

# *Analysis of the Efficacy of Traditional Chinese Medicine External Therapy in the Treatment of Psoriasis Vulgaris*

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**Keywords:** Psoriasis Vulgaris, External Treatment of Traditional Chinese Medicine

**Abstract:** Psoriasis vulgaris is a chronic inflammatory skin disease characterized by erythema and scales, with a prolonged and recurrent course, which seriously affects the quality of life of patients. Currently, Western medicine treatment mainly uses immunosuppressants and glucocorticoids, which can control symptoms in the short term, but long-term use is prone to adverse reactions and has a high recurrence rate. Based on the theory of "treating external diseases must start from the internal", traditional Chinese medicine external treatment methods directly act on the affected area through drugs, and have the advantages of definite curative effect, high safety and good patient compliance. They are widely used in the treatment of psoriasis vulgaris. This article aims to systematically observe the clinical efficacy of traditional Chinese medicine ointment application, traditional Chinese medicine bath and traditional Chinese medicine fumigation and other traditional Chinese medicine external treatment methods on psoriasis vulgaris, and provide a reference for clinical treatment.

## 1. Introduction

Psoriasis vulgaris is a chronic inflammatory skin disease that is difficult to cure in dermatology. Its clinical symptoms are mainly characterized by scaly red plaques with clear boundaries on the scalp, elbows, knees and other parts of the skin, accompanied by varying degrees of pruritus [1]. At present, there is no specific drug for the treatment of psoriasis vulgaris, which is mainly treated by conventional symptomatic treatment such as glucocorticoids, cyclosporine, and retinoic acid drugs. Fluticasone propionate as a synthetic glucocorticoid, relying on unique targeted anti-inflammatory, anti-allergic, resist hyperplasia of epidermis and advantages, can significantly reduce the skin, improve skin resistance [2] and effective application in the treatment with psoriasis vulgaris, but is not suitable for use for a long time, can increase the local skin atrophy and adrenocortical function in patients with hyperthyroidism risk. In addition, fluticasone propionate is not suitable for long-term use, and its effect is not long lasting, which will affect the overall clinical efficacy and easily lead to disease recurrence. Therefore, there is an urgent need to explore a safer and more effective clinical treatment scheme. Topical preparations of traditional Chinese medicine are safer

and more sustainable than topical steroids, which is one of the key directions of clinical research of traditional Chinese medicine.

## **2. External treatment of psoriasis with traditional Chinese medicine**

The book "Great Compendium of Surgery" first proposed "white sores" as a disease name. This disease has a complex pathogenesis, is accompanied by unbearable itching, often recurs, and is difficult to heal, making it a key disease in dermatology treatment. Yi Tong Yuan Liu said, "The most important thing is external treatment of surgical syndrome." The external treatment of traditional Chinese medicine plays an important role in the treatment of psoriasis because of its rich treatment methods and direct access to the disease site, which can treat the outside and the inside, remove pathogens and strengthen the health. The external treatment of traditional Chinese medicine refers to the method of applying drugs in different forms to the skin, holes, shu points and other parts of the body to play a therapeutic role under the guidance of the theory of traditional Chinese medicine. Traditionally, divides into the skin disease of TCM malnutrition, sores and the itch, tinea, spot, rash, bud, acne, warts and other nine categories. Tinea has a wide range of meanings. All skin diseases with thickened skin accompanied by scaly shoulders or exudates are collectively called tinea. Traditional Chinese medicine (TCM) has a long history of external treatment of psoriasis, and psoriasis is often recorded as "tinea" in various ancient medical books. Shen Kuo's Su Shen Liang Fang (Good Prescriptions of Su Shen) in the Jin Dynasty had many records about thin plaster, such as the use of Wuhuang ointment for the treatment of mange and all evil sores and poisons. In the Song Dynasty's Taiping Shenghuifang (Taiping Shenghuifang), it is recorded that "for the treatment of psoriasis, the ghaba bean (ten fat) is produced for many years. The oil is exhausted when the charcoal is burned, and a little crisping and research such as ointment can not be applied lightly for one or two times." "Treating psoriasis itchiness and pain more than cantharis (May 5 to take seven), musk (half money)... , for the end of the study, vinegar smear on the sores, a little more yellow water." Xue Ji of the Ming Dynasty wrote in Lizhai Surgical Play, "for treatment of scabge, tinea scabge, pruritus, and dripping of pus, use osthole, Fenfeng, Sophorae, schizonepetum, Duhuo (one or two for each), patulin and Kufen (five dollars for each) to make the skin with sesame oil." Wang Ken-tang's Zhengzhi Zhun Sheng (Criteria for Syndrome and Treatment) of the Ming Dynasty recorded: "All over the body, such as the wind epidemic, white color itching, scratching the white sores, known as the Japanese snake wind. With oil filthy field fat plants, mountain camphor cotyledon, camphor leaves, cypress leaves fried water, into some vinegar wash." In the New Compilation of Proved Prescriptions of the Qing Dynasty, it was also stated: "To treat smallpox, wind and tinea, decoction of soybean capsid with water, and wash the powder." It can be seen from the above that a variety of TCM external treatment methods for psoriasis were recorded in the medical books of past generations, both in the types of drugs and dosage forms. The preparation method was simple and quick, which was the basis for the development of modern TCM external treatment for psoriasis.

