

Research Progress of Chinese Medicine in the Treatment of Lumbar Intervertebral Disc Herniation of Qi Stagnation and Blood Stasis Type

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Abstract

Lumbar disc herniation (LDH), which occurs in male patients aged 20-40 years old, has shown a trend of youthfulness, high incidence and high morbidity in recent years. It is classified as “lumbago” and “paralysis” in Chinese medicine, and is often associated with many pathological factors such as cold, heat, qi, and blood, which makes the TCM patterns of this disease complex and varied, and the clinical application of this disease requires diagnosis and treatment, with qi stagnation and blood stasis patterns being the most common. The treatment of this disease is generally divided into surgical treatment and non-surgical treatment, in which TCM practitioners mostly choose non-surgical treatment methods, such as oral Chinese medicine, acupuncture, massage, etc., which have achieved good efficacy. Therefore, this paper reviews the current status and progress of research on Chinese medicine treatment of lumbar intervertebral disc herniation with qi stagnation and blood stasis over the past 5 years, with the aim of providing clinicians with richer and more mature Chinese medicine treatment programs.

Keywords: lumbar disc herniation, qi stagnation and blood stasis type, traditional Chinese medicine, acupuncture

1. Introduction

Lumbar disc herniation (LDH) refers to a disease in which various parts of the lumbar intervertebral disc (nucleus pulposus, annulus fibrosus, and cartilage plate) have different degrees of degenerative lesions, and under the action of external force, the annulus fibrosus ruptures, and the nucleus pulposus protrudes from the rupture, squeezing or stimulating the local nerve roots and peripheral blood vessels,

and eventually leads to clinical symptoms such as pain, numbness, and soreness in the lower back and legs (Epstein N E & Hollingsworth R D, 2017; Wang Yan, Xiang Hongfei, Hai Yong, et al, 2021). In recent years, lumbar disc herniation has gradually shown a trend of younger age, with lumbar 4-5 intervertebral discs and lumbar 5-sacral 1 intervertebral discs being more common, and the incidence of lumbar intervertebral disc is generally higher in males

than in females (Deyo R A & Mirza S K, 2016; Ammar A, Alwadei A, Al H A, et al, 2020).

LDH in traditional Chinese medicine (TCM) belongs to the category of “low back pain” and “paralysis”, and its pathogenesis is a mixture of deficiency and reality, deficiency in the kidney and intestines, emptiness of the pulse, and the invasion of external evils, among which the qi stagnation and blood stasis type are the most common (Wu Li, Zhang Jing, Huang Zeng, et al, 2022; Jiang Jinting & Song Guijie, 2005). During the onset of lumbar intervertebral disc herniation, the deficiency of positive qi or the external attack of evil qi can lead to abnormal function of the viscera, which in turn will cause the loss of qi and blood circulation, and eventually lead to qi stagnation and blood stasis, and pain if it is not passed (Niu Chaoyang, Li Pengchao & Meng Qingliang, 2020). At present, for the treatment of LDH, Western medicine mostly uses oral non-steroidal analgesics and other complementary methods to surgery. However, long-term use of the drug will poison the liver and kidneys, affect the digestive system and nervous system, and have many side effects. Although surgery provides some relief of pain, there is a risk of recurrence and is costly (Delgado-Lopez P D, Rodriguez-Salazar A, Martin-Alonso J, et al, 2017). TCM treatments include but are not limited to oral Chinese medicine, acupuncture and massage, traction massage, etc., which are effective, safe and economical, and have been recognized by both doctors and patients. By reviewing the relevant literature, the author summarizes the traditional Chinese medicine methods for the treatment of lumbar intervertebral disc herniation with qi stagnation and blood stasis as follows.

2. Oral Administration of Chinese Medicine

According to the basic theory of traditional Chinese medicine, the relationship between qi and blood is close, qi is bloody, and qi is not good, blood stops and stasis, so the treatment of qi stagnation and blood stasis type LDH needs to be supplemented with drugs that invigorate qi and promote blood circulation on the basis of using a large number of drugs to promote blood stasis and qi, so as to achieve the purpose of qi and blood flow. Fuyuan Huoxue Tang (Yuan Li Dongyuan’s “Medical Invention”) is good at invigorating blood and removing blood stasis, dredging the liver and channels, and was first used to treat the hypochondria pain of fall injury and blood stasis, and was promoted on this

