

Research Progress on Traditional Chinese Medicine Treatment of Primary Biliary Cholangitis

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Abstract: Primary biliary cholangitis (PBC) is a chronic cholestatic autoimmune liver disease that mainly affects the intrahepatic interlobular bile duct cells. The incidence rate in the population is 4–30 cases per 100,000 people per year, and the mortality rate accounts for 1.6%–2.0% of deaths from liver cirrhosis. The pathogenesis of PBC is not clear, but it is mainly believed to be related to autoimmunity. This article summarizes the clinical treatment research on PBC in the past decade, analyzing and explaining the etiology and pathogenesis of PBC in traditional Chinese medicine, as well as the characteristics of traditional Chinese medicine treatment. Traditional Chinese medicine believes that in the early stage of PBC, there is liver and kidney deficiency and insufficient yin fluid; in the middle stage, there is dampness and stagnation; and in the late stage, there is liver collateral obstruction. The treatment focuses on nourishing the liver and kidneys, clearing heat and dampness, promoting blood circulation, resolving stasis, and regulating the liver and spleen. At the same time, the article points out the problems existing in the current research on traditional Chinese medicine's treatment of PBC and the prospects for future research.

1. Introduction

Primary biliary cholangitis (PBC) is a rare chronic cholestatic disease, also known as primary biliary cirrhosis [1]. It mainly affects middle-aged and elderly women and is related to autoimmune mechanisms. Clinical symptoms include fatigue and itching of the skin, as well as jaundice, portal hypertension, deficiency of fat-soluble vitamins, metabolic bone disease, and elevated blood lipids. It is often accompanied by increased alkaline phosphatase, positive anti-mitochondrial antibodies, and increased immunoglobulin M. The pathological characteristics are progressive, non-suppurative, and destructive inflammation of the small bile ducts in the liver, which can eventually develop into cirrhosis. Positive serum anti-mitochondrial antibodies, especially the AMA-M2 subtype, have high sensitivity and specificity for the diagnosis of this disease [2]. The key to treating PBC is to suppress abnormal immune responses and promote bile excretion. Ursodeoxycholic acid has always been considered the first-choice drug for treating PBC. It not only reduces the level of hydrophobic bile

acids in the blood and alleviates the damage of bile acids to liver cells but also has anti-apoptotic and immunomodulatory effects, reducing the need for liver transplantation in this disease [3]. However, in recent years, there have been some problems with the clinical use of ursodeoxycholic acid, such as poor response in some patients, significant gastrointestinal adverse reactions, and unclear improvement of symptoms. On the contrary, more and more clinical trials have shown the significant efficacy of traditional Chinese medicine in the treatment of this disease, which can improve the response rate to ursodeoxycholic acid, alleviate itching symptoms, reduce liver fibrosis and portal hypertension, and regulate autoimmune indicators and cytokine levels.

2. Understanding of the etiology and pathogenesis of PBC in Traditional Chinese Medicine (TCM)

There is no specific name for PBC in ancient TCM literature, as its clinical symptoms are complex and difficult to classify under a specific TCM syndrome. Based on different stages of the disease and different complications, modern TCM practitioners often classify it under categories such as "jaundice," "itchy wind," "accumulation," and "distension."

2.1. Causes of onset

(1) Pruritus: In the early stages of the disease, patients often experience itching as the main symptom, which is systemic itching that is particularly severe at night. Traditional Chinese medicine classifies it as a type of pruritus based on its characteristic of widespread itching throughout the body. As described in the "Comprehensive Book on the Treatment of Surgical Diseases," "Pruritus is characterized by widespread itching throughout the body without any sores or abscesses, and scratching does not provide relief." Traditional Chinese medicine believes that the underlying pathology is blood deficiency and wind dryness. As stated in the "Discussion on the Origins and Manifestations of Various Diseases," "For those with wind-induced itching, it is due to the body being deficient and susceptible to wind. The wind enters the pores and conflicts with the blood and qi, causing them to interact within the skin. The pathogenic factors are mild and cannot cause pain, only itching." It points out that the occurrence of itching is related to the body's deficiencies and susceptibility to wind. When wind dominates, itching occurs. The generation of itching is mainly related to wind pathogens, and "all dizziness and vertigo caused by wind belong to the liver." The liver is the organ associated with wind and wood and is responsible for regulating and storing blood. When the liver's blood is sufficient, the tendons and meridians are nourished, and there is strong and flexible movement. Conversely, numbness in the limbs, tremors in the hands and feet, and a lack of blood nourishment to the skin can lead to itching.

