Efficacy Observation of Traditional Chinese Medicine Topical Application for Lower Limb Erysipelas (Postprint)

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Abstract

Objective To investigate the efficacy of traditional Chinese medicine compress therapy in the treatment of lower limb erysipelas. Methods Sixty patients with lower limb erysipelas were randomly divided into a control group and an observation group, with 30 cases in each group. Both groups received basic treatment; the control group was given routine nursing care, while the observation group additionally received traditional Chinese medicine compress therapy using self-designed Chinese herbal formula granules on the basis of the control group. The intervention effects were compared between the two groups, and nursing satisfaction was evaluated using a self-designed scale. Results The total effective rate in the observation group was 96.67% (29/30), which was higher than the 86.67% (26/30) in the control group, and the difference was statistically significant ($P < 0.05$). The nursing satisfaction in the observation group was also higher than that in the control group, with a statistically significant difference ($P < 0.05$). Conclusion On the basis of basic treatment and routine nursing care, traditional Chinese medicine compress intervention can effectively improve the therapeutic efficacy for lower limb erysipelas and enhance patient satisfaction.

Full Text

Preamble

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Title: Effect of Traditional Chinese Medicine Soak Therapy in the Treatment of Lower-Extremity Erysipelas

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Abstract

Objective: To investigate the effect of Traditional Chinese Medicine (TCM) soak therapy in the treatment of lower-extremity erysipelas.

Methods: A total of [number missing] patients with lower-extremity erysipelas were randomly divided into a control group and an observation group, each with [number missing] cases. All patients received basic treatment, while the control group was given routine nursing care. The observation group received additional TCM soak therapy using a self-formulated herbal granule preparation. Treatment efficacy was compared between groups, and patient satisfaction was evaluated using a self-designed questionnaire.

Results: The total effective rate in the observation group was [percentage missing]%, which was significantly higher than the [percentage missing]% in the control group ($P < 0.05$). The satisfaction rate in the observation group was also higher than that in the control group ($P < 0.05$).

Conclusion: Based on basic treatment and routine nursing care, TCM soak therapy can effectively improve treatment outcomes for lower-extremity erysipelas and enhance patient satisfaction.

Keywords: Traditional Chinese Medicine soak therapy; erysipelas; Traditional Chinese Medicine nursing; psychological care

Introduction

Erysipelas is an acute non-suppurative inflammatory condition caused by infection of the cutaneous lymphatic network by group B streptococcus. It is characterized by sudden onset and rapid spread, with clinical manifestations including well-demarcated patchy erythema with a strong burning sensation, often accompanied by headache, chills, and high fever. According to Traditional Chinese Medicine theory, lower-extremity erysipelas is triggered by skin damage that allows external fire-toxin to combine with blood heat, leading to accumulated heat. TCM external treatment methods demonstrate distinct clinical advantages for this condition, primarily employing principles of clearing heat, detoxifying, resolving stasis, and cooling blood. This study selected patients

with lower-extremity erysipelas to analyze the therapeutic effect of TCM soak intervention.

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1. Materials and Methods

1.1 General Data

We enrolled [number missing] patients with lower-extremity erysipelas as study subjects. Inclusion criteria were: (1) meeting diagnostic criteria for non-ulcerative erysipelas of both lower extremities, characterized by localized redness, burning sensation, and swelling pain; (2) normal cognitive function enabling treatment cooperation; and (3) complete clinical data. Exclusion criteria included: (1) not meeting erysipelas diagnostic standards; (2) severe cardiac, cerebral, or hematopoietic system diseases; (3) inability to communicate normally; (4) pregnant or lactating women; and (5) patients with drug allergies.

Using a random number table method, patients were divided into a control group and an observation group. The observation group comprised [number missing] males and [number missing] females, aged [range missing] years with a mean age of ([mean missing]) years. The control group comprised [number missing] males and [number missing] females, aged [range missing] years with a mean age of ([mean missing]) years. There were no statistically significant differences between the two groups in terms of gender, age, or other general characteristics ($P > 0.05$), indicating comparability.

1.2 Treatment Methods

Both groups received basic treatment with an antibiotic regimen: ceftizoxime sodium [dose missing] g added to [volume missing] mL of normal saline administered intravenously twice daily. The control group received routine nursing care, including:

Dietary nursing: Patients were instructed to quit smoking and alcohol, and to avoid spicy, stimulating, greasy, fried, and high-fat hot foods to prevent yin injury and fire activation.

Psychological nursing: Nurses provided emotional support, communicated with patients in a kind and friendly manner, guided patients to express their feelings independently, diverted their attention, and eliminated negative emotions.

Environmental nursing: The ward environment was kept clean and quiet, bed units were maintained clean, proper disinfection methods were employed, and isolation and disinfection management were implemented.

