# Clinical Effect of Tuina Combined with Exercise Rehabilitation in the Treatment of Lumbar Muscle Strain

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**Abstract:Objective: To observe the effect of Tuina combined with exercise rehabilitation in the treatment of patients with lumbar muscle strain. Methods: Seventy patients with lumbar muscle strain in our hospital from February to December 2024 were selected as the research objects and randomly divided into two groups. One group received conventional treatment (35 cases, the control group), and the other group received Tuina combined with exercise rehabilitation treatment (35 cases, the observation group). The pain level and overall treatment effect of the two groups of patients were observed. Results: The pain level of the observation group after treatment was lower than that of the control group (P>0.05). The overall treatment effective rate of the observation group was higher than that of the control group (P>0.05). Conclusion: Tuina combined with exercise rehabilitation treatment for patients with lumbar muscle strain can reduce the pain symptoms of patients, improve the overall clinical treatment effect for these patients, and contribute to the recovery of patients.**

**Keywords: Tuina; Exercise Rehabilitation Treatment; Lumbar Muscle Strain**

## 1. Introduction

Lumbar muscle strain is one of the most common diseases in current clinical practice. It is mainly caused by excessive fatigue of the lumbar muscles. Long-term bending work or poor postures can cause the ligaments and muscles of patients to be stretched, resulting in an abnormal increase in internal pressure, obstruction of blood supply, and a large amount of lactic acid accumulation in the lumbar muscles, ultimately leading to symptoms of lumbar muscle strain [1-2]. The disease course of these patients is long, and pain is the main symptom, which directly affects the patients' daily physical activities. In traditional Chinese medicine theory, lumbar muscle strain belongs to the categories of "lumbago" and "bi-syndrome", mainly caused by qi stagnation and blood stasis [3-4]. During the treatment process, it is necessary to focus on promoting blood circulation and regulating the meridians. Both Tuina treatment and exercise rehabilitation treatment have a certain implementation rate in the treatment of patients with lumbar muscle strain. This study mainly observed the specific effect of Tuina combined with exercise rehabilitation treatment for patients with lumbar muscle strain.

## 2. Materials and Methods

### 2.1 General Information

Seventy patients with lumbar muscle strain in our hospital from February to December 2024 were selected as the research objects and randomly divided into two groups by random sampling. One group received conventional treatment (35 cases, the control group), and the other group received Tuina combined with exercise rehabilitation treatment (35 cases, the observation group). In the control group, there were 18 males and 17 females, with an age range of 35-62 years and an average age of (50.45 ± 1.75) years. The body mass index ranged from 21 to 24kg/$m^2$, with an average of (22.58 ± 0.98)kg/$m^2$. In the observation group, there were 19 males and 16 females, with an age range of 34-64 years and an average age of (50.65±1.89) years. The body mass index ranged from 21 to 24kg/$m^2$, with an average of (22.98 ± 1.36) kg/$m^2$. There was no significant difference in basic data between the two groups (P>0.05).

### 2.2 Methods

Patients in the control group received conventional acupuncture treatment. The selected acupoints included Guanyuan acupoint, Shenshu acupoint, and Dachangshu acupoint. For patients with more severe conditions,

 

Zusanli acupoint, Kunlun acupoint, Chengshan acupoint, and Yaoyangguan acupoint were added. The needles were inserted using the routine reinforcing-reducing method, and the needles were retained for 10 minutes. Moxa cones were ignited, and the treatment was carried out once a day.

Patients in the observation group received Tuina combined with exercise rehabilitation treatment. (1) Tuina treatment: The patient was guided to lie in the prone position. Tuina treatment was performed on the muscles on both sides of the patient's waist and the Shenshu acupoint. The techniques of pushing, pressing, and kneading were alternated. The intensity was reasonably controlled according to the actual situation of the patient to avoid discomfort. Each session lasted 15 minutes, and it was carried out twice a day. (2) Exercise rehabilitation treatment: First, the patient was guided to perform lumbar exercises. Through demonstrations by rehabilitation doctors or playing relevant video materials for the patient, the patient was guided to perform the "flying swallow" exercise and abdomen-lifting training. Each session lasted 10 minutes, and it was carried out 4 times a day. The patient was also guided to perform simulated cycling training to exercise the waist. Each exercise session lasted 20 minutes. The patient was guided to appropriately increase the training volume according to their own tolerance.

