

# *Clinical Experience of Ren Yuanyuan's Acupuncture Myofascial Trigger Points in Treating Painful Diseases*

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**Abstract:** Myofascial trigger points (MTrPs) therapy is a simple and non-invasive treatment method with low recurrence rate. Chief Physician Yuanyuan Ren apply acupuncture MTrPs to clinical treatment based on years of experience, and the effect is remarkable. From the theoretical basis of acupuncture MTrPs, characteristic acupoint selection and acupuncture manipulations, the article expounds the clinical experience of Professor Ren using MTrPs in the treatment of painful diseases, which is helpful to understand this therapy from different perspectives, so as to increase clinical diagnosis and treatment protocols, and give full play to the advantages of acupuncture MTrPs in the treatment of painful diseases.

## 1. Introduction

Pain is one of the largest diseases affecting human health, there are primary pain, musculoskeletal pain, neuropathic pain, postoperative or traumatic pain, among which musculoskeletal system diseases such as neck and shoulder, low back, knee pain, foot and ankle pain, sports injury pain is the most common [1], light is not taken seriously, delay the time of treatment, heavy affect life and work, is a major clinical problem. Traditional Chinese acupuncture has a significant effect on pain and has been used clinically for a long time. Since the proposal of "myofascial pain trigger point", it has created a new field for the treatment of painful diseases with its novel theory and operation methods different from conventional acupuncture, significantly improving the treatment effect of painful diseases, and is widely used by various doctors.

Yuanyuan Ren, the national famous old Chinese medicine heir, academician Xuemin Shi 's academic heir, the third generation of Fang's head needle, the master's supervisor of Shaanxi University of Chinese Medicine, and the deputy director of the acupuncture rehabilitation department of Xi'an Traditional Chinese Medicine Hospital. Chief physician Ren Yuanyuan has been engaged in clinical work for more than 20 years, has rich experience in acupuncture treatment of pain, and is good at using myofascial pain trigger therapy to treat painful diseases, and has her own unique views on it. Director Ren combines acupuncture to stimulate pain points while combining traditional differentiation and acupoints, paying attention to the overall concept, breaking through the previous acupuncture method of simply acupuncture of the affected muscle for treatment, and the combination of traditional acupuncture and pain points complements each other and has remarkable effects. The

author has benefited a lot from learning from the teacher, and his clinical experience is introduced as follows.

## **2. Myofascial trigger points**

Myofascial Trigger points, which refers to a highly sensitive, palpable nodule within the contractile muscle bandage and causes referred pain away from the trigger point, is usually located in the center of the muscle and abdominal muscle fiber, where the motor nerve enters the muscle, that is, the motor point [2]. Trigger points are characterized by punctate tenderness, palpable nodules and tight bands, referred pain, and convulsive response. Trigger points are divided into active trigger points and latent trigger points. These two trigger points often cause pain limitation of muscle function and impaired mobility, such as muscle imbalance, inhibition, and increased exercise irritability [3].

## **3. Awareness of trigger points in the treatment of painful diseases**

### **3.1 Western medicine**

Trigger points can be said to be a neglected one, but they are the main source of pain and dysfunction of the biggest disease in the human body. Studies [4] found that the number of active trigger points in human pain areas is significantly higher, mainly in the center or abdomen of the affected skeletal muscle, the junction of muscles and tendons, the edge of myofascia, the attachment of osteoid muscles, etc. [5], which limits muscle activity or leads to muscle contraction, reduces blood circulation and compresses nearby nerves, thereby aggravating numbness, spasticity and inflammation [6], causing pain and impairing the body's motor function.

