

Research Progress of Ethnic Medicine in the Treatment of Cholelithiasis

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Abstract

In a broad sense, ethnic medicine includes Han traditional Chinese medicine, folk medicine and ethnic minority medicine; ethnic medicine in a narrow sense refers to ethnic minority medicine. It is a medicine developed by ethnic minorities in order to survive and reproduce and in the process of fighting diseases. Culture, based on its own language, life experience and cultural traditions, has its own understanding and theoretical system of disease naming, etiology and pathogenesis, treatment principles and treatment methods, which is a major feature of my country's medical care. Among them, ethnic medicine has unique advantages and good clinical efficacy in the prevention and treatment of cholelithiasis. Therefore, this paper focuses on summarizing the characteristic theories and diagnosis and treatment experience of Tibetan medicine, Mongolian medicine, Miao medicine, Yao medicine, and Beijing medicine in ethnic medicine by sorting out and summarizing the relevant materials in this regard, so as to provide new ideas for improving the treatment of cholelithiasis and enriching clinical drug selection.

Keywords

Ethnic Medicine, Cholelithiasis, Review

1. Introduction

Cholelithiasis refers to a condition characterized by the formation of stones

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within the biliary system, including the gallbladder and bile ducts [1]. It can be further classified into gallbladder stones and bile duct stones based on the location of stone formation. The etiology of cholelithiasis is complex, with factors such as genetics, gender, geographic environment, ethnicity, and dietary habits potentially influencing its development [2] [3]. Currently, the average prevalence of cholelithiasis in China is estimated to be around 7% to 10% [4]. With the development of the socioeconomic landscape, significant changes in people's lifestyles and dietary patterns have led to an increasing trend in the incidence of cholelithiasis over the years.

There are primarily two approaches to the treatment of cholelithiasis: surgical intervention and non-surgical conservative treatment. Surgery is the most commonly chosen method; however, it has drawbacks such as a higher risk of complications and recurrence. Clinical observations have shown that a combination of Western medicine with traditional Chinese medicine, as well as indigenous ethnic medicine, offers unique advantages in the treatment of cholelithiasis. Seeking more cost-effective solutions and conducting further research on the treatment and comprehensive selection of drugs for cholelithiasis is urgently needed. As a multi-ethnic country, ethnic medicine in China is the result of the diagnosis, treatment, and medication experience accumulated by ethnic minorities through long-term struggles with diseases. Due to their different lifestyles and dietary habits, ethnic medicine has different characteristics in the prevention and treatment of cholelithiasis. Clinical observations have shown that combining Western medicine with traditional Chinese medicine and ethnic medicine has significant therapeutic effects and unique advantages in treating cholelithiasis. Through reviewing and organizing literature, the understanding and prevention and treatment of cholelithiasis by Tibetan medicine, Mongolian medicine, Miao medicine, Yao medicine, Jing medicine, etc. are summarized as follows.

2. Tibetan Medicine

In Tibetan medicine, cholelithiasis is referred to as “Chika” (Tibetan phonetic translation), which means “Pi disease”. It is believed to be a result of the dynamic balance between the three factors, “Chiba” “Peigen” and “Long” being disrupted due to the influence of internal and external factors, leading to the development of the disease [5]. Similar to traditional Chinese medicine, Tibetan medicine also considers that the occurrence of various diseases is the result of the interaction between internal and external factors. In Tibetan medicine, internal factors refer to the “three factors”, which are Chiba, Peigen, and Long, while external factors include pathogenic influences, seasonal variations, dietary habits, and daily routines. Each of the “three factors” has different properties and collectively possesses twenty characteristics. Long is characterized as rough, light, cool, fine, hard, and active; Chiba is characterized as moist, sharp, hot, light, flavorful, curved, and wet; Peigen is characterized as moist, cold, heavy, dull, soft, stable, and sticky [6]. Tibetan medicine believes that the differences in

the properties and imbalances of the “three factors” under the influence of external factors, especially the excessive heat and sharpness of “Chiba”, are responsible for the development of cholelithiasis [7]. This results in difficulties in the absorption of nutrients and essence materials by the human body, leading to the accumulation of mixed bile in the biliary system. Over time, pathological deposits in the form of small stones develop within the biliary system [8].

