

Analysis of the Clinical Effects and Functions of Comprehensive Treatment of Lumbar Disc Herniation with Traditional Chinese Medicine and Acupuncture

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Abstract: *Objective:* To observe the clinical effects and functions of comprehensive treatment of lumbar disc herniation with traditional Chinese medicine and acupuncture. *Methods:* 110 patients with lumbar disc herniation in our hospital (January 1, 2025 to May 1, 2026) were selected and randomly divided into an observation group (55 cases) receiving comprehensive treatment with traditional Chinese medicine and acupuncture and a control group (55 cases) receiving conventional treatment. The patients' lumbar spine function, clinical symptoms, and waist mobility were observed. *Results:* After the intervention, compared with the control group, the lumbar spine function of the observation group was significantly improved, the clinical symptom score was lower, and the waist mobility was greater, $p < 0.05$. *Conclusion:* Comprehensive TCM acupuncture treatment for patients with lumbar disc herniation can improve lumbar function, reduce clinical symptoms, and increase waist mobility, which is worth learning from.

Keywords: Comprehensive treatment with traditional Chinese medicine and acupuncture; Lumbar disc herniation; Lumbar spine function

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1. Introduction

Lumbar disc herniation is a degenerative orthopedic disease with a high incidence rate. The occurrence of the disease is related to many factors, such as intervertebral disc degeneration, annulus fibrosus rupture, and nucleus pulposus herniation compressing nerve roots. For patients, various obvious symptoms will appear after the disease occurs, including not only low back pain, but also symptoms such as radiating pain and numbness in the lower limbs. When the disease is severe, the patient cannot perform waist activities, and it affects walking, which greatly reduces the ability of daily life^[1]. The disease has a long course and is characterized by repeated attacks. Under the influence of long-term pain and functional impairment, patients will suffer from other serious problems, such as muscle atrophy, joint stiffness, etc. In the treatment of diseases, conventional treatments can help relieve patients' symptoms, but they cannot fundamentally promote blood circulation and improve the loosening of adhesions^[2]. Traditional Chinese medicine believes that this disease is a syndrome of low back pain and paralysis, and the occurrence of the disease is related to many factors, such as

qi stagnation, blood stasis, and meridian paralysis. Therefore, effective traditional Chinese medicine treatment methods can be used to improve the condition. Comprehensive treatment with traditional Chinese medicine and acupuncture has attracted further attention. This treatment method pays more attention to the overall concept, combines multiple treatment methods, and exerts therapeutic effects through multiple channels, such as promoting blood circulation and removing blood stasis, dredging meridians, etc., which is conducive to improving the local qi and blood circulation of patients, reducing nerve compression, etc., which to a large extent makes up for the shortcomings of conventional treatment, and also has a more significant effect in improving the patient's lumbar spine function^[3]. This study selected 110 patients with lumbar disc herniation in our hospital to further observe the application effect of this treatment method.

2. Materials and methods

2.1. General information

110 patients with lumbar disc herniation in our hospital from January 1, 2025 to May 1, 2026 were selected and randomly divided into 2 groups. There were 55 patients in the control group, 30 males and 25 females, aged 26 to 62 (45.37 ± 4.38) years old, and 55 patients in the observation group, 29 males and 26 females, aged 25 to 64 (44.56 ± 4.52) years old. Comparison of general data, $p > 0.05$.

2.1.1. Inclusion criteria

All patients met the diagnostic criteria for lumbar disc herniation; no relevant treatment was performed in the past month^[4].

2.1.2. Exclusion criteria

Non-primary lesions; occurrence of cauda equina syndrome; coagulation dysfunction; severe osteoporosis.

2.2. Method

2.2.1. Control group

Carry out traction treatment, give oral analgesics, guide daily life, etc.

2.2.2. Observation group

- (1) Provide individualized acupuncture programs based on the actual conditions of the patients. Multiple groups of acupuncture points can be selected. The main acupuncture points on the lower limbs are Yanglingquan, Weizhong, Kunlun, and Xuanzhong. The main acupuncture points on the waist are Shenshu, Dachangshu, and Guanyuanshu. Before operating, make a reasonable selection of filiform needles of different lengths according to the specific puncture site. Before acupuncture, disinfect the acupoint skin, mainly using 75% medical alcohol cotton balls. During the operation, insert the needle quickly and directly, and control the depth well, usually 1 to 3 inches. During this period, pay attention to leaving the needle in for a certain period of time after the Qi is obtained, usually 20 minutes, once a day. During the treatment process, the improvement of the patient's symptoms should be observed, and the frequency should be reasonably adjusted according to the actual situation. The frequency can be gradually reduced, such as once every 2 days.
- (2) During the treatment process, further observation of the patient will be conducted, mainly on the blood circulation and venous filling conditions of the lower limbs. If the patient shows symptoms such as obvious filling of the lower limb veins, local swelling and pain, etc., bloodletting must be carried out immediately. During specific intervention, use a sterile three-edged needle and select acupuncture points with the functions of dredging the meridians, activating meridians, releasing heat and removing blood stasis, such as Dadun, Weizhong. After quick pricking, a small amount of blood stasis is drained. During this period, attention should be paid to maintaining aseptic operation and controlling the specific amount of bleeding.

