

Research Progress of TCM Treatment of Chronic Pharyngitis

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Abstract: *Chronic pharyngitis is a chronic inflammation of the pharyngeal mucosa, submucosa and lymphoid tissue. The main clinical symptoms are dry pharynx, itching, foreign body sensation in pharynx, cough, nausea and retching. It has the characteristics of long course of disease, easy recurrence, prolonged and difficult to cure. The etiology of chronic pharyngitis is complex and the symptoms are stubborn. At present, Western medicine treatment includes oral or nebulized inhalation of antibiotics to fight infection, nebulized inhalation of hormones, a large amount of vitamin supplement and comprehensive dietary intervention. Although there are many western medical treatment methods, they are mainly to improve local symptoms, with unstable conditions, more adverse reactions, and patients' compliance is not high. The treatment of traditional Chinese medicine is based on the fundamental and holistic treatment, which has considerable advantages in improving the symptoms of chronic pharyngitis, reducing recurrence and improving the quality of life of patients.*

Keywords: Chronic pharyngitis, Foreign body sensation, Traditional Chinese medicine treatment.

1. TCM Understanding of Chronic Pharyngitis

This disease belongs to the category of "Chronic Throat Impediment" in traditional Chinese medicine [1]. Among them, "throat" refers to the throat, indicating the disease position of throat impediment, and "Bi" refers to the mechanism of throat impediment as blocked and impassable. Throat arthralgia is a common disease in otorhinolaryngology department, mostly in people with a lot of throat, mainly caused by careless living, lung health loss, wind and heat evil poison invasion caused by the throat disease, belongs to western medicine acute and chronic pharyngitis. It is a diffuse inflammation of the pharynx mucosa, submucosa and its lymphoid tissue. The main clinical manifestations are sore and swollen pharynx, dryness in pharynx, foreign body sensation and pharynx itch and discomfort. Among them, the throat is the main road of eating and breathing, and it is the main point of meridians to follow the line, so the unobstructed throat is very important for the health of the body, once easy to nausea and vomiting, throat occlusion will cause serious consequences, which is the reason why "throat impediment" has been the attention of various generations of doctors since ancient times. As "Su ask · Yin and Yang": "a Yin and a Yang knot, called the throat impediment." The symptoms of laryngeal arthralgia are described as "throat mediating like a stem", which does not go away when swallowed and does not spit out [2]. "Introduction to Medicine" pointed out: "Attacking with virtual fire, causing dry and sore throat", describing the characteristics of dry pharynx, burning pain in the throat [3].

2. Etiology and Pathogenesis

The cause of laryngeal arthralgia is complicated, phlegm, fire, stasis and deficiency can all make it pathogenic. The throat is the key to the intersection of twelve meridians, which should be empty and should be passed. Various pulse disharmony, throat obstruction, its disease is different, the disease is caused by phlegm and blood stasis, or with Yin deficiency, or with spleen deficiency. The occurrence of slow throat arthralgia is

mostly related to its own constitution, because the Yang heat in the body is excessive, coupled with the feeling of external wind heat or wind cold evil qi for a long time, and the heat, the two Yang are combined, and the meridian occurs; Or because of partial food spicy fried products, spleen and stomach damage, resulting in endogenous dampness-heat evil, block jiao, evil gas up the meridian, phlegm dampness-heat accumulation and the disease. In addition, considering the poor lifestyle of modern people, the spleen Yang is damaged, the water and humidity stop and accumulate, and the spleen and stomach are further hindered, and the phlegm is blocked by the meridians and collaterals for a long time. Or in the modern fast-paced life, normal work and life pressure increases, overwork, spleen and stomach weakness, soil thin can not control fire, fire floating in the throat is sick. The cause of this "Yin fire" is that the soil is thin and the fire can not be overheated, which is the image of the cold and heat, and the deficient fire is floating in the throat, because the spleen is deficient and the qi is not smooth, and the deficient fire is depressed in the throat meridians and causes chronic pharyngitis.

