

Research Progress of External Therapy of Traditional Chinese Medicine in Lumbar Disc Herniation Pain

Yuhai Yang¹, You Wu², Jinhui Pan³, Yufang Yang^{4*}

¹Graduate School, Youjiang Medical University for Nationalities, Baise, China

²Graduate School, Baotou Medical College, Inner Mongolia University of Science & Technology, Baotou, China

³Department of Pediatrics, Fangchenggang Hospital of Traditional Chinese Medicine, Fangchenggang, China

⁴Department of Cardiovascular Medicine, Liuzhou Traditional Chinese Medical Hospital, Liuzhou, China

Email: *2894189537@qq.com

How to cite this paper: Yang, Y.H., Wu, Y., Pan, J.H. and Yang, Y.F. (2025) Research Progress of External Therapy of Traditional Chinese Medicine in Lumbar Disc Herniation Pain. *Chinese Medicine*, 16, 9-17. <https://doi.org/10.4236/cm.2025.162002>

Received: June 10, 2025

Accepted: June 27, 2025

Published: June 30, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Lumbar disc herniation is a clinically common spinal disorder, often manifested as pain in the lumbar and leg regions, affecting patients' quality of life. This study summarizes external treatment methods in traditional Chinese medicine for lumbar disc herniation-related pain and evaluates their efficacy, aiming to provide a theoretical basis for the treatment of such pain and improve patient comfort.

Keywords

Lumbar Disc Herniation, Pain, External Therapy of Traditional Chinese Medicine

1. Introduction

Lumbar disc herniation (LDH) refers to a syndrome characterized primarily by lumbago and leg pain, caused by stimulation or compression of the sinuvertebral nerve and nerve roots due to partial or complete rupture of the annulus fibrosus after degenerative changes in the lumbar intervertebral disc, with the nucleus pulposus protruding outward either alone or together with the annulus fibrosus and cartilaginous endplate [1]. The resulting pain is termed lumbar disc herniation-induced pain. Among diagnoses for low back pain, LDH is the most common [2]. Poor habits such as prolonged sitting, extended periods of driving, and smoking

have led to an increasing incidence of LDH, with a trend toward younger onset [3]. As society progresses and demands for quality of life rise, the pain caused by LDH has garnered increasing public attention. Currently, there are numerous treatment methods for lumbar disc herniation-induced pain. Some studies indicate no significant difference in efficacy between surgical and non-surgical treatments for LDH [4]. As a conservative treatment, traditional Chinese external therapies are widely applied in LDH management. These therapies include cupping, acupuncture, massage, herbal hot compress, and gua sha, which effectively alleviate lumbar disc herniation-induced pain [5]. Additionally, they are cost-effective, reducing patients' financial burden and life stress while avoiding surgical risks and associated complications. The treatment methods are simple, convenient, and have minimal side effects, making them easily acceptable to patients. This review summarizes the application of traditional Chinese external therapies in treating lumbar disc herniation-induced pain, providing a theoretical basis for improving patient outcomes.

2. Application of External Therapies in Traditional Chinese Medicine for Lumbar Disc Herniation-Related Pain

2.1. Acupuncture Therapy Demonstrates Remarkable Efficacy in Treating Lumbar Disc Herniation-Induced Pain

Acupuncture at specific points can stimulate pain-sensitive neurons, triggering their discharge response and thereby inhibiting the occurrence of lumbar discogenic pain in patients [6]. Linghu Yongyi [7] conducted a randomized controlled study on 68 patients with lumbar disc herniation-induced pain. After four consecutive weeks of treatment in both the study and control groups, the results demonstrated that acupuncture therapy effectively alleviated pain in these patients. For patients undergoing traditional Chinese external therapies, a single treatment modality is often insufficient to achieve optimal therapeutic outcomes. Therefore, studies have indicated that when patients lack surgical indications, a comprehensive treatment approach combining acupuncture with tuina massage and oral Chinese herbal medicine yields significant analgesic effects [8]. Acupuncture therapy has shown remarkable efficacy in treating lumbar disc herniation-induced pain. However, the sample size in each study group was relatively small, and the patient population was sourced from a single institution. Future research should involve multi-center collaborations to conduct large-sample, high-quality, fully randomized controlled trials to further validate the efficacy of acupuncture therapy for lumbar disc herniation-induced pain.