## **3. Clinical study on the external treatment of common Chinese medicine for psoriasis vulgaris**

In the long course of development, the theory of external treatment of traditional Chinese medicine has gradually matured. On the basis of inheriting the experience of the ancient people, the external treatment is based on the principle of syndrome differentiation and treatment, and the internal treatment method is used to guide the external medicine, so as to achieve the effect of improving local symptoms and treating the disease.[4] The selection of traditional Chinese medicine is more extensive, safe and effective, the types of external treatment are more abundant, and the operation is more standardized, which has gradually become an important part of the

treatment of psoriasis with traditional Chinese medicine. [5]At present, the external treatment of Chinese medicine for psoriasis mainly includes ointment, oil, tincture, lotion and other external liniment, decoction fumigation, medicine bath, good irrigation, umbilical application and so on. In recent years, a large number of studies have shown that the topical application of traditional Chinese medicine has good clinical efficacy and safety in the treatment of psoriasis vulgaris.[6]

#### 4. External application of traditional Chinese medicine

External application of traditional Chinese medicine (TCM) is the direct application of ointment, oil, tincture, lotion or powder made of traditional Chinese medicine to the skin lesions [3]. Because of its simple operation, safety and effectiveness, and the corresponding drug dosage form can be selected according to the characteristics of the skin lesions, it is widely used in clinical practice. The drawback is that some ointments have darker color and thicker smell, which is inconvenient to use. Huang Yuhua et al. observed the experience of Zhao Bingnan in the treatment of blood-heat syndrome of psoriasis vulgaris with the prescription of Plulian ointment (composed of Huangbai and *Scutellaria baicalensis*). The treatment group (n = 50) was treated with Prolan cream, and the control group (n = 50) was treated with placebo. The course of treatment was 4 weeks. The results showed that the total effective rate of the treatment group was better than that of the control group, and the difference was statistically significant. Zhang Yishen et al. used Qingshi antipruritic ointment (mainly Qingdai and calamine) for external use in the treatment of patients with psoriasis vulgaris (blood-heat accumulation syndrome) in the active stage and observed the clinical efficacy. 120 patients who met the criteria were randomly divided into two groups, 60 cases in each group. The results showed that on the basis of oral compound Qingdai capsule, the effective rate of the treatment group (82.35%) was similar to that of calcipotriol ointment group (87.71%), and the difference was not statistically significant. Su Jie applied arnebia root cream (composed of arnebia root, safflower, *Angelica sinensis*, and white and blue) compared with placebo in the treatment of blood-dryness syndrome of psoriasis vulgaris. The treatment course was 8 weeks. The results showed that the improvement of PASI score and pruritus degree score in the experimental group was better than that in the control group, and the difference was statistically significant, and no obvious adverse reactions occurred. Li Wenlong randomly divided the patients with psoriasis vulgaris blood-heat syndrome into two groups. On the basis of oral administration of traditional Chinese medicine for clearing heat, cooling blood and detoxing, the experimental group was treated with Huanglian ointment (composed of Huanglian and vaseline), and the control group was treated with calcipotriol ointment. After 4 weeks of treatment, the total effective rate of the experimental group (93.33%) was not significantly different from that of the control group (90.00%), suggesting that the curative effect was similar. The economic benefit of Huanglian ointment is better than that of the control group. It can be seen that Huanglian ointment can reduce the economic burden of patients while effectively treating the disease. Garcinia ointment is a hospital preparation in Xi'an Hospital of Traditional Chinese Medicine. It has been used clinically for many years, including garcinia, vaseline, etc. It has been found to be effective in the treatment of psoriasis vulgaris. The preparation process of garcinia garcinia ointment is as follows: vinegar franticum, vinegar myrrh, garcinia garcinia, yellow wax, sesame oil and other Chinese medicinal materials are broken, pass through the first sieve, add 100g vaseline matrix vaseline, heat, stir continuously to completely melt, continue to mix for 20 minutes, stir to room temperature, divided into boxes. Garcinia ointment is mainly composed of vinegar frankincense, vinegar myrrh, garcinia, yellow wax, sesame oil and other traditional Chinese medicine. It has the effect of activating blood and detoxifying, dispersing knots and relieving pain, reducing swelling and discharging pus. It is mainly used for ulcer and ulcer, fall and injury. The vinegar frankincense and vinegar myrrh in the formula have two