(2) Jaundice: When the disease progresses to the middle stage with the continuous increase of blood bilirubin levels, patients begin to show symptoms of jaundice. Ancient medical literature has discussed the etiology and pathogenesis of jaundice. For example, the Yellow Emperor's Inner Canon states: "When dampness and heat intersect, people will suffer from jaundice." It indicates that the occurrence of jaundice is related to dampness and heat. The Synopsis of the Golden Chamber states: "Jaundice is caused by dampness." It points out that the occurrence of jaundice is closely related to dampness. When the spleen loses its healthy function, dampness becomes a problem, leading to the production of damp heat, which fumigates the liver and gallbladder, causing bile to overflow into the skin and resulting in jaundice. Han Lei et al. [4] pointed out that this disease is related to dampness and that imbalanced qi, food accumulation, or spleen deficiency can all lead to the accumulation of water and dampness in the body. Professor Yang Daguo believes that damp heat and stasis toxins are present throughout the entire process of PBC, and dampness is the main pathological factor leading to jaundice [5].

(3) Accumulation: When the disease progresses to the end stage, liver tissue fibrosis occurs, and pseudo-lobules appear, entering the stage of cirrhosis. Traditional Chinese medicine refers to this as "accumulation" and believes that the main pathological mechanism is blood stasis. As stated in "Medical Lin Gai Cuo": "Wherever there is qi and blood, qi is invisible and cannot form clots. If there are clots, there must be visible blood. When blood is exposed to cold, it coagulates into clots; when blood is exposed to heat, it boils into clots." Lu Dianqiang et al. [6] believe that PBC is mainly a process of dampness, blood stasis, toxins, and deficiency.

(4) Ascites: When the disease is in the decompensated stage of liver cirrhosis, patients may develop ascites, which is referred to as "guzhang" in traditional Chinese medicine. It is believed that the underlying mechanism of ascites is the imbalance of the liver, spleen, and kidneys, with the liver failing to disperse and regulate, the spleen failing to transform and transport, and the kidneys failing to open and close, ultimately leading to qi stagnation, blood stasis, and water retention. As stated in the Huangdi Neijing, "If the foot Taiyin is deficient, there will be distension." "If the stomach is cold, there will be bloating." "If there is stomach disease, there will be abdominal edema." "All types of dampness and swelling are related to the spleen." These statements indicate that spleen and stomach damage are the key factors in the development of ascites. The Zhubing Yuanhou Lun states, "The accumulation of water, toxins, and qi inside the body leads to gradual abdominal distension." This indicates that the development of ascites is related to the accumulation of water and qi. Zhao Xianke stated, "The disease of abdominal fullness originates from the deficiency of kidney fire, which cannot promote water circulation." This indicates that the development of ascites is related to kidney yang deficiency. Du Hongbo et al. [7] believe that the pathogenesis of primary biliary cholangitis (PBC) evolves through three stages: qi stagnation in the bile ducts; spleen qi deficiency and toxin damage to the bile ducts; liver depression and blood stasis; spleen deficiency leading to dampness; and toxin closure of the bile ducts. Insufficiency of the liver, spleen, and kidneys, as well as qi deficiency and blood stasis, are the core patterns of this disease, while toxin damage to the bile ducts is the key mechanism driving disease progression. Early use of tonifying qi and promoting blood circulation methods can help improve the prognosis of PBC.