2.2. Massage Therapy Is Widely Used in the Treatment of Lumbar Disc Herniation Pain

Tuina therapy in the treatment of lumbar disc herniation-related pain involves massage techniques to activate meridians, promote blood circulation, and achieve pain relief. In exploring the efficacy of Tuina manipulation therapy [9], 120 pa-

tients with lumbar disc herniation were divided into groups based on different treatment methods. Statistical inference showed that the pain scores of the Tuina treatment group were lower than those of the Western medication group, indicating that Tuina therapy can alleviate symptoms of lumbar disc herniation-related pain. A 2023 study by Tang Jiejie [10] demonstrated that Tuina effectively reduces inflammatory responses in the lumbar region of LDH patients and improves their pain symptoms, which aligns with the findings of Li Pengfei *et al.* [11] regarding the clinical efficacy of Tuina manipulation therapy for LDH. Whether the treatment duration exceeded three weeks or was less than or equal to three weeks, Tuina therapy significantly improved patients' lumbar disc herniation-related pain symptoms. Research has shown that while traditional Chinese Tuina therapy can alleviate low back pain symptoms in lumbar disc herniation patients, it does not fundamentally alter the morphology of the lumbar spinal canal or intervertebral discs [12]. Although Tuina therapy is widely applied and demonstrates notable efficacy, its indications and contraindications should be carefully considered to avoid indiscriminate use. Additionally, Zhou Xin *et al.* [13] found that Tai Chi exercise combined with Tuina can effectively reduce pain, offering a promising treatment and preventive measure for elderly LDH patients. Standalone Tuina therapy provides patients with a comfortable treatment experience and effectively relieves low back pain symptoms. Further exploration into the combined use of Tuina therapy with other treatment methods may bring greater benefits to patients suffering from lumbar disc herniation-related pain.

2.3. Cupping Therapy Demonstrates Remarkable Efficacy in Treating Lumbar Disc Herniation-Induced Pain

A study on the combined use of moxibustion and cupping therapy for LDH patients indicated [14] that cupping therapy alone can also improve short-term lumbar disc herniation-related pain. With the application of cupping for low back pain, combined cupping therapies have also been developed. Research has shown that after using bloodletting cupping at the Weizhong (BL40) acupoint combined with acupuncture therapy, LDH patients experienced reduced pain symptoms [15]. A 2023 meta-analysis by Xie Zhenyao pointed out that bloodletting cupping has significant efficacy in alleviating lumbar disc herniation-related pain in patients [16]. Studies have also demonstrated that modified Shaoyao Gancuo Decoction combined with bloodletting cupping therapy can effectively relieve lumbar disc herniation-related pain in LDH patients [17]. Combined cupping therapies have been widely used in treating lumbar disc herniation-related pain. To more intuitively demonstrate the efficacy of cupping in managing this condition, future studies could increase sample sizes and investigate patients across different age groups with lumbar disc herniation-related pain. Additionally, further development of combined cupping treatment methods should continue to provide LDH patients with more effective pain relief op-

tions.

2.4. The Adjunctive Role of External Application of Traditional Chinese Medicine in Treating Lumbar Disc Herniation Pain

External application of Chinese herbal medicine is one of the distinctive features of traditional Chinese medicine treatment. Through syndrome differentiation and treatment, an appropriate herbal formula is selected and applied topically to the affected area of the patient. The active molecules of the herbs penetrate the skin and reach the painful site in LDH patients, achieving the effects of reducing swelling and alleviating pain [18]. Studies [19] have shown that external application of Chinese herbal medicine has definite efficacy in treating lumbar disc herniation. Feng Zhen [20] conducted a randomized controlled trial involving 90 patients with lumbar disc herniation-related pain. The results demonstrated that the study group receiving TCM massage combined with external herbal application showed better outcomes in reducing low back and leg pain compared to the conventional Western medication control group. A 2018 study by Huang Qin [21] indicated that massage combined with external herbal application significantly alleviated low back and leg pain in LDH patients, which aligns with the findings of Chen Dongjun's [22] research. External herbal application therapy plays an auxiliary role in treating LDH, effectively improving lower limb pain in patients [23]. This approach has achieved favorable therapeutic effects in the adjunctive treatment of lumbar disc herniation-related pain and can be widely combined with other treatments, thereby enhancing the overall therapeutic efficacy for this condition.

