

Clinical efficacy observation of combination of traditional Chinese medicine and western medicine in treatment of 92 cases of HP infected chronic atrophic gastritis.

Tao Chen *

Physical examination center, People's Hospital of Zhengzhou, No. 33 Huanghe Road, PR China

Abstract

Objective: To investigate clinical efficacy of combination of traditional Chinese medicine and western medicine in the treatment of 92 cases of *Helicobacter pylori* (HP) infected chronic atrophic gastritis (CAG).

Methods: 92 cases of HP infected CAG admitted in People's Hospital of Zhengzhou from March 2014 to March 2015 were selected and randomly divided into experimental group and control group, each group with 46 cases. Patients in the control group were treated by standard triple therapy and given lansoprazole tablets, clarithromycin and amoxicillin orally for 2 weeks. Patients in the experimental group based on control group were given Qingyou Jianpi decoction. The clinical efficacy and the improvement of symptoms of the two groups were compared.

Results: (1) Comparison of clinical efficacy showed that symptomatic relief in the treatment group was better than that in the control group ($P < 0.05$). (2) Comparison of pathologic histology indicated that improvement rate of gastric mucosal atrophy in the treatment group was 85.00%, which was significant superior to that in the control group ($P < 0.05$). (3) Comparison of HP-clearance rate revealed that HP-clearance rate in the experimental group was 81.67%, which was better than that in the control group ($P = 0.01$). (4) Comparison of incidence of adverse reaction between the two groups: the incidence of adverse reaction in experimental group was 2.2%, which was much lower than that in control group ($P = 0.04$). (5) The detection of routine blood, routine urine, liver and kidney function were normal after patients in the two groups were treated with corresponding treatment.

Conclusions: Qingyou Jianpi decoction combined with western medicine can significantly improve the symptoms of patients with HP infected chronic atrophic gastritis and changes in pathologic histology, eliminate HP and prevent its relapse in a better way, which is well worth developing in clinic.

Keywords: Chronic atrophic gastritis, *Helicobacter pylori* (HP), Combination of traditional Chinese medicine and western medicine, Qingyou Jianpi decoction.

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Introduction

In recent years, HP infection has been recognized as the leading cause of chronic gastritis. CAG and gastric cancer are closely linked. It is a chronic inflammation characterized by gastric glands atrophy or accompanied intestinal metaplasia. CAG is also a common frequently-occurring disease in clinic, accounting for about 80%~90% in patients with gastroscopy [1]. In 1978, CAG was taken as precancerosis of gastric cancer by WHO [2,3]. Western medicine triple therapy (lansoprazole tablets+clarithromycin+amoxicillin) to treat chronic gastritis has a certain effect. However, after discontinuation, pantothenic acid, belching, abdominal distension, nausea and vomiting, and other symptoms may appear again, sometimes even some patients have evolved into chronic atrophic gastritis, which greatly increased the difficulty of treatment [4]. Therefore, effective treatment and eradication of HP is the

focus of the research in the treatment of gastritis [5]. In this study, combination of traditional Chinese medicine and western medicine was adopted to treat patients of HP infected chronic atrophic gastritis, which had achieved good efficacy. Now the results were reported as follows.

Material and Methods

Participants

92 cases of HP infected CAG admitted in People's Hospital of Zhengzhou from March 2014 to March 2015 were randomly divided into experimental group with 46 cases and control group with 46 cases. The profile of experimental group was as follows: 32 males and 14 females; age range: 20~69 years old; mean age: 40.2 years old; the course of disease between 9 months and 21 years. The profile of control group was as

follows: 29 males, 17 females, age range: 19~67 years old, mean age: 41.5 years old, the course of disease between 9 months and 21 years. Through gastroscopy, mucosal histopathological examination and HP detection, all cases were in accordance with the diagnostic criteria of HP infected CAG in Integrated Medicine of Integrating Traditional Chinese and Western Medicine. There is no significant difference in grades of pathological biopsy, gender, age, severity of disease and other general materials of patients in the two groups ($P>0.05$), showing the comparability.