basis in later generations, and is now often used to treat qi stagnation and blood stasis type pain. Yang Guizun et al. (2023) conducted a clinical control experiment on patients with qi stagnation and blood stasis LDH using Fuyuan Huoxue Decoction (study group) and Waist Bitong Capsule (control group) respectively, and found that the effective rate of the study group was 93.54%, which was significantly higher than that of the control group, and by comparing the Visual Analogue Scale (VAS) scores before and after treatment in the same group, and the Japanese Orthopaedic Association evaluated the treatment Association, JOA score and the expression level of serum inflammatory factors in the patients, it was found that after treatment, the lumbar spine function and pain status of each group were improved to a certain extent, and the expression level of inflammatory factors in serum was significantly reduced. Gu Zhenhong et al. (2023) compared the addition and subtraction of Huoxue Zhuang Gu Decoction (Gu Crushed Bu, Eucommia, Dog Spine, Continuation, Salvia, Yanhusuo, Sichuan Oxknee, Panax notoginseng, Sanleng, Curcuma, Jixue Vine, Acorus calamus, and Licorice) with Western medicine, and found that after treatment, the VAS score, JOA score and expression levels of serum inflammatory factors (IL-1 β , TNF- α) in the treatment group were improved to a certain extent, and were better than those in the control group, and the total effective rate of treatment was 90.01%, far exceeding that of the control group. The results showed that the addition and subtraction of Huoxue Zhuang Bone Decoction could effectively reduce inflammation, improve pain symptoms, and improve the quality of life of patients. Pan Guodong et al. (2022) took oral celecoxib as the control, and the treatment group was given celecoxib combined with low back pain Huoxue decoction (Astragalus membranaceus, Duhuo, Mulberry parasitic, Fengfeng, Qinjiang, Chuanxiong, Sichuan hyssop, Eucommia, Angelica sinensis, Poria cocos, Salvia, Rehmannia rehmannia, Paeonia alba, Glycyrrhiza glabra, Asarum sinensis, and cinnamon), and it was found that the total effective rate of the treatment group was significantly higher than that of the control group, and the scores of the treatment group were better than those of the control group, and the results of the treatment group were better than those of the control group, and the results

were significantly improved.

To sum up, the three scholars focused on the pathogenesis, that is, qi stagnation and blood stasis itself, and considered how to promote qi and blood circulation, break blood stasis and relieve pain, while Tang Yinjuan et al. (2022) focused on the symptom of pain, believing that qi stagnation and blood stasis and pain if it is not passed, and selected ginseng scorpion powder prescription containing a large number of insect drugs (whole scorpion powder, centipede powder, snake powder, turtle insect powder, Panax notoginseng powder) for clinical observation, and found that this formula can effectively relieve the pain caused by qi stagnation and blood stasis LDH, and give full play to the effect of insect drugs through the meridians. In addition, Li Hailin (2021) added Dilong in the formula, and Yu Yichun et al. (2020) added whole scorpion and zombie silkworm to the formula, and on the basis of ensuring that the original formula invigorates qi and blood, dispels stasis and relieves pain, the meridians are passed through to relieve low back pain, so as to achieve the purpose of treating LDH.

The author believes that the key to the treatment of qi stagnation and blood stasis LDH is to reconcile qi and blood and restore the normal physiological functions of qi and blood. Qi deficiency and qi are not good, and stagnation can be eliminated by reusing qi tonic and qi medicines; If blood deficiency and blood are not good, blood stasis can be dissolved by reusing blood tonic and blood-invigorating drugs; In addition, qi is the handsomeness of blood, and if qi is not good, blood is not good, and qi medicine should be used while replenishing blood and invigorating blood. Therefore, in clinical application, scholars often take into account qi and blood to harmonize qi and blood to treat qi stagnation and blood stasis LDH.

3. Acupuncture for Laymen

Acupuncture is a great treasure of traditional medicine in China, which stimulates acupuncture points, dredges the meridians, and then strengthens the right and dispels evil, reconciles yin and yang, and finally achieves the purpose of curing diseases. The incidence of LDH is mostly concentrated in the lumbar 4-5 intervertebral disc and the lumbar 5-sacral 1 intervertebral disc, which is relatively fixed. Wang Juan et al. (2021) performed two courses

of warm acupuncture and moxibustion “Waist Three Injections” (Weizhong, Large Intestine Yu, and Kidney Yu) on patients with qi stagnation and blood stasis LDH, and observed the clinical efficacy, and found that after warm acupuncture treatment, the total effective rate of patients was as high as 94.44%, indicating that the effect of warm acupuncture and moxibustion “Waist Three Injections” in the treatment of Qi stagnation and blood stasis LDH was very good. Deng Yanhua et al. (2021) selected the unitary time (17:00-19:00) to perform pulse moxibustion according to the theory of “meridian flow injection”, and found that the observation group with the treatment of qi stagnation and blood stasis LDH was better than that of the control group.