2.5. Exploration of the Therapeutic Efficacy of Gua Sha Therapy in Treating Lumbar Disc Herniation Pain

Gua sha therapy is quite common in daily life, but its efficacy in alleviating pain among patients with lumbar disc herniation (LDH) remains to be further explored. Gao Yujie *et al.* [24], in their systematic review and GRADE evidence quality assessment on the effectiveness of gua sha therapy in improving pain symptoms of LDH, demonstrated that gua sha yields favorable outcomes in treating LDH-related pain, which aligns with the findings of Tan Ruyi *et al.* [25]. Moreover, the study also noted that gua sha therapy exhibits more significant efficacy compared to acupoint application, herbal hot compress therapy, and auricular plaster therapy in managing LDH pain. Additionally, multiple scholars [26] [27] have highlighted that timed gua sha therapy can effectively alleviate pain in LDH patients with qi stagnation and blood stasis syndrome. In exploring the mechanisms of gua sha therapy for LDH pain, Yang Min *et al.* [28] revealed that gua sha helps suppress serum helper T (Th) 1/Th2 cell immunity triggered by autologous nucleus pulposus in LDH model rats, restoring Th1/Th2 immune balance and reducing LDH pain. The application of gua sha therapy in LDH pain management shows a clear trend [29]. However, previous studies on the types, mechanisms,

and efficacy of gua sha therapy for LDH patients still require further rigorous investigation. More randomized controlled trials (RCTs) and fundamental experiments are needed in the future to advance the scientific understanding of gua sha therapy in treating LDH-related pain.

3. Recommendations for the Application of External TCM Therapies in Treating Lumbar Disc Herniation Pain

3.1. Establishing a Specialized Traditional Chinese Medicine Nursing Outpatient Clinic for Lumbar Disc Herniation-Related Pain

The efficacy of external TCM therapies in LDH has been increasingly validated. Wang Cong'an *et al.* [30] found that lumbar disc herniation patients who underwent 12 months of TCM acupuncture and massage therapy showed reabsorption of lumbar disc prolapse on MRI. While external TCM treatments demonstrate remarkable effectiveness, the incomplete nationwide implementation of specialized TCM nursing clinics has led to difficulties in accessing care for patients. Given their relatively low cost, ease of operation, and high patient acceptance, external TCM therapies could be extensively promoted in township health centers through specialized TCM nursing clinics, enabling more lumbar disc herniation pain patients to benefit from these treatments. Guan Yuxiang *et al.* [31] have also made relevant recommendations regarding this approach.

3.2. Constructing a Continuous Nursing Supervision Platform for Patients with Lumbar Disc Herniation Pain Based on Traditional Chinese Medicine External Therapies

Lumbar disc herniation pain can be treated with traditional Chinese medicine (TCM) external therapy, but it is prone to recurrence due to poor living habits and other factors. Therefore, patients should develop the habit of maintaining rehabilitation and exercise after treatment [32]. Continuous care is widely used in chronic diseases such as diabetes and hypertension, bringing many conveniences to patients. However, it has not been widely implemented for TCM external therapy for lumbar disc herniation pain. Fu Shaoli *et al.* [33] randomly divided 120 patients with lumbar disc herniation (LDH) who received non-surgical treatment into two groups. The intervention group received continuous care services, and after 12 weeks, the medical compliance of the intervention group was significantly higher than that of the control group, and the patients' poor living habits were significantly improved. This finding is consistent with the results of Wei Juan *et al.* [34]. The widespread use of WeChat facilitates rapid information transmission. Zhuang Jinxiu [35] *et al.* used the WeChat platform to disseminate health knowledge to postoperative LDH patients, leading to better understanding of disease health knowledge, improved lumbar function, and reduced pain. For LDH patients who have undergone conservative treatment and are discharged, providing continuous care at home leads to better medical compliance and reduced pain,

