Study On Rehabilitation Treatment of Patients with Lumbar Disc Herniation by Acupuncture and Massage

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Abstract. In clinical practice, lumbar disc herniation is also called lumbar disc herniation due to the rupture of the annulus fibrosus. The degenerative changes of the nucleus pulposus, annulus fibrosus, cartilage plate and other positions with different degrees and symptoms make it difficult to bear excessive external force, which leads to the increase of external load. For patients with lumbar disc herniation, acupuncture has the functions of dredging meridians, promoting blood circulation, and harmonizing qi and blood, and can improve local blood circulation through acupuncture. Relieve muscle spasm and dilate blood vessels, which can play a therapeutic or auxiliary role in the treatment of lumbar disc herniation. Acupuncture therapy is generally divided into general acupuncture, electroacupuncture, acupuncture plus moxibustion, acupuncture plus massage therapy, etc., which have good clinical effects. Therefore, this paper adopts the random control method to study and discuss the curative effect analysis of acupuncture, massage and rehabilitation nursing intervention on patients with lumbar disc herniation. There are many reports on the clinical observation of acupuncture in the treatment of lumbar protrusion. At the same time, supplemented by massage, it can open the channels of patients, regulate their qi and blood, promote blood circulation and remove blood stasis, relieve the muscle tension of patients, and at the same time act on protrusions to promote their movement or retraction, and improve the state of patients' back.

Keywords: Lumbar intervertebral disc process, Acupuncture and moxibustion and massage, Rehabilitation treatment.

1. Introduction

In clinical practice, lumbar disc herniation is also called lumbar disc herniation of fibrous ring and nucleus pulposus, which is a syndrome caused by degeneration of intervertebral disc, rupture of fibrous ring and nucleus pulposus herniation stimulating or compressing nerve root and cauda equina. It is a common disease and frequently-occurring disease that causes low back and leg pain. Due to the different degrees and symptoms of degenerative changes in the position of nucleus pulposus, annulus fibrosus, cartilage plate, etc., it is difficult to bear the excessive external force, thus the increase of external load [1]. Lumbar disc herniation is a common and frequently-occurring disease in orthopedics. It is a common cause of waist and leg pain. There are many clinical reports on the treatment of lumbar disc herniation with acupuncture and moxibustion. Although the methods used are different, there are also similarities. Lumbar disc herniation is clinically divided into four types: cold-damp type, blood stasis type, damp-heat type and kidney deficiency type. For the patients with lumbar disc herniation, acupuncture has the functions of dredging meridians, activating blood and transforming addiction, and harmonizing qi and blood. Through acupuncture, local blood circulation can be improved. Relieve muscle spasm, dilate blood vessels, and play a therapeutic or auxiliary role in the treatment of lumbar disc herniation. acupuncture and moxibustion therapy is generally divided into general acupuncture, electroacupuncture, acupuncture plus moxibustion, acupuncture and moxibustion combined with massage manipulation, and has good clinical efficacy [2]. In severe cases, the patient cannot take care of himself. This disease belongs to the category of "lumbago" in traditional Chinese medicine. The etiology and pathogenesis of the disease are relatively complex. Traditional Chinese medicine treats the disease, generally dividing it into four types: damp-heat type, cold-damp type, blood stasis type and kidney deficiency type, and treating it dialectically [3].

At present, lumbar disc herniation has seriously affected the daily life of patients, and acupuncture and moxibustion, massage and rehabilitation nursing interventions are often used in clinical treatment.

The clinical incidence rate of lumbar disc herniation is high. Affected by strain, aging, external intervention and other factors, the human fibrous ring breaks, leading to the protrusion of the nucleus pulposus, which compresses the nerve root after the protrusion, leading to low back pain and functional limitation [4-5]. After treatment, most of the patients with lumbar disc herniation suffered from repeated pain because the treatment could not be consolidated, and the patients could not adhere to rehabilitation training, ignoring the effect of rehabilitation training and massage on the disease [6]. Therefore, this paper adopts a randomized controlled study to explore the effect of acupuncture and moxibustion, massage and rehabilitation nursing intervention on patients with lumbar disc herniation.

2. Materials and methods

2.1. Therapeutic method

Randomly select 80 cases of patients with lumbar disc herniation in our hospital as the research object, and randomly divide them into two groups. One case is included in the acupuncture group, and the other case is the control group. There is no statistical difference in general data such as gender, age, course of disease and disease distribution between the two groups, which is comparable. The sex comparison of the two groups is shown in Table 1.