Professor Ren believes that most of the chronic pain caused by trigger points can be effectively relieved by appropriate acupuncture therapy. The needle stimulates the pain point by breaking the tight muscle band, penetrating the trigger point inside it and deactivating it, so that the pain can be effectively relieved. Studies have found that needle stimulation of pain points can reflexively expand local blood vessels and relax muscle fibers [7], thereby inactivating trigger points and effectively alleviating the spasm of myofascia and muscle segments to repair tense muscles and myofascia [8]. Acupuncture pain points emphasize the beating and twitching of local muscles through acupuncture, which in turn triggers characteristic erotic pain transmission to relieve muscle tension and thus exert analgesic effects [9]. Recent studies [10] have shown that acupuncture at the trigger point may achieve clinical efficacy through local mechanical action, lowering Ach, Ach R, and increasing Ach E, as well as improving the local environment of the trigger point and modulating related substances and proteins.

### **3.2 Traditional Chinese medicine**

Pain is a common manifestation of many diseases, and Chinese medicine summarizes the pathogenesis of pain as "pain if it is not common" and "pain if it is not honorable", and believes that milliacupuncture on the lesion site or related body surface parts can achieve the effect of "unclogging meridians and regulating yin and yang", thereby alleviating pain. Professor Ren believes that the trigger point is a small local muscle spasm, which hinders the operation of qi and blood due to repeated and persistent muscle contractions, resulting in local qi and blood stasis and pain, that is, "pain if it is not passed". At the same time, Professor Ren found that the "pricking" response of the local tight muscle band caused by needle stimulation pain points was similar to the "qi, like swinging dragon's tail" that appeared when needle pricked qi, so that needle stimulation pain points were used as a clinical treatment for menstrual muscular disease. This technique directly reaches the hospital,

improves local blood circulation by relaxing the soft tissues of local spasms, effectively relieves muscle pain, and achieves the effect of promoting qi and activating blood and general rule without pain.

As a common acupuncture point for the treatment of painful diseases, local tenderness or specific feeling is used as the standard for acupuncture, and milliacupuncture is applied, and the effect is remarkable. Professor Ren will be the trigger point and Ashi Point analogy, believes that the two are very similar from the aspects of positioning, acupuncture, pathological mechanism, etc., and are local points in clinical treatment, as far as there is no latest research pointing out that the trigger point does not belong to the context of traditional Chinese medicine "Ashi Point", it can be temporarily considered that the trigger point is through modern medical means to locate the more accurate "Ashi Point", Ashi Point from the original irregular, indefinite, non-quantitative category through the redevelopment of trigger points to form a regular, qualitative, quantitative fixed-point system.

## **4. Cave taking features**

### **4.1 Focus on complex muscle groups**

Usually, acute single muscle syndrome is easily managed. However, Professor Ren believes that the pain that patients often present is likely to come from a complex pain pattern of several muscles, and the trigger points on the muscles often lead to pain or motor dysfunction to other parts. Therefore, when treating the same type of pain, Professor Ren not only pays attention to and is committed to solving the problem of a certain muscle, but also pays more attention to the complex muscle group. At the same time, during the diagnosis, Professor Ren found that the trigger points of the surrounding or distal muscles not only aggravate the irritation and pain of the painful area, but also aggravate the electromyographic activity and activation of some muscle groups with strong transmission, making their muscles more tense, trapezius muscles, masticatory muscles, posterior neck muscles, and lumbar spinal muscles are common muscle groups.

Therefore, Professor Ren's selection of pain points is no longer limited to the local type, but more selects the peripheral type to induce the compound muscle group of radiation pain, inactivate the distal end, treat the local, combine the far and near, and base on the whole, so as to quickly and effectively achieve the analgesic effect.

### **4.2 Focus on latent pain points**

As we age, the body's activity gradually decreases, greatly limiting the stiffness and range of motion of latent trigger points, making symptoms more pronounced than active trigger points. Restricted motion and distorted posture caused by latent trigger points are usually ignored compared to the excruciating disabling pain caused by active trigger points, but it is actually more common than active trigger points that produce pain.

When examining patients, Professor Ren first observes the patient's posture, movements and symmetry of body structure, and quickly determines which muscle groups have reduced range of traction and slight weakness of the muscles. When probing the trigger point, the muscle fibers associated with the trigger point will be squeezed in the accessible muscle band, so pay attention to the muscle in the contracted state, determine its muscle position and fiber direction relative to the adjacent muscle, so as to accurately position.

