

Research progress on etiology, pathogenesis and treatment of gastric precancerous lesions

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Abstract: *Pregastric cancer is a process of transformation from normal gastric mucosa to gastric cancer. At present, the incidence of pregastric cancer is increasing year by year. Chinese medicine has unique advantages in preventing pregastric cancer. This article reviews the etiology, pathogenesis and treatment progress of precancerous lesions of gastric cancer, and reveals the etiology of precancerous lesions of gastric cancer. The pathogenesis is spleen deficiency, liver depression, Yin deficiency, dampness and heat, blood stasis. The pathological factors include qi stagnation, phlegm dampness, poison and silt. The treatment is mainly reflected in invigorating the spleen and dredging the liver, dampening and removing blood stasis. In the aspect of modern medicine, mainly through anti-inflammatory acid inhibition, eradication of *Helicobacter pylori*, endoscopic submucosal dissection and other methods. In this paper, the current medical treatment of pregastric cancer was screened to improve the understanding of pregastric cancer and reduce the incidence of gastric cancer as much as possible.*

Keywords: *Pregastric cancer, Traditional Chinese Medicine, Research progress*

Gastric precancerous lesions refer to a class of pathological changes of the gastric mucosa that are prone to cancer, and their formation process is as follows: chronic superficial gastritis→ atrophic gastritis→ intestinal metaplasia→ dysplasia→ gastric cancer. Gastric cancer is the fifth most common cancer in the world and the third most common cause of cancer death [1]. Some studies have pointed out that gastric cancer ranks second in incidence and third in fatality in China as malignant tumors [2], which seriously threatens human health. Therefore, early intervention and treatment in the stage of gastric precancerous lesions can effectively reduce the incidence of gastric cancer and protect people's health. At present, modern medicine is relatively single in the treatment of PLGC, and its treatment methods are mostly symptomatic treatment, such as oral proton pump inhibitors: omeprazole, lansoprazole or pantoprazole; Gastric mucosal protector: aluminum magnesium carbonate chewable tablets, aluminum magnesium turbid liquid or colloidal pectin bismuth and so on. Or it may be treated by eradicating *Helicobacter pylori*, but the treatment effect is not satisfactory due to drug resistance and other problems [3]. Endoscopic submucosal dissection is an endoscopic resection that has emerged in recent years, which uses high-frequency electric surgery to completely remove diseased tissue, and its surgical safety is high, and some patients have incomplete resection of individual lesions, metastasis, and complications such as perforation and bleeding will occur [4]. TCM has its own unique advantages in the intervention and treatment of PLGC, so TCM is extremely important in the secondary prevention of gastric cancer. The concept of PLGC is not involved in traditional medicine in China, but according to the symptoms of PLGC, it can be classified as stomach ruffles, noisy, stomach pain and other diseases in Chinese medicine theory [5]. In recent years, traditional Chinese medicine has shown its own unique advantages in the treatment of PLGC, so this article reviews and analyzes the research on the treatment of PLGC in traditional Chinese medicine, and discusses the following details.

1. Etiology, pathogenesis and treatment of traditional Chinese medicine

1.1 Cure phlegm as the key, strengthen the spleen and rationalize qi

Dai Huanghui [6] and others believe that patients with PLGC with spleen and stomach deficiency will also have symptoms such as abdominal coldness, heavy limbs and pale and yellowish complexion in clinical manifestations. Spleen and stomach deficiency is easy to produce phlegm dampness, phlegm dampness and spleen will aggravate the lack of mobilization, and the production of phlegm dampness may cause qi and blood stasis. For such patients, Fang Xi Liujunzi Tong plus and minus, medicinal

astragalus, prince ginseng, yam, baiju, poria, tangerine peel, banxia, woody fragrance, sand kernel, chicken inner gold, danshen, curcum, zhejiang fritillary, licorice.

