

Clinical Progress of Catgut Embedding Therapy at Acupoints for Chronic Urticaria

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Abstract: Objective: To investigate the application of catgut embedding therapy in the treatment of chronic urticaria. Methods: To review the literature on the treatment of chronic urticaria with catgut embedding therapy at acupoints. Results: The therapeutic effect of catgut embedding therapy on chronic urticaria was positive. Conclusion: Acupoint catgut embedding therapy is an effective method for the treatment of chronic urticaria, which has a long effect and lasting effect, and is worthy of clinical application.

Urticaria is a common allergic skin disease. It is mainly a localized edematous reaction caused by the expansion and increase of permeability of skin and mucous membrane. Its main manifestations are itchy erythema and wheals. The condition is easy to repeat. If the above symptoms occur for more than 6 weeks, it can be diagnosed as chronic urticaria[1]. At present, western medicine mainly uses antihistamines, glucocorticoids, immunosuppressants, sedatives and hypnotics to treat this disease, which can only alleviate the disease and cannot improve the allergic constitution of patients to achieve the goal of radical cure. Traditional Chinese medicine calls this disease addiction rash, and believes that this disease is always induced by the external evil toxin due to the impatience of endowment, the weakness of defending the outside world[2]. It is a skin disease characterized by abnormal skin itching, with patches of rashes of different density. The disease features: rapid onset, easy to occur in case of wind. This disease is mostly due to the unsteadiness of striae, and the invasion of wind evil by taking advantage of deficiency, which is suppressed in the skin; Or, due to the sting of insects and lice, the toxin is suppressed on the muscle surface; Or because of physical factors, it is not resistant to fish, shrimp, meat and other foods and some drugs that cause allergies; Or due to heat accumulation in the intestines and stomach, the internal qi cannot be released, and the external qi cannot be reached. In the process of traditional Chinese medicine treatment, there are various methods, including oral Chinese medicine and external treatment. However, combined with the characteristics of this disease, the treatment course is often long, and the effect is difficult to consolidate, requiring patients to spend a lot of time and energy.

Acupoint catgut embedding is a therapeutic method that embeds protein thread into relevant

acupoints to make it produce continuous stimulation. After decades of development, with the improvement of acupuncture devices, the development of modern biomaterials and the improvement of theories, it has gradually been recognized by people in terms of efficacy and safety. In the process of traditional Chinese medicine treatment, there are various methods, including oral Chinese medicine and external treatment. However, combined with the characteristics of this disease, the treatment course is often long, and the effect is difficult to consolidate, requiring patients to spend a lot of time and energy. As an important part of acupuncture therapy, acupoint catgut embedding therapy can prevent and treat diseases by stimulating acupoints with protein thread for a long time. It is often used to treat stubborn chronic diseases clinically[3,4]. At the same time, it is also an external treatment method of traditional Chinese medicine for chronic urticaria. It has the advantages of long action time, small side effects, and simple operation on acupoints. It effectively makes up for the shortcomings of traditional acupuncture treatment such as more times, relatively short action time, and unstable effect. It has been widely used in clinical practice[5]. Acupoint catgut embedding can play an effective role in relieving itching by selecting points based on syndrome differentiation, experience and other methods. It also has the advantages of long acting time, small side effects and simple operation, effectively making up for the shortcomings of traditional acupuncture treatment such as more times and relatively short acting time. It has been widely used in clinical practice. The summary is as follows:

1. Single Therapy of Catgut Embedding at Acupoints

In a relatively quiet and comfortable treatment environment, the patient lies flat or prone, exposing the part that needs embedding. According to the patient's body fat, the absorbable surgical suture is cut into 7mm-10mm under the condition of bacteria, and the skin with a local radius of 1cm at the embedding position is disinfected. The doctor wears a disposable sterile rubber glove, a pen holding syringe with his left hand, and a piece of absorbable surgical suture with sterile tweezers with his right hand, Insert half of the thread into the front end of the syringe needle, so that its length inside and outside the syringe needle hole is basically the same, in a "U" shape. The left index finger of the thumb tightens or lifts the skin at the acupuncture point, and the right hand holds the syringe to make the gap of the needle tip downward. According to the different position of the needle, the injection needle and the patient's skin are $15^{\circ} \sim 45^{\circ}$. According to the patient's body fat and the position of the needle, the needle is quickly inserted into the required depth (0.5-1.5cm) under the skin of the acupuncture point. After the sensation of pain, numbness and swelling occurs, the needle is slowly pulled back along the direction of penetration, The suture is completely buried under the skin of the acupoint. If any wire ends are exposed, the wire ends shall be pulled out and buried again. After pressing the sterile cotton swab for 3 minutes, stick the infusion patch to prevent infection. After embedding, pay attention to rest and avoid local contact with water within 24h.

