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Nursing experience in one case of knee Bi syndrome treated with comprehensive Huolong-jar moxibustion

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Abstract

This paper summarizes the observations on therapeutic efficacy and nursing experience in a patient with knee impediment (xibi) presenting with bilateral knee joint pain treated by the traditional Chinese medicine non-pharmacological therapy of Fire Dragon Cupping combined moxibustion. Under the guidance of the theory of syndrome differentiation-based nursing in traditional Chinese medicine, Fire Dragon Cupping combined moxibustion was applied together with routine nursing measures, including guidance on daily life and rest, dietary guidance, and emotional regulation. These interventions effectively improved the patient's clinical symptoms of bilateral knee joint pain and anxiety.

Full Text

Title and Authorship

Nursing Experience in Treating a Patient with Knee Bi Syndrome Using Comprehensive Fire Dragon Cupping and Moxibustion: A Case Report

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Abstract

This article summarizes the therapeutic outcomes and nursing experience of comprehensive Fire Dragon Cupping and Moxibustion—a non-pharmacological Traditional Chinese Medicine (TCM) therapy—in a patient with bilateral knee pain due to knee Bi syndrome. Guided by TCM’s theory of syndrome differentiation and holistic nursing care, the integrated approach combining comprehensive Fire Dragon Cupping and Moxibustion with routine nursing measures including lifestyle guidance, dietary counseling, and emotional support effectively alleviated the patient’s clinical symptoms of bilateral knee joint pain and anxiety.

Keywords: Fire Dragon Cupping and Comprehensive Moxibustion; Knee Bi Syndrome; Pain; Nursing Experience

Knee Bi syndrome is a clinical condition characterized by knee joint pain, swelling, limited range of motion, and in severe cases, joint deformity. The pathogenesis primarily involves age-related decline, liver-kidney deficiency, and malnourishment of tendons and bones, or exposure to pathogenic wind-cold-dampness-heat due to overstrain or trauma, resulting in local qi stagnation, blood stasis, phlegm-dampness obstruction, and blocked meridians. This condition corresponds to knee osteoarthritis (KOA) in modern medicine. Disease onset is closely associated with age, body weight, overuse, exercise patterns, trauma, and environmental factors, with pathological changes primarily involving articular cartilage degeneration, synovial inflammation, and joint effusion. The protracted disease course, prone to recurrence, severely compromises patients’ ambulatory function and quality of life [1-3].

Current treatment for knee Bi syndrome predominantly involves conservative management [4-5], including oral non-steroidal anti-inflammatory drugs, analgesics, chondroprotective agents, physical therapy, exercise rehabilitation, joint aspiration and injection therapies, with surgical interventions such as knee arthroplasty reserved for conservative treatment failures. Implementing effective conservative interventions during early and remission stages is critical for symptom control and disease progression delay. In recent years, TCM non-pharmacological therapies have garnered increasing attention for knee Bi syndrome management due to their holistic regulatory effects and minimal adverse effects [6]. As a characteristic TCM technique devoid of systemic toxicity, comprehensive Fire Dragon Cupping and Moxibustion effectively promotes local qi-blood circulation, accelerates absorption and dissipation of inflammatory substances and effusion, relieves muscle spasm and joint pain, while regulating visceral qi dynamics and enhancing self-healing capacity [7-9]. This article reports the nursing experience of a patient with bilateral knee swelling and pain treated with comprehensive Fire Dragon Cupping and Moxibustion.

1 Clinical Data

The patient was a 54-year-old married female who presented to our Center for Non-Pharmacological Therapies at 9:00 on November 13, 2025, with chief com-

plaints of “bilateral knee swelling and pain following trauma.” The patient was conscious and alert, in good spirits, with a ruddy complexion, dark-red tongue, and slightly yellow greasy coating. Speech was clear, with no abnormal odors or cough detected. Appetite was adequate, sleep was poor, bowel and urinary functions were regular, and the pulse was wiry and thready. TCM diagnosis: Knee Bi syndrome; Western medicine diagnosis: Knee osteoarthritis. Syndrome differentiation: Qi stagnation and blood stasis pattern. Past medical history: Previously healthy, denying histories of hypertension, diabetes, coronary artery disease, hepatitis, or tuberculosis. The patient was prescribed comprehensive Fire Dragon Cupping and Moxibustion therapy twice weekly for 10 consecutive weeks. Treatment efficacy was significant, and the patient was discharged at 11:00 on November 13, 2025.

