

Nursing Experience of Yuan-Luo-Shu-Mu Point Combination Gua Sha Therapy for Cancer-Related Fatigue in a Lung Cancer Patient Undergoing Targeted Therapy: A Case Report

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Abstract

This article summarizes the nursing experience of treating cancer-related fatigue in a lung cancer patient undergoing targeted therapy with gua sha therapy using the Yuan-Luo-Shu-Mu point combination method. Based on routine nursing care including daily living, dietary nursing, emotional nursing, and exercise guidance, and through syndrome differentiation and treatment implementation, the adoption of gua sha therapy using the Yuan-Luo-Shu-Mu point combination method can effectively improve the patient's fatigue symptoms and enhance their quality of life.

Full Text

Nursing Experience of Yuanluo Shu-mu Combined Acupoint Gua Sha Therapy for Cancer-Related Fatigue in a Lung Cancer Patient Undergoing Targeted Therapy

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Abstract

This article summarizes the nursing experience of applying Yuanluo Shu-mu combined acupoint Gua Sha therapy for cancer-related fatigue (CRF) in a lung cancer patient undergoing targeted therapy. Building upon routine nursing care

including daily living support, dietary guidance, emotional care, and exercise instruction, the implementation of syndrome differentiation-based Yuanluo Shumu combined acupoint Gua Sha therapy effectively ameliorated the patient's fatigue symptoms and improved quality of life.

Keywords: Yuanluo Shu-mu combined acupoints; Gua Sha; lung cancer; targeted therapy; cancer-related fatigue

Lung cancer remains the leading cause of cancer-related mortality worldwide. According to 2020 global cancer statistics, there were an estimated 2.207 million new cases of lung cancer, accounting for 11.4% of all malignant tumor incidences and ranking second globally; meanwhile, lung cancer caused an estimated 1.796 million deaths, representing 18.0% of all malignant tumor mortality and ranking first [1]. The latest cancer data from China reveal 828,000 new lung cancer cases with an incidence rate of 59.89 per 100,000, and 657,000 lung cancer deaths with a mortality rate of 47.51 per 100,000, placing lung cancer at the top of both incidence and mortality among all malignant tumors in China [1].

Treatment-related cancer fatigue falls within the scope of cancer-related fatigue (CRF) and represents a subjective symptom widely prevalent during cancer treatment. CRF manifests primarily as diminished organ function, weakness, fatigue, emaciation, somnolence, shortness of breath, mental exhaustion, feeble pulse, spontaneous sweating, reluctance to speak, pale tongue, pale or sallow complexion, dizziness, palpitations, and insomnia. The pathogenesis in traditional Chinese medicine (TCM) involves deficiency and depletion of organ functions, leading to insufficiency of qi, blood, yin, and yang [3].

Research indicates that CRF commonly occurs across all stages of cancer, as well as post-surgery, following radiotherapy and chemotherapy, after bone marrow transplantation, and during targeted therapy and immunotherapy [4]. CRF belongs to the TCM category of “external damage leading to deficiency,” and treatment follows the principle of “deficiency should be tonified,” primarily focusing on strengthening the body's vital qi [5]. The *Huangdi Neijing* states: “Where evils gather, the vital qi must be deficient.” When a patient's vital qi is already compromised and further subjected to radiotherapy, chemotherapy, or targeted therapy, the body becomes even more debilitated and complex. Applying TCM tonification therapy at this stage aligns precisely with the principle of treating according to syndrome differentiation and addressing the root cause.

The Yuanluo (Yuan-Source and Luo-Connecting) and Shumu (Back-Shu and Front-Mu) acupoint combination method represents a crucial therapeutic theory in meridian studies, playing a key role in regulating organ functions and meridian qi-blood circulation. The Yuan-Source and Luo-Connecting points of the twelve meridians are primarily distributed near the wrist and ankle joints—critical areas where defensive qi emanates from the extremities toward the trunk. Conversely, Back-Shu and Front-Mu points are distributed on the chest, waist, and abdomen—key regions where defensive qi penetrates from the exterior to the interior. Yuan-Source and Luo-Connecting points represent the outward flow,

while Back-Shu and Front-Mu points represent the inward flow, establishing an intimate connection between defensive qi circulation and these acupoints [6]. Applying Gua Sha therapy [7] based on the principle of Yuanluo and Shumu acupoint combination produces synergistic and complementary effects for treating CRF, holistically regulating yin-yang balance, actively restoring overall organ function and meridian qi-blood circulation, thereby improving cellular immune function, alleviating fatigue symptoms, and ultimately enhancing patient quality of life.

This article summarizes the nursing experience of treating CRF in a lung cancer patient undergoing targeted therapy with Yuanluo Shu-mu combined acupoint Gua Sha therapy.

