Advances in the Clinical Application of Traditional Chinese Medicine Wet Compress Therapy: Postprint

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Date: 2022-09-06T00:00:00+00:00

Abstract

Traditional Chinese medicine wet compress finds extensive clinical application, constituting a form of external treatment in traditional Chinese medicine. Through systematic literature review, this paper summarizes the definition, historical origins, and mechanism of action of traditional Chinese medicine wet compress technology, and reviews its specific clinical applications from both cold and hot compress perspectives, with the aim of providing reference for clinical research.

Full Text

Preamble

Title

Research Progress in the Clinical Application of Traditional Chinese Medicine Wet Compress Therapy

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Abstract

Traditional Chinese Medicine (TCM) wet compress therapy is widely used in clinical practice as a form of external TCM treatment. Through literature review, this paper summarizes the definition, historical origin, and mechanism of action of TCM wet compress technology, and reviews its specific clinical applications from both cold and hot compress perspectives, aiming to provide references for clinical research.

Keywords: Traditional Chinese Medicine wet compress; Clinical application; Research progress; Eczema; Phlebitis

Introduction

TCM nursing is an essential component of Traditional Chinese Medicine, characterized by holistic concepts and syndrome-based nursing care. Through unique TCM nursing techniques practiced in clinical settings, it serves as a fundamental means for nursing staff in TCM hospitals to provide services for patients. As the advantages and characteristics of TCM have gained increasing attention, TCM nursing techniques, with their features of simplicity, effectiveness, ease of implementation, and low cost, have demonstrated particular strengths in alleviating patient suffering and especially improving the quality of life for patients with chronic diseases [1]. In recent years, driven by national policies, TCM nursing has flourished, and TCM nursing techniques have been widely applied in clinical practice [2]. As one of these techniques, TCM wet compress technology has now been extensively used in clinical settings. This article reviews the research progress on the clinical application of TCM wet compress technology through literature consolidation, aiming to provide more evidence for its clinical use.

1. TCM Wet Compress Technique

TCM wet compress therapy, also known as the "ta zi" method, is a treatment approach that achieves therapeutic effects through both the physical action of wet compresses on affected areas and the pharmacological actions of different medications on local lesions. This therapy originates from Qi Dezhi' s *Essence*

of External Medicine from the Yuan Dynasty [3], which records: "For ta zi method, if sores and ulcers do not subside within one or two days of onset, they must be irrigated with medicinal decoction. For those on the limbs, soak and apply."

TCM wet compress therapy has a long and profound history, representing a treasure in the TCM pharmacopeia and an important component of external TCM treatments. In ancient times, people discovered through long-term practice that applying certain plants to specific body parts could alleviate or eliminate pain, which likely marked the origin of TCM wet compress therapy. The earliest recorded instance appears in *Fifty-Two Prescriptions for Diseases* for traumatic conditions. The *Huangdi Neijing* states: "For those affected by pathogenic factors, soak the body to induce sweating" [4]. TCM classics record: "If the disease has a fixed location between skin, muscles, and bones, and can be located by palpation, apply medicated compresses to block the qi, allowing medicinal properties to penetrate through pores into the tissues and meridians, either drawing out pathogenic factors or dispersing them, which is more effective than oral medication." External treatments continue to receive attention in modern times, particularly TCM wet compress therapy. Following principles of inheritance and development, scholars have extensively conducted theoretical and clinical research on TCM wet compress therapy using integrated traditional and modern scientific approaches, enabling its clinical efficacy.

Modern practitioners classify wet compresses into cold and hot compresses based on solution temperature. Cold compress: Temperature is controlled at ℃, which can reduce local skin temperature, alleviate tissue congestion, slow blood circulation, and prevent further inflammation [5]. Hot compress: Temperature is controlled at ℃, which can relieve chronic pain, relax muscles and tendons, activate blood circulation, and accelerate blood flow [5].

2. Clinical Applications of TCM Wet Compress Technology

2.1 Dermatological Applications

TCM wet compress therapy has a long history in dermatology, where it is primarily used to suppress exudation, reduce swelling and pain, inhibit bacterial infection, astringe and relieve itching, and promote wound healing [6].

Eczema: Eczema is an inflammatory skin reaction with obvious exudative tendency [7], affecting approximately % of adults globally and representing a common dermatological condition accounting for about % of dermatology outpatient visits [8]. Acute eczema constitutes about % of cases [9]. Western medicine primarily uses antihistamines combined with steroids as first-line treatment, but long-term use may lead to drug resistance or even steroid dependence [10]. Ji Mei et al. [11] conducted a controlled trial on subacute eczema patients and concluded that the effective rate of TCM wet compress treatment (%) was significantly higher than that of normal saline wet compress (%), demonstrating that TCM wet compress is superior and worthy of clinical promotion. Yao

Yachun [12] similarly concluded through group trials that TCM wet compress effectively treats eczema with low recurrence rates, no side effects, high safety, convenient application, and low cost, making it worthy of clinical application and promotion.

