Nursing Experience with Gua Sha Therapy for a Febrile Patient with Wind-Cold Attacking the Lung Syndrome during Acute Exacerbation of Chronic Obstructive Pulmonary Disease (Post-print)

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Abstract

This article summarizes the nursing experience of Gua Sha therapy for a febrile patient with chronic obstructive pulmonary disease (COPD) in acute exacerbation phase presenting with wind-cold attacking the lung pattern. Prior to implementation, Traditional Chinese Medicine (TCM) pattern differentiation and nursing assessment were conducted to determine nursing interventions, thereby achieving fever reduction. As a non-pharmacological therapy of Traditional Chinese Medicine for fever reduction, characterized by simple operation, rapid effect, safety, and efficacy, it demonstrates considerable value for clinical promotion and application, and warrants clinical reference.

Full Text

Preamble

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Title

Nursing Experience of Scraping Therapy for Fever in Acute Exacerbation of Chronic Obstructive Pulmonary Disease with Wind-Cold Attacking the Lung Syndrome: A Case Report

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Abstract

This article summarizes the nursing experience of managing fever in a patient with acute exacerbation of chronic obstructive pulmonary disease (COPD) characterized by wind-cold attacking the lung syndrome, treated with scraping therapy. Through traditional Chinese medicine (TCM) syndrome differentiation and comprehensive nursing assessment prior to intervention, targeted nursing measures were implemented to achieve antipyretic effects. This approach is characterized by simple operation, rapid action, and proven safety and efficacy. As a non-pharmacological TCM therapy for fever management, scraping demonstrates considerable potential for clinical application and promotion.

Keywords: Fever; Scraping; Acute exacerbation of chronic obstructive pulmonary disease; Nursing

Introduction

Chronic obstructive pulmonary disease (COPD) is a common respiratory condition characterized by persistent airflow limitation and progressive development that can be prevented and treated, with high morbidity and mortality worldwide [1]. Acute exacerbation of COPD (AECOPD) refers to the short-term worsening of respiratory symptoms during disease progression, manifested by increased cough, sputum production, dyspnea and/or wheezing, purulent or mucopurulent sputum, and accompanying inflammatory responses such as fever. Due to yang qi deficiency in COPD patients, their warming and defensive functions are compromised, making them vulnerable to external pathogenic factors like wind-cold. Both the underlying phlegm and blood stasis are yin pathogenic factors that tend to attract similar energies, making them easily triggered by wind-cold. The combination of external and internal pathogenic factors obstructs lung qi, with external pathogens activating the latent phlegm and stasis in the lungs, leading to acute exacerbation [2]. Patients with AECOPD and wind-cold attacking the

lung syndrome often present with fever, for which scraping therapy represents one of the characteristic treatment methods. Clinical practice has demonstrated that scraping therapy yields significant efficacy in treating fever in this patient population. This case report is presented below.

Clinical Data

The patient was a 50-year-old female admitted to our department on January 20, 2022, with chief complaints of cough, dyspnea, clear white sputum, fever, chills, nasal congestion, clear rhinorrhea, body aches, and fatigue. The patient was conscious and alert. Inspection revealed a red tongue with white coating and barrel chest. Palpation showed a tight pulse and diminished bilateral vocal fremitus. Percussion elicited hyperresonant sounds, while auscultation revealed diminished breath sounds in both lungs. Olfactory examination noted low voice and anxious mood. Inquiry revealed poor appetite, insomnia, constipation, yellow urine, and a body temperature of 38.7°C. TCM diagnosis: Lung distension (fei zhang) with wind-cold attacking the lung syndrome. Western medicine diagnosis: Acute exacerbation of chronic obstructive pulmonary disease. Scraping therapy was administered as per physician orders.

Nursing Assessment

Fever Assessment

Fever severity was evaluated using oral temperature measurements: low-grade fever 37.3–38°C, moderate fever 38.1–39°C, high fever 39.1–41°C, and hyperpyrexia above 41°C. The patient's oral temperature was 38.7°C, indicating moderate fever.