2 Nursing Assessment and Intervention

2.1 Assessment

2.1.1 Pain Assessment Pain severity was evaluated using the Visual Analog Scale (VAS) [10], a validated instrument that transforms subjective pain perception into quantifiable values. Using a 10-cm ruler with “0” at the left end representing no pain and “10” at the right end representing intolerable severe pain, higher scores indicate greater pain intensity. The patient’s initial VAS score was 6, indicating moderate pain.

2.1.2 Anxiety Assessment Anxiety level was assessed using the Self-Rating Anxiety Scale (SAS) [11], with a standard score cutoff of 50. Scores of 50-59 indicate mild anxiety, 60-69 moderate anxiety, and ≥ 70 severe anxiety. The patient’s initial SAS score was 59, indicating mild anxiety.

2.2 Nursing Diagnoses

Based on the patient’s chief complaints and comprehensive assessment, nursing diagnoses were: 1) Pain related to bilateral knee arthritis following trauma; 2) Anxiety related to pain episodes; 3) Knowledge deficit regarding knee Bi syndrome prevention.

2.3 Nursing Plan

To address these nursing problems, the following plan was implemented: Alleviate pain through comprehensive Fire Dragon Cupping and Moxibustion; enhance disease awareness and provide emotional diversion techniques to help regulate emotions and relieve anxiety; strengthen health education to improve disease prevention knowledge.

2.4 Implementation

2.4.1 Non-Pharmacological TCM Therapy The patient received comprehensive Fire Dragon Cupping and Moxibustion as prescribed. Procedure: The patient assumed a comfortable position with both knees fully exposed. Small Fire Dragon cups were selected, and gua sha oil was evenly applied locally. After igniting moxa sticks inside the cups and ensuring uniform combustion, the practitioner manipulated each cup with one hand using diverse techniques—including pressing, vibrating, tapping, grinding, pushing, pressing, plucking, kneading, ironing, and burning—while rotating the cup clockwise, counterclockwise, and performing shaking and vibrating movements on skin and muscle tissue, akin to a tornado expelling pathogenic factors. Continuous movement was maintained without prolonged 停留 at any single site. The practitioner constantly monitored skin temperature using the hypothenar eminence to make adjustments, carefully controlling cup temperature and moxibustion intensity to avoid excessive or irregular movements that might cause ash 脱落 and burns. Each session lasted approximately 20 minutes, until the skin became slightly red and warm.

2.4.2 Syndrome-Based Holistic Nursing Given that knee Bi syndrome patients often experience severe physical and psychological distress from recurrent pain and prolonged disease course, particularly anxiety and depression, a harmonious, warm, and comfortable treatment environment was created. Clinic rooms featured warm-tone décor with temperature maintained at approximately 26°C to provide home-like warmth and alleviate negative emotions. The “patient-centered” philosophy guided humanistic nursing services, facilitating convenience and relaxation to optimize treatment cooperation.

Individualized nursing measures included: 1) Lifestyle guidance: Balance movement and rest according to capacity. Minimize knee joint loading by avoiding prolonged standing, walking, slope climbing, and stair use; perform moderate, gentle exercises (e.g., seated straight leg raises) to preserve joint function. Use walking canes and knee braces for support and pain relief when ambulating, and maintain knee warmth. 2) Health education: Explain disease progression and treatment goals (pain relief and joint function preservation) to patients and families. Emphasize weight management’s fundamental role in reducing knee load; demonstrate proper techniques for standing, sitting, and stair climbing while explaining how deep squatting, kneeling, and mountain climbing accelerate joint degeneration. 3) Dietary care: Core principles focused on balanced nutrition and weight control. Encourage calcium-rich foods (dairy, soy products), vitamin D, and high-quality protein (fish, skinless poultry, eggs). Recommend antioxidant and omega-3-rich foods (deep-sea fish, nuts, dark vegetables, berries) to support metabolism. Obese patients require personalized dietary plans under guidance. 4) Emotional care: Acknowledge patients’ potential anxiety and depression from chronic pain and limitation. Nurses can rebuild confidence by sharing successful cases and helping patients set and celebrate achievable functional goals (e.g., extended pain-free walking). Encourage family support and guide patients toward

mood-soothing activities (music, reading, conversation) to divert attention from pain and maintain emotional equilibrium.

