

# Study on the Therapeutic Effect of Acupuncture and Massage Combined with Chinese Medicine Fumigation on Lumbar Disc Herniation Based on Minimally Invasive Concept

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**Abstract:** Objective: to Observe the Clinical Effect of Traditional Chinese Medicine Fumigation Combined with Acupuncture and Massage on Lumbar Disc Herniation Based on the Concept of Minimally Invasive. Methods: 60 Patients with Lumbar Disc Herniation Were Selected as the Research Object. the Control Group Was Treated with Acupuncture and Moxibustion, While the Experimental Group Was Treated with Acupuncture and Massage Plus Chinese Medicine Fumigation. the Clinical Effects of the Experimental Group and the Control Group Were Compared and Analyzed. Results; after Treatment, There Were 2 Ineffective Patients, 8 Effective Patients, 9 Markedly Effective Patients and 11 Cured Patients in the Experimental Group. in the Control Group, There Were 5 Ineffective Patients, 7 Effective Patients, 8 Markedly Effective Patients and 10 Cured Patients. Yes, the Effective Rates of the Experimental Group and the Control Group Were 93.33% and 83.33%, Respectively, with Statistically Significant Difference ( $P < 0.05$ ). Conclusion: Traditional Chinese Medicine Fumigation Combined with Acupuncture and Massage Based on the Concept of Minimally Invasive Treatment of Lumbar Disc Herniation Has a Better Effect and is Worthy of Promotion and Application.

## 1. Introduction

In recent years, with the change of people's lifestyle, the pace of life is accelerated, the incidence of lumbar disc herniation is higher, which seriously reduces the quality of life of patients [1]. The concept of minimally invasive surgery is one of the most important contents in modern surgery. There have been different views on its connotation and extension in the surgical field. However, it is the controversy and discussion that have enriched the concept of minimally invasive surgery and improved its technology. Lumbar disc herniation, also known as lumbar disc annulus rupture nucleus pulposus herniation, is a disease characterized by lumbago, lower limb sciatic nerve radiation pain, lumbar dysfunction and other symptoms caused by lumbar disc rupture, nucleus pulposus protrusion, stimulation and compression of nerve roots under the action of external force. The main clinical manifestation is lumbago leading to lumbar dysfunction or lower limb pain. Lumbar disc herniation mainly occurs in young adults aged 20-55 years old, and male patients are more than female patients [2]. In order to study and analyze the clinical effect of acupuncture and massage combined with traditional Chinese medicine fumigation on lumbar disc herniation based on the concept of minimally invasive, 60 patients with lumbar disc herniation were selected as the research object, and now the following reports are reported.

## 2. Data and Methods

### 2.1 General Information

Sixty patients with lumbar disc herniation admitted to our hospital were randomly divided into

two groups with 30 cases in each group. All patients fully informed consent, and mental disorders and lactation women were excluded. In the control group, the age range is 22~65 years old, the average age is  $(43.21 \pm 3.11)$  years old, the weight range is 55~75kg, the average weight is  $(66.33 \pm 3.12)$ kg, the course of disease ranges from 1 month to 4 years, the average course of disease is  $(2.31 \pm 1.01)$  years, 15 patients are female and 18 patients are male. The age range of the experimental group was 24 to 60 years, the average age was  $(44.14 \pm 3.38)$  years, the weight range was 55 to 74 kg, the average weight was  $(64.20 \pm 2.12)$  kg, and the disease duration ranged from 1 month to 5 years. It was  $(3.33 \pm 1.12)$  years, 14 patients were female, and 16 were male. There was no significant difference in general information between the two groups ( $P > 0.05$ ).

## **2.2 Method**

### **2.2.1 Acupuncture and Moxibustion**

Take acupoints and clip ridges, loop jump, Mingmen, Chengfu, Zhibian, Yaoshu, Yanglingquan, jueju, Weizhong, Weiyang, etc, L3-4 is highlighted with Shenshu, Dachangshu, etc, L4-5 is highlighted with Fengshi, Xuanzhong, Yangfu, Zusanli, etc.; 15-sl is highlighted with Taixi, Kunlun, yinmen, etc. According to the syndrome differentiation and classification of traditional Chinese medicine, if it is qi stagnation and blood stasis type and comprehensive cold-dampness stagnation type, the method of calming, supplementing and relieving is adopted; if it is kidney deficiency type, the method of supplementing is adopted. The needle is retained for 30 min after the qi is obtained, and 10 days is a course of treatment. After the first course of treatment is completed, rest for 2 days, and then continue the next course of treatment according to this method, totaling 2 courses of treatment.

