Research Progress on TCM Characteristic External Treatment of Chronic Urticaria

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Abstract: Chronic urticaria is a common allergic skin disease in clinical practice called "Yin Zhen" in Traditional Chinese medicine. While modern medical treatment is based on antihistamines, a variety of medical means cannot quickly improve the patient's pain experience. Furthermore, chronic urticaria holds a relatively high recurrence rate, impacting the physical and mental health of patients for a long time. According to the relevant literature, it is found that characteristic acupuncture and moxibustion therapy, acupoint therapy, acupuncture and cupping, and other combined therapies can effectively relieve the immediate symptoms of patients and prolong the attack interval. The short-term and long-term efficacy are satisfactory. Relevant literature in recent years on the characteristic external therapy of CU with Traditional Chinese medicine is summarized as follows to provide new ideas for experts and colleagues.

1. Introduction

Chronic urticaria (CU) can be diagnosed by recurrent wheals and/or angioedema with itching and a duration of more than 6 weeks \cite{1,2}, which belongs to the category of "Yin Zhen" in Traditional Chinese medicine (TCM). And aliases such as "red and white wind," "ghost wind pimples," and "gas run" reflect the characteristics of diverse forms and unpredictable changes of CU. The etiology is complex and vague, and the pathogenesis is ambiguous, making CU easily diagnosed but laborious to cure. TCM believes that the primary responsibility for the pathogenesis of CU is endowment intolerance, exogenous six evils (including Wind, Cold, Heat, Dampness, Dryness, and Fire evils, while the wind evil is the critical factor causing recurrent CU), but also induced by improper diet, emotional distress and so on \cite{3}. Western medicine is based on antihistamine therapy, and a variety of treatment modalities cannot effectively prevent CU recurrence \cite{4}. TCM syndrome differentiation and internal regulation of decoction have obtained satisfactory clinical effects. "the principle of external treatment could be that of internal treatment." as we know, TCM external treatment also holds the characteristics of a "simple, convenient, effective, testable" with rapid relief of itching symptoms, long-term improvement of physical condition and other advantages, and basically no
adverse reactions. So, it can be an effective supplement to modern medical treatment. Therefore, further clinical research, promotion, and application to external treatment of TCM are urgently needed.

2. Characteristic Acupuncture Therapy

2.1. Umbilical Acupuncture

Umbilical Needle Therapy refers to a new type of acupuncture method used to treat diseases by needling the Shenque point on the umbilicus to regulate viscera function up to the state of a balance of Yin and Yang. Guided by the theory, the umbilicus is regarded as an Eight Diagram Picture, with the upper part of the heart, the lower part of the kidney, the left part of the liver, and the right part of the lung, and these orders are called the umbilical needle "Four Standard Orientation." Professor Nong [5] emphasized that the key to its application lies in localization, and "Shengyang Three Needles" is preferred in the treatment of CU, which has a significant effect in the acute attack of CU. That is, the needle is removed successively from the three positions: Kan, Zhen, and Lie, from which nourishing Yin and tonifying the kidney is used to cure the disease, expelling Wind evil and soothing the liver is used to treat the symptoms. The three positions complement each other, combining water and fire, with Dui position to replenish lung qi. Jin Lingqing et al. [6] believed that the umbilical needle's "four standard orientation" was suitable for various types of CU, whose bidirectional regulation effect could remove six evils such as wind, heat, and cold. Under the guidance of this theory, 100 patients with CU were randomly divided into an observation group and a control group. The observation group was treated with umbilical needle "Four Standard Orientation" combined with abdominal acupuncture, while the control group was orally administered with Loratadine Tablets. The results showed that the total effective rate was 90% in the observation group and 72% in the control group, and the difference was statistically significant (P<0.01).

2.2. Scalp Acupuncture

Scalp acupuncture was pioneered by Dr. Fang in the late 1950s, also known as "Fang's Scalp Acupuncture," which combines the theory of functional alignment of the cerebral cortex, biological holographic theory, and the theory of meridians in TCM and develops a unique theory and treatment of "Zang Xiang." Ni Wei et al. [7] randomly divided 80 patients with CU into a treatment group (n=42) and a control group (n=38). The treatment group was treated with scalp acupuncture combined with body acupuncture. Empirical acupoint selection of bilateral inverted dirty lower coke, writing, and smell, in order to exert its Wind-evil-expelling and anti-allergic effect, the voltages "Pishu"(BL20) and "Feishu"(BL13) are imitating body acupuncture acupoint selection to exert its effect of invigorating spleen qi and dispelling dampness.

