

Research Overview of Zhuang Medicine Fumigation Lotions

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Abstract At present, there is little research on the application of Zhuang medicine fumigation lotions in skin diseases, and there is no research on related preparation processes and quality standards. In this paper, the characteristics of its formulation and the research progress in skin diseases are reviewed, in order to deepen the understanding of Zhuang medicine fumigation lotions and provide a more detailed theoretical basis for its clinical research, development and application.

Key words Zhuang medicine fumigation lotions, *Ilicis Rotundae* Cortex, *Eiliae Herba*, *Polygoni Perfoliati Herba*, *Rhei Radix Et Rhizoma*

1 Introduction

Zhuang medicine fumigation lotion is a traditional Chinese medicine compound formulation developed based on the theory of traditional Chinese medicine. It embodies the traditional formula structure and compatibility laws, and has broad representativeness and methodological research value. Through reviewing modern literature, it has been found that there is currently no relevant research on the Zhuang medicine fumigation lotion, and it is the traditional Chinese medicine experience formula of traditional Chinese medicine experience formula of famous traditional Chinese medicine dermatology experts in Guangxi International Zhuang Medical Hospital, which cures skin diseases such as facial dermatitis, acne, and pruritus vulvae. In this paper, the composition, compatibility characteristics, clinical application status, and development trends of Zhuang medicine fumigation lotions are mainly reviewed.

2 Composition and compatibility characteristics of Zhuang medicine fumigation lotions

Zhuang medicine fumigation formula is processed by fourteen traditional Chinese medicines, including *Ilicis Rotundae* Cortex, *Eiliae Herba*, *Polygoni Perfoliati Herba*, *Rhei Radix Et Rhizoma*, *Sanguisorbae Radix*, *Portulacae Herba*, *Taraxaci Herba*, *Corydalis Bungeanae Herba*, *Chrysanthemi Indici Flos*, *Giant Knotweed Rhizome*, *Phellodendri Chinensis Cortex*, *Sophorae Flavescens Radix*, *Salviae Miltiorrhizae*, *Gleditsiae Spina*. It has the functions of clearing heat and detoxifying, and dispersing nodules and

swelling, and could treat skin diseases such as rashes, folliculitis, and skin furuncles with clinical manifestations of erythema, papules, nodules, and cysts, with significant therapeutic effects.

2.1 Principal drugs In the prescription, *Ilicis Rotundae* Cortex, *Eiliae Herba*, and *Polygoni Perfoliati Herba*, which could clear heat, detoxify, promote diuresis and reduce swelling, are the principal drugs. The water and ethanol extract of *Ilicis Rotundae* Cortex exhibit strong antibacterial effects^[1], while the traditional Chinese medicine *Eiliae Herba* has significant anti-inflammatory effects^[2]. Zhang *et al.*^[3] isolated flavonoids from *Polygoni Perfoliati Herba* for *in vitro* and *in vivo* antiviral tests. *In vitro* results showed that flavonoids can effectively inhibit virus replication and transmission between cells. *In vivo* experimental results showed that flavonoids can effectively treat recurrent HSV-1 infection.

2.2 Adjuvant drugs *Rhei Radix Et Rhizoma*, *Sanguisorbae Radix*, *Portulacae Herba*, *Taraxaci Herba*, *Corydalis Bungeanae Herba*, *Chrysanthemi Indici Flos*, *Giant Knotweed Rhizome*, which cool blood, detoxify, and collect sores, are used as adjuvant drugs. *Rhei Radix Et Rhizoma* has the effects of clearing heat, detoxifying, antibacterial, and anti-inflammatory^[4], while *Sanguisorbae Radix* has a significant inhibitory effect on inflammatory reactions. Various animal experiments have shown that the effects of *Sanguisorbae Radix* on formaldehyde induced foot swelling model in rats, cotton ball granuloma model in rats, and contact dermatitis in mice induced by dinitrofluorobenzene were significant^[5]. As a traditional Chinese medicine, *Portulacae Herba* is rich in various chemical components with pharmacological activity such as antioxidants, polysaccharides, alkaloids, and various flavonoid compounds. It plays an antibacterial, anti-inflammatory, anti-tumor, hypoglycemic, and antioxidant role. Currently, it has been clinically used to treat diseases such as acute eczema, herpes zoster, flat warts, diarrhea, and breast abscess^[6]. *Taraxaci Herba*^[7], *Corydalis Bungeanae Herba*^[8], *Chrysanthemi Indici Flos*^[9], *Giant Knotweed Rhizome*^[10] all have obvious effects of clearing heat and detoxification.