2.2. Summary of Medical Experts

Wang Lingtai [8,9] believes that the pathogenesis of this disease is mostly due to inadequate congenital endowment, external pathogenic factors, dietary imbalance, and emotional disturbances, which affect the physiological functions of the spleen, liver, and kidneys, leading to disorder in qi and blood, accumulation of dampness, heat, and stasis internally, and primarily imbalance of yin and yang. Liu Ping [10] believes that the pathogenesis of PBC is primarily deficiency of essence and qi, weakness of yin and blood, and internal accumulation of stasis and heat as the main manifestation. Hao Juan et al. [11] believes that dampness, heat, stasis, and deficiency are the main factors contributing to its occurrence, with the disease primarily affecting the liver, gallbladder, spleen, stomach, and kidneys, and the pathogenesis characterized by a combination of deficiency and excess. Feng Xinghua pointed out [12] that dampness-heat, qi stagnation, blood stasis, and water retention is important factors affecting the development and changes of this disease. Ren Meng believes [13] that chronic illness will inevitably lead to stasis, and the occurrence of this disease can be seen as stagnation and stasis. When the liver loses its smooth flow, it leads to qi stagnation. The liver stores blood, and when the liver loses its smooth flow, blood stasis occurs, resulting in a combination of stagnation and stasis. Chronic illness will inevitably lead to deficiency, and manifestations such as deficiency of liver blood, deficiency of kidney yin, and liver-spleen imbalance can be observed. Du Hongbo et al. [14] states that PBC patients primarily exhibit deficiency in qi, qi stagnation, deficiency of yin, and blood stasis, with the liver, spleen, and kidneys as the main affected organs. In addition, a

study that included 11 articles and analyzed 849 cases summarized the distribution patterns of common syndromes and pathogenic factors in PBC. It found that the main affected organs were the liver, spleen, and kidneys, and the main pathogenic factors were qi deficiency, dampness, yin deficiency, qi stagnation, blood stasis, and heat. Among them, during the clinical symptom period, the main affected organs were the liver and spleen, and the main pathogenic factors were qi deficiency, qi stagnation, yin deficiency, and dampness obstruction. During the decompensated cirrhosis period, the main affected organs were the liver and kidneys, and the main pathogenic factors were yin deficiency, dampness obstruction, blood stasis, and essence deficiency[15]. He Weili et al. [16] discussed from the perspective of meridians and believed that PBC belongs to the category of "meridian disease" in traditional Chinese medicine. They proposed that the pathogenic factors persistently entangle and accumulate in the meridians of the liver and gallbladder, leading to the closure and obstruction of the meridians of the liver and gallbladder, resulting in bile stasis, meridian obstruction, and liver damage. In the etiology of PBC, constitution is also considered an important factor. Previous studies have shown [17] that PBC patients have a higher incidence of qi depression constitution and qi deficiency constitution, which may be related to emotional factors, dietary fatigue, and organ decline.

3. TCM Syndrome Differentiation of PBC

Currently, there is no unified understanding of TCM syndrome differentiation for PBC. Research shows that the core syndrome types of PBC are liver-kidney yin deficiency syndrome and liver depression spleen deficiency syndrome, among which the clinical symptom period is mainly divided into liver depression spleen deficiency syndrome, liver-kidney yin deficiency syndrome, and spleen-stomach qi deficiency syndrome. The syndrome types during the decompensated cirrhosis period are mainly liver-kidney yin deficiency syndrome, liver-kidney deficiency syndrome, and dampness obstructing blood stasis syndrome. A study on the constitution syndrome types of PBC patients showed that liver depression spleen deficiency syndrome and liver-kidney yin deficiency syndrome are the main TCM syndrome types. Another study on the characteristics of TCM syndrome differentiation in PBC showed [17] that liver-kidney yin deficiency, damp-heat obstructing blood stasis are the most common, followed by liver depression spleen deficiency syndrome, and spleen-stomach qi deficiency and spleen-kidney yang deficiency syndrome are the least common. Additionally, multiple syndrome types can overlap in the same patient, with the overlap of liver-kidney yin deficiency syndrome and damp-heat obstructing blood stasis syndrome being the most common [18].