Herpes Zoster: In Hu Bing' s [13] study, the treatment group received TCM wet compress combined with acyclovir, while the control group received topical acyclovir ointment plus oral acyclovir tablets. The treatment group showed an effective rate of % compared to % in the control group, with significantly better outcomes. The conclusion: TCM wet compress combined with acyclovir for herpes zoster can shorten disease course, improve efficacy, and reduce neuropathy incidence. Gu Zhuxia et al. [14] observed the clinical efficacy of TCM wet compress combined with conventional Western medicine in acute herpes zoster treatment, concluding that this combination can significantly improve total effective rates, alleviate pain, reduce recovery time and hospitalization duration, and decrease economic burden, with notable effects worthy of promotion.

Erysipelas: Wang Hanxu [15] used magnesium sulfate wet compress combined with TCM wet compress for lower limb erysipelas, finding that the observation group (combination therapy) had significantly higher total effective rates and significantly lower recurrence rates within six months compared to the control group (magnesium sulfate alone). Zhang Min et al. [16] observed the effects of TCM decoction wet compress on damp-heat type lower limb erysipelas, concluding that TCM wet compress combined with anti-infection therapy effectively treats this condition, improving effective rates and shortening disease course safely and reliably.

2.2 Pressure Injuries

Pressure injuries belong to the TCM category of "xi chuang" (bedsores). As recorded in Qing Dynasty Zou Yue' s *Authentic External Medicine*: "Xi chuang results from long-term bedridden patients with prolonged pressure and friction, occurring on the back above and coccyx below." The TCM pathogenesis involves long-term illness and bed rest leading to qi and blood deficiency, impaired blood circulation, plus local pressure causing qi and blood stagnation, generating damp-heat that further deprives muscles and skin of nourishment, resulting in local necrosis and sores, potentially leading to severe complications from toxic infection. The disease location is in the skin and muscles, reaching bones in severe cases. Sun Suxia et al. [17] concluded through clinical observation that TCM wet compress for pressure injuries can control wound infection, accelerate wound repair, promote granulation tissue and epithelial cell growth, and facilitate wound healing, demonstrating good clinical efficacy.

2.3 Phlebitis

Intravenous infusion is one of the most common treatments for inpatients and outpatients, with phlebitis being its most common complication. Phlebitis pre-

vention and treatment remain important nursing concerns. In TCM, phlebitis belongs to the "mai bi" (vessel obstruction) category, believed to result from puncture-induced vessel injury, abnormal blood flow, qi and blood coagulation, or blood-heat accumulation, manifesting as local redness [18]. Conventional magnesium sulfate wet compress is commonly used but dries quickly, forms crystals, causes gauze hardening, and provides limited analgesia [19]. Jia Nan et al. [20] concluded through randomized controlled trials that TCM wet compress shows better therapeutic effects than magnesium sulfate for amiodarone-induced phlebitis, warranting clinical nursing promotion. Luo Zhangmei et al. [21] found that compared with magnesium sulfate, TCM wet compress significantly alleviates pain symptoms in chemotherapy-induced phlebitis patients, with satisfactory outcomes. This external treatment is safe without adverse reactions, allows continuous observation of patient adaptation and tolerance for timely adjustment, and can be discontinued upon healing. It improves patient quality of life, fully leverages TCM advantages in treating chemotherapy-induced phlebitis, offers excellent efficacy with low cost and simple operation, and provides good social and economic benefits, representing a new, safe, and effective clinical approach.

2.4 Subcutaneous Nodules

In TCM, subcutaneous nodules from injections result from local vessel injury and qi-blood stagnation [22]. Zhao Jialu et al. [23] compared TCM wet compress versus mupirocin ointment for subcutaneous nodules caused by azacitidine injection, concluding that TCM wet compress effectively improves these nodules, relieving pain and swelling.

2.5 Various Pain Conditions

Wang Jie [24] applied Liushen pills combined with wet compress for postherpetic neuralgia, with the observation group showing % effective rate versus % in the control group receiving conventional Western therapy. The observation group demonstrated superior pain relief and sleep quality improvement, with better emotional outcomes. Ma Ge [25] observed the effects of comfort nursing combined with TCM hot wet compress on lumbocrural pain, concluding this intervention reduces pain, improves comfort, and enhances psychological status, warranting promotion. Dong Shunxia [26] found that wax therapy combined with wet compress for lumbar disc herniation can be directly absorbed through skin to act on painful areas, warming meridians, activating blood, relieving pain, and regulating organ function, demonstrating good efficacy with convenience, worthy of clinical promotion and application.

Conclusion

In recent years, TCM wet compress therapy has been widely applied in clinical practice with distinct advantages, high flexibility, and simple operation. It can

dredge meridians, reduce swelling, clear heat and detoxify, with medicinal liquid acting directly on lesions through gauze. Active ingredients are absorbed transdermally, promoting local blood and lymphatic circulation to effectively reduce edema, alleviate pain, and accelerate wound healing [27]. TCM wet compress requires consideration of disease characteristics, patient conditions, and individual constitution to fully exert TCM effects of dredging meridians and harmonizing organs. Currently, no unified standards exist for operation methods, procedures, or evaluation of TCM wet compress in clinical practice. Although related research is extensive, it lacks depth. Future studies should conduct in-depth investigations to unify standards and improve operational protocols. Overall, as a commonly used external TCM treatment, wet compress therapy embodies TCM characteristics of simplicity, convenience, low cost, and high efficacy, making it worthy of clinical promotion and application.

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