Li Leyi [7] and other studies believe that based on the addition and subtraction of the four gentlemen's soup, it has been proved in rat experiments that it can effectively protect against mucosal damage at different stages of PLGC, and the method of "warmth, clearing, supplementation and communication" is used to achieve the purpose of strengthening the spleen and removing stasis and detoxification. Feng Xiaoke [8] and other studies on phlegm and stasis removal have shown that this formula can reverse gastric precancerous lesions and reduce symptoms. This is the experience of Professor Wei Muxin, who uses drugs such as tangerine peel, chicken inner gold, and banxia to strengthen the spleen and humidify phlegm, and to activate blood and disperse stasis, and the combination of various drugs plays the role of dissolving phlegm and eliminating stasis.

Zhang Dan et al. [9] showed in clinical trials on the treatment of PLGC with phlegm and stasis removal prescription, which can effectively relieve symptoms such as stomach pain, reduce serum tumor markers, and have good efficacy. Shen Hong [10] and other studies on strengthening the spleen and invigorating qi have shown that this formula has achieved significant results in the treatment of patients with chronic atrophic gastritis (CAG), and can reverse partial gastric mucosal atrophy and intestinalization.

Zhang Xuan [11] et al. believe that PLGC is false and true, and its pathogenesis core is phlegm, and the clinical use of Professor Wei Pinkang's phlegm elimination and stomach treatment, the prescription uses firewood and beard, makes half a summer of bitter and dry, phlegm and gas treatment; Poria, Coptis and other medicines strengthen the spleen and dispel dampness, and the whole prescription is used to eliminate phlegm and regulate qi, and to channel turbidity through fire, and has achieved good efficacy in the process of clinical treatment. For phlegm elimination and gastric prescription, Zhang Xuan [12] conducted animal experiments, and proved that it could effectively improve the overall condition of rats and reverse the pathological state of gastric precancerous lesions and gastric mucosal pathological conditions through the study of the histopathological effect of gastric precancerous lesions in rats.

Modern randomized controlled trials of Sijunzi decoction have pointed out that the combination of Sijunzi decoction with Western medicine appears to have some benefit on CAG, and more high-quality clinical trials are still needed to confirm the results [13]. For the network pharmacology of Sijunzi soup, it is pointed out that Sijunzi decoction can improve local gastric inflammation and peripheral blood white blood cell inflammation, thereby reducing the incidence of CAG [14].

1.2 Harmony is the law, yin and yang secret

Zhu Feiye [15] et al., Xu Shan's summary of PLGC's experience in treating PLGC from the perspective of harmony and law. Xu Shi believes that PLGC has a long course of disease, spleen deficiency as the foundation, and evil as the target, and in the treatment process, the principle of eliminating disease and evil spirits, achieving neutralization, peace and degree, and caring for stomach qi is used to prescribe medicine. For PLGC, Master Xu uses the experience method summarized by clinical practice, Le stomach drink flavor formula, this prescription uses medicinal coix kernel, huaiyam, fried white art, fried white peony, tulip, fragrant tea vegetables, all kinds of medicines are used together, aiming to strengthen the spleen and invigorate qi, and disperse qi. At the same time, the drugs used in this prescription are all peaceful medicines, which achieve the therapeutic purpose by supporting healthy qi and harmonizing yin and yang. Through clinical tests and experiments, it has been proved that the effect is good, and it can effectively protect the gastric mucosa and reduce local inflammatory reactions.

Liu Yingchu [16] and others pointed out in the summary of the experience of Li Qianzhi that Li Lao believes that CAG spleen deficiency is the foundation, evil reality is the target, and the treatment is mainly based on strengthening the spleen and rational qi, and at the same time dialectical treatment is carried out according to clinical practice, in order to achieve the treatment purpose of "yin and yang combined and self-healing".