4. Traditional Chinese Medicine Treatment for PBC

4.1. Differentiation and Treatment of PBC

4.1.1. Liver and Kidney Deficiency Syndrome

Xiao Linghui et al. [19] found that the combination of the Li Dan Yang Gan Fang (20g *Rehmannia glutinosa*, 15g Mulberry fruit, 15g White peony root, 15g North American ginseng, 15g *Ophiopogon japonicus*, 15g *Angelica sinensis*, 15g Goji berries, 15g *Artemisia scoparia*, 15g *Gardenia jasminoides*, 15g *Curcuma aromatica*) and ursodeoxycholic acid can significantly improve liver function in patients with PBC liver and kidney deficiency syndrome, and reduce IgM and γ -globulin. Professor Shao Ming [14] used the method of "igniting fire and supplementing earth", because PBC patients are mostly middle-aged women who are in the stage of 57 to 77, which is a period of postnatal decline and congenital dissipation. The imbalance of yin and yang in the body, as well as the dysfunction of liver, kidney, spleen, and stomach, leads to symptoms of upper heat, lower cold, and middle

deficiency. Tian Fengliang et al. [20] treated 30 patients with liver deficiency and wind type liver and gallbladder-related pruritus with the Yi Gan Zhi Yang Tang (composed of 30g *Astragalus membranaceus*, 30g White peony root, 30g Dandelion, 30g *Artemisia scoparia*, 30g *Hedyotis diffusa*, 30g *Celastrus orbiculatus*, 30g *Anemarrhena asphodeloides*, 30g Goji berries, 10g *Curcuma aromatica*, 10g *Cyperus rotundus*, 10g *Smilax glabra*, 10g *Gardenia jasminoides*, 10g *Radix et Rhizoma Rhei*, 6g Licorice, 6g *Angelica sinensis*). The total effective rate was 83.33%, and its mechanism of action may be related to the reduction of serum 5-hydroxytryptamine (5-HT) levels. Lu Dingbo et al. [21] used the Di Wu Yang Gan Fang (composed of 30g *Artemisia scoparia*, 25g *Rehmannia glutinosa*, 10g *Schisandra chinensis*, 10g *Curcuma longa*) with the treatment of ursodeoxycholic acid in PBC patients, which exerted the advantages of traditional Chinese medicine treatment and improved the symptoms and biochemical indicators of the patients, to a certain extent, delaying the process of liver fibrosis in patients.

4.1.2. Liver Depression and Spleen Deficiency Syndrome

The liver governs dispersion and the spleen governs transformation. The liver stores blood and the spleen controls blood. The two organs complement each other and are closely related in terms of physiology and pathology. Only when the liver's dispersion function is normal can it invigorate the qi and blood of the spleen and stomach, and improve their ability to transform food and fluids. Guided by the theory of "seeing liver diseases and knowing liver's influence on the spleen," it can be understood that although primary lesions of primary biliary cholangitis (PBC) are in the liver, it is closely related to the spleen. Therefore, treating the liver should not neglect strengthening the spleen. Chen Guirong et al. [22] found that the combination of Shugan Jianpi Decoction (15g of *Bupleurum*, 30g of *Astragalus*, 30g of *Poria*, 15g of White Peony, 20g of *Curcuma*, 10g of *Fructus Aurantii*, 10g of *White Atractylodes*, 15g of *Angelica*, 10g of *Achyranthes Bidentata*, 10g of *Lysimachia christinae*, 15g of *Hedyotis diffusa*, and 6g of Licorice) with ursodeoxycholic acid can improve the efficacy of PBC patients with liver depression and spleen deficiency syndrome, improve liver function, and delay liver fibrosis. Zeng Wuwu et al. [23] found that the combination of Hu Gan Zhu Yu Decoction and ursodeoxycholic acid can improve symptoms such as fatigue and itching and enhance immune function in PBC patients with liver depression and spleen deficiency syndrome. Sun Dazhi et al. [24] found that the combination of Shugan Huoxue Formula and ursodeoxycholic acid can achieve a total effective rate of 82.40% in the treatment of PBC patients with liver depression and spleen deficiency syndrome. Hu Gan Pian is mainly composed of modifications of Xiaochaihu Decoction and Yinchenghao Decoction from "Treatise on Febrile Diseases." Its main ingredients are *Bupleurum*, *Artemisia capillaris*, Isatis root, *Schisandra chinensis*, pig bile powder, and mung beans. Its main functions are soothing the liver, regulating qi, invigorating the spleen, and promoting digestion. It is mainly used in the treatment of chronic hepatitis and liver cirrhosis.

