

# Professor Liu Zhibin's Experience in Treatment of Pain with Liu Shi Tuina

Huijie Yin<sup>1</sup>, Haiguang Yuan<sup>1,2,\*</sup>, Zhibin Liu<sup>1</sup>

<sup>1</sup>College of Acupuncture-moxibustion and Tuina, Shaanxi University of Chinese Medicine, Xianyang 712046, Shaanxi, China

<sup>2</sup>Affiliated Hospital of Shaanxi University of Chinese Medicine, Xianyang 712000, Shaanxi, China

\*Correspondence Author

**Abstract:** Pain disorders, characterized as common conditions with pain as the predominant symptom, present complex etiologies, prolonged courses, and a high propensity for comorbid psychological disturbances. Traditional Chinese Medicine summarizes their pathogenesis as “Bu Tong Ze Tong” and “Bu Rong Ze Tong”. This article systematically elaborates on the Tuina experience of Professor Liu Zhibin, a nationally renowned TCM master, in treating pain disorders. Professor Liu's Tuina innovatively integrates traditional manual techniques with modern medical concepts. His signature Gunfa achieves broad-range soft tissue release, while the Yizhichan Pluck Technique and Chanrou Technique precisely target pain points and Aponeurotic system. The approach emphasizes the therapeutic principles of “dong, song, tong, he. Rooted in TCM Jingjin theory, Liu Shi Tuina demonstrates advantages such as safe application, stable efficacy, and no drug dependence, offering an innovative protocol for pain management with significant clinical translational value.

**Keywords:** Pain syndrome, Liu Shi Tuina, Famous doctor's experience, Liu Zhibin, Chanrou, Pluck.

## 1. Introduction

Pain disorders refer to a category of conditions characterized primarily by pain, encompassing a wide range of medical conditions. There are numerous types of pain, and patients with chronic pain often experience emotional issues such as irritability, depression, and anxiety. Research indicates that up to 20–25% of the Chinese population experiences pain symptoms, with prolonged duration of onset and a higher prevalence among middle-aged and elderly individuals, significantly impacting patients' quality of life and mental well-being [1]. The onset of pain disorders is caused by multiple factors, with primary causes including physiological pain (inflammatory responses, ischemia-hypoxia, mechanical stimulation), pathological pain (nerve damage and lesions, autoimmune diseases, organ lesions), and psychological factors. The primary pathogenesis often follows the principle outlined in the *Suwen-Jutong Lun*: “Blockage leads to pain; deficiency leads to pain.” In terms of treatment, Western medicine often uses analgesic drugs, but long-term use can lead to drug resistance and dependence, with poor efficacy. Traditional Chinese medicine offers unique advantages in treating pain through massage therapy, including simplicity, safety, low treatment costs, and stable efficacy, with virtually no adverse reactions [2].

Professor Liu Zhibin is a nationally renowned traditional Chinese medicine expert, the first-ever renowned traditional Chinese medicine practitioner in Shaanxi Province, and a recipient of the State Council's Special Allowance. He has dedicated over four decades to research, teaching, and clinical practice in acupuncture and massage therapy, accumulating extensive clinical experience. In clinical practice, he frequently applies massage techniques to treat pain conditions. Based on his years of clinical experience, he has summarized and innovated a massage therapy characterized by “skill, kneading, penetration, and efficacy.” The following is an exposition of Professor Liu's massage therapy experience in treating pain conditions.