The "he" here not only refers to the balanced state of "yin, pingyang and secret" pursued by Chinese medicine, but also the treatment method and medication principle, that is, the use of peaceful and symptomatic drugs, through the method of reconciliation, so that the body can achieve a balanced and healthy state.

1.3 The spleen is the guardian and the guard dispels evil

The phrase "spleen for the guard" originally appeared in the «Lingshu Wu Yujin Liquid Betsu»: "Five Treasures and Six Houses, the Heart is the Lord... The spleen is the guardian", and later generations commented on it as "the main guard of the spleen, and the guardian of the five internal organs." "The role of the spleen is like the health qi of the human body, and those who are weak in health qi are susceptible to external evil; In the same way, those with a weak spleen are prone to external feeling of evil qi, and then produce blood stasis, stagnation of qi and other evil truths. Zhai Yarong et al. [17] discussed the impact of TCM regulation on tumors from the perspective of spleen as health, and in their papers, they believed that the Weiqi in TCM theory is similar to the immunity of modern medical treatment, and TCM spleen supplementation is effective for the regulation of the immune system, which lays a theoretical foundation for the prevention and treatment of clinical malignant tumors in TCM.

Sun Yueming et al. [5] dialectically treated PLGC from the perspective of "spleen as the defense", and the article believes that spleen and stomach weakness is one of the important causes of PLGC pathogenesis, so it should be dialectical treatment from five aspects: solidifying the spleen, regulating the qi machine, dispersing stasis and relaxing, dispelling dampness and eliminating evil, and solidifying the stomach yin. Zhang Xiujuan [18] discussed that gastric precancerous lesions are based on spleen deficiency, and the main treatment methods should be to strengthen the spleen to support healthy qi, raise the spleen and stomach yang qi, and improve the body's immunity. Professor Xu Li also took the strengthening of qi and spleen as the main treatment principle in the treatment process, and used the four gentlemen's soup to add and subtract, aiming to improve the body's immunity and achieve the purpose of supporting the right and driving away evil spirits [19].

Liang Qiting [20] et al. discussed the correlation between spleen and apoptosis from the spleen as the "counselor", and pointed out in their article that many spleen-strengthening Chinese medicine formulas can effectively regulate apoptosis factors and play an immune role, which is the same as the idea of "the spleen is the guardian", providing an entry point for the modernization of Chinese medicine.

Lin Huanping [21] is equivalent to Professor Li Shouchao's summary of clinical experience, pointing out that Li Lao's dialectical treatment of PLGC is mainly to replenish deficiency, so as to achieve the therapeutic purpose of strengthening the spleen and stomach, invigorating qi and blood, and supporting the right and dispelling evil. In the process of clinical treatment, the methods of invigorating qi and strengthening the spleen, clearing and relieving humidity and heat, regulating qi and activating blood are mostly used, and the methods of codonopsis, white stir-frying, poria and qi and spleen, bergamot, Sichuan neem, and yanhuso are mostly used. Li Lao added and subtracted based on Liujunzi soup in clinical application, and achieved good results in the process of practice.

1.4 Poison and stasis are knotted with each other, supporting the right and replenishing the deficiency

Professor Wang Zhiyi [22] and other Professor Zhang Shengsheng summarized the experience of treating PLGC from the perspective of poison and stasis, and pointed out that Professor Zhang believes that deficiency is the source of the disease, and "poison" and "stasis" are the changes of the disease, so in the treatment process, Professor Zhang treats the method of "tong". That is, to support the righteousness, replenish deficiency as the basis of the whole treatment process, and due to the existence of stasis, on the basis of tongli drugs, in this regard, Professor Wang uses four gentlemen's soup ginseng, fried white art, coix kernel, licorice to add and subtract, Professor Wang in the use of the general method of the use of qi medicine, for different situations, accompanied by different drugs, more use of tangerine peel, bergamot and other substances. In the treatment process of poison stasis, Professor Wang believes that "poison" is divided into three categories: heat poison, wet poison and phlegm poison. For different syndrome types, different drugs are given on this basis.