2.3 Adjuvar *Phellodendri Chinensis Cortex* and *Sophorae Flavescens Radix* are used as adjuvar to kill insects and relieve itching. In clinical practice, *Phellodendri Chinensis Cortex* decoc-

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tion is used externally for skin diseases. When using Phellodendri Chinensis Cortex decoction or compound Phellodendri Chinensis Cortex lotion to treat eczema, a suitable amount of Phellodendri Chinensis Cortex decoction diluted to a certain proportion is dipped in gauze and wet applied to the affected area, achieving good clinical results^[7]. Sophorae Flavescens Radix has a cold nature and a bitter taste. It plays the role in the heart, liver, stomach, large intestine, and bladder, and is used for treating heat dysentery, bloody stools, jaundice, urinary obstruction, leukorrhea with reddish discharge, vaginal swelling and itching, eczema, skin itching, scabies, leprosy, and trichomonas vaginitis^[11].

2.4 Conductant drugs Salviae Miltiorrhizae and Gleditsiae Spina are used as conductant drugs to promote blood circulation, dissipate blood stasis, soften hardness, and disperse nodules. Salviae Miltiorrhizae has a slightly cold nature and a bitter taste. In traditional Chinese medicine, it is commonly used as a blood activating and stasis resolving medicine, which has the effects of promoting blood circulation and meridians, clearing away troubles and clearing the heart, cooling blood and reducing swelling, dispelling stabbing pain in the heart and abdomen, and removing carbuncle swelling erysipelas^[12]. Gleditsiae Spina, warm in nature, spicy in taste, plays the role in the liver, lung, and stomach. Traditional Chinese medicine believes that Gleditsiae Spina has the effects of disinfecting, penetrating pus, and killing insects^[13]. All herbs are used together, with the effects of clearing heat and detoxifying, reducing dampness and astringent sores, and reducing swelling and itching, which could treat skin diseases such as facial dermatitis, acne, and pruritus vulvae.

3 Current status of clinical application

In the long-term medical practice, the Chinese people have created various methods to treat skin diseases. Skin diseases are a general term for diseases that occur in the skin and skin accessory organs^[14]. The skin is the largest organ in the human body, and there are not only various types of skin diseases, but also various visceral diseases that can manifest on the skin. There are many reasons that can cause skin diseases, such as infectious factors. Leprosy, scabies, fungal diseases, and skin bacterial infections are often contagious, which not only affect physical health, but also cause panic and social discrimination. With the improvement of people's living standards and the advancement of science and technology, infectious diseases such as leprosy have been significantly controlled worldwide.

Traditional Chinese medicine therapy is an external treatment method created by the Chinese people in long-term medical practice to treat skin diseases^[15]. There were literature records from the Pre Qin Dynasty to the Qing Dynasty, and it is widely used in clinical practice^[15]. Its warm nature can directly reach the skin lesions, and has the effects of dispersing wind and inducing heat, eliminating carbuncle and breaking nodules, and promoting blood

circulation and resolving blood stasis. According to the differentiation and treatment of skin lesions and the combination of formulas, its medicinal power can reach the site of the disease directly, and its transdermal absorption effect is better. Traditional Chinese medicine therapy is widely used in the treatment of various types of skin diseases. It has the advantages of simple operation, good clinical efficacy, relatively small side effects, and low price. Therefore, it is widely used in various clinical departments such as the skin and is highly favored by doctors and patients, providing new ideas for guiding clinical treatment. But it should further study the mechanism and effective factors of traditional Chinese medicine therapy, deeply grasp the laws of traditional Chinese medicine treatment, and improve its efficacy.