2. Treatment of Chronic Urticaria with Catgut Embedding at Acupoints and Traditional Chinese Medicine Therapy

Tan Keping et al[6]observed the clinical efficacy of catgut embedding at acupoints combined with traditional Chinese medicine in the treatment of chronic urticaria. The patients in the control group were treated with conventional western medicine, Oral loratadine, 10mg, qd, Take it before going to bed, 4 weeks as a course of treatment; The patients in the treatment group were treated with catgut embedding combined with self prepared traditional Chinese medicine, and corresponding addition and subtraction were made according to the clinical symptoms of the patients. At the same time, catgut embedding therapy at the acupoints was used, once a week, for 4 weeks. After treatment, the total effective rate of the treatment group was 93.30%; The effective rate of the

control group was 89.66%, which was equivalent to that of the two groups. However, the IgE level of the observation group was lower than that of the control group. The recurrence rate of the observation group was 10.34%, which was significantly lower than that of the control group of 27.59%. Yang Yang et al[7]. The therapeutic effect of acupoint catgut embedding combined with Yuping Xiaonett Formula on chronic urticaria and its influence on serum immune factors were observed. The control group was given desloratadine orally, 5mg/time, once a day. The treatment group was treated with acupoint catgut embedding combined with Yuping Xiaonett Formula. The treatment was stopped after 8 weeks of treatment, and the outpatient follow-up was conducted after 6 months of drug withdrawal. The results showed that there was no significant difference in the effective rate between the two groups after 4 weeks of treatment, indicating that antihistamines could control the clinical symptoms of chronic urticaria and relieve itching symptoms at the early stage; However, after 8 weeks of treatment, the effective rate of the treatment group was significantly better than that of the control group, indicating that the long-term effect of acupoint catgut embedding combined with Yuping Xiaofeng Formula was good. Moreover, the recurrence rate of the treatment group was significantly lower than that of the control group, indicating that the treatment of chronic urticaria patients with catgut embedding at acupoints combined with Yuping Xiaourti Formula is conducive to correcting the imbalance of Th1/Th2, which can play a key role in promoting the drift of Th2 to Th1 in urticaria patients, which may be the main reason for the more significant effect of this therapy and the low recurrence rate after drug withdrawal.

3. Treatment of Chronic Urticaria with Catgut Embedding at Acupoints and Western Medicine Therapy

Zhu Lulu et al[8] Treatment of chronic urticaria with acupoint catgut embedding combined with loratadine: treatment group: acupoint catgut embedding+oral loratadine, control group 1 oral loratadine, control group 2 acupoint catgut embedding. After the treatment, the total effective rates of treatment group, control group 1 and control group 2 were 87.0%, 60.0%, 64.5%. Liu Liling et al[9]. Chronic urticaria was treated with cetirizine hydrochloride combined with acupoint catgut embedding. The control group was given cetirizine hydrochloride 10 mg once a day. The treatment group took cetirizine hydrochloride orally and then combined with acupoint catgut embedding. After 4 weeks of treatment, the total effective rate of the treatment group was 71.05%, and the total effective rate of the control group was 48.78%. In addition, the treatment group significantly reduced the total serum IgE level of patients. Modern research has also found that the stimulation of allogeneic protein of medical catgut can improve the immune function and anti allergic ability of the body, which is particularly suitable for patients with chronic urticaria[10,11].

4. Treatment of Chronic Urticaria with Catgut Embedding at Acupoints and other Therapies

Autohemotherapy integrates acupuncture, bloodletting and acupoint injection of traditional Chinese medicine therapy to stimulate the body's autoimmune system, regulate the body's immune function, promote immune response, promote cell phagocytosis and antibody production, so as to resist the interference of foreign allergens and accelerate the treatment of diseases[12]. Cui Wenhui et al[13]. treated chronic urticaria with acupoint catgut embedding therapy combined with autohemotherapy. The treatment group was treated with acupoint catgut embedding therapy combined with autohemotherapy, while the control group was treated with conventional acupuncture. The selected points were the same as the treatment group. The cure rate and apparent efficiency of the treatment group were 89.2% and 63.3%.

