

Nursing Experience in Treating One Case of Persistent Pain from Lumbar Disc Herniation Using Traditional Chinese Medicine Compress Combined with Manual Release Technique

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Abstract

This study aims to investigate the nursing efficacy and clinical experience of traditional Chinese medicine compress combined with manual release technique in the treatment of patients with persistent pain due to lumbar disc herniation. Through clinical observation and nursing practice of a typical case of lumbar disc herniation with persistent pain, we found that the combination of traditional Chinese medicine compress and manual release technique could effectively alleviate the patient's pain symptoms and improve their quality of life. During the nursing process, we emphasized psychological counseling, postural care, pain management, and rehabilitation guidance, providing comprehensive and meticulous nursing services for the patient. The results demonstrated that this therapeutic regimen combined with careful nursing care significantly enhanced patient satisfaction and treatment outcomes. This study provides novel insights and approaches for the treatment and nursing management of patients with persistent pain associated with lumbar disc herniation.

Full Text

Preamble

Title: Nursing Experience in Treating One Case of Persistent Pain in Lumbar Disc Herniation with Herbal Poultice Combined with Manual Release Therapy

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Abstract

This study explores the nursing effects and clinical experience of combining traditional Chinese medicine (TCM) herbal poultice with manual release therapy in treating persistent pain associated with lumbar disc herniation. Through clinical observation and nursing practice on a typical patient with lumbar disc herniation accompanied by persistent pain, we found that this combined approach effectively alleviated pain symptoms and improved quality of life. During the nursing process, we emphasized psychological counseling, positioning care, pain management, and rehabilitation guidance, providing comprehensive and meticulous nursing services. The results demonstrated that this treatment protocol, combined with careful nursing care, significantly enhanced patient satisfaction and treatment outcomes. This study offers new insights and methods for the treatment and nursing care of patients with persistent pain due to lumbar disc herniation.

Keywords: lumbar disc herniation; persistent pain; herbal poultice; manual release therapy; nursing experience

Introduction

Lumbar disc herniation is a common spinal disorder characterized primarily by lower back pain, radiating leg pain, and neurological dysfunction. For some patients, lumbar disc herniation can trigger persistent pain that severely impacts quality of life and work capacity. Current treatment modalities for lumbar disc herniation are diverse, including medication, physical therapy, and surgical intervention. However, for patients with persistent pain, single-modality treatments often fail to achieve satisfactory results, making it particularly important to explore comprehensive and effective treatment approaches.

Herbal poultice therapy and manual release therapy, as traditional Chinese medicine interventions, offer unique advantages in treating lumbar disc herniation. Herbal poultice delivers medication directly to the affected area to promote blood circulation and relieve pain, while manual release therapy employs professional massage and manipulation techniques to improve local circulation, alleviate muscle tension and spasms, and thereby achieve pain relief. This study applied both modalities in combination to treat one case of persistent pain in lumbar disc herniation, with emphasis on optimizing the nursing process and providing personalized care, aiming to offer more effective treatment and nursing services for such patients.

Case Report

1.1 General Information

The patient was a 69-year-old female who developed lower back pain with left lower extremity pain after physical exertion. Symptoms did not improve with

self-rest. She was admitted to the hospital on November 1, 2024, with a diagnosis of lumbar disc herniation. The patient was conscious and alert, with normal mental status, spontaneous positioning, and normal facial appearance. Her appetite was good, but sleep was disturbed. She cooperated with physical examination. Vital signs: temperature 36.4°C, pulse 74 beats/min, respiration 20 breaths/min, blood pressure 140/66 mmHg. Past medical history included hypertension for over 10 years, type 2 diabetes for over 10 years, hyperlipidemia for over 10 years, and coronary artery disease for over 40 years. No known allergies.

1.2 Physical Examination

TCM Examination (Four Diagnostic Methods): The patient was conscious and alert with normal mental status and facial appearance, fluent speech, and normal voice. The tongue was red with a thin white coating, and the pulse was wiry. Respiratory sounds were clear. She experienced lower back pain with left lower extremity pain and difficulty walking.

Western Medical Examination: Tenderness (+) at lumbar vertebrae L4-S1, percussion pain (+). Paraspinal tenderness left (+), right (-). Lower extremity muscle strength examination R/L = right/left: iliopsoas R/L = V-/V- grade, quadriceps R/L = V-/III grade, tibialis anterior R/L = V-/V- grade, extensor hallucis longus R/L = V-/V- grade, gastrocnemius R/L = V-/V- grade. Lower extremity muscle tone was normal. Slight hypoesthesia in the left thigh and below; remaining left and right lower extremity sensation was normal. Bilateral patellar and Achilles tendon reflexes were normally present. Babinski sign: left (-), right (-). Straight leg raising test: left 60° (+), right 60° (+). Augmentation test: left (+), right (+). Femoral nerve stretch test: left (+), right (-). No perineal numbness.

