Traditional Chinese Medicine Wrapping Therapy for Chemotherapy-Induced Phlebitis in a Cancer Patient: Nursing Experience (Postprint)

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Abstract

Objective: To investigate the therapeutic efficacy of traditional Chinese medicine compression therapy for chemotherapy-induced phlebitis.

Methods: Traditional Chinese medicine compression therapy was employed to treat chemotherapy-induced phlebitis in an oncological patient.

Results: The chemotherapy-induced phlebitis in the oncological patient was successfully cured through traditional Chinese medicine compression therapy.

Conclusion: Traditional Chinese medicine compression therapy can achieve the anticipated therapeutic outcomes and merits clinical promotion and application.

Full Text

Nursing Experience in Treating Chemotherapy-Induced Phlebitis with Traditional Chinese Medicine Bandaging Therapy in a Cancer Patient

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Abstract

Objective: To investigate the therapeutic effect of Traditional Chinese Medicine (TCM) bandaging therapy on chemotherapy-induced phlebitis. **Methods:** TCM bandaging therapy was administered to a cancer patient with chemotherapy-induced phlebitis. **Results:** The patient' s chemotherapy-induced phlebitis was cured following treatment with TCM bandaging therapy. **Conclusion:** TCM bandaging therapy can achieve the expected therapeutic effect and is worthy of clinical promotion and application.

Keywords: Traditional Chinese Medicine bandaging therapy; chemotherapy-induced phlebitis; nursing care

Introduction

Chemotherapy-induced phlebitis is a common complication during chemotherapy, with reported incidence rates of approximately 50-80% among chemotherapy patients [1-2]. This condition not only causes physical and psychological pain but also affects treatment efficacy and increases the difficulty of venipuncture for nursing staff. According to TCM theory, chemotherapy-induced phlebitis belongs to the categories of "maibi" (vessel impediment) and "emai" (vessel malignancy) [3]. Its pathogenesis primarily involves chemotherapy drugs, which are mostly pungent and hot in nature, transforming into fire-heat toxins that damage the vessels, cause blood stasis and qi stagnation, and lead to damp-heat toxin accumulation stagnating in the blood vessels, resulting in impaired local qi and blood circulation. Local fever occurs due to vessel damage, and blood extravasation into the skin or internal blood heat manifests as localized redness [4]. Chinese herbal medicine possesses multiple therapeutic effects including activating blood circulation to remove stasis, reducing inflammation and relieving pain, dispersing nodules, clearing heat and resolving toxins, softening vascular walls, and removing necrotic tissue while promoting tissue regeneration. Therefore, TCM demonstrates favorable efficacy in preventing and treating chemotherapy-induced phlebitis. Our department employs TCM bandaging therapy for chemotherapy-induced phlebitis, which offers simple operation, minimal side effects, rapid effect, and convenient clinical implementation. This article summarizes the nursing experience of a chemotherapy-induced phlebitis patient treated in the Oncology Department of Beijing University of Chinese Medicine Dongfang Hospital.

1. Clinical Data

The patient, a 65-year-old male, was admitted with "poor appetite for one month and right lower abdominal pain for over one week" and diagnosed with colon cancer. TCM pattern differentiation identified spleen-kidney deficiency pattern. On the day of admission following oxaliplatin infusion, the patient's left forearm developed redness, swelling, pain, and increased skin temperature, with a palpable 3 cm × 3 cm hard nodule above the intravenous catheter puncture site [Figure 1: see original paper].

2. Treatment Methods

2.1 Nursing Interventions Dietary Care: Patients were instructed to maintain a light diet and avoid spicy and irritating foods.

Pain Management: Pain assessment was performed, and hydrocolloid dressings were applied to the skin [5]. These dressings can alleviate pain, absorb

small amounts of exudate, and create an acidic environment due to their strong adhesion to surrounding skin, thereby promoting blood circulation [6].

Psychological Care: Patients were guided to relax, provided with medication instructions, and reassured to eliminate anxiety and tension, thereby gaining their trust and promoting active cooperation with treatment.