In addition, Professor Shi Jun believes that although the slow throat impediment is based on Yin deficiency, but the southern place is heavy on moisture, patients are usually susceptible to dampness, and the dampness is heavy and sticky, lingering and not going away. Therefore, in addition to pharyngeal symptoms, chronic pharyngitis is often accompanied by pharyngeal mucosal congestion, light or red tongue, smooth tongue surface without fur or thick or yellow greasy fur, tooth marks on the edge of the tongue, slippery pulse string and other symptoms, all of which belong to dampness-heat syndrome [4]. Professor Gan Zuwang [5] based on the arguments of "dry throat, disease in the earth spleen" in "Su Wen · Yin and Yang Class Treatise" and "internal injury of the spleen and stomach, all diseases are born" in "Spleen and Stomach Treatise", broke the ancient routine of "laryngology does not need to supplement the soil", and established the theory of "treating chronic pharyngitis from the spleen". In his opinion, few patients with chronic

pharyngitis were found to be Yin deficiency, while most were found to be spleen deficiency, and spleen deficiency was difficult to produce water and grain, and insufficient body fluid was difficult to go up to the throat, which was also an important cause [6]. On the basis of inheriting the spleen treatment of chronic pharyngitis by Professor Gan Zuwang, Professor Jiang Zhongqiu extended the understanding of chronic pharyngitis from the adverse effects of liver and gallbladder, kidney, eryang junction and bladder gasification. Professor Jiang Zhongqiu believes that the liver and bile meridians follow the throat, so the liver and bile diseases can cause throat diseases; Kidney channel from the lung into the throat, kidney Yin or kidney Yang insufficiency can cause throat discomfort; Bladder gasification is unfavorable, and the fluid cannot be carried up, resulting in dry pharynx, pharyngeal itch and other chronic pharyngitis symptoms [7]. Professor Yuan Jun pointed out that the phlegm-stasis interjunction is the most common witness of modern chronic pharyngitis that has not been cured for a long time. Professor Yuan believes that chronic pharyngitis is located in the throat and is related to the dysfunction of the viscera of the human body, especially the spleen, lung and liver. With the change of modern life style, long-term fatigue, improper diet, excessive thinking, long will lose spleen soil, spleen soil is injured, a human body fluid metabolism disorders, water and liquid stop, and gradually accumulate humidity into sputum; Two spleen master Sheng Qing disorder, difficult to nourish lung gold, lung body loss, throat loss moist. In addition, modern people are often emotional restfulness, liver dysfunction, Qi stagnation and blood obstruction, gradually removing blood stasis, and finally phlegm stasis coagulates the throat, lingering and difficult to heal. The clinical symptoms can be seen as dark red pharyngeal mucosa, foreign body sensation, dark red tongue with petechiae, moss or white or yellow, pulse string, smooth, astringent. As Li Dongyuan "spleen and stomach" said: "the spleen is not enough to make nine orifices." The evil of phlegm stasis is undoubtedly one of the pathological pathogenesis of chronic pharyngitis that can not be cured for a long time.

3. TCM Internal Treatment

3.1 TCM Treatment

For the treatment of laryngeal arthralgia, many scholars no longer adhere to the ancient formula, but to prepare their own special formula, melting a variety of treatment methods as a furnace, or to a method, or a number of methods, but also achieved a good effect. On the basis of beimu Gualou powder, Professor Zhang Xiong added and subtracted: Fritillary 12g, trichosanthin 12g, fried silkworm 12g, poria 9g, platycodon 9g, isatis 9g, fried white art 9g, forsythia 9g, licorice 6g, etc. Zhejiang Fritillary mother is a good medicine for clearing heat and eliminating phlegm, relieving cough and clearing up. It can dissolve the hot phlegm, the phlegm becomes no longer sticky, easy to discharge the bronchus, Yin deficiency dry cough, sputum less dry throat, phlegm yellow viscous symptoms have a definite effect. Platycodon platycodon has the excellent effect of releasing lung qi. Platycodon platycodon can promote lung qi, remove phlegm dampness, soothe throat and discharge pus, and has an excellent relieving effect on the symptoms of phlegm. The combination of liquorice with the effects of supplementing qi, moistening