In addition to general acupuncture and moxibustion, scholars have selected different acupuncture points and acupuncture methods according to their own clinical experience, and proposed a series of effective methods for the treatment of qi stagnation and blood stasis LDH. Gao Chuanjun et al. (2021) found that the VAS score and JOA score of each group were significantly improved after treatment compared with that before treatment, and the VAS score of the study group (Zu Lin Wai) was significantly higher than that of the control group, and the JOA score was significantly lower than that of the control group, and the total effective rate of the study group was 96%, much higher than that of the control group (82%). Theoretically, acupuncture can effectively treat LDH with qi stagnation and blood stasis, and the efficacy is better than that of general acupuncture. Guo Shasha (2023) compared the clinical efficacy of the three groups with wrist and ankle acupuncture, ordinary acupuncture and oral diclofenac sodium, and found that the VAS score, ODI score and yang deficiency scale score of the patients in the wrist and ankle acupuncture group were improved to varying degrees, and the effect was better than that of ordinary acupuncture and Western medicine, with a total effective rate of 93.55%, which was significantly higher than that of the other two groups, indicating that wrist and ankle acupuncture can effectively reduce low back pain with qi stagnation and blood stasis, and the efficacy is better than that of ordinary acupuncture and oral Western medicine. Hao Shuai et al. (2022) selected the Lingshu opening and closing acupuncture method (treatment group) to treat

qi stagnation and blood stasis LDH, and compared the clinical efficacy with the ordinary acupuncture method (control group), and found that compared with before treatment, the VAS score, JOA score and inflammatory factor expression level of the treatment group were significantly reduced after treatment, and the effect was significantly better than that of the control group, indicating that the Lingshu opening and closing acupuncture method can achieve the effect of treating qi stagnation and blood stasis LDH by reducing the inflammatory response.

Acupuncture can regulate yin and yang, strengthen the right and dispel evil, and externally reconcile the intestines, relax the tendons and activate the nerves, which is undoubtedly one of the best solutions for the treatment of LDH. Even though acupuncture cannot completely cure the series of accompanying symptoms caused by LDH, it can greatly relieve pain and improve the quality of life of patients to a certain extent.

4. Combination of Internal and External, Acupuncture and Medicine

With the further promotion of traditional Chinese medicine technology, some scholars have gradually realized that acupuncture can often play a complementary role in the treatment of various diseases, and such a comprehensive therapy with acupuncture and medicine is also applicable in the treatment of qi stagnation and blood stasis LDH, and has received extensive attention and promotion from clinicians. Hu Junxiang et al. (2023) used the empirical prescription of acupuncture combined with Professor Ye Hai's prescription for the treatment of qi stagnation and blood stasis LDH, and found that after treatment, the acupuncture combined with traditional Chinese medicine group and the traditional Chinese medicine group had significant improvements in the total effective rate, VAS score, JOA score and other aspects, and the combination of acupuncture and traditional Chinese medicine group was better than that of the traditional Chinese medicine group, and both were significantly better than the control group, indicating that the combination of acupuncture combined with traditional Chinese medicine and the administration of traditional Chinese medicine alone could reduce the symptoms of patients by inhibiting the inflammatory response, and the efficacy of acupuncture

combined with traditional Chinese medicine was the best. Deng Rongying et al. (2019) treated both groups of patients with three waist injections, and added body pain and blood stasis decoction to the patients in the observation group, and found that the scores of the patients in the observation group were improved to a certain extent, and the total effective rate of the observation group was significantly higher than that of the control group, and the adverse reaction rate was significantly lower than that of the control group, indicating that the body pain and blood stasis decoction combined with the waist three injections had better efficacy and fewer adverse reactions. Song Xiaoming et al. (2023) used electroacupuncture in the patients, and after treatment, it was found that the total effective rate and various scores of the observation group were better than those of the control group, and there was no significant difference in the incidence of adverse reactions between the two groups, indicating that the efficacy of electroacupuncture combined with body pain and blood stasis LDH patients was better.