1.3 Diagnosis and Treatment

TCM Diagnosis: Lumbar disc herniation with blood stasis and qi stagnation pattern.

Western Diagnosis: Lumbar disc herniation with sciatica.

After receiving acupuncture and cupping therapy at a community hospital without significant improvement in lower back and left lower extremity pain, the patient was treated with a combination of herbal poultice and manual release therapy for lumbar disc herniation. The treatment involved applying specially prepared traditional Chinese medicine powder or liquid to the skin, followed by manual techniques including pushing, kneading, pinching, lifting, and rubbing to stimulate and adjust muscles, fascia, and joints. The medication penetrated through the skin surface into subcutaneous tissues to reach the lesion site, relying on the skin's absorptive function through pores and sweat glands to deliver herbal components into subcutaneous tissues and blood circulation. This achieved the therapeutic goals of promoting qi flow, dissipating stasis, reducing

swelling and pain, unblocking meridians, and improving local blood circulation. After seven days of TCM treatment, the patient reported significant relief of lower back pain with left lower extremity radiating pain, with straight leg raising angle exceeding 70°, VAS score of 2, and Barthel Index score of 100, enabling return to daily work and life.

Nursing Care

2.1 Nursing Assessment

Four TCM Diagnostic Methods: 1. **Inspection:** Conscious and alert, normal mental status, dark red tongue, slightly yellow greasy coating 2. **Auscultation and Olfaction:** Clear voice, even breathing, no special odors detected 3. **Inquiry:** Lower back pain and left lower extremity pain 4. **Palpation:** Wiry pulse

2.1.2 Scale Assessment

Visual Analogue Scale (VAS): VAS is a tool for assessing pain intensity that can also measure the severity or frequency of other symptoms. First used by Hayes and Patterson in 1921, VAS is based on the concept of continuous pain perception, representing a continuum from no pain to extreme pain. Designed as a unidimensional pain intensity measurement tool, VAS records pain progression and compares pain severity among patients with similar conditions.

VAS typically consists of a fixed-length line (usually 100 mm) with endpoints defining extreme limits of the measured parameter. Patients mark a point on the line representing their current state, and the VAS score is determined by measuring millimeters from the left end to the patient's mark. Scores range from 0-100, with higher scores indicating greater pain intensity. Research supports VAS reliability and validity, with good test-retest reliability across patient populations. VAS correlates highly with verbal descriptor scales and numeric rating scales, demonstrating sensitivity to pain changes and ability to detect minor post-treatment variations. Despite subjective results, VAS remains valuable in clinical and research settings. In this case, the patient's VAS score decreased from 5 at admission to 2 after treatment, indicating significant pain relief.

Barthel Index (BI): The Barthel Index is a widely used scale for assessing activities of daily living. Originally designed by Dorothea Barthel and Florence Mahoney in 1965, it measures functional status across independent behaviors with a total score range of 0-100. The index includes 10 items: feeding, bathing, grooming (washing face, combing hair, brushing teeth, shaving), dressing (buttoning, zipping, putting on shoes), bowel control, bladder control, toileting (including wiping, arranging clothes, flushing), bed-to-chair transfer, ambulation on level surfaces, and stair climbing. Each item is scored based on the level of assistance required, with 0 as the minimum and 100 as the maximum. Higher scores indicate greater independence and less dependence.

Barthel Index interpretation: - Total score 100: complete independence, no assistance required - 61-99: mild dependence, minimal assistance required - 41-60: moderate dependence, substantial assistance required - ≤ 40: severe dependence, total assistance required

As one of the most widely used and researched basic activities of daily living assessment tools in clinical practice, the Barthel Index is reliable and valid. It evaluates actual daily performance rather than potential capabilities. The scale is used not only to assess functional recovery but also to predict treatment outcomes, hospitalization duration, and prognosis, making it widely used in rehabilitation medicine. In this case, the patient's Barthel Index score improved from 85 at admission to 100 after treatment.

2.3 Nursing Plan

Following comprehensive nursing assessment and pattern differentiation analysis, herbal poultice and manual release therapy were initiated immediately upon admission at a frequency of once daily to alleviate pain caused by lumbar disc herniation.