- (3) Carry out traditional Chinese medicine hot compress on the patient. The drugs used include 20 g of *Aconite Radix*, 30 g of *Astragalus*, 30 g of *Achyranthes bidentata*, 30 g of *Rehmannia glutinosa*, 30 g of *Eucommia ulmoides*, 20 g of *Herba Dilonga*, 20 g of *Radix Paeony*, 20 g of Dilong, 10 g of Fangfeng, 20 g of *Dipsacus*, 15 g of Passepartout, 15 g of peach kernel, 15 g of safflower, 30 g of lorips and 10 g of whole scorpion. The above medicines are put into special cotton bags and sealed, then placed in a steamer and cooked for 30 to 40 minutes. Take out the cotton bag and wrap it with a thick towel, and place it on the painful parts for hot compress, such as the waist, buttocks, etc. During this period, pay attention to controlling the temperature. When the temperature of the medicine bag drops, you can uncover the towel and apply hot compress for about 30 minutes each time.

2.3. Observation indicators

- (1) Lumbar spine function

Oswestry Disability Index (ODI), the lower the score, the better; Japanese Orthopedic Association Lumbar Spine Outcomes Scoring Standard (JOA), the higher the score, the better;

- (2) Clinical symptom score

Clinical symptoms: 0 to 3 points, none (0 points), mild (1 point), moderate (2 points), severe (3 points), the lower the score, the better;

- (3) Lumbar mobility

Measured with a protractor.

2.4. Statistical methods

SPSS26.0 software; measurement data and counting data are represented by ($\bar{x} \pm s$), n , and %, respectively. Carry out a t -test; $p < 0.05$, the difference is statistically significant.

3. Results

3.1. Comparison of lumbar spine function

After treatment, the observation group was better than the control group, $p < 0.05$, **Table 1**.

Table 1. Lumbar spine function comparison (points)

Group	ODI score		JOA score	
	Before treatment	After treatment	Before treatment	After treatment
Control group (n = 55)	32.37 $\pm$ 3.84	21.25 $\pm$ 2.36	16.34 $\pm$ 2.46	20.73 $\pm$ 2.47
Observation group (n = 55)	32.49 $\pm$ 3.26	18.53 $\pm$ 2.35	16.32 $\pm$ 2.41	23.50 $\pm$ 2.66
t	0.177	6.057	0.043	5.659
p	0.860	0.000	0.966	0.000

3.2. Comparison of clinical symptoms

After treatment, the observation group was lower than the control group, $p < 0.05$ **Table 2**.

Table 2. Comparison of clinical symptoms (points)

Group	Radiating pain in lower limbs		Numbness in lower limbs		Weakness in lower limbs		Low back pain	
	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Control group (n = 55)	1.67 ± 0.43	0.63 ± 0.10	1.73 ± 0.48	0.48 ± 0.16	1.62 ± 0.34	0.66 ± 0.17	1.86 ± 0.30	0.72 ± 0.25
Observation group (n = 55)	1.62 ± 0.46	0.32 ± 0.11	1.78 ± 0.52	0.20 ± 0.09	1.60 ± 0.40	0.41 ± 0.13	1.85 ± 0.57	0.56 ± 0.13
<i>t</i>	0.589	15.465	0.523	11.312	0.283	8.663	0.115	4.211
<i>P</i>	0.557	0.000	0.601	0.000	0.778	0.000	0.909	0.000

3.3. Comparison of waist mobility

After treatment, the observation group was larger than the control group, $p < 0.05$, **Table 3**.

Table 3. Comparison of waist mobility (°)

Group	Reach		Bend forward		Left flexion		Right flexion	
	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Control group (n = 55)	13.63 ± 1.58	16.23 ± 2.66	49.52 ± 3.62	68.84 ± 2.63	13.62 ± 1.98	18.26 ± 2.50	17.47 ± 2.57	20.27 ± 2.73
Observation group (n = 55)	13.64 ± 1.95	23.73 ± 3.48	49.73 ± 3.48	79.63 ± 4.33	13.74 ± 1.55	22.62 ± 3.38	17.44 ± 2.83	24.49 ± 2.61
<i>t</i>	0.030	12.698	0.310	15.795	0.354	7.691	0.058	8.286
<i>p</i>	0.977	0.000	0.757	0.000	0.724	0.000	0.954	0.000