Zhao Tongqi et al[14] used cupping at Shenque point and embedding catgut at Feishu, Geshu, Geshu, Ganshu and Pishu points to treat 80 patients with chronic urticaria. The wind mass

disappeared, the clinical signs disappeared, and the attack stopped, totaling 69 cases; Effective: the wheal subsided by more than 30%, or the recurrence interval was prolonged after the disappearance, and the symptoms such as itching were alleviated in 7 cases; Ineffective: no significant improvement or less than 30% regression of wheal and itching, 4 cases. The total effective rate is 95.0%.

5. Conclusions

Acupoint catgut embedding can stimulate acupoints for a long time through the process of gradual softening, decomposition, liquefaction and absorption of suture materials in the body. At present, it is considered as a composite treatment method, including acupuncture effect, blood pricking effect, point sealing effect, effect after tissue damage, tissue therapy effect, needle retention and needle embedding effect. In a word, acupoint catgut embedding therapy integrates multiple stimulative effects, cooperates with each other, complements each other, and plays a role together to form a complex, lasting and soft non-specific stimulus impulse, which can not only inhibit the internal transmission of pathological information to the viscera, but also strengthen the interference, inhibition and substitution of the central nervous system for pathological stimuli. It can also adjust the viscera through neurohumoral regulation, playing a role in regulating the viscera, balancing yin and yang, dredging the meridians, and harmonizing qi and blood. It has the effect of tonifying deficiency and reducing excess, strengthening the body and eliminating pathogenic factors.

Acupoint catgut embedding combined with various therapies can effectively improve the curative effect of chronic urticaria. The long-term curative effect is good, and the recurrence rate is lower. You can identify the physique and select acupoints according to the symptoms, so as to achieve the effect of giving consideration to the sample. In addition, a single treatment can continuously stimulate the acupoints for a period of time. The protein thread used for acupoint catgut embedding can also stimulate and improve the immune ability of the human body. The side effects are small, which is worthy of clinical promotion and application.

What should be noted after catgut embedding at acupoints: 1. Avoid cupping at local points within 3 days after catgut embedding, and do not exercise vigorously to prevent the thread body from overflowing; 2. After catgut embedding, some acupoints will have a feeling of "sour, numb, swollen and heavy", which will disappear automatically within 2 to 3 days. If the symptoms are severe, you can press the catgut embedding acupoints to make the absorption of the catgut in the body and change the position of the catgut, reduce the stimulation to the nerves, and reduce the needle feeling left behind; 3. All patients may have pain of varying degrees after catgut implantation at acupoints. The pain may be related to the entry of acupuncture and foreign bodies into the body, the release of inflammatory factors from local tissue damage, and the stimulation of nerve endings. There is slight pain and discomfort on the day after the catgut implantation. The pain is severe on the second to third days, and most patients will disappear in the fifth to seventh days; 4. After catgut embedding, bruising and haematoma may appear in some parts of the acupoints, which is due to the subcutaneous hemorrhage caused by accidentally touching capillaries or arteriovenous vessels during the acupuncture process. After 24 hours, use a towel to apply hot compress to the part, and the bruising may subside by itself in about a week; 5. Due to the individual differences, the symptoms of fatigue and fatigue in different degrees after catgut embedding at acupoints can disappear after 1 to 2 days.

At the same time of acupoint catgut embedding therapy, self adjustment should also be carried out, such as: adjusting emotions, avoiding anxiety and anger; Avoid fishy hair, spicy food and alcohol; Keep away from pathogenic substances such as feathers and pollen; Strengthen nutrition

and improve physical fitness.

Acupoint catgut embedding is a kind of "long-term needle sensation effect". Acupoint catgut embedding is based on the theory of acupuncture and moxibustion. It can stimulate the meridians, balance yin and yang, and adjust the zang fu organs in the acupoints through the use of thread embedding needles and protein threads to achieve the purpose of treating diseases. The indications of catgut embedding at acupoints are very wide, especially for many chronic diseases and difficult diseases that have not been cured by traditional Chinese and western medicine for a long time, which often obtain unexpected curative effects. Among them, the catgut embedding at acupoints has the advantages of quick effect, long-term effect and special effect for some chronic diseases and difficult diseases.