Methods

The patients in the control group were treated with standard triple therapy and took 30 mg lansoprazole tablets, 500 mg clarithromycin and 1000 mg amoxicillin, three times a day, for 2 weeks. On the basis of control group, the patients in the experimental group were given Qingyou Jianpi decoction. The compositions of drug were as follows: 10 g Codonopsis pilosula, 15 g Poria cocos, 10 g Roasted rhizoma atractylodis macrocephalae, 10 g Rhizoma corydalis, 10 g Rhizoma pinelliae preparatum, 6 g Tangerine peel, 10 g Roasted fructus aurantii, 10 g Gallus gallus domesticus Brisson, 10 g Scutellaria baicalensis, 15 g Agrimonia pilosa, 15 g Dandelion, 20 g fried Job-tears, 5 g Fructus Amomi and 20 g fried rice malt. For patients with heartburn and sour regurgitation, the Concha arcae and Cuttlebone were added; for those with worse stomachache, Shixiao powder was added; for those with sloppy and thinning bowels, the Dandelion was taken out and the Chinese yam and Minoru thoms were added; for those with dry mouth and red tongue, the Codonopsis pilosula was taken out and Radix pseudostellariae, Radix ophiopogonis, Dendrobium nobile and Prunus mume were added; for those with purplish tongue, Salvia miltiorrhiza was added. Patients took hot medicine with 1 dose a day in the morning and night respectively, continuously for 2 weeks. The course of treatment in the two groups was 2 weeks. Gastroscopy and pathologic biopsy were reexamined as well as HP was detected at 1 month after drug withdrawal.

Determination criteria of efficacy

Clinical symptoms: According to related standard in Guiding Principles for Clinical Research on New Drugs of Traditional Chinese Medicine Treating Chronic Atrophic Gastritis [6], clinical recovery is that: clinical symptoms disappear, HP is negative, and the result of gastroscopy and pathological examination show that the mucosa is normal; significant effect is that: symptoms are relieved, HP is negative, lesion mucosa basically return to normal, but there is a small range of lesion mucosal, occasionally; improvement: symptoms is significantly reduced, HP is negative or converted from strong positive to weak positive, the lesion mucosa is reduced to 2/3, and inflammation is reduced; inefficiency is that: clinical symptom and examination of HP, gastroscopy and pathology are not improved.

Determination criteria of efficacy on HP infection: 13 C urea enzyme breath test and histological examination under

gastroscopy were performed at 1 month before and after treatment respectively. Those turning negative suggested efficiency, otherwise it was inefficient.

Statistical analysis: SPASS 16.0 statistical software was adopted to analyze clinical material data. t was used to test the comparison of difference in mean. χ^2 was employed to test enumeration data. There was statistical significance ($P<0.05$).

Results

Comparison of the general materials between the two groups

There was no significant difference in age, gender, duration and severity of the disease, and other aspects between the two groups ($P>0.05$). But these were comparable (Table 1).

Table 1. Relief profile of clinical symptoms.

Clinical symptoms	Experimental group (46 cases)	Control group (46 cases)	P
Epigastric sensation	41/46 (89.13%)	31/46 (67.39%)	<0.05
Belching	38/46 (82.61%)	33/46 (71.74%)	<0.05
Satiety	42/46 (91.30%)	32/46 (69.57%)	<0.05
Anorexia	34/46 (73.91%)	30/46 (65.22%)	<0.05

Comparison of relief profile of clinical symptoms between the two groups after treatment

The clinical symptom and sign of the patients in the two groups were improved. The effective rate of the experimental group was 73.91%~91.30%, and that of the control group was 65.22%~71.47% (Table 2).

Table 2. Clinical efficiency comparison of gastric mucosal atrophy before and after treatment.

Groups	Clinical recovery	Effectiveness	Inefficiency	Total effective rate	P
Experimental group (46 cases)	16	23	7	0.8478	<0.05
Control group (46 cases)	8	16	22	0.5217	

Comparison of clinical efficiency in the pathological changes of gastric mucosal atrophy under the gastroscopy between the two groups after treatment

Pathology of gastric mucosa atrophy under the gastroscopy in the two groups changed to different extent. Overall effective rate of gastric mucosal atrophy in the experimental group was 84.78%, and that in the control group was 52.17% (Table 3).

Table 3. Comparison of eradication rate of HP between the two groups.

Groups	n	The number of cases of HP turned negative	Eradication rate
Experimental group	46	38	0.8261
Control group	46	24	0.5217

Comparison of eradication rate of HP between the two groups after treatment

The HP of 38 cases turned negative in the experimental group with 46 cases. The HP of 24 cases turned negative in the control group with 46 cases. Eradication rate of HP in the experimental group was 82.61%, and that in the control group was 52.17%. The clinical efficacy of experimental group was significantly better than that of control group ($P < 0.05$).

Comparison of adverse reactions between the two groups

Six patients in control group and one patient in experimental group during the treatment had some symptoms, such as abdominal distension and dizziness, which didn't need special treatment and would disappear during the period of taking medicines or after treatment, and had no impact on treatment. The incidence of adverse reaction in control group was 13.0%, while that in experimental group was 2.2%. The comparison of incidence of adverse reactions between the two groups had statistical significance ($P = 0.04$).

Security check

Before and after treatment of blood, urine, stool conventional and kidney function test in the two groups were not abnormal.