which helps reduce the recurrence rate of lumbar disc herniation pain [36]. Patients with lumbar disc herniation pain can effectively prevent symptoms by exercising, losing weight, or changing prolonged sitting or standing habits [1]. However, after patients recover and are discharged, they often overlook the possibility of the disease recurring. Therefore, through WeChat public account posts, patients can learn about LDH on their own. By understanding the potential recurrence of pain after lumbar disc herniation, patients can consciously reduce the occurrence of pain. Patients, doctors, and nurses form a WeChat group chat, where they monitor each other's exercise progress and provide guidance on difficult questions. When the condition worsens, the doctor and nurse remind patients to seek medical attention promptly. This approach not only deepens patients' understanding of disease-related knowledge but also enhances their awareness of actively preventing pain, reducing the incidence of lower back pain. In a relaxed and supportive environment, patients can better manage and prevent lumbar disc herniation pain.

4. Conclusion

LDH is a condition that often causes pain. Traditional Chinese external therapies such as acupuncture, massage, and cupping have relatively effective preventive and curative effects, but due to the characteristics of LDH, it is prone to recurrence. Although traditional Chinese external therapies are widely used in the treatment of patients with lumbar disc herniation pain, these patients have low awareness and compliance with preventive exercises, and there is limited research on the recurrence rate of pain after traditional Chinese external therapy. In the future, further exploration can be conducted on the mechanisms and efficacy of acupuncture, massage, cupping, scraping, and external application of Chinese herbal medicine in treating lumbar disc herniation pain. At the same time, to enhance patients' proactive learning of knowledge on preventing pain recurrence, reduce the pain rate, and improve patients' quality of life, targeted continuity of care can be provided for lumbar disc herniation pain patients treated with traditional Chinese external therapies.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] (2020) Chinese Expert Consensus on Diagnosis and Treatment of Lumbar Disc Herniation. *Chinese Journal of Pain Medicine*, **26**, 2-6.
- [2] Al Qaraghli, M.I. and De Jesus, O. (2023) Lumbar Disc Herniation. StatPearls.
- [3] Zhou, M.W., Yue, S.W., He, C.Q., *et al.* (2017) Chinese Expert Consensus on Rehabilitation Treatment of Lumbar Disc Herniation. *Chinese Journal of Rehabilitation Medicine*, **32**, 129-135.
- [4] Lu, Y.L., Zhang, X.S. and Fan, X.H. (2012) Problems and Countermeasures in the