lung and relieving cough, clearing heat and detoxification is a common prescription for the treatment of chronic throat arthralgia [8]. As "elbow reserve emergency prescription" said: "platycodon, licorice one or two, called the throat arthralgia special effect prescription." It can be used with forsythia and *Fritillaria thunbergii* to clear heat and dissipate phlegm and dissipate phlegm. As Zhang Jingyue said, "All the diseases of fire depression are Yang and heat, and their viscera should be the heart, small intestine and three jiao." Moreover, isatis root was used to cool blood and benefit pharynx to treat the symptoms of dryness of pharynx, stinging pain, congestion of pharynx mucosa and increase of laryngeal bottom particles caused by spittoon and blood stasis. If there is dry throat dull pain, sore mouth, yellow urine, and white art, poria combined with its spleen, qi, dry dampness effect. If accompanied by swollen throat, thirst and dry throat, trichosanthin can be added to clear heat and expel fire, produce fluid and quench thirst. As for "Yin fire", Professor Wu Rongzu pointed out that although the disease is often manifested in the upper jiao, the treatment is mainly in the middle jiao, but its root is in the lower jiao. Therefore, the treatment of "supplementing fire and earth" and "supplementing earth and fire" are used together, on the one hand, by warming the congenital kidney Yang to cultivate the spleen Yang acquired after birth, on the other hand, the spleen soil thickness can make the phase of the fire convergence connotation, that is, "Yin fire" to Fu. Qianyang Feng pulp Dan added flavor to warm the middle, dispel cold, replenish the earth and fire. Yang seal pulp Dan to health earth, latent Yin fire. Calcined dragon bone and calcined oyster in the formula to converge floating fire, Yang down, and the texture of the two heavy fall, can make Qi smooth, have the meaning of Yin Yin, so that Yin and Yang intersect and sleep. Keel nourishing Yin in the floating Yang, oyster nourishing Yin in the sinking of the sinking Yang. Forsythia aims at the evil of upper jiao wind heat and dampness, clearing heat and detoxifying, dispersing wind heat, relieving swelling and dispersing knot; Scrophulina detoxifies and disperses, clears heat and cools blood, nourishes Yin and reduces fire; Platycodon platycodon promotes lung and pharynx, carrying medicine up; Licorice blind can not only make up soil and fire, but also expectorate cough, relieve pain, clear heat and detoxify.

At present, there are many relevant studies on the treatment of chronic pharyngitis by traditional Chinese medicine. Zhao Fuyan [9] used Wendan Decoction to treat patients with phlegm and heat accumulation type of chronic throat obstruction, and the total effective rate was 66.67%. Tang Xixi [10] used Banxia Houpu Decoction to treat patients with chronic pharyngitis with liver-qi stagnation and phlegm turbidness. The total effective rate was higher than 86.65%, and the recurrence rate was only 1.89%, indicating a significant effect. Sun Jing [11] used traditional Chinese medicine Qingfei Yangyin Decoction to treat patients with spleen deficiency and weak type chronic pharyngitis, and the total effective rate was 91.0%.

3.2 Treatment with Proprietary Chinese Medicine

In addition to oral treatment of traditional Chinese medicine, Chinese patent medicine is also quite effective in the treatment of chronic pharyngitis. In the treatment of sore throat, Chinese patent medicine has the advantages of simple