properties of pungent and bitter, which enter the heart, liver and spleen, and have the effects of promoting blood circulation, relieving pain, swelling and growing muscles. Garcinia, also known as jade yellow, moon yellow, "sea medicine Materia Medica": "sour, toxic." With the effect of detumescence, detoxification and hemostasis, the three drugs play together to promote blood circulation, detumescence and pain relief for you; Yellow wax is sweet, light and flat in taste. It enters the spleen, stomach and large intestine, and has the effect of detoxifying and growing muscle, stopping bleeding and reducing pain. Fragrances are used to cool and relieve pain, while the whole formula has the effect of activating blood and relieving pain, reducing swelling and dispersing accumulation.

## 5. Other external use of traditional Chinese medicine

Traditional Chinese medicine bath method is the decoction of traditional Chinese medicine, preserved in a container, immersed in the whole body and local, through the skin, hole, Qianshu points and other parts of absorption, by dredging meridians, harmonizing qi and blood, play a holistic therapeutic role. This method can effectively remove skin exudates, scales, crusts, and has sedative and antipruritic effects. Chinese medicine fumigation method, also known as Chinese medicine vapor therapy, is the use of steam equipment to fumigate the drug vapor of Chinese medicine decoction into the human body, through the epidermis into the blood circulation, so as to play the role of dredging meridians and reconciling qi and blood. The warm effect of fumigation can increase the temperature of the skin and expand the capillaries, thereby promoting the absorption of drugs and blood circulation. The good irrigation of traditional Chinese medicine means to apply the liquid medicine directly to the skin lesions. When using, 6-8 layers of sterile gauze are immersed in the liquid medicine, and wring it until no water drops is appropriate. "Keke Xinfu Yaojue" recorded: "Where the swelling in the limbs, TA ta ta... With cloth or cotton dip, a little warm is easy..." Modern medicine believes that good irrigation can increase the moisture content of the local cuticle of the skin and increase the concentration of medicine in the lesion, so that the effect of medicine can reach the diseased place. Zhu Liming et al applied Xiaoyin navel plaster (indigo radix 10g, arnebiae radix 10g, salvia miltiorrhiza 10g, and nux chinensis 25g) to the patients with psoriasis vulgaris in the active stage for 8 weeks. The effective rate was 70.83 %, and the levels of tumor necrosis factor and interleukin in peripheral blood of the patients were significantly lower than those before treatment, and the difference was statistically significant. Wang Yanping et al found that after 12 weeks of treatment, the PASI score of patients with psoriasis vulgaris was significantly lower than that before treatment, and the total clinical effective rate was 90.0%. [7]

## 6. Conclusions

Traditional Chinese medicine has certain advantages in the external treatment of psoriasis vulgaris. The types of external treatment are rich and diverse, and the corresponding treatment can be selected according to the condition and the needs of patients, which is easy to be accepted by patients. In addition, there are a variety of drug prescriptions, which can be selected according to the patient's overall syndrome differentiation and local skin lesion differentiation, and effectively play a therapeutic role in the pathogenesis with less side effects. At present, the clinical trials of external treatment of psoriasis vulgaris with traditional Chinese medicine have preliminarily shown that the external treatment of traditional Chinese medicine can improve the clinical efficacy and safety. However, there are still many deficiencies in the related research, such as the lack of sample size estimation, the lack of blinding method, the low methodological quality, and the lack of long-term follow-up of adverse reactions and recurrence rate. There are various kinds of external

treatment of traditional Chinese medicine, and the drugs used are numerous and complex. There is a lack of systematic evaluation of the efficacy and safety of various treatment methods and the analysis of medication rules. In addition, there are few studies on the specific mechanisms of the effect of prescriptions or drug components on psoriasis. In the future, the quality of clinical research can be improved to further explore the immunological mechanism of TCM external treatment of psoriasis, so as to improve the rationality and credibility of the research results and provide data support for the promotion and application of TCM external treatment.

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