### **2.2.2 Massage**

The patient takes the prone position, and the doctor massages from top to bottom along both sides of the patient's lumbar spine to the lower limb for 5-10min by rolling and kneading method, then presses and massages for 5min along the patient's lumbar skeleton and sore parts of the lower limb with thumb or elbow tip, beats the lateral and posterior sides of the lower limb several times, and points Ashi to relieve pain. Take the patient's supine position, massage on both sides of the patient's lumbar spine for 5 min, extend the lumbosacral region, pat the posterior and lateral sides of the lower limb, and push and knead with the thumb from the lower limb to the three yang meridians of the foot for 5 min. Press and knead along the waist and back and down to the calf. Point pressing method: click Huatuo Jiaji acupoint and back bladder meridian acupoints, and click tenderness point, huantiao, chengfu, yinmen, fengshi, weizhong, jugu, chengshan, Kunlun and Yongquan acupoints in sequence; The method of plucking, plucking highlights tenderness points near vertebral body, circular jumping, supporting, ju Liao, Wei, etc.

### **2.2.3 Fumigation of Traditional Chinese Medicine**

HyZ-II type traditional Chinese medicine fumigation treatment machine is used for fumigation treatment, and the medicine composition is as follows: Shenjincao 30g, Danshen 20g, Astragalus 20g, Tougucao 15g, Danggui 15g, Chuanxiong 15g, sangjishi 15g, Weilingxian 15g, duhuo12g, Qiang huo12g, cinnamon 10g, liquorice 8g. The medicine is wrapped with gauze, soaked in a medicine tank in fumigation bed for 30min, boiled to maintain the temperature of the liquid medicine at 90-95°C, and the steam temperature at 45-50°C. The patient lies on his back with the waist exposed at the fumigation port. Fumigation is performed for 30 min, once used, and 10 days is one course of treatment, with 2 courses of continuous treatment.

## **2.3 Diagnostic Criteria**

Diagnostic criteria of western medicine: refer to diagnostic criteria of orthopaedic diseases to draw up adults under 60 and over 19 years old. Cure: No lumbago and leg pain after treatment, and straight leg elevation  $\geq 70$ , which can work and live normally; After treatment, the above-mentioned symptoms are obviously relieved, and the lumbar motion function is restored, which has

slight influence on work and life. The clinical symptoms of the patient completely disappear or basically disappear, the leg can be raised above 70 degrees, and normal work can be started. Improvement: the patient's clinical symptoms have been improved, and the leg can be raised to 50 ~ 70 degrees, which can be used for general work. Ineffective: After treatment, clinical symptoms such as numbness and pain of patients with lumbar disc herniation have not been improved or even worsened.

## 2.4 Inclusion Criteria

Patients who meet the above diagnostic criteria of traditional Chinese and western medicine. Those aged between 19 and 60 years old have a history of lumbar trauma, chronic strain or cold and dampness. Be conscious and answer the right questions. If the patient is diagnosed as lumbar disc herniation, CT examination can show the location and degree of intervertebral disc herniation and agree to cooperate with the observer.

## 2.5 Exclusion Criteria

(1) Those who are <18 years of age or > 60 years of age or older; (2) Lumbar softness and stone gonorrhea; (3) Lumbar disc herniation > 5mm, combined with spondylolisthesis or nucleus pulposus severely compressing the cauda equina; 4) pregnant or lactating women; (5) Patients with severe hypertension, cardiac and cerebrovascular diseases; (6) Patients with bone tumors, bone tuberculosis, and severe osteoporosis; (7) Acupuncture points or skin infections near the points.

## 3. Statistical Method

SPSS 19.0 statistical software was used to analyze the data, the measurement data was expressed by (x s), the t test was used, the counting data was expressed by percent (%), the  $\chi^2$  test was used, the difference was statistically significant ( $p < 0.05$ ).

## 4. Result

### 4.1 Comparison of Clinical Efficacy between Two Groups of Patients

After treatment, there were 2 ineffective patients, 7 effective patients, 8 markedly effective patients and 9 cured patients in the experimental group. According to the group, there were 5 invalid patients, 6 valid patients, 7 markedly effective patients and 7 cured patients. Yes, the effective rates of the experimental group and the control group were 96.0% and 80.0%, respectively, with statistically significant difference ( $P < 0.05$ ), as shown in table 1.

Table 1 Comparison of Clinical Efficacy between Experimental Group and Control Group

Group	Number of cases	Invalid	Effective	Take effect	Recovery	Effective rate [n (%)]
Control group	30	5	7	8	10	25(83.33)
Experimental group	30	2	8	9	11	28(93.33)
P value						<0.05

### 4.2 Comparison of Quality of Life between Two Groups of Patients

Table 2 Comparison of Quality of Life Scores between Experimental Group and Control Group [(X± s), Points]

Group	Social function	somatic function	Psychological function	Material life	Total score
Experimental group (n=30)	78.34±15.22	77.32±12.06	80.45±13.22	74.33±10.31	77.81±10.41
Control group (n=30)	63.21±12.39	66.25±10.38	70.22±12.41	60.34±10.27	60.36±9.21
T value	4.125	4.221	3.241	5.221	4.556

The quality of life score of the control group was ( $60.36 \pm 9.21$ ), which was significantly lower than the score of the experimental group ( $777.81 \pm 10.41$ ). The difference was statistically significant ( $P < 0.05$ ), as shown in Table 2.