Bai Yuning [23, 24] and others believe that "spleen deficiency poison damage network obstruction" is the basic pathogenesis of PLGC, in the evolution of this disease, spleen and stomach deficiency leads to qi and yin deficit, wet, phlegm, poison, stasis and other evil and real hybridization, spleen main movement, spleen deficiency, and then lead to the deepening of evil poison, and eventually lead to cancer. In view of this, it is proposed to strengthen the protection of the spleen and stomach qi, dispel stasis and circulation, and at the same time strengthen the treatment idea of dispelling evil and detoxification, and establish the basic principles of strengthening the spleen and detoxification. It is composed of medicinal ginseng, fried white art, poria, fa banxia, danshen, curcum, Panax notoginseng, Zhejiang Fritillary, vine pear root, licorice, etc., which is intended to strengthen the spleen and invigorate qi, activate blood circulation, and eliminate detoxification.

Li Qianzhi [25] and others put forward the perspective of "stasis due to deficiency" for treatment, using the four gentlemen's tonga to reduce the spleen and remove stasis, and help correct and replenish the deficiency. Luo Mingchi [26] et al. pointed out in the clinical observation of the treatment of gastric precancerous lesions by Yiqi and blood revitalization formula, and the difference between the treatment group and the experimental group was obvious, and the data were statistically significant, and the total effective rate reached 68.86%. At the same time, pathological observation showed that the whole blood viscosity and erythrocyte deformability of the treatment group were improved compared with before treatment. Studies on the clinical application of Li Sufen [27] for gastric terin capsules (composed of astragalus, angelica, codonopsis, yam and other drugs) have shown that the effective rate for the treatment of patients with qi deficiency and blood stasis is more than 70%. Yin Jing [28] et al. believe that the theory of blood stasis runs through the whole process of chronic atrophic gastritis, so the method of activating blood circulation and removing stasis is mostly used for treatment, and starting from "stasis", research is carried out from the perspectives of blood flow and hemodynamics, which provides new ideas for the development of traditional Chinese medicine.

1.5 Loosen the liver and regulate qi, avoid rigidity and softness

Tian Jingjing [29] dialectically treats PLGC from the perspective of "Shaoyang as the pivot", and advocates the use of Xiaochai Hu to add and subtract, Xuan Chang Qi machine, loosen cholebacteria and Sanjiao, combined with the overall concept of Chinese medicine, and treat it with evidence. Jiang Minling et al. [30] used flavored Chai Peony Liujun decoction for the treatment of patients with spleen deficiency and liver depression, and the effective rate was 85%. An Wei [31] Feng Yuhuo's treatment of gastric precancerous lesions adopts the method of thinning the liver and regulating qi, strengthening the spleen and removing dampness, and using four inverse scattering and six gentlemen's soup to add and subtract, which has achieved significant clinical efficacy. Qin Shanwen [32] divided patients with gastric precancerous lesions into five types, among which for patients with hepatogastric discord, Chaihu, white peony, Chuanxiong, Xiangfu, tulip, Yanhusuo, Banxia, Sichuan neem and licorice were used for clinical treatment, and the effect was significant after clinical treatment.

Liver and stomach discord is often the symptom type of PLGC, clinical differentiation treatment should pay attention to judging from the patient's symptoms, "Jin Kuang Essentials" There are clouds: see liver disease, know the liver and spleen. This plays a guiding role in the prevention of PLGC, and also provides a theoretical basis for the treatment of PLGC from the liver.

