, can unblock the meridians and regulate qi and blood, enhancing the body's endogenous pain relief system and increasing tissue resistance to pain. Jianzhen improves the function of the shoulder joint by regulating local qi and blood flow, reducing inflammatory reactions [14]. Ashi points have more specific functions, typically referring to tender points found at the site of pain or functional limitations. These points usually arise from pathological changes in local muscles, ligaments, and fascia, making them highly targeted. Acupuncture at Ashi points can directly relieve pain, improve local muscle tension, promote blood circulation, and aid in restoring the function of damaged tissues [17].

The composition of our hospital's "Jian Yu Zhi Tong Decoction" includes the following: *Notopterygii Rhizoma et Radix (QiangHuo)* 30 g, *Pueraria lobata (GeGen)* 30 g, *Angelica pubescens (DuHuo)* 15 g, *Saposhnikovia divaricata (FangFeng)* 15 g, *Spatholobi Caulis (JiXueTeng)* 10 g, *Turmeric (JiangHuang)* 10 g, *Angelica dahurica (BaiZhi)* 10 g, *Chuanxiong Rhizoma (ChuanXiong)* 10 g, *Cinnamon twig (GuiZhi)* 10 g, *Morus alba L. (SangZhi)* 15 g, and *Licorice (GanCao)* 6 g. This decoction mainly addresses the invasion of wind, cold, dampness, shoulder and back pain, headaches, body heaviness, or lumbar pain with difficulty turning, with a white tongue coating and

floating pulse indicating Bi syndrome; sweating in the wind; re-exposure to cold; or prolonged exposure to damp places, causing wind, cold, and dampness to invade the muscle surface, leading to blood stasis and blockage, resulting in neck and shoulder pain and difficulty turning. Therefore, the method involves dispelling wind, scattering cold, and eliminating dampness. *Notopterygii Rhizoma et Radix (QiangHuo)*, *Puerariae Lobatae Radix (GeGen)*, and *Angelica Sinensis Radix (DuHuo)* serve as monarchs, all of which have pungent, warm, and bitter properties; their pungent nature can dispel wind, warmth can scatter cold, and bitterness can dry dampness, thus dispelling wind, scattering cold, eliminating dampness, and alleviating joint pain [18]. *Angelica Dahurica (BaiZhi)*, *Morus alba L. (SangZhi)*, and *Saposhnikovia divaricata (FangFeng)* serve as ministers, specifically treating solar cold and dampness, dispelling wind and overcoming dampness. Assisted by *Cinnamon twig (GuiZhi)*, *Chuanxiong Rhizoma (ChuanXiong)*, *Spatholobi Caulis (JiXueTeng)*, and *turmeric (JiangHuang)*, it dispels wind, warms meridians, relieves pain, promotes Qi and invigorates blood. *Licorice (GanCao)* is used to harmonize all the herbs. The entire formula primarily consists of pungent, bitter, and warm dispersing ingredients, collectively achieving the functions of dispelling wind, eliminating dampness, scattering cold, and relieving pain. Its clinical application can not only treat diseases caused by wind, cold, and dampness on the surface but also has good efficacy for treating diseases caused by the invasion of various parts of the body by wind, cold, and dampness. The herbal components of Jian Yu Zhi Tong Decoction help alleviate pain and improve function by regulating the immune response and inflammatory factors, effectively improving blood circulation in the shoulder and promoting the flow of Qi and blood, thereby reducing pain caused by the invasion of wind, cold, and dampness [19]. The efficacy of the "Jian Yu Zhi Tong Decoction" is also reflected in its ability to modulate the body's inflammatory response by inhibiting the release of inflammatory factors such as IL-6 and TNF- α , resulting in anti-inflammatory and analgesic effects and thus improving the quality of life of patients [20, 21].

After two weeks of treatment, the VAS score of the treatment group was lower than that of observation group 1 and observation group 2, with $P < 0.05$, indicating statistical significance. After four weeks of treatment, the VAS score of the treatment group was significantly lower than that of observation group 1 and observation group 2,

with $P < 0.01$. The combination of "Jingjin Dongci" and "Jian Yu Zhi Tong Decoction" is effective in alleviating pain from periarthritis of the shoulder. After treatment, the CMS score of the treatment group was significantly greater than that of observation group 1 and observation group 2. After two weeks of treatment, there was a statistically significant difference in the CMS score among the treatment group, observation group 1, and observation group 2 ($P < 0.05$). After four weeks of treatment, the CMS scores of the treatment group, observation group 1, and observation group 2 significantly increased, with the treatment group showing a more pronounced increase in shoulder joint scores and statistical significance ($P < 0.01$). The combination of "Jingjin Dongci" and "Jian Yu Zhi Tong Decoction" can significantly relieve shoulder pain and promote the recovery of shoulder joint function, demonstrating significant clinical efficacy. After two weeks of treatment, the TCM symptom scores of the treatment group, observation group 1, and observation group 2 were significantly different ($P < 0.05$). After four weeks of treatment, the TCM symptom scores of the treatment group, observation group 1, and observation group 2 were significantly different ($P < 0.01$). The patients in the treatment group had the lowest TCM symptom scores and mildest conditions after using "Jingjin Dongci" combined with "Jian Yu Zhi Tong Decoction." The clinical efficacy rates for the treatment group, observation group 1, and observation group 2 were 96.66%, 76.66%, and 60%, respectively, with the total effective rate of the treatment group being significantly higher than that of observation group 1 and observation group 2, with $P < 0.05$. This study revealed that the "Jingjin Dongci method" can effectively regulate the nerve excitability of patients, promote blood circulation, and relieve muscle spasms, thereby alleviating pain and improving functional impairment [22]. Moreover, "Jian Yu Zhi Tong Decoction," a Chinese medicinal formula, warms meridians, dispels cold, activates blood and resolves blood stasis, which can effectively improve the clinical symptoms of patients with periarthritis of the shoulder [23]. The combination of the two not only enhances the therapeutic effect but also provides a more comprehensive rehabilitation plan for patients, thus having important clinical application value.

Future research should further explore the adaptability and efficacy of "Jingjin Dongci" (acupuncture on meridians and tendons) and "Jian Yu Zhi Tong Decoction" (shoulder pain relief decoction) in patients with different

types of shoulder periarthritis, aiming to provide stronger evidence for personalized treatment. In addition, it is necessary to increase the number of randomized controlled trials for this treatment plan to increase the reliability of the clinical evidence. Furthermore, consideration can be given to integrating modern medical technology with traditional Chinese medicine, such as using imaging examinations to assess efficacy, thereby enriching treatment methods and evaluation standards and improving the overall research level and clinical application effects. Future studies should explore this condition further and leverage the advantages of combining acupuncture and medicine in the treatment of periarthritis of the shoulder.

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