Table 1 Gender comparison of two groups of cases

Group	Number of cases	Man	Woman
Treatment group	40	28	12
Control group	40	26	14

Routine care for patients. Observation group: On the basis of the control group, the patients were treated with acupuncture, massage and rehabilitation nursing intervention, and the patients were treated with professional acupuncture and moxibustion at waist and leg points, with professional massage techniques. At the same time, the patients were given health education, rehabilitation nursing, rehabilitation training and retraining. If it is difficult to succeed in using conventional methods for severe diseases, traction elbow massage can be used; Under normal circumstances, we take the lumbar positioning and rocking method as the main reduction technique [7]. Massage treatment is carried out after needle removal, and the low back pain points are gently rubbed by finger rubbing. It acts between Shenshu and Dachangshu until the patient's skin feels hot.

Palm-pressing method uses finger-pressing method to exert force evenly, so that the patient can feel bloated and numb at the operation site, and other lumbar reduction methods can be selected according to the different conditions and the habits of the operator. However, it should be noted that the reduction manipulation should be carried out in a situation acceptable to patients, and it should be cautious when applying the reduction manipulation to patients in acute edema stage with severe pain [8]. In the treatment group, acupuncture and massage were performed on the basis of the above treatment, and the patients were given acupuncture and moxibustion treatment, and the acupoints were selected: Yaoyangguan, Ciluo, the affected side Dachangshu, Huantiao, Weizhong, Yinmen, Chengshan and Kunlun, etc., and the acupoints were determined according to the actual situation of the patients, among which Mingmen and Shenshu were added for patients with kidney-qi weakness, diaphragm and Yangling were added for patients with blood stasis and stagnation.

2.2. Observation indicators

Clinical efficacy evaluation: obvious effect: obvious effect: clinical symptoms, waist muscle spasm and other conditions basically disappeared, and the straight leg lift test result was negative; Effective: The clinical symptoms, waist muscle spasm and other conditions were significantly improved. The straight leg height test showed that the height of the patient could reach 60 °; Ineffective: if the above criteria are not met, the total effective rate of treatment is the sum of the apparent rate and the effective rate. In the early morning before treatment, blood was drawn for

routine tests such as blood routine, liver function, kidney function, and stool routine, urination routine, electrocardiogram, chest radiograph, etc., and adverse reactions during treatment were closely observed [9]. All clinical symptoms occurred during the illness completely disappeared, the leg was raised to normal height, and daily life and work were no longer affected by the disease; Remarkable effect: the symptoms of low back and leg pain and lower limb numbness of the patient have been significantly improved, the leg can be raised, and the daily life is not affected, but the work is slightly affected; Effective: The clinical symptoms of the patients showed a trend of improvement, the height of leg lifting increased, and daily life and work were slightly affected [10].

Compare the effective rate of treatment between the two groups: the pain in the waist and lower limbs of the patients disappeared, the straight leg elevation angle of the affected limb was more than 70 degrees, and it was feasible to walk more than 2 km; Effective: The pain in the waist and legs is significantly reduced, the straight leg is raised at an angle of 40-60 degrees, the symptoms are relieved, and the patient can walk but the distance cannot exceed 1 km, affecting the daily life of the patient; Ineffective: no obvious improvement or aggravation of symptoms. The improvement index can reflect the improvement of lumbar function of patients before and after treatment, and the clinical treatment effect can be understood through the improvement rate. We believe that the improvement rate can also correspond to the commonly used criteria for determining the curative effect. When the improvement rate is cure, if the improvement rate is greater than, it is obvious, if the improvement rate is effective, if it is less than, it is invalid.

3. Research results

3.1. Changes of pain questionnaire before and after treatment in two groups

Because of the particularity of acupuncture treatment, wood research is a non-blind comparative study, which may bring some bias. Therefore, a series of quality control measures have been taken in the treatment process, such as completely random allocation of patients, which avoids bias in selection. When the patient is completely relaxed and there is no resistance in his waist, the doctor suddenly makes a limited pull with relative force, and the joint reset sound can be heard, and the force stops. Massage therapy, once every two days, 5 times as a course of treatment. After the above-mentioned treatment, the patients were told not to be strenuous and tired during the treatment, not to sit on a low stool, soft sofa and sleep on a hard bed. After treatment, the S, A and VAS of the two groups were significantly improved compared with those before treatment. The improvement of S, A and VAS in the treatment group was more obvious than that in the control group, but there was no significant difference between the two groups.

Table 2 Changes of Pain Questionnaire before and after treatment

Group	Number of cases		S	A	VAS
Treatment group	40	Before treatment	12.18±3.58	5.12±2.14	68.12±20.14
		After treatment	4.12±0.86*	1.17±0.77*	6.12±1.88*
Control group	40	Before treatment	12.48±3.41	4.87±2.01	67.42±18.15
		After treatment	5.42±0.97*	2.13±0.77*	12.25±3.12*

After one month of treatment, the total effective rate, VAS score and ADL score of the observation group were better than those of the control group. The study pointed out that the improvement rate of ADL score of patients after acupuncture combined with massage was as high as 15.64% compared with that before treatment.