## 5. Discussion

In clinical treatment, lumbar disc herniation is a common orthopaedic disease [3], with a high incidence rate, which is more common in young men. The main clinical symptom of lumbar disc herniation is lumbar leg pain, which seriously reduces the quality of life of patients and affects normal life. Lumbago disease is caused by internal injuries, exogenous diseases and traumatic injuries. The basic pathogenesis is arthralgia of the tendons and arteries and loss of nourishment of the lumbar region. Lower back pain due to internal injuries is more than kidney essence deficiency, which leads to loss of nourishment and warmth in the waist and lower extremities. From Chinese medicine, it should be classified into the categories of “lumbago and leg pain” and “arthralgia disease”. The underlying factors include congenital deficiency of body endowment, lack of support of waist and government, invasion of external pathogens such as wind cold and damp heat, resulting in qi deficiency and blood stasis, meridian obstruction and pain. Therefore, in the treatment of the disease, traditional Chinese medicine emphasizes the promotion of blood circulation and blood stasis, warming channels and activating collaterals, regulating qi and relieving pain.

Massage in traditional Chinese medicine can relieve the muscle spasm of patients, improve the adhesion of muscle fibers and other conditions, release the compressed nerves of patients, promote the normal circulation of blood around lumbar disc herniation, and relieve the pain of patients. There have been a lot of reports on the treatment of various arthralgia diseases by massage and acupuncture. It can promote local blood circulation by rolling, kneading, and punctuating, so as to reposition prominent joints, thus playing the therapeutic purpose. However, the latter can exert the effects of transporting blood gas, dredging channels and relieving pain through acupuncture at selected points. According to the introduction of modern pharmacology, acupuncture also has an improvement effect on local blood supply and inflammatory edema, which is very beneficial to the recovery of damaged nerves [4]. Modern medicine believes that [5], lumbar disc herniation is due to the protrusion of nucleus pulposus into intervertebral foramen or spinal canal, which stimulates or compresses nerve roots, causing local inflammatory adhesion and edema, resulting in pain and numbness of waist and legs. Acupuncture treatment can stimulate spinal nerves of patients. Acupuncture at Huantiao and Yanglingquan can dredge meridians, relieve pain of patients, improve local circulation, relieve edema, and help patients recover health as soon as possible [6].

The traditional Chinese medicine components fumigated by traditional Chinese medicine can directly reach the focus through the absorption of skin, and transmit the property of the medicine to channels and collaterals, bones and muscles and muscles, so as to allow the affected part to be completely absorbed, thereby ensuring the normal circulation of blood in the protrusion part of lumbar intervertebral disc and the surroundings [7]. In addition, massage manipulation can promote local lymph and blood circulation, accelerate the regression of local inflammatory edema, thus reducing the compression on nerve roots, adjusting the compliance of spine, and facilitating the recovery of damaged intervertebral discs. The traditional Chinese medicines used in the prescription, such as *lycopodium clavatum*, *speranskia tuberculata*, safflower and *gardenia jasminoides* Ellis, also have the effects of promoting blood circulation and removing blood stasis, removing dampness and swelling, clearing away heat and toxic materials, etc. under the action of heat, the medicine can be fully absorbed by skin to reach the focus, and has good effects on relieving local adhesion, promoting blood circulation and accelerating the transportation or degradation of inflammatory media. And repair the damaged tissue, effectively improve the nutritional status of the patient, reduce the compression of the nerve root of the patient, and relieve the pain symptoms of the patient.

Fumigation therapy with traditional Chinese medicine integrates drug therapy, hyperthermia and acupoint stimulation. It inherits and develops the traditional fumigation therapy with the effects of dispelling wind and cold, relaxing muscles and tendons, promoting blood circulation, regulating qi and relieving pain [8]. In addition, the lumbosacral region is fumigated with traditional Chinese

medicines for warming channels, dispelling cold, dredging collaterals, promoting blood circulation and removing blood stasis, and strengthening tendons and bones, so that the medicines can be absorbed through the skin to reach the focus, and the blood circulation at the prominent part can be accelerated. Hyperthermia warms blood vessels, promotes drug absorption, improves drug effect, directly reaches the disease site, has mild adverse reactions and convenient operation, and ensures clinical curative effect. In the clinical treatment, the clinical effect of treating lumbar intervertebral disc protrusion with traditional Chinese medicine fumigation alone is general, and the effect of acupuncture and massage is higher than that of traditional Chinese medicine fumigation. The clinical effect is obviously improved by adding the two methods.

## 6. Conclusion

To sum up, traditional Chinese medicine fumigation is generally effective in treating lumbar disc herniation. Acupuncture and massage based on minimally invasive concept is more effective than traditional Chinese medicine fumigation group in treating lumbar disc herniation, but the combination of the three therapies is obviously better than traditional Chinese medicine fumigation and acupuncture and massage. This method adopts multiple therapies of traditional Chinese medicine to treat lumbar disc herniation, which not only can enhance the curative effect, but also is safe and feasible, and is worthy of clinical promotion.

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