The observation group received additional TCM soak therapy using a self-formulated herbal granule preparation on top of the control group' s care.

The formula consisted of [herb names and doses missing]. The granules were dissolved in warm water and mixed into a paste. Sterile gauze was fully soaked in the medicinal liquid, gently squeezed until not dripping, and applied to the affected area. Light pressure ensured contact with the skin lesion. The dressing size was selected according to the lesion range, with the external application area slightly exceeding the lesion boundary at a thickness of [thickness missing]. Each session lasted [duration missing] minutes, administered twice daily for one week. During treatment, nurses observed the temperature and humidity of the dressing and the skin condition at the application site. After treatment, the gauze was removed, the local skin was wiped clean, and patients were assisted with dressing and positioned comfortably.

1.3 Statistical Methods

SPSS software was used for statistical analysis. Count data were expressed as percentages (%) and compared between groups using chi-square tests. Ranked data were compared using rank-sum tests. The significance level was set at $\alpha = 0.05$, with $P < 0.05$ considered statistically significant.

1.4 Intervention Effect Evaluation

Intervention effects were evaluated according to the *Diagnostic Efficacy Criteria for TCM Internal Medicine Syndromes*. Cure was defined as resolution of systemic and local symptoms with normal blood routine test results. Improvement was defined as resolution of systemic symptoms with incomplete resolution of local symptoms. Non-response was defined as failure to control systemic and local symptoms, with development of "sinking syndrome." The effective rate was calculated as (cured + improved) / total cases × 100%.

1.5 Satisfaction Evaluation

A self-designed questionnaire was used to evaluate patient satisfaction, with a total score of 100 points. Scores > 90 points indicated satisfaction, 60-90 points indicated general satisfaction, and < 60 points indicated dissatisfaction. The satisfaction rate was calculated as (satisfied + general) / total cases × 100%.

Results

Intervention Effect Evaluation

The intervention effect evaluation showed that the total effective rate in the observation group was [percentage missing]%, significantly higher than the [percentage missing]% in the control group, with a statistically significant difference ($P < 0.05$) .

Comparison of Intervention Effects Between Two Groups [n (%)]

Satisfaction Evaluation

The nursing satisfaction rate in the observation group was higher than that in the control group, with a statistically significant difference ($P < 0.05$) .

Comparison of Nursing Satisfaction Between Two Groups [n (%)]

Discussion

According to Traditional Chinese Medicine theory, erysipelas is an acute infectious disease characterized by sudden onset of bright red skin lesions, burning sensation, and rapid spread. The *Suwen · Zhi Zhen Yao Da Lun* states: "When Shaoyang governs heaven, external victory leads to development of red rashes, and red ulcers···" The *Zhubing Yuanhou Lun · Dan Du Bing Zhuhou* records: "Dan refers to sudden redness of the human body, like cinnabar applied to the skin, hence called dan. It may occur on the feet or abdomen, about the size of a palm, all caused by wind-heat and toxic pathogens. In severe cases, it resembles abscesses. If not treated promptly, the pain becomes unbearable, and eventually leads to ulceration." This condition has no fixed location; when occurring on the lower leg or foot, it is called "flowing fire." The pathogenesis involves pre-existing blood heat, external fire-toxin invasion, and accumulation of heat-toxin in the skin. In addition to systemic fever and fatigue resembling external pathogenic invasion, the affected limb shows obvious redness, swelling, heat, and pain, and may even develop skin ulceration and spreading infection. Without timely and effective treatment, it may affect clinical outcomes.

This study employed TCM soak therapy based on basic treatment and routine nursing care. The self-formulated herbal granules were prepared into a medicinal solution and applied to the erysipelas lesion for thermal retention, with each session lasting [duration missing] minutes and continued for one week. During nursing care, medical staff operated gently, paying attention to the temperature of the dressing and the skin at the application site. TCM external treatment demonstrates outstanding characteristics for acute exacerbations of non-ulcerative lower-extremity erysipelas. The topical soak method allows medicinal substances to penetrate through skin pores and travel through meridians, achieving effects of cooling blood, activating blood circulation, reducing swelling, relieving pain, and clearing heat and toxins.

The study results demonstrate that the total effective rate in the observation group was higher than that in the control group ($P < 0.05$), indicating that TCM soak intervention based on basic treatment and routine nursing care can effectively improve treatment outcomes for lower-extremity erysipelas. This approach holds important clinical significance for reducing antibiotic usage duration, shortening treatment time, alleviating anxiety caused by pain, and improving patient satisfaction and quality of life, and is worthy of clinical reference.

Conflict of Interest Statement

The authors declare that this article has no conflicts of interest.

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