### 2.3 Observation Indicators

(1) Pain level assessment: The Numerical Rating Scale and the Faces Pain Scale were used to assess the pain level of patients before and after treatment. The patient was guided to answer the questions in the scale according to their actual situation. The score ranged from 0 to 10 points, and the higher the score, the more severe the pain symptoms. (2) Observation of the overall treatment effective rate: If the patient's low back pain symptoms and limited mobility symptoms disappeared after treatment, and the patient could carry out daily activities normally, it was considered markedly effective. If the patient's low back pain and limited mobility symptoms were relieved after treatment, it was considered effective. If the patient's various symptoms did not improve after treatment and the limited mobility symptoms became more severe, it was considered ineffective.

### 2.4 Statistical Methods

SPSS 25.0 was used to analyze various data in the study. Measurement data such as pain scores were expressed as mean ± standard deviation, and the t-test was used. Count data were expressed as percentages, and the chi-square test was used. $P<0.05$ indicated that the difference was statistically significant.

## 3. Result

### 3.1 Comparison of Pain Levels

The pain level of the observation group after treatment was lower than that of the control group ($P<0.05$), as shown in Table 1.

**Table 1. Comparison of Pain Levels between the Two Groups ( $\bar{x} \pm s$ , points)**

| Group | Number of Cases | Numerical Rating Scale | | Faces Pain Scale | |
|---|---|---|---|---|---|
| | | Before Treatment | After Treatment | Before Treatment | After Treatment |
| Observation Group | 35 | 4.85±0.85 | 1.68±038 | 4.15±0.42 | 1.99±0.15 |
| Control Group | 35 | 4.77±0.74 | 3.01±0.45 | 4.16±0.36 | 2.74±0.35 |
| $t$ | - | 0.685 | 16.428 | 0.758 | 23.045 |
| $p$ | - | 0.415 | 0.000 | 0.558 | 0.000 |

### 3.2 Comparison of the Overall Treatment Effective Rate

The overall treatment effective rate of the observation group was higher than that of the control group ($P<0.05$), as shown in Table 2.

**Table 2. Comparison of the Overall Treatment Effective Rate [n, (%)]**

| Group | Number of Cases | Markedly Effective | Effective | Ineffective | Effective Rate |
|---|---|---|---|---|---|
| Observation Group | 35 | 20 (57.14) | 15 (42.86) | 0 (0.00) | 35 (100.00) |
| Control Group | 35 | 15 (42.83) | 15 (42.86) | 5 (14.29) | 30 (85.71) |
| $\chi 2$ | - | - | - | - | 16.045 |
| p | - | - | - | - | 0.001 |

## 4. Discussion

Lumbar muscle strain is one of the most common diseases in current clinical practice. According to the current clinical admission situation, the number of patients with lumbar

 

muscle strain shows a significant increasing trend under the influence of various factors. The waist is closely related to the daily physical activities of the human body. The influence of this disease directly affects the daily physical activities of patients. According to clinical diagnosis, the lumbar muscles of patients with lumbar muscle strain are often accompanied by different degrees of tearing symptoms, and even small-vessel bleeding, resulting in pain and reduced lumbar load-bearing capacity in patients. In traditional Chinese medicine theory, lumbar muscle strain is mainly caused by overwork, poor qi and blood circulation, and lack of nourishment of the lumbar region. During acupuncture treatment, although stimulating the lumbar acupoints can relieve the pain symptoms of patients, it is not suitable for some patients (especially those with symptoms of needle-fainting). Tuina treatment is also a commonly used type of external treatment in traditional Chinese medicine. By performing Tuina on the patient's waist and related acupoints, it can promote local blood circulation, improve nerve damage and lumbar muscle spasm symptoms, and accelerate the improvement of the patient's damaged lumbar condition [5-6]. At the same time, it can regulate the lumbar muscle group, achieving the effects of relaxing the muscles and tendons, promoting blood circulation, and removing blood stasis. In addition, guiding the patient to perform exercise rehabilitation treatment and guiding the patient to perform lumbar exercises in a step-by-step manner can accelerate the recovery of the damaged lumbar fiber parts and promote lumbar blood circulation and improve lumbar function during the exercise rehabilitation process. In this study, patients in the observation group received Tuina and exercise rehabilitation treatment. After treatment, the pain symptoms were rapidly improved, and the overall treatment effect was higher than that of the control group receiving conventional acupuncture treatment. This indicates that under the action of this combined treatment plan, the pain symptoms of patients with lumbar muscle strain can be rapidly improved, and the overall clinical treatment effect for these patients can be enhanced.

In conclusion, during the treatment of patients with lumbar muscle strain, Tuina combined with exercise rehabilitation treatment can be carried out to help patients recover.

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