Discussion

The clinical symptoms of chronic atrophic gastritis based on gastric mucosal inflammation and gastric gland atrophy have repeated appearance of gastric mucosal inflammation, reduction of gastric gland atrophy and specific regeneration of mucosa, which is a variety of factors leading to chronic mucosal inflammation [7]. In recent years, the researches have shown that about 80% of patients with chronic gastritis is associated with HP infection [8,9], and severity of the disease is positively correlated with the degree of HP infection.

Triple therapy is the first line of treatment experts at home and abroad strongly recommended, and its clinical efficacy is perfect. However, with time flying, the resistance rate of HP to antibiotics is increasing year by year, which has greatly affected the eradication rate of HP and the clinical efficacy of CAG. In the study, on the basis of triple therapy, Qingyou Jianpi decoction was added into the treatment to treat the disease, which has obtained good clinical efficacy. The eradication rate of HP was observed, which showed that there were 38 cases of HP turning negative in the experimental group, and the eradication rate of HP was 82.61%, while there were 24 cases of HP turning negative in the control group, and the eradication rate of HP was 52.17%. It is obvious that the

clinical efficacy of experimental group is better than that of control group, which indicates that the combination of traditional Chinese and western medicine can improve the eradication rate of HP and clinical symptoms significantly. On the one hand, traditional Chinese medicine can enhance the body's immune function, strengthen body's resistance to diseases and prevent HP from infection again. On the other hand, it can change the internal environment of the body where is not suitable for HP to live in, grow and reproduce, and has killing effect on HP. Traditional Chinese medicine not only can prevent and treat HP infection and its recurrent attacks, but also has excellent clinical efficacy in improving body's symptoms after HP infection. Chinese medicine mechanism may be through enhancing body's immune function, relieving spasm of gastrointestinal smooth muscle, repairing gastric mucosal injury, killing HP and so on to exert its curative effect. Its mechanism of action is as follows:

1. **Killing HP:** HP is one of critical pathogenic factors for chronic gastritis. The inhibition or kill effects for HP can reduce or eliminate the damages of the enzyme and cytotoxin HP produced on gastric mucosa. Scutellaria baicalensis, Herba hedyotis diffusae, Dandelion and other heat-clearing drugs in prescription have a broad spectrum of antimicrobial activity, inhibiting and killing HP, and enhancing body's non-specific immunity. *Agrimonia pilosa* and Dried tangerine peel also can slightly inhibit and kill HP. Modern pharmacological studies [10] have confirmed that Tangshen has antibacterial function and Dandelion can reduce the permeability of capillaries, which enable the symptoms of congestion and edema of gastric mucosa to be improved. *Salvia miltiorrhiza* can dilate blood vessels, improving microcirculation.
2. **Strengthening body's immune function:** The population infected with HP in the whole world has been more than 50%, whereas the majority of people have not become sick and just a few people develop into different clinical diseases. From western medicine perspective, it may be the individual difference, flora difference, environmental difference and in the different stages of HP infection process, while it is considered by traditional Chinese medicine that "evil do not save as in". Therefore, the antibacterial principle of traditional Chinese is not merely killing bacteria, possibly related to regulating body's general or local immune functions, adjusting the internal environment where bacterial depend on in the body and improving the resistivity of human body on bacteria, so dysbacteriosis and drug resistance are not easy to occur *in vivo*. *Rhizoma atractylodis macrocephalae* can enhance immunity. *Poria cocos* is mainly containing pachymaran, pachymic acid, etc. Lavaging with water extract of *Poria cocos* on rats can improve the proliferation reaction of T lymphocyte and the activity of IL-2, which can strengthen the body's immunity [11]. The improvement of immune function can enhance the body's defense ability, prevent attack or pathopoiesis of HP, and promote the improvement of the disease and heal of the lesions.

3. **Regulation of gastrointestinal motility:** Patients with HP infection associated gastritis are often accompanied with the slowing of gastric motility and uncoordinated contractions of the stomach to bring about delayed gastric emptying which leads to postprandial fullness, belching, early satiety and other symptoms of indigestion. Frutulence aurantil, Dried tangerine peel, Dandelion, Gallus gallus domesticus and other drugs in the prescription can increase the gastrointestinal peristalsis. Rhizoma atractyloidis macrocephalae can adjust gastrointestinal motility. Zeng Wei and other experts had observed that the modified Xiangsha Zhushu decoction added in the treatment for patients has an active effect on gastrointestinal motility, Amomum villosum and Rhizoma atractyloidis macrocephalae have a significant effect on gastric emptying and intestinal transit function, and Fructus auranti immaturus decoction is a stimulant for gastrointestinal motility of animals with gastric fistula and intestinal fistula, which can increase gastric contraction rhythm.

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*Correspondence to:

Tao Chen
Physical examination center
People's Hospital of Zhengzhou
PR China