Etiology Determination

The patient presented with cough, dyspnea, clear white sputum, fever, and body aches, accompanied by a red tongue with white coating and a tight pulse. From a TCM perspective, this pattern indicated fever caused by toxin invasion and respiratory tract infection due to wind-cold attacking the lungs.

Insomnia Severity Evaluation

The Insomnia Severity Index (ISI) was used to assess the patient. Scores of 0–7 indicate no clinically significant insomnia, 8–14 subclinical insomnia, 15–21 clinical insomnia (moderate), and 22–28 clinical insomnia (severe). The patient experienced insomnia due to fever, chills, nasal congestion, and clear rhinorrhea affecting sleep quality, with an ISI score of 16, indicating moderate insomnia.

Psychological Status Assessment

The Self-Rating Anxiety Scale (SAS) was employed for evaluation. A total anxiety score below 50 is considered normal, 50–60 mild anxiety, 61–70 moderate anxiety, and above 70 severe anxiety. The patient exhibited tension and anxiety due to fever, dyspnea, and body aches, with an SAS score of 62, indicating moderate anxiety.

Nursing Interventions

Scraping Technique

Scraping therapy functions by dissipating stagnant heat from the meridians, reducing blood toxins and inflammatory mediators, thereby activating blood circulation, unblocking vessels, regulating qi and blood, and clearing heat to resolve toxins [3].

Pre-procedure: The patient's back skin was assessed, revealing no allergy history and pain tolerance. Patient education was provided regarding the effects of scraping, the simple procedure, and local sensations to obtain cooperation. The patient was instructed to immediately inform the nurse of any discomfort during the procedure.

Procedure: Following physician orders, scraping sites were identified at Fengchi (GB20), Dazhui (GV14), Feishu (BL13), and Pishu (BL20). The patient was instructed to empty bladder and bowels. A scraping board was dipped in appropriate medium and applied to the treatment areas at a 45-degree angle to the skin. Based on the patient's condition and constitution, heavy scraping, rapid scraping, and arc scraping methods were selected. Pressure was applied evenly, gradually increasing from light to heavy within the patient's tolerance, in a single direction without back-and-forth motion. Scraping continued until the skin showed red-purple discoloration, or developed millet-like papules, papulovesicular spots, or cord-like plaques, accompanied by local heat sensation or mild pain. For patients with minimal or no sha eruption, forced sha production was avoided. During scraping, privacy protection and warmth maintenance were ensured, with continuous monitoring of the patient's condition and local skin color changes. The patient was regularly asked about discomfort, and technique pressure was adjusted accordingly. Each area was typically scraped 20–30 times.

Post-procedure: The local skin was cleaned, and the patient was assisted in drinking 200ml of warm water. The patient was advised to avoid cold or raw foods immediately and to prevent exposure to wind-cold. Cold showers were prohibited within 30 minutes after sha eruption.

Conventional Nursing Care

1. Condition Monitoring: Body temperature was measured four times daily, and every four hours during high fever. Concurrent attention was paid to fever patterns, clinical manifestations, and accompanying symptoms.

2. Dietary Management: High-calorie, high-protein, high-vitamin, easily digestible liquid or semi-liquid foods were provided, with attention to food color, aroma, and taste. The patient was encouraged to eat small, frequent meals to compensate for hypermetabolism and enhance resistance. Fluid intake of 2500–3000ml daily was encouraged to replenish water loss from fever and promote toxin and metabolic waste elimination. Warm milk before bedtime was recommended to improve sleep.

3. Daily Living Care: Absolute bed rest was prescribed. The environment was maintained with appropriate temperature and humidity, quiet conditions, and good air circulation. Oral care was intensified, as fever reduces saliva secretion, dries oral mucosa, and decreases resistance, predisposing to oral infections. The patient was assisted with mouth rinsing after waking, meals, and before sleep to maintain oral hygiene. Sweat was promptly wiped away during profuse perspiration, with clothing and bedding changed to maintain comfort.