2.2 TCM Bandaging Therapy Technique The TCM bandaging therapy formula (for clearing heat, resolving toxins, reducing swelling, and relieving pain) consisted of: Wild Chrysanthemum 15 g, Honeysuckle 15 g, Forsythia 15 g, Semiaquilegia 15 g, Rehmannia Root 15 g, Notoginseng 15 g, Xinjiang Arnebia 15 g, Spatholobus 15 g, Red Peony Root 15 g, and Indigo Naturalis 15 g.

Implementation Procedure: 1. The herbal granules for clearing heat, resolving toxins, reducing swelling, and relieving pain were poured into a treatment bowl. Boiling water and Vaseline were added and mixed evenly into a paste (herbal medicine:water:Vaseline ratio = 1:1:1). 2. A three-column bandage was immersed in the prepared herbal paste. The bandage was then rolled from the tail end in reverse, with medicine applied during rolling. After rolling, it was gently wrung until no longer dripping. 3. The medicated bandage was wrapped circumferentially around the affected area. The first circle was applied slightly obliquely, while the second and third circles were circular, with the angled corner from the first circle pressed into the circular rings for secure fixation. Subsequent circular wrapping followed, with tightness adjusted to avoid constriction while preventing slippage. The bandaging area should exceed the lesion by 2 cm. 4. Plastic wrap was applied externally. The bandage was changed daily, with frequency adjusted according to actual conditions.

3. Effect Evaluation

3.1 Evaluation Criteria The therapeutic efficacy was evaluated according to the following standards [11]: - **Cured:** Redness, swelling, heat, pain, cord-like veins, or hard nodules completely resolved; venous elasticity and function returned to normal; venous infusion could be continued. - **Markedly Effective:** Heat, redness, swelling, and pain reduced, with cord-like veins or hard nodules decreasing by >50%. - **Effective:** Redness, swelling, heat, and pain moderately reduced, with cord-like veins or hard nodules improving but decreasing by <50%; venous elasticity slightly improved or unchanged; venous infusion still not feasible in the short term. - **Ineffective:** Clinical symptoms showed no improvement or worsened compared with before treatment.

3.2 Treatment Outcomes **Day 1:** Redness, swelling, and pain in the left forearm slightly decreased; skin temperature slightly reduced; a 3 cm × 3 cm hard nodule remained palpable above the puncture site [Figure 2: see original paper].

Day 2: Redness, swelling, and pain in the left forearm decreased; skin temperature reduced; a 2 cm × 2 cm hard nodule remained palpable above the puncture site [Figure 3: see original paper].

Day 3: Redness, swelling, and pain in the left forearm significantly decreased; skin temperature reduced; the hard nodule above the puncture site was markedly smaller [Figure 4: see original paper].

Day 4: Redness, swelling, and pain in the left forearm completely resolved; skin temperature normalized; no hard nodule was palpable above the puncture site [Figure 5: see original paper].

Discussion

In TCM theory, phlebitis is classified as "maibi" or "emai" [7-8], caused by drug-induced vessel damage that obstructs blood flow, transforms into blood stasis, and accumulates in the vessels. This obstruction leads to pain (不通则痛), blocked qi-blood flow to the skin, impaired infusion causing swelling, and blood extravasation causing localized redness. Therefore, this treatment follows the principle of unblocking vessels, resolving stasis, clearing heat, and transforming dampness [9-10], demonstrating that TCM bandaging therapy effectively treats chemotherapy-induced phlebitis and reduces local inflammatory reactions.

In clinical practice, Western medicine commonly uses 50% magnesium sulfate wet dressings to prevent phlebitis caused by peripheral intravenous catheters. Although the hyperosmotic effect of magnesium sulfate solution can effectively relieve pain and reduce edema, its volatile nature requires frequent dressing changes by medical staff. Additionally, the poor breathability of plastic wrap often results in poor treatment experience and increased nursing workload [12].

This observation demonstrates that TCM bandaging therapy for chemotherapy-induced phlebitis can effectively alleviate patient suffering, produce significant therapeutic effects, shorten recovery time, and is simple to perform, making it worthy of vigorous clinical promotion.

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[11] Standard criteria for therapeutic efficacy evaluation (source not specified in original).

[12] Comparative analysis of Western medicine treatment (source not specified in original).

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