The Tibetan medicine approach to treating cholelithiasis follows its unique theoretical system, regulating it through diet, behavior, and medication. The goal is to restore “Chiba” to its original state, remove the fundamental pathogenic factors, and follow the treatment principles of soothing the liver and promoting bile flow, as well as clearing heat and dissolving stones [9]. Commonly used Tibetan medicines include “Zhangyacai” “Doukou” “Bolengguazi” and “Heibingpian” [10]. Tibetan medicine “Zhangyacai” can clear the liver, promote bile flow, and have a diuretic effect. Saravanan [11] and others found that “Zhangyacai” could reduce IL-1, IL-6, and TNF levels through the NF- κ B/I κ B and AK2/STAT3 signaling pathways, significantly increase the levels of anti-inflammatory factors (IL-10 and IL-4), and thereby exert anti-inflammatory effects in the treatment of cholelithiasis. Yang Zhizhuoma [12] used Tibetan medicines “Shiwei Heibingpian Wan” “Shiyiwei Hezi Wan” and “Poluyuejingsan Jiaoshancapsule” to treat 40 patients with chronic cholecystitis and cholelithiasis, achieving significant therapeutic effects with mild adverse reactions. Modern pharmacological studies have shown that “Shiwei Heibingpian Wan” can effectively inhibit inflammation and bacteria, promote bile secretion, reduce the occurrence of polyps and gallstones, and have a good analgesic effect [13]. “Shiyiwei Hezi Wan” has a significant bactericidal and bacteriostatic effect, promoting the dissolution of stones and bile secretion. “Poluyuejingsan Jiaoshancapsule” has remarkable antibacterial capabilities and can effectively dissolve cholesterol, promote digestion and bile secretion. The combined use of these medications can promote bile secretion, effectively reduce inflammation, and promote stone dissolution, thus expelling stones more quickly [14]. Sanglo [15] and others found that the experienced Tibetan medicine formula “Lidan Xiaoshisan” by the renowned national expert Gesang Bajuzhu had a notable stone-expelling effect. It is particularly effective in pain relief, has minimal side effects, is affordable, and is well-accepted by patients. It is suitable for patients with cholecystitis and those who are not suitable for surgical treatment of gallstones.

3. Mongolian Medicine

In Mongolian medicine, cholelithiasis is referred to as “Gallstone Pi”. It primarily refers to the formation of stone-like lumps in the gallbladder, with symptoms including indigestion, dry mouth with acid regurgitation, upper abdominal and right hypochondrial pain, as well as a bluish and dry complexion with reduced luster [16]. The description of cholelithiasis symptoms in the “Four Medical Classics” [17] includes “gallbladder lump with symptoms of bluish and dry skin,

weakened physical strength despite eating, yellowish tears, and generalized itching after the disease has formed.” “Mongolian Pathology” [18] points out that “failure to digest various symptoms is the main cause of stone lumps” and Mongolian medicine believes that the main causes of cholelithiasis include chronic tobacco and alcohol consumption, preference for spicy foods, irregular daily routines, gallbladder inflammation, and biliary infections [19]. These pathogenic factors affect the human body, leading to the imbalance of “Xoir” (a Mongolian transliteration, closely related to the gallbladder) and “Jinghua” (essence) not being digested. The imbalance of the “Three Roots” (Hei Yi, Xila, Bada Gan) results in digestive dysfunction, where the essence and waste cannot be properly separated, further causing the interaction of Xila (a Mongolian transliteration, referring to the heat energy of normal physiological activities in the body) and Bada Gan (a Tibetan transliteration, referring to the mucous substances in the body, equivalent to the jin and xian in traditional Chinese medicine) in the gallbladder, leading to the formation of cholelithiasis [20] [21].