2. Single flavor Chinese medicine extract

2.1 Dendrobium dendrobium extract

With the modernization of traditional Chinese medicine, the molecular biology research of traditional Chinese medicine has become more and more in-depth, the research on the effect of single flavor Chinese medicine extract on diseases has been quite effective, and Dendrobium dendrobium polysaccharide (DOP) as the main active ingredient of Dendrobium dendrobium has a good therapeutic effect on PLGC. Yi Zhao [33] has a good effect on DOP in the treatment of MNNG-induced PLGC rats by activating NRF2 and antioxidant enzymes HO-1 and NQO-1. Another study on the role of DOP by Yi Zhao showed that DOP can inhibit MNNG-induced PLGC by regulating the Wnt/ β -catenin pathway and altering serum endogenous metabolites. Wu Yan [34] the study of Dendrobium dendrobium polysaccharides pointed out that DOP can play a protective role through the NF- κ B signaling pathway.

2.2 Astragalus extract

Astragalus in the theory of traditional Chinese medicine believes that it has the effect of replenishing qi and solidification, and is an indispensable medicine in the treatment of gastritis with symptoms such as spleen and stomach qi deficiency, at present, Danyan Li [35] for the effect of isoflavone glycoside (Calycosin), the astragalus extract, pointed out that isoflavone glycosides can prevent gastric mucosal damage by regulating the integrin β 1 / NF- κ B / DARPP-32 pathway, and inhibit the expression of STAT3 in PLGC. It has positive significance for the treatment of PLGC. Yu Zhang [36]'s research suggests that isoflavone glycosides can induce apoptosis in AGS cells through the MAPK/STAT3/NF- κ B pathway mediated by reactive oxygen species in cells, which has certain significance for the treatment of GC.

2.3 Zhejiang Fritillary Extract

Peimine is a pharmaceutical component with anti-inflammatory effects extracted from Zhejiang Fritillary, Zhang T [37] Studies on Fritillin have shown that the substance can regulate apoptosis and inhibit migration induced by reactive oxygen β species in MKN-3 cells of gastric cancer, and have a good effect on gastric cancer treatment. At present, relatively little research has been done on fritine, and its mechanism of action still needs further study.

2.4 Turmeric extract

Curcuminol, also known as curcuminol, is an extract of curcuminol, Xuehui Ma [38, 39] for the study of Fuzheng live gastric decoction pointed out that its important monomer component is curcuminol, studies have shown that curcuminol can effectively protect gastric tissue and inhibit the vitality of gastric cancer cells. Curcuminol is expressed by down-regulating SDF-1 α /CXCR4/VEGF as a therapeutic factor for chronic atrophic gastritis and gastric cancer. Ding Zhishan[40] studied curcumin and believed that curcumin could protect experimental animal gastric ulcers through antioxidant effects. There are few studies on curcuminol inhibition of gastric cancer cells or anti-gastric ulcers in China, or further in-depth research can be carried out.

3. Integrated Traditional Chinese and Western medicine

3.1 Endoscopic submucosal dissection

At present, the mainstream surgical treatment method adopts endoscopic submucosal dissection, which has achieved good results in the treatment of early gastric cancer and gastric precancerous lesions, Zhang Yu [41] et al. for the efficacy of ESD in the treatment of early gastric cancer and gastric precancerous lesions concluded that patients using ESD can retain the normal physiological structure of the stomach to the greatest extent while resecting the lesion, and the overall effect is good. Zhang Wei [42] et al. compared the treatment effects of endoscopic submucosal dissection and endoscopic mucosal resection on early gastric cancer and gastric precancerous lesions pointed out that the amount of blood loss after ESD surgery is small, the hospital stay is short, and the overall effect is better than endoscopic mucosal resection. A clinical study of early gastrointestinal cancer or precancerous tumors conducted by Höbel S et al. [43] performed 46 ESDs on 45 patients and concluded after collecting data that 93.5% ESD is technically feasible and its overall radical resection rate is very impressive.

With the development of ESD surgery, the use of endoscopic technology to diagnose and screen gastric precancerous lesions has become the main means of modern medicine, and some scholars have further combined anti-inflammatory, anti-hp, acid-suppressing drugs and ESD and traditional Chinese medicine to intervene in gastric precancerous lesions, and achieved satisfactory results. Hikichi T et al. [44] noted in a clinical study of 55 patients with gastric tumors treated with ESD that taking rabeprazole on the day of surgery can inhibit bleeding after ESD surgery.