## 2. Etiology and Pathogenesis

### 2.1 Pain Caused by Obstruction

The Yellow Emperor's Classic of Internal Medicine provides detailed records on the etiology and pathogenesis of painful conditions. In “The Origin of Pain” from “The Book of Basic Principles,” it states that “cold qi lodging outside the meridians causes coldness in the meridians, and coldness in the meridians causes contraction... Blood deficiency causes pain,” indicating that the nature of cold evil is to contract and stagnate, leading to blockage in the meridians, and blockage causes pain. It also states that “heat qi remaining in the small intestine causes pain in the intestine, which becomes hard and cannot be expelled, thus causing pain and blockage.” This suggests that heat evil burns and consumes body fluid, leading to a lack of lubrication in the intestines, and blockage causes pain [4]. The above points out that the six exogenous factors are one of the main causes of painful conditions. In addition to the six exogenous factors, qi and blood imbalance is also an important reason. “The Book of Basic Principles” states that “disharmony between blood and qi leads to the emergence of various diseases.” “The Great Canon of Yin and Yang Correspondence” states that “qi injury causes pain, and form injury causes swelling.” “The Book of Medical Corrections” describes that “all abdominal pain that does not move is mostly due to blood stasis.” The above records all prove that qi and blood imbalance, qi stagnation and blood stasis, blockage causes pain, or qi deficiency and blood deficiency, lack of nourishment causes blockage. Moreover, qi and blood mutually influence each other, jointly causing pain. The etiology and pathogenesis of painful conditions are numerous, but essentially they can be summarized as “blockage causes pain” and “lack of nourishment causes blockage.” Professor Liu Zhibin believes that “blockage causes pain” is the most crucial pathogenesis of painful conditions. Blockage causes pain, and pain leads to blockage. Various reasons cause qi and blood stagnation, leading to meridian blockage, thus causing pain [4]. “Blockage causes pain” is mostly solid pain, so

through massage techniques to promote meridian circulation and blood activation, and to regulate muscles and balance, in order to achieve “blockage leads to pain relief.”

## 2.2 Pain Caused by Contracted Tendons and Spasms

The meridian theory of muscles and tendons first appeared in the “Lingshu” section of the “Huangdi Neijing” (Yellow Emperor’s Classic of Internal Medicine), which states, “The tendons of the Foot-Taiyang originate from the little toe, ascend and connect at the ankle, and deviate upwards to the knee... They pass between the breasts and connect in the chest, then descend along the sternum and attach to the navel.” It details the circulation routes of the twelve meridian tendons and the diseases they govern [5]. Furthermore, the end of the “Lingshu·Jingjin” chapter emphasizes that “diseases of the meridian tendons, when cold, cause the tendons to contract and become taut; when hot, they become lax and fail to retract, resulting in impotence. When yang is excessive, the tendons contract; when yin is excessive, they bend but do not straighten.” It also proposes “burning needle pricking” to treat cold syndromes, and states that “no burning needle is needed” for heat syndromes, reflecting the treatment principle of “soothing the taut, and moxibustion for those trapped.” It is an important component of the meridian system. The “Huangdi Neijing Taisu” (The Essence of the Yellow Emperor’s Classic of Internal Medicine) clearly states that “muscles and tendons are the source of yin and yang qi, and there is no void in the middle, so they cannot communicate with the ascending and descending yin and yang qi.” This indicates that the meridian tendons are solid and cannot be penetrated by subtle substances, rather than being hollow structures that circulate qi and blood. Professor Liu Zhibin observed clinically that some patients experience pain due to contracted and spasmodic tendons that cannot relax. Combining this with the meridian tendon theory, he found that pain is not only caused by “blockage,” but also by contracted and spasmodic tendons [6-8]. The “Su Wen·Bi Lun” (Discussion on Bi Syndrome) states, “When cold bi syndrome is in the bones, it is heavy; when in the meridians, blood coagulates and does not flow; when in the muscles and tendons, they bend but do not straighten,” which precisely illustrates that contracted and spasmodic tendons are also one of the causes of pain. By using tuina techniques to adjust the muscles and spine, the bones can be aligned and the muscles softened, thus eliminating pain.

## 3. The Distinctive Innovations of Liu’s Massage Technique

Liu’s distinctive massage technique was developed by Professor Liu Zhibin over four decades of clinical practice, combined with his teaching experience, and summarized and innovated into a massage therapy characterized by “skill, kneading, penetration, and efficacy.” “Skillful” refers to dexterous techniques and the use of subtle force; “gentle” refers to techniques that are soft, comfortable, and effective; “penetrating” refers to techniques that deeply penetrate and directly target the affected area; and “effective” refers to techniques that produce noticeable results and patient satisfaction [9]. The main techniques include: Liu’s Acupuncture Technique, Liu’s One-Finger Zen Pushing Technique, and Liu’s One-Finger Zen Twisting Technique.