4.1.3. Damp-heat syndrome of liver and gallbladder

In the middle stage of PBC, the patients began to appear jaundice, Chinese medicine and heat-related, especially with the relationship between the most closely damp, is the so-called no damp can not become yellow, so we should pay attention to the clinical application of heat-clearing and dampness. Ganxia et al. [25] have shown that oral administration of compound glycyrrhizin tablets for two weeks followed by oral administration of Ursodeoxycholic acid capsules and qingying huoxue decoction (*Yinchen* 18g, *Lysimachia* 30g, *Polygonum cuspidatum* 15g, *Angelica* 12g, *Achyranthes bidentata* 9g, Buffalo Horn 30g, *Rehmannia* 15g, *scrophulariae* 9g, *Ophiopogon japonicus* 9g, Honeysuckle 9G, *Forsythia* 6G, *Coptis* 5g, *Salvia miltiorrhiza* 10g, tamarind leaf 9g) can significantly alleviate the clinical symptoms of patients with PBC with liver-gallbladder dampness-heat syndrome, the mechanism may be the regulation of THH/Treg balance and cytokine level in peripheral blood. Professor Chen Jianjie believes that the root of this disease lies in the fact that the spleen deficiency generates dampness, which leads to dampness-stagnation and heat-dissipating, blood stasis and heat

blocking the collaterals. Therefore, the treatment of this disease is based on strengthening the spleen and removing dampness, clearing away dampness and relieving jaundice, cooling blood and removing blood stasis as the main methods [26]. Professor Zhao Wenxia observed 60 patients with PBC, it was found that Yin Shao er Huang decoction (composed of 45 g of *Herba artemisiae scopariae*, 45 g of *Radix paeoniae rubra*, 30 g of *Radix scutellariae*, 30 g of *Radix scutellariae*, 20 g of *Gentiana macrophylla*, 20 g of *rubiae Herba*, 20 g of *Herba siegesbeckiae*) combined with taurine ursodeoxycholic acid capsule could significantly improve the clinical symptoms and liver function of patients with PBC, this may be related to levels of Transforming growth factor beta TGF- β and interleukin IL-10, which regulate peripheral blood regulatory T cells (Tregs) and their expression [27]. Professor li su-ling considered that the combination of Huashi Runzao Huoxue fuzheng Fang and taurine in the treatment of PBC was superior to taurine alone in improving the clinical symptoms, liver function and delaying the progression of the ursodeoxycholic acid [28]. In addition, the effect of Huashi Runzao Huoxue fuzheng Fang was ursodeoxycholic acid to that of taurine alone.