3 Results and Follow-Up

After 10 weeks of treatment, the patient' s VAS score decreased to 1 and SAS score to 45, demonstrating significant efficacy without adverse events. One week post-treatment, telephone follow-up revealed no worsening of bilateral knee pain. The patient was advised to maintain appropriate activity and regular dietary habits.

Knee Bi syndrome typically manifests with knee pain, swelling, stiffness, and limited mobility, exacerbated by weight-bearing, stair climbing, or cold weather. Chronic pain and functional impairment severely compromise quality of life and predispose patients to anxiety and depression, creating a “pain-activity reduction-functional decline-low mood” vicious cycle [12-13]. In chronic pain management, nurses, as the most intimately involved healthcare providers, serve as educators, supporters, and coordinators, delivering timely professional pain assessment, individualized rehabilitation guidance, and continuous psychological counseling.

TCM non-pharmacological therapies, rooted in “holistic concept” and “syndrome-based nursing,” offer unique advantages in chronic knee Bi syndrome management. These approaches address not only local joint symptoms but also emphasize regulating overall qi-blood-yin-yang balance through external interventions to achieve “strengthening the foundation and restoring health.” Comprehensive Fire Dragon Cupping and Moxibustion integrates moxibustion, cupping, massage, and acupoint stimulation, combining warming, dredging, loosening, and guiding functions to provide a distinctive TCM nursing solution [14]. Unlike traditional fire cups, Fire Dragon cups are crafted from xuan stone purple clay with Qi Ai moxa sticks placed inside and at the opening. Modern research confirms that Qi Ai contains organic acids, flavonoids, and volatile oils with anti-inflammatory, analgesic, and microcirculation-enhancing effects. The silver-embedded petal rim ensures uniform heat distribution. The pure yang thermal energy generated by burning moxa, like a “fire dragon’ s” power, penetrates knee muscles, tendons, and joints to dispel cold-dampness, warm meridians, and activate blood circulation. For knee Bi syndrome’ s core pathogenesis of “root deficiency and branch excess” (liver-kidney deficiency as root, wind-cold-dampness-stasis as branch), this compound mechanism is particularly suitable. First, its massage and gua sha actions directly loosen tense, contracted periarticular soft tissues (quadriceps, peripatellar ligaments), promoting qi and blood flow—when flow is unobstructed, pain ceases. Second, moxibustion’s thermal and medicinal effects powerfully warm the knee, improve local circulation, promote inflammatory absorption, and relieve cold, heavy sensations. Third, combining meridian point selection with local Ashi points enables systemic qi-blood regulation. Commonly selected points include Xuehai (SP10), Liangqiu (ST34), Dubi (ST35), Neixiyan (EX-LE4), Yanglingquan (GB34), Yinlingquan (SP9),

and Zusanli (ST36). The Yangming Stomach Meridian, abundant in qi and blood, is accessed via Zusanli to supplement qi-blood and strengthen tendons and bones; Yanglingquan, the influential point of tendons, excellently relaxes tendons; Yinlingquan strengthens the spleen and resolves dampness. Thermal energy penetrates deeply into viscera through these points to regulate liver-kidney function, achieving simultaneous root and branch treatment [15].

Clinical practice demonstrates that comprehensive Fire Dragon Cupping and Moxibustion produces significant effects for qi stagnation and blood stasis pattern knee Bi syndrome, markedly relieving knee pain and stiffness, increasing range of motion, and improving cold extremity symptoms. Nurses should master this technique proficiently, accurately differentiate syndromes for point selection, and perform standardized operations to fully leverage its comprehensive advantages in warming yang, dispelling cold, resolving dampness, transforming stasis, and unblocking collaterals for pain relief, while ensuring safety. Integrating comprehensive Fire Dragon Cupping and Moxibustion with modern nursing techniques—including Western rehabilitation training, health education, and emotional regulation—creates an integrated Chinese-Western nursing protocol that further enhances clinical efficacy, promotes functional recovery and quality of life, and advances sustainable development of TCM nursing technologies in osteoarthritis.

Patient Informed Consent: Publication of this case report was obtained with informed consent from the patient and family.

Conflict of Interest Statement: The authors declare no conflicts of interest.

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