2.4.1 Herbal Poultice Therapy

Before initiating herbal poultice therapy, nursing staff should conduct a thorough assessment of the patient's lumbar skin to ensure the treatment area is free from damage, inflammation, or infection. The skin should be cleaned to facilitate medication absorption and therapeutic effect. Patients should receive detailed explanation of the treatment principles, procedures, and potential mild discomfort such as slight stinging or itching to help them understand the process, reduce anxiety, and improve treatment acceptance.

Following physician orders, specially prepared herbal paste containing ingredients such as *Angelica sinensis* (Dang Gui), *Ligusticum wallichii* (Chuan Xiong), *Prunus persica* (Tao Ren), *Carthamus tinctorius* (Hong Hua), and *Lindera aggregata* (Wu Yao) is evenly applied to the painful lumbar region at an appropriate thickness to ensure complete coverage of all painful areas. Subsequently, appropriate heat or electrotherapy is applied according to physician orders, such as warm compresses with hot water bags or electrotherapy devices to promote medication penetration. During treatment, nursing staff should closely monitor patient responses, including excessive stimulation, worsening pain, or other discomforts, to adjust treatment parameters promptly and ensure both efficacy and comfort.

After herbal poultice therapy, nursing staff must re-examine the lumbar skin for allergic reactions (redness, itching) or burns. Patients are guided to perform appropriate lumbar movements such as gentle stretching and massage to promote local circulation, relieve muscle tension, and accelerate recovery. Additional post-treatment care may include keeping the treatment area clean and dry and

avoiding strenuous activity, depending on the patient's condition and physician orders.

2.4.2 Manual Release Therapy

Manual release therapy is a non-pharmacological, non-surgical treatment that uses professional massage and manipulation techniques on lumbar muscles, ligaments, and other soft tissues to release local adhesions, alleviate muscle tension, and restore and improve lumbar function.

During the procedure, nursing staff carefully select and adjust specific techniques, including force magnitude, frequency, and direction of movement, based on the patient's condition, constitution, and pain tolerance. This ensures effective treatment of the lesion while maintaining safety and comfort, minimizing patient suffering and promoting lumbar functional recovery.

Nursing staff play a crucial role throughout manual release therapy, maintaining high professional standards and keen observation to monitor patient responses and adjust techniques based on feedback. This prevents complications such as skin injury or muscle strain from excessive force or improper technique. Nurses also serve as communication bridges, explaining treatment principles, potential transient discomfort, and keys to achieving good results in accessible language, encouraging patients to remain relaxed and cooperative. Post-treatment, nursing staff guide patients through scientifically designed lumbar functional exercises to consolidate treatment effects, improve local circulation, and prevent recurrence.

2.5 Nursing Interventions

2.5.1 Emotional Care Before treatment, nurses communicate with patients to explain the purpose, methods, and precautions, alleviating anxiety and promoting cooperation.

2.5.2 Treatment Nursing During herbal poultice therapy, patients assume prone or lateral positions for comfort, with attention to warmth and cold avoidance. During manual release therapy, nurses assist physicians with positioning adjustments and ensure treatment safety.

2.5.3 Observation and Documentation Nursing staff closely monitor changes in patient condition, documenting pain levels and treatment responses to facilitate timely treatment adjustments.

2.5.4 Health Education Patients receive education about lumbar disc herniation, including guidance on maintaining proper sitting and standing postures and avoiding prolonged static positions. Patients are encouraged to perform appropriate rehabilitation exercises to promote recovery.

2.6 Treatment Outcomes and Nursing Insights

After one treatment course, the patient's pain symptoms significantly decreased and lumbar mobility improved. Throughout treatment, the patient actively cooperated and expressed satisfaction with outcomes.

This experience deepened our understanding of the unique advantages of combining herbal poultice with manual release therapy for persistent pain in lumbar disc herniation. Herbal poultice works through dual thermal and medicinal actions to relax muscles, unblock collaterals, dispel wind and dampness, reduce swelling, and relieve pain, while manual release therapy alleviates muscle tension and pain. The combination significantly enhances treatment efficacy and reduces suffering.

We also recognized the importance of strengthening patient communication, providing emotional care, closely monitoring condition changes, and delivering health education. These measures not only improve treatment outcomes but also enhance patient self-care awareness and promote early recovery.

2.7 Conclusion and Future Directions

The combination of herbal poultice and manual release therapy demonstrates significant efficacy in treating persistent pain from lumbar disc herniation. During nursing care, strengthening patient communication, closely monitoring condition changes, and providing effective rehabilitation guidance are crucial. Future research should further investigate the mechanisms of this combined therapy, optimize treatment protocols, and strengthen long-term follow-up to evaluate treatment durability. We hope more healthcare professionals will learn and apply this treatment method to provide patients with more effective therapeutic options.

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