4.1.4. Qi Deficiency and Blood Stasis Syndrome

In the late stage of primary biliary cholangitis (PBC), it often develops into liver cirrhosis. Traditional Chinese medicine theory believes that the development of liver cirrhosis is mainly related to blood stasis. The liver stores blood, and its blood flow accounts for about 30% of the total blood flow in the body. In pathological conditions, congestion leads to a decrease in liver blood flow, an increase in blood flow resistance, blockage of liver collaterals, a decrease in blood storage and blood regulation functions, and the liver produces fibrosis and pseudolobules, eventually developing into liver cirrhosis. Therefore, the application of blood-activating and stasis-removing methods should be emphasized in clinical practice. Liu Guangzheng [29] treated 25 patients with PBC Qi Deficiency and Blood Stasis, Damp-Heat Stasis-Toxin Internal Accumulation Syndrome using the method of tonifying qi, detoxifying, promoting meridian circulation (using 30g of *Astragalus membranaceus*, 10g of *Sophora flavescens*, 30g of *Poria cocos*, 10g of dried tangerine peel, 30g of *Poria cocos*, 6g of *Amomum villosum*, 30g of *Desmodium styracifolium*, 30g of *Hedyotis diffusa*, 30g of *Salvia miltiorrhiza*, 10g of *Panax notoginseng*, 10g of *Perilla seed*, 30g of charred madder, and sea horse, etc.). The Chinese herbal medicine improved the efficacy of traditional Chinese medicine syndrome differentiation, liver function indicators, tongue appearance, and pulse condition significantly. Bai Zhiqin and others found that the combination of Qi-tonifying and blood-activating decoction and ursodeoxycholic acid treatment can improve liver function, reduce liver stiffness values, and significantly alleviate symptoms such as fatigue and dry mouth in PBC patients. Professor Zhang Wei made a dialectical analysis of 84 cases of PBC, and found that 84.5% of the patients had liver stasis in different degrees, among them, 22 cases (26.2%) were mild liver-blood stasis syndrome, 25 cases (29.8%) were moderate liver-blood stasis syndrome and 24 cases (28.5%) were severe liver-blood stasis syndrome. To this end, Professor Zhang advocated the application of qi-invigorating and blood-activating therapy for PBC [30]. Xu shucai considered [31] that Qingying huoxue decoction (composed of Buffalo Horn 30g, *Rhizoma Dioscoreae* 15g, *Radix salviae miltiorrhizae* 6g, *radix scrophulariae* 9g, *Ophiopogon japonicus* 9g, *Forsythia Suspensa* 6G, bamboo leaf 3g, *Coptis chinensis* 5G, Honeysuckle 9G) combined with ursodeoxycholic acid could improve the liver function of patients with advanced PBC, inhibition of CD4 + and CD28 T cells can delay the progression of the disease and decrease the mortality of the end stage. Professor Chen Guoliang believed that Qiwei Huaxian decoction (composed of astragalus, *Bupleurum*, turtle shell, *angelica sinensis*, *Salvia miltiorrhiza*, *paeonia lactiflora*, baked licorice, etc.) combined with ursodeoxycholic acid could significantly improve the clinical efficacy in the treatment of PBC with spleen deficiency and blood stasis [32].

4.2. Treatment of Chinese patent medicines

a systematic review of 1133 patients included in 16 studies showed that the efficacy of Chinese patent medicines such as Fuzheng Huayu capsule, Fufang Biejia Ruangan tablet, Anluo Huaxian Pill, Guzhang tablet, Fufang Yiganling capsule and Yunzhi Gantai capsule in the treatment of PBC was significantly better than that of Ursodeoxycholic acid alone [33]. Specific STUDIES [34,35] found that the combination of fufangbiejiaruangan tablets and ursodeoxycholic acid could improve the liver function, the degree of liver fibrosis and the quality of life to some extent. *Astragalus membranaceus* and its extract have anti-fibrotic effects in single Chinese medicine and have been proved to be safe [36,37]. Studies have shown that diammonium glycyrrhizinate, as a third-generation extract of the active ingredient of *glycyrrhiza uralensis* Fisch, is better than Ursodeoxycholic acid alone in treating PBC, and Ursodeoxycholic acid Can better improve the patient's serum biochemistry.