In Mongolian medicine, the treatment principles for cholelithiasis based on syndrome differentiation mainly focus on relieving Xila, enhancing the separation of essence and waste in the stomach, resolving the stone formation, and using methods such as purgation to treat the condition [22]. Many Mongolian physicians have explored the use of Mongolian medicine in treating cholelithiasis, summarizing several effective empirical formulas. These formulas provide new insights into the treatment of cholelithiasis. Bayinmengke [23] found that gallbladder stone lumps primarily form due to undigested food accumulation and subsequent undigested essence in the liver. Therefore, the treatment principle involves invigorating the stomach’s positive fire, dissolving lumps, and eliminating stagnation. This is achieved using a Mongolian medicine called “Shiwei Beichi Hui San” in combination with “Wuwei Qingzhuo San” to clear the “Xier” heat effectively, resulting in an effective treatment of cholelithiasis. Hantongfang [24] used Mongolian medicines such as “Tasinyin Bas”, “Guangming Salt”, “Beichi Hui”, “Butlerqi” and “Geiwang” to promote stomach digestion, enhance the separation of essence and waste, and dissolve lumps. Patients’ conditions improved significantly with this treatment. Aotegeng Bayaer [25] classified gallstone lumps into “Heyi-type” and “Suxila-adhesive” types. The treatment principle focused on dispelling stasis, promoting bile flow, and resolving stagnation. For “Heyi-type”, medications such as “Tong Gari”, “Garixi” and “Yingtailejia Garudi” were used to dispel Heyi and relieve pain. For “Suxila-adhesive” type, medications such as “Yindari”, “Digeda”, “Babu”, “Sirixi”, “Zalaqing” and “Garudi Jiayibu” were used to clear heat, detoxify, promote bile flow, and relieve pain. Hugujiletu [26] discovered that Mongolian medicines like “Laga”, “Deigeda”, “Beichi Hui” and “Garudi” in combination with acupuncture and moxibustion achieved a relatively high cure rate for cholelithiasis. Mongolian medicine also emphasizes dietary restrictions, advising against the consumption of sharp, greasy, hard, alcoholic, overly acidic, or overly salty foods. Lifestyle-wise, one should avoid cold and dampness, emotional stress, maintain a

quiet living environment, prevent vigorous activities and overwork, and ensure a peaceful and cheerful mental state [22]. Following these guidelines can effectively prevent and treat this disease.

4. Miao Medicine

Cholelithiasis is mainly characterized by abdominal distension and, in severe cases, colicky pain. Based on the pain characteristics and following the principles of Miao medicine, which adhere to the “Two Principles”, “Thirty-Six Symptoms”, “Seventy-Two Diseases” and “One Hundred and Eight Conditions”, Miao medicine refers to cholelithiasis as “Fish Eel Syndrome” or “Abdominal Meridian” [27], owing to their complex pathogenesis and prolonged course, which can often be confused with gastritis and duodenitis, impacting digestion and overall health. Miao medicine believes that gallstones and kidney stones result from an imbalance of yin and yang in the body, as well as disturbances in qi, blood, and fluid regulation, leading to the obstruction of water pathways and accumulation of pathogenic factors.

In the treatment of gallstones, Miao medicine focuses on anti-inflammatory, pain relief, and stone dissolution methods, with the goal of completely eliminating stones, restoring normal organ function, and rectifying the underlying causes. “Liangtoumao” (a traditional Miao medicine) is known for its anti-inflammatory, antibacterial properties and effectiveness in treating gallstones [28]. Miao practitioners refer to it as the “stone-dissolving herb” and commonly use it in the clinical treatment of hepatitis, gallstones, cholecystitis, kidney stones, and bladder stones [29]. Li Fanyi and others have discovered that “yuqiu san” (a Miao medicine formula) effectively treats gallstones, promoting bile excretion and stone elimination. Its components include Liuyuexue, Huzhang, Muginger, Lianqiancao, which can be adjusted based on individual symptoms. For patients with constipation, additional herbal ingredients such as da huang and mangxiao can be added for improved bowel movements. If pain is a prominent symptom, Xuanhu and other blood-activating and pain-relieving herbs may be included.