3.2 Oral medication

Jiang Ning [45] et al. showed through research analysis that the combination of traditional Chinese medicine and Western medicine in the treatment of gastric precancerous lesions has obvious advantages. In terms of western medicine, it can be treated by eradicating *Helicobacter pylori* with different drug combination programs, inhibiting gastric acid, protecting the gastric mucosa, and inhibiting the expression of oncogenes. Liu Shaokang et al. [46] used phlegm and stasis decoction combined with western medicine to treat chronic atrophic gastritis, and the control group was divided into a control group and a research group, and the control group used gastric rejuvenation tablets and bifidobacterium triple live bacteria capsules for treatment, and the research group was then treated with phlegm and stasis decoction on this basis, and the effective rate of the treatment of Chinese medicine combined with western medicine was higher than that of the control group after clinical research, and the results were statistically significant.

Liu Run [47] et al. conducted a controlled study of gastric rejuvenation tablets combined with mosabili tablets in the treatment of chronic atrophic gastritis and pointed out that the combination drug significantly reduced symptoms and had better effects than mosabili tablets alone. The efficacy of combination of traditional Chinese medicine and Western medicine has been verified by many parties to

be better than that of traditional Chinese medicine or western medicine alone, but the degree of difference is still not supported by sufficient data, and the combination of traditional Chinese and western medicine still needs a lot of research and promotion.

4. Other methods

4.1 Acupuncture, moxibustion

For PLGC, acupuncture, acupoint attaching, moxibustion and other methods are also developing and applying, Zhang Geping [48] to acupuncture points (spleen Yu, stomach Yu, kidney Yu, Zhongxuan, Zusanli, Shenque acupoint) plus Chinese medicine internal administration to treat the disease, paste the prescription of dried ginger, aconite (system), cinnamon, cinnamon, laurel branch, evodia and other traditional Chinese medicines to replenish the spleen, warm the lower yuan, reduce cold and stagnation, ginger juice has strong penetration power, percutaneous-meridian-internal organs route to exert maximum medicinal properties, the effect is obvious. Yang Zongbao [49] found that moxibustion gastric meridian acupuncture points can significantly reduce the expression of gastric mucosal cells-related proliferative factors in rats with gastric precancerous lesions, improve the protective effect of gastric mucosa, thereby preventing the further development of gastric precancerous lesions to gastric cancer. Caichun Liu et al. [50] used acupuncture and moxibustion treatment for chronic atrophic gastritis in rats and metabolomic analysis of serum, stomach, cerebral cortex and medulla, combined with pathological examination and molecular biology assays. Electroacupuncture and moxibustion showed beneficial effects on all sample types. Jingjing Xu [51] also conducts metabolomics research, through urine, serum and other biological samples analysis, to study acupuncture Sibai, Liangmen, Zusanli acupuncture points for CAG pathological improvement, the results show that electroacupuncture stimulation can cause comprehensive metabolic changes, including TCA circulation, glycolysis, etc., electroacupuncture treatment can effectively reverse many CAG-induced metabolomic changes and normalize them. This has a good effect on the treatment of CAG.

4.2 Acupuncture combined with Chinese medicine decoction

Li Pengfei [52] used warm acupuncture combined with half-summer diarrhea soup for spleen deficiency gastritis clinical study, collected 100 patients with spleen deficiency gastritis who visited the hospital from 2019 to 2020 as research objects, divided into observation group and control group, the two groups were treated with half-summer laxin decoction at the same time, and warm acupuncture treatment was carried out on the observation group at the same time, and Guan Yuan, Zusanli and Zhongxin were used as the main acupoints, and the results showed that the observation group was more effective than the control group, proving that the treatment effect of banxia laxin decoction combined with warm acupuncture was better.