4.3. Medical experience

Zong Yan [39] mainly treated qi-benefiting and dampness-dissipating, liver-softening and blood-stasis-dissipating, simultaneously clearing heat and dampness, promoting blood circulation and so on. Professor Xu Guangfu [29] treated PBC by supplementing qi, detoxicating and dredging collaterals, the basic formula is: *Astragalus*, *Sophora flavescens*, *Smilax glabra*, *amomum villosum*, *rhizoma cynanchum*, dried tangerine peel, *Poria Cocos*, PENGGRASS, *Rhizoma scutellariae*, *Hedyotis diffusa* *Miltiorrhiza*, *Panax Notoginseng* powder, madder peat, Cuttlebone. Professor Jin Shi [40] treated PBC with Cholagogue and collaterals. The early pathogenesis was cholestasis and obstruction of collaterals, the three methods are clearing heat and dampness, clearing liver and purging fire, dispersing liver and regulating qi and collaterals, and resolving blood stasis and collaterals, resolving dampness and stomach. The late pathogenesis is the accumulation of dampness due to deficiency of the spleen, which is treated by the two methods of "Invigorating the spleen and removing dampness" and "Tonifying the blood and softening the liver, nourishing yin and tonifying the kidney". Li Shuangquan [41] thought that the treatment of autoimmune liver disease should pay attention to the factor of wind-evil, because the clinical characteristics of wind-qi regulating the liver and autoimmune liver disease were related to wind, and the ancient wind drugs could treat the liver and wind drugs, has the corticosteroid-like effect may suppress the immunity. Professor Feng Xinghua [42] took soothing the liver and promoting gallbladder as the basic treatment method, liked to use, *Yinchen* combined with *radix bupleuri* and *rhizoma cynanchi*, selected the methods of invigorating the spleen and stomach, clearing heat and removing dampness, promoting blood circulation and diuresis, nourishing the liver and kidney. Professor Qian Ying believes [43] that the main pathogenesis of PBC is yin deficiency and blood stasis. Pruritus belongs to blood-heat and wind-dryness, which is treated by expelling wind, cooling blood and stopping itching; hepatosplenomegaly belongs to blood stasis, which is treated by activating blood and removing blood stasis; jaundice belongs to accumulation of damp-heat, which is treated by clearing away dampness-heat, promoting gallbladder and relieving jaundice; Fatigue, dry mouth and pain due to liver flexion belong to Qi stagnation due to yin deficiency, which should be treated by regulating qi, nourishing yin and relieving pain.

5. Summary

PBC in our country as a late start and in recent years the heat of the study, Chinese medicine treatment of PBC has significant advantages, but due to lack of experience, there are still shortcomings, it affects the survival time and quality of life of PBC patients. Therefore, there are three problems: (1) Lack of epidemiological data: although great progress has been made in clinical and basic research of PBC in China in recent years, however, there are still few clinical

epidemiological data, misdiagnosis and missed diagnosis still exist, which seriously affect the quality of life of patients. (2) There are some misunderstandings in the understanding of liver toxicity of traditional Chinese medicine: some traditional Chinese doctors do not pay attention to the toxicity of traditional Chinese medicine, but still insist on the application of the traditional and folk prescriptions, blindly use the traditional Chinese medicine, resulting in severe liver damage; Some people think that all the traditional Chinese medicines are toxic to the liver, so they refuse to use the important treatment of PBC. But as long as the medicines are reasonably matched and the dosage and usage are strictly controlled, the safe use of medicines can be guaranteed. (3) The opportunity of applying Chinese medicine is uncertain: although Chinese medicine has unique advantages in treating PBC, most patients choose Western medicine first, and do not choose Chinese medicine until the late stage, lead to missed the best time for Chinese medicine treatment. (4) The general research on PBC by TCM is still in the initial stage, therefore, the research on PBC should be strengthened, it includes the name of disease, etiology, pathogenesis, treatment principle, disease evolution, curative effect judgement and prognosis evaluation, which need to be further improved. At the same time, to correctly understand that PBC is not only a kind of disease invading the liver, but also accompanied by extrahepatic complications, such as osteoporosis, and so on. The intervention of traditional Chinese medicine can better delay the occurrence of complications, improve the complications that have occurred.

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