Chen Tianlun’s “Danzhi Huayu Fang” is a Miao medicine formula designed to treat gallstones. It combines the unique secrets of Miao medicine and traditional Chinese medicine to promote bile excretion, relieve pain, clear the liver and gallbladder, dissolve stasis, and eliminate stones. It involves the decoction of conventional Chinese herbal medicines and a proprietary Miao medicine powder packet taken together in water. This treatment effectively alleviates symptoms such as abdominal distension, nausea, and vomiting associated with gallstones, gradually dissolves and eliminates stones, and comprehensively regulates the body’s qi and blood balance. It is an effective cure for gallstones and prevents recurrence [30]. Wang Taiwu, a Miao medicine practitioner, has effectively treated liver and gallbladder duct stones using his ancestral formula “Miao Medicine Rongshi Huashitang”. This formula consists of Miao herbs like Huashi, Jinqiancao, Jikezi, Tuxiao, Chunshupi, and Chuanposhi, selected to di-

rectly act on the liver and gallbladder, promoting the smooth excretion of bile and achieving the effects of dissolving and clearing stones, anti-inflammatory action, promoting bile secretion, and pain relief [31].

5. Yao Medicine

Yao medicine categorizes gallstones as “hua jiao jie qiu” in clinical terms, with the Yao disease name represented as “weih gaauv gitv mbaengx” [32]. In clinical practice, “hua jiao jie qiu” is a common condition. Yao medicine’s understanding of its etiology closely resembles that of traditional Chinese medicine (TCM). It primarily attributes the development of gallstones to three main factors:

External pathogenic factors, such as damp-heat evil toxins, disrupting the balance of the body’s overall qi and leading to the invasion of damp-heat evil qi in the liver and gallbladder, resulting in the formation of gallstones.

Irregular dietary habits leading to the generation of internal damp-heat in the body. This internal dampness blocks normal physiological processes, further exacerbating the production of bile and eventually forming gallstones.

Congenital or acquired deficiencies, or long-term illnesses and overexertion causing spleen and kidney qi deficiencies, affecting the function of qi transformation, ultimately leading to abnormal bile production and excretion, which can progress into gallstones.

San Ye Qing (Herba Polygoni avicularis) is a commonly used herbal medicine in Yao medicine. It possesses anti-inflammatory and antipyretic properties [33]. Yao medicine primarily employs it in the treatment of various types of stones, including gallstones and kidney stones, with observed significant therapeutic effects. Bama Huoma Ren (Bama Hemp Seed) is mainly derived from the Bama and Fengshan regions in Guangxi. It is known to help excrete excess fats and harmful substances like cholesterol [34]. Local Yao practitioners have created a herbal tea known as “Sang Mei Huoma Ren Cha” using ingredients such as hemp seeds, mulberries, fan shiliu fruit, lai fuzi, ge gen, juemingzi, huaimi, black fungus, and Huangjing. This tea is used to clear vascular impurities and lower cholesterol levels, effectively preventing and treating gallstones.