1. Clinical Data

The patient was a 53-year-old female admitted on May 30, 2023, with a chief complaint of “diagnosed with right lung adenocarcinoma for over two years.” The patient previously enjoyed good health with no history of food or drug allergies. At admission, she was conscious and alert but in average spirits, experiencing occasional cough, marked fatigue, intermittent sweating, poor appetite, relatively normal sleep, and normal bowel and urinary function. Tongue presentation: slightly red tongue with thin white coating. Pulse: thin. TCM diagnosis: lung cancer, syndrome differentiation: lung-spleen qi deficiency. Western medicine diagnosis: malignant lung tumor (adenocarcinoma of right upper lung). Laboratory findings: white blood cell count (WBC) $3.0 \times 10^9/L$, platelet count (PLT) $98 \times 10^9/L$. The patient was on long-term targeted therapy with osimertinib 80mg daily. At admission, the Brief Fatigue Inventory (BFI) developed by the Pain Research Group at the University of Texas MD Anderson Cancer Center [8] was administered, yielding a score of 6 (moderate fatigue). Following two weeks of intervention with Yuanluo Shu-mu combined acupoint Gua Sha therapy, fatigue severity markedly improved, with the BFI score decreasing to 2.

2. Nursing Care

2.1 Nursing Assessment

Brief Fatigue Inventory (BFI) Assessment: The BFI comprises nine items, each scored from 0 to 10, with higher scores indicating greater fatigue severity. At admission, the patient’s BFI score was 6, indicating moderate fatigue.

2.2 Syndrome Differentiation and Nursing Implementation

2.2.1 Syndrome Differentiation and Education

1. **Daily Living Care:** Maintain a clean and tidy ward with appropriate temperature and humidity, and ensure regular ventilation. Instruct the

patient to establish healthy daily routines, balance work and rest, avoid overexertion, and ensure adequate sleep.

2. **Medication Management:** Administer osimertinib orally as prescribed, and provide Chinese herbal decoctions to strengthen the spleen, boost qi, nourish yin, and tonify the lungs. Educate the patient on medication purpose, administration methods, and relevant precautions.
3. **Exercise Guidance:** Lead the patient in practicing health-preserving exercises daily from 08:00-09:00 and 16:00-17:00, including meridian patting exercises, Baduanjin, and Liuzijue. Emphasize gradual progression and consistency, ensuring the patient does not become fatigued.

2.2.2 Syndrome Differentiation and Dietary Care The *Suwen · Zangqi Fatang Lun* states: “Toxic drugs attack pathogenic factors, the five grains provide nourishment, the five fruits provide assistance, the five livestock provide benefit, the five vegetables provide supplementation. Combine these according to their qi and flavors to tonify essence and boost qi.” Patients were instructed to pay attention to nutritional supplementation in daily life, particularly increasing protein-rich foods to enhance immune defense function. Given the patient’s lung-spleen qi deficiency syndrome, dietary guidance focused on foods that strengthen the spleen, boost qi, nourish yin, and tonify the lungs, such as coix seed, rice, Chinese yam, honey, red dates, lotus seeds, lily bulbs, lotus root, mung beans, pear, ophiopogon, tremella, beef, lean meat, and black-boned chicken. Therapeutic recipes included lily bulb lean meat soup and jujube-longan chicken soup.

2.2.3 Syndrome Differentiation and Emotional Care

1. Provide patient education about disease-related knowledge to facilitate active cooperation.
2. Instruct family members to accompany the patient frequently and engage in conversation to distract attention.
3. The *Huangdi Neijing* proposed the therapeutic correspondence between the five musical tones and five organ systems two millennia ago. Patients were advised to listen to music in the Gong and Shang modes to tonify the lung and spleen, such as *Spring River Flower Moon Night*, *Song of the Frontier*, *Yellow River*, and *Fifteen Moon*.

2.2.4 Syndrome Differentiation and Therapeutic Technique (Gua Sha)

Gua Sha therapy involves applying pressure to the body surface through rubbing, pressing, and scraping techniques to stimulate meridians and acupoints, regulate qi-blood circulation, and achieve therapeutic and health-preserving effects.

1. Acupoint Selection:

- **Yuan-Source and Luo-Connecting Points:** Taibai (SP3) and Gongsun (SP4) of the Foot-Taiyin Spleen Meridian; Taiyuan (LU9)

and Lieque (LU7) of the Hand-Taiyin Lung Meridian.