Catgut embedding at acupoints has a definite effect on chronic urticaria, and the combination of drugs and external treatment can enhance the effect. In particular, the acupoints can be selected according to syndrome differentiation to harmonize the viscera, qi, blood, yin and yang, so as to achieve both the specimen and the stimulus. The stimulus is lasting, the curative effect lasts longer, and the side effects are small. It is worth clinical promotion and application, but its mechanism of action is not yet perfect, and further research and exploration are needed.

References

- [1] Lunge SB1, Borkar M2, Pande S2. Correlation of serum antithyroid microsomal antibody and autologous serum skin test in patients with chronic idiopathic urticaria[J]. *Indian Dermatol Online J*, 2015, 6(4): 248 - 252.
- [2] Yang Zhibo, *Dermatology and Venereology of Traditional Chinese Medicine [M]*, Shanghai Science and Technology Press, 2020:118-119
- [3] Wen Musheng. On the comprehensive effect and therapeutic mechanism of catgut embedding therapy at acupoints [J]. *Journal of Shaanxi College of Traditional Chinese Medicine*, 1993, 16(2): 6
- [4] Li Zhixing, Zhang Haihua, Li Suhe Li Suhe's Experience in Treating Bronchial Asthma with Acupoint Catgut Embedding [J] *Journal of Guangzhou University of Traditional Chinese Medicine*, 2015, 32(3): 533
- [5] Lin Wenxia, Shen Jie, Sun Hong Application of catgut embedding at acupoints in the treatment of chronic urticaria [J] *Yunnan Journal of Traditional Chinese Medicine*, 2017, 38(1): 95
- [6] Tan Keping, Li Xinwei, Wu Xin Observation on clinical efficacy of acupoint catgut embedding combined with traditional Chinese medicine in treating chronic urticaria [J]. *Chinese Journal of Traditional Chinese Medicine*, 2016, 34(4): 991-993
- [7] Yang Yang, Wang Qingliang, Jiang Wencheng, Luo Yanqing, Xie Shaoqiong, Tang Suwei. Therapeutic effect of acupoint catgut embedding combined with Yuping Xiaourti Formula on chronic urticaria and its influence on serum immune factors [J]. *Modern Journal of Integrated Traditional Chinese and Western Medicine*, 2020, 29(09): 933-936
- [8] Zhu Lulu, Wan Zhaoxin, Su Tongsheng, et al. Acupoint catgut embedding combined with loratadine in the treatment of 92 cases of chronic urticaria [J]. *Modern Health*, 2014, 4:75-76
- [9] Liu Liling, Ma Jichen, Wang Xianling, etc Clinical Effect of Tetratirizine Hydrochloride Combined with Acupoint Catgut Embedding on Chronic Urticaria and Its Effect on Total Serum IgE [J]. *Clinical Misdiagnosis and Mistreatment*, 2012, 25(10): 67-69
- [10] Yi Hailian, Lu Nina, Zhang Qixia, etc The therapeutic effect of catgut embedding at acupoints on patients with chronic urticaria and the influence of serum IgE and C3 [J]. *Shanghai Journal of Acupuncture and Moxibustion*, 2015, (2): 123-124
- [11] Yang Caide, Li Yuqin, Gong Wangmei, et al Treatment of 21 cases of chronic urticaria with catgut embedding at "Three Wind Points" and its influence on IgE level [J]. *Modern Distance Education of Chinese Medicine*, 2014, 12(24): 70 - 72
- [12] Zeng Yuhong, Wei Huaiji, Zhu Xiuwen. Progress in clinical application of autohemotherapy [J]. *Chinese Folk Therapy*, 2005, 13(7): 63-65
- [13] Cui Wenhui, Rong Bo. Treatment of 37 cases of chronic urticaria with acupoint catgut embedding and autohemotherapy [J]. *China Clinical Research*, 2012, 25(11): 1115-1116
- [14] Zhao Yuqi, Liu Xuan. Treatment of 80 cases of chronic urticaria with cupping at Shenque point and catgut embedding at Beishu point [J]. *Chinese Journal of Acupuncture and Moxibustion*, 2012, 32(07): 634