use, reliable curative effect, rapid effect, little side effects and cheap price, and is the most willing to accept a class of drugs. For example, Wu Xiangji et al. [12] used Qingkailing dropping pills to treat CP. The study showed that after the intervention of Qingkailing dropping pills, the recurrence rate of patients was low in the short term, and the overall effective rate reached 93.55%. Zhai Gaiping et al. [13] used Lanqin oral liquid to treat 35 patients with CP, and the effective rate was as high as 91.43%. After treating patients with chronic pharyngitis with Jinshuosanjie Pill, Liu Jing [14] concluded that Jinshuosanjie Pill was effective in relieving symptoms such as dry pharyngitis, throat itch, foreign body sensation and nausea, and was an ideal choice for patients with chronic pharyngitis. Bai Jing [15] treated chronic pharyngitis with Jinshuoliyan capsule, which had the effects of soothing liver and regulating qi, strengthening spleen and eliminating phlegm, and concluded that Jinshuoliyan capsule had good efficacy in improving symptoms, shortening remission time and reducing adverse events in patients with chronic pharyngitis. Chai Shoufan et al. [16] observed the curative effect of Suhuang Zhike capsule on 30 patients with acute pharyngitis. In 13 cases, the symptoms of itch, dry cough and sore throat disappeared, and the redness and swelling subsided, with a total effective rate of 96.67%. Zhao Yanli et al. [17] selected Jisheng Wumei capsule, which has the effects of dispelling wind-phlegm, dispelling stagnation, eliminating stasis, and simultaneously promoting Yin and promoting fluid, to observe the clinical efficacy of 187 patients with phlegm-stasis interformation chronic pharyngitis. The total effective rate was 81.05%, and the results showed that Jisheng Wumei capsule is an effective preparation for treating chronic pharyngitis with phlegm-stasis interformation syndrome.

4. TCM External Treatment

Traditional Chinese medicine external treatment for the treatment of chronic pharyngitis has the advantages of quick effect, good efficacy, less adverse reactions, so it is widely used in clinical practice. Clinical use of gargling, traditional Chinese medicine atomization inhalation, acupuncture, moxibustion, massage, acupoint injection and other external treatment methods to treat chronic pharyngitis, not only play a positive role in the intervention of pharyngitis, but also greatly alleviate or cure the discomfort of patients, improve the quality of life of patients.

4.1 Gargling Method

The function of gargling therapy mainly includes keeping pharynx clean, diluting secretions, but also has astringent effect, oxidation effect and analgesic effect. Commonly used drugs are compound borax solution, Dober solution and chlorhexidine gargle, etc., generally spit out after gargling in pharynx. Gargling can make the drug act on the pharyngeal lesion for a long time, maximize the therapeutic effect, and reduce the systemic adverse reactions of the drug. Qiu Lingfei [18] treated chronic pharyngitis with Yinqiao SAN decoction. The observation group was treated with gargling method, while the control group was treated with routine oral therapy. The results showed that the total clinical effective rate of the observation group was 68.75% higher than that of the control group (50.00%) ($P < 0.05$). Zhang Mian et al. [19] decocted and boiled 15g of *Houttuynia houttuynia*, *Prunus schergan*,

Thunberg Fritillary and *magnolia officinalis*, 30g of Moutan bark, *ophiopogon*, *scrophulina scrophulariae*, 30g of mint and 9g of wood butternut into gargle. Take 15ml of gargle solution each time, gargle for about 5min, 5 times a day. 10 days of gargling was a course of treatment, and the curative effect was evaluated after 2 courses of gargling. Results The total effective rate of the gargling group was 87.1%, which was significantly higher than that of the gargling group (66%) ($P < 0.05$).

4.2 TCM Atomization in Halation

Atomizing inhalation is the use of high-speed oxygen airflow, so that the liquid medicine formed a mist, so that it suspended in the gas through the nose or mouth by the respiratory tract inhalation, to achieve the purpose of treatment. It has the effect of improving ventilation, relieving trachea spasm, maintaining airway patency, etc., and can also be used to treat respiratory tract infection, which is the effect of anti-inflammatory, cough and expectorant. Because atomized inhalation is directly into the respiratory tract, its dosage is only one-tenth of that of other drug delivery methods, which significantly reduces the toxic side effects of drugs, which is particularly important for the treatment of chronic pharyngitis. Research findings: Sun Zengming [20] used Shuanghuanglian ultrasonic atomization to treat 100 cases of chronic pharyngitis. Results 46 cases were cured, 18 cases were effective, 21 cases were improved, 15 cases were ineffective, the total effective rate was 85%. The results showed that 15 g of honeysuckle, 15 g of forsythia, 9g of platycodon, chrysanthemum, radix isatidis, *ophiopogon*, and 6g of butterfly, peppermint, and licorice were used to make the liquid. The results showed that 16 people were effective (38.10%), 25 were effective (59.32%), and 1 was ineffective (2.38%). The total effective rate was 97.0%.