### **4.3 Focus on dialectical governance**

Zhang Ji put forward a dialectical treatment of pain in "Typhoid Miscellaneous Diseases", and

distinguished between weak pain and real pain. Due to the golden blade of insects and beasts, phlegm and fire stasis, Qi stasis and blood stasis, etc., the internal organs and meridians are blocked, so that the qi and blood in the meridians do not run through and are painful, which is a real pain. Due to old age and physical decline, long-term illness, and deficiency of essence, resulting in weakness of internal organs, insufficient qi and blood, empty meridians, loss of glory and nourishment of tissues, and pain if not honored, it belongs to "deficiency pain".

Professor Ren believes that for paralysis caused by wind and cold and external evil in the muscles, before acupuncture treatment, it is necessary to refer to the six meridians of the lesion, the qi and blood of the meridians, and then adjust the treatment according to the blood stasis or empty pulse collapse and the rise and fall of the patient's constitution. Professor Ren found<sup>[11]</sup> that acupuncture is very easy to cause fatigue and physical fatigue after stimulating pain points, so in practice, it is more aimed at empirical patients, that is, "real pain", according to the principle of "real leakage", selectively stimulating needle sensation. Professor Ren also attaches great importance to the route of the 12 meridians, according to the differentiation of different one or more meridians of the patient, following the sutra to explore the trigger points, stimulating the trigger points while guiding the meridian qi to achieve the optimal effect.

## 5. Acupuncture features

### 5.1 Regulate the mind, induce qi and relieve pain

The "Neijing" points out that tuning the mind occupies a very important position in acupuncture therapy, and a large number of pages have been devoted to different forms of discussion of the spirit of tuning. As recorded in the "Ben Shen": "Every law of thorns must first be based on God." "Tuning the mind is the foundation, and guarding the mind is an effective way to enhance the curative effect." The phrase "Keeping God" points out the importance of the best doctors to understand the observance of God. Jingyue Zhang's explanation for this is: "Doctors must be based on God... God will be sick... Therefore, it is the task of curing God." "Zhuangzi" say: "The life of man, the gathering of qi, gathering is life, scattering is death." "The one who stabs is gathering qi, and the one who gathers qi is harmonized because of the form and the outside, so as to enter the body and heal also." When using the treatment of trigger points, Director Ren also attaches importance to adjusting the mind and gathering qi, swimming in silence, gathering the spirit, being careful in the body, adjusting the color to calm the body, and adjusting the mind and gathering qi throughout the whole process of acupuncture, requiring both doctors and patients to concentrate and focus on the needle.

"Lingshu Thorn Festival True Evil Chapter" say: "The use of needles and the like lies in the adjustment of qi". Acupuncture is to adjust the air.

Thorn the outside and the inside to solve it, and what is obtained is in the Qi. The grasp of the sense of qi under the needle is inseparable from the consciousness, and it will inevitably move the heart. After getting Qi, pierce into the hospital, the hand does not leave the needle, apply "straight in and straight out", the needle body is upright, driving the tissue to twitch, so that the Qi quickly reaches the lesion position, so that the human body's positive Qi can be induced, the locally blocked meridian Qi can be smoothly regulated, and the god should breathe to achieve the healing effect of pain relief.

### 5.2 Featured techniques

The phrase "right pushes it, left holds it" in "Lingshu Small Needle Solution" emphasizes the different roles and significance of the left and right hands when entering the needle. "Difficult Ching, Seventy-eight Difficulties": "Those who know the needle believe in their left", which emphasizes the important role of the hand in clinical practice.