- Diagnosis and Treatment of Lumbar Disc Herniation. *Chinese Journal of Orthopaedic Surgery*, **20**, 2011-2013.
- [5] Cao, B., Zhou, X., Zhang, S.P., *et al.* (2022) Effect of Traditional Chinese Manual Therapy on Alleviating Pain and Dysfunction of Lumbar Disc Herniation: A Randomized Controlled Pilot Study. *American Journal of Translational Research*, **14**, 6941-6952.
- [6] Wang, Y. (2019) Clinical Observation of Acupuncture in Treating Lumbar Disc Herniation. *Journal of Practical Traditional Chinese Medicine*, **35**, 874-875.
- [7] Linghu, Y.Y. (2021) Efficacy of Acupuncture in Treating Pain Caused by Lumbar Disc Herniation. *Famous Doctors*, No. 23, 28-29.
- [8] Yao, J.J., Shang, Q.Q., Wang, Y.F., *et al.* (2023) Efficacy Evaluation of Comprehensive Traditional Chinese Medicine Therapy for Lumbar Disc Herniation with Qi Stagnation and Blood Stasis Based on Wearable Inertial Sensors. *Chinese General Practice*, **26**, 3450-3455.
- [9] Li, D.B., Jiang, M.J., Ding, H.L. and Cui, S.S. (2021) Clinical Efficacy of Traditional Chinese Bone-Setting Massage Techniques in Treating Lumbar Disc Herniation. *Massage and Rehabilitation Medicine*, **12**, 12-14.
- [10] Tang, J.J., Chen, N.Z., Huang, B., *et al.* (2020) Efficacy of Acupuncture Combined with Bone-Setting Massage in Treating Simple Lumbar Disc Herniation and Its Impact on Pain and Lower Limb Sensory Dysfunction. *Chinese Archives of Traditional Chinese Medicine*, **38**, 244-247.
- [11] Li, P.F., Zhang, W.Q., Wei, J.J., Li, J.Z., Lai, F.C., Li, W.H., Wang, Q. and Li, J.B. (2019) Meta-Analysis of the Clinical Efficacy of Massage Techniques in Treating Lumbar Disc Herniation. *Journal of Clinical Acupuncture and Moxibustion*, **35**, 51-56.
- [12] Lu, Q.G., Zhao, Q.Y. and Lin, G. (2020) Therapeutic Effect of Massage Techniques on Lumbar Disc Herniation and Its Impact on Lumbar Spinal Canal and Disc Morphology. *Clinical Education of General Practice*, **18**, 807-810.
- [13] Zhou, X., Kong, L., Ren, J., Song, P., Wu, Z., He, T., *et al.* (2022) Effect of Traditional Chinese Exercise Combined with Massage on Pain and Disability in Patients with Lumbar Disc Herniation: A Multi-Center, Randomized, Controlled, Assessor-Blinded Clinical Trial. *Frontiers in Neurology*, **13**, Article 952346. <https://doi.org/10.3389/fneur.2022.952346>
- [14] Cai, C., Gong, Y., Dong, D., Xue, J., Zheng, X., Zhong, Z., *et al.* (2018) Combined Therapies of Modified Taiyi Miraculous Moxa Roll and Cupping for Patients with Lumbar Intervertebral Disc Herniation. *Evidence-Based Complementary and Alternative Medicine*, **2018**, Article ID: 6754730. <https://doi.org/10.1155/2018/6754730>
- [15] Qiu, X. (2019) Efficacy Observation of Bloodletting Cupping at Weizhong Point Combined with Acupuncture in Treating Lumbar Disc Herniation. Master's Thesis, Guangzhou University of Chinese Medicine.
- [16] Xie, Z.Y., Tang, R., Zhang, J.J., *et al.* (2021) Meta-Analysis of the Intervention Effect of Bloodletting Cupping on Pain and Lumbar Function in Patients with Lumbar Disc Herniation. *Contemporary Nurses (First Issue)*, **28**, 1-5.
- [17] Zhen, H.J., Hao, J.X., Zhen, W.Z., Zhu, B.Q., Li, K.S. and Li, Z. (2018) Efficacy Evaluation of Modified Shaoyao Gancao Decoction Combined with Bloodletting Cupping Therapy in Treating Lumbar Disc Herniation. *Electronic Journal of Clinical Medical Literature*, **5**, 151-152, 154.
- [18] Sun, M.L., Gao, X., Li, L., Zhang, Y.Y., Jiang, H.J., Gan, X.F., Chen, X.Y. and Cao,