In addition, some scholars have their own unique understanding of acupuncture and formulation, and have popularized their use in clinical practice. Cheng Ming et al. (2021) used the chiropractic acupuncture method to take acupoints, pulse points, chiropractic points, waist yang guan and mingmen, and added lumbar paralysis and stasis painkiller decoction to treat qi stagnation and blood stasis LDH, and found that the method had significant efficacy, which could effectively reduce inflammation, improve various scores, relieve patients' pain, improve quality of life, and have fewer adverse reactions. Deng Hui et al. (2022) used the Canggui acupuncture method combined with electroacupuncture treatment, and found that the total effective rate of the observation group (oral xiaosuihuahe Decoction combined with Canggui Acupuncture Treatment) was much higher than that of the control group (oral Jiawei Xiaomeihua Nuclear Decoction), and the expression levels of VAS score, ODI index, TCM syndrome score, and inflammatory factors (TNF- α , hs-CRP, PCT) were significantly lower than those in the control group, indicating that the combined with Canggui acupuncture treatment for patients with qi stagnation and blood stasis LDH was very effective. The mechanism may be related to the suppressed

inflammatory response.

In recent years, the combination of acupuncture and medicine has been widely recognized by both doctors and patients. The author believes that the advantages of this model are mainly reflected in the following three aspects: first, for patients, the efficacy of comprehensive TCM treatment is worthy of affirmation, and the adverse reactions brought by treatment are much less than those of taking painkillers, and the risk is much lower than that of surgical treatment; Second, for medical workers, there are fewer doctor-patient disputes caused by comprehensive TCM treatment, and the treatment results brought by this series of treatment methods are good, generally less prone to side effects and adverse reactions, and even if there is no cure, it will greatly alleviate patients' symptoms and improve their quality of life. Third, for TCM practitioners, use means promotion, and promotion means further development, and the widespread use of this model in clinical practice will eventually bring about the vigorous development of TCM.

5. Other Therapies

In addition to the above-mentioned common treatment methods, some scholars have chosen manual massage (Qi Qingxue, Liu Hua, Zhen Pengchao, et al, 2020), phlebotomy (Xue Yaoyu, 2020), small needle knife treatment (Guo Wenjiang, 2021), scraping (Yu Yuli, Dai Chunmei, Hu Ningning, et al, 2020) and other methods to treat qi stagnation and blood stasis LDH, all of which have achieved good results.

6. Summary and Outlook

To sum up, there are many methods of traditional Chinese medicine for the treatment of qi stagnation and blood stasis LDH, mainly focusing on the single or combined use of traditional Chinese medicine compound and acupuncture, and its clinical efficacy is unsatisfactory. However, there are also some problems that need to be solved urgently: First, the diagnostic criteria for patients are not completely uniform. According to the literature, these scholars are generally more uniform in the diagnostic criteria of traditional Chinese medicine, the difference is that some scholars have added the diagnostic criteria of Western medicine, while some scholars have not, and there is also the problem of version change of official publications; Secondly, there is a lack of unified quantification of efficacy evaluation. For

example, in the above literature, some scholars have evaluated the TCM pattern score, while some scholars have not evaluated it, and a relatively unified evaluation standard has not been formed for the treatment results. Finally, the mechanism of action of TCM treatment is not well understood. In the literature involved in this paper, most of the literature has not been exposed to the mechanism discussion, and a few literatures mention some inflammatory indicators, but they cannot prove that the treatment of qi stagnation and blood stasis LDH by traditional Chinese medicine is related to inflammatory response, and it can only be one-sidedly believed that traditional Chinese medicine can reduce the expression level of inflammatory indicators in the serum of patients with qi stagnation and blood stasis LDH. In order to solve the above problems and better promote traditional Chinese medicine, in the future work, researchers need to establish a scientific, comprehensive and accurate set of traditional Chinese and Western medicine diagnosis and treatment standards, keep pace with the times, update them in a timely manner, and actively explore the mechanism of action of traditional Chinese medicine in the treatment of qi stagnation and blood stasis LDH, so as to provide more perfect diagnosis and treatment standards and theoretical basis for the treatment of qi stagnation and blood stasis LDH in the future.

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