4. Discussions

In recent years, the incidence of lumbar disc herniation has been increasing, and the age at which the disease occurs is getting younger and younger. There are many factors that induce the disease, such as prolonged sitting, weight bearing, fatigue, etc. For patients, lesions will not only cause mechanical compression, but also cause local edema, aseptic inflammation, etc., and cause local blood circulation disorders^[5]. In the treatment of the disease, simple traction and drugs can reduce the pain symptoms of patients in the short term. However, the above treatments are not effective in improving muscle tension and the movement of Qi and blood in the meridians. They are also not conducive to improving the stability of the lumbar spine, which in turn leads to the recurrence of disease symptoms and long-term effects on the patient^[6]. Therefore, comprehensive therapy of traditional Chinese medicine can be adopted to give full play to the characteristics of taking into account both symptoms and signs to improve the curative effect. Comprehensive treatment with traditional Chinese medicine and acupuncture is an effective comprehensive treatment plan. The theory of meridians guides this treatment method. It can combine acupuncture and other treatment methods to provide overall intervention to the patient, so that the effects of different treatment methods can be fully exerted. Applying it to the treatment of patients with lumbar disc herniation, different treatment methods work synergistically, which is beneficial to the regulation of local qi and blood circulation, improves the overall physical condition, effectively relieves spasm, improves tissue metabolism, and is beneficial to the improvement of lumbar spine structure and function.

In the results of this study, after treatment, the lumbar function score of the observation group improved better than that of the control group ($p < 0.05$). The reason is that during acupuncture treatment, acupuncture points on the patient's

waist and legs can be accurately stimulated, acting directly on the diseased site, dredging the waist meridians, and reducing nerve root compression and muscle spasm. During the implementation of bloodletting therapy, it is conducive to the rapid improvement of local stasis in patients, thereby improving microcirculation and tissue edema, and is also conducive to reducing the stimulation of nerve formation by inflammation^[7]. During the external application of traditional Chinese medicine, it not only exerts its medicinal effect, but also effectively takes advantage of the warming effect to warm the meridians, strengthen muscles and bones, and improve the nutritional supply of the soft tissue around the lumbar spine of the patient. The above comprehensive treatment methods can help reduce the pressure on the intervertebral disc, further improve the stability of the lumbar spine, ultimately improve the function of the lumbar spine, and achieve significant recovery effects. After treatment, the clinical symptom score of the observation group was lower than that of the control group ($p < 0.05$). The reason is that stimulation of relevant specific acupoints during acupuncture is beneficial to regulating local nerve conduction, exerting an inhibitory effect on pain signal transmission, improving the patient's pain tolerance, and reducing low back pain and radiating pain in the lower limbs. During the bloodletting therapy, by observing the patient's condition and selecting acupuncture points such as Dadun to perform a small amount of bloodletting, it is conducive to directly clearing the meridian blockage, promoting local blood circulation, and reducing the patient's numbness and heaviness in the lower limbs due to blood stasis blockage^[8]. In the process of traditional Chinese medicine hot compress, the drugs used can activate blood circulation and remove blood stasis, dispel wind and dampness, dissipate cold and relieve pain, such as angelica root, astragalus, peach kernel, musk grass, eucommia, etc., and the use of hot compress method can directly exert the drug effect on the lesion through the penetration of warm heat, so that local aseptic inflammation can be eliminated, and it can also help relax the tense and spasmodic waist and lower limb muscles. Therefore, the above three methods can exert effects from multiple aspects, comprehensively improve patients' clinical symptoms and reduce discomfort. After treatment, the waist mobility of the observation group was greater than that of the control group ($p < 0.05$). During the implementation of acupuncture and bloodletting therapy, the above two methods are beneficial to lumbar soft tissue adhesions and contractures in a short period of time, avoid pain and contractures that affect the patient's lumbar movement, and are also conducive to the restoration of the normal shape of the soft tissues. During the hot compress process of traditional Chinese medicine, the stiff lumbar dorsal fascia is softened by the action of the medicine and the warming effect, which is beneficial to improving local metabolism and nutritional supply. Through the above aspects, it promotes tissue elasticity and is conducive to expanding the range of lumbar spine activities^[9]. During the comprehensive treatment of traditional Chinese medicine and acupuncture, an individualized treatment plan is adopted for the patient, which can reasonably adjust acupoints, treatment frequency, hot compress areas, etc., and actively intervene in the main factors affecting lumbar spine movement through the above aspects, thereby improving the mobility of the waist in all directions.

Therefore, the comprehensive treatment of lumbar disc herniation with traditional Chinese medicine and acupuncture can help improve patients' lumbar function, reduce clinical symptoms, and increase waist mobility, which has promotion value.

Disclosure statement

The author declares no conflict of interest.

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