- Z.H. (2019) Clinical Efficacy Observation of Shengyu Decoction Combined with Duhuo Jisheng Decoction and Traditional Chinese Medicine Directional Drug Penetration Therapy in Treating Lumbar Disc Herniation in Elderly Patients. *Chinese General Practice*, **17**, 1356-1359.
- [19] Li, H., Pan, J.G., Qi, X.N., *et al.* (2021) Clinical Efficacy Observation of Comprehensive External Application of Traditional Chinese Medicine in Treating Lumbar Disc Herniation. *Xinjiang Journal of Traditional Chinese Medicine*, **39**, 21-23.
- [20] Feng, Z. (2018) Clinical Efficacy Observation of Traditional Chinese Massage Combined with External Application of Traditional Chinese Medicine in Patients with Lumbar Disc Herniation Pain. *Electronic Journal of Clinical Medical Literature*, **5**, 58-59.
- [21] Huang, Q. and Du, H.G. (2018) Clinical Efficacy Analysis of Massage Combined with External Application of Traditional Chinese Medicine in the Treatment of Lumbar Disc Herniation. *China Modern Doctor*, **56**, 138-140, 144.
- [22] Chen, D.J. and Li, M.M. (2021) Effects of External Application of Traditional Chinese Medicine Combined with Orthopedic Massage on Symptoms, Signs, and Pain Levels in Patients with Lumbar Disc Herniation. *Journal of Practical Cardio-Cerebrovascular Disease*, **29**, 84-86.
- [23] Qiao, Y.Y. and Xiao, X.D. (2019) Clinical Value of Traditional Chinese Massage Combined with External Application of Chinese Herbal Medicine in the Treatment of Lumbar Disc Herniation. *Electronic Journal of Clinical Medical Literature*, **6**, 91.
- [24] Gao, Y.J., Wang, J.Y., Ge, H.T., Xu, G.H., Yang, M., Jiang, R.R. and Chen, H. (2024) Systematic Review and GRADE Evidence Quality Assessment of Scraping Therapy for Improving Pain Symptoms in Lumbar Disc Herniation. *Modernization of Traditional Chinese Medicine and Materia Medica- World Science and Technology*, **26**, 419-428.
- [25] Tan, R.Y., Long, X.H., Chen, L., Yao, S.N., Chen, Y.Y. and Tian, Y. (2023) Network Meta-Analysis of the Effects of Five Traditional Chinese External Therapies on Pain in Patients with Lumbar Disc Herniation. *Chinese Journal of Modern Nursing*, **29**, 762-768.
- [26] Yao, F. and Yu, H. (2018) Time-Selected Scraping Therapy for Alleviating Pain in Lumbar Disc Herniation with Qi Stagnation and Blood Stasis Syndrome. *Journal of Nursing Science*, **33**, 57-58, 66.
- [27] Huang, Y.C. (2023) Observation on the Efficacy of Holographic Meridian Scraping Therapy for Lumbar Disc Herniation with Qi Stagnation and Blood Stasis Syndrome. Master's Thesis, Heilongjiang University of Chinese Medicine.
- [28] Yang, M. and Xu, G. (2020) Effect of Scraping Therapy on Th1/Th2 Balance in Rats with Lumbar Disc Herniation. *Journal of Acupuncture and Tuina Science*, **18**, 330-336. <https://doi.org/10.1007/s11726-020-1198-4>
- [29] Zeng, W.K. and Pan, X.Y. (2021) Visualization Analysis of Scraping Therapy Research in the Past 10 Years Based on CiteSpace. *Modern Chinese Medicine*, **41**, 7-13.
- [30] Wang, C., Zhao, H., Ju, J., Kong, L., Sun, C., Zheng, Y., *et al.* (2023) Reabsorption of Intervertebral Disc Prolapse after Conservative Treatment with Traditional Chinese Medicine: A Case Report. *World Journal of Clinical Cases*, **11**, 2308-2314. <https://doi.org/10.12998/wjcc.v11.i10.2308>
- [31] Guan, Y.X., Bai, L., Zheng, J. and Liu, F.X. (2023) Construction and Preliminary Outcomes of Traditional Chinese Medicine Nursing Clinics. *Journal of Traditional Chinese Medicine Management*, **31**, 165-168.

- [32] Zhang, Y.L., Han, Q. and Zhang, C. (2022) Effects of Continuous Nursing on Patients Undergoing Percutaneous Lumbar Discectomy and Nerve Root Decompression. *Journal of Qilu Nursing*, **28**, 40-42.
- [33] Fu, S.L. and Wang, H.R. (2019) Impact of Continuous Nursing on Health Behaviors in Non-Surgical Patients with Lumbar Disc Herniation. *Electronic Journal of Practical Clinical Nursing Science*, **4**, 143, 147.
- [34] Wei, J., Zha, Q.F., Mei, F., Liang, Y. and Hu, F. (2018) Application of Continuous Nursing in Improving Rehabilitation Compliance in Patients with Lumbar Disc Herniation. *Modern Nurse (Second Half-Monthly)*, **25**, 139-141.
- [35] Zhuang, J.X. and Zhu, Y. (2020) Application of WeChat Platform in Postoperative Continuous Nursing for Patients with Lumbar Disc Herniation. *Guide of China Medicine*, **18**, 268-269.
- [36] Wu, C.L., Zou, J.F. and Li, G.Y. (2021) Effects of Continuous Rehabilitation Nursing on Exercise Compliance and Functional Recovery in Surgical Patients with Lumbar Disc Herniation. *Chronic Pathematology Journal*, **22**, 899-900, 904.