2.3. Other Characteristic Acupuncture Therapy

Fire needle therapy refers to the treatment method of rapidly pricking the acupoints or lesion sites on the patient's body surface after burning the needle tip red to achieve the purpose of dissipating mass and softening firmness, heat induction, activating meridians, removing blood stasis and detumescence, which is suitable for an acute attack of CU; Bee acupuncture therapy is integrated into the traditional acupuncture treatment of characteristic bee-sting therapy. As bee venom components have a direct anti-allergic effect and can regulate the body's immunity, bee acupuncture therapy can increase the acupoint skin temperature of body surface, warm Yang and tonifying deficiency, righting and eliminating pathogens. It suits CU patients with recurrent rash and itch, deficient positive qi, and noticeable allergic reactions.
3. Characteristic Moxibustion Therapy

3.1. Heat-sensitive Moxibustion

Heat-sensitive moxibustion uses moxa stick suspended moxibustion to find and mark the heat-sensitive points, and local symptoms (heat sensation or acid and numbness pain and other non-heat sensations) indicate that the acupoints at this site are heat sensitive. Lin Zhongfang et al. [8] used this therapy to treat 65 patients with CU, who were randomly divided into two groups. 33 patients in the treatment group selected 2-3 heat-sensitive points to perform a "cyclotron - sparrow peck - round-trip - mild moxibustion" operation in turn, while 32 patients in the control group orally took Loratadine dispersible tablets. The study showed that the total effective rate was 81.82% in the treatment group and 75% in the control group. After 6-month follow-up, the recurrence rate was 20% in the treatment group and 72.72% in the control group, suggesting that heat-sensitive moxibustion at acupoints has a significant clinical effect in the treatment of CU and can effectively reduce the recurrence rate. In order to study the clinical efficacy of acupuncture combined with moxibustion compared with conventional acupuncture for wind-cold-type CU, Hu Feiying et al. [9] randomly divided 60 patients with CU into 2 groups. The observation group was treated with needling Quchi point centro-square combined with heat-sensitive moxibustion, and the control group was treated with conventional acupuncture. The selected points were the scalp point posterior parietotemporal oblique line (Baihui through Quemeng). The body points were selected as bilateral Quchi, Hegu, Xuehai, Weizhong, Geshu, Dazhui, Fengmen, and Feishu points. Two weeks was a course of treatment. The second course of treatment was opened after one day of rest. After the end, the overall response rate was 93.3% in the observation group and 76. 7% in the control group (P<0.05). The symptom scores after treatment in the observation group were significantly lower than those in the control group (P<0.05), which indicated that this combination therapy can effectively alleviate the condition.

3.2. Salt-separated turtle moxibustion

Traditional partitioned moxibustion modifies salt-separated turtle moxibustion, nourishing Yin and subsiding Yang, warming the kidney, and invigorating the spleen. In this therapy, the turtle is a cushion, by moxa warm force evenly, lasting through the acupoints. Li Yanfang et al. [10] used salt-separated turtle moxibustion at Shenque point combined with acupuncture to treat 25 patients with CU of deficiency-cold of spleen-stomach type, and the control group was treated with conventional acupuncture. After 6 weeks of treatment, the urticaria activity score (UAS) and skin disease quality of life index score (DLQI) decreased in the treatment group compared with the control group. After a follow-up of 3 months, the recurrence rate in the treatment group (28.0%) was significantly lower than that in the control group (47.9%), and the differences were statistically significant, indicating that the short-term and long-term efficacy of this therapy was superior to that of simple acupuncture treatment.

3.3. Fire-Dragon-Cupping combined moxibustion

Fire-dragon-cupping combined moxibustion is a new type of comprehensive therapy combined with moxibustion, massage, and scraping operation, which has the therapeutic characteristics of "warming, passing, regulating and tonifying," especially suitable for wind-cold-type CU. Ye Xiaoling et al. [11] used it to treat wind-cold-type CU, and the observation group selected acupoints Quchi, Hegu, Zusanli, Xuehai, Sanyinjiao, Pishu, and Geshu. In the control group, Loratadine Tablets were reduced in stages. After 3 months, the urticaria symptom score of the observation group was lower than that of the control group (P<0.05), and the overall response rate, DLQI, and patient satisfaction
were higher than those of the control group (P<0.05).