- **Back-Shu and Front-Mu Points:** Back-Shu point of the spleen, Pishu (BL20), and Front-Mu point Zhangmen (LR13); Back-Shu point of the lung, Feishu (BL13), and Front-Mu point Zhongfu (LU1).
2. **Operation Method:** Use a jade Gua Sha board with smooth edges and holographic oasis skin oil (Beijing Oasis Source Medical Technology Development Co., Ltd.) as medium. First, select appropriate positioning and expose the treatment area, clean the local skin, apply Gua Sha oil to the treatment area, and employ surface scraping, pushing-scraping, and pressing-kneading techniques to identify positive reaction points. Apply graduated pressure in three levels (light, moderate, and strong) while continuously inquiring about the patient's sensations during treatment. Treat each acupoint for 5-10 minutes per session, twice weekly, with two weeks constituting one treatment course.

2.3 Nursing Evaluation

Pre-intervention: BFI score was 6. Laboratory findings: WBC $3.0 \times 10^9/L$, $PLT 98 \times 10^9/L$.

Post-intervention (Day 14): BFI score decreased to 2. Laboratory findings: WBC $4.87 \times 10^9/L$, $PLT 140 \times 10^9/L$.

Discussion

With advances in cancer treatment modalities, cancer patients' survival periods have significantly extended. Cancer-related fatigue represents a high-incidence event associated with cancer and its treatment, constituting one of the most common treatment-related symptoms [9]. Treatment-related damage (such as surgery and radiotherapy) and adverse effects (such as chemotherapy, targeted therapy, and immunotherapy) can all trigger CRF symptoms, substantially impacting patients' quality of life and even becoming a direct cause for treatment termination. Long-term clinical practice demonstrates that traditional Chinese medicine offers significant therapeutic advantages for malignant tumors. The application of integrated TCM therapies not only aligns with the development trend of multidisciplinary comprehensive cancer treatment but also adheres to the principle of valuing both survival duration and quality of life, achieving favorable outcomes in reducing treatment-related adverse effects, improving quality of life, and extending survival.

Gua Sha therapy is a TCM nursing technique that involves using a Gua Sha tool with medium to repeatedly scrape meridians and acupoints on the body surface for disease prevention and treatment. It functions to unblock meridians, promote qi circulation to relieve pain, and regulate organ yin-yang and qi-blood balance. Yuan-Source and Luo-Connecting point combination represents the most common acupoint compatibility principle [10-11]. Yuan-Source points are where the original qi of organs passes through and lodges in the

twelve meridians, representing locations where meridian qi is most abundant. These are the acupoints where organ original qi is transported, flows through, and lodges in the limb regions of the twelve meridians. Luo-Connecting points were first documented in the *Lingshu·Jingmai* chapter, representing sites where the main meridian's collateral branches separate from the regular meridian and where the collaterals connect with meridians and mutually connect yin-yang paired meridians. Classical acupuncture texts record that the theoretical basis lies in the fact that Yuan-Source points, Luo-Connecting points, and the five transport points all belong to the original qi circulation system. Combining Yuan-Source and Luo-Connecting points can connect the upper and lower body and communicate the interior and exterior, thereby enhancing therapeutic effects. Combining the Yuan-Source point with the Luo-Connecting point of the same meridian can treat various chronic diseases while also strengthening the body's vital qi and enhancing immunity. Therefore, Taibai (SP3) and Gongsun (SP4) of the Foot-Taiyin Spleen Meridian and Taiyuan (LU9) and Lieque (LU7) of the Hand-Taiyin Lung Meridian were selected.

The Shumu (Back-Shu and Front-Mu) point combination is a classical acupoint selection method guided by the qi street theory and yin-yang doctrine of TCM. This correspondence of "Back-Shu point-organ-Front-Mu point" regulates organ yin-yang imbalance through the entry and exit of pathogenic qi. The *Suwen Jizhu·Wuzang Shengcheng Pian* states: "The spleen governs transformation and transportation of water and grain essence to nourish muscles, thus governing the flesh." This demonstrates that the spleen can transport all nutrients to various body parts, subsequently nourishing the limbs and muscles, thereby strengthening them. Therefore, scraping the Back-Shu and Front-Mu points of the spleen facilitates the transformation and transportation of water and grain essence, which can nourish muscles and improve the patient's exercise endurance.

The lung governs qi and regulates respiration. Feishu (BL13) is where the lung's qi, blood, and essence are transported and converge on the back, capable of tonifying qi, benefiting the lung, harmonizing ying-nutrient qi, consolidating defensive qi, and tonifying deficiency. Zhongfu (LU1) connects with the lung and is where organ qi, blood, and essence gather and distribute in the chest. The combination of Feishu and Zhongfu produces the effect of tonifying lung qi [12].

In summary, Yuanluo Shu-mu combined acupoint Gua Sha therapy can ameliorate cancer-related fatigue in lung cancer patients undergoing targeted therapy, promote overall disease recovery, and improve quality of life, warranting broader clinical application.

Conflict of Interest Statement

This article has no conflicts of interest. Informed consent was obtained from the patient for case publication.

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

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