Liu’s Tuina includes Xiaoyu Ji Tuina, Zhangzhijie Tuina, and Elbow Tuina. Its main characteristics are a wide range of application and a larger area of release. Compared with traditional Tuina, Liu’s Tuina has unique advantages, including: 1) the suction point is softer and has a larger contact area with the application site, which is conducive to finding pain points; 2) the technique has stronger force in the vertical direction, allowing for deeper penetration and reaching the affected area; 3) the operation is more ergonomic, making good use of skillful strength and saving more effort [10].

The Liu’s One-Finger Pushing and Plucking Technique is a unique approach created by Professor Liu Zhibin, ingeniously combining the One-Finger Zen Pushing Technique and the Plucking Technique. The One-Finger Zen Pushing Technique originated from Li Jianchen, a royal physician of the Qing Dynasty, and has been widely applied in clinical treatment by later generations of physicians [11]. The operation involves placing the thumb firmly on the treatment site, using the arm to drive the wrist to perform reciprocating movements, continuously penetrating the force deep into the muscles. It can be applied to various acupoints throughout the body, with a smaller range of action compared to the rolling technique, and the force is more concentrated and specialized. The Plucking Technique, belonging to the Tongfa (a series of techniques for promoting qi circulation), mainly acts on the starting and ending points of muscle ligaments and pathological nodules, providing a strong benign stimulation to painful points. Professor Liu Zhibin creatively combined these two techniques, modifying the “pushing” in the One-Finger Zen Pushing Technique to regular and continuous plucking at the treatment site. The pushing incorporates plucking, and the plucking incorporates pushing, combining the two techniques to simultaneously exert their effects and significantly enhance the therapeutic effect [12].

The Liu’s One-Finger Zen Changing and Rubbing Technique is the most distinctive approach in Liu’s Tuina technique, representing another innovation by Professor Liu Zhibin based on the One-Finger Zen Tuina method. In terms of operation, the Changing and Rubbing Technique centers around the concept of “changing” and employs “rubbing” as the main method of application, emphasizing the continuous and lingering nature of the technique [13]. The focus is placed on the fingertips of the applying fingers, which are firmly pressed against the patient’s body surface, applying gentle yet firm pressure, balancing hardness and softness, and continuously changing and rubbing along meridians to directly reach the affected area. The One-Finger Zen Changing and Rubbing Technique is highly flexible, and can be used to loosen almost any part of the body. Due to the lingering nature of the technique, it achieves excellent results [14].

Professor Liu Zhibin advocates adhering to the four key points of “movement, relaxation, dredging, and harmony” throughout the treatment process, integrating the concept of combining movement and stillness. “Movement” emphasizes patients actively cooperating with doctors during treatment and actively completing the rehabilitation exercises required by doctors to restore the body to a balanced state. “Relaxation” requires both doctors and patients to maintain a relaxed state,

which can be achieved through verbal communication to ease the mind, followed by massage techniques to relax the relevant parts of the lesion, allowing patients to relax both physically and mentally, and avoiding the use of brute force or excessive techniques. “Dredging” refers to using massage techniques to dredge meridians and qi circulation. When stasis dissipates, pain will naturally subside, and qi circulation can restore bones to their proper position and make muscles and veins flexible, thereby relieving pain. “Harmony” emphasizes the collaboration between doctors and patients, combining professional treatment with daily care, following natural rhythms to maintain orderly routines, avoiding excessive physical exertion, and promoting the recovery process through overall physical and mental regulation [15].