4.3 Acupuncture Therapy

4.3.1 Ordinary Acupuncture:

Traditional Chinese medicine on chronic pharyngitis mainly for the understanding of lung and kidney Yin deficiency, fire on the basis of heat, phlegm, stasis as the standard, according to this etiology and pathogenesis, traditional Chinese medicine and acupuncture and moxibustion adopt the principle of nourishing Yin to reduce fire, clearing throat treatment, the treatment of this disease has achieved good results. However, if the repeated attacks of chronic pharyngitis take too many antibiotics and Chinese medicine for nourishing Yin and lowering fire, or excessive intake of stimulating food, or fast pace of life, work and rest disorder, will damage the spleen and stomach, resulting in spleen deficiency. In recent years, the traditional Chinese medicine field believes that spleen and stomach deficiency plays an important role in the pathogenesis of chronic pharyngitis, and the effect of treating chronic pharyngitis from spleen and stomach is remarkable. According to the prescription of Buzhong Yiqi Decoction, Professor Wang Leting selected Shangwan, Zhongwan, Xiawan, Qihai, Tianshu, Neiguan and Zusanli through decades of clinical practice. The functions of this group of acupoints can regulate Zhongqi, He blood, invigorating spleen and regulating qi, raising Qing and lowering turbidness. The patient's temper is sufficient, the

Qingyang rises, the body fluid can nourish the throat, the turbidity will fall, and the "Yin fire" will collect itself. Spleen health phlegm liquefaction, regulating qi anxiety can be relieved. The use of "Lao Shi needle" in the treatment of chronic pharyngitis patients with spleen deficiency can improve the pharyngeal discomfort caused by spleen deficiency, such as dryness, itching, burning, slight pain, foreign body sensation or phlegm adhesion. Professor Liu Hua chose Dazhui diarrhea method combined with Tiantu replenishment method to treat chronic pharyngitis; If Yin deficiency lung dryness type add foot ze, column lack; Spleen deficiency phlegm disturbance type plus Fenglong, Zusanli; Kidney Yin loss type plus kidney Shu, Taixi. After treatment, the symptoms of pharyngeal discomfort were obviously relieved or disappeared, and the effective rate was 95.2%. Professor Zhu Qingxia used acupuncture "throat two points", Lianquan and other acupoints to treat chronic pharyngitis; The control group took oral rabdosia rabdosa tablets. The results showed that the curative effect of acupuncture group was better than that of control group, suggesting that acupuncture "two points of larynx" had clinical significance in treating the disease.

4.3.2 Moxibustion Method:

Chronic pharyngitis patients, mostly due to the disease after the evil is not clear, or lung and kidney Yin deficiency, deficiency fire inflammation, burn Yin jin, pharyngeal loss caused by. Generally through moxibustion Dazhui, Hegu, Quchi, Shanzhong and other points, each point warm for about 30 minutes, can help clear the lung phlegm, relieve the pharyngeal dry heat, thereby improving chronic pharyngitis. Chu Xiaohong et al. [21] used traditional Chinese medicine fumigation combined with moxibustion at Hegu point to treat chronic pharyngitis of liver and kidney Yin deficiency, and the results showed that this method could shorten the course of chronic pharyngitis and improve the therapeutic effect. Chen Rihua et al. treated 236 cases of chronic pharyngitis with garlic moxibustion Hegu point, of which 128 cases were cured, 78 cases were effective, 23 cases were ineffective, 7 cases were ineffective, the total effective rate was 97.0%; If the pharyngeal congestion is obvious, manifested as fever, pharyngeal pain, dysphagia, you can also use moxibustion Tiantuo, Liechao, Zhahai to relieve and suppress the symptoms: Tiantuo has the effects of broad chest, phlegm and pharynx, clearing lung and heat, clearing pharynx and so on; Lie-deficiency is the lung meridian point of the hand Taiyin, passing the qi of Yin and Yang in the exterior, has the function of dispersing lung qi, dispelling wind and dissolving exterior, and inducing evil to go out; All dry pharyngeal pain, eye swelling pain and other five organs of heat disease, can be moxibustion according to the sea point for treatment.