Zhang Yuetao [53] used raw gastric dispersion combined with warm acupuncture in the treatment of chronic atrophic gastritis, and selected 30 patients who visited the clinic from 2019 to 2020, divided into control group and observation group, both groups were treated with raw gastric dispersion, and warm acupuncture treatment was carried out at the same time in the observation group, and the effective rate was judged by observing the positive rate of Hp before and after treatment, and the degree of gastric pain changes. Finally, it was concluded that the combination therapy had a higher effective rate than that of the control group with single raw gastric dispersion, which could improve the quality of life of patients more effectively and provide a reference for clinical treatment.

5. Summary

Most of the modern Chinese medicine doctors in the clinical treatment of PLGC is based on spleen deficiency, liver depression, yin deficiency on the basis of treatment, most doctors are based on spleen deficiency as the foundation, qi stagnation, phlegm dampness, poison stasis and other evil reality as the target, virtual and real mixed angle for dialectical treatment, some doctors from different angles of treatment, using liver thinning and regulating qi, avoiding rigidity or invigorating qi to nourish yin, rationalizing qi and removing stasis and other methods. According to the patient's clinical manifestations, the prescription and treatment reflect the characteristics of traditional medicine in China in the treatment process. Secondly, the research of single-flavor Chinese herbal extracts has also gradually developed, and the current analysis of traditional Chinese medicine extracts such as *Dendrobium dendrobium*,

astragalus, Zhejiang Fritillary, and Curcum and other mechanisms of action and effects has gradually been analyzed. As a unique medical system in China, there are relatively few studies on this at home and abroad, and the current research believes that integrated Chinese and Western medicine treatment is generally better than traditional Chinese medicine or Western medicine alone. Finally, other TCM methods such as acupuncture and moxibustion have also been recognized by research on the treatment of PLGC, while using modern techniques such as metabolomics to explore its mechanism of action. The study of the mechanism and pathway of PLGC treatment by traditional Chinese medicine is of great positive significance for the modernization and scientific development of traditional Chinese medicine and the guidance of clinical application.

6. Discussion

At present, the prevention and treatment of PLGC is still mainly based on modern medical treatment, mostly using drug treatment or surgical treatment, and traditional Chinese medicine accounts for a relatively low proportion in the treatment process of PLGC, which has not been effectively promoted and is difficult to give full play to its advantages. Secondly, attention should be paid to the development of traditional Chinese medicine preparations, there are many traditional Chinese medicine preparations in the clinic that can reverse gastric precancerous lesions, but due to the cumbersome development procedures of new drugs, many traditional Chinese medicine preparations are not fully utilized and developed, resulting in the market for the treatment of gastric precancerous lesions of proprietary Chinese medicines are rare. In addition, it is an urgent problem to realize the standardization of PLGC diagnosis and treatment as much as possible, make full use of modern medical technology, and effectively combine the advantages of traditional Chinese medicine to maximize clinical benefits. Finally, the research on the efficacy of traditional Chinese medicine is mostly at the effect level, and the research on the in-depth aspects of biomolecules is relatively shallow, and the author believes that the research on the efficacy of traditional Chinese medicine in biomolecules should be moderately strengthened, so as to promote the modernization and scientific development of traditional Chinese medicine, so that the advantages of traditional Chinese medicine can go international. Finally, we should give full play to the idea of "treating diseases before they occur" in traditional Chinese medicine, publicize the ideas of dietary attention and living habits, and prevent and treat precancerous gastric lesions. The so-called "upper work to cure pre-existing diseases", modern doctors should better play the characteristics of traditional Chinese medicine to treat pre-existing diseases, and better play the role of traditional Chinese medicine in the prevention process of PLGC.

Acknowledgements

Fund: Shaanxi Natural Science Basic Research Program (2022JM-465).

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