## 4. Clinical Application of Liu’s Massage

Professor Liu Zhibin, a renowned traditional Chinese medicine practitioner, has developed a new treatment method called “Liu’s Tuina” for pain management, which is characterized by rapid efficacy, good results, and short treatment duration. Relevant evidence shows that Tuina techniques can promote blood circulation, alleviate pain, and regulate muscles and meridians. Modern medicine believes that Tuina can increase endogenous opioid peptides and other analgesic substances. At the same time, by stimulating the signaling pathways of skeletal muscle cells and adjusting the concentration of calcium ions in cells, it can reduce spasms in soft tissues such as muscle fascia, thereby achieving the goal of pain relief. This has good therapeutic effects on patients with pain disorders. In addition, during the promotion of this method, relevant knowledge about pain disorders can be disseminated, enabling modern people to enhance their understanding of pain disorders, as well as their knowledge of the pathogenesis and triggers of pain disorders, thereby strengthening the concept of prevention.

### 4.1 Treatment Principles

#### 4.1.1 Using Pain as the Acupoint

Based on the meridian theory, Professor Liu Zhibin often adopts the treatment of pain-sensitive points in the treatment of pain through tuina, embodying the essence of “taking pain as a trigger point”. “Lingshu·Weiqi Abnormality” states, “The meridians have neither yin nor yang, neither left nor right, but indicate the location of the disease.” “Lingshu·Jingjin” states, “The treatment for its disease lies in the application of burning needles and pricking, with the number determined by knowledge and the trigger point identified by pain.” The meridians are closely related to acupoints, hence the characteristics of taking pain as a trigger point and using burning needles and pricking in the treatment of meridian disorders. When treating pain, patients are placed in a comfortable position, and the painful area is loosened extensively using the rolling method to relax the body and muscles, gradually adapting to the treatment; then, the one-finger Zen rolling method is applied to the painful area for about 5 minutes, making the patient feel slightly warm locally; subsequently, the elbow is used to press on the painful area, its attachment points, and positive pressure points, or combined with acupuncture at Ashi points; then, the plucking method is used to pluck the local tendons and muscles at the

painful area for about 2 minutes; finally, the rubbing method is used to conclude the treatment, with the degree of heat penetration being moderate, warming the skin and muscles, making the patient feel relaxed and comfortable [16]. Clinically, it has significant effects in relaxing muscles, activating collaterals, resolving adhesions, promoting blood circulation, and alleviating pain, with obvious improvement in hemorheology indicators.

#### 4.1.2 Nourishing the Mind and Spirit

In his book “The Great Physician’s Sincerity,” Mr. Sun Simiao states: “In treating illnesses, a great physician must calm the mind and focus on healing, without desires or aspirations.”[17] Mental nurturing plays a crucial role in the treatment of painful conditions, perfectly aligning with Professor Liu Zhibin’s concept of “relaxation.” Before performing Tuina (a traditional Chinese massage technique), it is essential to fully communicate with the patient, carefully observe their mental state, alleviate mental stress, and relax tension, ensuring the patient’s mind is tranquil. During the procedure, the practitioner should also maintain a calm and focused mindset, concentrating on the Tuina techniques to achieve a harmonious integration of body and mind. During the operation, it is important to promptly inquire about the patient’s feelings to adjust the intensity of the techniques in a timely manner, ensuring the patient maintains a stable mindset throughout.

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## 4.2 Manipulation Techniques

#### 4.2.1 Liu’s Pinching Technique

The main techniques include the small thenar rolling method and the elbow rolling method.

The Xiaoyu Ji rolling technique involves placing the side of the palm’s Xiaoyu Ji (a specific area of the palm) firmly on the treatment site, while simultaneously moving the ulnar dorsal hand part back and forth over the treatment site. During the operation, the practitioner’s palm should be naturally relaxed, with fingers naturally bent, so that the dorsal hand aligns along the transverse arch of the palm, forming a curved

surface for rolling contact. The upper limbs and shoulders should remain relaxed, with force exerted from the shoulder and back to drive the upper limbs to make reciprocal swinging movements, while simultaneously moving the wrist joint to make large-amplitude flexion-extension and rotation, performing continuous rolling on the treatment site. The frequency of the technique is approximately 120 to 160 times per minute [19].