3.2. Comparison of average total score of all symptoms before and after treatment between the two groups

In the control group, rehabilitation training and treatment, basic training: the doctor guided the patient to carry out the swallow-like auxiliary training, 1-2 times/day, 10-20 times/time, and guided

the patient to carry out the backward walking training, based on not feeling tired, the exercise time was mainly before getting up and going to bed, and the treatment lasted for 1 month. Table 3 shows the comparison of the average total score of the two groups of patients before and after treatment.

Table 3 Comparison of average total points between the two groups before and after treatment

Group	Number of cases	Total points before treatment	Total points after treatment	Improvement rate
Treatment group	40	7.12±5.44	27.14±2.89*	84.25
Control group	40	7.87±5.12	15.62±4.12*	46.28

After one month of treatment, the patient recovered: the pain in the waist and legs disappeared, there was no tenderness and radiation pain near the vertebra, the waist moved freely, and the straight leg was raised more than 80 °; Remarkable effect: most of the low back and leg pain disappeared, there should be no tenderness and radiation pain near the spine, there should be no obvious discomfort in the waist movement, and the straight leg elevation test reached 70 °; Improvement: lumbocrural pain was relieved, paravertebral tenderness and radiation pain were alleviated, waist activity was improved, and straight leg elevation test reached more than 30 °; Invalid: no improvement in symptoms. The treatment improvement rate of 84.25% in the treatment group was significantly higher than that in the control group.

3.3. Comparison of therapeutic effects of three syndromes in treatment group

Release the lumbodorsal muscle, gluteus maximus muscle and piriformis muscle by hand, relieve the compression, and restore the position of lumbar facet joint through the lateral plate. Acupuncture and moxibustion combined with massage and lateral pulling method are organically combined to treat lumbar disc herniation, and their advantages complement each other. In acupuncture, doctors mainly choose the points of Yaoyangguan, Huantiao and Weizhong, among which Yaoyangguan belongs to the Du meridian, which is on the median line after the waist, with Shenshu and Weizhong, which can warm the channels and dispel cold, dredge the channels and activate the collaterals; Annular jump is the gallbladder meridian of foot shaoyang, which is the intersection point of sun meridian and foot shaoyang. Acupuncture can treat lumbago, lower limb paralysis or hemiplegia. The comparison of curative effects of three syndromes in the treatment group is shown in Table 4.

Table 4 Comparison of therapeutic effects of syndrome types in treatment groups

Group	Cure	Show effect	Effective	Be invalid
Blood stasis syndrome	8	8	2	0
Cold-dampness syndrome	9	5	6	0
Damp-heat syndrome	4	2	3	7

After one month's treatment, it can be found that dredging meridians, regulating qi and blood, relieving arthralgia and relieving pain, adjusting facet joint abnormalities and improving oppression are safe and effective treatment methods for lumbar disc herniation, which is worth promoting. It can be seen that acupuncture and massage combined with rehabilitation training is more effective in treating patients with lumbar disc herniation, which can effectively alleviate the pain of patients and has clinical application value.

4. Conclusions

With the increase of age, the function of people's lumbar intervertebral disc begins to decline. If the lumbar intervertebral disc is under the pressure of overload, the diseased nucleus pulposus enters the vertebral body, stimulating the surrounding nerve tissue, causing lumbar disc herniation. Patients often have different degrees of pain, even numbness and spasm in the waist and lower limbs. The

serious cases need to rest in bed, and the waist activity is limited. Acupuncture and moxibustion and moxibustion treatment of lumbar disc herniation is based on the understanding of traditional Chinese medicine on the pain in the waist and legs caused by lumbar disc herniation. Acupoints are selected along the meridians and treated according to syndrome differentiation, especially by adjusting the qi, blood, yin and yang of the two meridians that run through the waist and back, namely, the Du meridian and the foot, sun and bladder meridian. Although acupuncture and moxibustion therapy has achieved outstanding results in clinical practice, it still has many shortcomings as a medical science research, such as strong subjectivity in scientific research efficacy evaluation and lack of objective efficacy indicators as a basis; Most of the clinical observation reports on acupuncture and moxibustion treatment of lumbar protrusion, supplemented by massage treatment, can open the patient's muscles and channels, regulate their qi and blood, play the role of promoting blood circulation and removing blood stasis, alleviate the patient's muscle tension, and at the same time, act on the protrusion, promote its movement or retraction, and improve the patient's back and waist status. Compared with simple acupuncture and moxibustion and massage, its advantages mainly lie in good therapeutic effect, fewer complications, low recurrence rate, higher clinical application value and worth popularizing.

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