At present, significant progress has been made in traditional Chinese medicine fumigation with further research and application. However, the mechanism of traditional Chinese medicine fumigation treatment for facial skin diseases is complex, and the specific mechanism is not yet clear. Deng Fuzhong^[16] pointed out that Chinese herbal fumigation with high temperature, high humidity, and high drug concentration on the face increases skin hydration, which is beneficial for drug absorption. Moreover, it does not undergo liver metabolism, directly acts on the facial skin, and has cleaning, antibacterial, insect killing, itching relieving, anti-allergic, and anti-inflammatory effects. The Chinese medicine is inhaled through the nasal cavity, trachea and lung, and diffused into the blood through the mucosa. The absorption is rapid, without "first-pass effect". When determining arterial blood gas, Liu Linya *et al.*^[17] found that fumigation with traditional Chinese medicine could promote blood circulation, improve metabolism, and accelerate the recovery of the body. When determining hemorheology index, Liu Linya *et al.*^[17] found that the various indicators of the traditional Chinese medicine fumigation group were significantly lower than the control group, indicating that traditional Chinese medicine fumigation has the effect of improving blood circulation.

4 Development trends

With the continuous improvement of residents' living standards in recent years, people have paid more and more attention to appearance. Skin diseases seriously affect people's physical and mental health, bringing great troubles to people. At present, there are many methods and drugs for treating skin diseases. But if medication is used carelessly or treatment is improper, various secondary skin diseases should occur, making later treatment more difficult. Traditional Chinese medicine fumigation therapy has achieved certain results in the treatment of skin diseases. Its method is scientific, safe, convenient, and has no adverse reactions. The drug directly acts on the affected area, avoiding adverse reactions and difficulty in long-term adherence to oral drug treatment. Patients are easy to accept and have good compliance, providing new ideas for guiding clinical treatment^[19]. However, traditional Chinese medicine fumigation therapy is still very limited in the treatment of

facial skin diseases in clinical application, with insufficient clinical research and observation, and the mechanism of its treatment is still unclear. Moreover, there is currently little research on the formula of fumigation, and more extensive clinical research observation and exploration are still needed. It is hoped that with the joint efforts of medical personnel, traditional Chinese medicine fumigation will play a greater role in the treatment of skin diseases, bringing good news to the vast number of skin disease patients.

After completing the relevant research on Zhuang medicine fumigation lotions, writing relevant materials, and submitting the materials for filing to the Guangxi Zhuang Autonomous Region Drug Administration, ethnic medicine preparation products are made. It can improve the quality and competitiveness of ethnic medicine preparation products, and increase sales. It could provide a reference basis for the clinical use of Zhuang medicine fumigation lotions, and also lay a certain theoretical foundation for the further application and development of ethnic medicine preparations. Traditional Chinese medicine is a treasure passed down from generation to generation among various ethnic groups in China. It has a definite therapeutic effect in treating skin diseases, high safety, and fewer adverse reactions. When used in combination with Western medicine, its efficacy can be enhanced, and adverse reactions can be reduced.

The research could help to ensure the safety and effectiveness of clinical medication, enhance market share and competitiveness. This distinctive external preparation of ethnic medicine will undoubtedly add new vitality to Guangxi ethnic medicine preparations, bring new hope to patients, and play a demonstration role in the development of Guangxi's characteristic traditional Chinese medicine. Compared with similar domestic products, this product has low cost and good therapeutic effect, without adverse reactions. It is expected to have good market competitiveness, and it could also generate significant social and economic benefits.

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