4.3.3 Massage Therapy:

Massage therapy is based on the theory of TCM syndrome differentiation. It acts on specific parts of the body surface by manipulation to adjust the physiological and pathological state of the body, so as to achieve the therapeutic effect. Professor Jin Minxuan [22] adopted the treatment principles of nourishing Yin and clearing lung, eliminating phlegm and benefiting pharynx, massaging Lianquan, Tiantu, Taichong, Hegu, Qishe, Futuu, etc., 7 times of massage for 1 course of

treatment, rest for 1 day after one course of treatment, and evaluate the effect of massage after 4 courses of treatment. Results, the total effective rate of massage treatment was 95%, most patients with chronic pharyngitis massage after 1 course, feel the symptoms began to reduce, generally 2 courses of treatment began to take effect.

4.3.4 Acupoint Injection:

Acupoint injection, also known as water acupuncture therapy, starts from the overall concept, treatment with syndrome differentiation, combines needle, point and medicine, and infuses drugs into specific points under the guidance of the theory of meridians and acupoints of traditional Chinese medicine. Acupoint injection is safer and more effective than intramuscular injection with a smaller dose and less adverse reactions. Fang fang et al. [23] used compound Angelica injection in 52 patients in the treatment group, and the injection point was Tiantu point, followed by andrographolia injection, and the injection site was submucosa of the posterior wall of the lateral pharynx. Forty-eight patients in the control group were treated with budesonide suspension and followed up for 2 months. The results showed that the total effective rate was 90.38% in the treatment group and 60.42% in the control group. Acupoint injection had good effect on the treatment of chronic pharyngitis.

5. Summary

At present, traditional Chinese medicine plays an important role in the clinical treatment of throat impediment, and the treatment methods are very rich. Traditional Chinese medicine combined with external treatment of CP is an important method to improve clinical efficacy and prognosis of patients. Among them, gargling can promote the discharge of thick secretions, reduce pharyngeal discomfort, and is suitable for the treatment of pharyngeal inflammation, promote the healing of damaged mucosa and ulcer. For patients with damaged pharyngeal mucosa or ulcer, gargling therapy can help accelerate healing and reduce pain and discomfort. Acupuncture treatment can effectively improve the symptoms of chronic pharyngitis, such as sore throat, cough, throat itch, and has the advantages of small side effects and good therapeutic effect. The western medicine treatment of chronic pharyngitis is mainly to remove the cause, symptomatic treatment, the main drug treatment is antibiotics and dexamethasone atomized inhalation. Due to the need for long-term, repeated drug use, coupled with large individual differences, the clinical effect is unstable. Therefore, traditional Chinese medicine treatment has obvious advantages and can often achieve significant curative effect.

In recent years, the treatment of chronic pharyngitis by traditional Chinese medicine and external treatment has made some progress. TCM treatment mainly adopts syndrome differentiation and treatment, which can not only relieve clinical symptoms, but also regulate the balance of the body as a whole and improve the immune function of the body. Currently, TCM has shown strong vitality and development potential, but the internal treatment of TCM is limited to simple curative effect observation and reasoning, and lacks in-depth research on the etiology, mechanism and effect. However, traditional Chinese medicine combined with

external treatment can achieve both symptoms and root causes, can fundamentally and effectively treat chronic pharyngitis, is worth promoting a treatment method. Clinical organic combination of the two, give full play to the advantages of both, will further improve the curative effect.

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