4. Characteristic Acupoint Therapy

4.1. Acupoint Injection

Acupoint injection usually refers to the treatment of acupoint injection of drugs, that is, injection of specific liquid medicine at specific acupoints or disease response points. As an extension of traditional acupuncture, this therapy also takes the needling reaction appeared (DE QI) as the premise, which can prolong the irritation of acupuncture to meridians and acupoints and achieve the purpose of treating diseases. Wang Menglei [12] believes that “acupuncture, medicine, and acupoint” are essential components of acupoint injection, which can significantly shorten the treatment cycle and reduce the recurrence rate of CU. H1 antihistamines such as Diphenhydramine, Promethazine, and Chlorpheniramine are often used as acupoint injections in clinical practice, and immunomodulators, vitamins, blood products, and Chinese patent medicines for supplementing Qi and consolidating the surface, and promoting blood circulation and removing blood stasis are also used for acupoint injection therapy of CU. Li Jingbo et al. [13] used acupoint injection combined with oral drugs to treat 30 patients with refractory CU. In his experiment, Vit-B12 was alternately injected into Sanyinjiao or Zusanli point every day for 10 consecutive days as a course of treatment, combined with oral Vit-C and Desloratadine Citrate Disodium. After two courses, the symptom scores before and after treatment were compared, and the difference was statistically significant, suggesting that this therapy has clinical application value.

4.2. Autohemotherapy

Autohemotherapy, or autologous acupoint injection, is a non-specific natural therapy in which venous blood is drawn from the patient and injected back into the autologous muscle tissue or specific acupoints. Studies have confirmed [14] that autoimmune blood contains antibodies, trace elements, hormones, and microproteinases, which can stimulate the body to produce a non-specific immune response, regulate immunity and metabolism, and promote the stability of the body's internal environment. Because it has both acupuncture and bloodletting effects, it can play a role in promoting blood circulation and dredging collaterals, expelling heat and relieving itching in the treatment of CU. Li Caicai et al. [15] searched the central database and used Meta-analysis to compare various diagnoses and treatment options for CU. The survey results show that the clinical efficacy of autohemotherapy was more prominent than that of other conventional therapies. Yuan Zhaoyu [16] treated CU patients with blood deficiency and wind-dryness in the observation group with autohemotherapy combined with Danggui Yinzi Decoction and Ebastine Tablets and in the control group with only Ebastine Tablets. It was found that the overall response rate of the observation group was 95.74%, significantly higher than that of the control group. The difference was statistically significant, and the TCM syndrome scores, such as the degree of itching and attack frequency in the observation group, were lower than those in the control group.

4.3. Acupoint Catgut Embedding Therapy

Acupoint catgut embedding therapy buries absorbable protein sutures (commonly used catgut) into specific points, and catgut can continuously stimulate acupoints in the body for up to 20 days or longer, followed by a "long-acting needle-sensation effect." The mechanism of its action may be related to improving blood and lymph circulation at the lesion site. Huang Yanxia et al. [17] found that catgut embedding at acupoints can prolong the interval between taking antihistamines in patients
with CU. According to Mete analysis, Wei Jinqiang et al. [18] evaluated the efficacy and safety of 836 patients with CU. They found that acupoint catgut embedding had a higher cure rate, effective rate, and lower recurrence rate than traditional antihistamines, acupuncture, and TCM treatment. Li Hongying [19] combined catgut embedding at acupoints to treat wind-heat CU based on Jia Jian Xiao Feng Powder. The effective rate and comprehensive score were observed after 8 weeks of treatment. It was found that the effective rate in the treatment group was higher than that in the control group and had statistical significance. The symptoms and signs, quality of life, and serum indicators (total IgE, IL-4, IL-31) were improved in the treatment group.

4.4. Auricular point cutting therapy

"Lingshu · Xueluo Theory" calls auricular point cutting therapy "Ciluo" and "Qimai," that is, "pricking blood therapy" in later generations. This treatment is widely used in various clinical departments, and most literature reports are in the dermatology field [20]. It belongs to the characteristic ear treatment in bloodletting therapy, which can use different needles or cutters to cut the auricular point skin to make it slightly oozing blood, and the treatment of CU can clear away heat toxins and cool blood through the rash. At the same time, the small scar formed after auricular point cutting treatment can achieve the purpose of continuous acupoint stimulation. Professor Lin Guohua [21] believes that all patients with CU belonging to Heat, Qifen and Xuefen syndrome can select auricular points "Fengxi, Erzhong, and sciatic nerve points" as the main points to treat an acute attack of CU, which can quickly stop itching and eliminate rash. Combined with TCM syndrome differentiation and treatment, the auricular point "lung" diathermy table can be added at both Weifen and Qifen phases, and "ear tip and back sulcus" can be added at Qifen-Yingfen (Xuefen) phase with vigorous heat to strengthen the function of expelling internal heat.