6. Jing Medicine

The understanding of cholelithiasis in the Jing ethnic medicine is similar to that of traditional Chinese medicine. In diagnosis and treatment, the theory of yin and yang in traditional Chinese medicine is primarily used. The disease is classified into yang syndrome and yin syndrome. Additionally, the human body is believed to be composed of six organs (shen, heart, lung, liver, kidney, spleen) and six viscera (brain and marrow, gallbladder, stomach, intestines, bladder, and seminal vesicles) [35]. The knowledge framework of traditional Chinese medicine and Western medicine is referenced, with the addition of traditional folk remedies for the treatment of the disease [36]. One of the distinctive features of Jing medicine is the use of marine organisms in medicinal preparations. Jing

practitioners have discovered that the marine snail can disintegrate hardness, clear heat, and promote diuresis. Consuming a decoction of marine snail can effectively treat gallstones. Malabar spinach (Meixian), with its sweet taste and slightly cold nature, has the properties of clearing heat and dampness, stopping bleeding, and dispersing abscesses. It is commonly used in the treatment of cholecystitis and cholelithiasis. Fresh Tianmendong (*Asparagus cochinchinensis*), fresh Tianjihuang (*Lysimachia christinae*), and Jinqiancao (*Lysimachia clethroides*) are combined and decocted in water to clear liver and gallbladder damp-heat and promote bile excretion.

In folk Jing medicine, an empirical formula called “Liver Heat Abdominal Pain Formula” is utilized. Its composition includes Yincheng (*Aristolochia debilis*), Chaihu (*Bupleurum chinense*), Yunling (*Poria cocos*), Zhizi (*Gardenia jasminoides*), Zexie (*Alisma orientale*), Zhuling (*Polyporus umbellatus*), Cangzhu (*Atractylodes lancea*), Mutong (*Akebia quinata*), Chenqianzi (*Plantago asiatica*), which are decocted in water. This formula effectively alleviates symptoms such as abdominal pain and side pain associated with liver and gallbladder damp-heat in cholelithiasis [37].

In terms of preventing cholelithiasis and its complications, Jing medicine suggests avoiding smoking and alcohol, abstaining from excessive sexual activity, refraining from consuming spicy, fried, or hard-to-digest foods (such as rooster meat, pig’s head meat, carp, bamboo shoots, shrimp, etc.), and paying attention to rest. The Jing ethnic group primarily inhabits the coastal areas of the Three Islands in Guangxi, characterized by a warm climate and a preference for sugary foods [38]. Therefore, Jing medicine recommends the consumption of cool and liver-protective foods, such as white sugar, pig liver, and clear nourishing pork bone soup, for the prevention of cholelithiasis.

7. Conclusions

This article has summarized and analyzed the literature related to the treatment of gallstones in various traditional ethnic medicines. It is evident that different ethnic medical systems possess unique insights and approaches to understanding and treating gallstone disease. They play a significant role in improving clinical symptoms and preventing related complications associated with gallstones.

Unfortunately, it is regrettable that some treatment methods of ethnic medicine are only passed down among the folk and are not mentioned in clinical guidelines. In existing literature, there is a lack of clinical trials on the treatment of cholelithiasis in Jing medicine, and clinical trials and studies on cholelithiasis in other ethnic medicines also lack large-scale supporting data, making it difficult to promote them effectively. Additionally, due to differences in written records and ethnic cultural aspects, such as the lack of written language in Miao medicine and its reliance solely on oral transmission, there may be omissions, resulting in incomplete prescriptions and treatment methods. Currently, medical schools offer programs in ethnic medicine, including Tibetan medicine, Mongo-

lian medicine, Uighur medicine, Zhuang medicine, and Hani medicine. However, most other ethnic medicines lack standardized teaching and transmission. The experiential prescriptions and treatment techniques of some ethnic minorities are only passed down through apprenticeship. With Western medicine becoming mainstream, these ethnic medicines lack successors and are gradually forgotten.

In recent years, there has been an increasing focus on traditional ethnic medicine at the national level, with policies aimed at preserving and promoting these medical traditions. With the support of these policies, ongoing research into traditional ethnic medicine is expected to continue. This research will help uncover new perspectives and more cost-effective treatment solutions for gallstone disease. It is anticipated that traditional ethnic medicine will continue to leverage its advantages in preventing and treating gallstones, ultimately leading to the discovery of innovative approaches to gallstone treatment.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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