The elbow rolling technique is a variation of the rolling technique, which involves performing rolling operations with the elbow. Compared to the small thenar rolling technique, the elbow rolling technique is more suitable for treating large areas of muscle such as the waist, back, and hips. During the operation, the practitioner holds the forearm muscle slightly anterior to the elbow tip firmly against the patient's skin, with the forearm slightly raised and in a relaxed state. Similarly, the shoulder and back are used to generate force, which is transmitted through the upper arm to the practitioner's upper limbs, driving the elbow and forearm to perform reciprocal rolling. The frequency of the technique is approximately 60 to 80 times per minute [20]. During treatment, it is crucial to avoid hitting the patient's spine or joints with the elbow tip to avoid medical injury.

#### 4.2.2 Liu's One-Finger Zen Pushing and Pulling Technique

The Liu's One-Finger Zen Pushing and Pulling Technique involves positioning the ball of the thumb on the patient's painful point or positive trigger point, relaxing the wrist, and using the active swing of the forearm to drive the wrist and the applying thumb to perform a continuous and rhythmic pushing and pulling method on the patient's meridian tendon area. The frequency of the technique is approximately 120 to 160 times per minute [21]. When operating, several key points need to be noted: (1) The fingers, palm, wrist, and arm need to be kept relaxed, and the swinging pattern of One-Finger Zen Pushing should be used to drive the thumb. It is important not to be too stiff, as this can easily cause discomfort to the patient; (2) Pushing and pulling should be applied alternately in a rhythmic manner, ensuring that there is both pushing and pulling, combining the two techniques to fully exert their efficacy. The One-Finger Zen Pushing and Pulling Technique emphasizes examining the cause and seeking verification, reaching directly to the disease site, and achieving significant therapeutic effects.

#### 4.2.3 Liu's One-Finger Zen Twisting and Rubbing Technique

The Liu's One Finger Zen Chuanrou Technique takes "chuan" as its core concept and "rou" as its method of application [22]. The operation often involves the thumb being firmly placed on the treatment area, while the other four fingers are bent together. The thumb starts from the beginning

Swing the arm outwards to an external rotation position of about 15°, flex the interphalangeal joint of the thumb slightly, and then quickly rotate it towards

"Internal swinging, starting from the initial position and swinging inward to an internal swinging position of about 10°, the interphalangeal joint of the thumb straightens naturally. From external swinging to internal swinging, the entire

swinging range is about 30°, with a frequency of 220 to 260 times per minute. During the operation, stagnation, adjustment, and flickering movements must not occur, and it must be kept smooth and continuous [23]. When performing the technique, the practitioner is required to keep the upper limbs with shoulders lowered, elbows hanging, wrists suspended, and palms relaxed."

"Zhi Shi" refers to the "One Finger Zen" technique of continuous and uninterrupted manipulation, where the finger force penetrates into the muscles and tendons, continuously stimulating the painful area and treating the disease with gentleness.

## 5. Conclusion

Professor Liu Zhibin believes that there are various etiologies and pathogenesis of pain, but the fundamental reason lies in "pain due to blockage". The disease is often located in the meridians, muscles, and fascia. Based on years of clinical experience and in-depth research on tuina techniques, Professor Liu Zhibin has improved and innovated on traditional tuina techniques, creating Liu's characteristic tuina technique. In treatment, Liu's tuina technique is employed, always adhering to the four key points of "movement, relaxation, unblocking, and harmony". It fully utilizes the characteristics of "skillfulness, kneading, penetration, and effectiveness", cleverly applying various techniques to synergize the effects of relaxing fascia and activating meridians, promoting blood circulation and relieving pain, making the meridians and muscles unobstructed, relaxing muscles, unblocking meridians, improving local blood circulation, and ultimately achieving "no pain due to blockage". Liu's characteristic tuina treatment for pain has significant effects and is worthy of clinical promotion and use.

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