5. Combination Therapy

External treatment with TCM characteristics has a broad prospect in the treatment of CU, and most of the clinical studies for it are combined therapies, suggesting that combined therapy has the advantages of breaking through the limitations of single therapy and synergizing with multiple treatment methods to adapt to different diseased groups, which is worthy of clinical exploration. In order to investigate the efficacy of a self-made formula combined with cupping in the treatment of CU of spleen deficiency and dampness type and its effect on serum IgE and IL-17, Zeng Lingbin et al. [22] carried out a prospective controlled study on 96 patients with CU of spleen deficiency and dampness type, 48 cases in the observation group and 48 cases in the control group. The observation group used a self-made Qufeng Kangmin formula combined with cupping at Feishu, Xinshu, Pishu, and Dachangshu acupoints, and the control group took cetirizine hydrochloride tablets orally. After 4 weeks of treatment, it was statistically significant that the differences in the overall response rate (95.83% in the observation group, 81.25% in the control group) and recurrence rate (12.5% in the observation group, 35.42% in the control group) between the two groups (P<0.05), and the decrease of serum IgE and IL-17 levels in the treatment group. Lu Peisi [23] applied "moxibustion blood triple therapy" in the treatment of CU, combining Du meridian moxibustion, autohemotherapy, and oral levocetirizine. 90 patients with CU were divided into three groups for clinical trials, and clinical symptom scores and serum IgE tests were performed after 5 weeks of treatment. The results revealed that the triple therapy was safe and effective and showed superiority in improving symptoms and overall efficacy. Liu Baixue et al. [24] studied the efficacy and safety of acupuncture combined with Danggui Yinzi on CU of blood deficiency and wind-dryness type. 58 standard patients were randomly divided into the observation group (30 cases) and the control group (28 cases). The observation group was given oral acupuncture combined with Danggui Yinzi, and the control group was given
conventional acupuncture combined with Danggui Yinzi. Professor Ma Tieming believes that "thick needle regulating shape and fine needle regulating mind," so in the study, "regulating shape" acupuncture method uses 0.3 mm thick filiform needle, flat tonifying purging method twisting needle after DE QI, "regulating mind" acupuncture method uses 0.2 mm fine filiform needle, and twisting tonifying method for the needle, all retaining the needle for half an hour, continuous treatment for 6 weeks. The results showed that acupuncture combined with Danggui Yinzi could chronically improve the disease activity and effectively relieve the anxiety of CU patients with blood deficiency and wind-dryness compared with conventional acupuncture combined therapy. The difference had statistical significance (P<0.05).

6. Conclusion and Prospect

CU belongs to the level I in the evidence-based grade of acupuncture and moxibustion disease spectrum and belongs to the dominant disease type of acupuncture treatment [25]. Acupuncture treatment of CU is mainly from the perspective of expelling wind and clearing heat, nourishing blood, tranquilizing the mind, and improving the skin's catharsis and moistening state. Miraculous Pivot says, "Needle is not done; moxibustion is appropriate," acupuncture therapy still has some limitations, but combined with moxibustion, it can effectively strengthen meridian sensing. And "Ear, Zongmai convergence also," auricular point therapy by regulating the "neuro-humoral-immune" axis and then improving the body's immune and defense function, promoting the outcome of CU; Various acupoint therapies can effectively improve the immune function of patients with CU. The mechanism of action may be related to the bidirectional regulation produced by the persistent stimulation of acupoints, of which autohemotherapy has prominent advantages in observing and reporting multiple clinical cases of CU. It has been reported that cupping therapy, fumigation and application of TCM, acupoint application, scraping therapy, hot ironing therapy, and other external treatments of TCM characteristics can better affect CU. At the same time, external treatment of TCM characteristics also needs to adhere to the overall concept and syndrome differentiation and treatment. An acute attack of CU and physical solid fitness give priority to acupuncture, puncture, and cupping, auricular point cutting treatment, and other intense stimulation therapy and combined treatment, stable phase to conditioning immunity, umbilical needle, autologous blood, heat-sensitive moxibustion, and other milder and lasting external treatment operations can be used.

According to the literature reports on the external treatment of CU in TCM characteristics, it is found that there are mainly the following problems: (1) The majority of clinical case observation reports are invasive therapies such as acupuncture and bloodletting and their combined therapies, there are few non-invasive treatments such as self-made formula fumigation and application, and the sample size of clinical observation is small; (2) The basic research of external treatment of TCM is insufficient, and the specific intervention mechanism for the treatment of CU has not yet been clarified; (3) A variety of external treatment methods have factors that may reduce patient compliance, such as extended treatment cycle, relatively complex specific operation, and poor patient experience.

The above requires clinicians to strengthen basic research, use evidence-based medicine methods without permission, expand the sample size in clinical research, try a variety of treatment means, flexibly develop external treatment plans of TCM according to the individual needs of patients, and require clinicians to continuously excavate the treasure trove of TCM, improve the skills of clinical syndrome differentiation and treatment, maximize the advantages of external treatment of TCM characteristics, and further play an essential role in supplementing and replacing treatment.

References

163