4. Emotional Care: Soothing music was played before bedtime to improve sleep quality. The patient received attentive care, with questions answered patiently and needs addressed to provide psychological comfort.

Results

Temperature Changes

The patient's temperature decreased progressively: 38.7°C before treatment, 38.3°C at 30 minutes post-treatment, 38.0°C at 1 hour, 37.5°C at 2 hours, and 37.2°C at 4 hours.

Tongue Coating and Skin Changes

Before treatment, the patient presented with a red tongue and white coating. Following scraping, the tongue redness showed improvement compared with baseline [FIGURE:1, FIGURE:2]. The skin was intact before treatment. Post-treatment, the skin exhibited hyperemic purplish-red discoloration with distributed purple petechiae, indicating toxin expulsion [FIGURE:3, FIGURE:4].

Insomnia Severity Scores

The ISI score decreased from 16 before treatment to 9 on day 3, and further to 6 on day 6 .

Anxiety Scores

The SAS score decreased from 62 before treatment to 52 on day 3, and further to 40 on day 6.

Discussion

Acute exacerbation of COPD represents a sudden worsening of respiratory symptoms requiring aggressive treatment to reduce mortality, improve prognosis, and prevent complications [4,5]. In traditional Chinese medicine, AECOPD falls under the category of "lung distension" (fei zhang), with the disease location in the lung. The lung governs qi, opens to the nose, and dominates the exterior defensive function. Invasion by wind, cold, and dampness induces the disease, with wind-cold attacking the lung syndrome being one of the common patterns [6]. According to TCM theory, "the lung governs qi, controls respiration, and governs the skin and hair." The skin and hair possess direct respiratory and excretory functions. Scraping stimulates the skin and collaterals to produce sha, thereby activating defensive yang qi, promoting metabolism, expelling pathogenic factors, and maintaining relative yin-yang balance. Additionally, since the skin and hair have direct respiratory and excretory capabilities, skin scraping can induce sweating to resolve the exterior, expelling turbid toxins and stasis from the body to achieve heat-clearing and detoxifying effects [7].

Modern medicine suggests that scraping induces local tissue hyperemia and vasodilation, accelerates blood and lymphatic flow, enhances phagocytosis and transport capacity, accelerates waste and toxin elimination, and strengthens systemic resistance [8]. Scraping achieves antipyretic effects by reducing endogenous and exogenous pyrogenic factors such as blood toxins, inflammatory mediators, and cytokines, and/or by enhancing humoral and cellular immune function [9].

The selected acupoints included Fengchi (GB20), Dazhui (GV14), Feishu (BL13), and Pishu (BL20). Fengchi belongs to the Gallbladder Meridian of Foot-Shaoyang, where meridian qi transforms into yang-heat wind qi after absorbing heat, assisting fever reduction. Dazhui is a point on the Governor Vessel, which governs yang qi throughout the body, and serves as the intersection point of all three yang meridians of the hand and foot with the Governor Vessel, capable of invigorating yang qi, resolving the exterior, and dispelling pathogenic factors, treating all wind-cold exterior syndromes. Feishu and Pishu belong to the Bladder Meridian of Foot-Taiyang, which is where organ meridian qi is transported and is indicated for Taiyang channel patterns in cold damage diseases. The combination of these points, when scraped, can unblock the exterior, regulate meridians, expel pathogenic factors through sweating, and achieve antipyretic effects [10].

Conclusion

In summary, scraping therapy demonstrates significant immediate antipyretic effects in AECOPD patients with wind-cold attacking the lung syndrome, with stable and sustained efficacy within four hours. This approach is operationally simple, rapid-acting, safe, and effective, offering considerable value for clinical promotion as a non-pharmacological TCM antipyretic therapy.

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Note: Figure translations are in progress. See original paper for figures.