Professor Ren attaches great importance to the cooperation between the hand and the assassin. In the whole process of treatment, the hand determines the high-sensitivity palpable nodule, grasps the opportunity of acupuncture, reduces pain, stimulates menstrual qi, and cooperates with the stabbing hand to directly prick to control the needle sensation, after piercing the high-sensitivity palpable nodule in the tight band of the contracted muscle, the hand does not leave the needle, and "straight in and straight out", the needle body is upright, and the needle is quickly inserted in the direction of muscle fibers, which can make the gas gain rate reach more than 80% at a time, and it is easier to make the needle sensation go up and down. After the needle is inflated, rapid insertion is applied along the direction of the tight muscle band touched during palpation, and more laxative methods are used to drive tissue twitching, according to the muscle level, the insertion amplitude can be 0.3cm ~ 5cm, and the average insertion frequency is 60 times/min. Professor Ren stimulates the pain points through repeated needles, so that the muscles convulsions and beats, fully loosen the muscles that produce tendons, and balance the muscles and joints of the body. At the same time, rapid insertion makes the muscle fibers caused by the local tic response not easy to be damaged, and induces local tics in a timely manner, thereby inactivating the trigger point.

In addition, after the trigger point is inactivated, it is easy to relapse without proper exercise to restore muscle flexibility and balance. Stretching muscles can lengthen the sarcomere, reducing the overlap between actin and myosin molecules to reduce the need for ATP and break the vicious cycle of "energy crisis" [12]. Professor Ren's study found that stretching after acupuncture treatment was more effective [13] and believed that stretching exercises on the affected muscles after acupuncture treatment at the trigger point were a necessary part of clinical treatment.

### 5.3 Emphasize the amount of stimulation

The "Neijing" divides the human body into five bodies according to different anatomical levels: tendons, veins, flesh, skin and bone, and emphasizes that it is necessary to be familiar with the anatomical level of the human body before needle piercing, otherwise it is easy to produce medical accidents. As stated in the "Essentials of Thorns": "Sickness has ups and downs, thorns have shallow depth... Shallow and deep, but a big thief.... "On Pain" points out that people with different endowments have different thresholds for pain, the so-called: "The strength of muscles and bones, the brittleness of muscles." "People with strong muscles and bones and thick flesh are relatively pain-tolerant, while people with thin skin and strong flesh have a lower tolerance for pain. The same is true when acupuncture stimulates pain points, due to the different degree of tissue richness of human body parts, which determines the diversity of acupuncture (jumping) techniques, and Professor Ren adds and subtracts the amount of stimulation according to its different levels to better adapt to the stimulation of different acupuncture points to achieve better results.

In addition, during the acupuncture process, Professor Ren also evaluates the impact of comprehensive actions on the human body during the operation, considers the nature of the disease itself and the degree of adaptation of the patient's body, and uses it clearly and prudently according to the different manifestations of different diseases of different patients.

## 6. Examine the case

Tian, male, 36 years old, first diagnosed on March 1, 2022. Complaints: lateral right shoulder pain with limited movement for more than 3 months. Present history: lateral right shoulder pain, limited mobility, and worsening pain during abduction after working before 3 months. X-rays showed no obvious abnormalities. Diagnosis: shoulder palsy, Qi stasis type (hand less yang meridian). Treatment: unblock meridians, activate blood and relieve pain. Operation: Instruct the patient to lie prone position, look for pain reaction points along the right hand Shaoyang Sanjiao meridian and foot Shaoyang bile



meridian, after disinfection, conventional acupuncture is used to prick Ah Shi acupoint, shoulder well point, shoulder hip point, and leave the needle for 30 min. Professor Ren believes that the trigger points that cause the patient's lateral shoulder pain may be located in the supraspinatus, infraspinatus, teres minor, subclavian muscle, latissimus dorsi, through careful exploration, the infraspinatus muscle and teres minor touched about 0.5 cm×1 cm cord-like cord, the tenderness is obvious, the pain can radiate to the right shoulder, after disinfection, 40 mm×0.25 mm millineedle straight puncture, after gas quickly inserted 5~10 times, muscle twitching can be clearly seen. After the needle is discharged, the patient is instructed to stretch with abduction activities, and after the treatment, the shoulder abduction is significantly improved, and the painful nodules in the infraspinatus and teres minors disappear. March 7 Second consultation: continue the former treatment. After treatment, the patient has no significant pain in the shoulder, the cord-like nodule completely disappears, and it can be abducted normally. After 1 week of follow-up, there was no discomfort and the condition was cured.

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